



Press Release

Date: 24 March 2017

Re: Launch of the Online TB Surveillance Dashboard

South Africa (SA) has the highest estimated tuberculosis (TB) incidence rate amongst the twenty two high burden countries globally, with 834 new TB cases per 100 000 population. TB can affect persons of all age groups but is most common among adults, particularly those co-infected with the human immunodeficiency virus (HIV). It is also the leading cause of death due to infectious diseases in SA. The World Health Organization (WHO) has launched a new strategy aiming to END TB by 2035 and has set ambitious targets for this to be achieved, requiring a 10% year-on-year reduction in TB incidence rates.

In 2015, the National Institute for Communicable Diseases (NICD) and the National Department of Health (NDoH) published findings in the *Lancet Infectious Diseases* journal showing evidence of a decline in the incidence rate of new laboratory confirmed TB cases in SA and the important role of the ART program. However, data was only presented up to 2012 and a further update was required. Additionally, due to the magnitude and variability of the epidemic across the country a more detailed analysis of the data to sub-district level was deemed important. This led to the development of a real-time, online TB Surveillance dashboard. The dashboard provides a quick and easy way to visualize and track trends in TB incidence and identify geographic hotspots. Furthermore, it will support the new National HIV, TB and STI strategic plan (2017-2021) which emphasizes the need for a data driven and targeted approach to END TB. The dashboard is available from the NICD website: www.nicd.ac.za.

An accompanying report based on the data available on the dashboard has also been produced. It provides an in-depth interpretation and contextualization of the findings. The latest findings provide reason for optimism, with the year-on-year decline in TB incidence in South Africa since 2012, of 4.1%, 6.0% and 4.8% nationally for the years 2013, 2014 and 2015, respectively. Although this represents only half of what is required, it exceeds the global average year-on-year reduction of 1% to 2%. Notably, in South Africa, KwaZulu-Natal, which carries the highest absolute burden in the country, has shown the greatest reduction over the three-year period, with a year-on-year reduction averaging 10.5%. Similarly, there has been an acceleration of the year-on-year reduction in the Free State from 2.5% in 2013, to 4.8% in 2014 and approaching 9.2% in 2015. Although the broader roll out of antiretroviral therapy (ART) has been shown to be an important contributor in reducing TB incidence; this alone will not be enough.

A striking clue to the success and failure of the achieved reduction in incidence was observed when disaggregating by gender. Most of the declines observed across provinces and reflected nationally, have been driven by successes achieved among females between 25-44 years of age with a 33.6% reduction between 2008 and 2015. These statistics link closely with the large emphasis of the HIV programme, as well as greater health-seeking behaviour among this population group. In stark contrast, the reduction among males in the same age category was only 13.4% for the same period. Specific strategies aimed at this population group are urgently required if South Africa is to reach its End TB goals, including targeted public messaging, increased access through men's health and wellness centres, and male role models. Breaking through this barrier will be challenging, but is likely to realise even greater reductions than in the past.

The observation of over three million new cases of laboratory confirmed TB over the reporting period (2004-2015) highlights the magnitude of the TB burden. Much like HIV, the disease is of a chronic nature, with new cases accumulating over time. However, unlike HIV, TB is curable and the majority of the aforementioned three million TB cases have been cured – a statistic often underappreciated. This highlights the significant and direct value achieved by dealing with the TB epidemic effectively.

The current report provides valuable insights that should be closely integrated into TB control planning for the next five years. The report ends in 2015 however the online TB Surveillance dashboard takes this further allowing ongoing monitoring of the status of this priority disease in South Africa.

END



NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service



ENDING TB in SA – a national and sub-national analysis: 2004-2015

Nazir A Ismail
24 March 2017

Overview

- END TB strategy
- mPTB incidence: temporal trends
 - By province
 - By age and gender
- mPTB incidence : geospatial distribution
- Incidence versus Absolute Burden
- Conclusion



- A world free of tuberculosis
 - Zero deaths
 - Zero disease
 - Zero suffering due to tuberculosis

Goal

- End the global tuberculosis epidemic

INDICATORS	MILESTONES		TARGETS	
	2020	2025	SDG 2030	End TB 2035
Reduction in the number of TB deaths (%) <i>(compared with 2015 baseline)</i>	35%	75%	90%	95%
Reduction in the TB incidence rate (%) <i>(compared with 2015 baseline)</i>	20%	50%	80%	90% <i>(~10/100 000 population)</i>
TB-affected households facing catastrophic costs due to TB (%) <i>(level in 2015 unknown)</i>	0%	0%	0%	0%

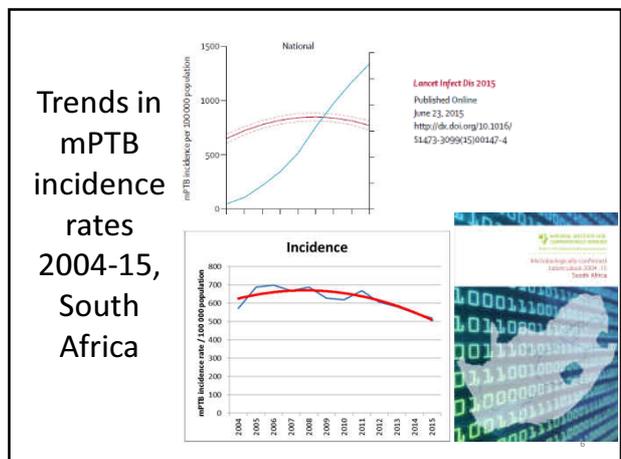
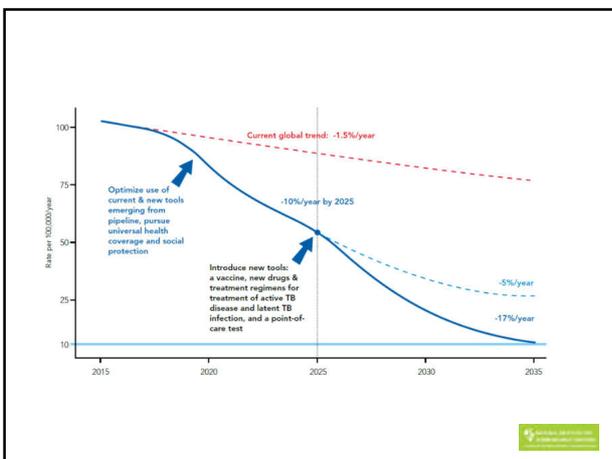


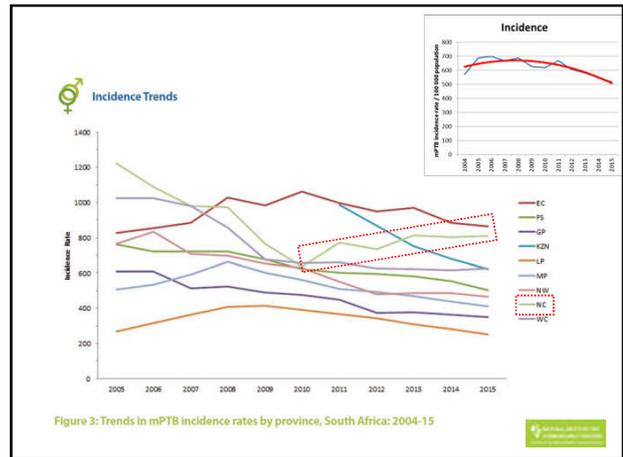
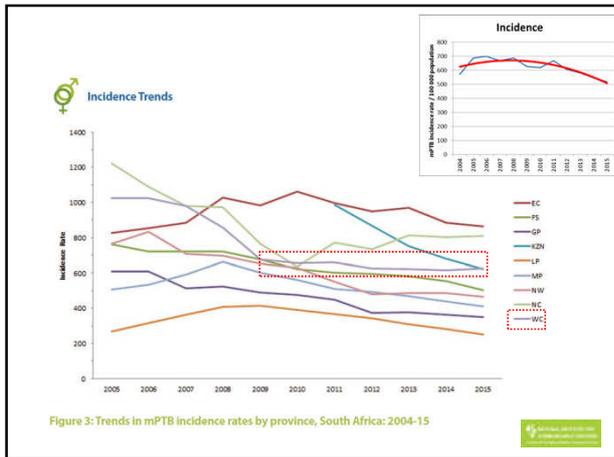
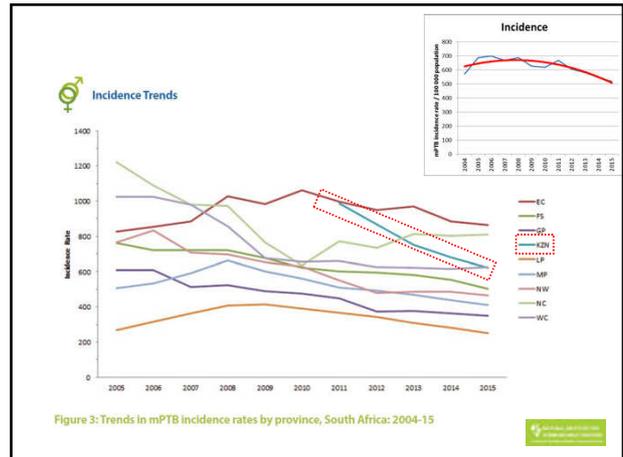
Table 2: mPTB case burden and incidence rates by year, South Africa: 2004-2015

Year	n	Incidence/100000 (95% CI)	Annual change in cases (n)	Annual change in incidence (%)
2004	214 166	572(569-574)	-	-
2005	260 855	687(685-690)	46 689	20.1
2006	269 197	700(697-702)	8 342	1.9
2007	260 406	668(665-670)	-8 791	-4.6
2008	272 702	689(687-692)	12 296	3.1
2009	252 467	629(627-632)	-20 235	-8.7
2010	251 951	619(616-621)	-516	-1.6
2011*	343 960	667(665-669)	-	-
2012*	317 439	606(604-609)	-26 521	-9.1
2013*	309 088	581(579-584)	-8 351	-4.1
2014*	294 590	546(544-548)	-14 498	-6.0
2015*	281 055	520(519-522)	-13 535	-4.8

*Includes data for KwaZulu Natal

† Annual change restored with addition of KwaZulu Natal data

- 3 327 876 mPTB patient episodes (2004-2015)
- Reduction in mPTB incidence 4%-6% pa (last 3 years)



mPTB provincial incidence

- National decline
- Provinces – mixed picture
 - Role of ART important early on
 - KZN – sharpest declines: -13.7%, -9.7% and -8.5%
 - Increase in Northern Cape? ...
 - WC
 - Need for additional set of interventions...NSP
 - Ongoing transmission (ILFU/Contacts/Cascades)
 - Gains in KZN may flatten out



Age and Gender

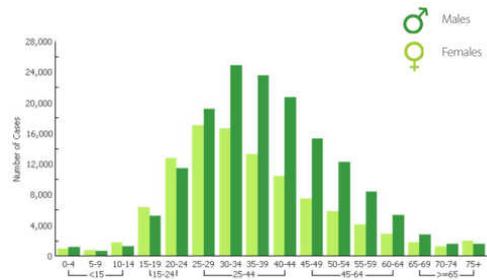
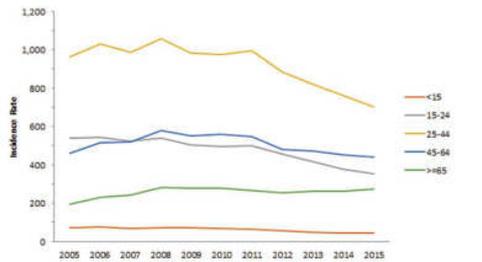


Figure 4: Age and gender population pyramid of mPTB cases, South Africa: 2015

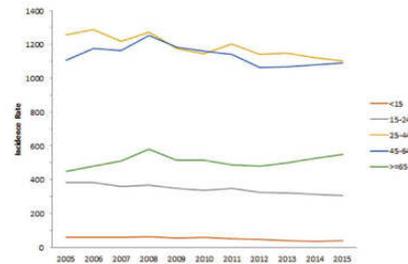
Ladies first



- Decline by -33.6% between 2008-2015
- Upward shift >65 years - ? Impact of ART



Men follow...



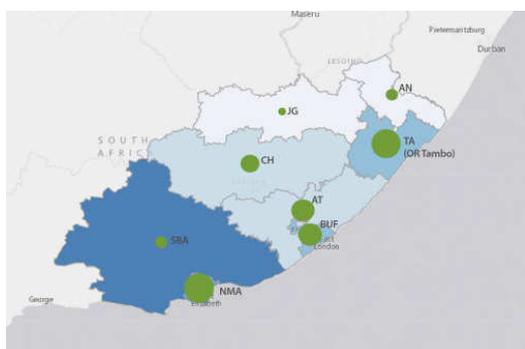
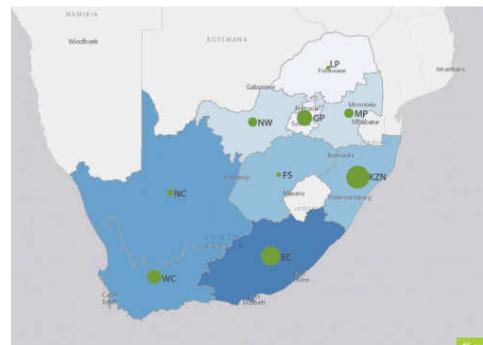
- Decline by -13.4% between 2008-2015
- Upward shift >65 years - ? Impact of ART



- High incidence in younger females
 - Driven by HIV
 - Impact of ART previously observed
- Men carry the highest overall burden
 - Aged over 35 twice as many cases compared to females
 - Slowest declines – important barrier to achieve END TB goals
 - Need male centred services and role models



Geospatial distribution



- 74.2% of the mPTB absolute burden occurs in KZN, EC, GP and WC
- Incidence highest in Western regions
- Heterogeneity is apparent at lower levels
- Approach to the next 5 years needs to be targeted for greatest effect



mPTB Incidence

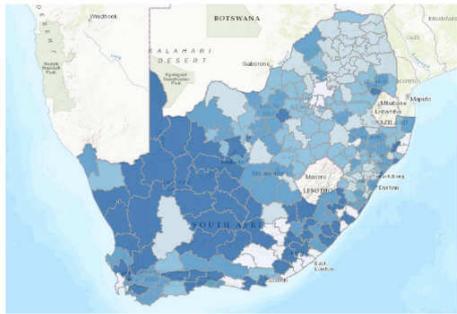


Figure 7: Geospatial distribution of mPTB incidence rates at a sub-district level, South Africa: 2015



mPTB Burden

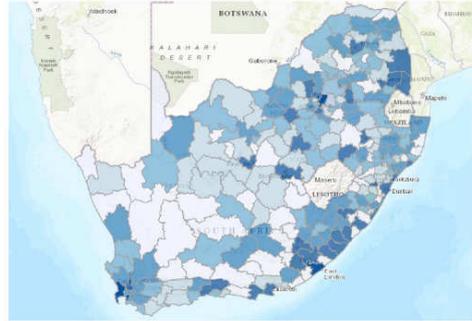
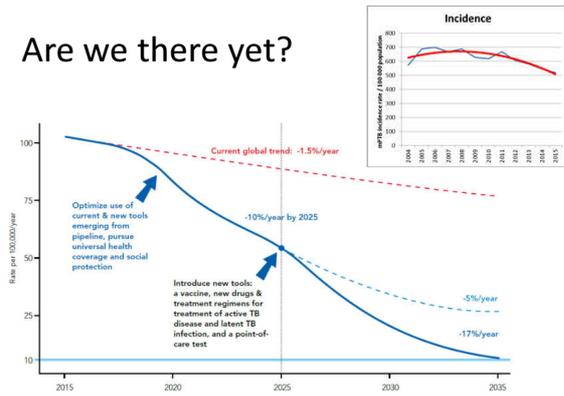


Figure 6: Geospatial distribution of mPTB case burden at a sub-district level, South Africa: 2015



Are we there yet?



What is needed...

- Targeting of geographic hotspots
- Maintain success of the ART program
- Introduce interventions tailored to improve health seeking behaviour among males
 - Men’s wellness programs, role models etc
- Strengthen the care cascades (ILTFU, QI)
- Maximise and support use of data systems including the online TB Surveillance Dashboard
 - Utilization of unique identifier for health services essential



Thank You

