

Monitoring of the Global Plan to End TB: 2016-2020

17 May 2017, Stop TB Board Meeting, Berlin

Stop TB Partnership Secretariat

hosted by UNOPS

Outline

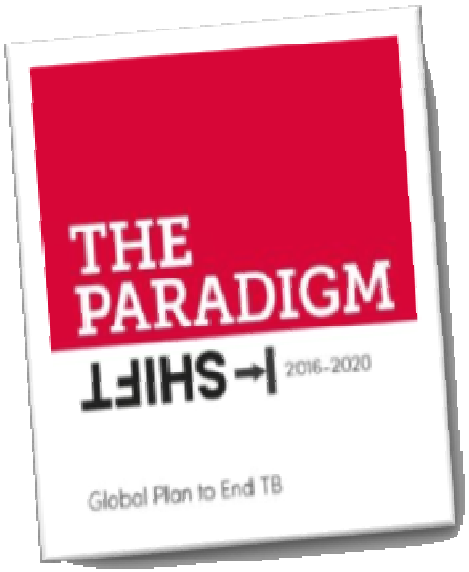
- **Work done by the secretariat on Board recommendation**

- **Report on progress against the 90-(90)-90 targets**
  - Reaching 90% of people with TB
  - Reaching 90% of Key Populations
  - Achieving 90% treatment success

- **Gaps in data**

Stop TB Board in Sept-2016 asked the Secretariat to monitor the Global Plan in the following areas:

- Progress on reaching the 90-(90)-90 targets;
- Adoption of new policies and tools;
- Availability of financial resources for implementation; and
- Availability of financial resources for research and development.



The Board also asked to identify any gaps where the data to track progress of the Global Plan does not exist.

Work done by Secretariat so far…1

- Progress report on reaching the 90-(90)-90 targets
  - Will be presented to the Board
  - After Board inputs the report will be finalized and published
  - Case studies on paradigm shift is being compiled separately - will form the second part of the report
- Adoption of new policies and tools – “Out-of-Step” report
  - Joint work between Stop TB and MSF
  - Data collection completed from 30 countries
  - Development of report is underway
  - Will be launched in July 2017

Work done by Secretariat so far…2

- Availability of financial resources for implementation
  - Work will start in June 2017
  - WHO data available in October 2017
  - Financial resources report will be completed by Dec 2017
- Availability of financial resources for research and development
  - Joint work of Stop TB and TAG
  - Report expected by October 2017

Report on progress against the 90-(90)-90 targets

Reach at least

90%

OF ALL PEOPLE WITH TB

and place all of them on appropriate therapy—first-line, second-line and preventive therapy as required

As a part of this approach, reach at least

(90)%

OF THE KEY POPULATIONS

the most vulnerable, underserved, at-risk populations

Achieve at least

90%

TREATMENT SUCCESS

for all people diagnosed with TB through affordable treatment services, adherence to complete and correct treatment, and social support.

Modeling done for Global Plan shows that achieving 90% coverage as soon as possible but not later than 2025 will set the world on course to meet the End TB Strategy milestones for 2020 and 2025.

Source: Global Plan to End TB: The Paradigm Shift

Methods

- Most data taken from WHO's global tuberculosis database downloaded from http://who.int/tb/country/data/download/en/ in March 2017. Latest data available is from 2015.
- Supplemented by a questionnaire sent to high TB burden countries in early 2017 on National Strategic Plans, Key Population and data availability in countries.
    - 27 countries responded
- Other sources of data were NTP documents in public domain for a few countries and TB REACH published results

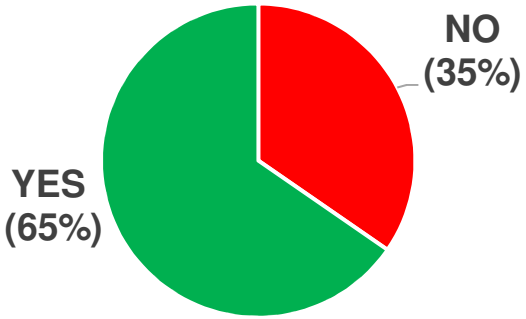
Progress against reaching 90% of people with TB

Overall progress

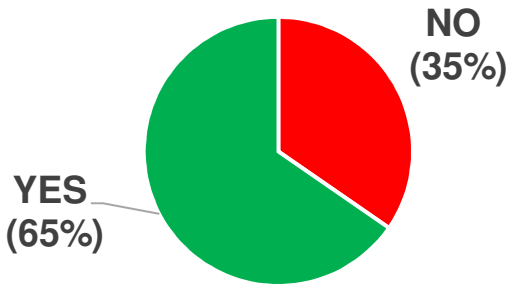
- Despite progress, years of efforts and investment, globally we are far from reaching the 90% target.
  - More than 40% of people with drug susceptible-TB (DS-TB) are missed,
  - Almost 80% with drug resistant-TB (DR-TB) are missed, and
  - We lack data to properly measure progress on appropriate treatment for TB infection.

Targets in current National Strategic Plans (NSPs) of countries

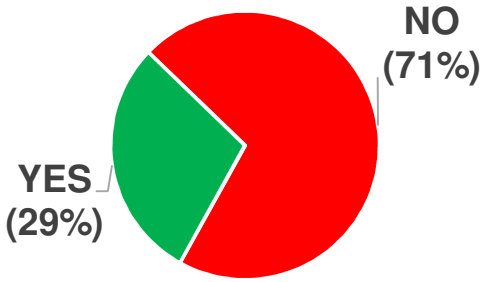
90% target for first-line treatment coverage



90% target for second-line treatment coverage



90% target for preventive treatment coverage

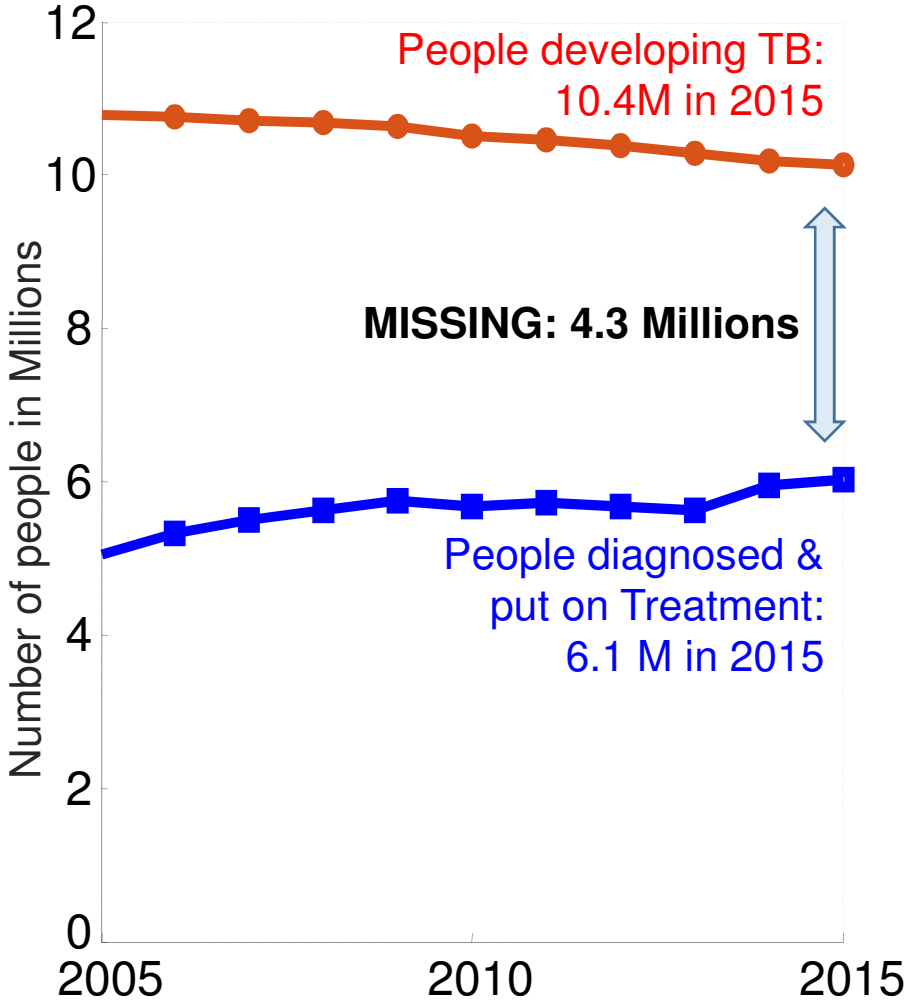


Source: Survey questionnaire to countries
N=27 countries

Progress against reaching 90% of people with TB

First line treatment (2005-2015)

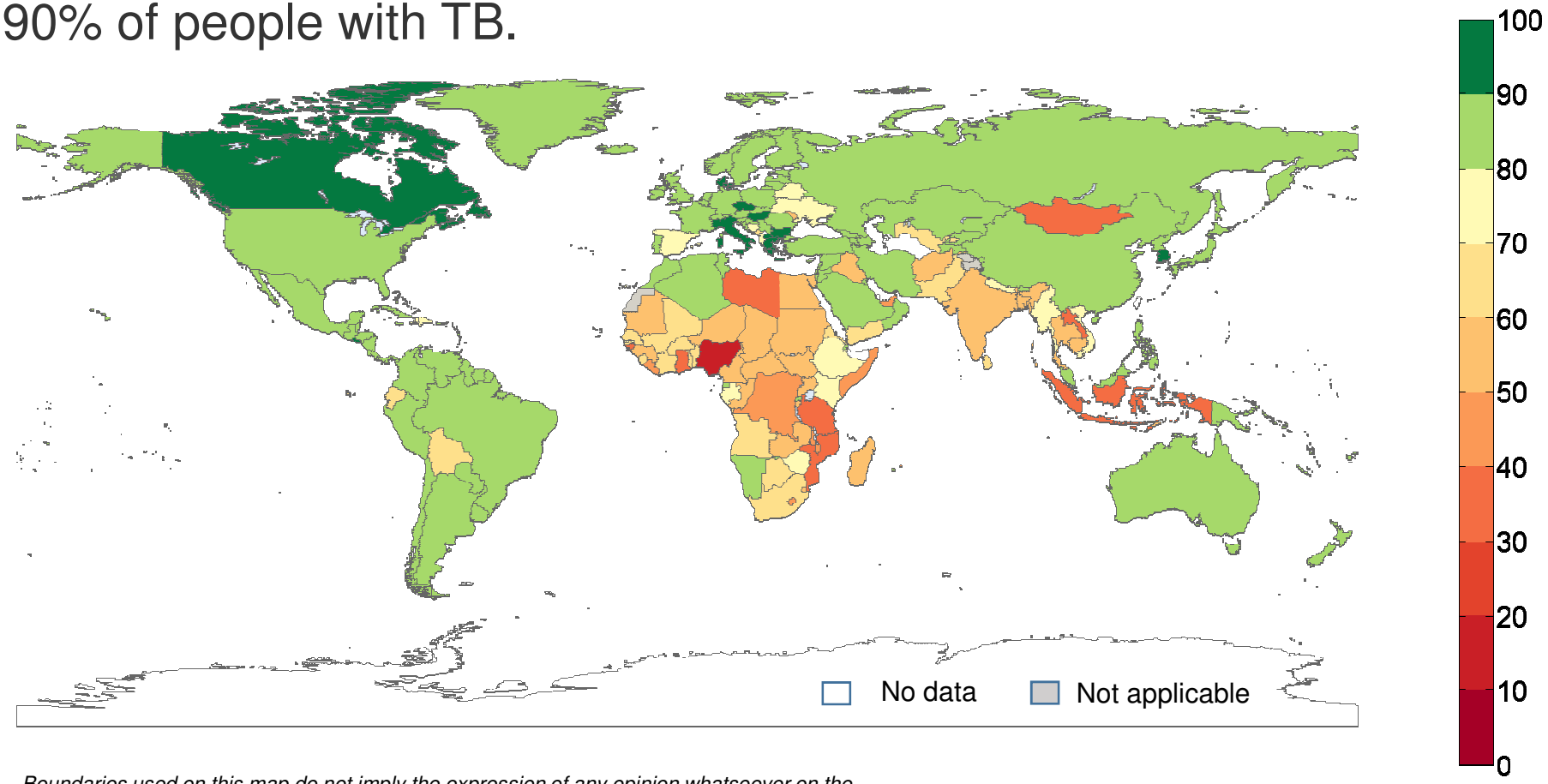
- In 2015, an estimated 10.4 million people became ill with TB worldwide.
- Only 6.1 million were reported as receiving treatment
  - Leaving behind over 4.3 million people.
- This means on a global scale only 59% of people who developed TB had access to good quality TB diagnosis and treatment.



Progress against reaching 90% of people with TB

First line treatment coverage (2015)

Most high burden countries in Africa and Asia are far from reaching 90% of people with TB.

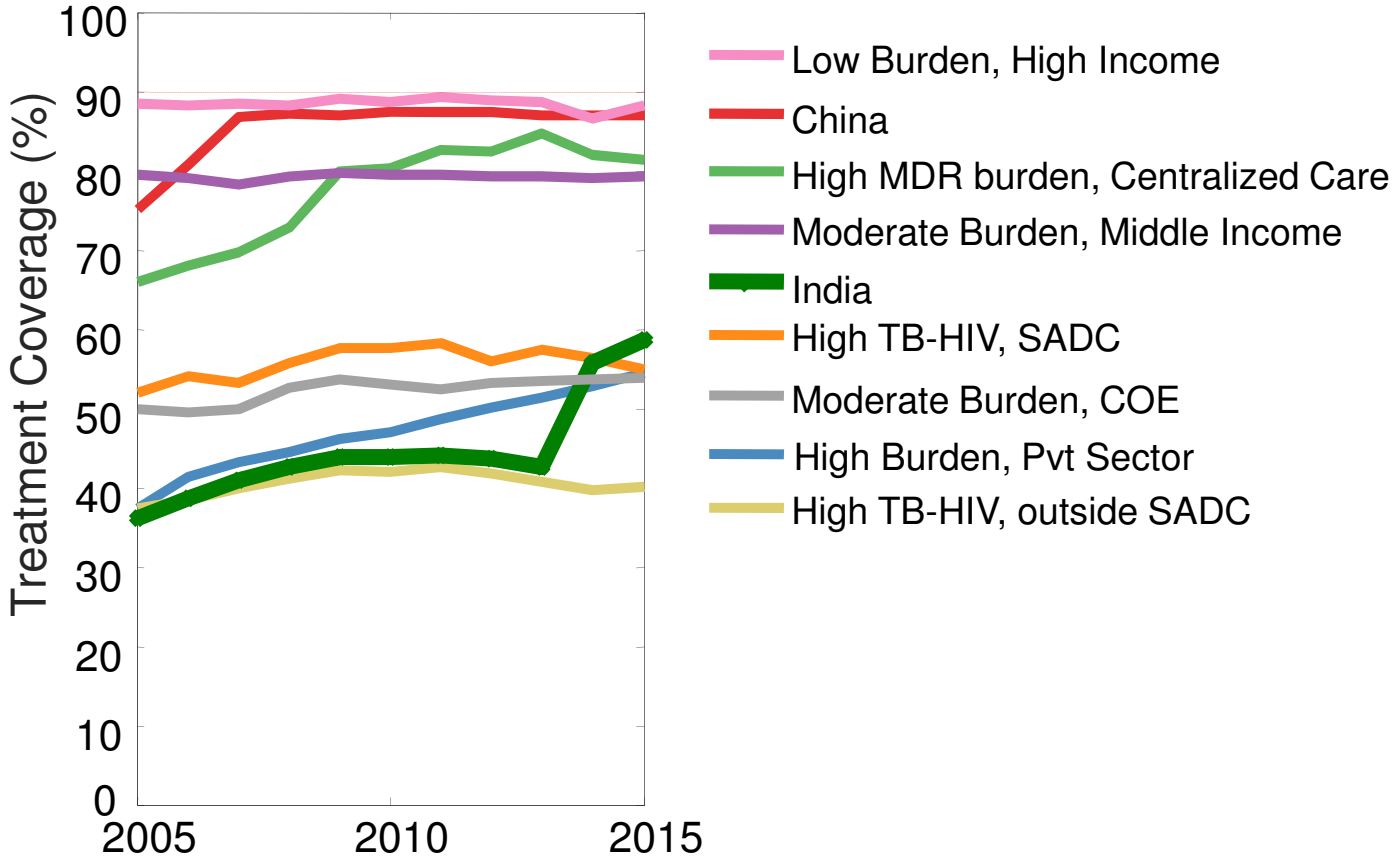


Boundaries used on this map do not imply the expression of any opinion whatsoever on the part of the Stop TB Partnership concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers or boundaries

Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB
First line treatment

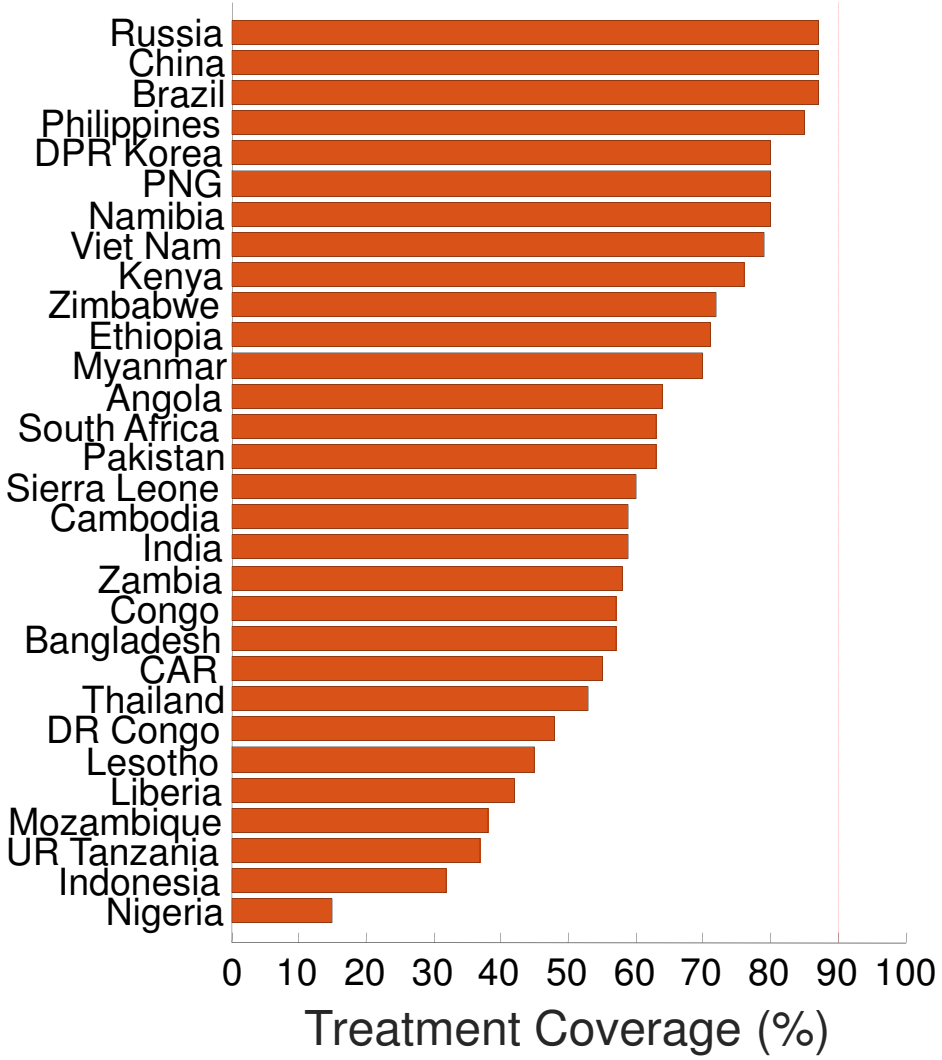
- Trend in treatment coverage for the 9 settings of the Global Plan
- Increase only in India and in the setting “High Burden, Private sector”



Stop TB Partnership

Progress against reaching 90% of people with TB
First line treatment (2015)

- Treatment coverage in 30 high TB burden countries
- Varies from 15% to 87%
- 4 countries (Russian Federation, China, Brazil and Philippines) are above 80%,
- 19 countries are between 50-80%, and
- 7 countries are below 50% treatment coverage.

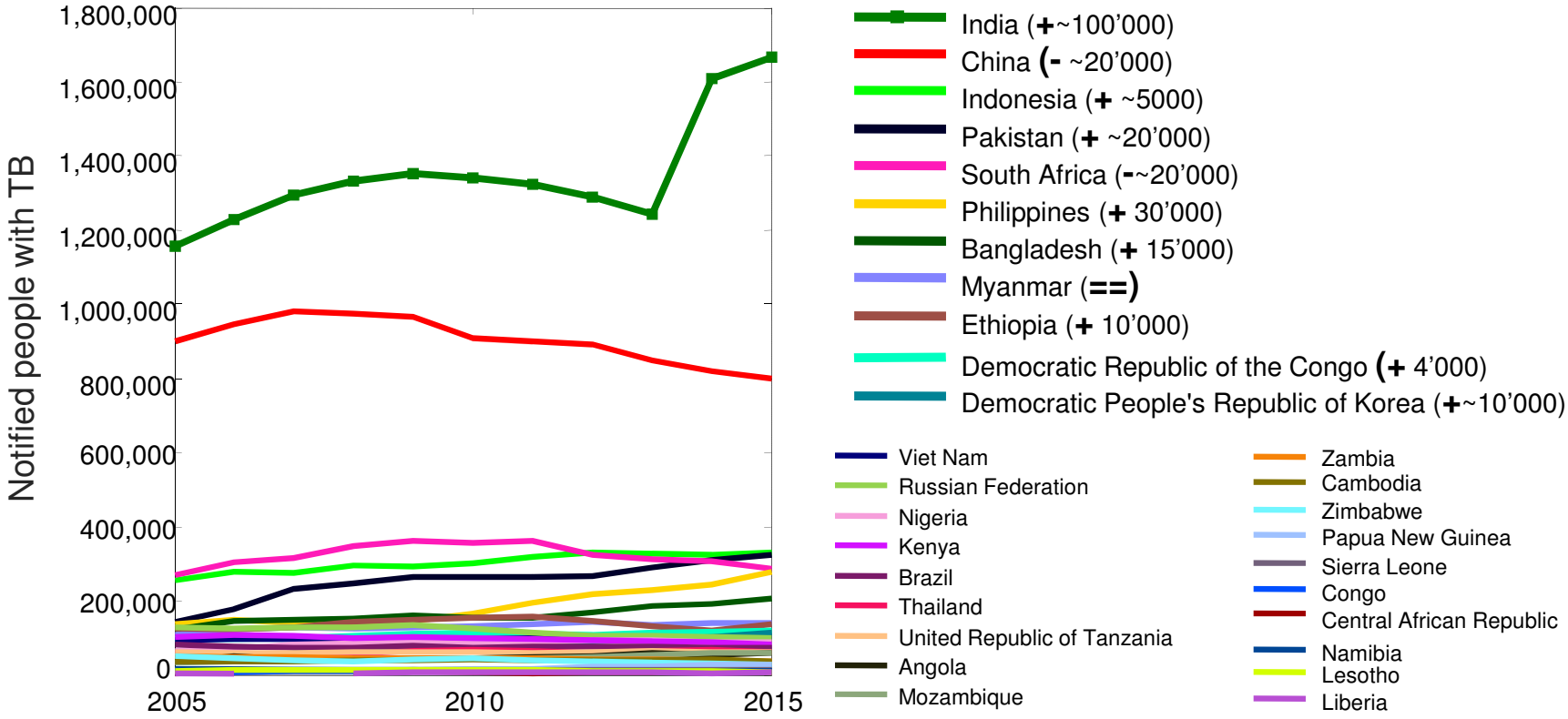


Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

First line treatment

Notifications in 30 high TB burden countries – dramatic increase in India, increases in few others and no increase/decline in rest.



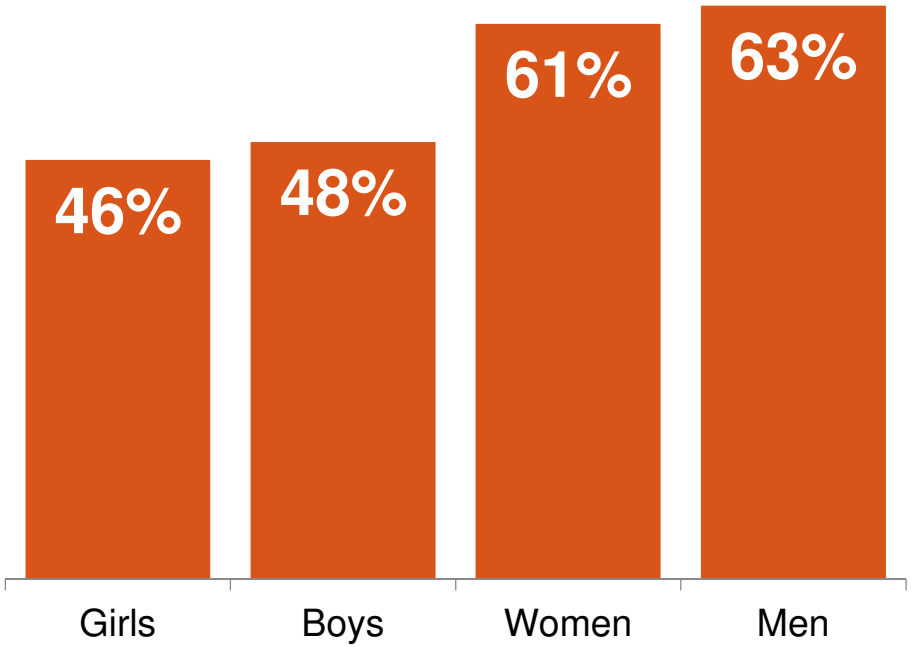
Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

First line treatment (2015)

Proportion of children and adults with drug susceptible TB who are receiving first-line TB treatment

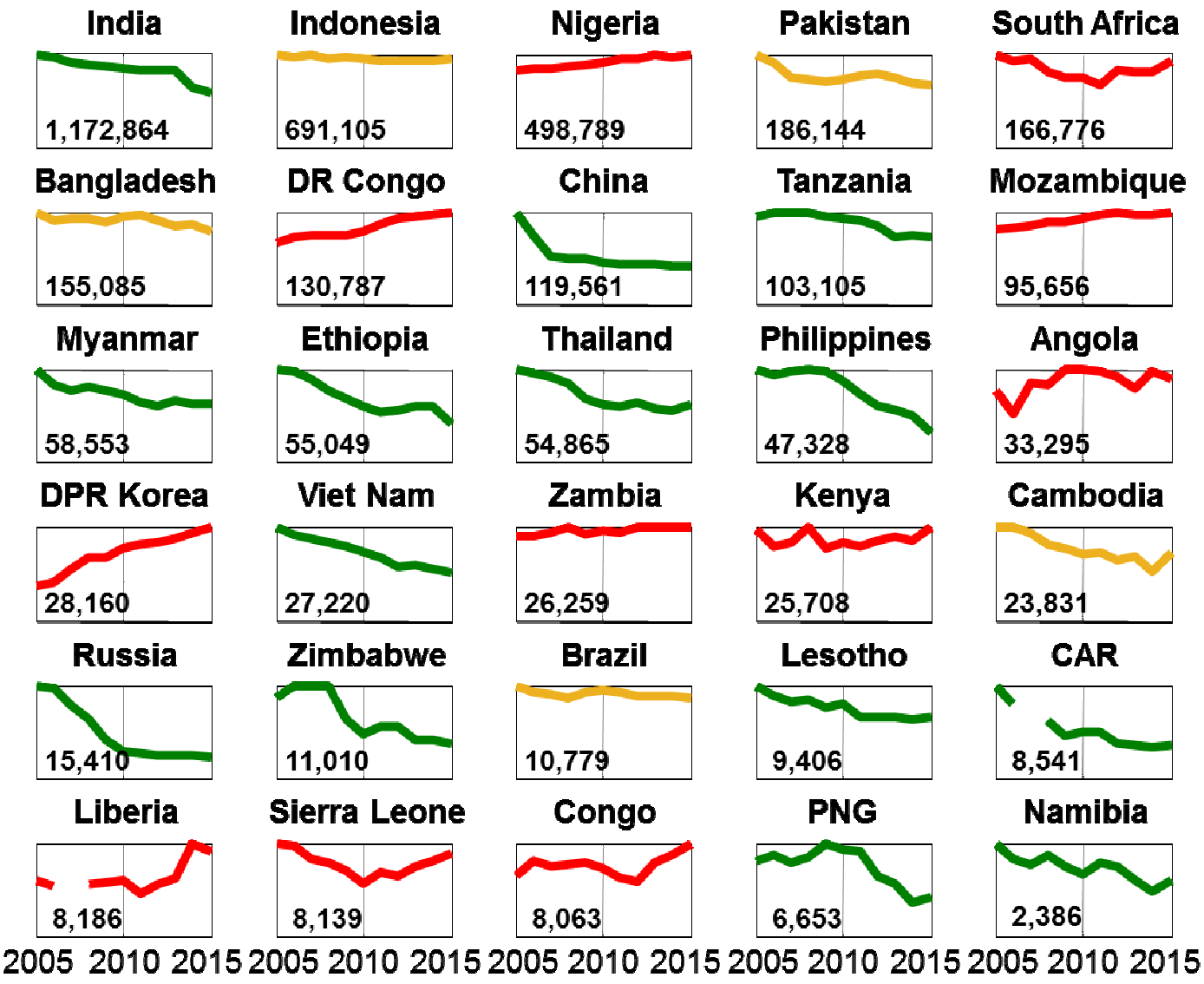
- Children are left behind – much less likely to access care than adults
- Not much difference in treatment coverage between male and female



Source: *WHO's global tuberculosis database, March 2016*

Missing people with TB in 30 high TB burden countries

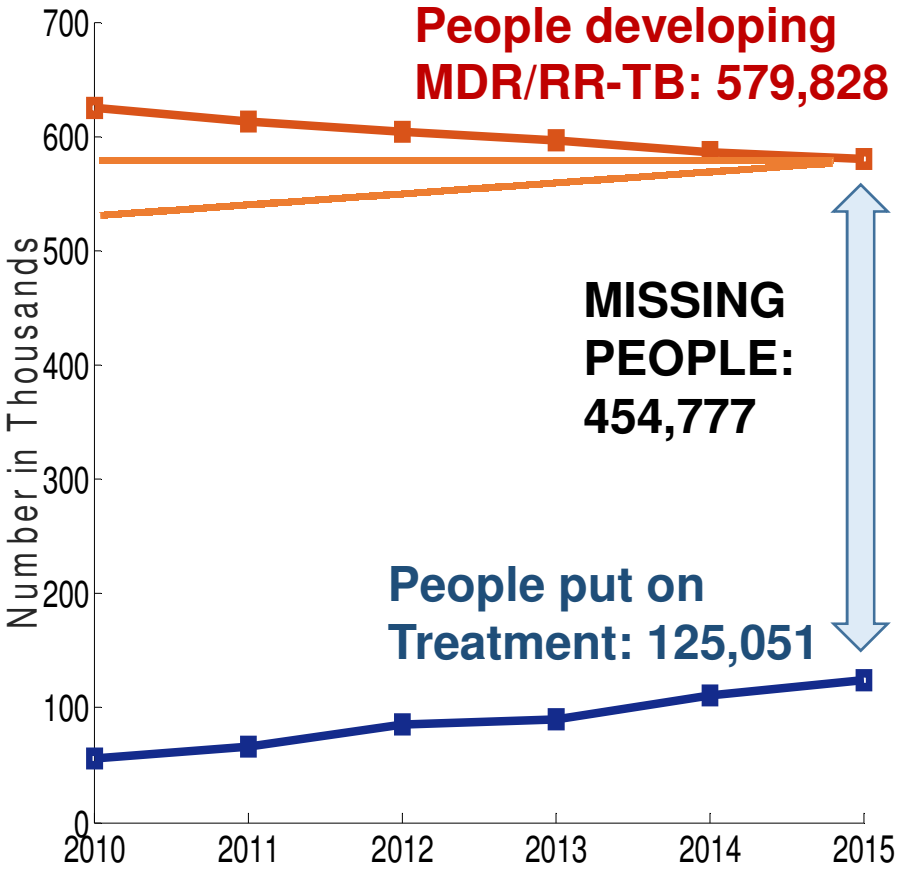
- Just 3 countries (India, Indonesia and Nigeria) together account for over half of the missing 4.3 million.
- In many countries missing people with TB are decreasing at a slow pace
- In others they are either increasing or remaining the same over years.



Progress against reaching 90% of people with TB

Second line treatment (2010-2015)

- In 2015, 22% of people with drug-resistant TB (DR-TB) worldwide were diagnosed and enrolled on second-line treatment.
- Only 12% of people with newly diagnosed TB were offered a test to diagnose drug-resistance - this is one of the major reasons for poor coverage of diagnosis and treatment of DR-TB.

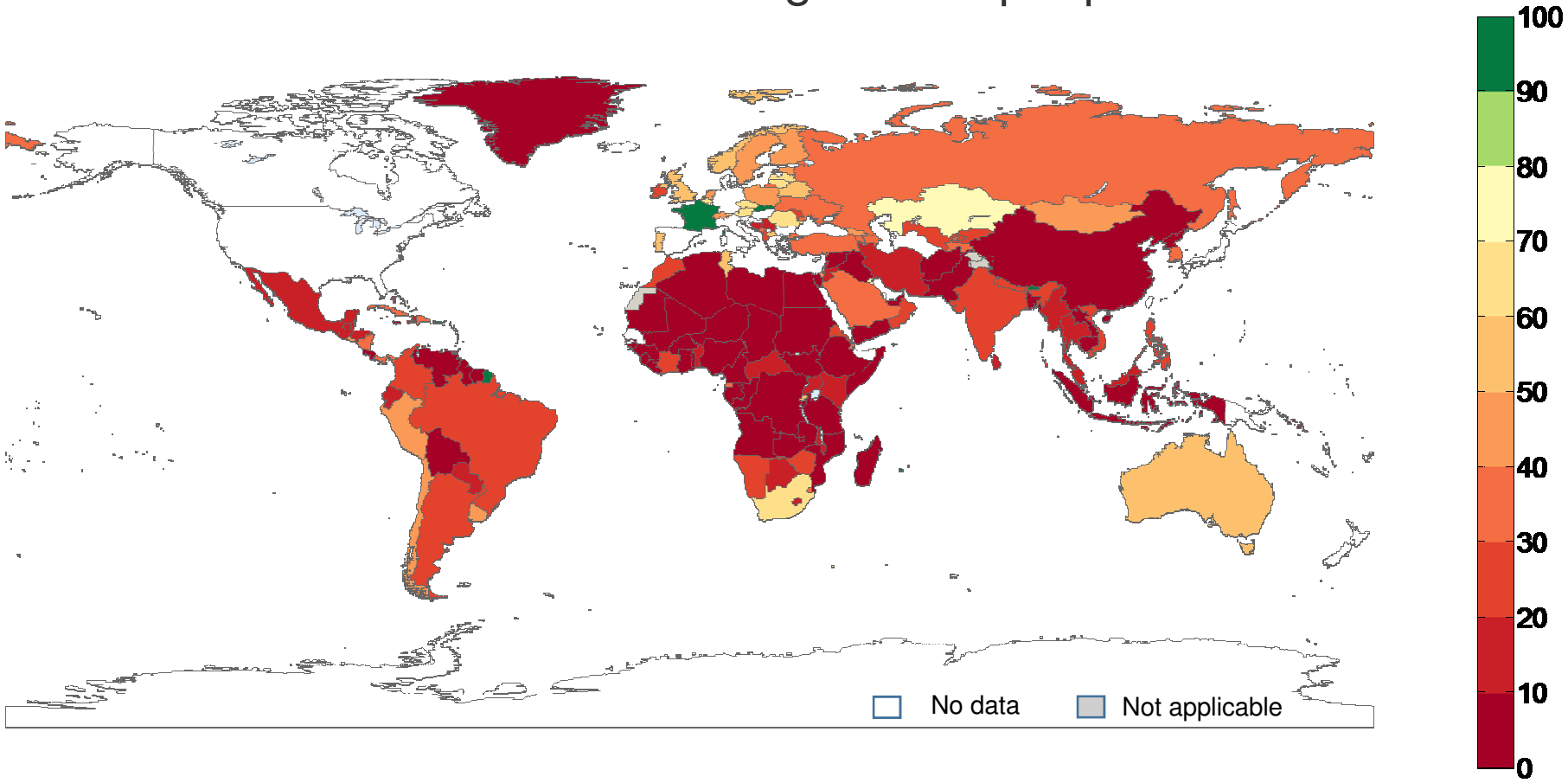


Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

Second line treatment coverage (2015)

Most countries are far from reaching 90% of people with DR-TB.



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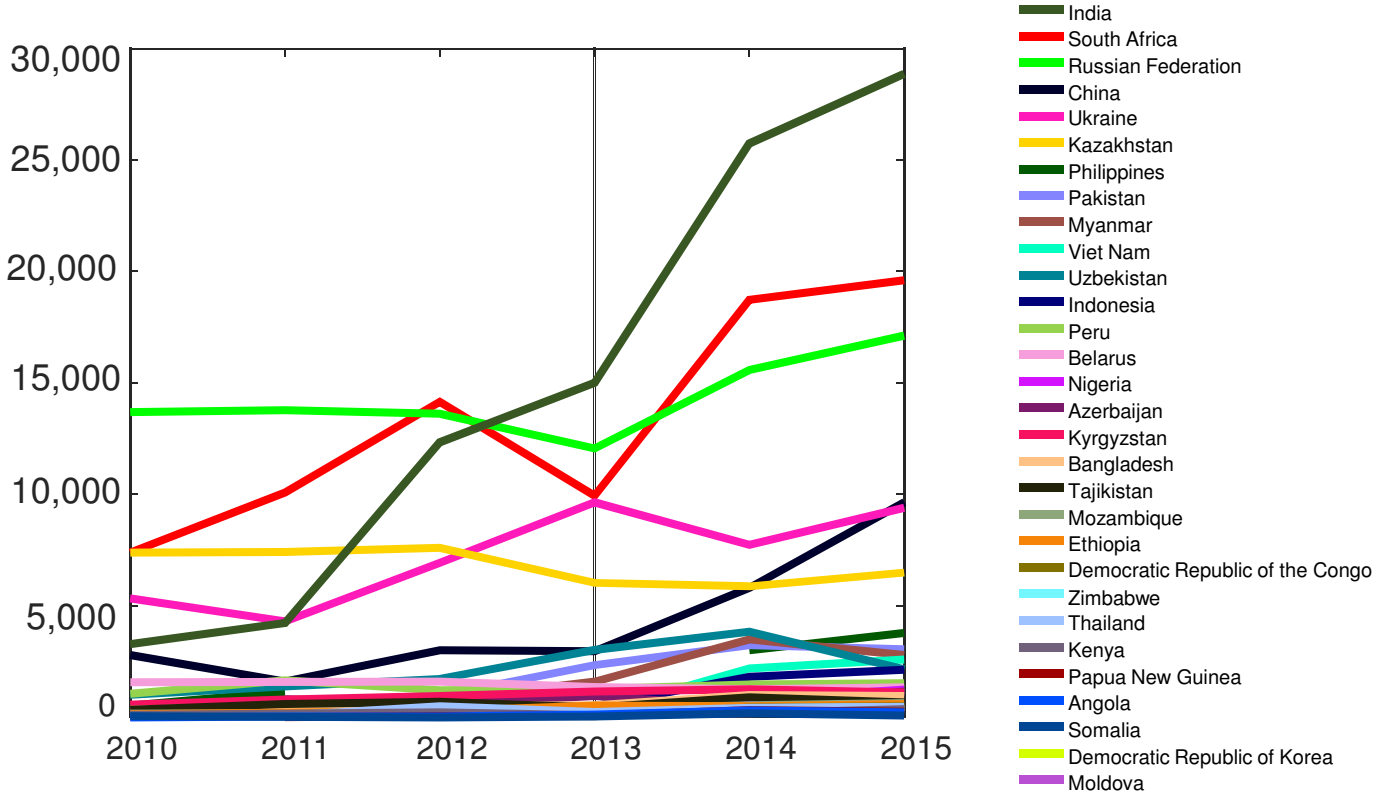
Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

Second line treatment coverage

Notification of DR-TB in the 30 high DR-TB burden countries – increasing trend in many countries



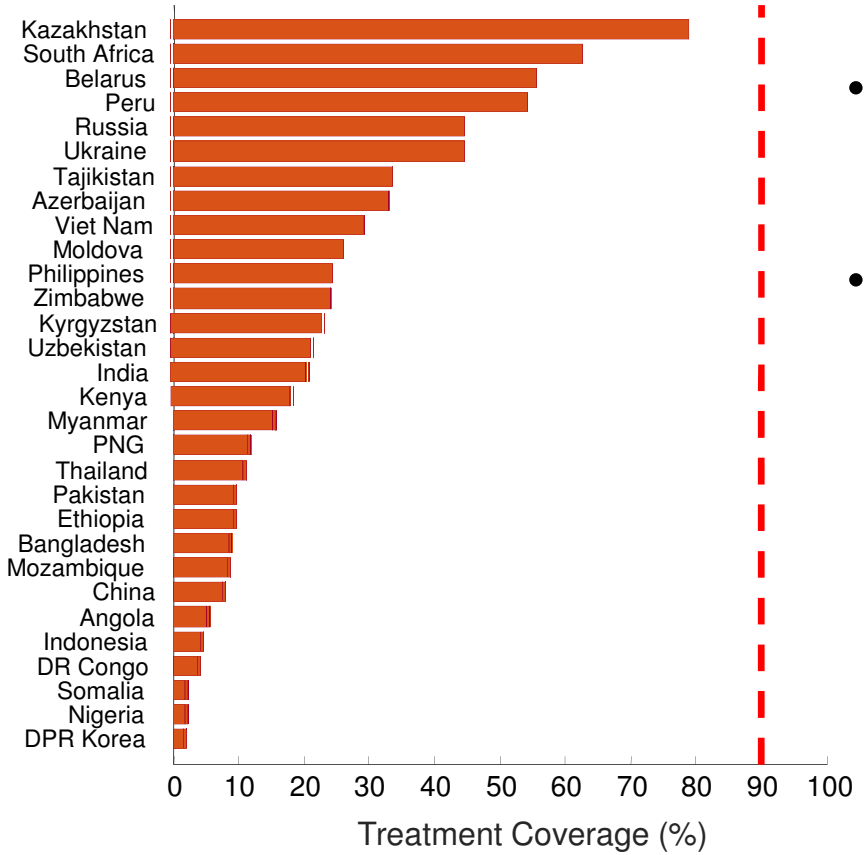
Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

Second line treatment coverage (2015)

Treatment coverage for drug resistant TB in the 30 high MDR-TB burden countries

- 11 countries less than 10%
- 4 countries (Kazakhstan, South Africa, Belarus and Peru) above 50%



- Globally, 448,000 people with DR-TB were missed.
- 4 countries (India, China, Russia and Indonesia) account for more than half of the missed DR-TB.

Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

Preventive treatment (PT)

- Current guidelines for high burden countries is to provide PT to:
  - PLHIV and
  - Child household contacts
- However, current practice in low burden and higher income countries is to provide PT to many groups

Progress against reaching 90% of people with TB

Preventive treatment coverage for child household contacts (2015)

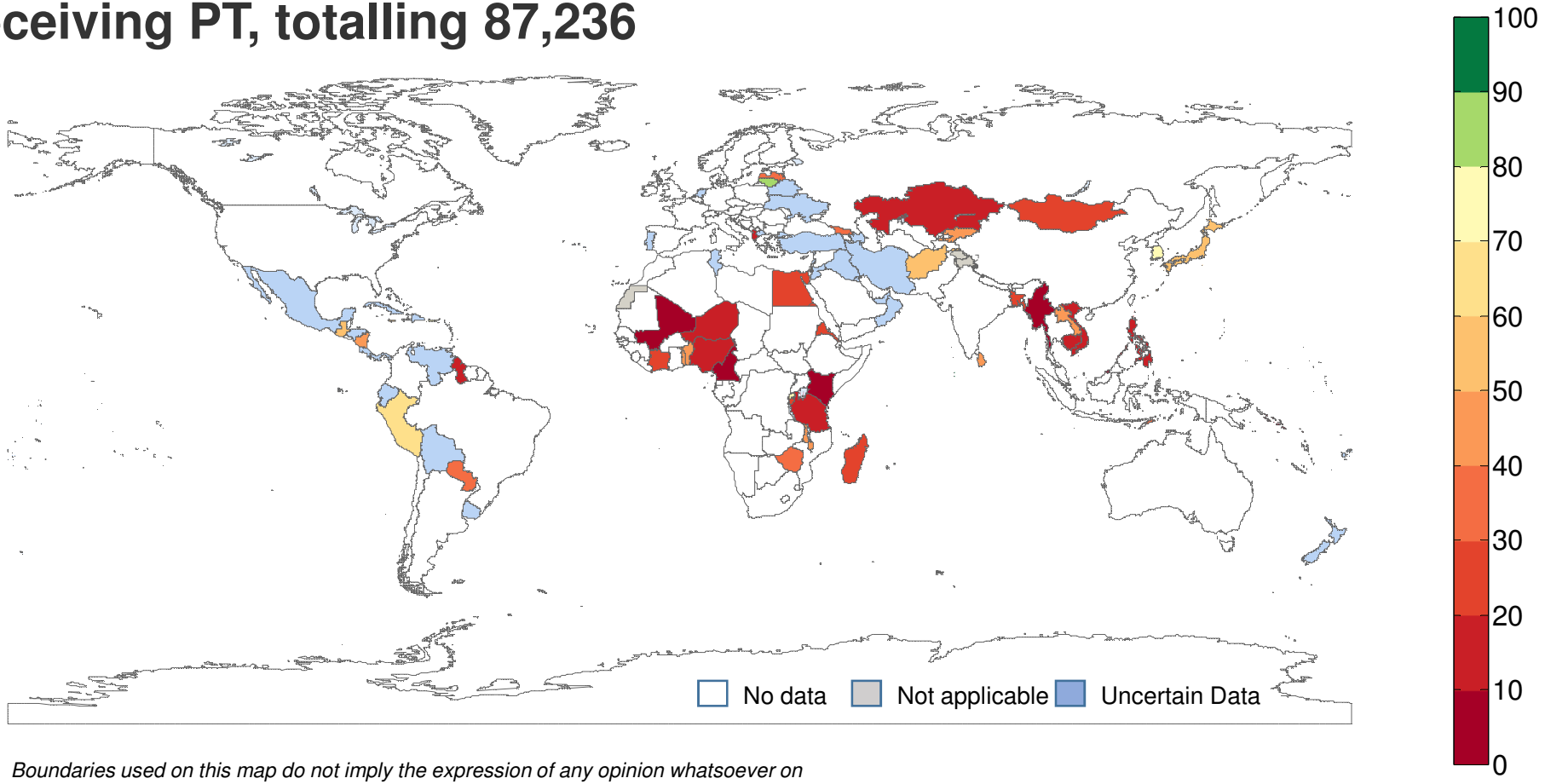
- Globally, it is estimated that 1.2 million child contacts of people with lab confirmed notified TB are eligible for preventive therapy
  - This underestimates the true need as it does not include:
    - contacts of people with TB missing from care,
    - child contacts of people with notified smear negative TB.

- Only 77 countries reported data on child household contacts receiving preventive TB therapy, totalling 87,236 (only 7% of the 1.2 million estimated to be eligible)

Progress against reaching 90% of people with TB

Preventive treatment coverage for child household contacts (2015)

Only 77 countries reported data on child household contacts receiving PT, totalling 87,236



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Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

Preventive treatment coverage among People Living with HIV (PLHIV) newly enrolled in HIV care

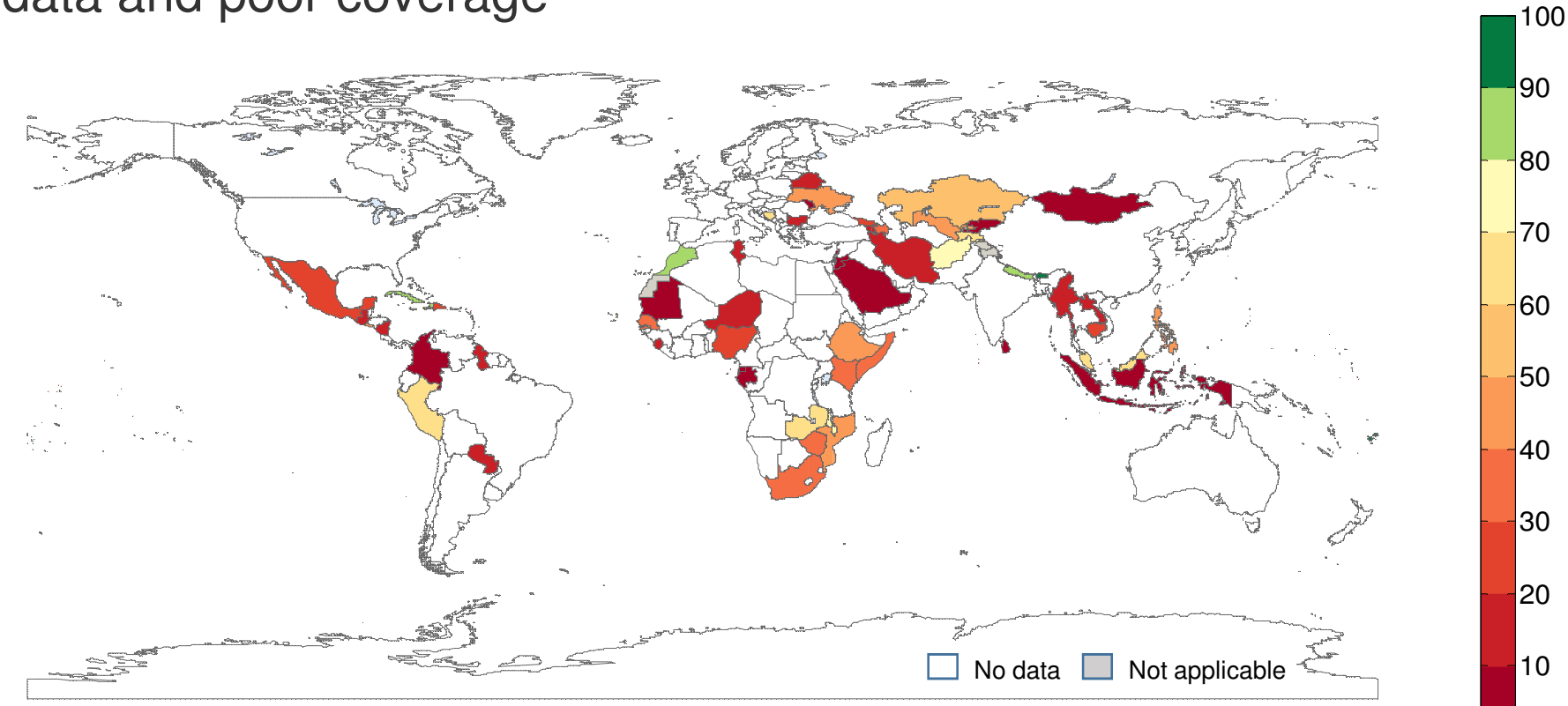
- Worldwide, there are 37 million PLHIV of whom 2.4 million were newly enrolled in HIV care in 2015

- In 2015, 68 countries reported a total of only 910,124 received preventive TB treatment among PLHIV newly enrolled in HIV care
  - Taking 2.4 million as a denominator is an underestimate of true need as it excludes the rest of the PLHIV

Progress against reaching 90% of people with TB

Preventive treatment coverage among PLHIV newly enrolled in HIV care, 2015

Only 68 countries reported a total of 910,124 PLHIV on PT - missing data and poor coverage



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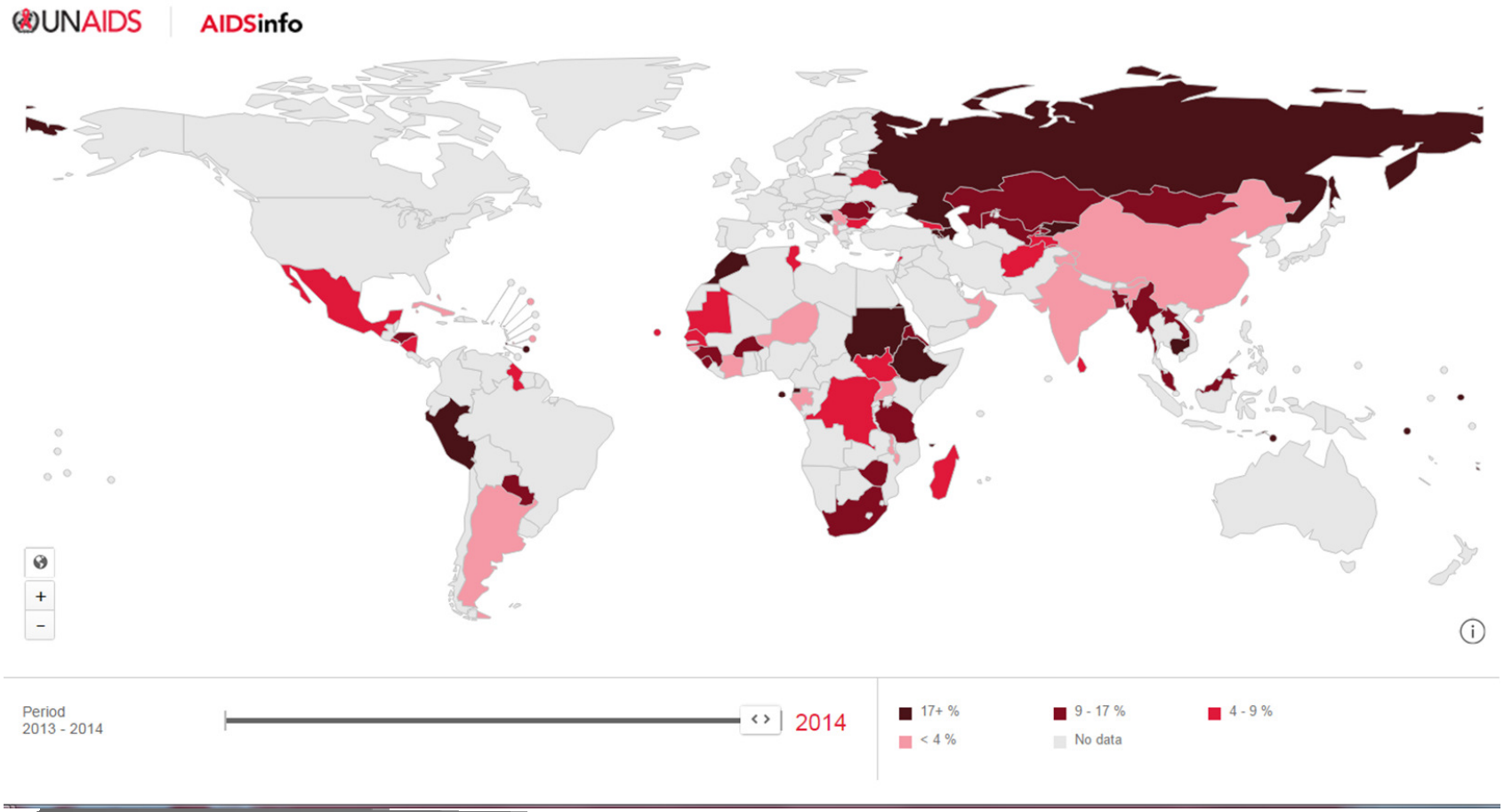
Source: *WHO's global tuberculosis database, March 2016*

Progress against reaching 90% of people with TB

Preventive treatment coverage among PLHIV, 2014. Source: UNAIDS

This is a bigger denominator of all PLHIV. Monitoring of this is needed for impact



Progress against reaching 90% of Key Populations

Overall progress

- Data on most key populations:
  - virtually non-existent at the global level,
  - limited at the regional and national level, and
  - a small quantity is generated at the sub-national level in special projects and initiatives.
- There is no standard approach to the data collection, collation, analysis and its programmatic usage.

Who are Key Populations?

- **Defined in Global Plan as people who are vulnerable, under-served or at-risk**

People who have **INCREASED EXPOSURE** to TB **due to where they live or work**

Prisoners, sex workers, miners, hospital visitors, health care workers and community health workers

PEOPLE WHO:
- live in urban slums
- live in poorly ventilated or dusty conditions
- are contacts of TB patients, including children
- work in environments that are overcrowded
- work in hospitals or are health care professionals

People who have **LIMITED ACCESS TO QUALITY TB SERVICES**

Migrant workers, women in settings with gender disparity, children, refugees or internally displaced people, illegal miners, and undocumented migrants

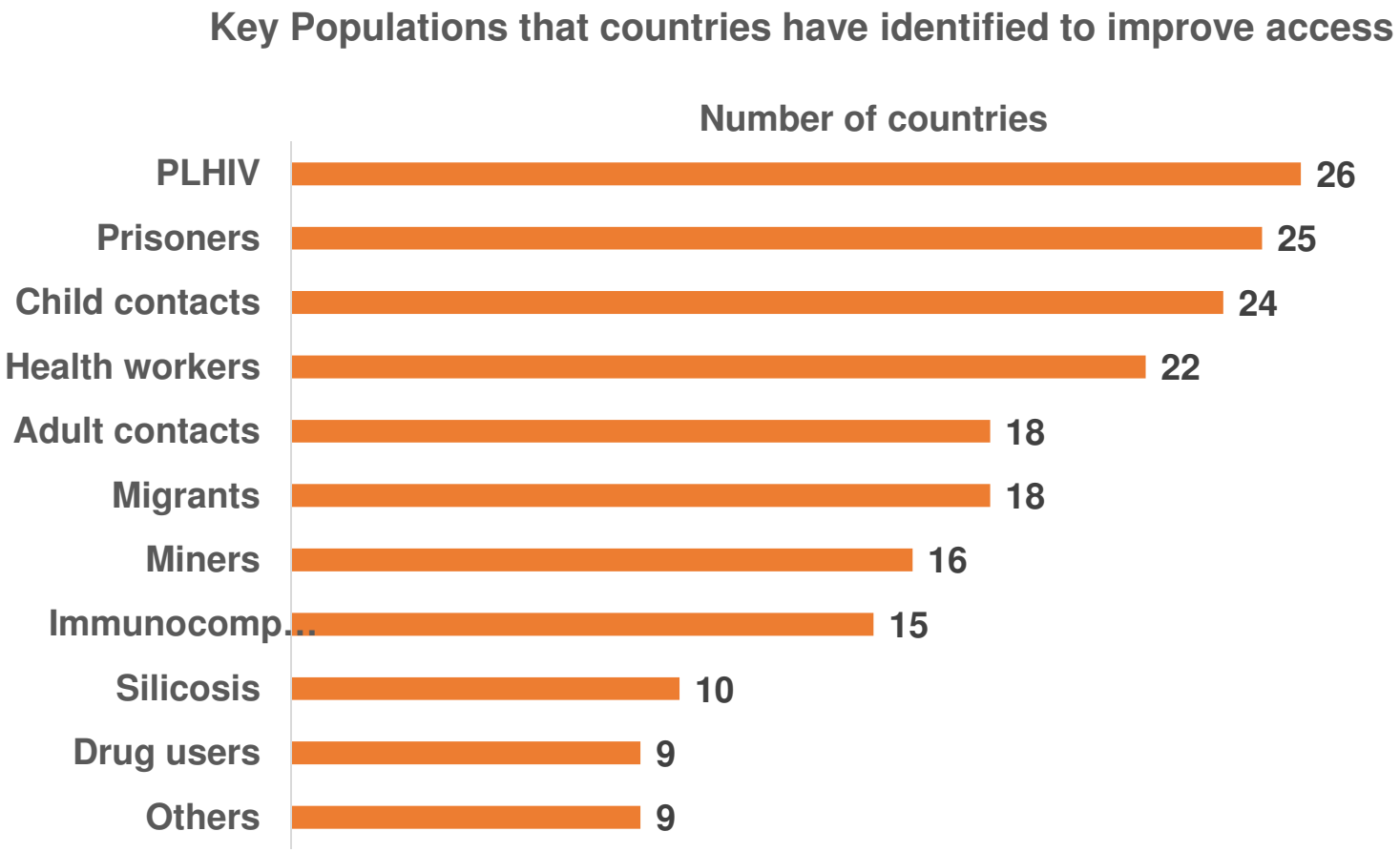
PEOPLE WHO:
- are from tribal populations or indigenous groups
- are homeless
- live in hard-to-reach areas
- live in homes for the elderly
- have mental or physical disabilities
- face legal barriers to access care
- are lesbian, gay, bisexual or transgender

People at **INCREASED RISK** of TB because of **biological or behavioural factors** that compromise immune function

PEOPLE WHO:
- live with HIV
- have diabetes or silicosis
- undergo immunosuppressive therapy
- are undernourished
- use tobacco
- suffer from alcohol-use disorders
- inject drugs

Source: *Global Plan to End TB: 2016-2020*

High TB Burden Countries were asked about Key Population Data from 27 countries that responded

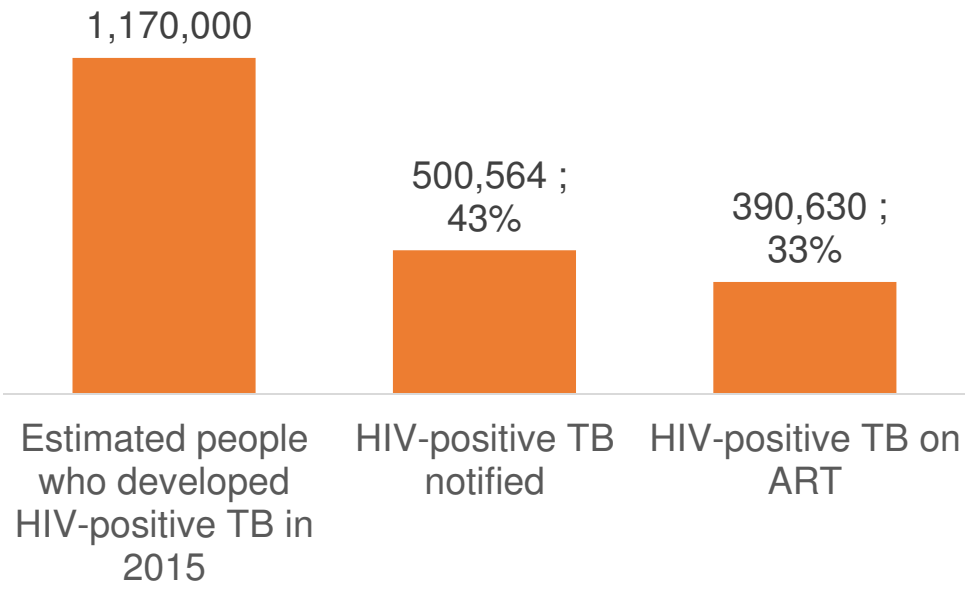


Source: Survey questionnaire to countries

Progress against reaching 90% of Key Populations

Global level – People Living with HIV (PLHIV)

- In 2015, of 10.4 million people developing TB, 1.17 million were estimated to be co-infected with HIV.
- Of them, only 43% (500,564) were diagnosed and notified as HIV-positive TB and only 33% (390,630) of them were put on ART.

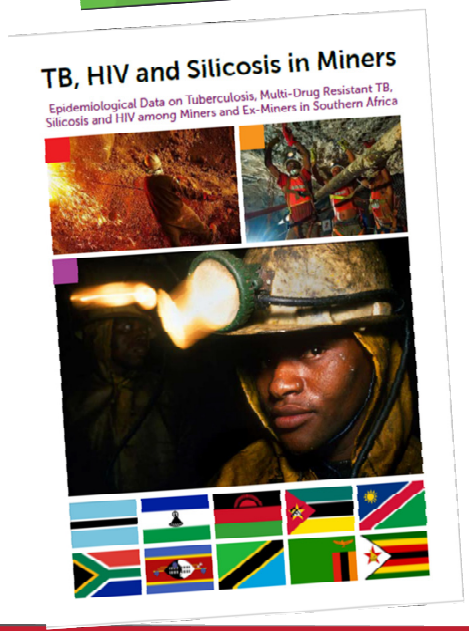


Progress against reaching 90% of Key Populations

Regional level

At the regional level systematic data collection is currently being undertaken in two regions:

- In Europe and Central Asia by the European Centre for Disease Prevention and Control (ECDC)/WHO EURO on migrants and prisoner.
- In the Southern African Development Community (SADC) region by the regional Global Fund TB & Mining project on miners.



ECDC report: http://ecdc.europa.eu/en/publications/Publications/ecdc-tuberculosis-surveillance-monitoring-Europe-2017.pdf

Progress against reaching 90% of Key Populations

Europe and Central Asia

Prisoners

- In 2015, among a total of 1.5 million prisoners, 13,845 (almost 1%) were notified as TB.
- This represents 5.9% of all notified TB in the region. Prisoners in the region are less than 0.2% of the population but have a 24 times higher risk of developing TB.
- Treatment success among 16,152 prisoners starting on first-line treatment (2014) was 59.3% versus 76% overall treatment success in the region

Migrants

- In 2015, 19,658 foreign-born people in Europe and Central Asia developed TB, this represents 6.3% of the total TB notified in the region.

Progress against reaching 90% of Key Populations: SADC Region

Mining

- Among 8 of the SADC countries, the total mining population is 2,182,868 million (1.5% of the total population).
  - Out of 366148 people with TB, 12608 (3.4%) are from the mining community.
  - Of 20,867 people with DR-TB, 469 (2.2%) are from the mining community.
- SADC regional Global Fund TB & Mining project screened 107,430 people for TB.
  - Of which 33,845 (31.5%) are miners/families, 49,057 (45.7%) are ex-miners/families and 24,528 (22.8%) community members.
  - 208 people detected with TB (194/100,000) and 159 were put on treatment.

SADC countries: Botswana, Lesotho, Namibia, Malawi, Mozambique, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe.

Progress against reaching 90% of Key Populations

India – Bold National Plan to end TB by 2025

<u>90% of key populations will be reached by 2018</u>

- 184 districts, plus 4 metropolitan cities and 1 State will conduct active case finding
  - In early 2017, an initial 2-week long active case finding campaign in 50 districts with high-risk or underserved population resulted in testing of 26,000 people from which 1800 (7%) with TB were found, otherwise undetected by passive case finding system
- Key population groups identified separately for urban, rural and tribal areas
- Information campaign along with active case finding in a campaign mode will be conducted 3 times a year

Progress against reaching 90% of Key Populations

Brazil

- In 2015, there were 920,006 prisoners in Brazil, among whom 6,021 were diagnosed with TB, accounting for 8.2% of total notified TB in the country.
- The incidence rate of TB among prisoners was 654 per 100,000, which is 16 times higher compared to the estimated national TB incidence of 41 per 100,000.

South Africa

- Active case finding approach implemented in prisons and mining affected communities

Russia

- 68% of the population was screened in 2015 and about half of the TB detected was through this active screening

TB REACH experience on reaching Key Populations

Some examples

- **Afghanistan**
  - Has an estimated 631,000 internally displaced people (IDP).
  - In 2012, 306,205 people were screened for TB in 6 provinces
  - 653 were diagnosed with smear positive (SS+) TB
  - The rate of SS+ TB in the IDPs was 213 per 100,000 - five times higher than the national rate
- **19 projects on contact investigation in 11 high burden countries across Africa, Asia and the Middle East**, were implemented in 2010-2012 in rural and urban settings and with reduced access to TB services:
  - 139,052 household contacts were screened
  - 2,498 contacts (1.8%) were diagnosed with TB (SS+)
  - The rate of SS+ TB in contacts was 1796 per 100,000

Progress against achieving 90% treatment success

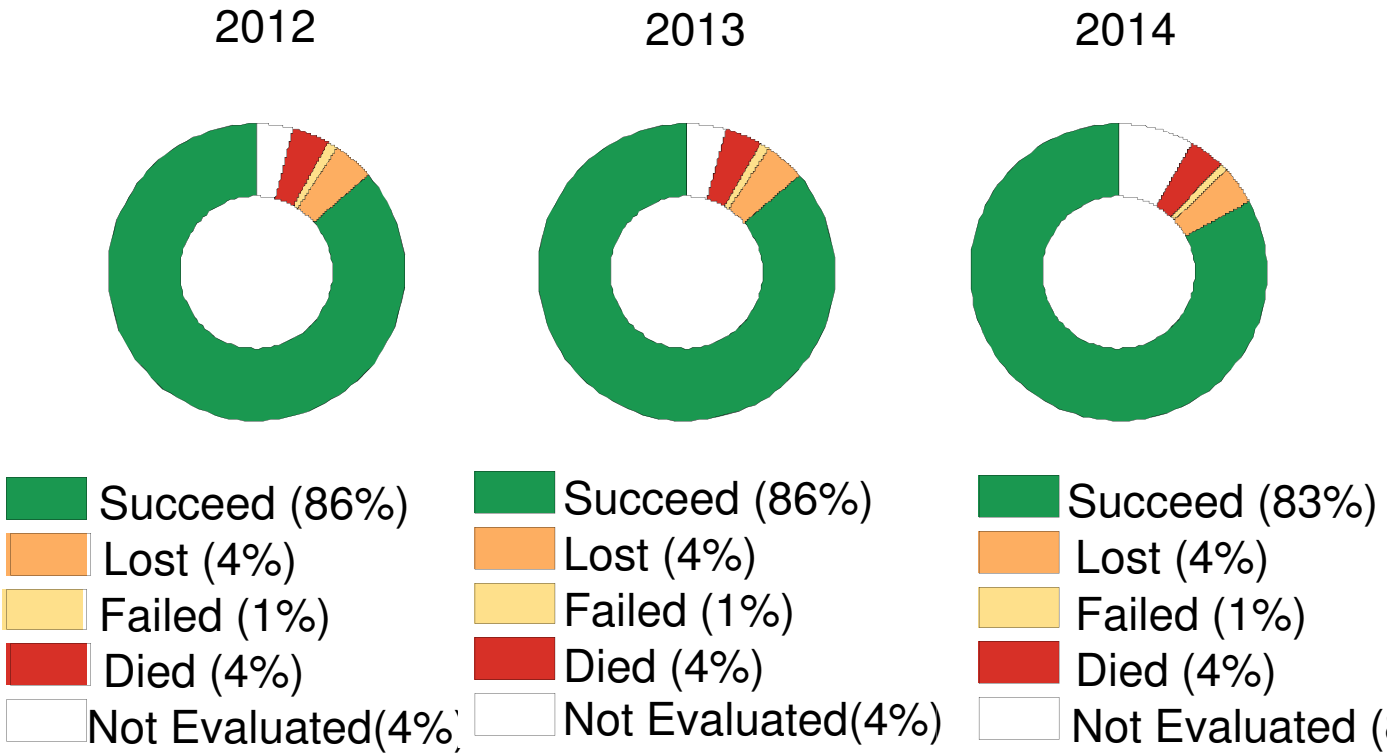
Overall progress

- Treatment success
  - for first-line treatment is at 83%
  - for second-line treatment is 51%.
  - no routine surveillance data available to assess successful completion of preventive treatment.

Progress against achieving 90% treatment success

First line treatment success

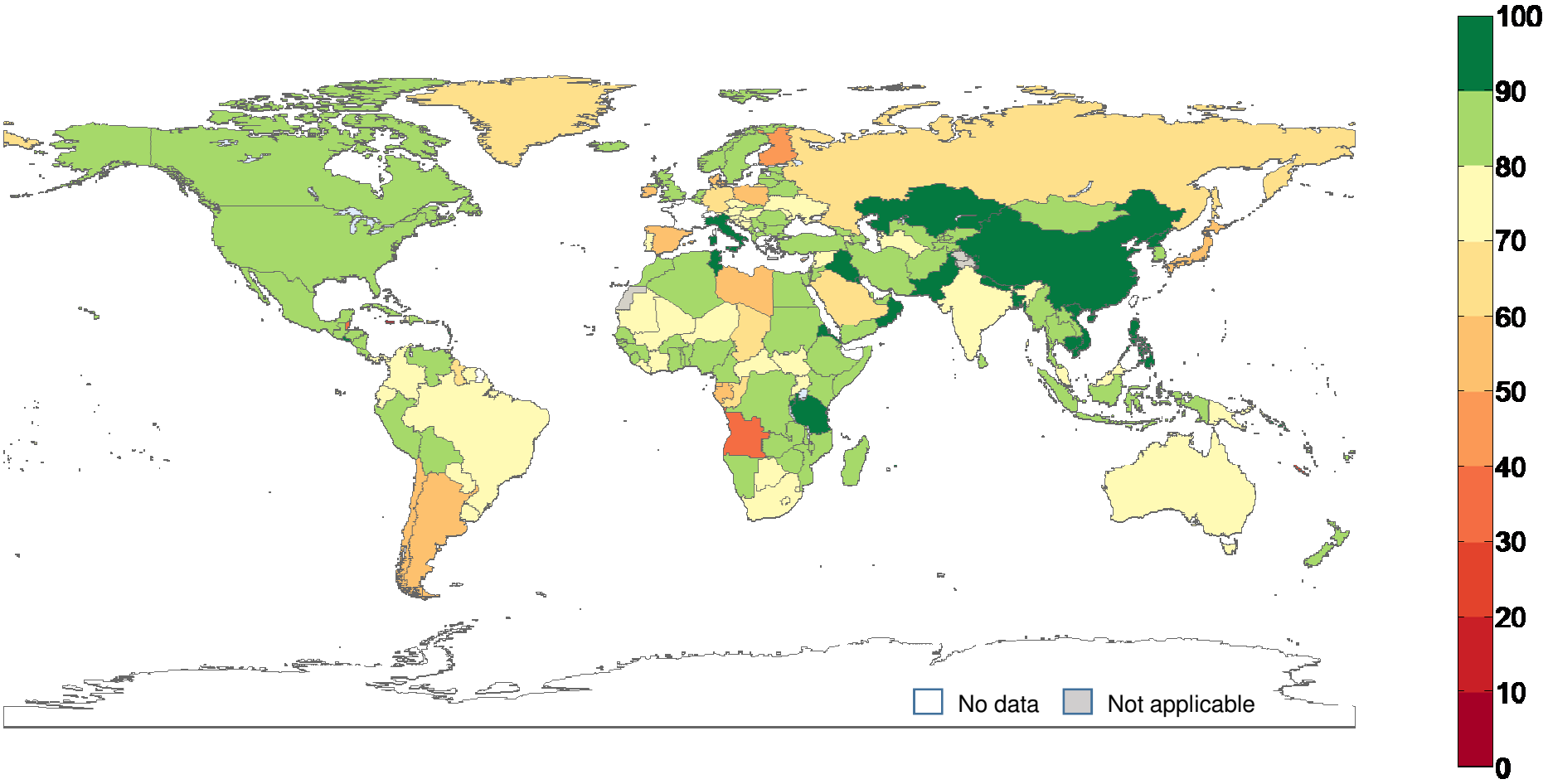
- The global treatment success rate is 83%
- Has dropped from 86% in 2013 due to an increase in the proportion of people with TB not evaluated



Source: *WHO's global tuberculosis database, March 2016*

Progress against achieving 90% treatment success

First line treatment success, 2014 cohort



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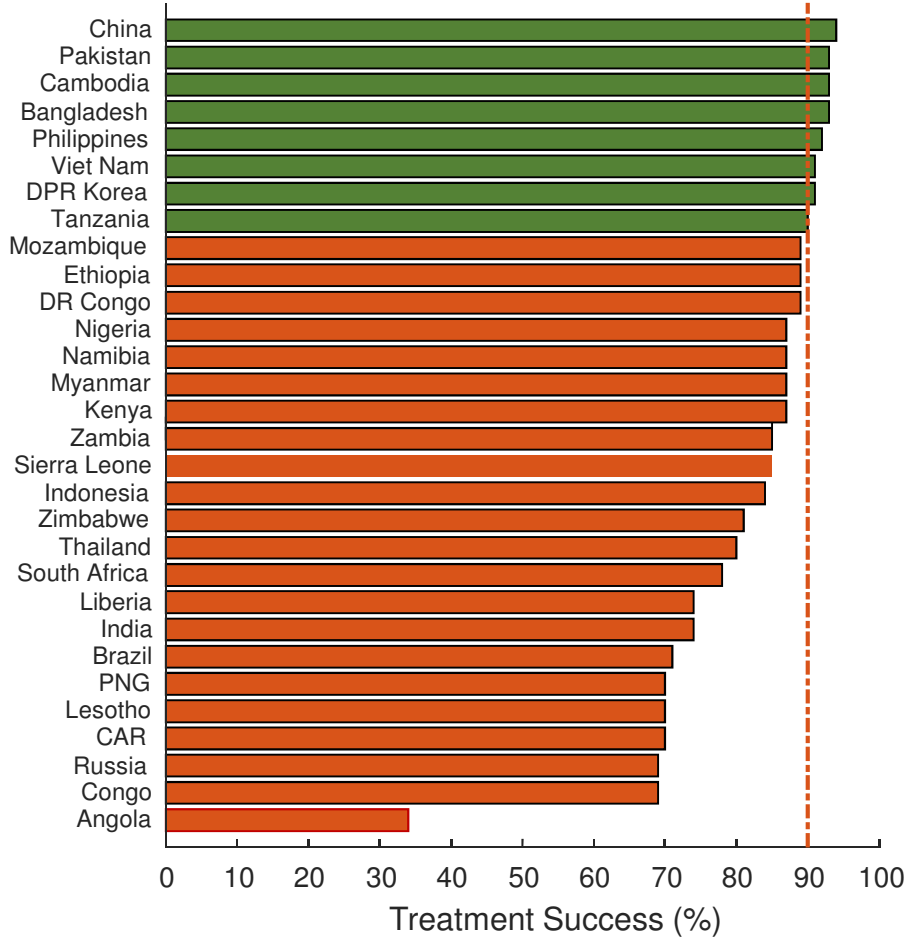
Source: *WHO's global tuberculosis database, March 2016*

Progress against achieving 90% treatment success

First line treatment success (2014 cohort)

- Out of 30 high TB burden countries, 8 countries already meeting the 90% target

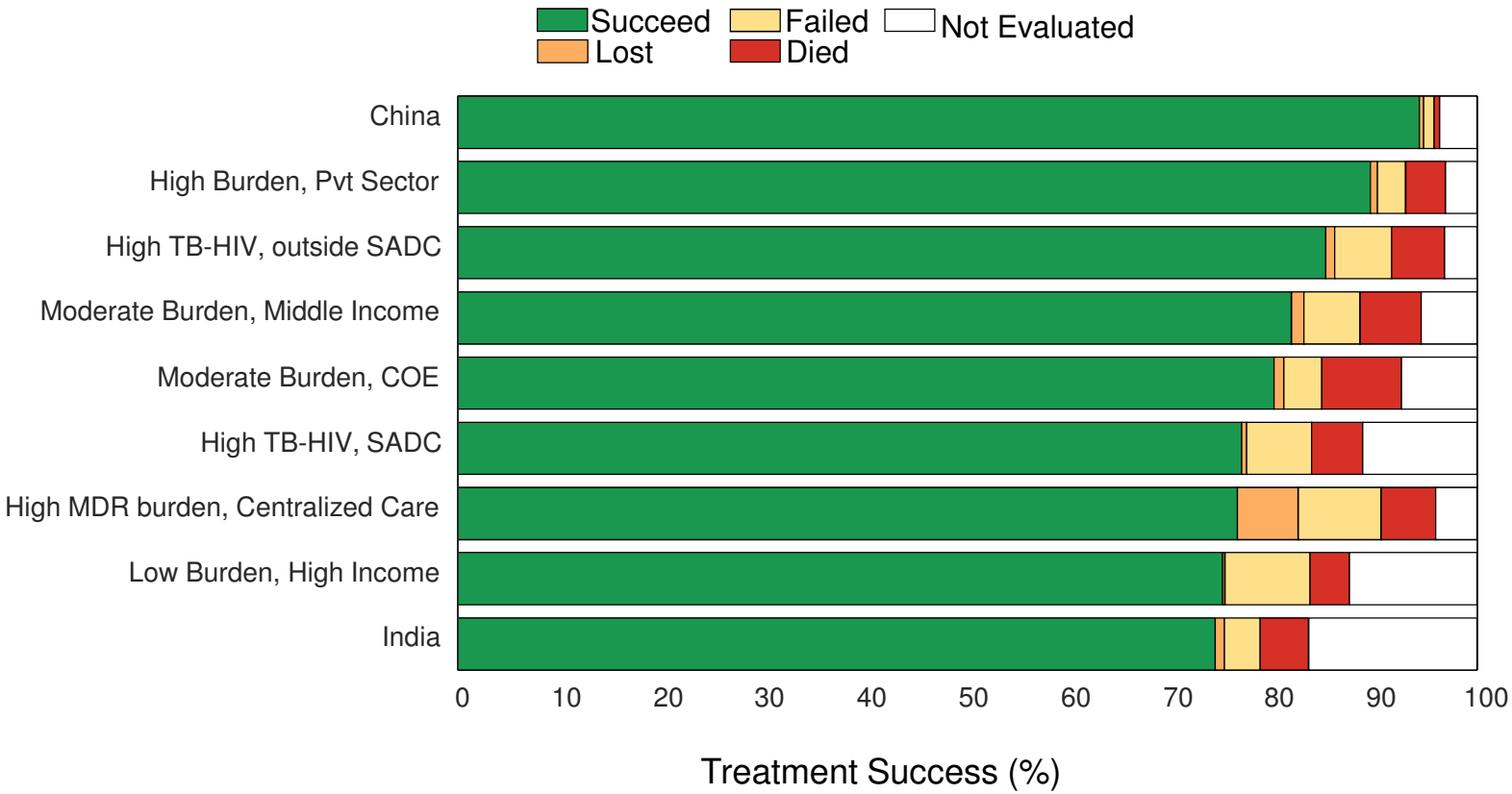


Source: *WHO's global tuberculosis database, March 2016*

Progress against achieving 90% treatment success

First line treatment success (2014 cohort)

Global Plan nine country settings



Source: *WHO's global tuberculosis database, March 2016*

Progress against achieving 90% treatment success

First line treatment success (2014 cohort)

TB treatment success among People Living with HIV (PLHIV)

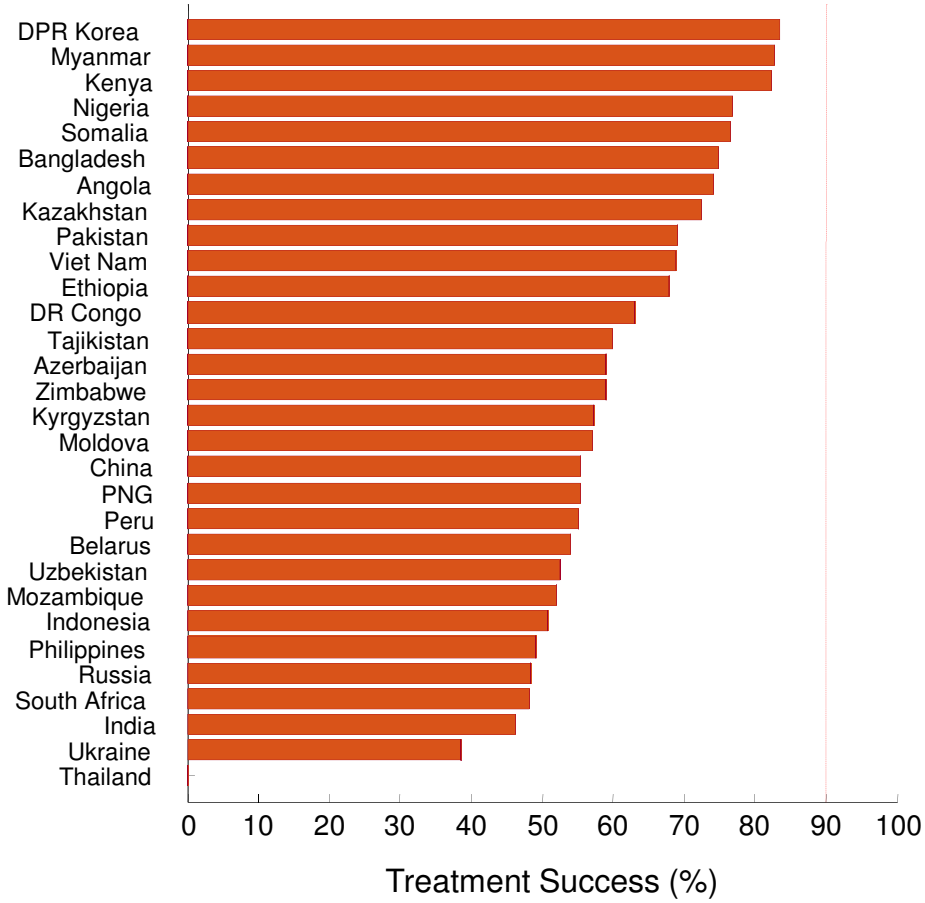
- Only 112 countries reported on treatment outcome for HIV-positive TB
  - The global treatment success for HIV-positive TB on first-line treatment was 75%
  - In two WHO Regions (European and Eastern Mediterranean) first line treatment success of HIV-positive TB was below 50%.

Progress against achieving 90% treatment success

Second-line TB treatment success (2013 cohort)

Out of 30 high DR-TB burden countries

- 5 countries are below 50%
- 22 countries are between 50-80%
- 3 countries are between 80-85%

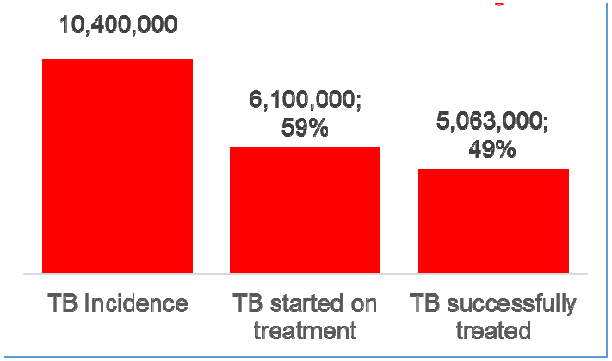


Source: *WHO's global tuberculosis database, March 2016*

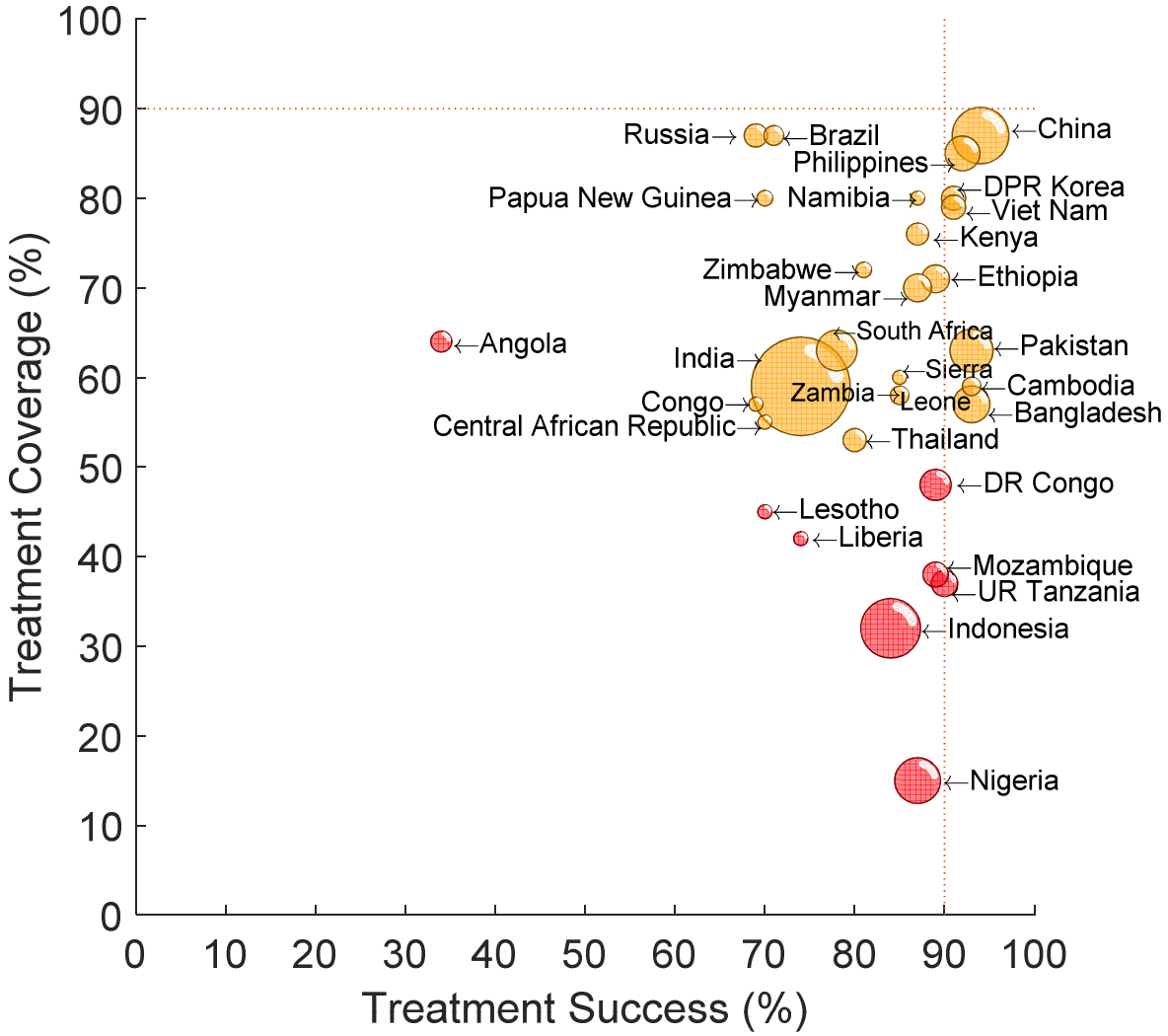
Treatment success among people on preventive TB therapy

There is **no** data reported on treatment completion among PLHIV or child contacts who have started on preventive TB therapy

Drug-susceptible TB – Treatment coverage and treatment success in 30 high TB burden countries

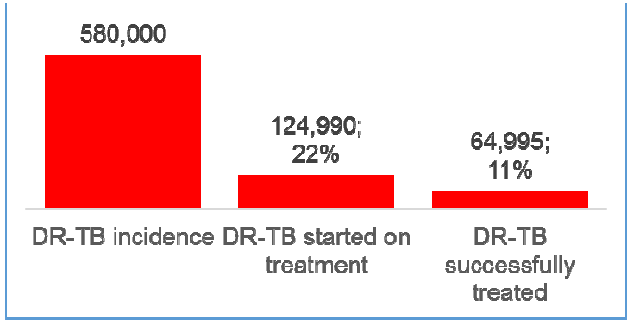


- Biggest gap is in diagnosis of TB
- **Only half (49%) of the estimated people who developed TB are successfully treated**

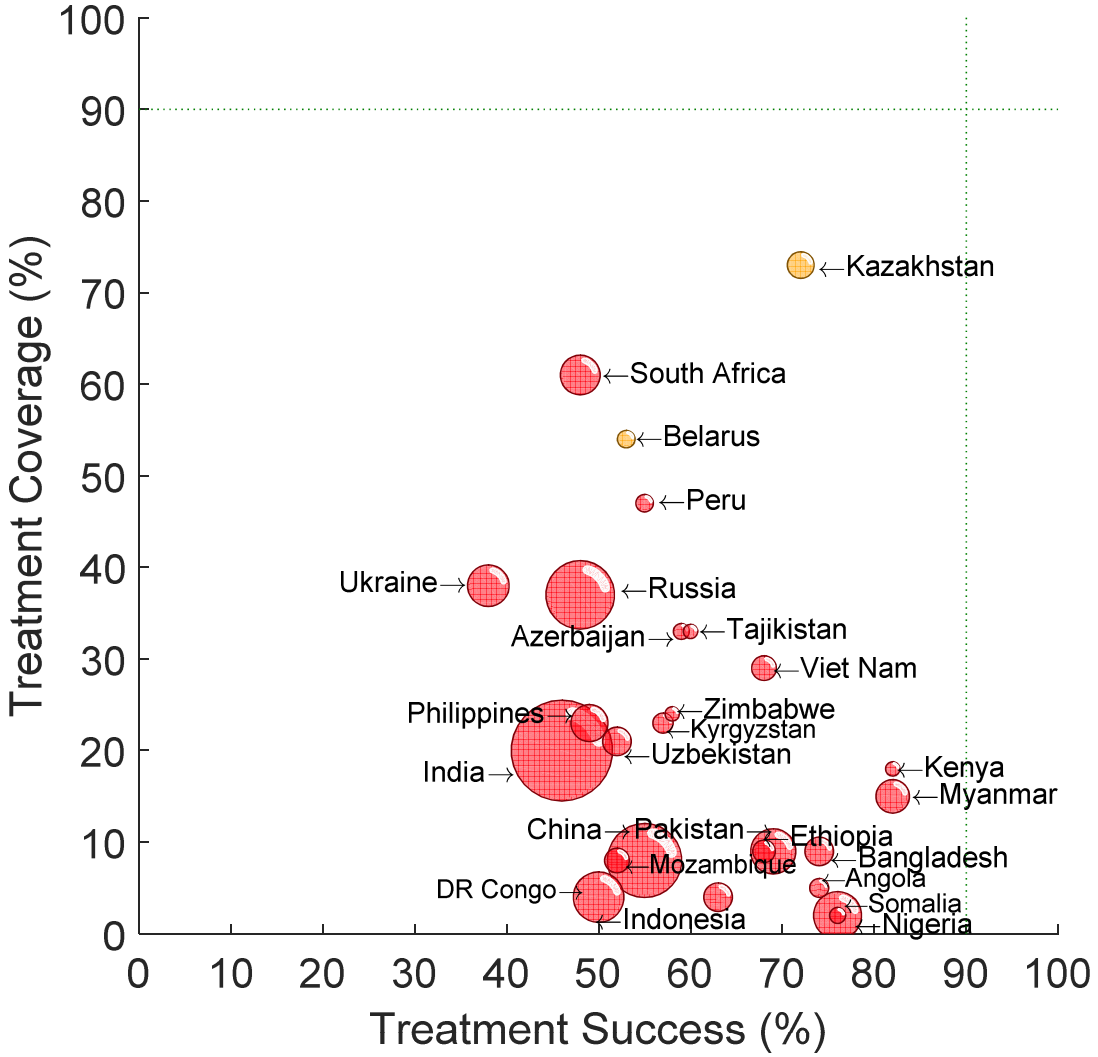


Source: *WHO's global tuberculosis database, March 2016*

Drug-resistant TB – treatment coverage and treatment success in 30 high DR-TB burden countries



- Biggest gap is in diagnosis of DR-TB
- Treatment outcome is poor but some countries achieving 80% treatment success, and new regimen/drugs offer hope
- **Only 1 in 10 people estimated to develop DR-TB are successfully treated**



Source: *WHO's global tuberculosis database, March 2016*

Focus of the monitoring report of 90-(90)-90 targets

Collection, analyzing and reporting on the existing global TB data in this progress report has highlighted:

- Highlights the dramatic and difficult situation – response not at par with the size of the burden
- Points out progress or lack of progress in different areas related to the 90-(90)-90 targets

Now, how can the monitoring improve?

- Data gaps and policy issues related to monitoring is in the next few slides

Gaps in data and monitoring policy……1

Reaching 90% of all people with TB

Gaps	Benefits of addressing the gap
1. **Care cascade data on diagnosis** is missing at global level and not prioritized at national level • Number of presumptive TB • Laboratory data on numbers tested and numbers positive • Number diagnosed with TB	This data is critical for: • Monitoring gaps in the care cascade, such as initial dropouts during the diagnostic process or between diagnosis and treatment. • The change in policy from a treatment based notification to a diagnosis based notification as recommended by the Global Plan
2. **Age and sex disaggregation** in notification data is incomplete • 0-5 year age group is missing in 33 countries for DS-TB notifications • Age and sex disaggregation is missing for DR-TB notifications	This data is needed for: • Monitoring TB treatment coverage in young children • Monitoring DR-TB treatment coverage for men, women and children.

Gaps in data and monitoring policy……2

Reaching 90% of all people with TB (contd..)

Gaps	Benefits of addressing the gap
3. **DR-TB incidence estimates are available only for 2015** – incidence trends are missing. • There are indications of increasing trends in some regions/countries, e.g. in WHO-EUR the proportion of DR-TB among notified TB has gone up from 11% to 18% in last 5 years.	This data will allow monitoring of time trends of treatment coverage among DR-TB
4 **Preventive therapy data is incomplete:** - • 139 out of 218 countries have not reported data on PT for PHHIV or contacts • Additionally data quality is an issue	Complete and good quality data along with a denominator that reflects the true need will allow for better monitoring of preventive treatment
5. **Policy on denominators** for coverage and treatment success need to be reconsidered • Treatment coverage and treatment success should have denominators that reflects all in need of treatment and not a subset of people recruited on treatment/care	Denominators that reflect the full need will promote impact and avoid a false sense of well being.

Gaps in data and monitoring policy……3

Reaching 90% of Key Populations

Gaps	Benefits of addressing the gap
1. **Missing data at global level** • Other than PLHIV there is no other Key Population data	Data on Key Population size estimates, TB burden estimates and disaggregated notification will help in monitoring how well we are reaching the vulnerable and underserved
2, **Incomplete data at regional level** • Only 2 regions are collecting priority Key Population data – Europe & Central Asia and SADC	
3. **Lack of standard approach at national level** • Data exists in a number of countries but lacks standard approach in data collection and reporting	

Gaps in data and monitoring policy……4

Key Population framework

- As recommended in the Global Plan a framework for key, vulnerable and underserved populations is currently under development in an effort to address gaps in their access to quality TB services.

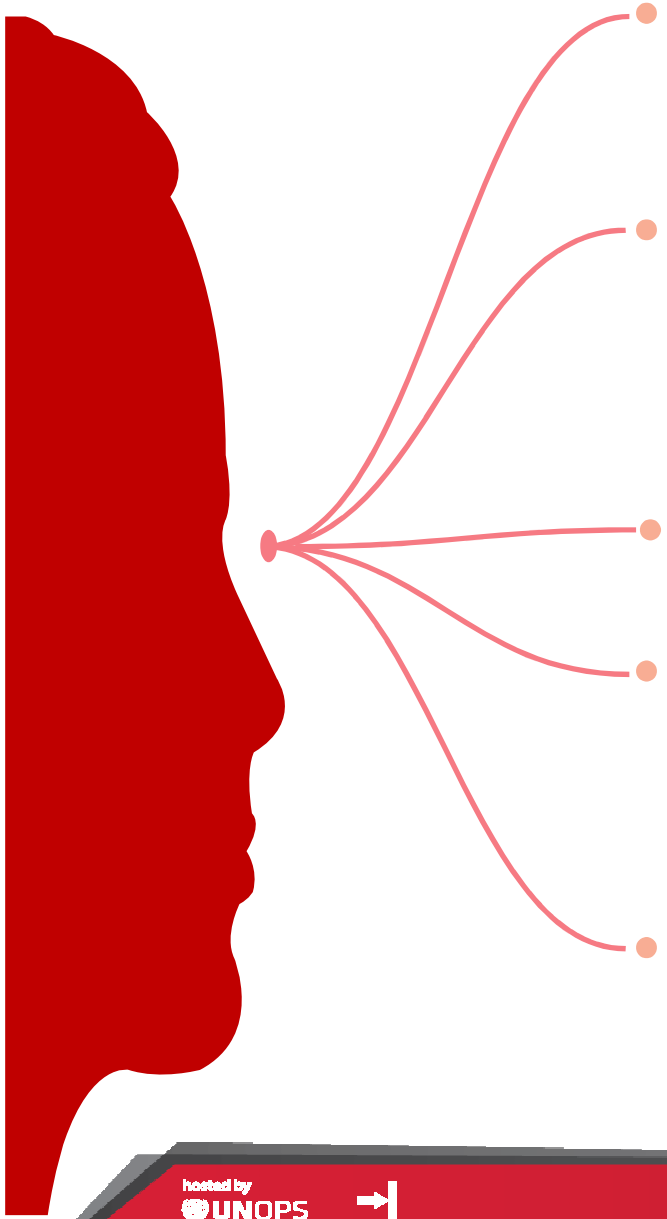
- Tools in the Key Populations Framework will allow countries to
  - Identify specific key populations relevant to the setting
  - Estimate their population size and disease burden
  - Identify barriers to access and relevant programmatic interventions.

Gaps in data and monitoring policy……4

Achieving 90% treatment success

	Gaps	Benefits of addressing the gap
1.	**Age or sex disaggregated** data on treatment outcome is not available at the global level	This data is needed to identify groups that need special attention to improve treatment outcomes
2.	**Treatment outcomes of preventive therapy** is not available	Without outcome and adherence data completion of treatment will remain unknown with doubts on impact. As treatment regimen become shorter and better completion of treatment will become increasingly important to monitor for impact as well as for advocacy

Take Home Messages



Huge gap in reaching people with DS-TB and DR-TB still persist

Although a few examples of progress in recent years is encouraging.

Treatment success for DS-TB has fallen in recent years while that of DR-TB remains unacceptably low

A few countries are showing that it is possible to achieve good treatment success even in DR-TB.

Preventive therapy suffers from grossly incomplete reporting and is currently focused on relatively small groups

Data gaps need to be addressed:

- Age/sex
- Key Populations
- Lab testing and diagnosis data for care cascade
- DR-TB incidence trends

Choice of ALL PEOPLE IN NEED as the denominator is needed to avoid a false sense of success and keep us focused on impact

Denominators that do not reflect the full need may be easier to measure but not good for impact

Thank you

- Suvanand Sahu, Fatima Kazi, Sara Gonzalez, Jacob Creswell, Lucica Ditiu