THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH AND SOCIAL WELFARE

[NATIONAL TUBERCULOSIS AND LEPROSY PROGRAMME ANNUAL REPORT 2011]

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List of abbreviations

AFB	Acid-Fast Bacilli
AIDS	Acquired Immuno-Deficiency Syndrome
CDC	Centres for Disease Control (America)
CTRL	Central Tuberculosis Reference Laboratory
DDH	District Designated Hospital
DHMT	District Health Management Team
DMO	District Medical officer
DOTS	Directly Observed Treatment Short Course
DTLC	District Tuberculosis and Leprosy Coordinator
E	Ethambutol
EH	Ethambutol and Isoniazid
EP (TB)	Extra-pulmonary (Tuberculosis)
ETR	Electronic Tuberculosis Register
FDC	Fixed – Dose Combination
GLRA	German Leprosy and TB Relief Association
GFATM	Global Fund to fight AIDS/HIV Tuberculosis and Malaria
H	Isoniazid
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IEC	Information Education and Communication
IUATLD	International Union Against TB and Lung Disease
KNCV	Royal Netherlands Tuberculosis Foundation
LEC	Leprosy Elimination Campaign
MB	Multi bacillary (leprosy)
MDR-TB	Multi-drug tuberculosis
MNH	Muhimbili National Hospital
MOHSW	Ministry of Health and Social Welfare
MSD	Medical Store Department
NGO	Non- Governmental Organization
NIMR	National Institute of Medical Research
NTLP	National Tuberculosis and Leprosy Program
PALs	People affected by leprosy
PATH	Programme for Appropriate Technology in Health
PB	Pauci bacillary (leprosy)
PCT	Patient Centred Treatment
PoD	Prevention of Disabilities
PRS	Preventive and Reconstruction Surgery
R	Rifampicin
RTLC	Regional tuberculosis and leprosy Co-ordinator

S	Streptomycin
TB	Tuberculosis
TLCU	Tuberculosis and Leprosy Central Unit
WHO	World Health Organization
Z	Pyrazinamide

Acknowledgement

This report is a summarizing description of activities implemented by the National Tuberculosis and Leprosy Programme (NTLP) under the Ministry of Health and Social Welfare for the year 2012. The purpose is to share this information with stakeholders interested to know progress made in the control of leprosy, tuberculosis and TB/HIV interventions in the country.

On behalf of the programme, I would like to express my sincere gratitude to the management of the Ministry for the support and encouragement given to us especially the Permanent Secretary, the Chief Medical Officer and all the directors in the different departments.

A wide range of partners and stakeholders have greatly contributed to this report. I would like to extend my appreciation to the regional TB and leprosy coordinators for supervising the quality of this information, district TB and leprosy coordinators, TB/HIV officers, and all health workers, who generated and compiled data presented in this report

Special appreciation is directed to TLCU staff who reviewed, edited and made possible the writing of this report.

Last but not least, I would like to recognise the financial and technical support given to the Programme by development partners. In particular, I wish to commend the support from the following:

Germany Leprosy and TB Relief Association (DAHW/GLRA)
The Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM)
The Centres for Disease Control and Prevention (CDC/PEPFAR)
Programme for Appropriate Technology in Health (PATH)
United States Agency for International Development (USAID)
The Netherlands Tuberculosis Foundation (KNCV)
Funds for Innovative New Diagnostics (UNITAID/FIND)
World Health Organization (WHO)
Novartis Foundation for Sustainable Development (NFSSD)
Global Drug Facility (GDF) under the Stop TB Partnership

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November, 2013

1. GENERAL BACKGROUND

1.1 Demographic and socio-economic profile

The Population and Housing Census (PHC) carried out in August 2012, shows that the population of Tanzania mainland was 43,625,354 with 51% of the population being females or sex ratio of 95. The population of urban inhabitant was 26 % and those living in rural areas were 74%. The number of household were 9,109,150 with average of household size of 4.8. The annual population growth rate is estimated at 2.7%. The population of Zanzibar is projected at 1,303,569 with a growth rate of 2.8%. Agriculture is still the major source of income for majority of the population in Tanzania.

1.2 Summary of Health Services:

Health care delivery system in the country is well established with more than 6,214 health facilities. The major providers of health services are the government, which own or run 69% of all health facilities including District Designated Hospitals (DDH). Tanzania is classified as one of the least developed countries, with per capita spending on health was US$ 31 in which 67% were expenditure by the government.

Data from Health Information Management System (HMIS) of the Ministry of Health and Social Welfare shows that communicable diseases are still the major cause of morbidity and mortality in the country driven by HIV epidemic with national prevalence of 5.1% in the population aged 15-49 years. Tuberculosis accounts for about 8% of the burden of diseases and 6% of all deaths in the country for people aged 5 years and above, primarily due to HIV/TB co-infection.

1.3 Summary of NTLP activities

During the year 2012, the programme implemented various activities based on the annual plan. The major activity was the conducting of First National TB Prevalence Survey (PST). Other activities included: DOTS expansion by recruiting new staff, provision of quality assured first line anti-TB drugs, laboratory supplies and equipment; initiation of treatment of MDR-TB patients at Kibong'oto National TB hospital; scaling up national -wide collaborative TB/HIV activities, scaling up involvement of more private health care providers; empowering patients and community members to take active participation in TB prevention and care; collaborating with internal and external partners in conducting relevant operational research.

The programme also focused on elimination of leprosy by actively conducting targeted leprosy elimination campaigns in districts with high prevalence of the diseases and strengthening Prevention of Disabilities (PoD) among people affected by leprosy (PALs).

During this period, a number of programme staff attended workshops, training courses, meetings and conferences both inside and outside the country including the union and TSRU meetings.

1.4 Financial support

In 2012 the Ministry of Health and Social Welfare received more than US$ 17,000,000 financial Support through National Tuberculosis and leprosy programme for TB, TB/HIV and Leprosy interventions. The resources were both in hard cash, goods including anti-TB and anti-leprosy drugs and services mainly in form of Technical and managerial support.

Direct cash amounting to US$ 11,014,254 came from Government consolidated fund (GOT), Centers for Disease Control and Prevention (CDC), The Global Fund (GFR6), The world Bank (IDA), European and Developing Countries Clinical Trials Partnership (EDCTP), German TB and Leprosy Relief Association (GLRA), and World Health Organization (WHO) – both from Country office and Geneva .

Other resources came from Global Drug Facility (GDF/WHO) in form of First line anti-TB and Leprosy drugs, UNITAID/FIND in form of Laboratory equipment and Technical Assistance , PATH in form of program staff and field operations funding directly administered by them.

Other potential who provided valuable contribution but monetary value cannot be established include ICAP on Pediatric TB, CRS and TB-REACH support in Laboratory and community TB, and MSH on Programme Management and strategic planning.

Table 1a: Cash provided to NTLP

Sn	*Source of Funds*	*Amount in US$*
1	*Government of Tanzania GOT*	*171,729.00*
2	*German TB and Leprosy Relief Association GLRA*	*158,354.00*
3	*Centre for Disease Control and Prevention CDC*	*2,422,172.00*
4	*European & Developing Countries Clinical Trials Partnership DCTP*	*428,970.00*
5	*World Health Organization -WHO TDR*	*60,000.00*
6	*World Bank WB – from previous years not utilized*	*803,571.00*
7	*Global Fund Round Six GFR6 (including PST + M&E)*	*6,917,188.00*
8	*World Health Organization Country Office - WR*	*224,000.00*
		11,185,984.00

Table 1b: Approximate value of goods and services

1	*GDF/WHO : Anti-TB Drugs (First Line)*	*2,918,854.94*
2	*Program for l Appropriate Technology in Health (PATH)*	*3,450,000.00*
2	*UNITAID/FIND : Lab Equipment & TA*	*78,265.00*
3	*WHO -Leprosy Drugs*	*66,175.00*
		6,513,294.94.00

2. HUMAN RESOURCE DEVELOPMENT

The National Tuberculosis and Leprosy Programme is composed of both government and contract employees both at central unit (TLCU) and councils with focus on strengthening TB/HIV and Leprosy services in the country. Contract employees have been recruited through various grant support including GFATM, CDC/PEPFAR and GLRA.

During this reporting year, the programme has embarked on building capacity of staff on TB, TB/HIV, Paediatric TB, ACSM, community TB and Laboratory through various trainings With funding sources from diverse partners namely PATH, MSH (CDC PEPFAR) in accordance to the national guidelines.

2.1 Staff establishment

In this reporting year there were 37 staffs at central level and 26 staffs at regional level identified as Regional Tuberculosis and Leprosy Programme Coordinators (RTLC). However more RTLCs, DTLCs and TB/HIV Officers will be recruited as a result of new established administrative regions (Geita, Njombe, Simiyu and Katavi) and other several districts in the country.

2.1.1 Tuberculosis and Leprosy Central Unit (TLCU)

The list of TLCU by December 2012 was as follows:

1. Dr. S. Egwaga – Programme Manager
2. Dr. D. Kamara - Programme Officer
3. Dr. F. Lwilla – Programme Officer
4. Dr. M. Nyamkara – TB/HIV Coordinator
5. Mr. B. Msuya – Head Accountant
6. Mr. L. Ross – Accounts Assistant
7. Mr. J. Ngowi – Programme Pharmacist
8. Dr. B. Njako – Programme Officer
9. Dr. J. Lyimo - MDR Coordinator
10. Mr. D. Kayumba – Administrator
11. Ms. D. Semu – Prevention of Disabilities Coordinator
12. Mr. P. Shunda - Orthopaedic Technologist
13. Ms. D. Kasembe – Training Coordinator
14. Ms. B. Doula – Head , National TB Reference Laboratory
15. Mr. S. Bossy – Senior Laboratory Technician
16. Ms. D. Mtunga – Laboratory Technician
17. Dr. S. Matiku - Monitoring & Evaluation Officer
18. Dr. A. Tarimo – PPP Coordinator
19. Dr. M. Rugola – EAPHLN Coordinator
20. Ms. L. Ishengoma – Community TB care Coordinator
21. Ms. A. Mshanga – ACSM Coordinator
22. Mr. E. Nkiligi – Data Manager
23. Mr. N. Mwangaba – Data analyst
24. Ms. F. Mallya – Supplies Officer
25. Ms. K. Kadege – Assistant Accountant
26. Ms. E. Mapunda - Assistant Accountant

27. Ms. C. Chipaga - Data entry clerk
28. Ms. J. Goodluck - Data entry clerk
29. Ms. G. Tairo - Data entry clerk
30. Ms. K. Kassim - Data entry clerk
31. Mr. M. Penza - Data entry clerk
32. Ms. A. Lyimo - Secretary
33. Ms. A. Ponera - Secretary
34. Mr. P. Kalombora – Office Attendant
35. Mr. E. Mdika - Driver
36. Mr. A. Shabani – Driver
37. Mr. D. Kanyandeko - Driver

2.1.2 Regional Tuberculosis and Leprosy Coordinators (RTLCs)

As mentioned earlier, there are 24 RTLCs who coordinate TB and Leprosy control services at regional level in Tanzania mainland and 2 RTLCs from Zanzibar. Their names and respective regions are listed below:

1. Dr. E. Ntulwe – Arusha
2. Dr. J. Msangi - Kinondoni
3. Dr. N. Kapalata – Temeke
4. Dr. A. Swai – Ilala I
5. Dr. I. Mteza – Ilala II (Muhimbili & Private Hospital Dar es Salaam)
6. Dr. M. Masimba – Dodoma
7. Dr. F. Mhomisoli – Iringa
8. Dr. I. Abdulrahman - Kagera
9. Dr. D. Leornard – Kigoma
10. Dr. M. Chelangwa – Kilimanjaro
11. Dr. A. Pegwa – Lindi
12. Dr. M. Khan – Mara
13. Dr. Q. Qawoga – Manyara
14. Dr. Y. Mwasubila – Mbeya
15. Dr. E. Tenga – Morogoro
16. Dr. W. Byemelwa – Mwanza
17. Dr. R. Mnandowa - Mtwara
18. Dr. N. Mpangile – Pwani
19. Dr. Dr. P.Yamsebo
20. Dr. W.Mtumbuka – Ruvuma
21. Dr. M. Sahali – Shinyanga
22. Dr. M. Kimala – Singida
23. Dr. R. Hussein Tabora
24. Dr. S. Kiluwa – Tanga
25. Dr. J. Mshana – Unguja
26. Dr. H. Said – Pemba

2.1.3 District Tuberculosis and Leprosy Coordinators and TB/HIV Officers

By December 2012, there were 166 DTLCs and 97 TB/HIV Officers at district level. 15 vacant posts for TB/HIV Officers are not yet filled due to insufficient funds to recruit this cadre of staff. The list of DTLCs with their respective districts is attached in Annex 10

2.2 Training activities, meetings and conferences

2.2.1 Trainings

During this year, various but few trainings were conducted among health care workers as a result of insufficient funds. The trainings covered mostly TB, TB/HIV collaborative activities including Paediatric TB, Community TB, ACSM, AFB and LED Microscopy and External Quality Assurance, The purpose of these trainings were to build capacity of health care workers towards improving quality of care in those areas. Most of the trainings were supported by GFATM, CDC/PEPFAR, USAID/PATH and GLRA. Generally, 1,291 health workers were trained during this year on the stipulated areas at regional, district and health facility level as summarised in Table 2.

Table 2: Health workers trained on different courses in 2012

Region	*Type of training*						*Total trained*
	Management of childhood TB	*AFB Microscopy/ EQA*	*Community TB*	*ACSM*	*Management of MDR TB*	*ETR.Net*	
Shinyanga	*35*						*35*
Kigoma					*30*		*30*
Ruvuma	*68*						*68*
Rukwa					*30*		*30*
Mtwara	*70*						*70*
Mbeya	*70*				*30*		*100*
Iringa	*73*						*73*
Dodoma					*30*		*30*
Singida	*64*						*64*
Manyara					*30*		*30*
Tabora	*68*						*68*
Lindi	*66*	*20*					*86*
Temeke	*35*				*25*		*60*
Morogoro	*35*	*22*		*144*			*201*
Mara					*30*		*30*
Tanga	*70*	*22*					*92*
Mwanza		*20*			*26*		*46*
Kagera		*22*			*30*		*52*
Ilala					*25*		*25*
Others	*24*		*60*			*17*	*101*
Total	***678***	***106***	***60***	***144***	***286***	***17***	***1,291***

2.2.2 Meetings and Conferences

Few Programme staffs were supported to attend various meetings and conferences in relevance to programme services to foster their capacity in provision of TB, TB/HIV MDR-

TB, and leprosy control activities. This was caused by insufficient fund. The few staff who attended international conferences are listed below:
Dr. S. Egwaga, Dr. M. Nyamkara, Dr. S. Matiku, Ms. B. Doulla, attended IUATLD annual conference in Paris, France.

3. TUBERCULOSIS CONTROL SERVICES

3.1 Tuberculosis case notification 2012

A total of 63,892 cases of all forms were notified in 2012, shows an increase of 2,054 cases or 3.3%. New cases were 61,126 (95.7%) and the retreatment cases were 2,766 (4.3%), that show an increase in proportion of new cases in compared to year 2011. Among the new TB cases, 25,138 (39.3%) of all new cases were new smear-positive cases, 21,393 (33.5%) were new smear negative cases and 14, 595 (22.8%) were new extra-pulmonary TB. All three categories shows an increment of 3.3% to 4.5% compared to year 2011.

Table 3 below shows the comparison of TB notification in 2011 and 2012 by TB categories.

Table 3: Tuberculosis cases notified in Tanzania 2011 – 2012

Categories of notified	*2011*		*2012*		*Change*	
	Cases	*%*	*Cases*	*%*	*cases*	*%*
All forms	*61,838*		*63,892*		*2,054*	*3.3*
New forms						
- Pulmonary smear positive	*24,232*	*39.2*	*25,138*	*39.3*	*906*	*3.7*
- Pulmonary smear negative	*20,703*	*33.5*	*21,393*	*33.5*	*690*	*3.3*
- Extra-pulmonary	*13,967*	*22.6*	*14,595*	*22.8*	*628*	*4.5*
Total	***58,902***	***95.3***	***61,126***	***95.7***	***2,224***	***3.8***
Re-treatment						
- Relapse	*1,108*	*1.8*	*1,052*	*1.6*	*-56*	*-5.1*
- Failure	*151*	*0.2*	*154*	*0.2*	*3*	*2.0*
- Return to control	*217*	*0.4*	*201*	*0.3*	*-16*	*-7.4*
- others	*1,460*	*2.4*	*1,359*	*2.1*	*-101*	*-6.9*
Total	***2,936***	***4.7***	***2,766***	***4.3***	***-170***	***-5.8***
Notification rates-all forms/ 100,000popn	*140*		*142*		*2*	*1.3*
Notification rates-new sm+/ 100,000popn)	*55*		*56*		*1*	*1.7*

3.2 Tuberculosis notification by regions

Although the proportion of cases notified in Dar es Salaam region is declining, but still it is the major contributor with 21.9%, followed by Mwanza-9.3% and Shinyanga region with 6.4%. Regions contributed more than 4% remained the same as previous year with some region such as Arusha and Mara increasing their contribution. Figure 1 below shows individual regions contribution by percentage.

From the 2012 data, Individual region notification has increased compared to 2011 for most of the regions, thus resulting in total country increase as shown in figure 2 .

Figure 1: Distribution of TB cases notified by regions in 2012

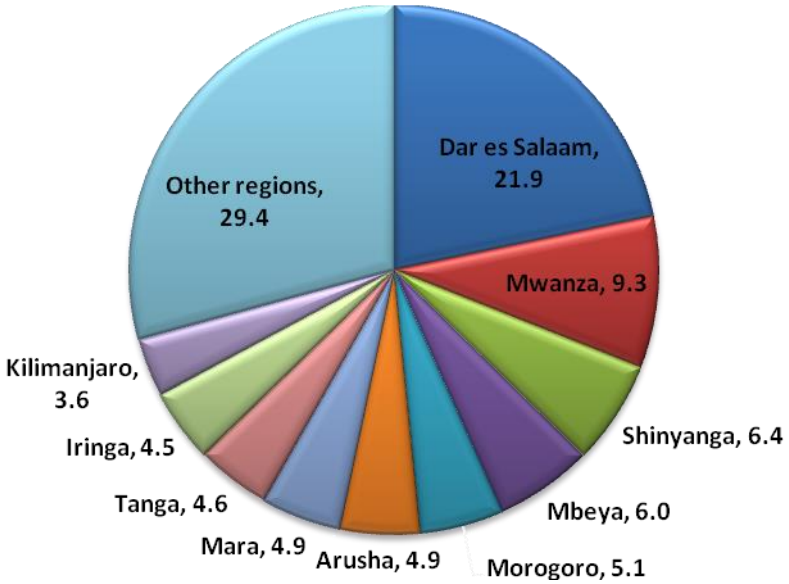
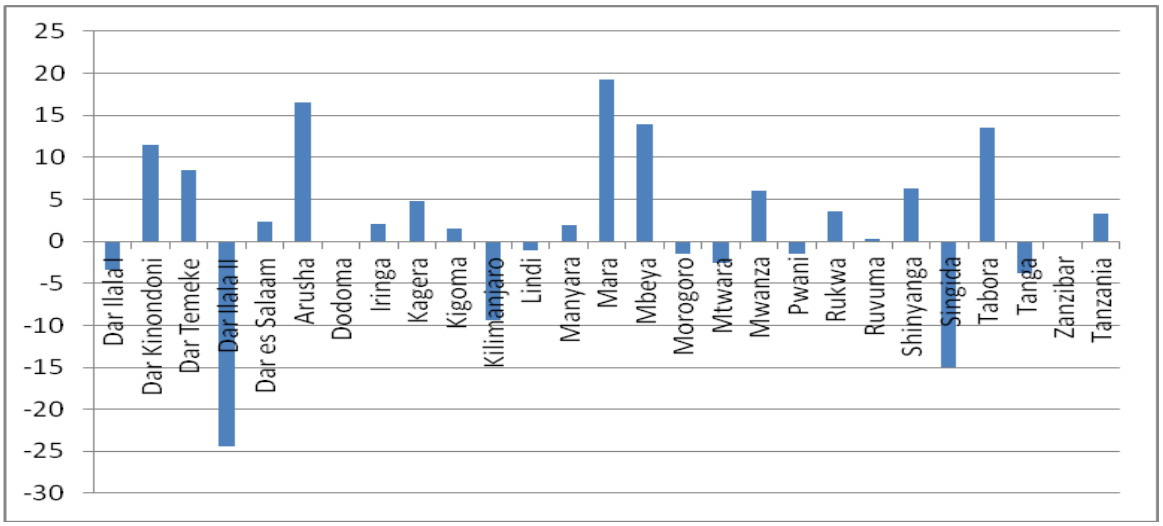


Figure 2: Percentage of change of notification by region between years 2011 – 2012.

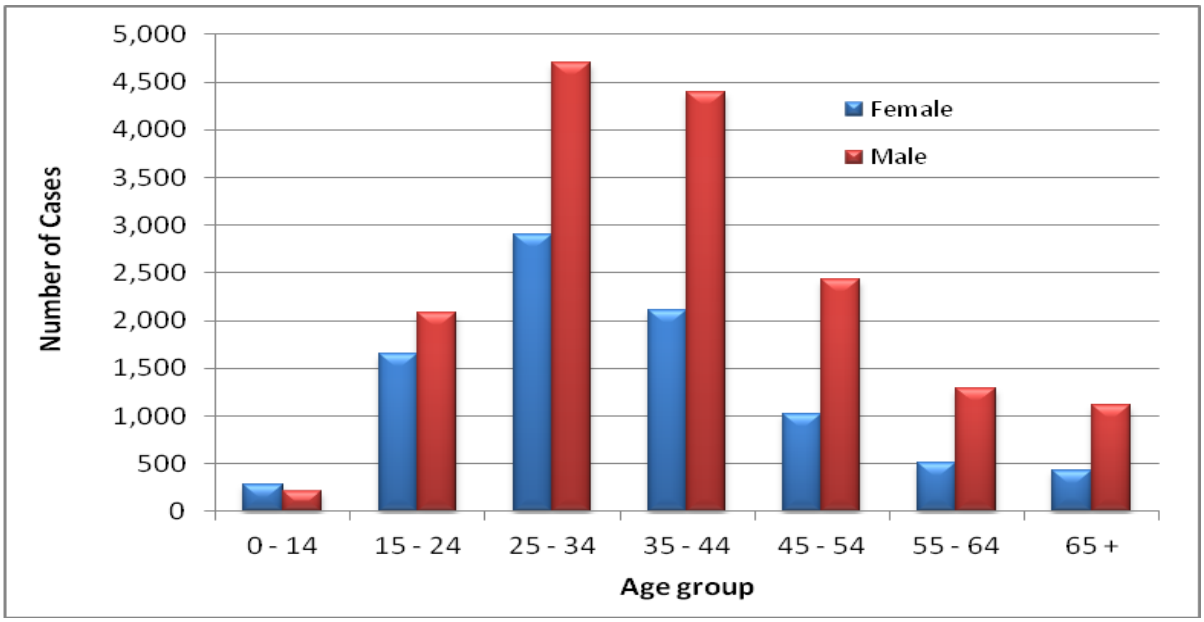


3.3 Tuberculosis case notifications disaggregated by sex and age

The age-sex distribution of the new TB cases notified in 2012 shows that 36,330 (59.4%) cases were males and females were 24,803 (40.6%) with a sex ratio (male/female) of 1:1.4. The number of children aged 0–14 years old notified among new cases were 5,283 (8.6%) which is less than the WHO estimate. %

Age-sex distribution of the new smear positive cases as in previous years shows that, the highest number of TB cases notified was in the age groups of 25-34 years and 35-44 years for both males and females as summarised in Figure 3 below. Similar patterns were observed among the new smear negative and extra-pulmonary TB cases notified.

Figure 3: Age and Sex distribution of new smear positive TB cases notified in 2012

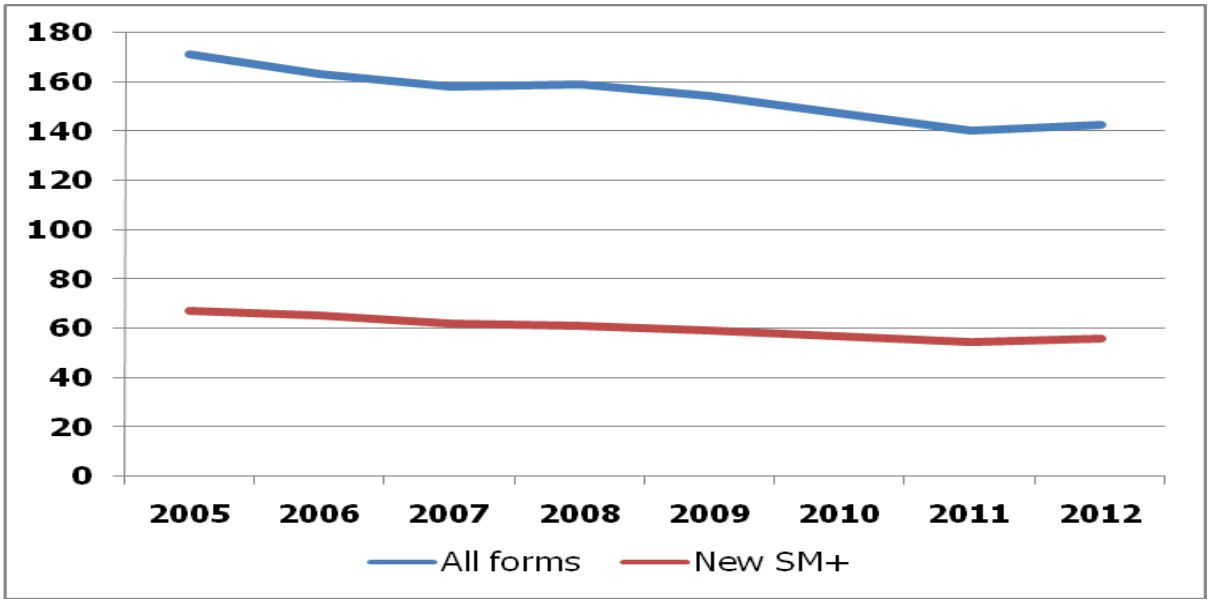


3.3.1 Tuberculosis notification rate

The notification rate of tuberculosis (all forms) in 2012 was 142 cases per 100,000 population an increase of two cases compared to 140 in year 2011. Notification rate of new smear positive tuberculosis cases also increased from 55 to 56 cases per 100,000. Dar es Salaam region had the highest TB notification rates in the country for both all forms and new smear positive cases at 320 and 149/100,000 people respectively. Kigoma and Rukwa regions, Pemba and Unguja in Zanzibar have the lowest notification rate (all forms) of below 50/100,000 population.

The trend of the notification rates for both new smear positive cases and all forms has been declining since 2005 as shown in figure 4 below.

Figure 4: Trends of TB notification rates for all-forms and new smear positives: 2005 - 2012

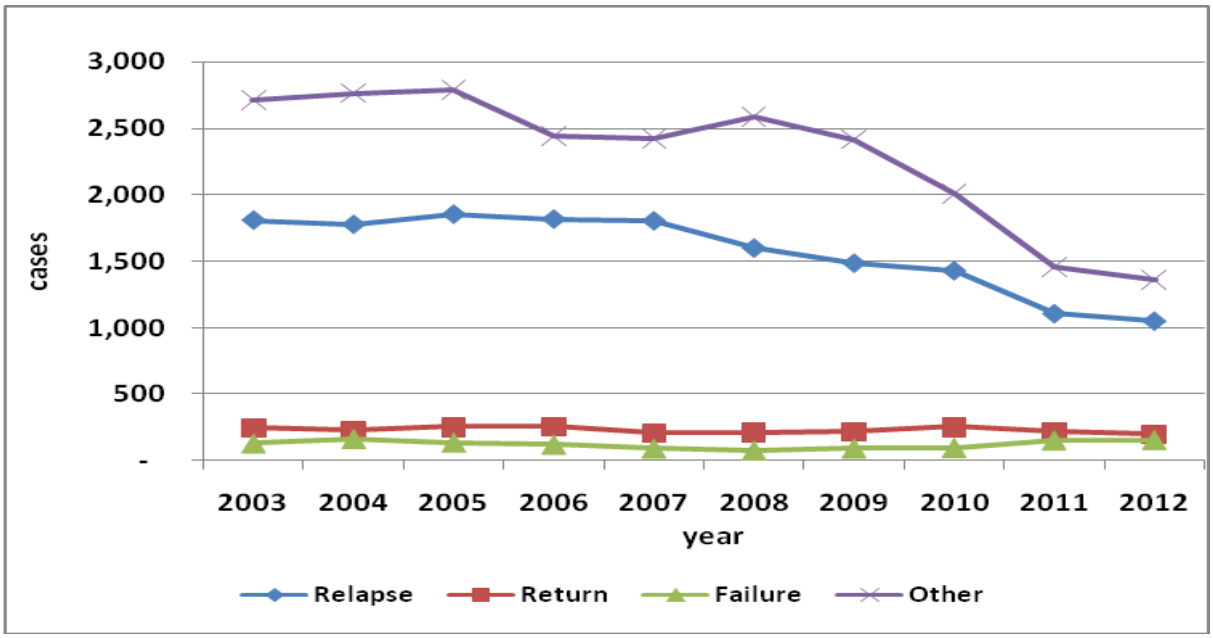


3.3.2 Tuberculosis re-treatment cases

TB treatment cases notified in 2012 were 2,766 cases which is 4.3% of all cases notified. This represented a decline of 170 cases or 5.8% compared to 2011 when 2,936 previously treated patients were notified. Most of the re-treatment cases were in the categories of others – 1,359 and relapse – 1,052. The categories of loss to follow up and failure were 201 and 154 cases respectively. The number of patients in the failure category almost remained constant as in 2011 in which 151 cases were notified.

Relapses and other cases shows downward trends while return after lost to follow up and failure show a slender upward increases from years 2009. The figure below shows the trend of re-treatment cases for the past ten years.

Figure 5: Trends of Re-treatment TB cases notified form 2003 to 2012



3.4 Tuberculosis treatment outcome for cohort notified in 2011

3.4.1 New smear-positive cases

Analysis of the TB cohort notified in 2011 shows that the overall treatment success for new smear positive TB cases was 87.5% which is less by 2% compared to 2010. The remaining 12.5% had unfavourable treatment outcome - 1,048 or 4.3% died during treatment, 746 or 3.1% transferred out, 496 or 2.0 defaulted and 88 (0.4%) cases failed treatment.

Further analysis of the cohort revealed that regions of Ilala I in Dar es Salaam (73.8%), Kigoma (81.9%), Kilimanjaro (83.4%), Manyara (84.8%), Mwanza (81.9%), Singida (68.5%) and Tabora (82.2%) had treatment success rate of below 85%. Eight regions surpassed the current WHO treatment success rate target of 90%, these regions are Dodoma (97.9%), Iringa (90.3%), Kagera (94.9%), Morogoro (91.1%), Mtwara (93.9%), Pwani (90.7%), Ruvuma (95.4%) and Tanga (92.9%).

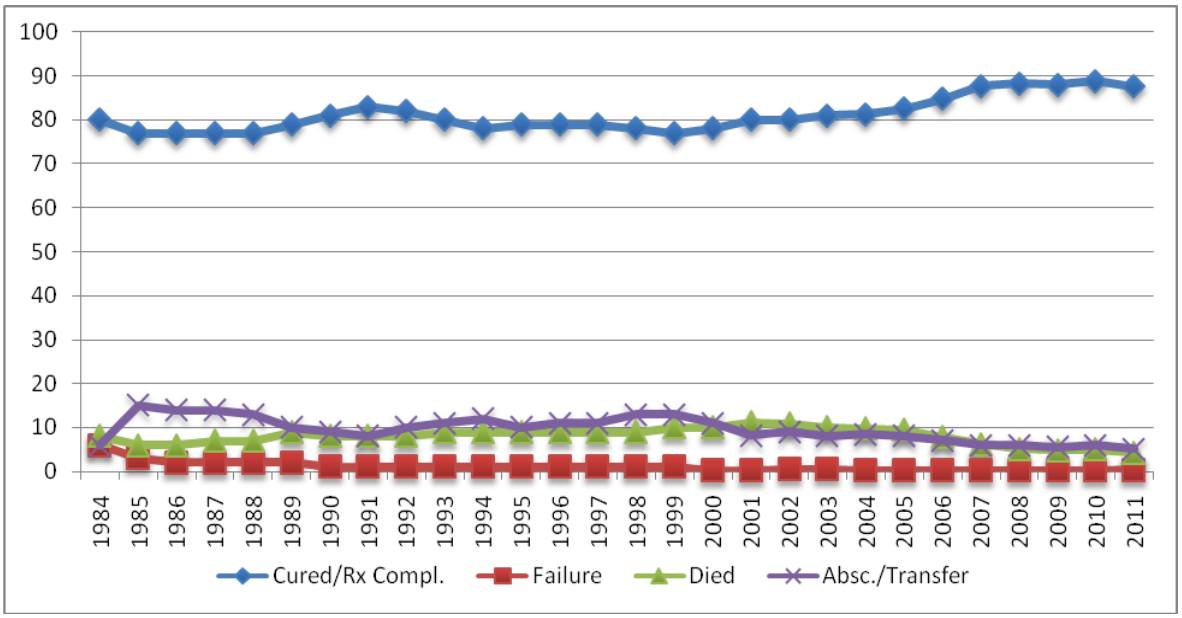
Table 4 below shows treatment outcomes of new smear positive cases notified by regions in 2011.

Table 4: Treatment outcomes of new smear positive TB cases notified in 2011

Districts	Cured	Completed	Failure	Died	Out of Control	Transfer Out	Total	Reported 2011	Treatment Success
Dar Ilala I	1,349	22	10	42	49	89	1,561	1,752	78.3
Dar Kinondoni	1,952	11	15	69	32	78	2,157	2,243	87.5
Dar Temeke	1,545	26	5	89	56	39	1,760	1,760	89.3
Dar Ilala II	417	0	2	34	8	37	498	497	83.9
Dar es Salaam	**5,263**	**59**	**32**	**234**	**145**	**243**	**5,976**	**6,252**	**85.1**
Arusha	665	133	1	37	19	55	910	909	87.8
Dodoma	551	137	0	8	0	7	703	689	97.9
Iringa	711	30	4	58	9	9	821	821	90.3
Kagera	937	7	5	23	14	9	995	983	94.9
Kigoma	233	75	3	21	6	11	349	376	81.9
Kilimanjaro	663	132	1	44	25	87	952	953	83.4
Lindi	453	23	1	22	10	13	522	534	89.1
Manyara	438	197	0	41	11	14	701	749	84.8
Mara	704	28	3	30	25	23	813	813	90.0
Mbeya	890	223	3	107	21	13	1,257	1,257	88.5
Morogoro	878	27	2	23	2	35	967	993	91.1
Mtwara	797	61	1	27	13	15	914	914	93.9
Mwanza	1,650	311	9	149	70	106	2,295	2,395	81.9
Pwani	1,028	22	3	40	20	4	1,117	1,158	90.7
Rukwa	296	0	0	14	2	2	314	330	89.7
Ruvuma	391	3	2	17	0	1	414	413	95.2
Shinyanga	1,316	73	11	73	57	37	1,567	1,568	88.6
Singida	270	6	1	12	3	7	299	403	68.5
Tabora	362	58	2	24	29	17	492	511	82.2
Tanga	749	104	0	29	10	23	915	918	92.9
Mainland	**19,245**	**1,709**	**84**	**1,033**	**491**	**731**	**23,293**	**23,939**	**87.5**
Pemba	34	0	0	3	0	5	42	42	81.0
Unguja	206	0	4	12	5	10	237	237	86.9
Zanzibar	**240**	**0**	**4**	**15**	**5**	**15**	**279**	**279**	**86.0**
Tanzania	**19,485**	**1,709**	**88**	**1,048**	**496**	**746**	**23,572**	**24,218**	**87.5**
Outcomes	**80.5**	**7.1**	**0.4**	**4.3**	**2.0**	**3.1**	**97.3**	**100.0**	

The trend of treatment outcome results for the new smear-positive patients in the past ten consecutive years show that the treatment success rate has increased consistently from about 80% in 2001 to 89% in 2010 and maintained above 85% since 2005. Similarly the mortality rate has been declining since 2006 from 8% to 4.3% in 2011.

Figure 6: Trend of TB (new smear +) treatment outcomes for cohorts notified between 1984 – 2011



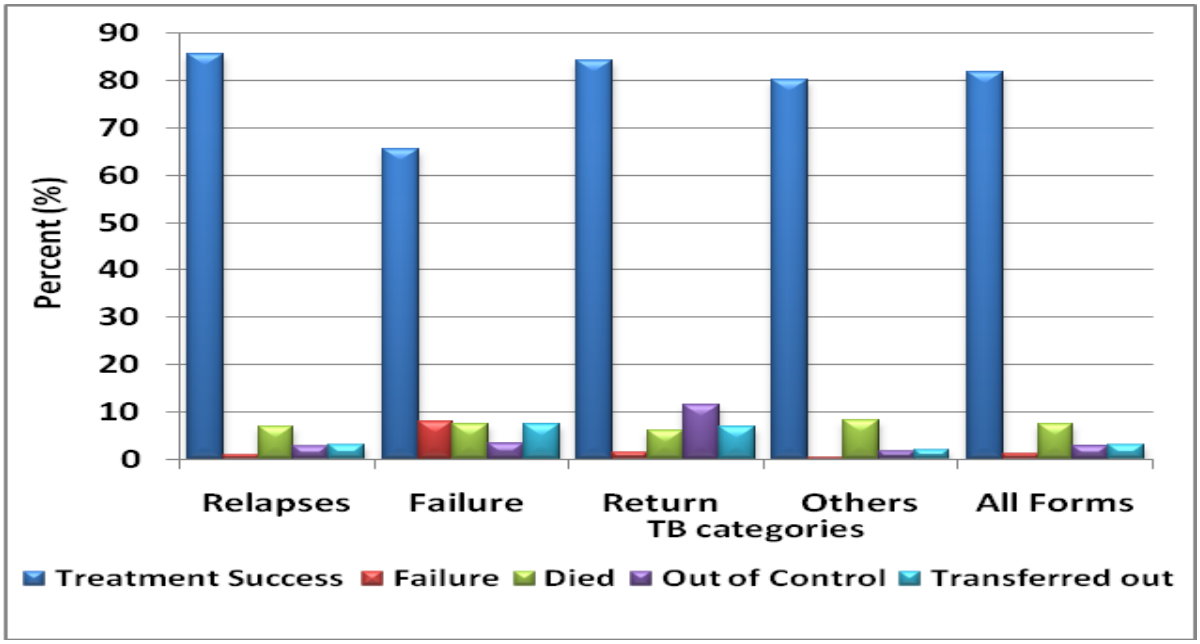
3.4.2 Treatment outcome of re-treatment cases notified in 2011

Treatment outcomes of the 2,936 TB re-treatment cases were notified in 2011, 2,819 cases or 96% of those notified their treatment outcomes were available for cohort analysis. Overall a total 2,401 (81.8%) of those evaluated were either cured or completed treatment resulting in treatment success rate of 81.8% and death rate was 7.5%. The treatment success among the different re-treatment categories was as follows; relapses – 85.6%, failures – 65.6%, return after default – 84.3% and others – 80.3%. The unfavourable outcomes were 14.2% represented by: - death - 220 (7.5%); failures - 30(1.0%); defaulted –82 (2.8%); transferred out 86 (2.9%). Figures 8 and 9 below summarises the treatment outcome for each category of the re-treatment cases.

Table 5: Treatment outcomes of re-treatment notified in 2011

Treatment Outcome of TB Re-treatment cases	*Relapses*		*Failure*		*Return*		*Others*		*All Forms*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Cured	865	78.1	86	57.0	132	60.8	46	3.2	1,129	38.5
Treatment Completed	83	7.5	13	8.6	51	23.5	1,126	77.1	1,273	43.4
Treatment Success	948	85.6	99	65.6	183	84.3	1,172	80.3	2,402	81.8
Failure	10	0.9	12	7.9	3	1.4	5	0.3	30	1.0
Died	76	6.9	11	7.3	13	6.0	120	8.2	220	7.5
Out of Control	29	2.6	5	3.3	25	11.5	23	1.6	82	2.8
Transferred out	32	2.9	11	7.3	15	6.9	28	1.9	86	2.9
Total Evaluated	1,095	98.8	138	91.4	239	110.1	1,348	92.3	2,820	96.0
Reported/notified	1,108		151		217		1,460		2,936	
Case holding		***98.8***		***91.4***		***110.1***		***92.3***		***96.0***

Figure 7: Percentage distribution of treatment outcome for re-treatment TB cases notified in 2011

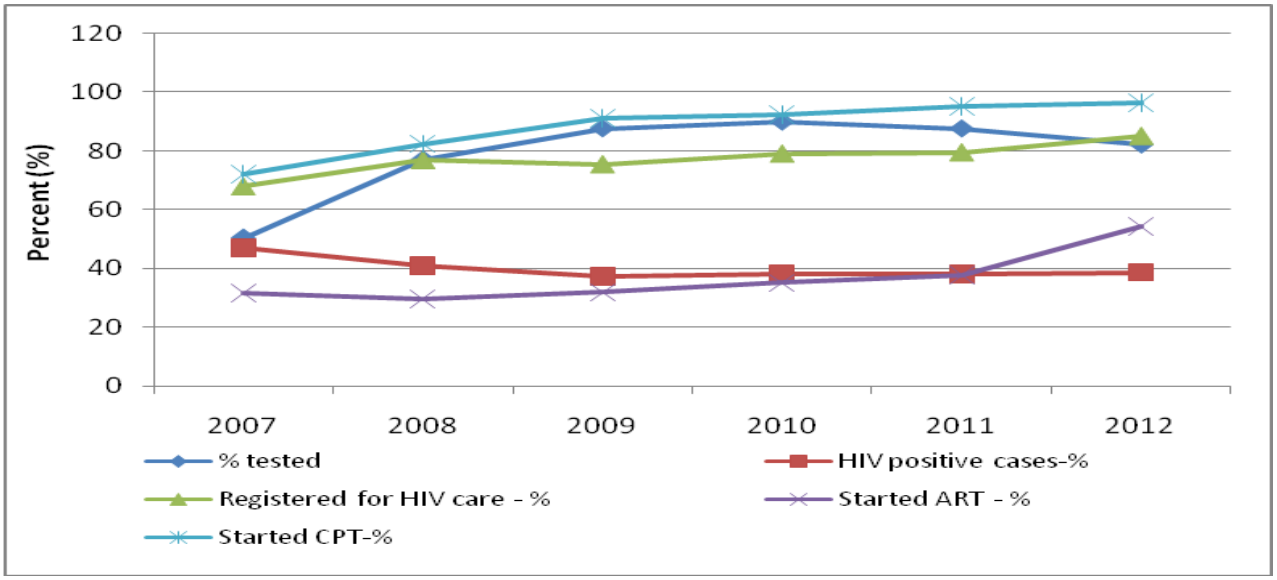


3.5 Collaborative TB/HIV activities

3.5.1 TB/HIV case finding 2012

The 2012 data shows that of 63,892 TB cases notified, 52,499 (82%) were counselled and tested for HIV status. Among those tested, 20,269 (39%) were found to be co-infected with HIV which was same as the co-infection rate in 2011. Furthermore analysis shows that of the co-infected cases in 2012, 17,224 (85%) cases were registered at HIV care and Treatment clinics (CTCs) for HIV care and treatment services. 19,501 (96%) were put on Co-trimoxazole Preventive Therapy (CPT) while 10,993 (54%) were initiated ART in both TB clinic and CTCs within the three months reporting period after a two weeks tolerance period following starting TB treatment. Major improvement compared to 2011 cohort is the increase of patients initiated with ART from 38% to 54%. Figure 8 below summarises TB/HIV services in the country from 2007 to 2012

Figure 8: Trend of TB patients counselling and testing for HIV, initiated CPT and ART from 2007 – 2012



3.5.2 Tuberculosis Treatment outcomes of HIV cases notified in 2011

Analysis of the TB/HIV cohort notified in 2011 shows that the overall treatment success for new smear positive TB HIV positive patients was 78.3%. Furthermore, the cohort analysis shows that 506 (7.6%) patients died during treatment while 18 (0.3%) failed treatment. A total of 198 (3.0%) were transferred out, another 122 (1.8%) defaulted while on treatment.

Table 6: TB Treatment outcome new smear positive TB HIV patients notified in 2011

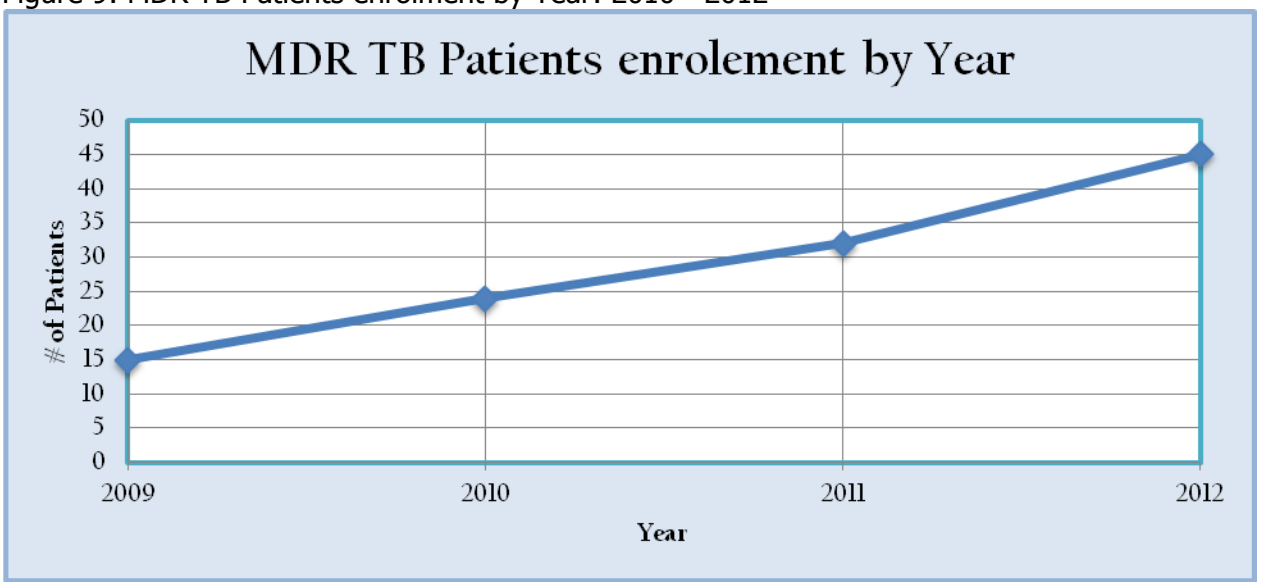
Region	Cured	Treatment completed	Failure	Died	Out of control	Transfere Out	Total	Reported 2011	Treatment Success
Dar Ilala I	398	11	3	33	17	38	502	491	81
Dar Kinondoni	578	2	3	55	6	26	670	695	83
Dar Temeke	101	1	1	12	9	6	131	466	22
Dar Ilala II	144	0	0	22	3	18	187	179	80
Dar es Salaam	**1,221**	**14**	**7**	**122**	**35**	**88**	**1,490**	**1,831**	**67**
Arusha	100	33	0	20	3	15	171	150	78
Dodoma	63	19	0	2	0	0	84	121	68
Iringa	366	12	1	44	2	6	432	431	88
Kagera	247	3	0	16	2	4	272	267	92
Kigoma	29	9	3	5	1	1	48	44	86
Kilimanjaro	149	43	1	24	7	20	244	229	79
Lindi	84	4	0	9	3	4	104	105	85
Manyara	49	19	0	7	2	2	79	88	77
Mara	165	13	1	16	5	3	204	204	87
Mbeya	491	122	1	59	17	6	697	653	88
Morogoro	156	5	0	6	1	5	174	269	60
Mtwara	116	15	1	7	2	2	143	132	92
Mwanza	537	133	1	76	19	29	797	795	84
Pwani	291	6	0	30	9	3	339	342	87
Rukwa	102	0	0	2	0	0	104	110	93
Ruvuma	112	0	0	10	0	0	122	118	92
Shinyanga	172	5	0	21	10	2	210	404	84
Singida	53	4	0	5	2	0	64	82	70
Tabora	63	9	0	6	1	0	79	102	71
Tanga	136	12	0	14	1	5	168	136	88
Mainland	**4,702**	**480**	**16**	**501**	**122**	**195**	**6,025**	**6,613**	**78**
Pemba	1	0	0	1	0	0	2	2	50
Unguja	29	0	2	4	0	3	38	40	73
Zanzibar	**30**	**0**	**2**	**5**	**0**	**3**	**40**	**42**	**71**
Tanzania	**4,732**	**480**	**18**	**506**	**122**	**198**	**6,065**	**6,655**	**78**

3.6 Management of MDR-TB

3.6.1 MDR TB enrolment

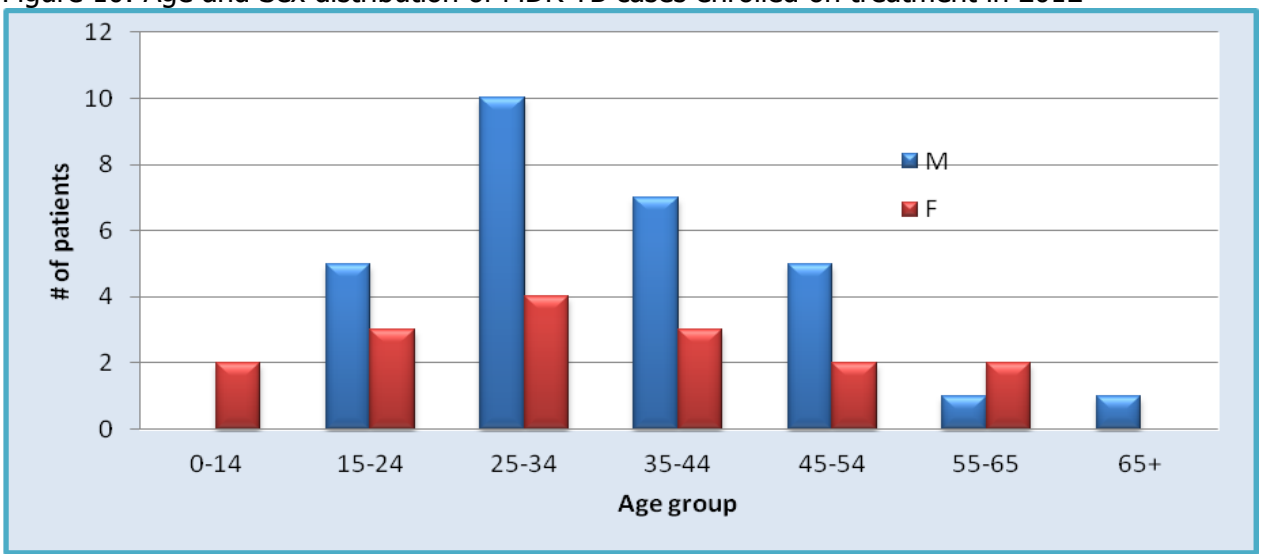
A total of 45 MDR TB patients were enrolled to start second line treatment at Kibong'oto TB hospital in 2012, showing a 41% increase cases from the previous year and contributing to the upward trend in enrolment since 2009 as depicted in figure 9 below. Among enrolled patients, 16 (35%) were women while 12 (27%) were HIV positive.

Figure 9: MDR TB Patients enrolment by Year: 2010 - 2012



As in the previous year, the age-sex distribution of new MDR TB cases enrolled on treatment showsthat, most cases were young in the age groups of 25-34 years followed by those aged 35 – 44 years. In almost all the age groups except at the extreme of ages, a male predominance was observed as summarised in Figure 10 below.

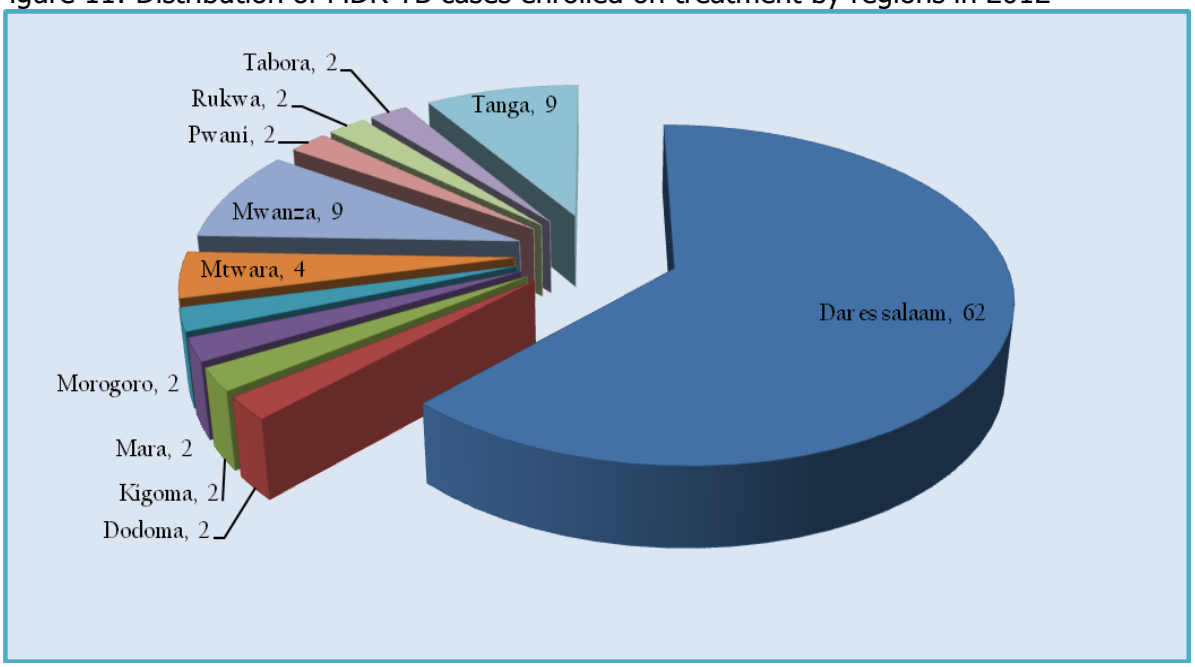
Figure 10: Age and Sex distribution of MDR TB cases enrolled on treatment in 2012



3.6.2 MDR TB patients by region in 2012

A total of 11 regions notified MDR TB patients that were ultimately started on MDR TB treatment in 2012. As in previous years, the majority of MDR TB cases diagnosed and started on treatment were from Dar es salaam (62%) followed by Tanga (9%), Mwanza (9%) and Mtwara (4%) as illustrated in figure 11 below.

Figure 11: Distribution of MDR TB cases enrolled on treatment by regions in 2012

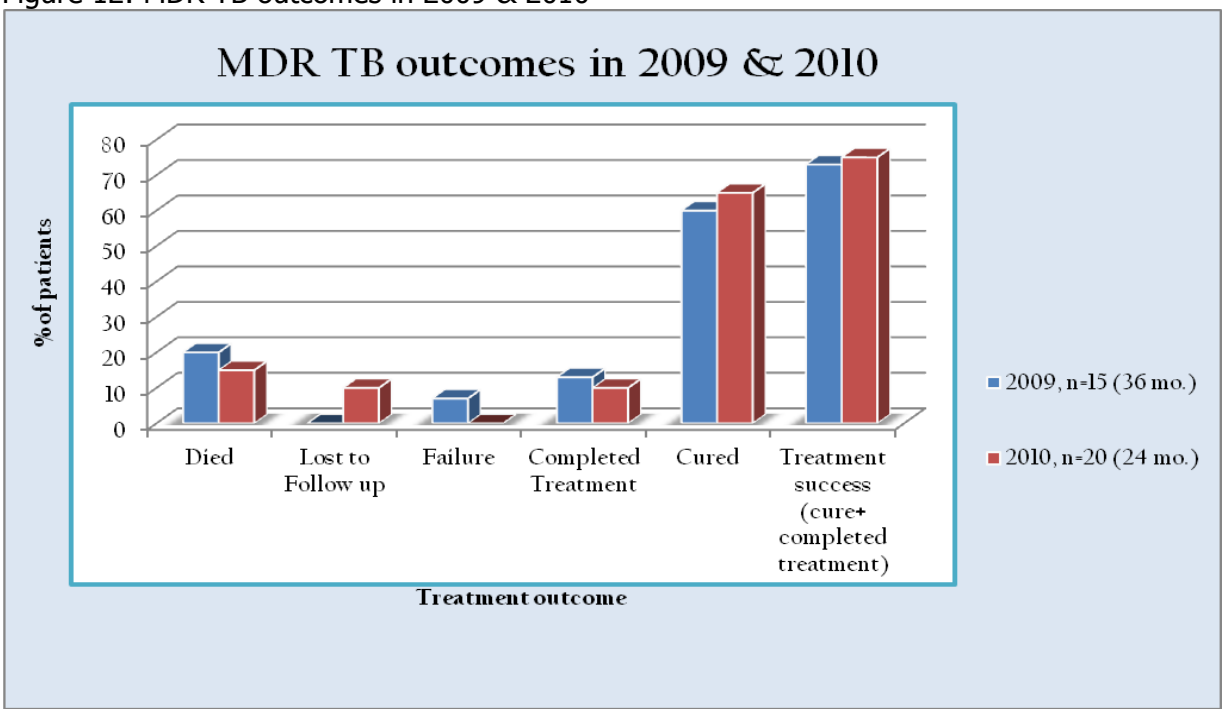


3.6.3 Treatment outcomes of MDR TB cases enrolled in 2010

In 2012, the programme continued to conduct quarterly cohort and expert review meetings; cohort reviews aiming at reviewing interim results of every patient enrolled in the targeted quarter and this was done at 6th month of treatment to look at early indicators of outcome such as sputum conversion and thereafter at 12 and the final review to be done 24 months after the end of the cohort year. Expert review focused on determining whether suspects should be initiated on MDR-TB treatment, review follow up care of patients once discharged from the hospital (community level care) and address clinical management of challenging cases.

Final outcomes analysis was done on 20 patients enrolled in 2010. The results were; 13 patients (65%) were cured, two patients (10%) completed treatment, three patients (15%) died during the course of treatment, and two patients (10%) were recorded as lost to follow up. Of those that were lost to follow up, one returned to treatment and will be analysed as part of the 2011 cohort. The treatment success rate (cured + treatment completed) was 75%. Comparison of MDR TB treatment outcomes for 2009 and 2010 show that the cure rate and overall treatment success increased whereas the death rate decreased in the 2010 cohort as summarised below;

Figure 12: MDR TB outcomes in 2009 & 2010



3.7 Management of Paediatric TB

The diagnosis and management of TB in children with HIV poses a significant challenge, particularly in resource-limited settings. In children, the clinical presentation of TB is often nonspecific and it can be difficult to discern whether a child has TB or other illness based on symptoms alone. Young children are often unable to expectorate sputum, and procedures needed to obtain a lower respiratory tract sample, such as sputum induction and gastric aspiration, are not widely available. Furthermore most children have paucibacillary disease, thus the diagnostic yield of smear microscopy is low, and access to culture and molecular diagnostics is often limited. Additionally, the radiographic findings of pulmonary TB are a typical in children with HIV, and are difficult to distinguish from other HIV-related lung diseases, particularly in settings where clinicians lack experience in reading pediatric x-rays. Management of TB in children with HIV is also challenging, given the overlapping toxicities, increased pill burden, and risk of immune reconstitution inflammatory syndrome (IRIS) associated with co-treatment in severely immunocompromised children.

Despite these challenges, active TB case finding is essential in clinical settings where children with HIV receive care. Because TB in children may progress rapidly and is frequently disseminated, diagnostic delays may result in increased morbidity and mortality. Although available data are limited regarding the best approach to screening HIV-infected children for TB, WHO strongly recommends routine use of a screening tool to assess for cough, fever, failure to thrive, and past contact with a TB case. Identifying children with a TB contact history is essential as likely occurrence of TB can be prevented using the INH preventive therapy (IPT).

In recognition of this challenges in diagnosing and treating TB in children. The Ministry through NTLP, ICAP with support from President's Emergency Plan for AIDS Relief (PEPFAR) established a Centre of Excellence (COE) at Mwananyamala hospital in Dar es Salaam, with objective of improving care and treatment of TB/HIV co-infected children. Mwananyamala hospital was selected because of high TB, HIV and pediatric case load, large catchment area, better infrastructure and level of staffing. In addition to the hospital, three private satellite facilities were included as referral entry points not only to increase the case load, but also to symbolize the private public partnership (PPP) .The sub-grantees of this project are, The Kinondoni Municipality and the local NGO of former TB patients, MKUTA, were strategically selected because the former is a government body overseeing the Mwananyamala hospital and the latter because of its strong community activity in Intensive Case Finding (ICF) using the establishment and strengthening of the innovative TB clubs and creating community awareness about TB in Tanzania.

4. LEPROSY CONTROL SERVICES

4.1 Case Notification

A total of 2,671 leprosy cases (all forms) were notified in 2012, of which 2,548 (9.4%) were new cases and 70 (2.6%) were relapses and 53 (2.0%) were return after default. The number of cases notified was 271 (11.3%) more than those in 2011. The distribution of the relapse cases was as follows: after-MDT - 50 (1.9%); DDS – 20 (0.7%) of overall total cases

The annual national notification rate (case detection rate) was 0.6/10,000 population which is slightly higher than that of 2011 at (0.5/10,000). Among new cases notified, 2,104 (82.6%) were MB and 444 (17.4%) PB. Females were 1,001 (39.3%) giving a female to male ratio of 1:1.5 suggesting that the services provided are also accessible to females. The number of children among the new cases was 158 or (6.2%) which was more than those reported in 2011 by 40 cases. New leprosy cases notified with disability grade II were 303 or 11.9% which was same with that reported 2011 when 12.0%. Table 8 below summarises data on new leprosy cases notified in 2012 and those having disability grade II according to WHO classification. However, the trend of new leprosy cases detected for the past 20 years shows tremendous decline country wide as is displayed in figure 15 below.

Table 7: New leprosy cases detected in 2012

Region	All cases	new cases		new MB cases		new Female cases		new Children cases		new Disability grade II	
		No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Dar Ilala I	*76*	*69*	*90.8*	*58*	*84.1*	*27*	*39.1*	*5*	*7.2*	*6*	*8.7*
Dar Kinondoni	*83*	*81*	*97.6*	*73*	*90.1*	*30*	*37.0*	*4*	*4.9*	*15*	*18.5*
Dar Temeke	*121*	*121*	*100.0*	*92*	*76.0*	*39*	*32.2*	*9*	*7.4*	*13*	*10.7*
Dar Ilala II	*7*	*6*	*85.7*	*6*	*100.0*	*2*	*33.3*	*0*	*0.0*	*0*	*0.0*
Dar es Salaam	**287**	**277**	**96.5**	**229**	**82.7**	**98**	**35.4**	**18**	**6.5**	**34**	**12.3**
Arusha	*7*	*7*	*100.0*	*7*	*100.0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
Dodoma	*94*	*85*	*90.4*	*82*	*96.5*	*36*	*42.4*	*1*	*1.2*	*4*	*4.7*
Iringa	*20*	*18*	*90.0*	*16*	*88.9*	*10*	*55.6*	*0*	*0.0*	*4*	*22.2*
Kagera	*107*	*96*	*89.7*	*78*	*81.3*	*39*	*40.6*	*10*	*10.4*	*11*	*11.5*
Kigoma	*115*	*113*	*98.3*	*93*	*82.3*	*42*	*37.2*	*7*	*6.2*	*18*	*15.9*
Kilimanjaro	*11*	*11*	*100.0*	*10*	*90.9*	*3*	*27.3*	*1*	*9.1*	*0*	*0.0*
Lindi	*324*	*302*	*93.2*	*235*	*77.8*	*154*	*51.0*	*19*	*6.3*	*13*	*4.3*
Manyara	*4*	*4*	*100.0*	*3*	*75.0*	*1*	*25.0*	*0*	*0.0*	*1*	*25.0*
Mara	*32*	*30*	*93.8*	*12*	*40.0*	*15*	*50.0*	*0*	*0.0*	*2*	*6.7*
Mbeya	*36*	*34*	*94.4*	*33*	*97.1*	*12*	*35.3*	*1*	*2.9*	*9*	*26.5*
Morogoro	*286*	*280*	*97.9*	*245*	*87.5*	*93*	*33.2*	*5*	*1.8*	*22*	*7.9*
Mtwara	*188*	*176*	*93.6*	*132*	*75.0*	*90*	*51.1*	*3*	*1.7*	*21*	*11.9*
Mwanza	*128*	*128*	*100.0*	*126*	*98.4*	*53*	*41.4*	*9*	*7.0*	*12*	*9.4*
Pwani	*107*	*105*	*98.1*	*90*	*85.7*	*35*	*33.3*	*5*	*4.8*	*13*	*12.4*
Rukwa	*271*	*255*	*94.1*	*222*	*87.1*	*95*	*37.3*	*19*	*7.5*	*29*	*11.4*
Ruvuma	*119*	*114*	*95.8*	*81*	*71.1*	*42*	*36.8*	*2*	*1.8*	*13*	*11.4*
Shinyanga	*78*	*75*	*96.2*	*72*	*96.0*	*29*	*38.7*	*3*	*4.0*	*24*	*32.0*
Singida	*26*	*25*	*96.2*	*20*	*80.0*	*13*	*52.0*	*0*	*0.0*	*4*	*16.0*
Tabora	*104*	*98*	*94.2*	*78*	*79.6*	*30*	*30.6*	*7*	*7.1*	*26*	*26.5*
Tanga	*189*	*178*	*94.2*	*154*	*86.5*	*60*	*33.7*	*7*	*3.9*	*32*	*18.0*
Mainland	**2,533**	**2,411**	**95.2**	**2,018**	**83.7**	**950**	**39.4**	**117**	**4.9**	**292**	**12.1**
Pemba	*18*	*18*	*100.0*	*13*	*72.2*	*8*	*44.4*	*2*	*11.1*	*2*	*11.1*
Unguja	*120*	*119*	*99.2*	*73*	*61.3*	*43*	*36.1*	*39*	*32.8*	*9*	*7.6*
Zanzibar	***138***	***137***	***99.3***	***86***	***62.8***	***51***	***37.2***	***41***	***29.9***	***11***	***8.0***
Tanzania	**2,671**	**2,548**	**95.4**	**2,104**	**82.6**	**1,001**	**39.3**	**158**	**6.2**	**303**	**11.9**

Since 2004, the proportion of new MB cases detected annually has been slowly increasing from 68% to 83% while the proportion of females and children detected has been declining slowly from 44% to 40% and 10% to 5.2% respectively. The changes in proportion of MB cases and children notified annually suggest reduction in the prevalence of the disease in the country. However, the data may also suggest that females are utilising less the available leprosy services compared to their male partners. This is summarised in figure 14.

Figure 13: Trends of new leprosy cases reported: 1990 - 2012

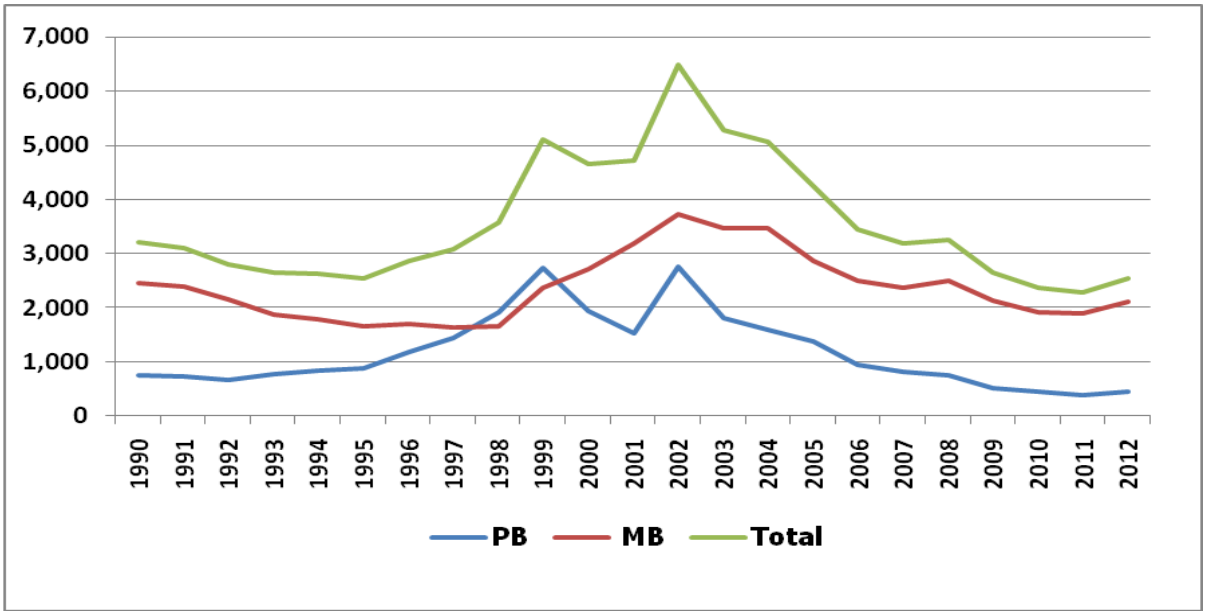
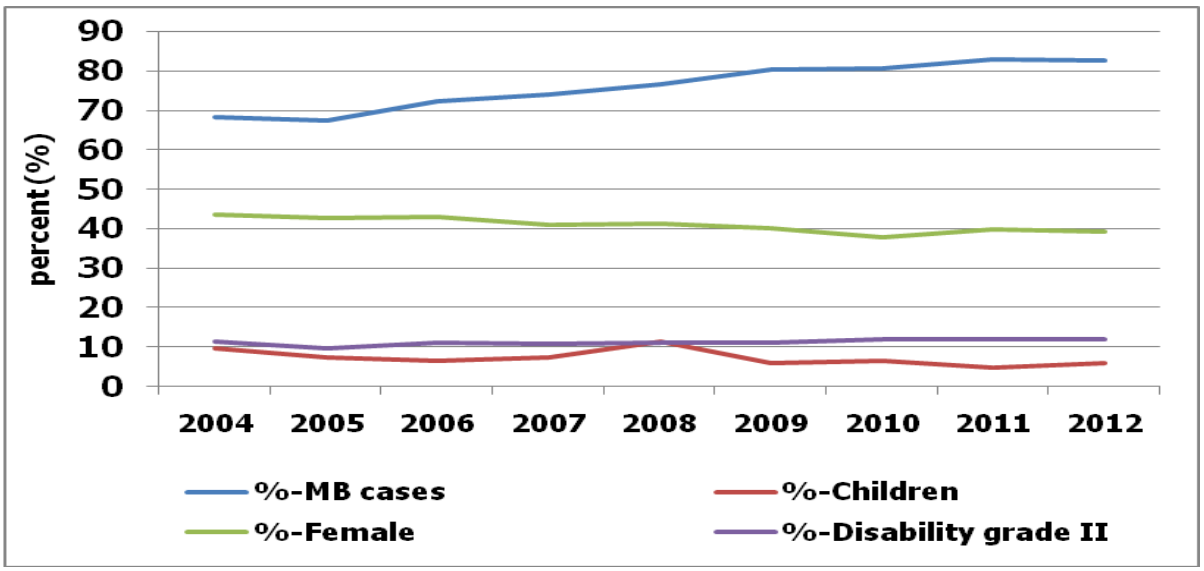


Figure 14: Trends of MB cases, children, females and disability grade II among new leprosy cases: 2004 -2012



4.2 Registered prevalence

The leprosy prevalence rate in 2012 was 0.5/10,000 population which is below the WHO leprosy elimination target of 1 case per 10,000 population. But there are still 24 districts from different regions with prevalence rates higher than 1/ 10,000, as shown in table 15 below. Overall, the prevalence of leprosy has showed a steady decline since 2002. The prevalence detection ratio has remained about 1 between 2004 and 2012 suggesting that patients are timely removed from the register after completing their treatment.

Figure 15: Trends of new leprosy cases detected and registered in Tanzania 1983 – 2012

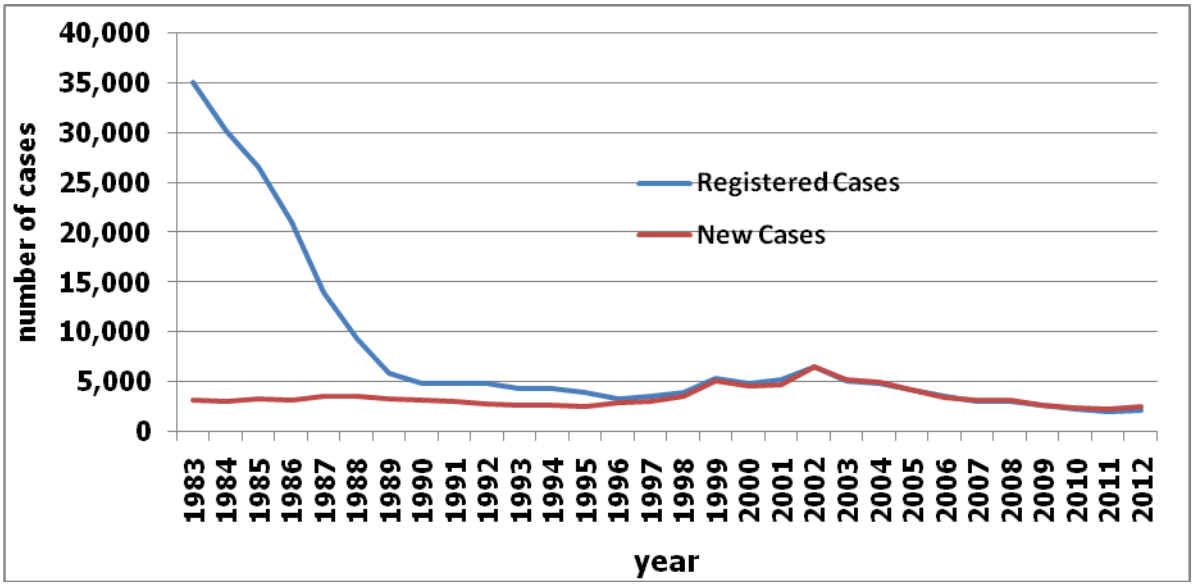
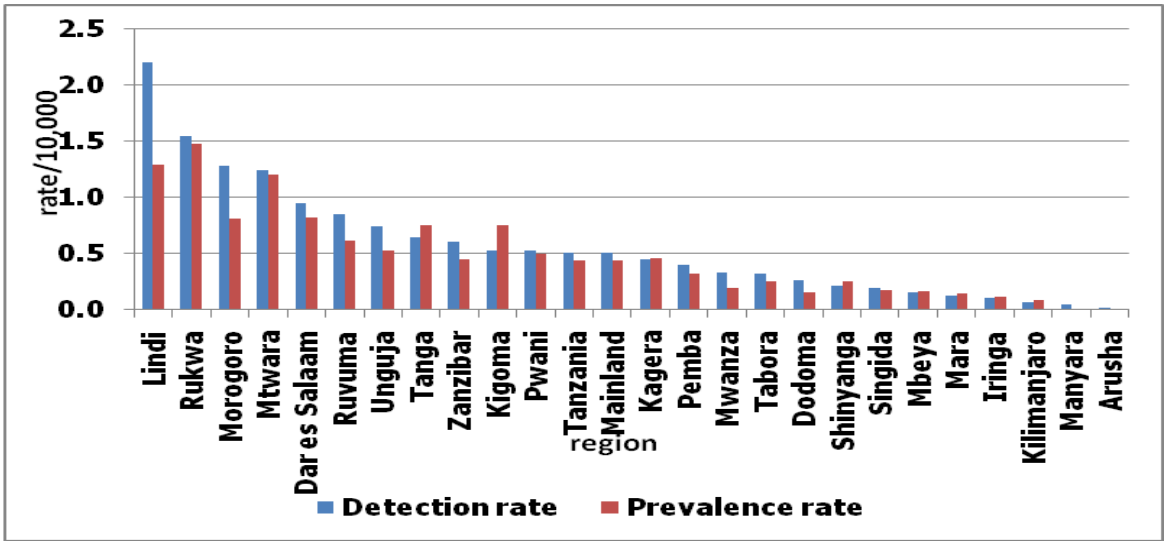


Table 8: Districts with prevalence or detection rate greater or equal to 1.0/10,000 population in 2012

S/N	Region	District	Detection rate	Prevalence rate
1	Dodoma	Bahi	1.4	0.7
2	Kagera	Chato	1.7	1.5
3	Lindi	Kilwa	1.7	1.6
4	Lindi	Lindi Rural (West)	2.6	0.7
5	Lindi	Lindi Urban (E)	2.7	1.1
6	Lindi	Liwale	15.6	10.9
7	Lindi	Nachingwea	1.3	3.6
8	Lindi	Rwangwa	2.4	2.1
9	Morogoro	Kilombero	2.4	0.6
10	Morogoro	Mvomero	1.4	1.8
11	Morogoro	Morogoro RS	1.6	0.9
12	Mtwara	Masasi (DC)	1.3	1.5
13	Mtwara	Nanyumbu	3.4	1.2
14	Mtwara	Mtwara MC	1.3	0.5
15	Mtwara	Newala	1.6	1.0
16	Pwani	Kisarawe	1.9	1.1
17	Rukwa	Nkasi & Nkasi-Kirando	6.7	0.7
18	Ruvuma	Songea DC	1.5	1.0
19	Ruvuma	Tunduru	1.7	0.9
20	Tanga	Korogwe	1.2	1.2
21	Tanga	Mkinga	1.8	3.6
22	Tanga	Muheza	1.7	2.4
23	Tanga	Pangani	3.7	3.5
24	Unguja	South & Central	4.8	4.5

Figure 16: Distribution of leprosy prevalence and cases detection rates by regions in 2012



4.3 Leprosy treatment outcome

4.3.1 Treatment outcome of PB leprosy

The treatment outcome of PB leprosy cases started treatment in 2011 shows that, 373 (94.0%) completed treatment while one patient died while on treatment and 7 (1.8%) defaulted from treatment. No patient was transferred out of region during the course of treatment. Table 10 below summarises treatment outcome of PB leprosy cases notified in 2011 by region.

Table 9: Treatment outcome of PB leprosy reported in 2011

Region	Treatment completed	Died	Transferred Out	Out of Control	Total	Reported in 2011	Completed
Dar Ilala I	7	0	0	4	11	11	64
Dar Kinondoni	10	0	0	0	10	4	250
Dar Temeke	12	1	0	1	14	14	86
Dar Ilala II	0	0	0	0	0	0	
Dar es Salaam	***29***	***1***	***0***	***5***	***35***	***29***	***100***
Arusha	0	0	0	0	0	0	
Dodoma	5	0	0	0	5	5	100
Iringa	1	0	0	0	1	2	50
Kagera	17	0	0	0	17	18	94
Kigoma	15	0	0	0	15	12	125
Kilimanjaro	0	0	0	0	0	1	0
Lindi	60	0	0	0	60	82	73
Manyara	4	0	0	0	4	2	200
Mara	***7***	***0***	***0***	***0***	7	9	78
Mbeya	***4***	***0***	0	0	4	4	100
Morogoro	***38***	0	0	0	38	38	100
Mtwara	31	0	0	0	31	27	115
Mwanza	5	0	0	0	5	5	100
Pwani	4	0	0	0	4	7	57
Rukwa	49	0	0	0	49	44	111
Ruvuma	***47***	***0***	***0***	***0***	47	***48***	98
Shinyanga	7	0	0	0	7	7	100
Singida	2	0	0	0	2	2	100
Tabora	7	0	0	2	9	9	78
Tanga	14	0	0	0	14	15	93
Mainland	***346***	***1***	***0***	***7***	***354***	***366***	***95***
Pemba	3	0	0	0	3	5	60
Unguja	24	0	0	0	24	24	100
Zanzibar	***27***	***0***	***0***	***0***	***27***	***29***	***93***
Tanzania	***373***	***1***	***0***	***7***	***381***	***395***	***94***

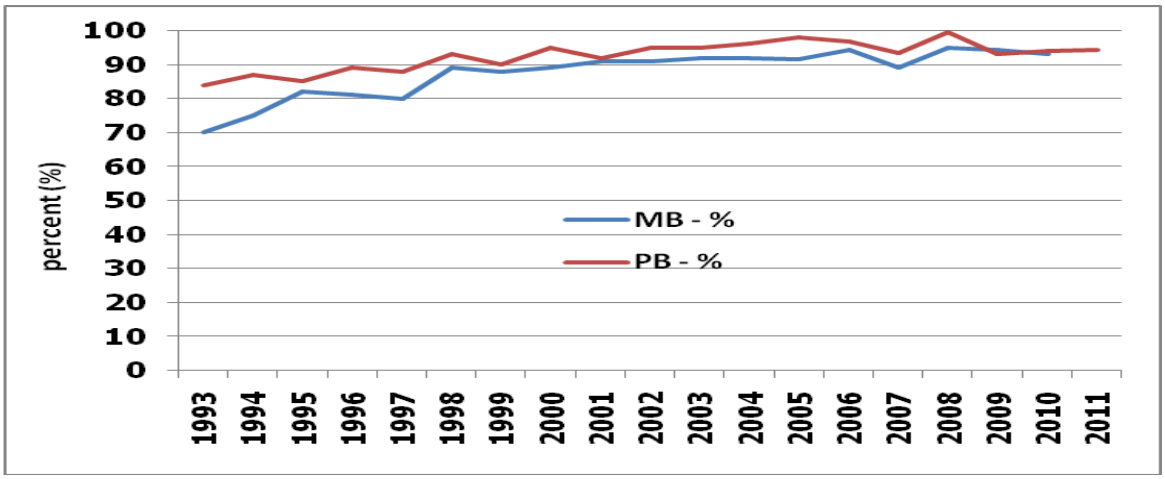
4.3.2 Treatment outcome of MB leprosy

Treatment outcome of MB leprosy cases notified in 2010 shows that, 1,912 (93.2%) completed treatment while 7 (0.3%) patients died during treatment period. However, the data also shows that 94 patients did not complete their treatment due to various reasons: 64 (3.1%) defaulted from treatment and 30 (1.5%) cases were transferred out during treatment. Table 11 below summarises treatment results of MB cases notified in 2010.

Table 10: Treatment outcome of MB leprosy notified in 2010

District	Treatment completed	Died	Transferred Out	Out of Control	Total	Reported in 2010	Completed
Dar Ilala I	62	0	5	16	83	88	70
Dar Kinondoni	103	2	1	3	109	97	106
Dar Temeke	76	0	1	8	85	88	86
Dar Ilala II	25	0	2	0	27	20	125
Dar es Salaam	***266***	***2***	***9***	***27***	***304***	***293***	***91***
Arusha	1	0	0	0	1	1	100
Dodoma	88	0	0	1	89	87	101
Iringa	17	0	0	2	19	19	89
Kagera	104	1	0	2	107	110	95
Kigoma	98	2	2	1	103	103	95
Kilimanjaro	9	0	2	0	11	10	90
Lindi	95	0	0	1	96	97	98
Manyara	9	0	0	0	9	8	113
Mara	19	0	0	2	21	18	106
Mbeya	39	0	0	1	40	44	89
Morogoro	226	0	7	2	235	235	96
Mtwara	121	0	2	1	124	123	98
Mwanza	110	0	4	1	115	119	92
Pwani	42	0	0	0	42	43	98
Rukwa	243	0	0	2	245	260	93
Ruvuma	69	0	0	0	69	81	85
Shinyanga	75	0	2	0	77	78	96
Singida	7	0	0	0	7	10	70
Tabora	90	0	2	18	110	124	73
Tanga	117	2	0	2	121	121	97
Mainland	***1,845***	***7***	***30***	***63***	***1,945***	***1,984***	***93***
Pemba	13	0	0	1	14	13	100
Unguja	54	0	0	0	54	54	100
Zanzibar	***67***	***0***	***0***	***1***	***68***	***67***	***100***
Tanzania	***1,912***	***7***	***30***	***64***	***2,013***	***2,051***	***93***

Figure 17: Trends of leprosy cases completed treatment: 1993 – 2011



4.4 Activities related to prevention of disabilities (POD)

4.4.1 People with leprosy related disabilities

At the end of 2012, a total of 2,200 people affected by leprosy (PALs) with disabilities were registered. Among them, 864(39.2%) were staying in care centres. 1, .759(79. 9 %) were reviewed to assess their physical impairments, result shows that 69,1% (1,216) showed improvements, 27.5% (485) showed no change while 58 (3.2%) their condition deteriorated.

4.4.2 Leprosy reactions

A total of 878 leprosy patients were reported with reactions and started on treatment. Out of theses, adult MB were 743 (84.6%) and 113 (12.8%) were PB cases. Children were 22 (2.5%) among both categories. Of all the reported cases, 132 were admitted because of severe reactions. The table below shows patients reported with reactions by region per category.

Table 11: Leprosy cases started treatment with corticosteroid in 2012

Region	MB(A)	MB(C)	PB(A)	PB(C)	Total
Dar Ilala I	*16*	*1*	*0*	*0*	*17*
Dar Kinondoni	*49*	*0*	*1*	*0*	*50*
Dar Temeke	*32*	*1*	*7*	*0*	*40*
Dar Ilala II	*7*	*0*	*0*	*0*	*7*
Dar es Salaam	***104***	***2***	***8***	***0***	***114***
Arusha	*0*	*0*	*0*	*0*	*0*
Dodoma	*6*	*0*	*0*	*0*	*6*
Iringa	*2*	*0*	*0*	*0*	*2*
Kagera	*15*	*0*	*3*	*0*	*18*
Kigoma	*31*	*2*	*2*	*0*	*35*
Kilimanjaro	*3*	*0*	*0*	*0*	*3*
Lindi	*28*	*0*	*3*	*1*	*32*
Manyara	*1*	*0*	*0*	*0*	*1*
Mara	*12*	*0*	*22*	*0*	*34*
Mbeya	*2*	*0*	*0*	*0*	*2*
Morogoro	*84*	*0*	*20*	*0*	*104*
Mtwara	*55*	*0*	*4*	*1*	*60*
Mwanza	*61*	*2*	*5*	*0*	*68*
Pwani	*33*	*1*	*2*	*0*	*36*
Rukwa	*22*	*0*	*0*	*2*	*24*
Ruvuma	*20*	*0*	*10*	*0*	*30*
Shinyanga	*59*	*1*	*1*	*0*	*61*
Singida	*33*	*0*	*6*	*0*	*39*
Tabora	*22*	*0*	*4*	*0*	*26*
Tanga	*89*	*2*	*10*	*2*	*103*
Tanzania - Mainland	***682***	***10***	***100***	***6***	***798***
Pemba	*10*	*0*	*0*	*0*	*10*
Unguja	*51*	*6*	*13*	*0*	*70*
Tanzania - Zanzibar	***61***	***6***	***13***	***0***	***80***
Tanzania	***743***	***16***	***113***	***6***	***878***

4.4.3 Footwear Programme.

In 2012, a total of 3,634 pairs of protective sandals were distributed to people affected by leprosy. Another 358 pairs of shoes were made locally in several regions by the local shoemakers. In the case of special boots 34 pairs were fabricated and 274 footwear repairs were done for PALs with foot deformities. The table below shows the amount of footwear distributed to people affected by leprosy by region in 2012. This includes factory made sandals, locally produced shoes, special boots and repairs done.

Table 12: Protective Footwear distributed to PALs in regions by type in 2012

Region	Readymade sandals	Locally produced shoes	Special boots	Footwear repairs	Prosthesis
Dar Ilala	*13*	*0*	*0*	*0*	*0*
Dar Temeke	*35*	*0*	*0*	*0*	*0*
Dar Kinondoni	*49*	*0*	*0*	*0*	*0*
Arusha	*20*	*0*	*0*	*0*	*0*
Dodoma	*197*	*0*	*0*	*0*	*0*
Iringa	*0*	*0*	*0*	*0*	*0*
Kagera	*348*	*30*	*0*	*0*	*0*
Kigoma	*68*	*0*	*0*	*45*	*0*
Lindi	*92*	*0*	*0*	*0*	*0*
Manyara	*1*	*1*	*0*	*0*	*0*
Mara	*4*	*0*	*0*	*0*	*2*
Mbeya	*48*	*0*	*0*	*0*	*0*
Morogoro	*216*	*45*	*7*	*6*	*6*
Mtwara	*259*	*0*	*1*	*0*	*0*
Mwanza	*376*	*72*	*2*	*133*	*1*
Pwani	*116*	*0*	*5*	*0*	*0*
Rukwa	*227*	*0*	*10*	*0*	*1*
Ruvuma	*354*	*0*	*0*	*0*	*0*
Shinyanga	*445*	*42*	*0*	*77*	*7*
Singida	*91*	*0*	*0*	*30*	*0*
Tabora	*325*	*96*	*10*	*119*	*0*
Tanga	*176*	*0*	*0*	*0*	*0*
Zanzibar	*174*	*0*	*2*	*2*	*0*
Tanzania	***3,634***	***358***	***34***	***274***	***17***

Table 13: Materials and tools Used for Fabrication of Locally produce shoes and special boots

Regions	Leather (Sqft)	MCR (Sheets)	Micro sole(S)	Glue(L)	S. Reverts
Shinyanga	*36*	*2*	*2*	*4*	*200*
Mwanza	*33*	*1*	*1*	*4*	*200*
Coast	*30*	*1*	*1*	*2*	*200*
Mara	*15*	*1*	*1*	*4*	*200*
Morogoro	*30*	*1*	*1*	*2*	*200*
Songea	*15*	*1*	*1*	*2*	*200*
Tabora	*30*	*1*	*1*	*4*	*200*
Kigoma	*24*	*1*	*1*	*2*	*200*
Tanga	*20*	*1*	*1*	*3*	*200*
Singida	*17*	*1*	*1*	*2*	*200*
Kagera	*13*	*1*	*1*	*2*	*200*
Zanzibar	*15*	*1*	*1*	*3*	*200*

4.4.4 Specialized care of people with disabilities

In the year 2012, a total of 526 persons affected by leprosy (PALs) were admitted to different hospitals in the country. Ulcers and wounds ranked high as the main reasons for admission of 262 (49.8%) cases. The second reason for admission was reactions 132 (25 %) followed by surgery (SPRS) which accounted for 18.8% (99), and the least was eye pathology which was 6.2 % (33). In addition, PALs were fitted with prostheses. The table below summarises the number of surgeries done, prostheses fitted and prosthesis repairs for people affected by leprosy in 2011 by regions.

Table 14: Number of surgeries, prosthesis fitted and repair in regions 2012

Region	R/surgery	Prosthesis	Prosthesis repairs
Temeke	*1*	*0*	*2*
Kinondoni	*1*	*0*	*0*
Dodoma	*10*	*0*	*2*
Kigoma	*6*	*0*	*0*
Mara	*3*	*2*	*1*
Morogoro	*25*	*6*	*8*
Mtwara	*0*	*0*	*0*
Mwanza	*2*	*1*	*1*
Rukwa	*1*	*1*	*0*
Shinyanga	*35*	*7*	*23*
Singida	*2*	*0*	*0*
Tanga	*3*	*0*	*0*
Zanzibar	*7*	*0*	*0*
Tanzania	***95***	***17***	***37***

5. LABORATORY SERVICES

5.1 Laboratory Workload

This section provides results and evaluation of all the specimens examined at the Central Tuberculosis Laboratory for the year 2012. Four main types of examinations were carried out by the laboratory namely AFB smear microscopy, Culture solid and liquid media, Drug susceptibility and the molecular method Line Probe Assay (LPA).
Samples were received from all the regions of the country in compliance with the current arrangements of specimen submission and they mainly needed culture, Drug susceptibility and/or LPA tests. Specimens collected were from all types or category of patients such as new cases, retreatment cases, relapses, failures and multi-drug resistant contacts. The examinations carried out per specimen were in accordance to the algorithms in use at the time.

A total of 6,427 samples were received by the CTRL in 2012 and all of them underwent microscopic examination. Results are as shown in table 15 below.

Table 15: Microscopic examination results

Microscopic examination results	N	%
Positive	*4,145*	*64.49*
Negative	*2,268*	*35.29*
Missing information	*14*	*0.22*
Total	*6,427*	*100.00*

Cultures were performed on 4,946 (76.6%) specimens, culture was not done on 1,401 (21.8%) and 80 were unknown. Culture results for 4,946 samples are shown in table 16 and table 17 shows the relationship between microscopic examination and culture.

Table 16: Culture results solid media

	Freq.	per cent
Negative	*2,070*	*41.9*
Positive	*2,712*	*54.8*
Contaminated	*164*	*3.3*
Total	*4,946*	*100.0*

Table 17: Culture Indicators (Microscopy and Culture results)

Smear/Culture	N	%
smear negative/Culture negative	*1,411*	*21.95*
smear positive/Culture positive	*2,504*	*38.96*
smear negative/Culture positive	*206*	*3.21*
smear positive/Culture negative	*2,061*	*32.07*
smear positive/Culture contaminated	*144*	*2.24*
smear positive/Culture unknown	*69*	*1.07*
smear negative/Culture unknown	*20*	*0.31*
smear unknown/Culture positive	*2*	*0.03*
smear unknown/Culture negative	*9*	*0.14*
smear unknown/Culture unknown	*1*	*0.02*
Total	*6,427*	*100*

5.2 Prevalence Survey of Tuberculosis (PST)

During the year, First National Prevalence Survey of Tuberculosis (PST) was also carried out. The tables below so far have not included any results of the specimens from the survey examined by the CTRL. Tables 18 and 19 show results for microscopy and culture from the Survey respectively.

Table 18: PST microscopic examination results

Results of smear microscopy	N	%
Positive	*85*	*1.48*
Negative	*5,677*	*98.42*
Unknown	*6*	*0.1*
Total	*5,768*	*100*

Table 19: PST culture results

Results of sputum culture	N	%
Positive	*96*	*1.66*
Negative	*5,480*	*95.01*
Contaminated	*187*	*3.24*
Unknown	*5*	*0.09*
Total	*5,768*	*100*

5.3 Drug Susceptibility Testing Profile

Drug susceptibility tests were performed on 1,012 (37.31%) of all the culture positive specimens in the year. Forty seven of them were found to be first line Multidrug resistant (MDR) and sixty three had resistance to one or more drugs but not MDR while the rest were sensitive to all first line drugs. Table 4 below shows TB culture and DST laboratory performance for the year.

Table 20: TB Culture and DST Laboratory Performance 2012

Report on DST and identification tests inoculated 3-6 months before							
	Type of patient (#)						
Result	New	Relapse	Failure	RAD	Chronic	Others	Total
Total inoculated	**104**	**44**	**0**	**1**	**7**	**1049**	**1205**
Pending	5	5	0	0	1	170	**181**
Failed	3	1	0	0	0	11	**15**
NTM	0	0	0	0	0	0	**0**
Total M. tuberculosis complex	**96**	**38**	**0**	**1**	**6**	**868**	**1009**
usceptible to all first-line drugs	**71**	**27**	**0**	**0**	**1**	**701**	**800**
MDR-resistant	**14**	**7**	**0**	**0**	**5**	**76**	**102**
HRES	11	4	0	0	3	41	**59**
HRS	1	2	0	0	0	15	**18**
HRE	1	1	0	0	1	6	**9**
HR	1	0	0	0	1	14	**16**
HR, E and/or S undefined	0	0	0	0	0	0	**0**
MDR + Km (or Cm or Ak)	0	0	0	0	0	0	**0**
MDR + Fluoroquinolone (FQ)	0	0	0	0	0	0	**0**
MDR + other second-line	0	0	0	0	0	0	**0**
MDR + FQ + injectable (XDR)	0	0	0	0	0	0	**0**
istant against 3 drugs non-MDR	**1**	**0**	**0**	**0**	**0**	**4**	**5**
HES	1	0	0	0	0	3	**4**
RES	0	0	0	0	0	1	**1**
istant against 2 drugs non-MDR	**2**	**1**	**0**	**0**	**0**	**12**	**15**
HE	0	1	0	0	0	0	**1**
HS	1	0	0	0	0	8	**9**
ES	1	0	0	0	0	2	**3**
RS	0	0	0	0	0	2	**2**
RE	0	0	0	0	0	0	**0**
Resistant to 1 drug	**8**	**3**	**0**	**1**	**0**	**75**	**87**
H	5	0	0	0	0	16	**21**
R	0	2	0	0	0	5	**7**
E	1	0	0	0	0	5	**6**
S	2	1	0	1	0	49	**53**

Legend

DST drug susceptibility testing
NTM non-TB mycobacteria
MTB Mycobacterium tuberculos
RAD return after default
H isoniazid
R rifampicin
E ethambutol
S streptomycin
MDR multidrug-resistant
XDR extensive drug-resistant
Km kanamycin
Cm capreomycin
Ak amikacin
FQ fluoroquinolones
SLD second-line drug

6. OPERATIONAL RESEARCH ACTIVITIES

During this reporting period, the programme prepared and implemented various operational research activities in collaboration with various internal and external partners. Some of the research activities were a continuation of multi-country research projects involving Tanzania. The status of the implementation of these projects is explained hereinafter.

6.1 First National Tuberculosis Prevalence Survey

It was a cross sectional population based study designed to determine the estimates of prevalence of pulmonary tuberculosis disease in the country and inform on the performance of the TB control efforts. The results of this first ever national wide TB prevalence survey (PST) will enable the country to obtain better estimates of TB burden in Tanzania and thus refine approaches and efforts to achieve internationally recommended TB control targets.

Towards the end of this reporting year, the programme in collaboration with the national institute of medical research (NIMR) have successfully completed field works and data collection from all 62 targeted clusters national wide. During the year of field operations, there were four external monitoring visits conducted by the full time consultant, Dr Frank van Leth from KNCV and TME-TF experts of the World Health Organization. The conduct of the survey has been recommended as good and adhering to both the protocol and WHO standards.

The next steps during the coming year will include completion of laboratory sputum samples processing works, data cleaning, analysis and production of the survey report.

7. PROGRAMME SUPPORT ACTIVITIES

7.1 Drug supply and management

In 2012, the programme received consignments of FDCs from the Global Drug Facility (GDF). At the same time, WHO also dispatched through MSD anti-leprosy blisters for patients in 4 formulations – MB Adult, MB child, PB adult and PB child. There was no reported stock-out of first-line anti-TB drugs or anti-leprosy drugs in 2012 in all regions and at national level. Table below summarises stocks of anti-TB received in the country in 2012.

Table 21: Drugs received in 2012

Month	RHZE	RHE	RH	Streptomycin	RHZc	RHc	Ethambuto 100mg	Isoniazide 100mg
January	*7,952*		*15,341*					
February	*8,593*		*15,000*					
March				*272,000*				
April		*599*						
June				*113,000*				
July		*817*		*38,700*	*5,125*	*10,252*	*186*	*3,673*
November	*12,323*		*26,474*					
Total	**28,868**	**1,416**	**56,815**	**423,700**	**5,125**	**10,252**	**186**	**3,673**

First line anti TB and anti-leprosy medications are transported to all regions by MSD headquarters through their zone offices in line with the distribution list prepared by the program.

NTLP is responsible for monitoring and supervision of anti- TB and leprosy drugs at all levels.

One of the challenges facing drug management in most facilities is inadequate record keeping and reporting resulting in poor estimations of drug use and may at times create unnecessary shortages. To counteract this problem, internal redistribution of drugs and supplies from facility to facility, district to district and region to region is sometimes done.

7.2 Advocacy, Communication and Social Mobilisation (ACSM) activities

7.2.1 Training

As part of planned Advocacy, Communication and Social Mobilization activities, the programme conducted training of health care workers on communication skills. A total of 142 health care workers from seven regions supported by GFR 6; Mara, Manyara, Kigoma, Dodoma, Kagera and Dar es Salaam were trained. They include: DTLC's, TB/HIV officers, Clinicians, DOT Nurses and CTC in-charge. The main objective of the training was to build capacity of health care providers to effectively communicate with patients and supervisors and also manage emotions in the context of TB and TB/HIV care. Skills gained from the

training enables the beneficiaries to sensitise communities to actively participate in TB and TB/HIV control activities.

7.2.2 Leprosy control activities

The programme conducted two Leprosy Elimination Campaigns (LEC) in Liwale district, Lindi region in July 2012 and Nkasi district, Rukwa region in August 2012 in collaboration with regional and district TB and Leprosy coordinators. Funds were provided by GLRA. Liwale and Nkasi districts were selected for this exercise because they are among districts in the country with a high notification rate for leprosy patients (Nkasi 4.6 cases per 10,000 population and Liwale 4.6 cases per 10,000 population). The campaign had the following objectives:

- To raise community awareness and hence improve their health care seeking behaviours and minimise stigma
- To increase knowledge and skills of health care workers in Liwale and Nkasi districts that will eventually enable them to detect, diagnose and treat more effectively leprosy patients in their areas.
- To identify leprosy patients in the communities and initiate their treatment especially those living in underserved areas.
- To provide informal knowledge about leprosy to community leaders to enable them to motivate the communities and invite leprosy suspects to come forward for screening.

Activities conducted during the LEC included: advocacy meetings with community leaders and health care workers, screening of community members in selected areas and recording and reporting of detected cases as per NTLP guidelines.

In Nkasi district a total of 115 people including health workers, village health workers, Village Executive Officers (VEOs) and village chairmen were oriented on global guidelines and leprosy control in the country as well as conducting targeted leprosy elimination campaigns. A total l 1,258 people from 29 selected sites were screened, 100 were leprosy cases. Among them new cases were 100 (92.5 %) and return after default were 8 (7.4%). There were 3 (2.7%) PB children and 6 (5.5) MB children and 21(19.4%) had disability grade 2.

Sensitization meetings were conducted in Liwale where a total of 112 people including health workers, village health workers, VEO's and village chairmen were oriented on global guidelines and leprosy control in the country and conducting targeted leprosy elimination campaigns.

In addition, a leprosy screening exercise was conducted in 31 selected sites of Liwale which resulted into screening of 1013 people and discovery of 91 leprosy cases. Among them new cases were 91 (99.1%) and return after default were 1 (0.1%). There were 3 (3.2%) PB children and 5 (5.4) MB children

7.2.3 Commemorations

World Leprosy Day was marked on 29th January 2012 in the three districts of Dar es Salaam region (Temeke, Ilala and Kinondoni) with a week of community sensitisation and targeted screening activities. Prior to the climax the Minister for Health and Social Welfare Dr. Hadji Hussein Mponda (MP) delivered a press statement on World Leprosy Day 2012. The event was covered by both print and electronic media. World TB Day was marked in Masasi district in Mtwara region on 24th March 2012 and the guest of honour was the Minister for Health and Social Welfare Honourable Dr. Hadji Hussein Mponda.

The theme for the World Leprosy day was "***Dumisha huduma bora kwa watu walioathirika na ukoma"*** while for World TB Day the theme was **"Stop TB in my life time"** which was translated in Kiswahili as **"Jukumu la kudhibiti kifua kikuu ni la kila mmoja wetu"**.

In both commemorations a number of community mobilization and sensitization activities were conducted prior to the climax and included; screening of primary school children for leprosy and active screening of TB among the general population. The events were covered by media outlets including Tanzania Broadcasting Corporation (TBC), Star TV, ITV and local radios in the respective commemorating region.

A number of IEC and audio/visual materials were designed and produced for the commemoration of World TB day. These included wheel covers, umbrellas, printed posters, leaflets, T-shirts, fliers, and street banners. Relevant messages in form of spots were disseminated through TV and radio stations with national and regional coverage. Table 1 summarises the number of IEC materials that were produced and distributed in 2012 while Table 2 presents the number of spots (radio and TV) and drama series produced and aired in the same period.

7.3 Community empowerment activities

Community empowerment is one of the six STOP TB strategies. It has been implemented in the country to complement DOTS coverage which is now national wide with high treatment success rates. Despite of the national DOTs coverage, a number of challenges still exist in the control and prevention of TB in Tanzania. They include delays by patients in seeking care when TB symptoms set in, passive participation of the community in TB care and control, stigma associated with TB and HIV and poor adherence to anti-TB regimens, leading to an increased threat of drug-resistant TB.

To address these challenges, the MOHSW in collaboration with implementing partners, implemented the following interventions through community TB care approaches to improved quality of TB prevention, diagnosis, treatment, and care services:

7.3.1 Engagement of Non- Governmental Organization (NGOs) and other Civil Society Organizations (CSOs)

This approach involves sensitizing NGOs and other CSOs to integrating community-based tuberculosis activities into their works. The strengths of NGOs and other CSOs active in

health care and other development interventions at the community level include their reach and spread and their ability to engage marginalized or remote groups.

In 2012, the MOHSW through NTLP under WHO support has developed a national operational guideline for ENGAGE TB and a community TB care handbook for community health workers. More than 22 NGOs for community TB interventions have been sensitized and a least a half of them have started to solicit funds for the implementation. One NGO has managed to get funds and started to implement the activities in Kinondoni municipality by integrating TB control interventions in home based HIV Care programme.

7.3.2 Patient Centred Treatment (PCT)

In Tanzania, TB patients have been managed through Patient Centred Treatment (PCT) approach throughout the country. Patients have an option to choose where they would like to be supervised during their daily TB treatment, whether at a health facility (facility based DOT) or at home (home based DOT). Besides, patients have the liberty to choose a treatment supporter of their own choice. According to programme data for 2012, 78% of all notified TB patients were supervised at home by community treatment supporters who were mostly family members and community health workers including former TB patients. In 2012, 84% of TB patients have successfully treated without difference between those treated under the two above mentioned options. The challenge is improper implementation of PCT procedures to some of newly allocated health workers to TB clinics. To overcome this challenge, the Programme in collaboration with Novartis Foundation produced and distributed 1000 PCT DVD educational materials (English and Swahili version) to health facilities in all 26 regions including Zanzibar. The material was meant to create awareness of 8 steps of PCT to health workers. The programme is waiting for the evaluation for the success/ practicability of the intervention.

7.3.3 Involvement of community TB care groups

Since 2009, the Programme started to reinforce community TB care by establishing the involvement of community social groups including former TB patients. Till 2012, 321 groups have been formed with 4,613 members all over the country. Since then the programme in collaboration with other implementing partners has been training and supporting the groups to take their responsibility of TB control at community level. The groups have been supported with enablers like bicycles, boots, umbrellas, torches, reimbursement funds, slide boxes (for sputum fixers), and bags to facilitate their tasks. Some partners ~~were~~ managed to provide desktop computers to groups for record keeping. The groups were involved in community sensitization activities, supporting TB patients during treatment course, defaulter tracing and intensified case finding in their respective areas.

In 2011 and 2012, community groups contributed to TB control as stipulated in the table 22 below:

Table 22: Community contribution to TB control and Patient care for 2011 and 2012

Indicator	Average Percent
Number of referrals of presumptive TB patients (TB suspects) attributable to communities (e.g. community volunteers, community health workers) expressed as a percentage of all TB suspects in the Health facility/district/region/country	*35*
Number of notified TB cases resulting from referral by communities (e.g. community volunteers, community health workers) expressed as a percentage of all newly notified TB cases in the Health facility/district/region/country	*14*
Number of newly notified TB patients who received community-based DOT and/or adherence support expressed as a percentage of all patients receiving treatment in the Health facility/district/region/country	*86*
Number of newly notified TB patients who received community-based DOT and/or adherence support and who were successfully treated expressed as percentage of all newly notified TB patients who received community based DOT and/or adherence support.	*84*

The challenge was parallel system of reporting community contribution. The programme has started to strengthen recording and reporting system for community contributions by developing TB suspect/ contact tracing forms, community referral forms, community TB register and quarterly reporting form. The yield information will soon be captured in NTLP M&E system.

7.4 Logistic Support

7.4.1 Transport

The NTLP receives logistic support for transport from various sources such as; GLRA (German TB and Leprosy Relief Association), CDC/PEPFAR and GFATM. This support varies from motorcycles, motor vehicles, as well as motorboats.

Currently, the NTLP has 38 motor vehicle, 236 motorcycles and 4 boats. These boats are for regions bordering lakes, with hard area to reach by neither motor vehicle nor motorcycle. These includes Kigoma and Rukwa region both bordering lake Tanganyika. For many years, the GLRA has been the main financier of transport logistics to the programme, with 28 motor vehicles, 154 motor cycles and 4 boats. The remaining 82 motorcycles and 10 motor vehicles are from CDC and GFATM.

Essentially, each region has one motor vehicle for regional TB and Leprosy coordinator, and each district has two motorcycles; one for DTLC and one for TB/HIV Officer. The motor vehicle caters for the whole region while motorcycle caters for the whole district. Maintenance is mainly supported by GLRA and other financier respectively.

7.4.2 Information Communication Technology

In the year 2012, NTLP through GFR6 funds, facilitated the development of a new website ~~in~~ to ease the dissemination of various programs information to stakeholders and Tanzanians as a whole. The website has been online since March, 2012 and can be visited through the URL:

www.ntlp.go.tz. , also the programme developed a new web based database system of which its URL is www.ntlp.go.tz/ntlp, this is aimed at easing data entry, data correction and reducing delay time.

The Programme procured computers which were distributed to regions and districts to facilitates the recording and reporting of TB, TB/HIV and leprosy data and reporting. Despite providing this support of computers to districts/councils, the NTLP continued to provide technical support in its efforts to make sure they continue to work and meet the intended purpose. This has been made possible through regular supportive supervision to regions.

7.5 Public Private Partnership

In 2012 NTLP continued to expand TB and leprosy control services across the country through public private mix approach, the success part in this intervention include;

- Increased the number of TB cases notified from private sector from 3,490 in 2011 to3,651 in 2012 , this accounts for 6% of the national notification.
- Developed and printed a National guideline for TB control at workplace
- Refurbished 69 public and private health facilities through Global Fund Round Six support in 7 regions namely Dar es Salaam, Kagera, Dodoma, Rukwa, Manyara, Mara and Kigoma
- Introduced new TB case detection interventions through involvement of drug sellers from private pharmacies and Accredited Drug Dispensing Outlets (ADDOs) in Morogoro and Dar es Salaam regions. A total of 122 pharmacies and 574 ADDOs are involved in this process.

However despite these success stories still there are numbers of challenges facing the program in scaling up TB control services in the private sector, such key gaps include:

- Low involvement of the private sector in TB control services only 10% of the private health facilities are involved
- Poor infrastructure for TB services such as laboratories and TB clinics
- Inadequate skilled personnel to support TB control services in the sector

In order to address these gaps identified in 2013, the NTLP in collaboration with partners intends to;

- Scale up coverage of TB control services through sensitization to owners of private health services
- Introduce innovative TB control interventions at workplaces
- Engage mining sector in TB control services

7.6 Supervision

Supervision activities at both regional and district level were conducted as planned by TB and leprosy coordinators in close collaboration with health management teams of the respective regions and districts. The central unit conducted routine supervision visits to 15 regions where 60 districts and 105 health facilities were visited and supported. The number of routine supervision was limited to ten due to the National Tuberculosis Prevalence Survey

(PST) which was being conducted during this reporting year, and development of new guidelines which also preoccupied central unit staff.

Table 23 below shows regions which were supervised in the year 2012, Mara and Arusha regions were visited twice, few regions visited in the second quarter.

Table 23: Regions visited during the year 2012

January -March	April – June	July – September	October - December
Mtwara	*Arusha*	*Mara*	*Morogoro*
Mwanza	*Iringa*	*Ruvuma*	*Arusha*
Singida	*Mbeya*	*Rukwa*	*Kagera*
Mara		*Kigoma*	*Manyara*
		Shinyanga	
		Tanga	

The external monitoring of programme activities was done by GDF for drugs and GFATM to assess implementation progress for GF supported activities.

Strengths – major findings

- In most of regions visited, drugs laboratory reagents and supplies were adequate and none reported of running out of stock.
- In most of districts visited were including TB and Leprosy control activities in CCHP, with varied budget from the basket fund ranging from 1% to 4%
- All anti-TB and leprosy drugs at regional and district levels were kept in pharmacies following all drug management practices
- Everywhere the PHC staffs were noted to be highly committed but experiencing overload.
- Collaborative TB/HIV activities were being implemented: TB screening tool used in most facilities, TB/HIV coordinating meetings were conducted and health workers had good knowledge of TB/HIV interventions.
- In most of regions visited RTLCs and DTLCs hads~~–~~access to computer for ETR.Net software
- It was observed that, treatment cards and register at most of places were well maintained.

Weaknesses – major findings

- In most of visited diagnostic centres few laboratory staff were performing TB diagnosis properly: EQA slides were not collected/kept; SOP's were not displayed in their working areas and internal control was not included in their routine procedure
- In most of the places visited, the supervision schedules and reports were not available
- ACSM activities were not well implemented and IEC materials not widely seen especially to most of the peripheral health care facilities despite their presence at regional and district levels.
- Community TB cares activities were minimally implemented~~:~~ Most Ex-TB patients clubs were not active, No evidence of most community TB activities (sensitization, training on CBDOT to health workers and treatment support, quarterly meetings of CBTC and supportive supervision visits to the community)
- It was noted that, in all regions visited, there were a critical shortage of trained health workers especially laboratory cadre

- Despite funds being received, captured in EPICOR and committed, still they were not utilized due to lack of pre-planned activities recorded in the district financial management system and delay in funds disbursement.
- In most of the regions, funds for TB and Leprosy control activities were not included in regional audit, and in councils where they were included, the district auditors provided an overall council report, making it difficult to trace the auditing of TB and leprosy activities funds
- Leprosy activities were not well known to most of DTHO and some DTLCs.. POD registers are not properly filled in most areas visited and referral of leprosy patients for specialized care including surgery is not done due to lack of funds