



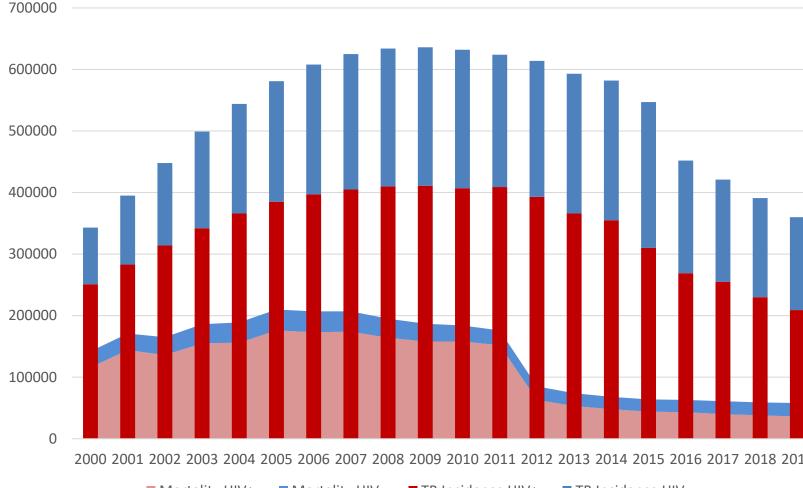
TB Screening guidelines

South Africa Perspective

Salome Charalambous



SA TB incidence & mortality



- 43% decline in estimated TB incidence since 2009
 - 49% in HIV+ Ο
 - 33% in HIV-Ο
- Sharp decline in mortality since 2011 (176,000 to 58,000)
 - 76% in HIV+ \bigcirc
 - 8% in HIV- \bigcirc
 - Stable over last few years Ο

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Mortality HIV+

- Mortality HIV-■ TB Incidence HIV+
 - TB Incidence HIV-



Educational

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RIAS

Educational **TB Prevalence survey - 2018**

CXR not done

0.4% 234 cases identified: Estimated Prevalence: 852/100 000 **Estimated missing cases: 154 000** 35.0% Symptoms & abnormal CXR suggestive of TB 57.8% Abnormal CXR suggestive of TB only 6.8% Symptoms only science & innovation NATIONAL INSTITUT World Health Department: rganization **Division of the National Health Laboratory Service** Science and Innovation REPUBLIC OF SOUTH AFRICA

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More half of the cases had an abnormal CXR only

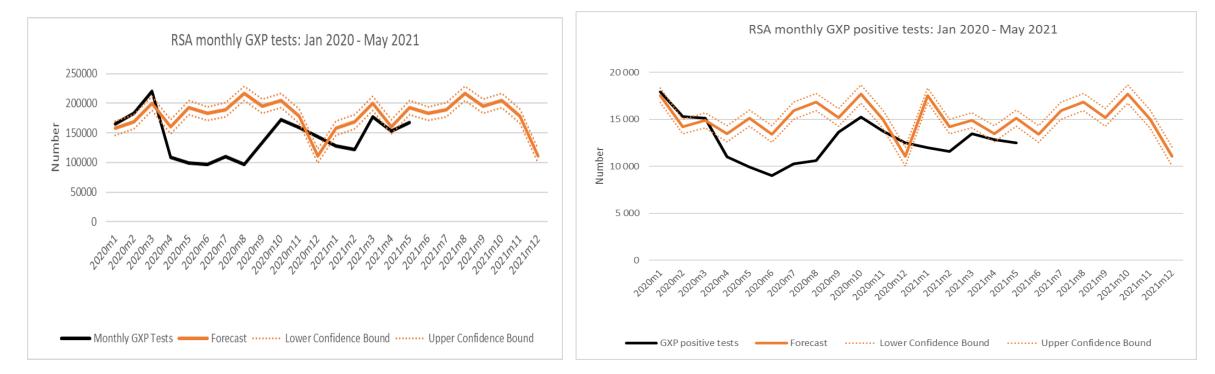
6.8% had TB symptoms only



Educational Fund **SIAS** GXP testing volumes and Positive tests

Monthly GXP tests

Monthly GXP positive tests





Educational Fund **SIAS**

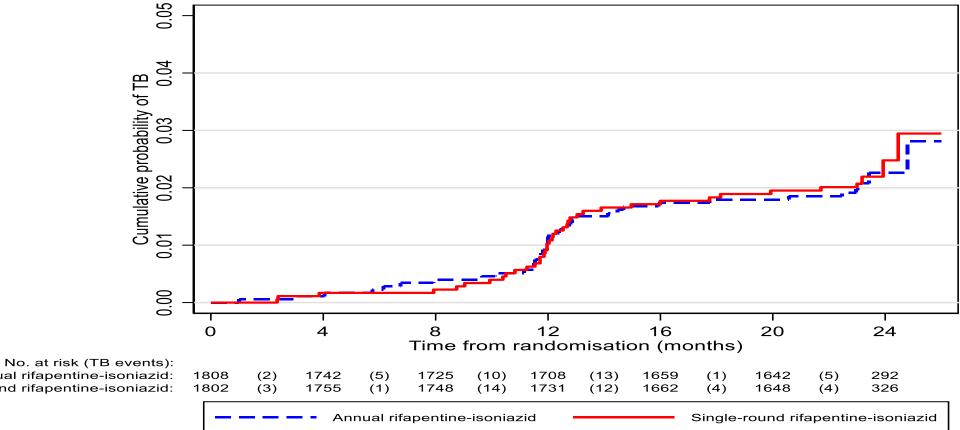
 Cluster randomized trial: routine testing of all high TB-risk individuals: HIV positive, Previous TB, TB contacts

| Yield by risk factor | HIV+ n=21734 | TB Contact n= 12492 | Prior TB n=1573 | Overall Yield n=30513 | Overall Yield Excluding Prior TB N=28402 | Overall yield in patients without symptoms N=21829 |
|---|-----------------|---------------------------|--------------------|-----------------------------|---|--|
| Positive Xpert Ultra (including trace) | 6.9% | 9.3% | 15.7% | 7.8% | 7.3% | 6.2% |
| Positive Xpert Ultra (excluding trace) | 4.2% | 6.7% | 11.1% | 5.2% | 4.9% | 3.7% |

 TUTT demonstrated 17% increase in yield in TUTT compared to SOC clinic
Lebina, CROI 2021

WHIP₃TB Trial

Evaluating the effectiveness of weekly rifapentine plus isoniazid for 3 months compared with periodic rifapentine plus isoniazid for 3 months and 6 months of daily isoniazid in HIV-positive individuals



Annual rifapentine-isoniazid: Single-round rifapentine-isoniazid:



TUBERCULOSISFOUNDATION

Churchyard, CROI 2020





TB detected at the month 12 and 24 screen

| | Month 12 | Month 24 |
|--|--------------|-----------|
| Culture MTB positive or Xpert positive* N (%) | 30 | 5 |
| Symptomatic N (%) | 4 (13.3%) | 0 |
| Abnormal CXR N (%) | 4/29 (13.8%) | 1/4 (25%) |

TB screen was done using symptoms, chest radiograph and sputum for liquid culture * 28 are culture positive and 2 are Xpert positive



Churchyard, CROI 2020





Educational Fund **Post COVID-19 TB Response plan RIAS**

- Combined COVID-TB Testing
- Targeted Universal Testing
- Increased contact tracing
- Introduction of digital CXRs at facilities
- Roll-out of TB LAM testing at facilities
- CCMDD for TB and TPT



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