

END TB



Global and Regional Situation of TB

And The END TB Strategy

Ikushi Onozaki MD, MPH, FFPH

WHO Myanmar

Former Lead, National TB Prevalence Surveys, WHO
Global Task Force on TB Impact Measurement

MMA TB Forum, 3 Feb 2018



GLOBAL TUBERCULOSIS REPORT

2017




Global TB Situation

In the context of:

- Global TB strategies and broader development goals, and associated targets

Based on:

- Annual rounds of global TB data collection (since 1997) implemented by WHO 
- Other databases: WHO, World Bank, UNAIDS

Tuberculosis is the leading infectious killer

Source: Global TB Report 2017



1.7 MILLION TB DEATHS

INCLUDING 0.4 MILLION TB DEATHS AMONG PEOPLE WITH HIV*

TB is the top infectious killer worldwide

TB is also the leading cause of deaths due to antimicrobial resistance and among people with HIV



MDR-TB crisis with gaps in detection and treatment

Only 1 in 5 needing MDR-TB treatment were enrolled on it



US\$ 2.3 BILLION GAP

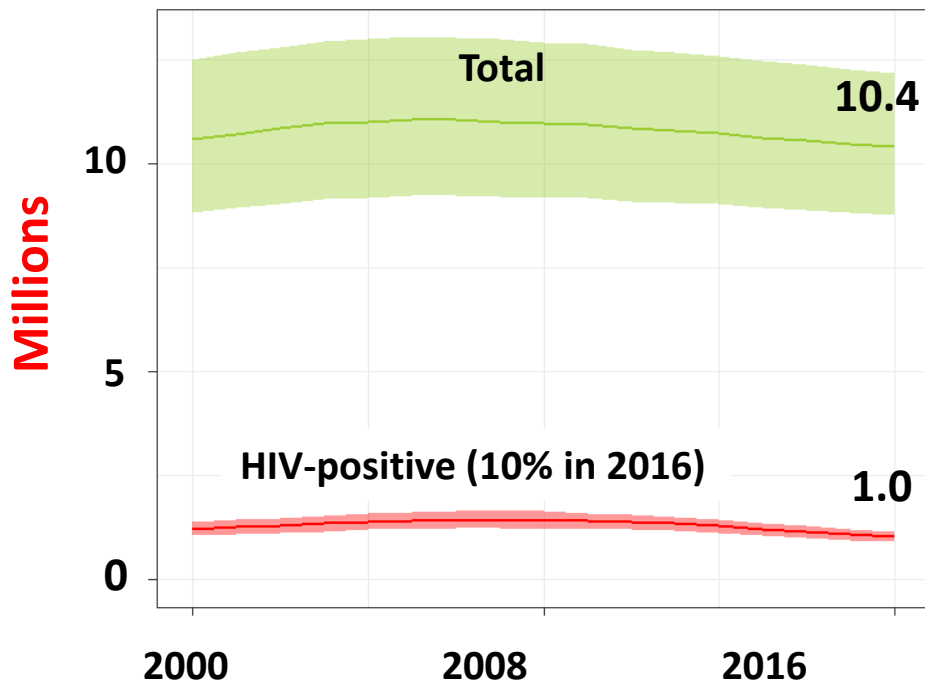
Funding shortfall for TB implementation

Gap of over US\$1.2 billion per year for TB research

Current actions and investments are falling far short

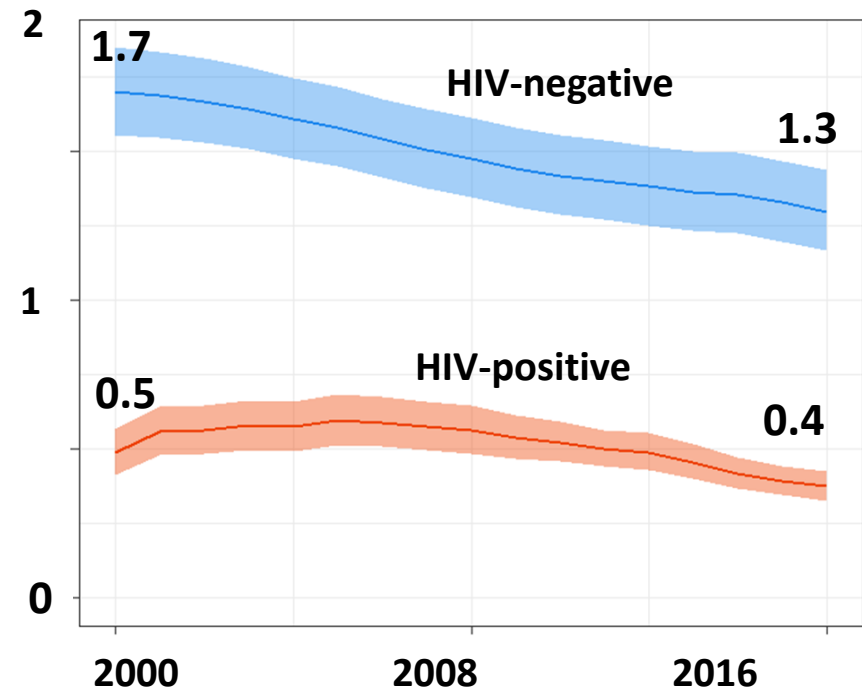
Estimates of TB disease burden 2000–2016

TB incidence



Incidence rate falling at about 2% per year

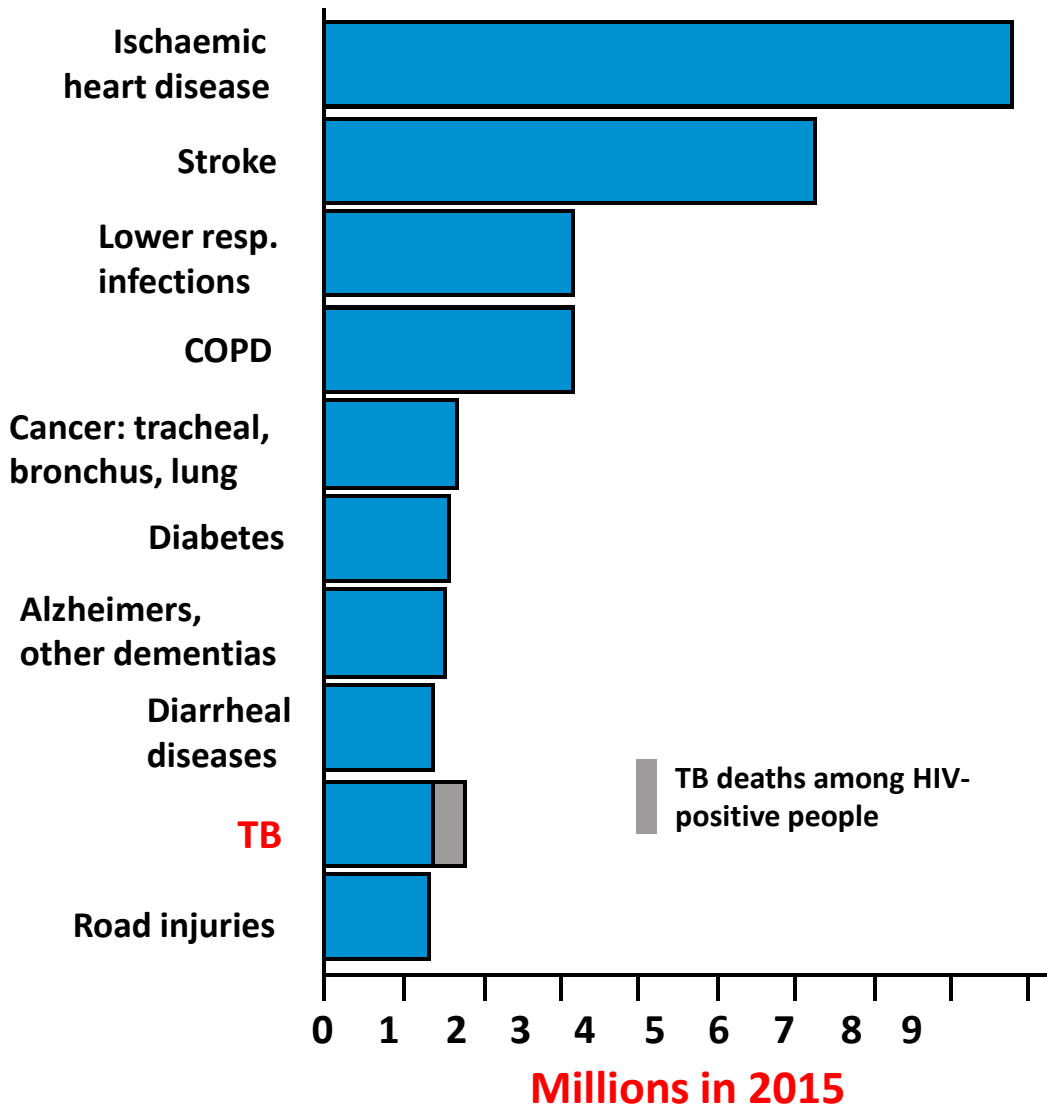
TB deaths



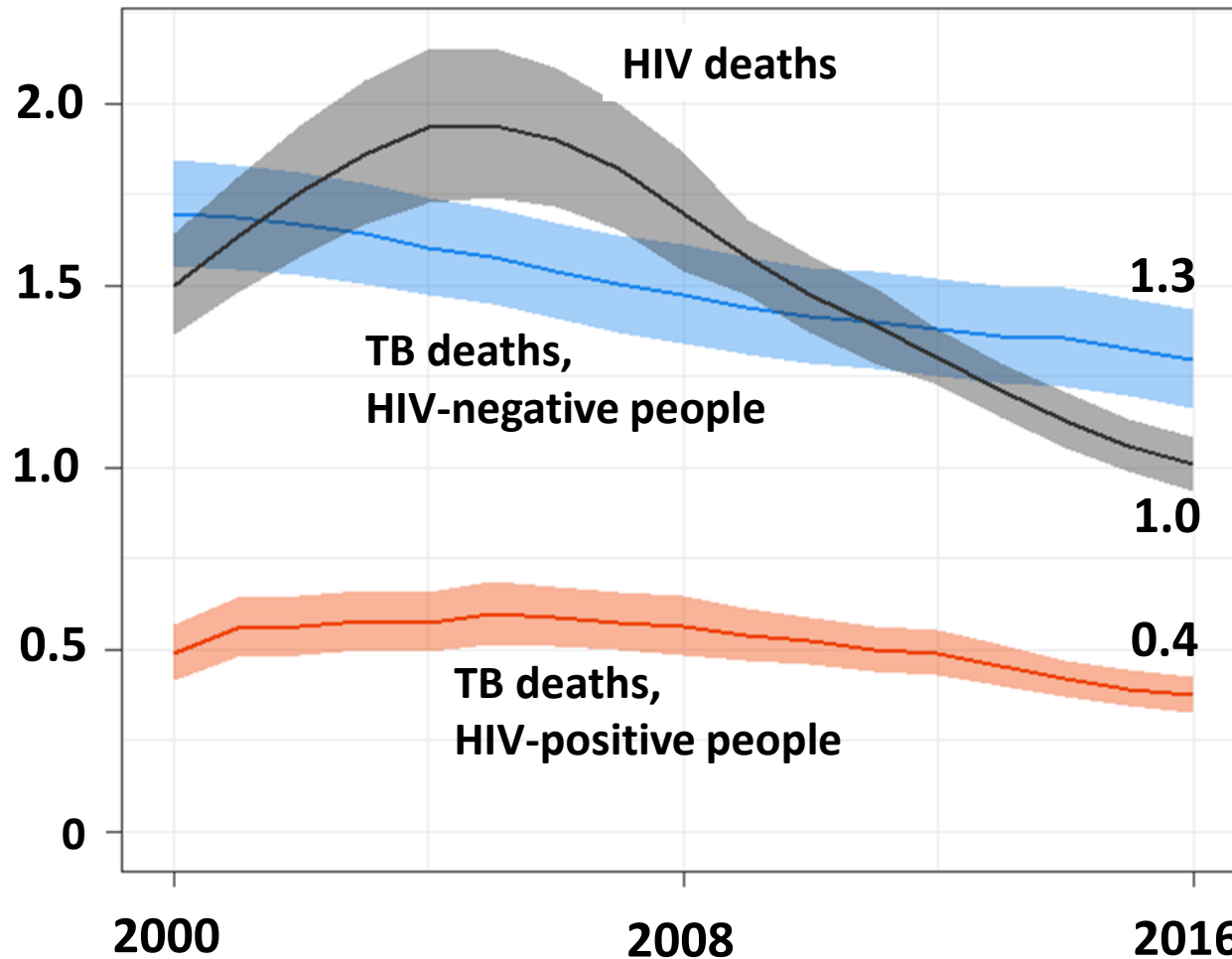
Mortality rate falling at about 3% per year

TB is one of top 10 causes of death worldwide

ranked 9th, top infectious disease killer



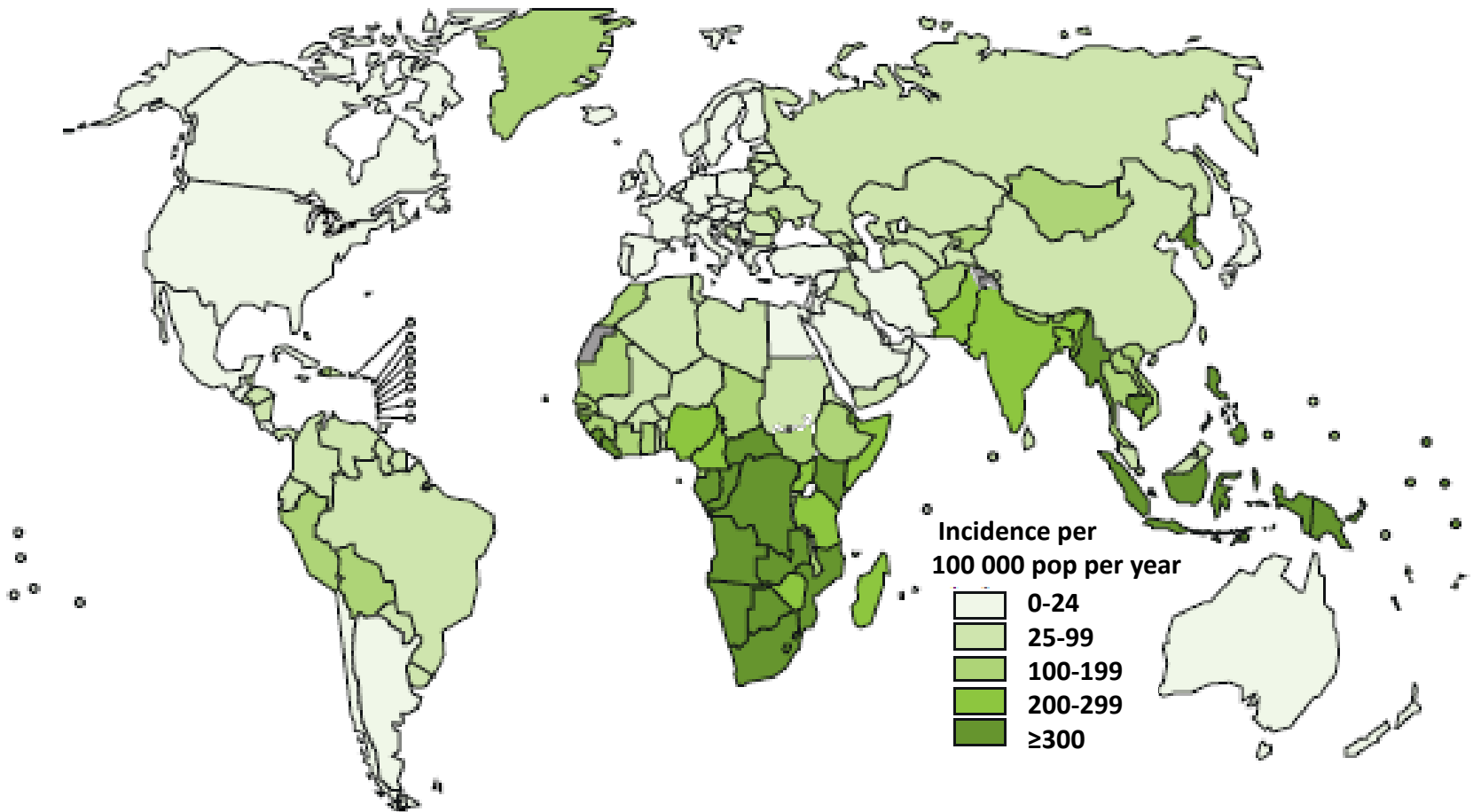
TB has caused more deaths than HIV since 2012



40% of HIV deaths might be due to TB !!

TB is in every country

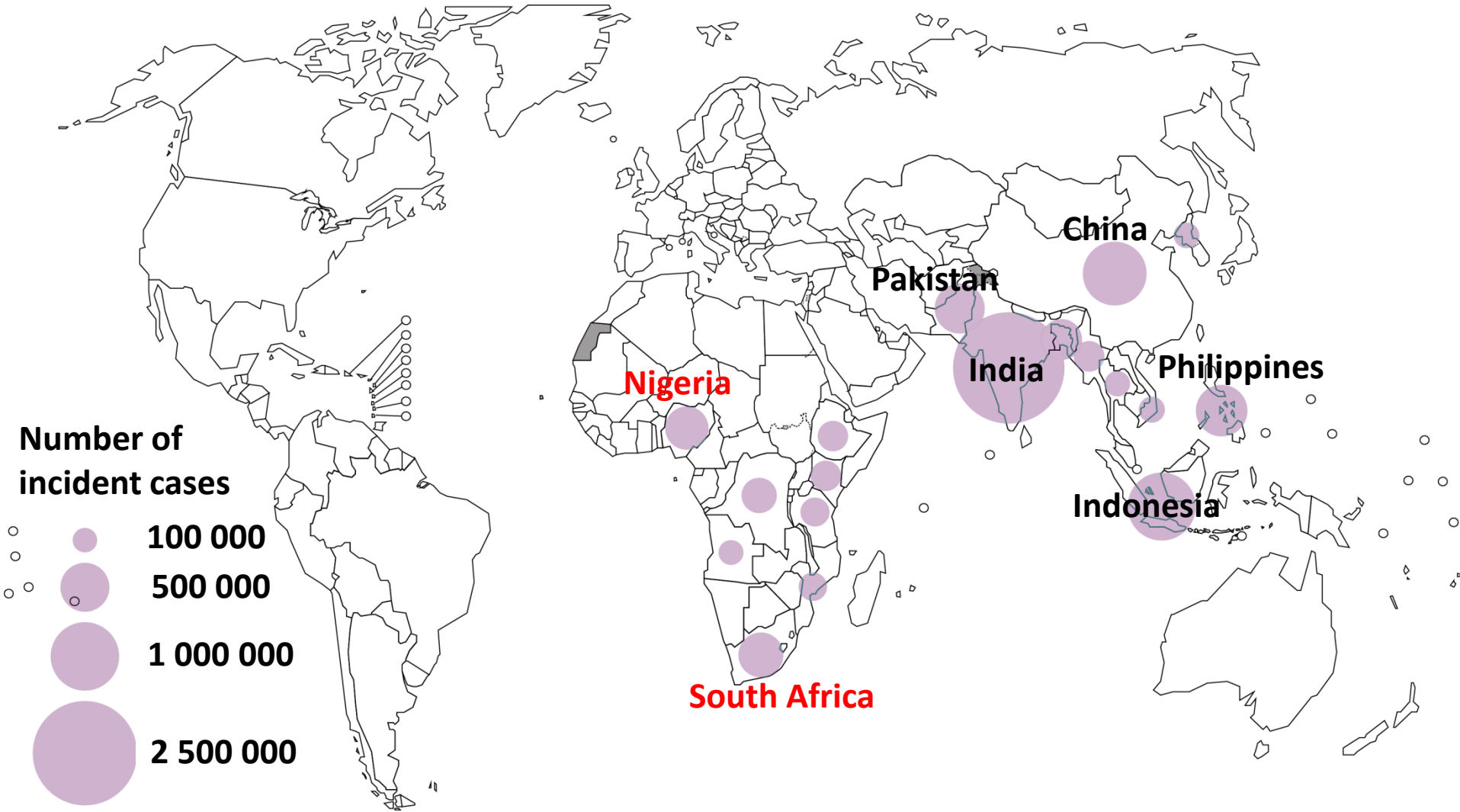
Highest incidence rates in Africa and parts of Asia



45% South-East Asia, 25% Africa, 17% Western Pacific, 7% Eastern Mediterranean, 3% Americas, 3% Europe

5 countries = 56% of cases in 2016

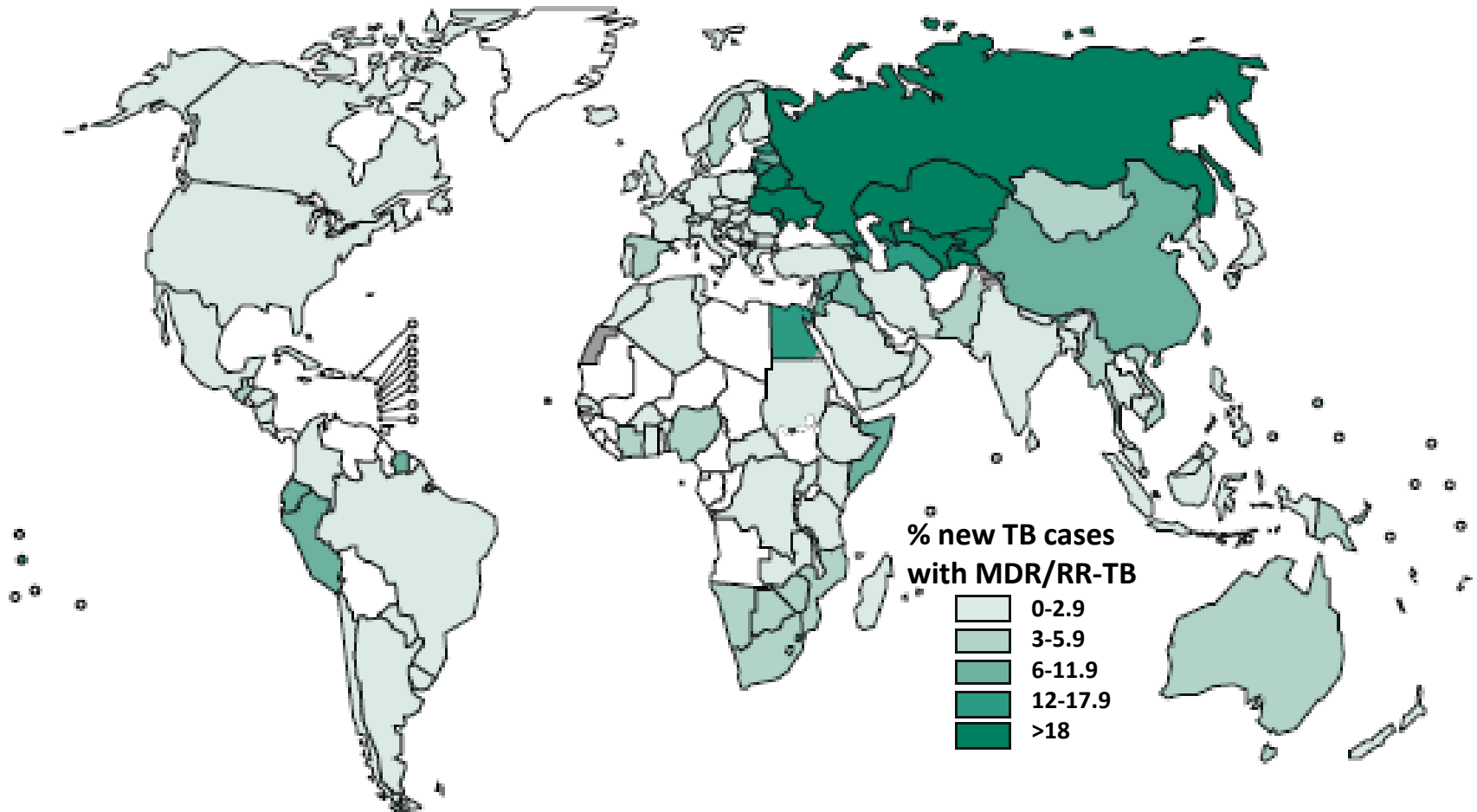
7 countries account for 64%



circles shown for countries with at least 100,000 incident cases in 2016

Drug-resistant TB in every country (n=160) where it has been measured

**Globally: 600,000 new cases of TB resistant to rifampicin
490,000 of which had MDR-TB**



MDR/RR-TB: 3 countries, 47% cases

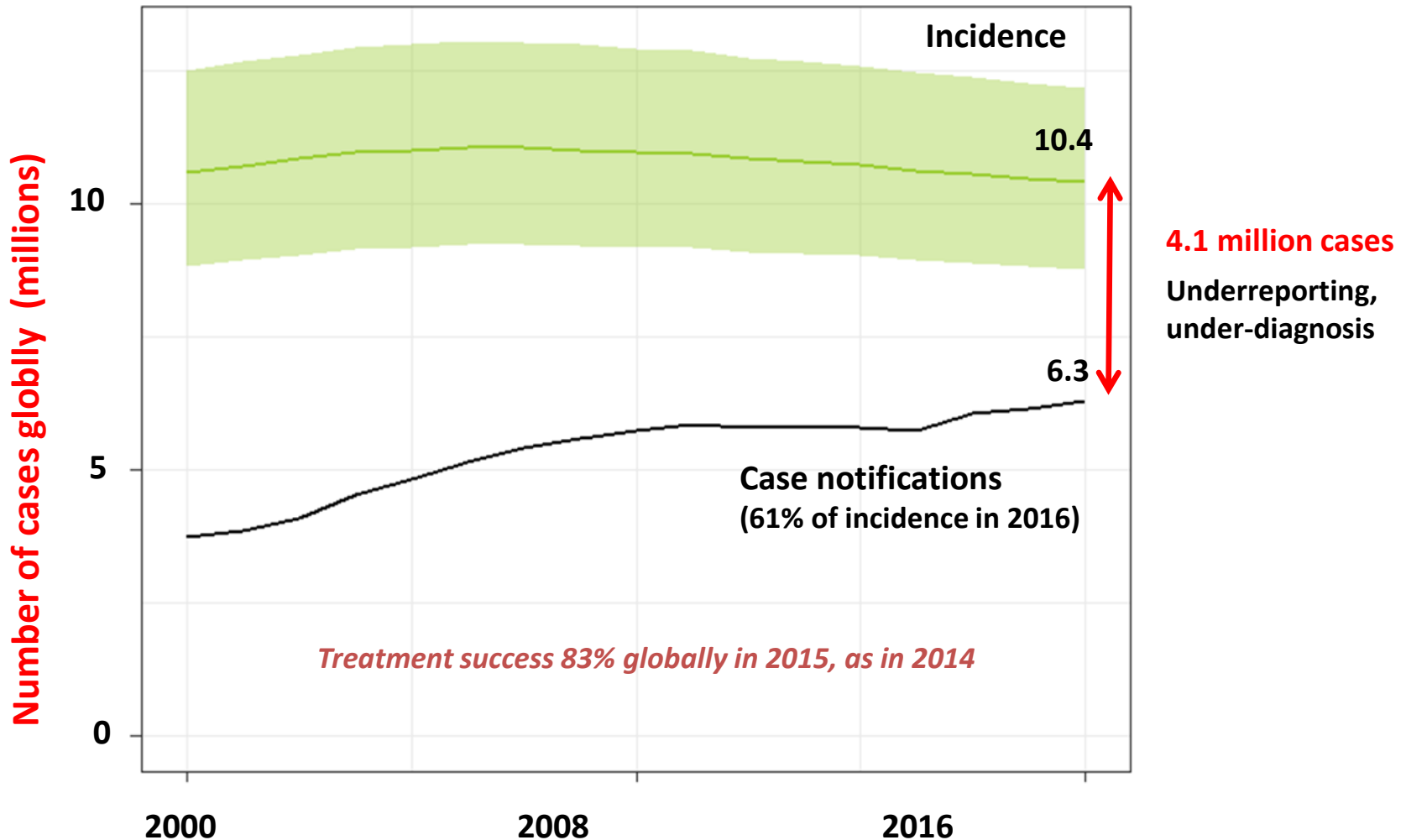


circles shown for countries with at least 1000 incident cases in 2016

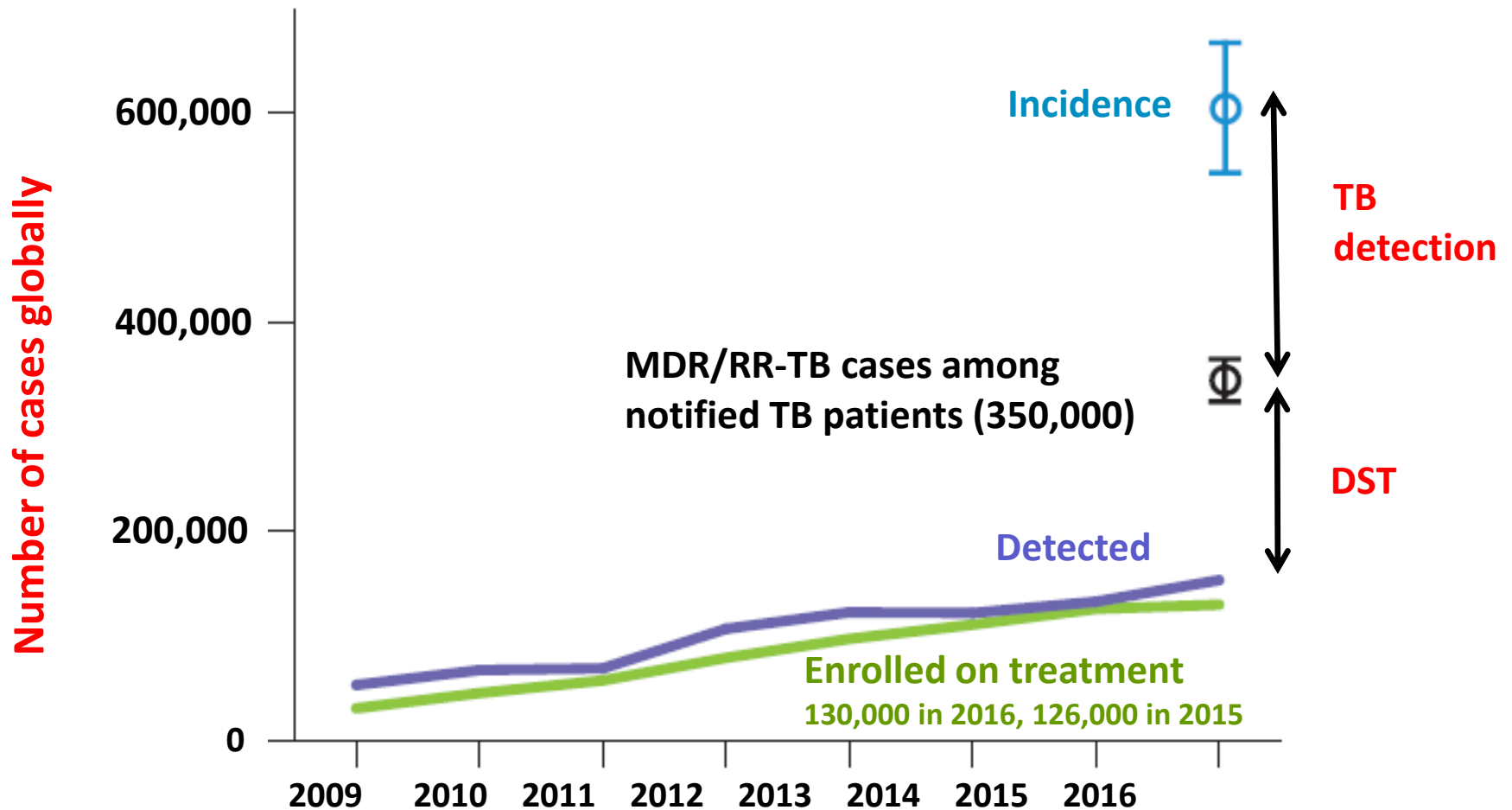


GAPS NEED TO TACKLE

Case notifications increasing but large incidence: notification gap

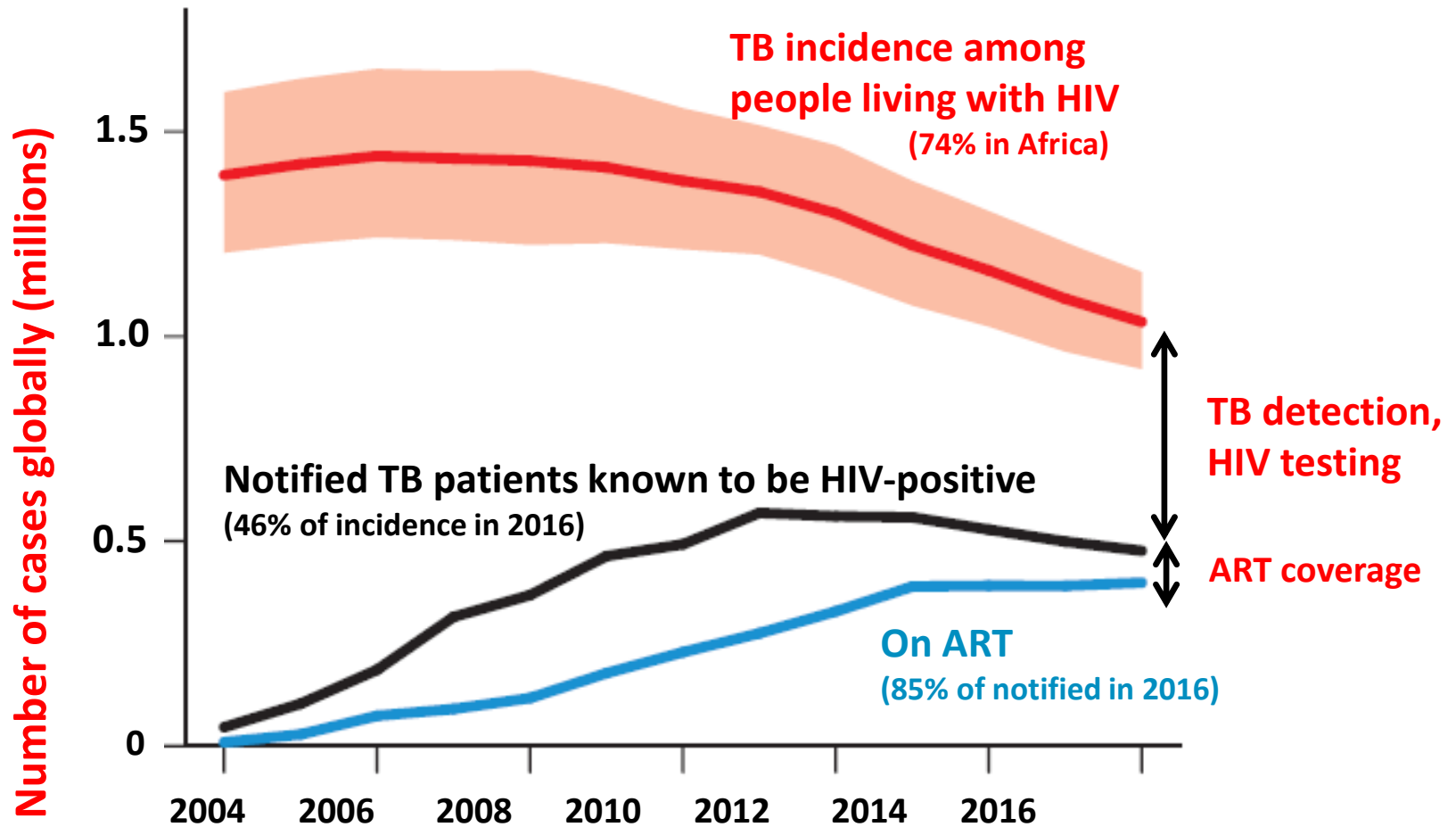


Drug-resistant TB: treatment enrolments and gaps



Treatment success 54% in 2014, up from 52% in 2013

Global gaps in coverage of ART for HIV-positive TB patients



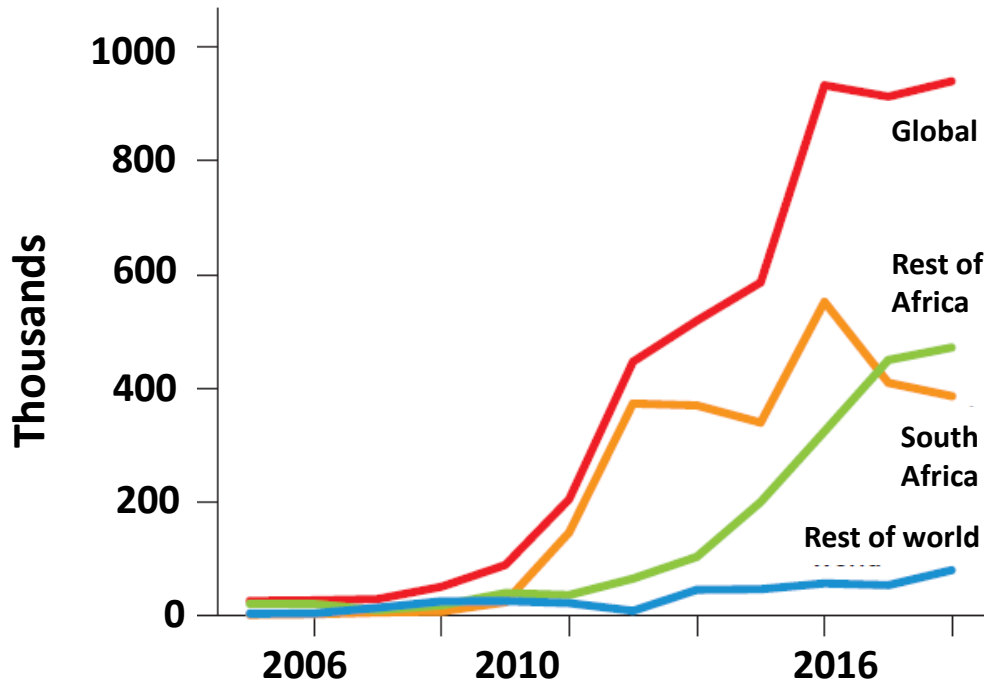
Treatment success: 78% in 2015, up from 75% in 2014

TB prevention services

**Preventive treatment for latent TB infection (LTBI),
BCG vaccination, infection control**

1.7 billion people globally have LTBI, 23% world's population

**Preventive treatment for LTBI,
people living with HIV**



**Children <5,
household contacts
162,000 started on treatment
for LTBI in 2016, 13% of the
estimated 1.3 million eligible
(up from 7% in 2015)**

18 (down from 21) of 30 high TB/HIV burden countries did not report data

Two overarching messages

- 1. Burden of TB disease still high, affecting all countries, all ages, men, women and children**
- 2. There is progress, but it is slow - not fast enough to reach targets or make major headway in closing persistent gaps**

The opportunity of the SDG era to reach the end TB targets



**SDG TARGET 3.3 – BY 2030
END THE TB EPIDEMIC**

The End TB Strategy: Vision, Targets and Pillars



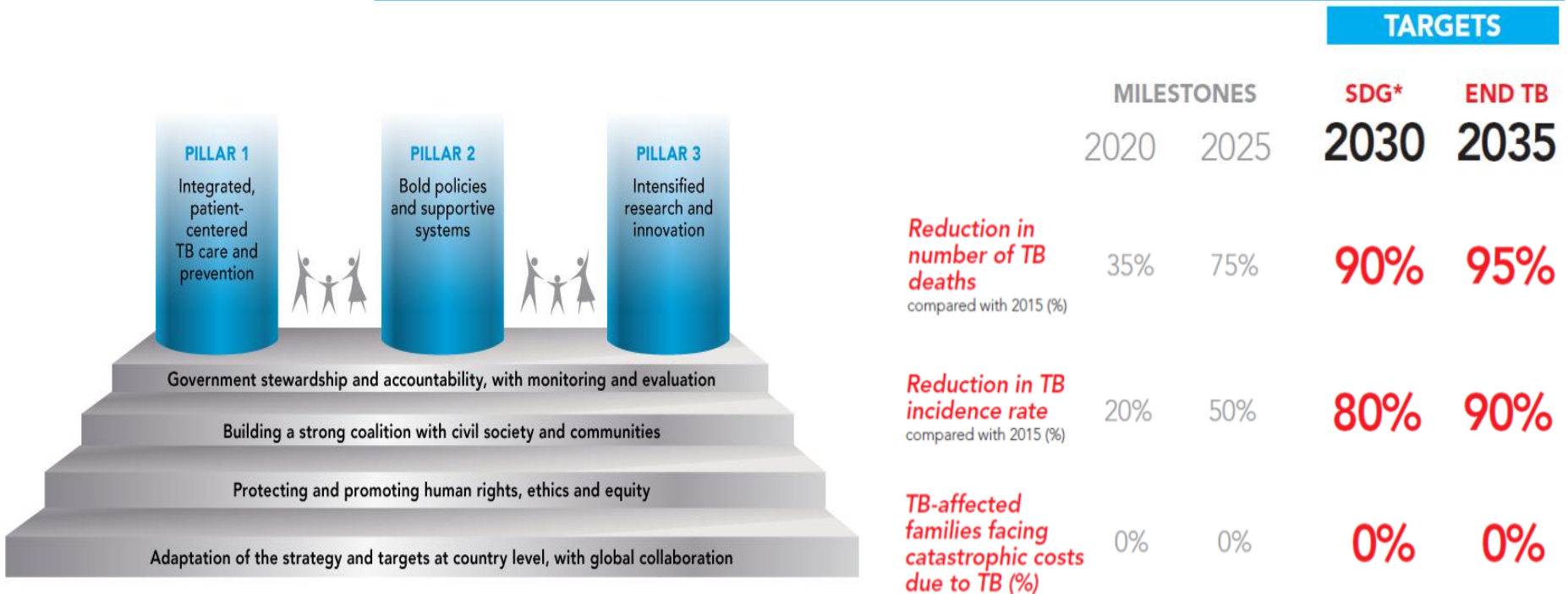
Vision:

A world free of TB

Zero TB deaths, Zero TB disease, and Zero TB suffering

Goal:

End the Global TB epidemic

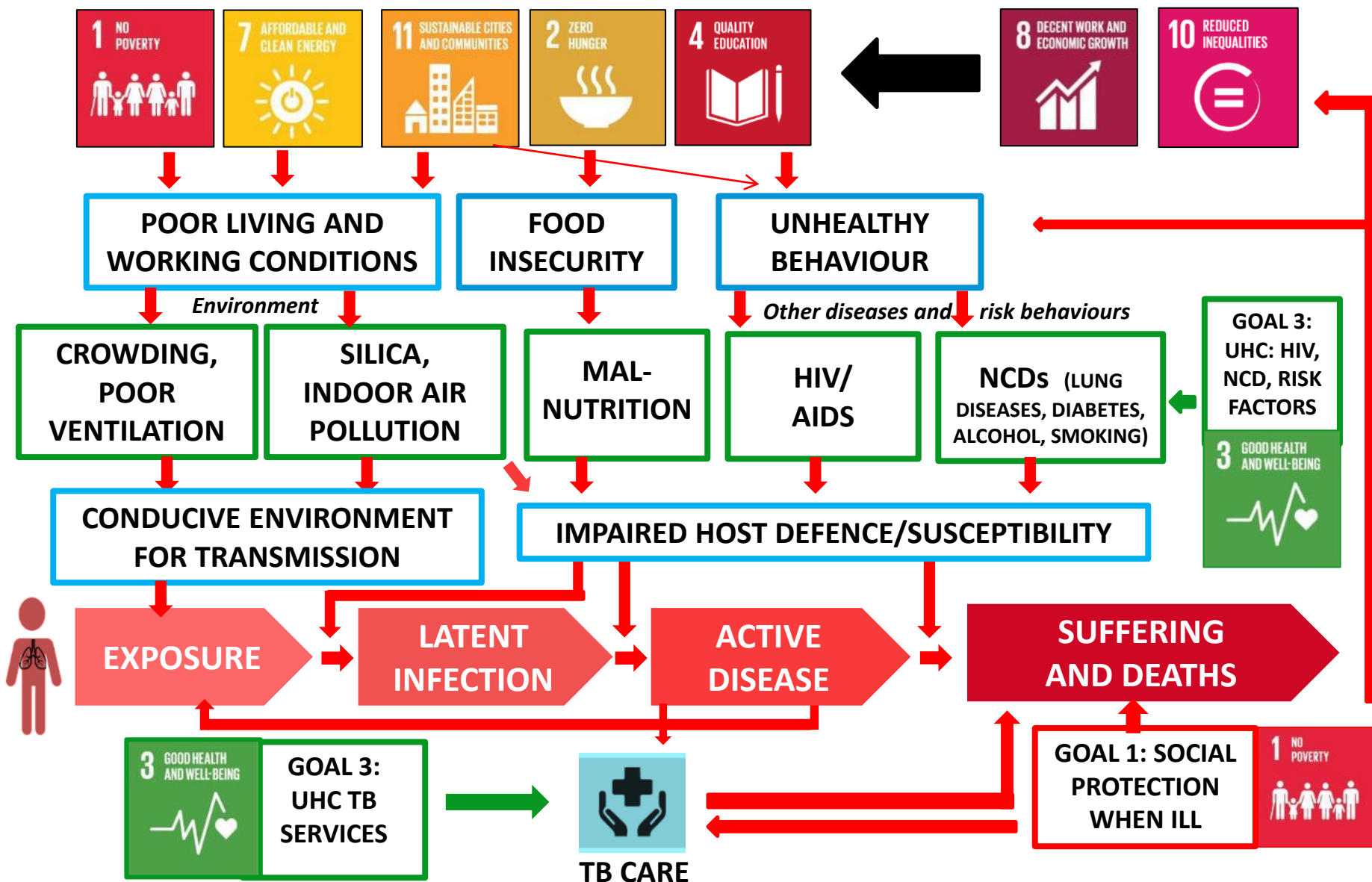


DOTS → STOP TB Strategy → **End TB Strategy**

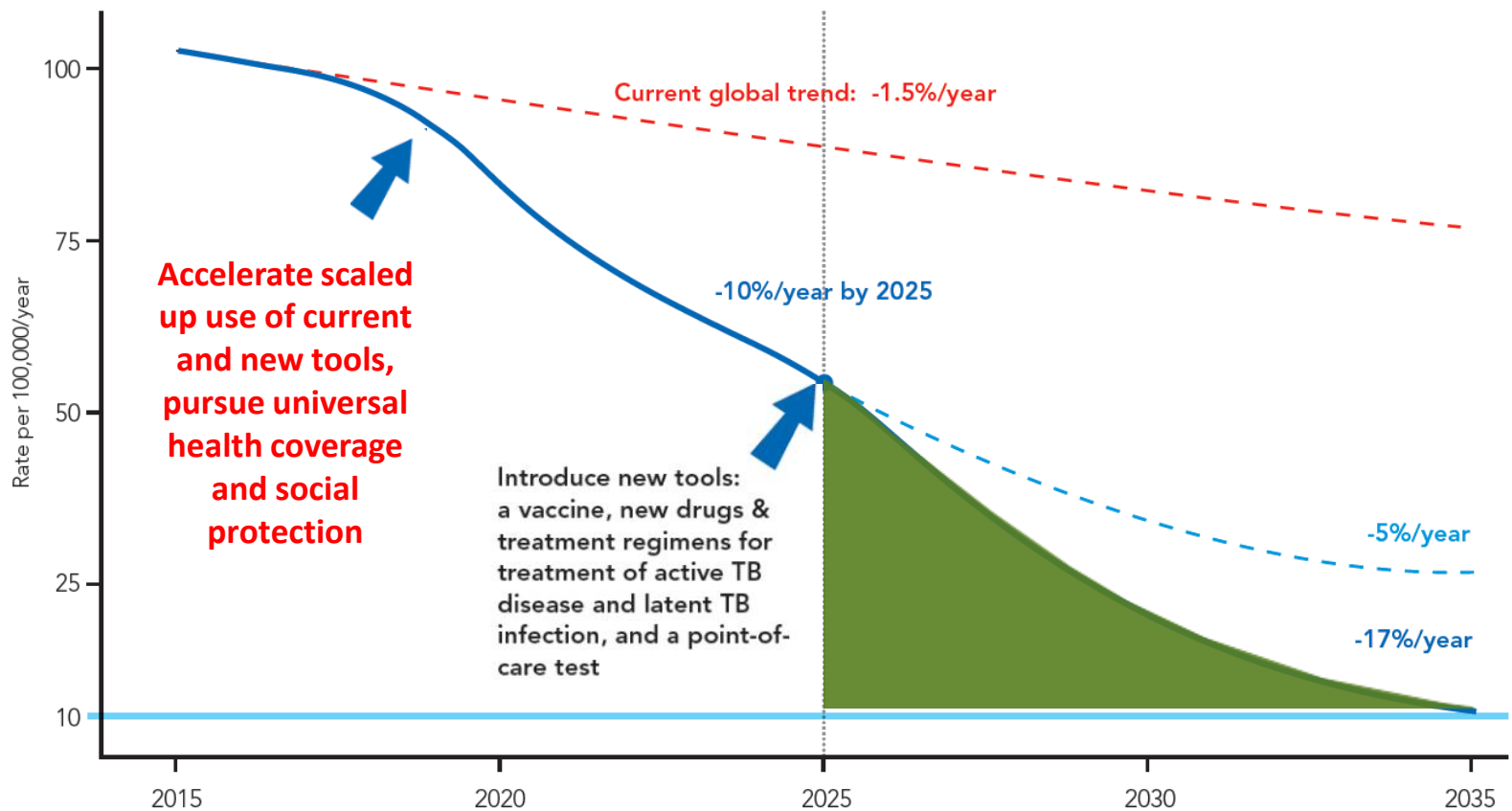




Using a multisectoral approach to end TB



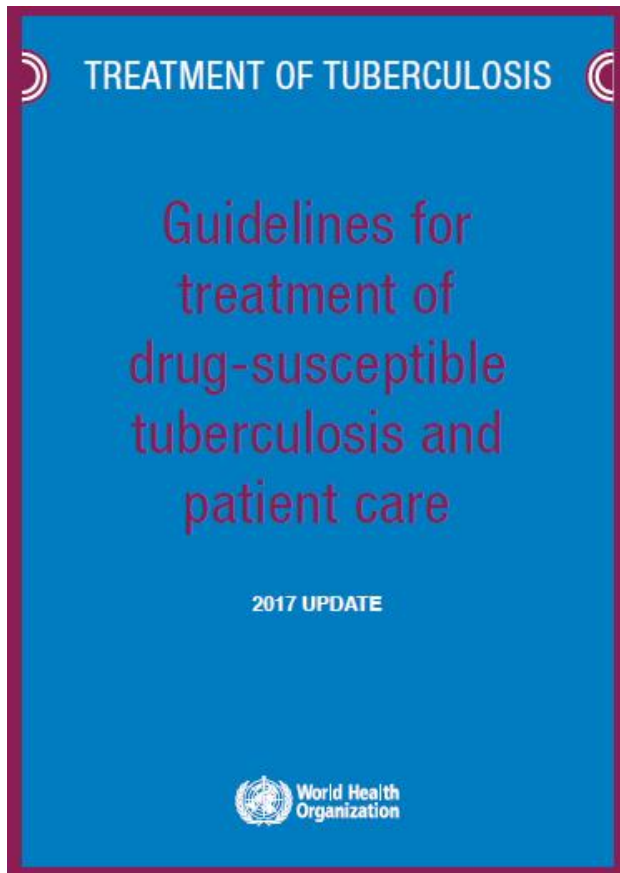
Accelerating to reach the WHO & SDG End TB targets



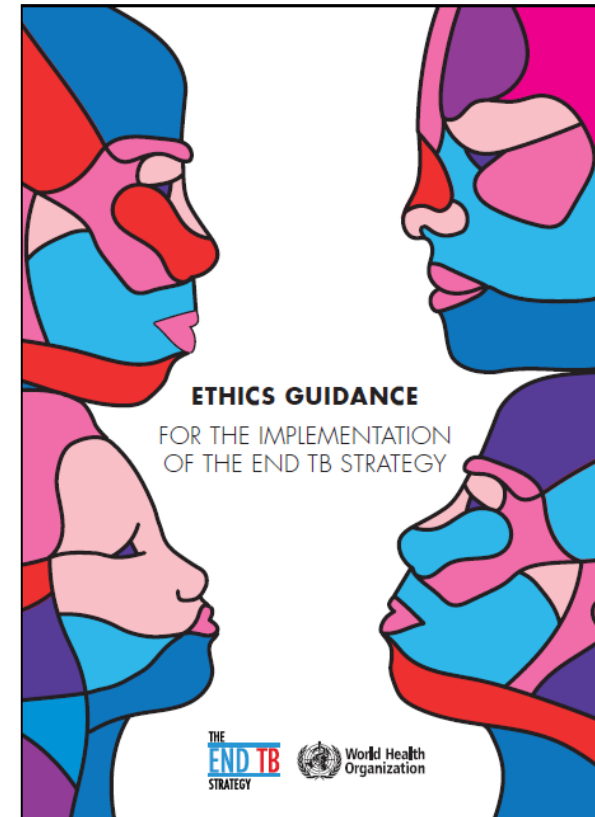
A hand is shown from the left, holding a large, rounded blue sign. The sign contains white text. The background is white with a grey horizontal bar on the right side.

**First, accelerate uptake
of existing tools for diagnosis, care
and prevention to scale up the
TB response now**

New guidelines for treatment of DS-TB and ethics guidance



- Provision of a package of interventions – on **patient care and support for all patients**.
- Use of **digital health technologies**
- Effective treatment administration options such as **community or home-based treatment**, over facility-based treatment.
- **Decentralized model of care** over a centralized model for patients on MDR-TB treatment.



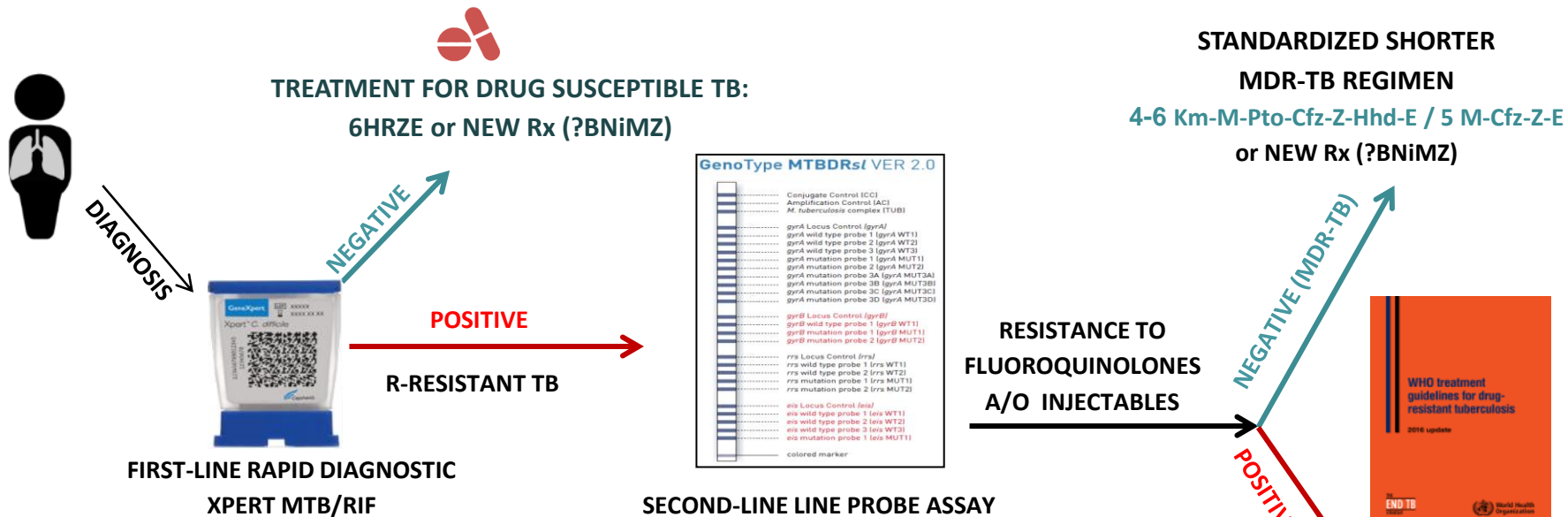
Compendium of WHO guidelines



With 33 associated standards

http://www.who.int/tb/features_archive/TB_guidelines_associated_standards/en/

Precision in TB diagnosis and treatment possible in 2017



**Second, look ahead to harness
innovations**



World Health
Organization



**GLOBAL TB
PROGRAMME**

END TB

Transformational innovations to End TB

Precision medicine



Genomics



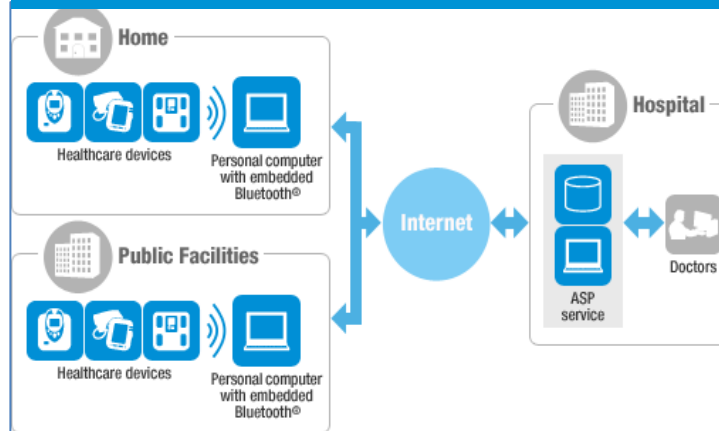
Big data



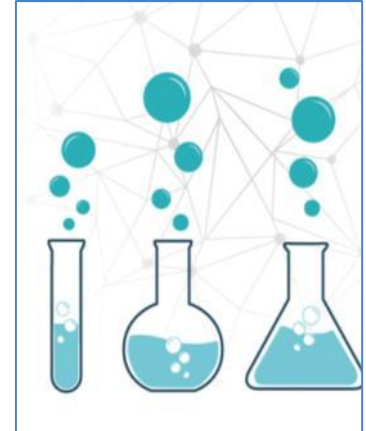
Digital technologies



Internet of things



Research



High-level spotlight on ending TB



END TB

FIRST WHO GLOBAL MINISTERIAL CONFERENCE
ENDING TB IN THE SUSTAINABLE DEVELOPMENT ERA:
A MULTISECTORAL RESPONSE
16-17 NOVEMBER 2017, MOSCOW, RUSSIAN FEDERATION



G20 GERMANY 2017
HAMBURG



**APEC
VIET NAM
2017**



**ASEAN 50
PHILIPPINES 2017**
★ ★ ★ ★ ★ ★ ★ ★ ★ ★
PARTNERING FOR CHANGE, ENGAGING THE WORLD



World Health
Organization

END TB



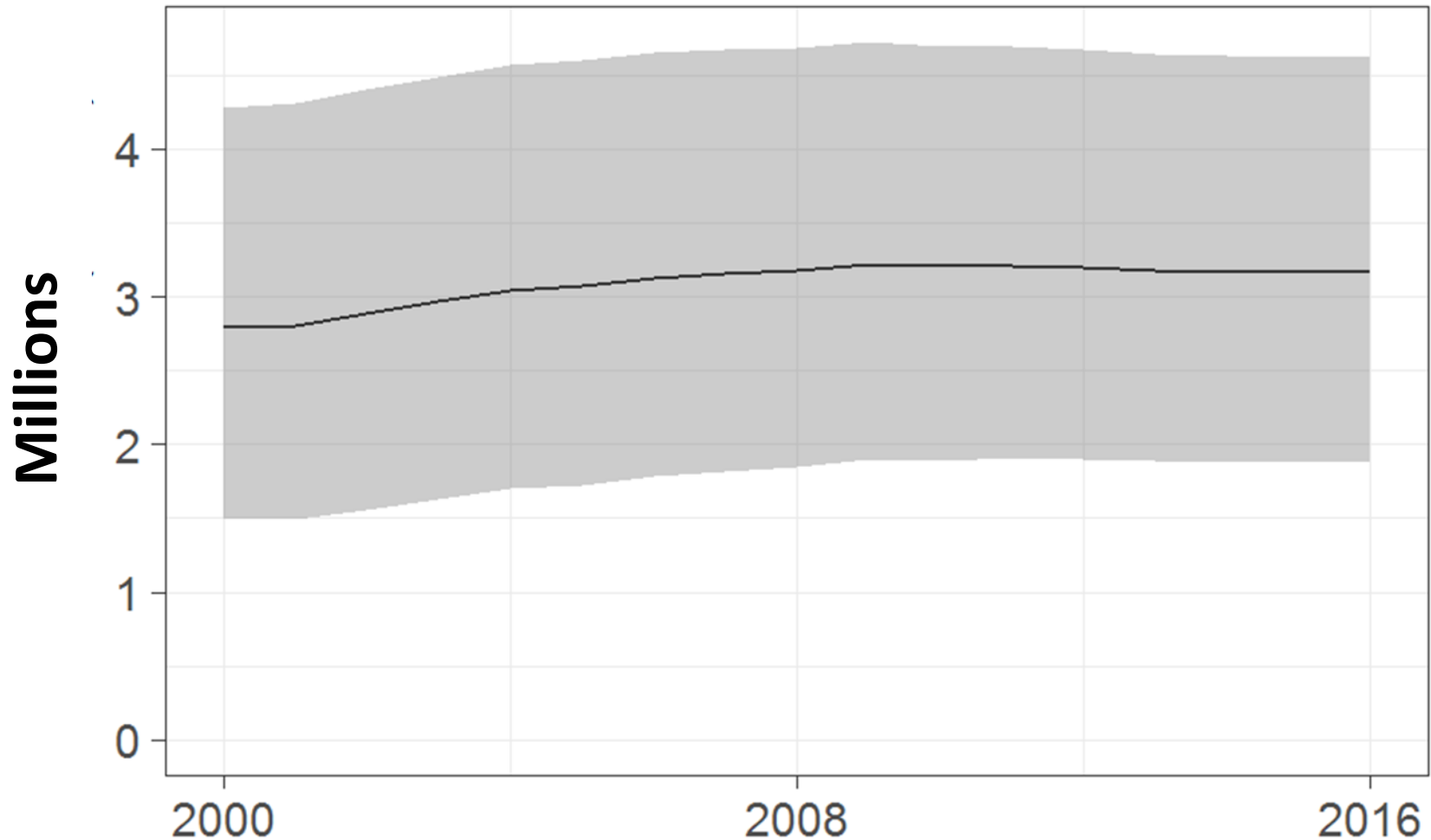
Moscow declaration

- Move rapidly to achieve universal health coverage by strengthening health systems and improving access to people-centered TB prevention and care, ensuring **no one is left behind**.
- Mobilize sufficient and sustainable financing through increased domestic and international **investments to close gaps in implementation and research**.
- **Advance research and development of new tools** to diagnose, treat, and prevent TB.
- Build accountability through a framework to track and review progress on ending TB, including **multisectoral approaches**.
- Ministers also promised to minimize the risk and spread of drug resistance and do more to engage people and communities affected by, and at risk of, TB.

LEARNING FROM COMMUNITY IN REGIONAL NEIGHBORS

Lives saved by TB treatment

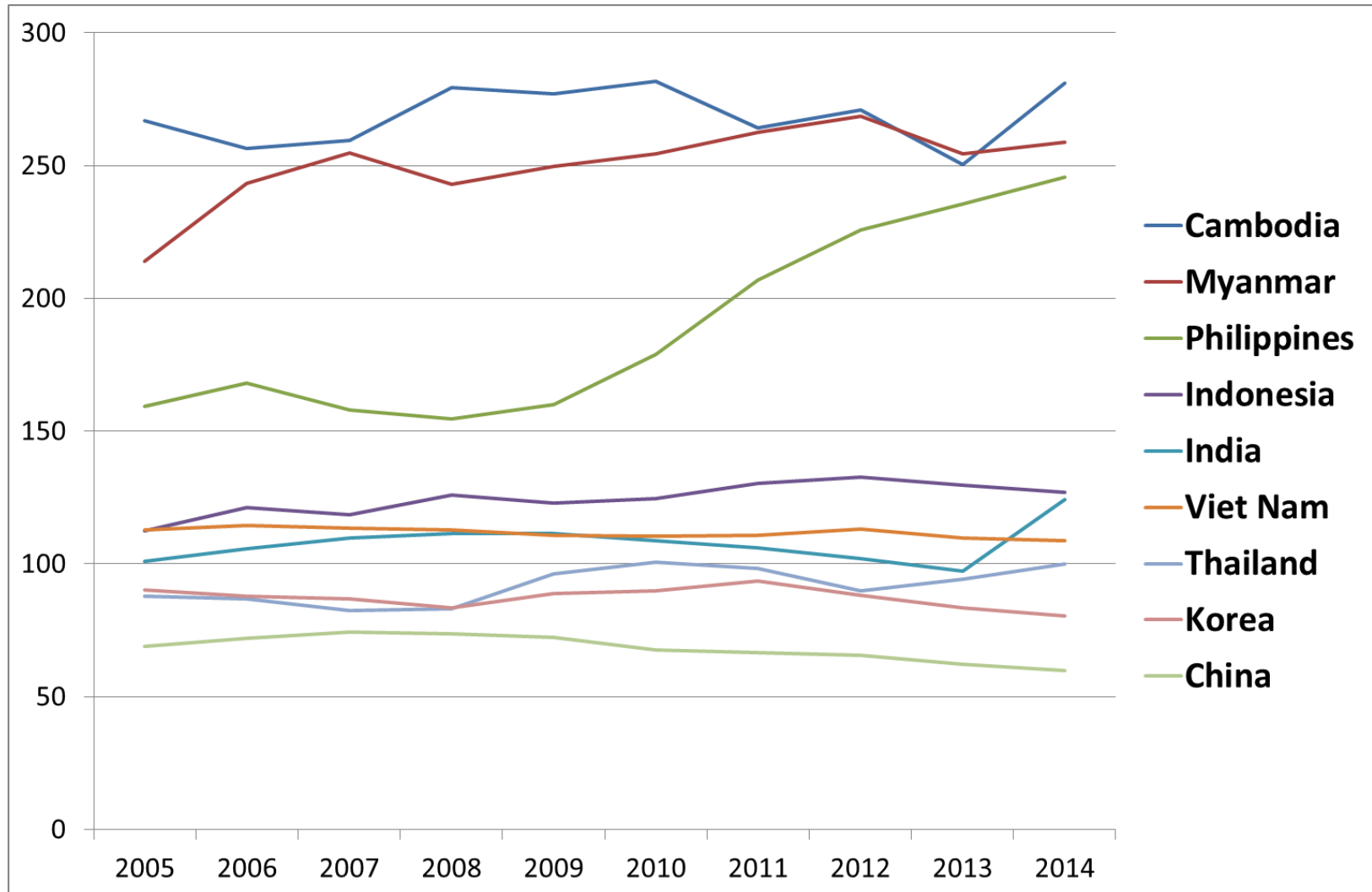
cumulative total 53 million 2000–2016



We have been saving lives. It is a great achievement. However.....

Case Notification Rate – after the completion of DOTS Expansion, 2005, in Asia: No Decline of TB

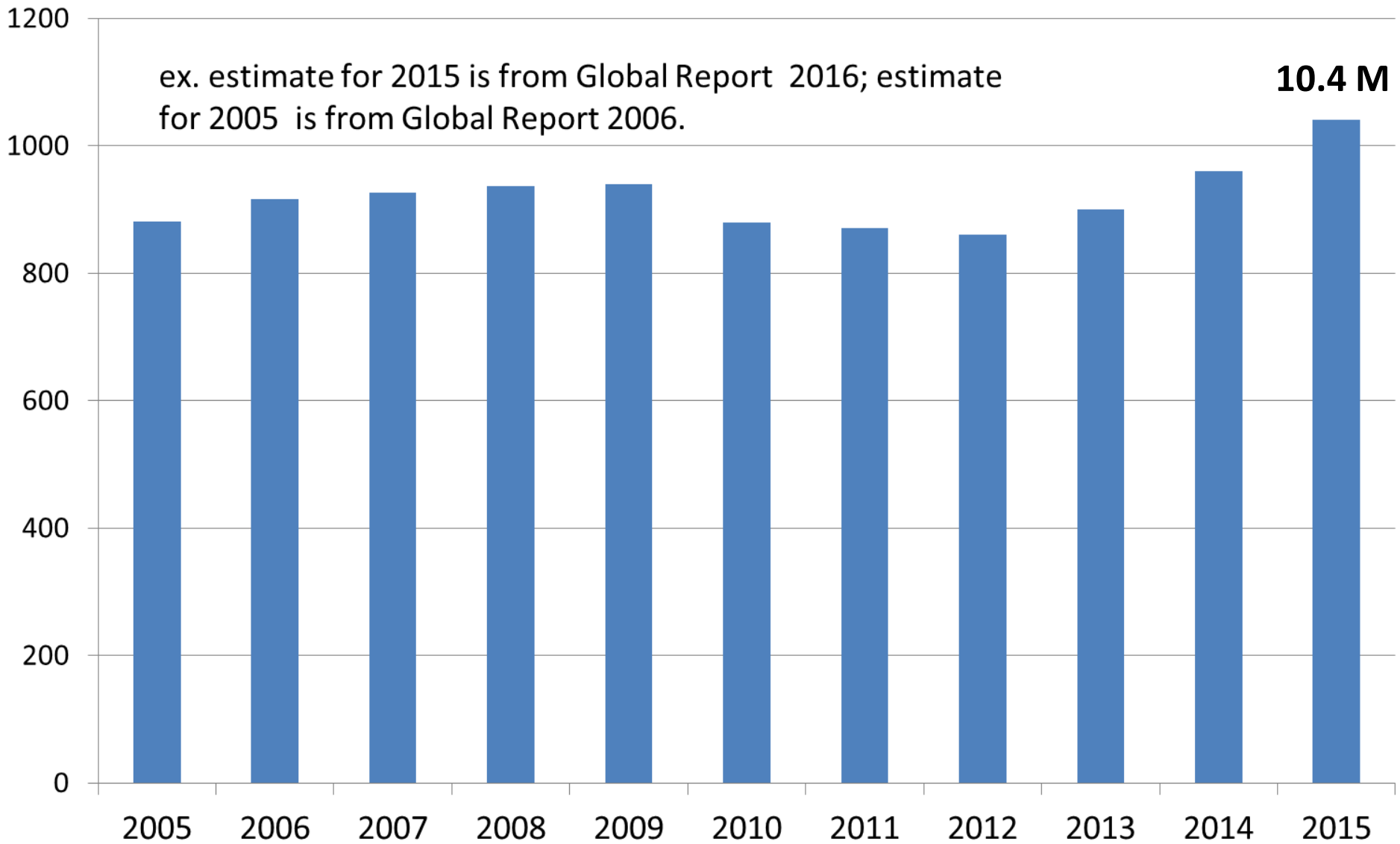
Where economy has been growing significantly



Historical Estimate of TB incidence (WHO Global TB reports)

ex. estimate for 2015 is from Global Report 2016; estimate for 2005 is from Global Report 2006.

10.4 M

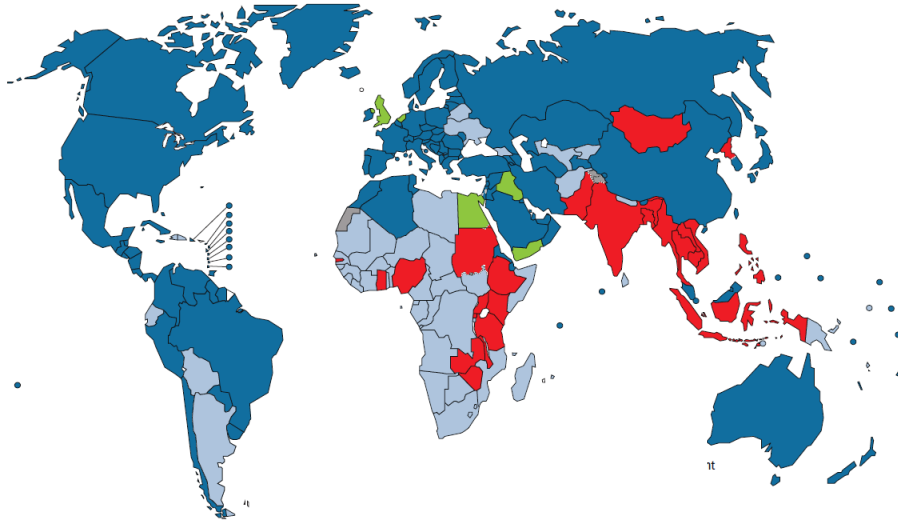






National TB Prevalence Surveys



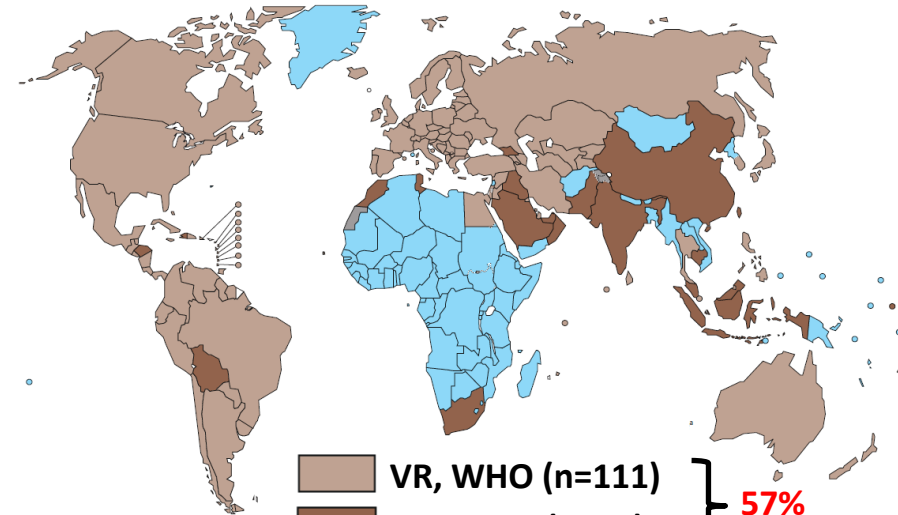
Data sources, TB burden estimates




TB incidence



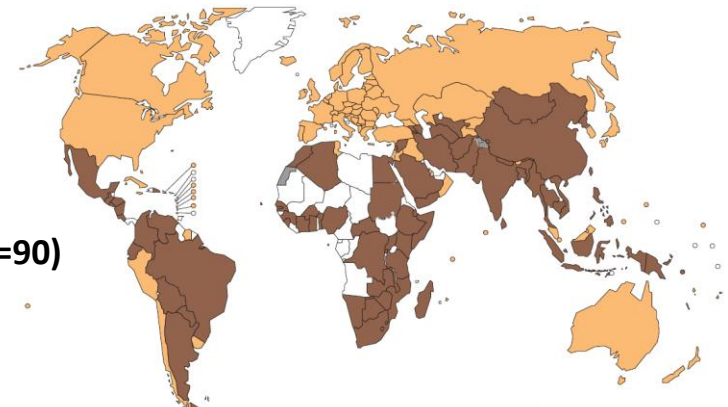
-  Case notifications, standard adjustment (n=134, 15% burden)
-  Prevalence survey (n=24, 68% burden)
-  Case notifications, expert opinion (n=54, 17% burden)
-  Capture-recapture study (n=5, 0.5% burden)

TB mortality



-  VR, WHO (n=111)
 -  VR, IHME (n=18)
 -  Indirect (n=88)
- } 57%

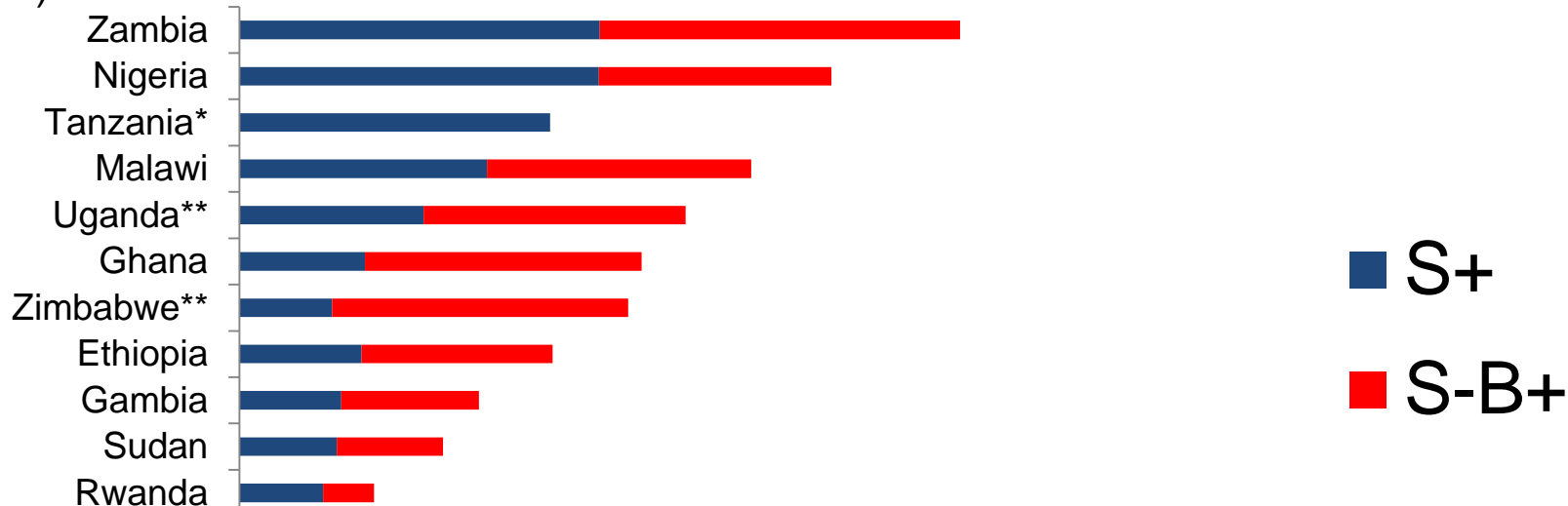
Drug-resistant TB



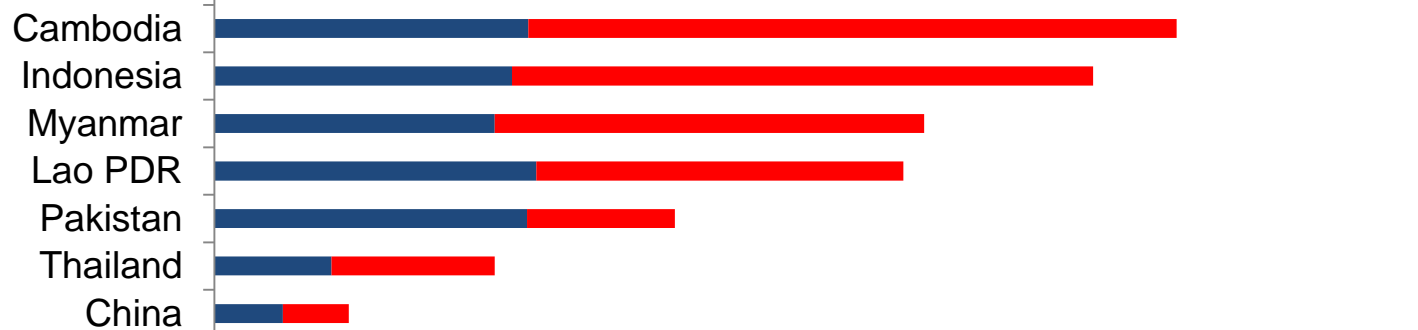
-  Surveillance (n=90)
-  Surveys (n=60)

National TB prevalence survey results completed between 2010 and 2015

Africa (11)



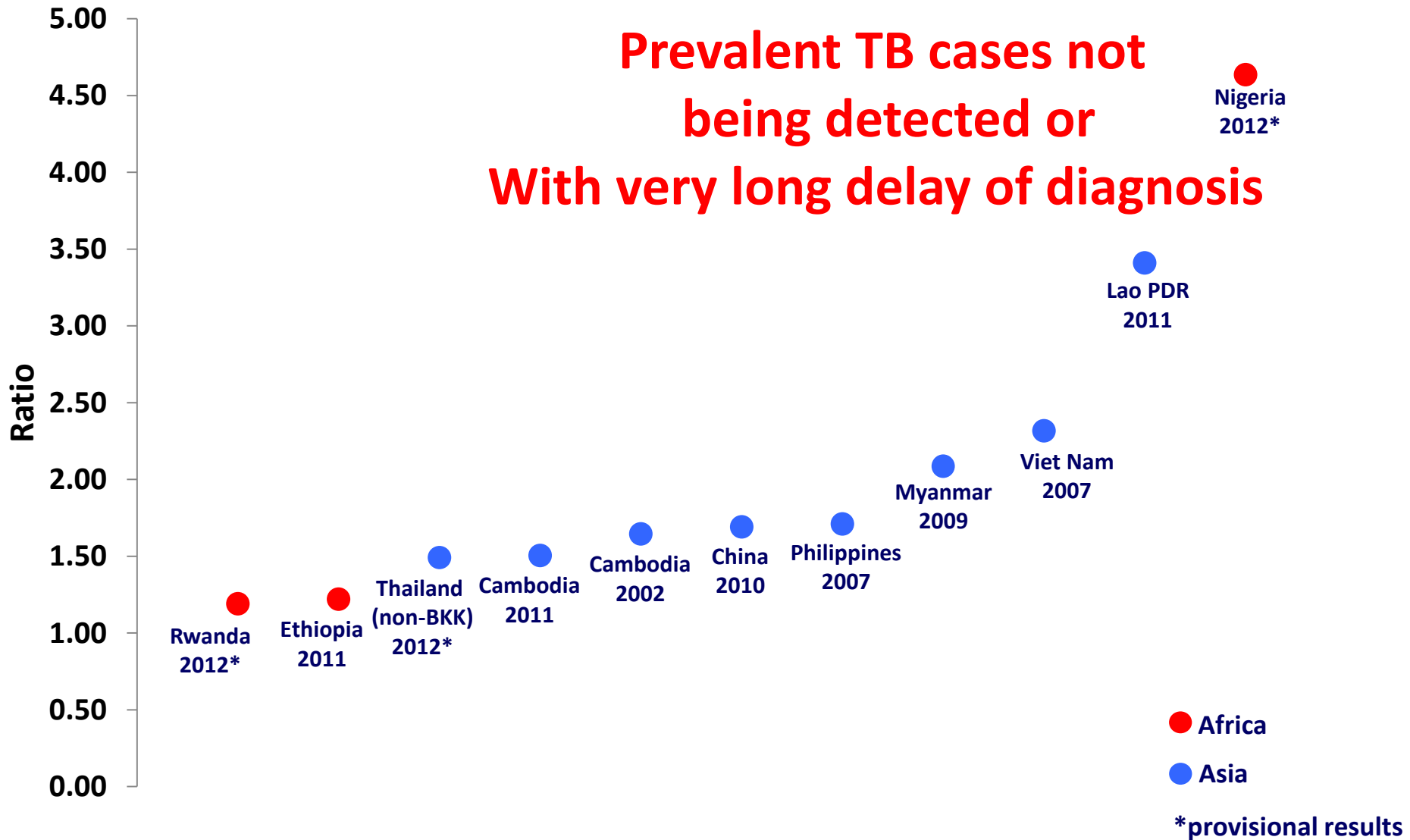
Asia (7)



0 200 400 600 800 1000
Prevalence per 100,000 in 15+ years

*WHO's analysis with Xpert MTB/RIF results on S+ slides at SRL Antwerp ** Provisional Results

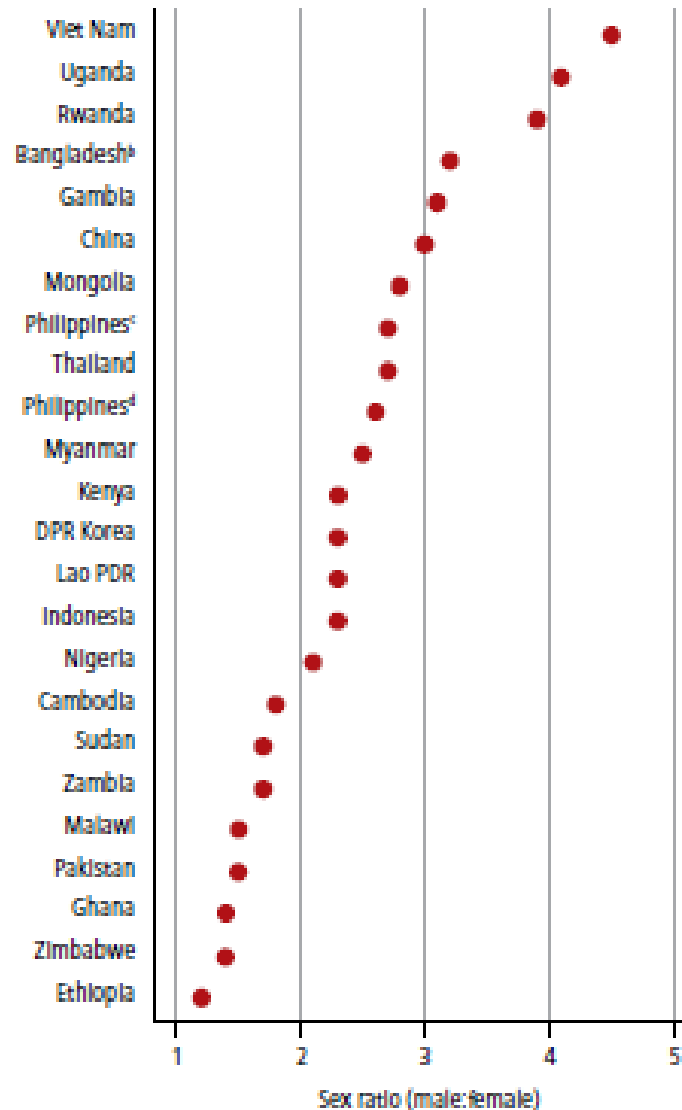
Prevalence to notification ratio: smear positive cases (National prevalence surveys)



Don't forget about
the men!

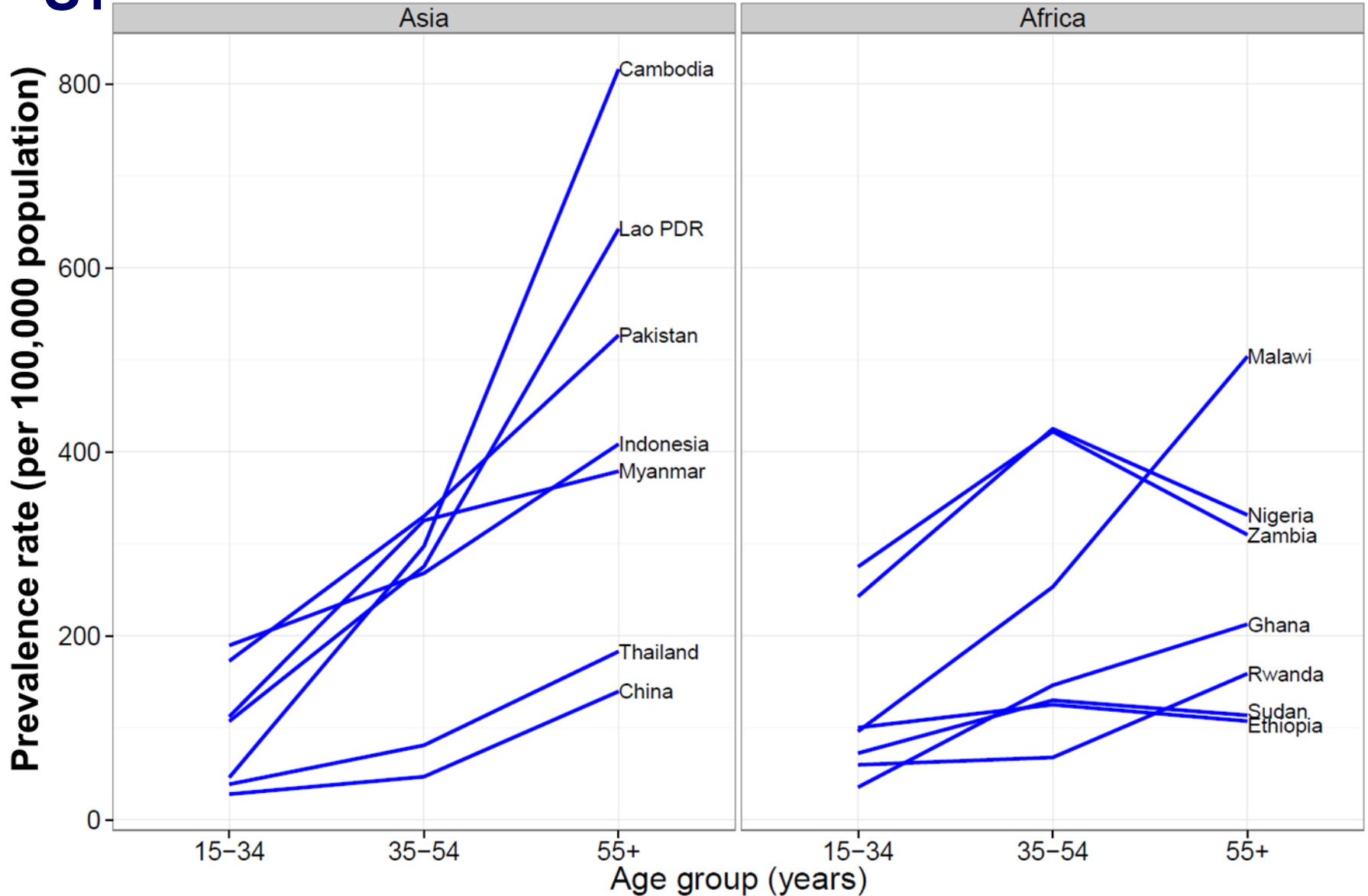


Male Female Ratio of TB prevalence



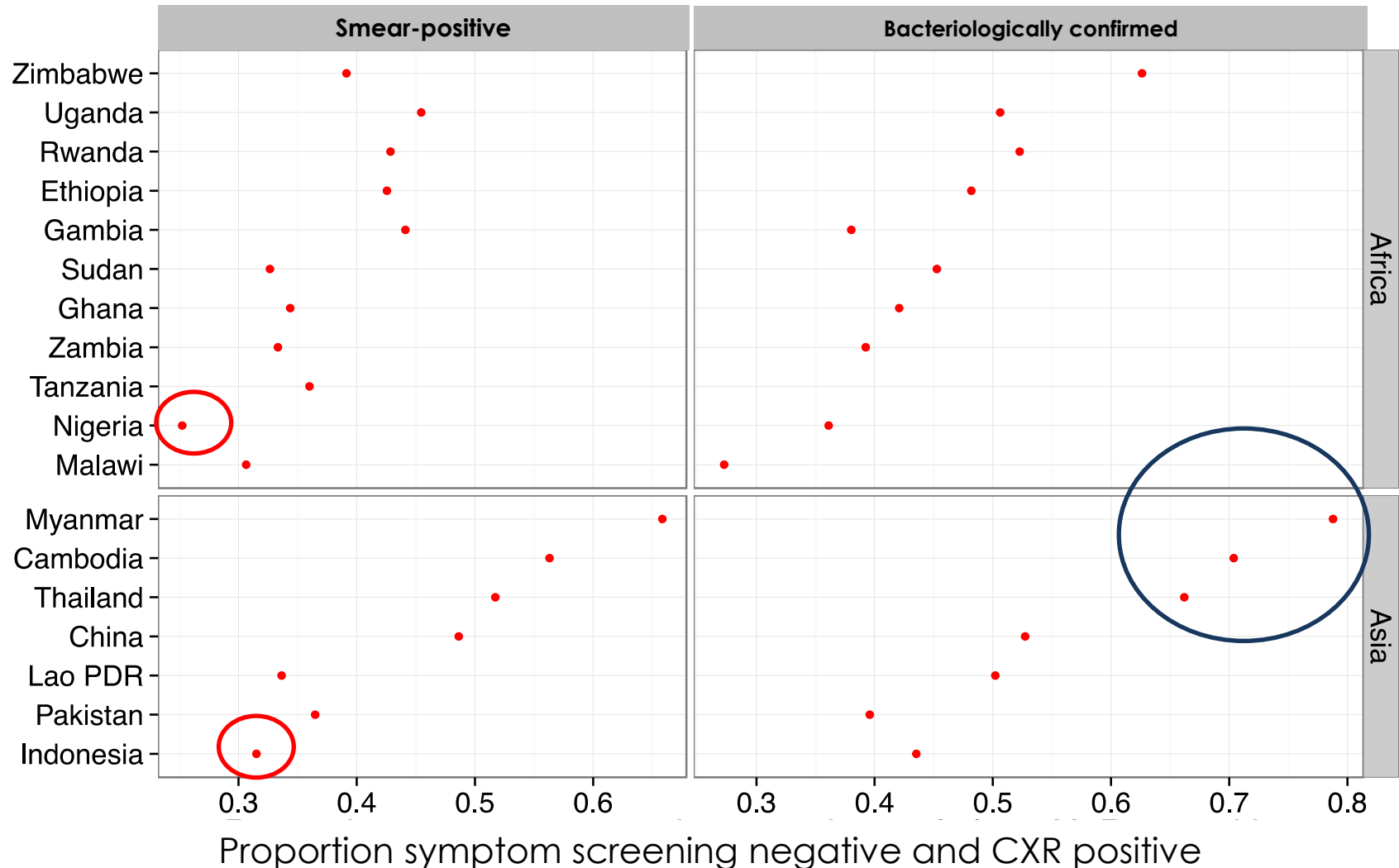
Ageing epidemic in Asia, mixed picture in Africa

S+

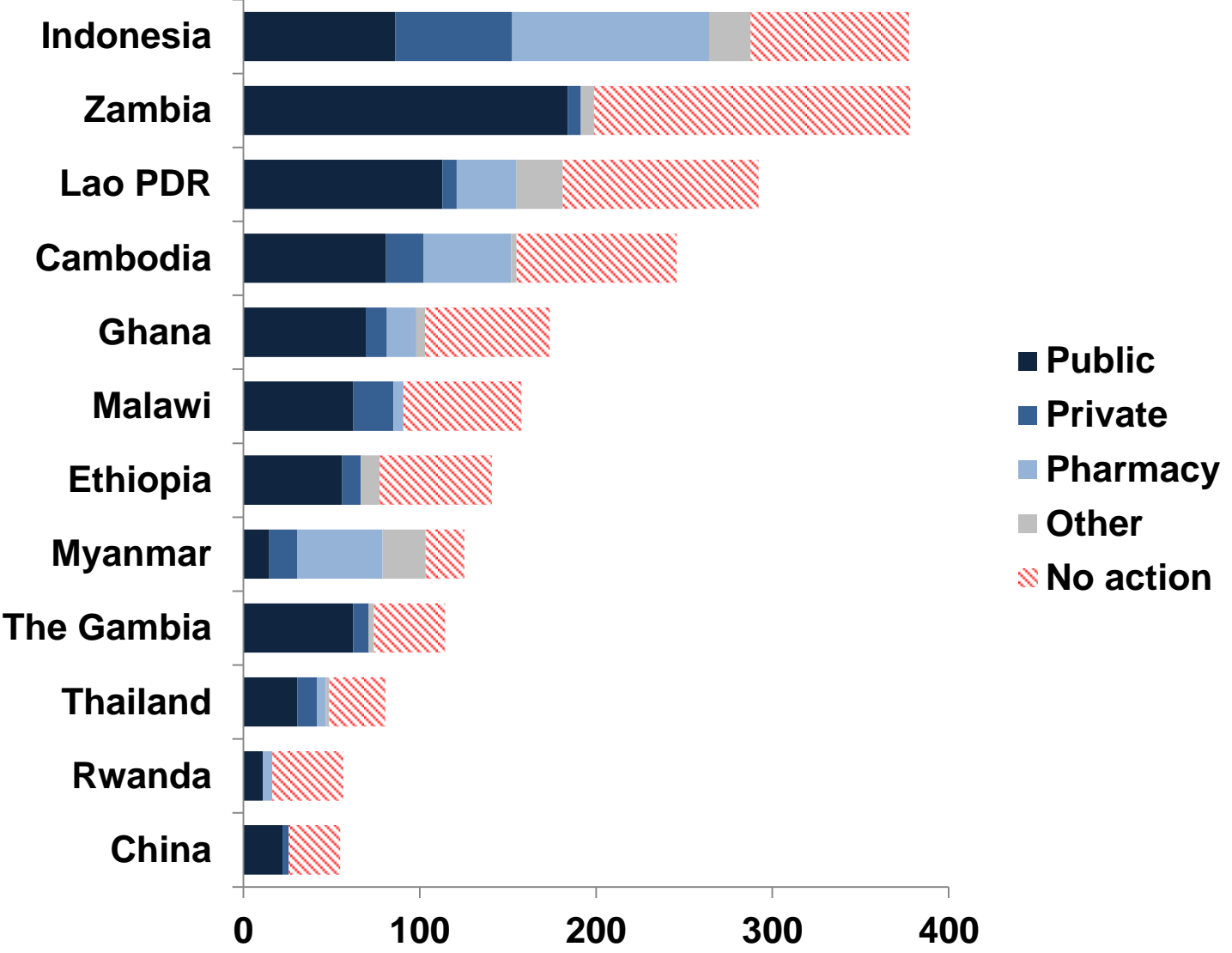


Many cases don't report symptoms meeting criteria for presumptive TB

Typically 30–50% for both S+ and bact-confirmed; up to 70–80%

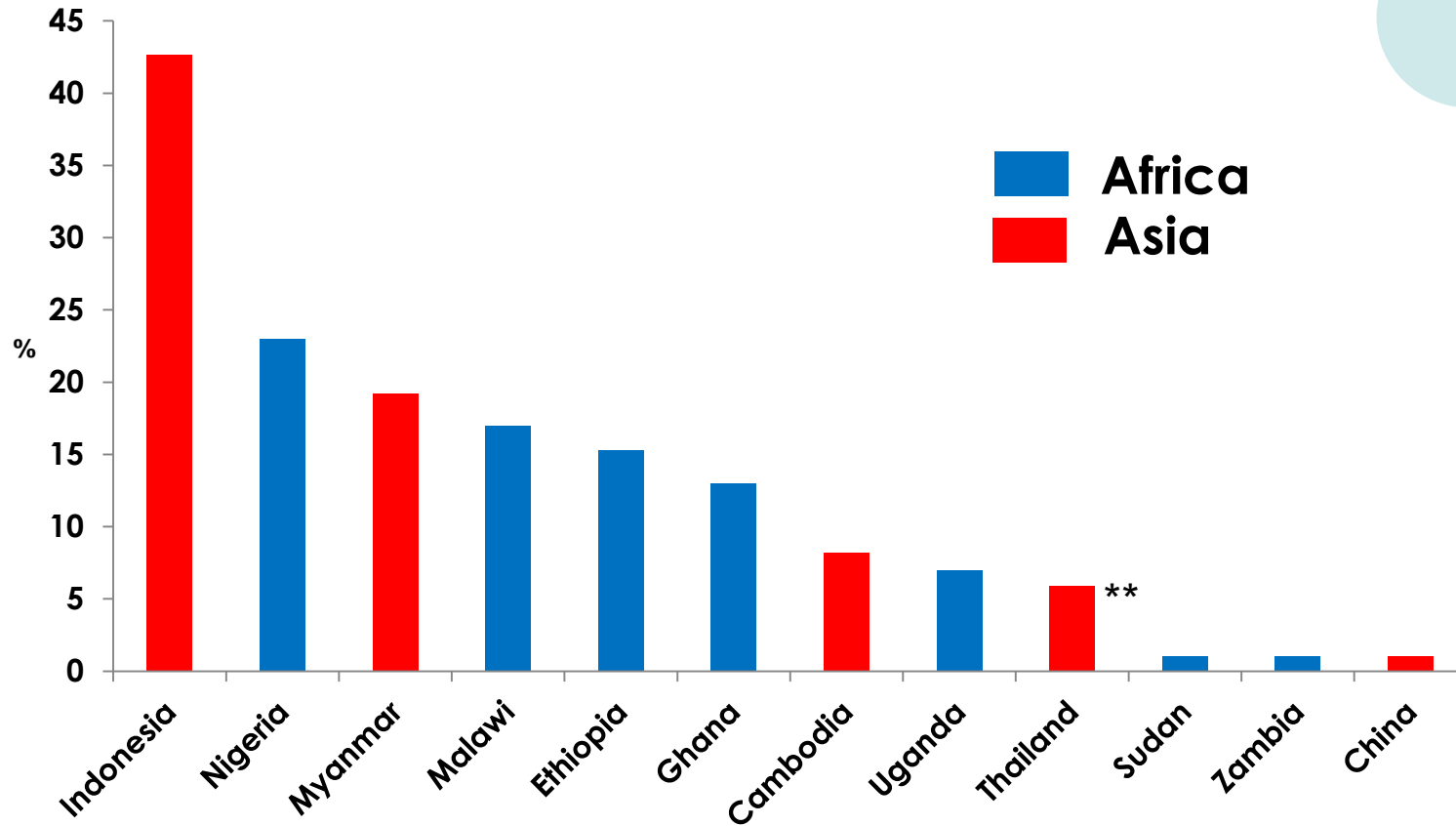


Many symptomatic TB cases had sought care prior to detection by survey



Symptomatic bact-confirmed prevalence (per 100,000 population)

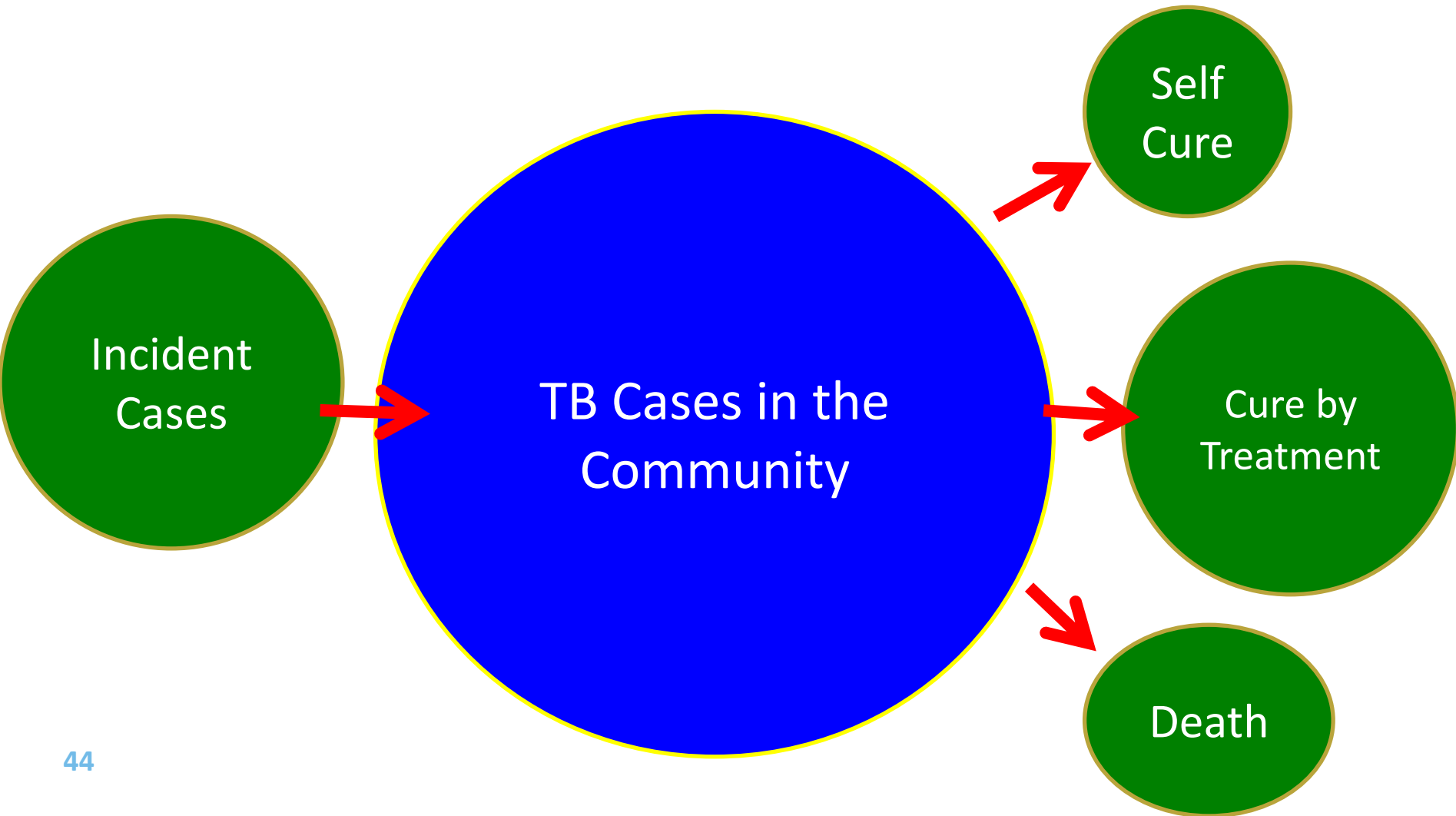
High proportion of TB patients being treated in private/NGO sector (Non-NTP) in several countries*



*Those currently on TB treatment at the time of the survey (excluding unknown location)

** Thailand – Survey excluding Bangkok

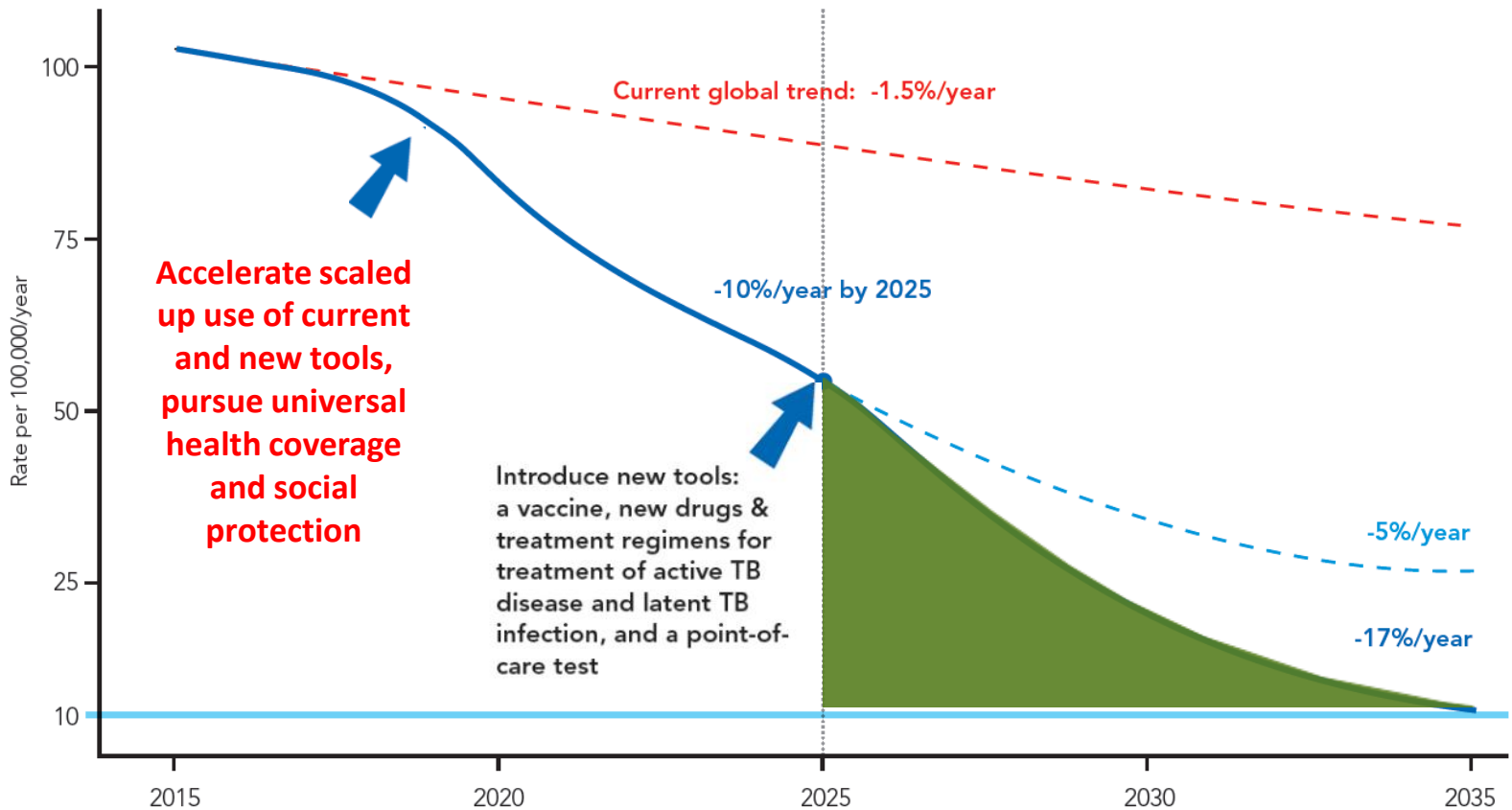
TB prevalence surveys: What is it measuring?



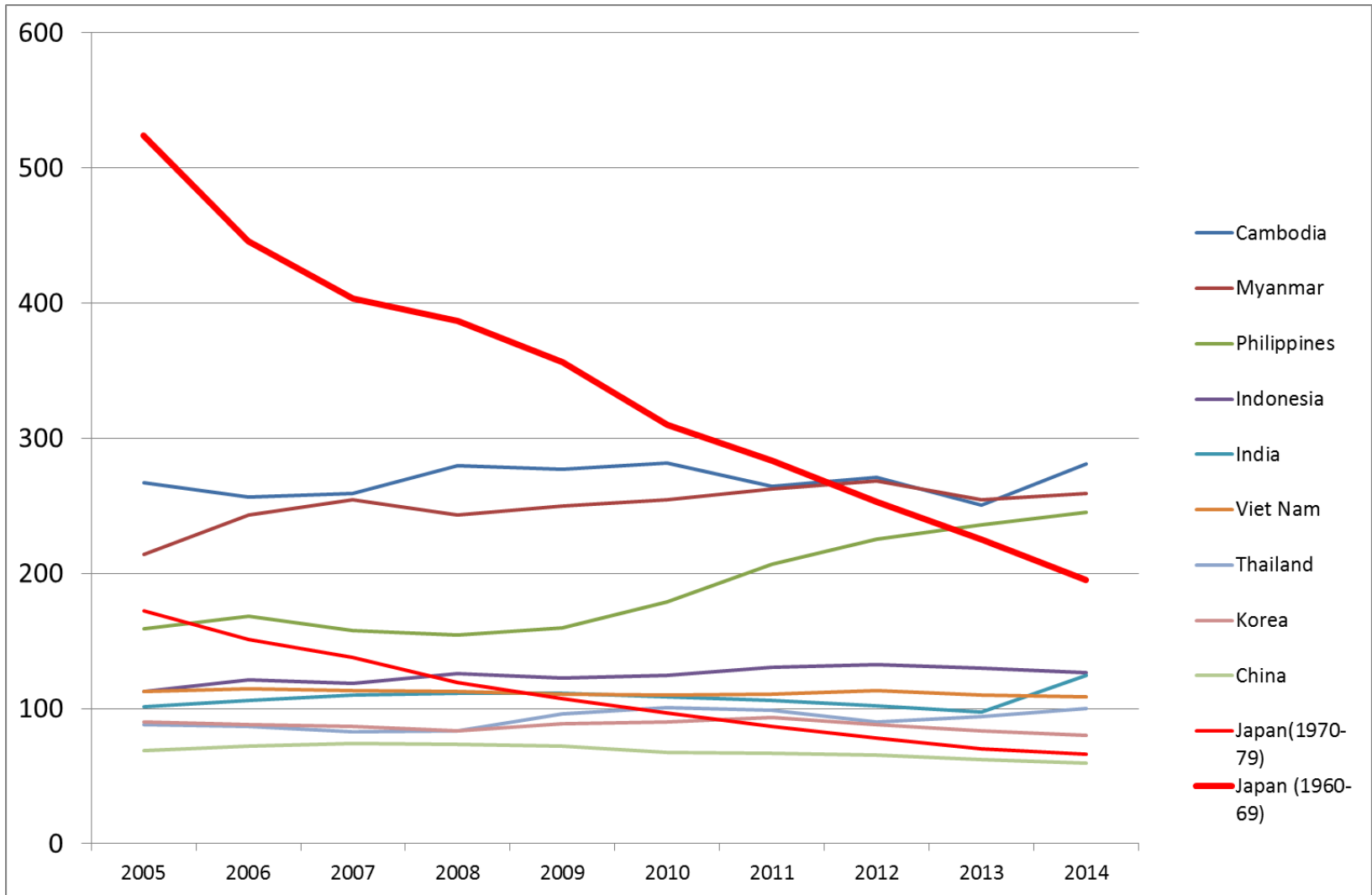
20% of population occupies 50% of community TB burden

- Hot spot villages with poor access
- the Elderly ($\geq 55y$): Care givers to grand children; NCD's comorbidity
- Men ($\geq 35y$)
- Urban < Rural \rightarrow Urban > Rural < Remote
 - Congestion
- Urban Poor/ Migrants >> Middle class / Original Population
- Workers in informal sector (non regular employees)
- MDR-TB in Yangon

The End TB Strategy



Yes, WE CAN!! - Japan 1960-79: Just the contributions of economic development and UHC?



Thank you very much

