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New Strategies and Challenges in
Integrated Response to Zika and
Other Diseases in the Americas

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FIELD EPIDEMIOLOGY AND LABORATORY TRAINING PROGRAM

Analysis of Epidemiological surveillance data for sensitive tuberculosis, Mozambique, 2011 - 2013

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Cristóvão Saeze FELTP Graduate | Ivan Manhiça MD MSc;
Fátima Cuembelo MD MPH

Tuberculosis in Mozambique

- Tuberculosis (TB) is still one of the main public health problems in Mozambique;
- The TB incidence rate estimated by the WHO is 552/100 000 inhabitants¹;
- It is the 8th cause of death in all age groups;
- It represents 3.1% of all deaths, considered above the African average of 2.3%²

¹ Ministerio da Saude-Programa Nacional de Controlo da Tuberculose- Plano Estratégico 2014-2018

² João Mangue, et al Aspectos Sociais, Econômicos, Demográficos e de Saúde 2011

Objectives

□ **General**

- Analyze national epidemiological surveillance reporting data for sensitive tuberculosis from 2011 to 2013;

□ **Specific**

- Describe the cases reported by age group and category of presentation;
- Describe the cases by province and region;
- Calculate incidence rates, screening, positive smear microscopy and treatment result

Methods

- Retrospective cross-sectional descriptive;
- Period of analysis: June 2014;
- Data source: PNCT database;
- Variables
 - age, province, geographical region, category of presentation and evaluation of treatment;
- Incidence rates were calculated on the basis of INE's annual population projections;

Case Definition

- **New BK + case**
 - Any case of TB that has never been treated by anti-TB drugs and that presents bacilloscopy, culture and Xpert positive;

- **New BK- case**
 - Any case not confirmed laboratory, but that the clinician based on the clinical-epidemiological findings, decides to start a treatment cycle;

- **New EP case**
 - Any case of tuberculosis involving other organs than the lungs;

New cases reported Mozambique

2011 - 2013

Variables	2011		2012		2013	
	Reported Cases					
	n	%	n	%	n	%
Age Range						
< 15 anos	3201	7	3689	8	3898	8
≥ 15 anos	39999	93	42601	92	44867	92
Clinical form						
BK+	19537	49	20951	45	23115	47
BK-	18159	43	19797	48	20129	41
EP	5504	7	5542	7	5521	12
All new cases	43200	100	46290	100	48765	100

New cases by Province, 2011 - 2013

Province	2011		2012		2013	
	Expected	N (%)	Expected	N (%)	Expected	N (%)
Niassa	6.099	1.136 (19)	6.346	1.106 (17)	6.603	1.439 (22)
Cabo Delgado	7.604	1.845 (24)	7.747	2.218 (29)	7.888	2.282 (29)
Nampula	19.523	4.533 (23)	20.032	5.391 (27)	20.548	6.128 (30)
Zambézia	18.650	5.412 (29)	19.155	6.366 (33)	19.667	7.087 (36)
Tete	9.213	3.070 (33)	9.605	3.178 (33)	10.009	3.187 (32)
Manica	7.206	2.622 (36)	7.479	3.028 (40)	7.759	3.331 (43)
Sofala	8.006	6.081 (76)	8.205	6.496 (79)	8.409	6.661 (79)
Inhambane	6.044	2.480 (41)	6.149	2.971 (48)	6.254	3.037 (49)
Gaza	5.693	4.587 (81)	5.793	4.495 (72)	5.895	4.192 (71)
Maputo Província	6.226	5.439 (87)	6.493	5.359 (83)	6.771	5.230 (77)
Maputo Cidade	5.078	6.001 (118)	5.147	5.982 (116)	5.215	6.191 (119)
Total	99.344	43.200 (43)	102.150	46.290 (45)	105.018	48.765 (46)

TB New cases, positive smear rate by region, Mozambique, 2013

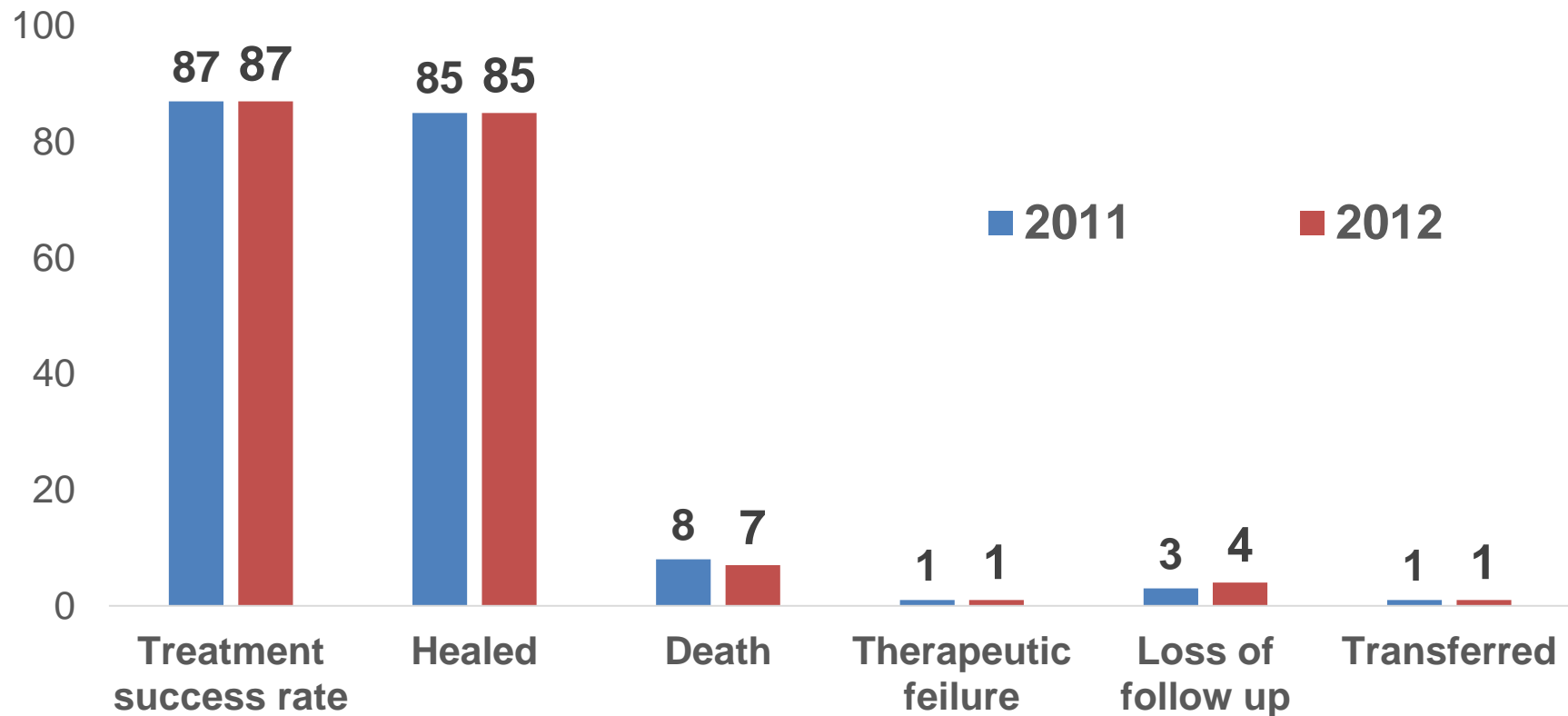
Region	New cases Expected	New cases reported n (%)	New lung cases n (%)	Case screening (all forms)(%)	Screening rate BK+ (%)
North	35.038	10.549 (30.1)	6.276 (44.3)	28	44
Centre	45.844	21.777 (47.5)	10.057(54.3)	44	54
Suth	24.136	20.935 (86.7)	6.782 (69.6)	77	70

TB incidence rate, Mozambique

2011 - 2013

Year	New cases Expected	Frequency New Cases		Incidence rate New Cases	
		N (%)	BK+ N (%)	All forms(%)	BK+ (%)
2011	99.344	47.452 (47.7)	19.537 (45.2)	48	49
2012	102.150	50.827 (49.7)	20.951 (45.2)	50	51
2013	105.018	53.261 (50.1)	23.115 (47.4)	50	55

Treatment result, Mozambique 2011 - 2013



Conclusions

- The notification rate of new cases evolved from 208 to 219/100 000 inhabitants;
- This analysis made it possible to know the profile of TB in the country in the last three years;
- We found extensive regional and provincial differences in incidence and rates of tuberculosis detection;
- The reporting rate of new cases and BK + detection in the country is still below expected;

Recomendations

- Increase the ability to detect the US,
- Define priority strategies in low-performing provinces:
 - ▣ Community mobilization
 - ▣ Surveillance system evaluation
 - ▣ System strengthening
 - ▣ Continuous surveillance

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**End the
tuberculosis is
an urgency for
youth full of
hope for better
world.**