

**Launched
29 October 2024**

**Main findings and
messages**

Acknowledgements

193 countries and areas that reported data

>500 people who contributed to reporting and review of data

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Funding

USAID; governments of France and Republic of Korea

Background/context

Report purpose

The report provides a comprehensive and up-to-date assessment of the TB epidemic and of progress in the response at global, regional and country levels, in the context of global commitments, strategies and targets

**WHO End TB Strategy, 2016-2035
UN Sustainable Development Goals, 2016-2030
2023 UN high-level meeting on TB**

WHO End TB Strategy

2016–2035

INDICATORS	MILESTONES		TARGETS	
	2020	2025	2030	2035
1. Reduction in number of TB deaths compared with 2015 (%)	35%	75%	90%	95%
2. Reduction in TB incidence rate compared with 2015 (%)	20%	50%	80%	90%
3. Percentage of TB patients and their households facing catastrophic costs due to TB	Zero	Zero	Zero	Zero

UN Sustainable Development Goals

2016–2030

**SDG Target 3.3 includes
ending the TB epidemic**

**TB incidence rate is indicator
for assessment of progress**

2023 UN high-level meeting on TB

Global targets

Indicator	Global Target
TB treatment coverage	90% by 2027
Coverage of TB preventive treatment for priority groups (household contacts of people with TB; people living with HIV)	90% by 2027
Coverage of rapid diagnostic testing for TB	100% by 2027
Coverage of health and social benefits package for people with TB	100% by 2027
Availability of new TB vaccines that are safe and effective	Rollout initiated, preferably within 5 years
Annual funding for universal access to quality prevention, diagnosis, treatment and care for TB	US\$ 22 billion by 2027, US\$ 35 billion by 2030
Annual funding for TB research	US\$ 5 billion by 2027

Main sources of data

Main source of data for report

Annual rounds of global TB data collection from 215 countries and areas

WHO Region	Countries and areas that reported data <u>in 2024</u>	WHO Member States that reported data <u>in 2024</u>
Africa	47/47	47/47
Americas	40/45	34/35
Eastern Mediterranean	21/22	20/21
Europe	40/54	39/53
South-East Asia	11/11	11/11
Western Pacific	34/36	27/27
All regions	193/215	178/194

Plus: SDG, OECD & World Bank databases

Datasets and estimates from UNAIDS

WHO mortality database and Global Health Observatory

Data from national TB prevalence surveys, drug resistance surveys, inventory studies

Main topics

Six main topics covered in the report

- 1. TB disease burden**
- 2. TB diagnosis & treatment**
- 3. TB prevention & screening**
- 4. TB financing**
- 5. Universal health coverage & TB determinants**
- 6. TB research**

Featured topics (on webpages)

- 1. TB & pregnancy**
- 2. The second national TB inventory study in Indonesia**
- 3. Asymptomatic TB**
- 4. Multisectoral accountability in the TB response**
- 5. Community and civil society engagement in the TB response**

Overarching findings and headline numbers

Overarching findings

Although ending the global TB epidemic remains a distant goal, there are several positive trends

- Global rise in number of people falling ill with TB has slowed and started to stabilize
- Global number of people dying from TB each year continues to fall
- WHO African and European regions have made good progress towards the 2025 milestones for reductions in TB incidence and mortality
- Globally reported number of people newly diagnosed with TB reached new high in 2023
- Treatment success rate for people with drug-susceptible TB has been sustained at a high level and continues to improve for people with drug-resistant TB
- Coverage of TB preventive treatment has been sustained for people living with HIV and continues to improve for household contacts of people diagnosed with TB

Headline global numbers

2023 unless stated

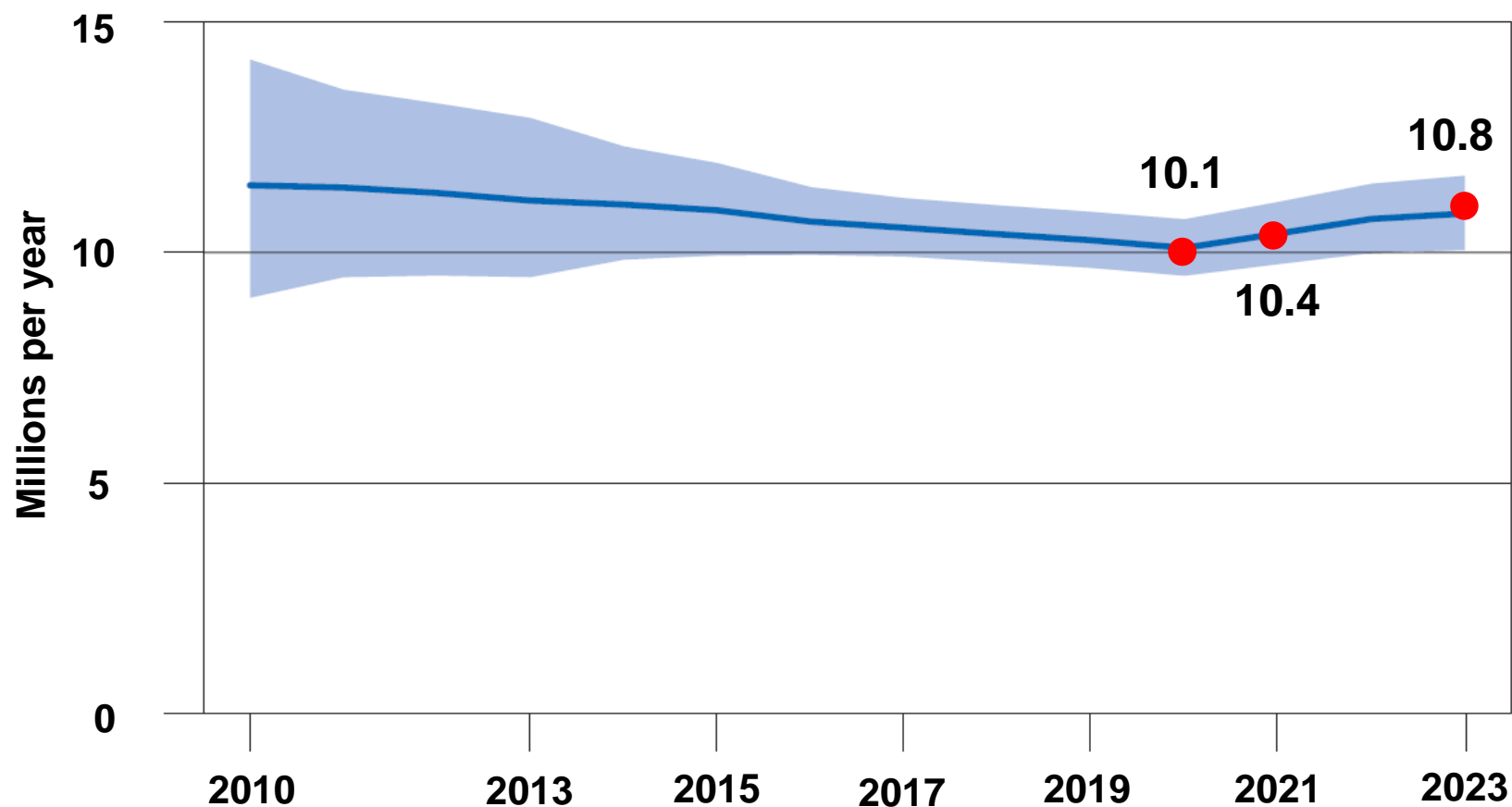
- Incident TB cases: **10.8 million** (95% UI: 10.1-11.7 million)
 - rate, 134 per 100,000 population
- TB deaths: **1.25 million** (95% UI: 1.13-1.37 million)
 - 1.09 million among HIV-negative people
 - 161k among people with HIV*
- Number of people newly diagnosed with TB and reported: **8.2 million**
- Treatment success rate, drug-susceptible TB (enrolled in 2022): **88%**
- Incident cases of MDR/RR-TB: **400k** (95% UI: 360-440k)
- Number of people enrolled on treatment for MDR/RR-TB: **176k**
- Treatment success rate, MDR/RR-TB (enrolled in 2021): **68%**
- Number of people provided with TB preventive treatment: **4.7 million**

*officially classified as deaths caused by HIV/AIDS

Estimates of TB disease burden

Global rise in TB incidence slowing, starting to stabilize

Best estimate of 10.8 million in 2023, small rise from 10.7 million in 2022

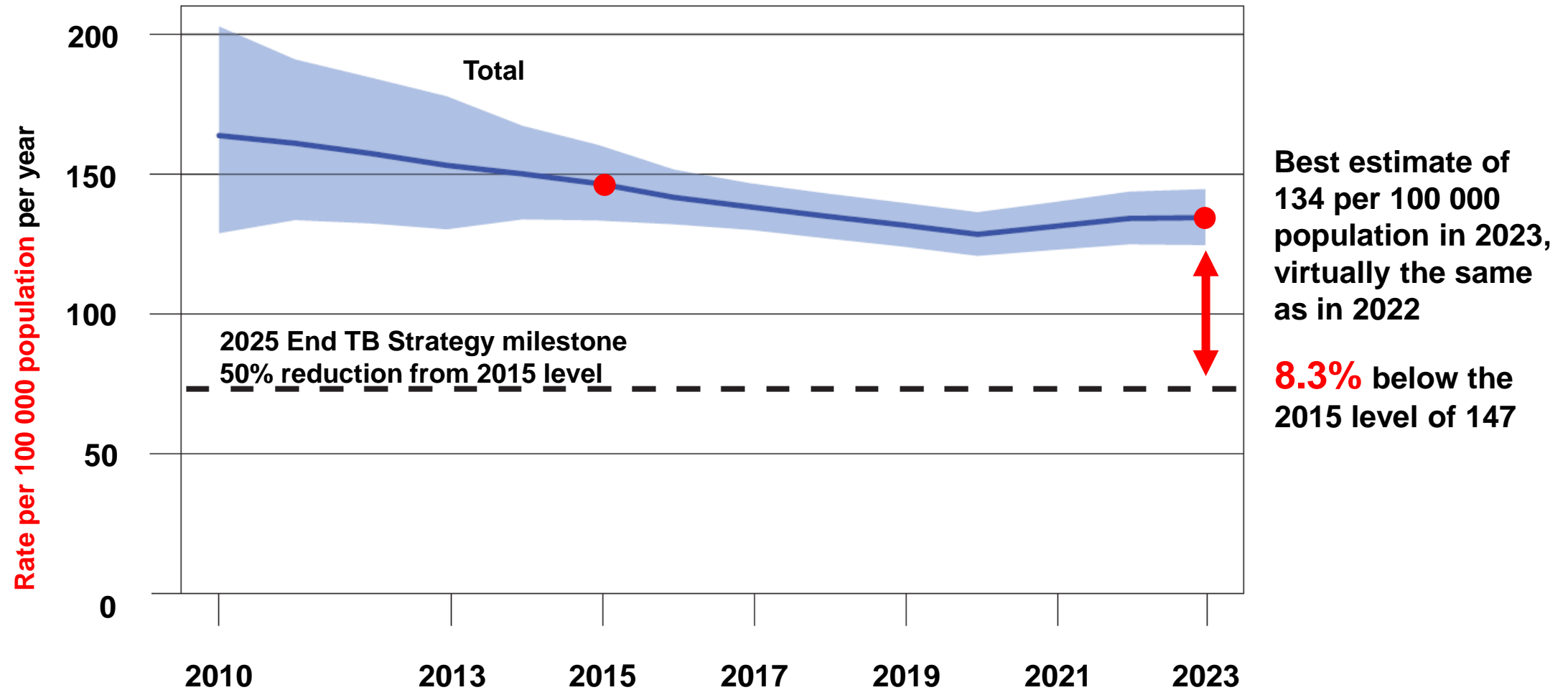


Most of the increase between 2022 and 2023 due to **population growth**

Shaded area shows 95% uncertainty interval

Global TB incidence rate almost stabilized

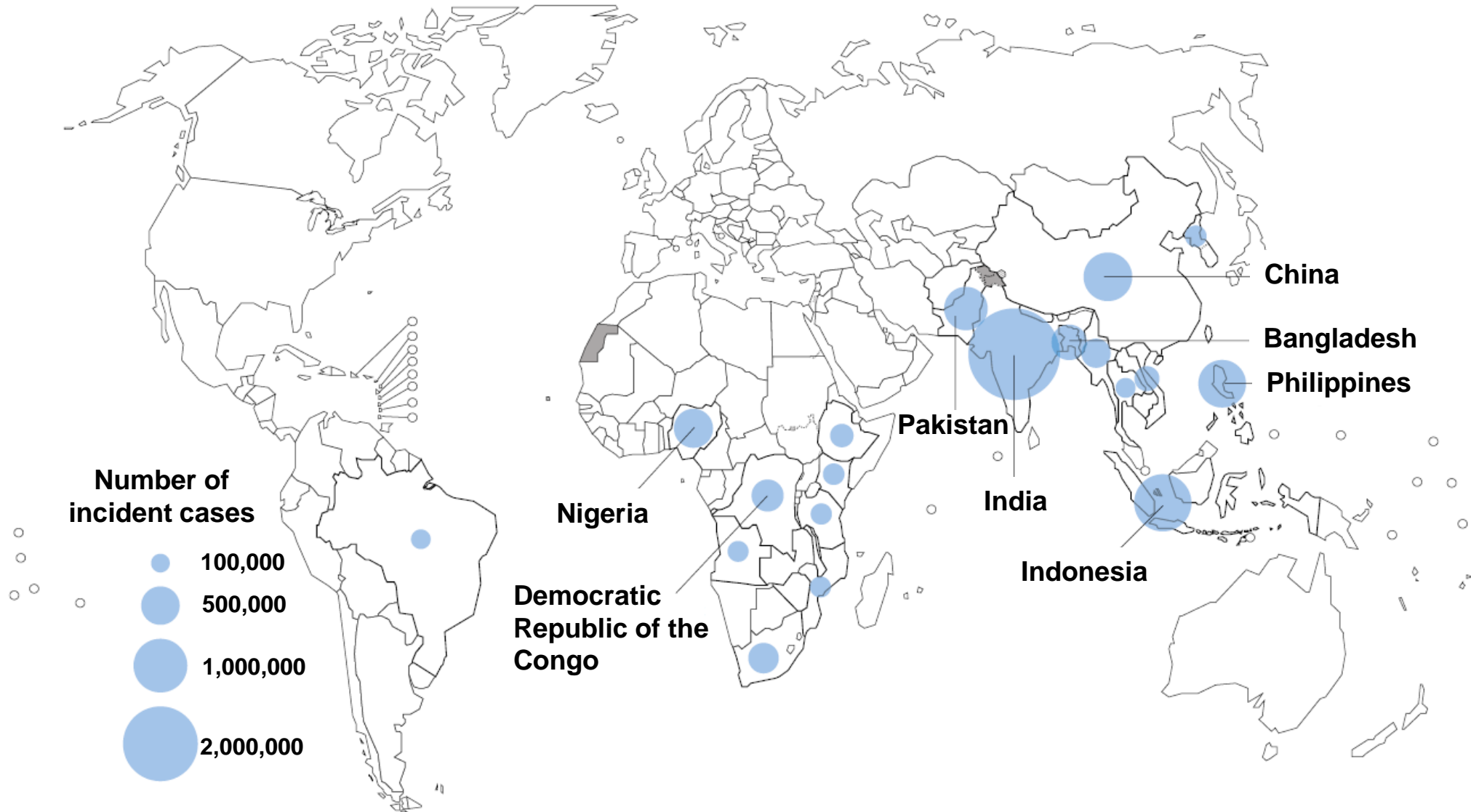
0.2% increase between 2022 and 2023



Reduction 2015–2020 was 12%; from 2010–2020, 22%

8 countries, 67% of global cases in 2023

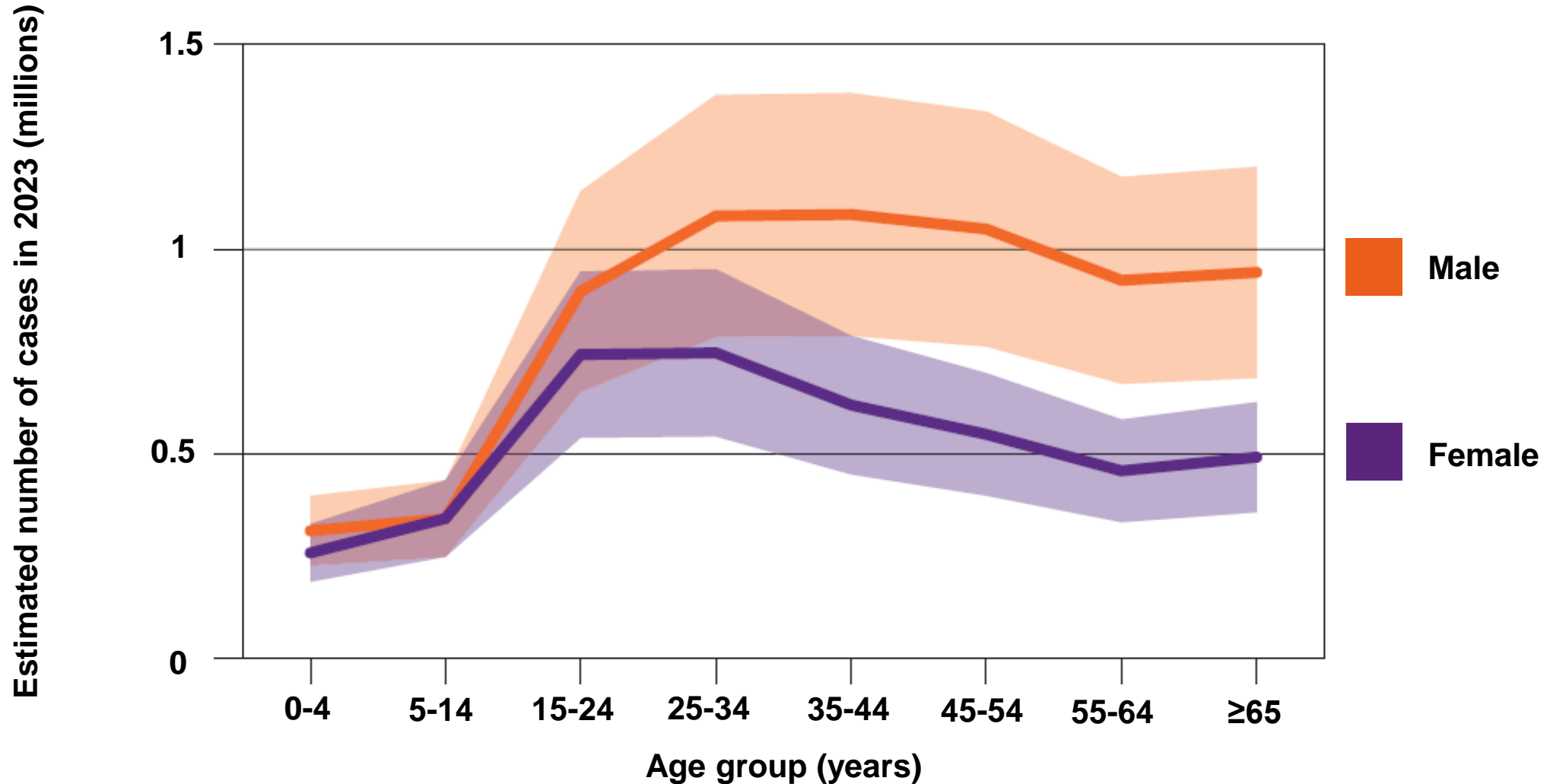
87% in 30 high TB burden countries



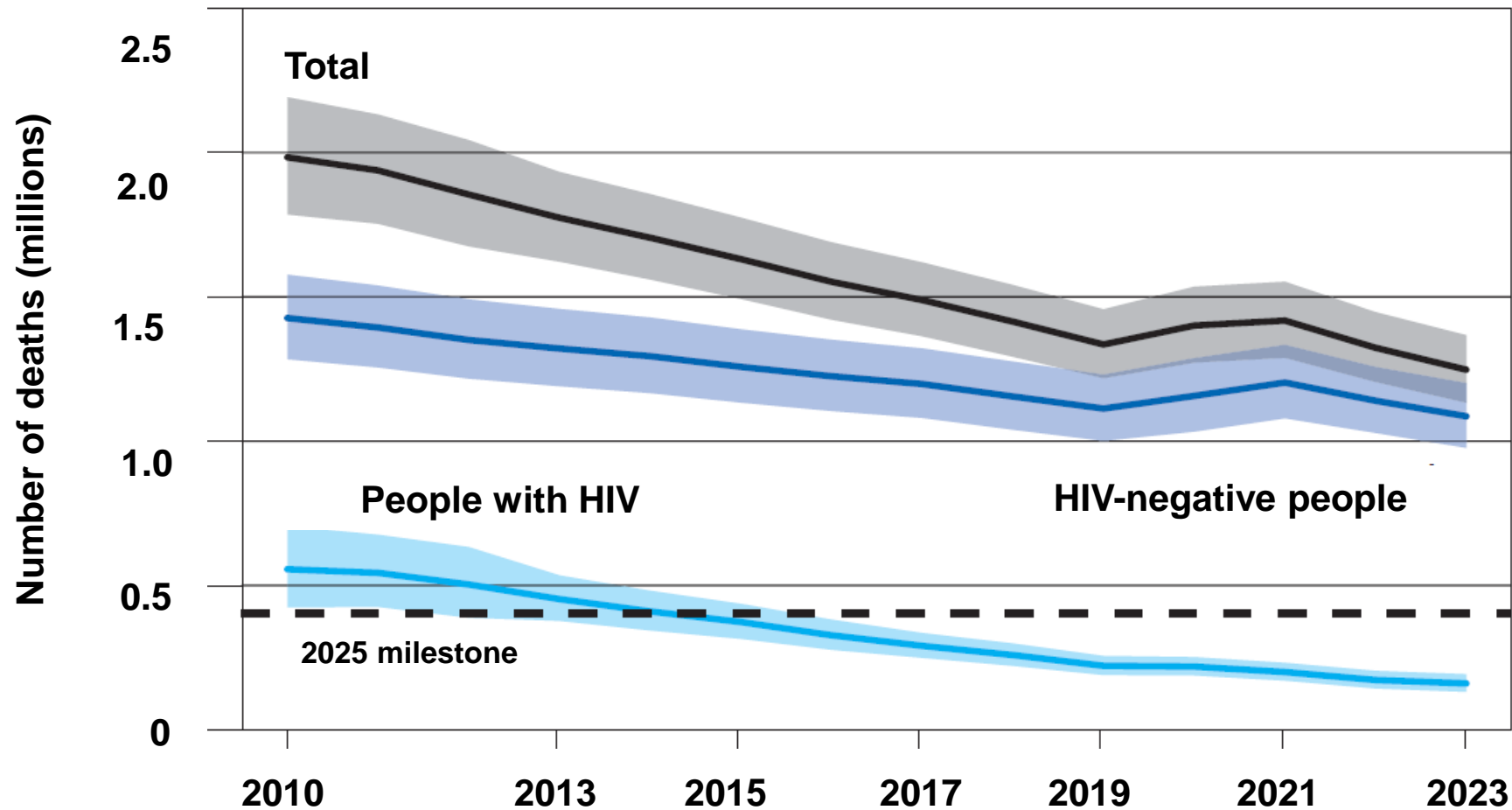
Circles shown for countries with at least 100 000 estimated cases

Most TB cases among adults, more men than women

55% men, 33% women, 12% children and young adolescents (<15 years)



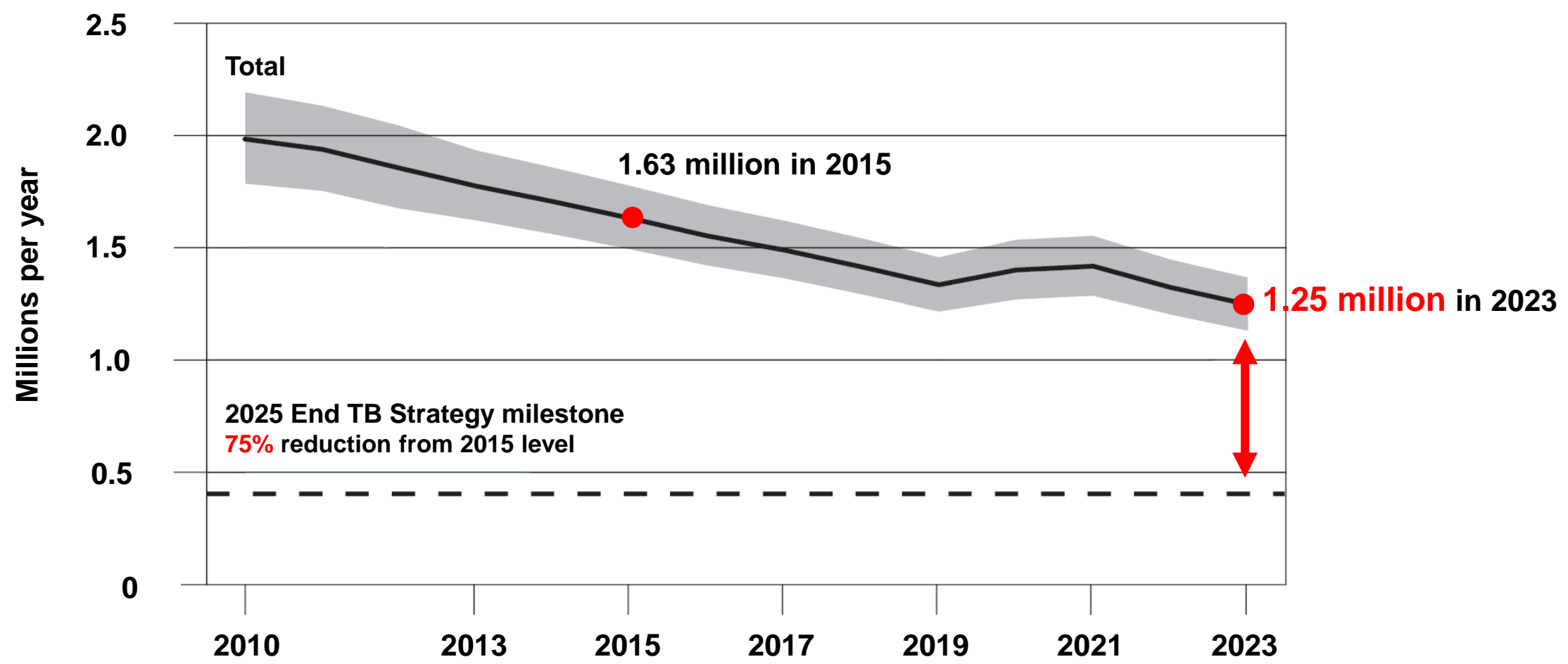
Further fall in global number of deaths from TB, continuing reversal of 2019-2021 increases



1.25 million in 2023, down from 1.32 million in 2022, 1.42 million in 2021 and 1.40 million in 2020; back below the level of 2019 in 2022 and 2023

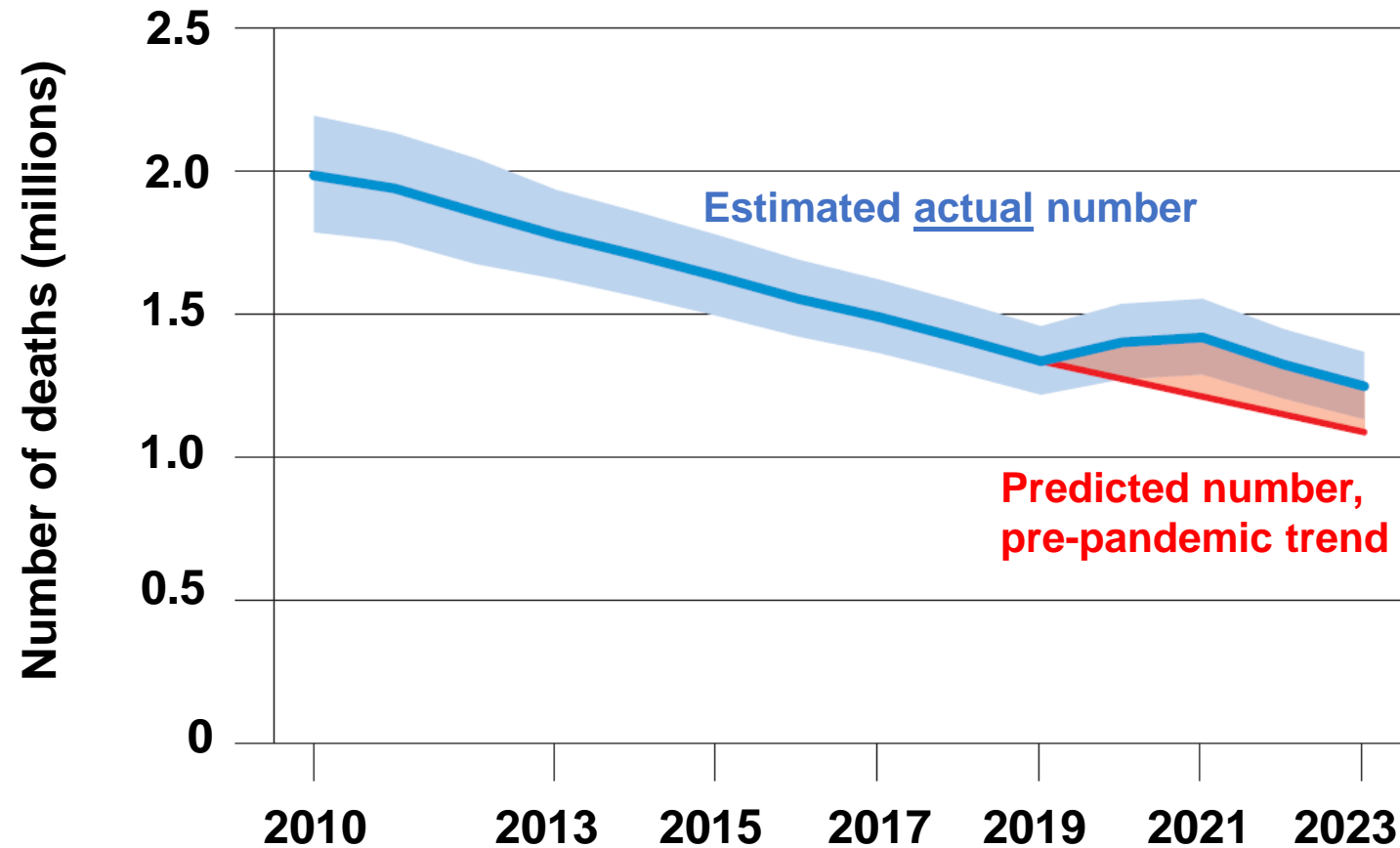
161k in 2023, down from 374k in 2015

2023 number of deaths 23% below level of 2015, almost one third of the way to 2025 milestone



Reduction 2015–2019 was 19%; from 2010–2019, 33%

COVID-related disruptions resulted in almost **700,000** excess deaths from TB



Shaded area
between **solid blue**
and **red lines**: excess
deaths in 2020, 2021,
2022, 2023

Blue shaded area shows 95% uncertainty interval

In 2023, TB *probably* returned to being the leading cause of death from an infectious disease

Estimated number of **TB** deaths
among HIV-negative people*

1.09 million
(95% UI: 0.98–1.20)

Officially reported number of
deaths from **COVID-19**

320,000

Estimated number of deaths
from **HIV/AIDS**

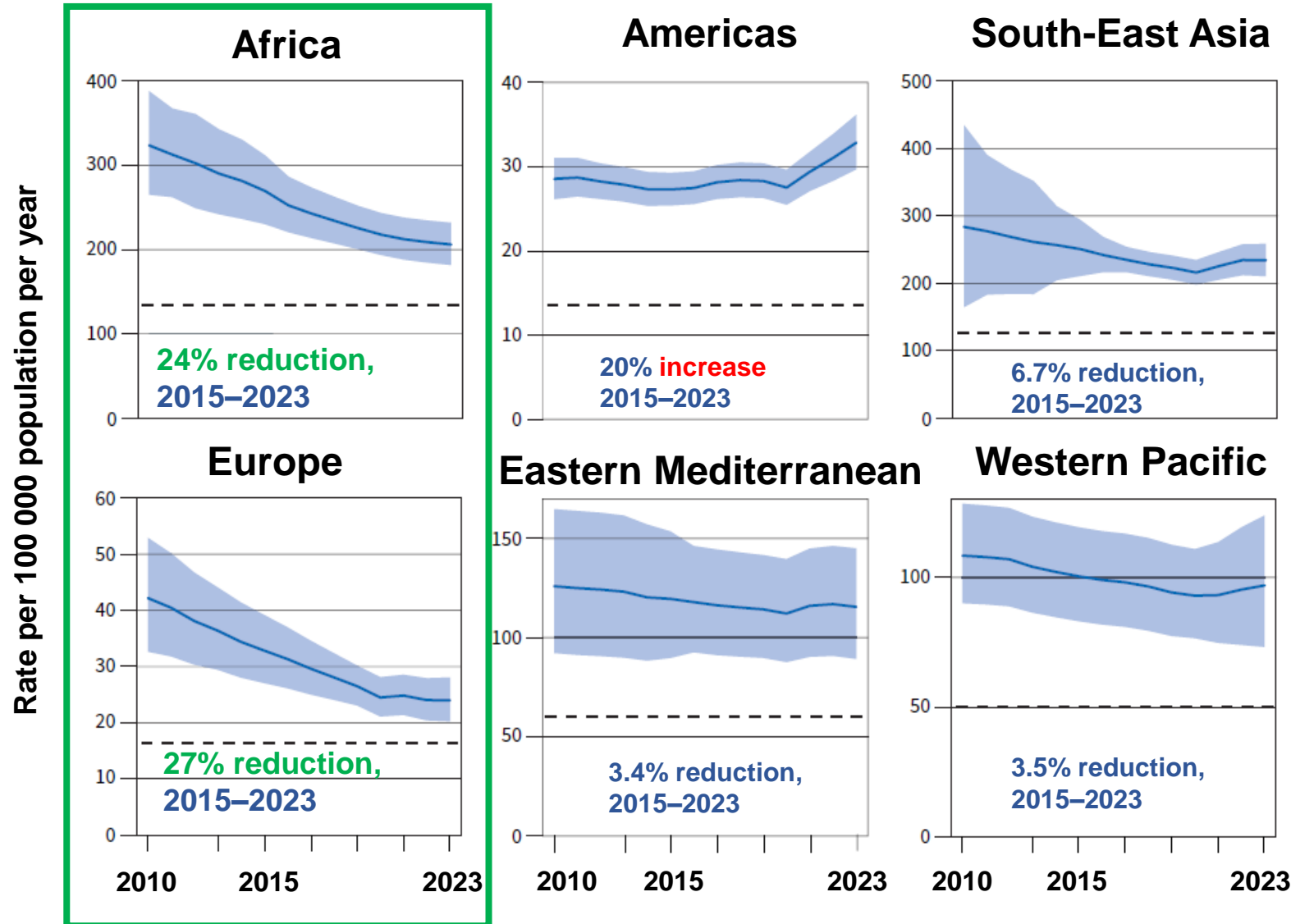
0.63 million
(95% UI: 0.61–0.66)

*Deaths from TB among people with HIV officially classified as deaths from HIV/AIDS

Sources: Coronavirus (COVID-19) dashboard. Geneva: World Health Organization; 2023 (<https://covid19.who.int/>)
AIDS info. Geneva: UNAIDS; 2024. (<https://aidsinfo.unaids.org/>).

Better progress in reducing TB incidence rate in 2 regions

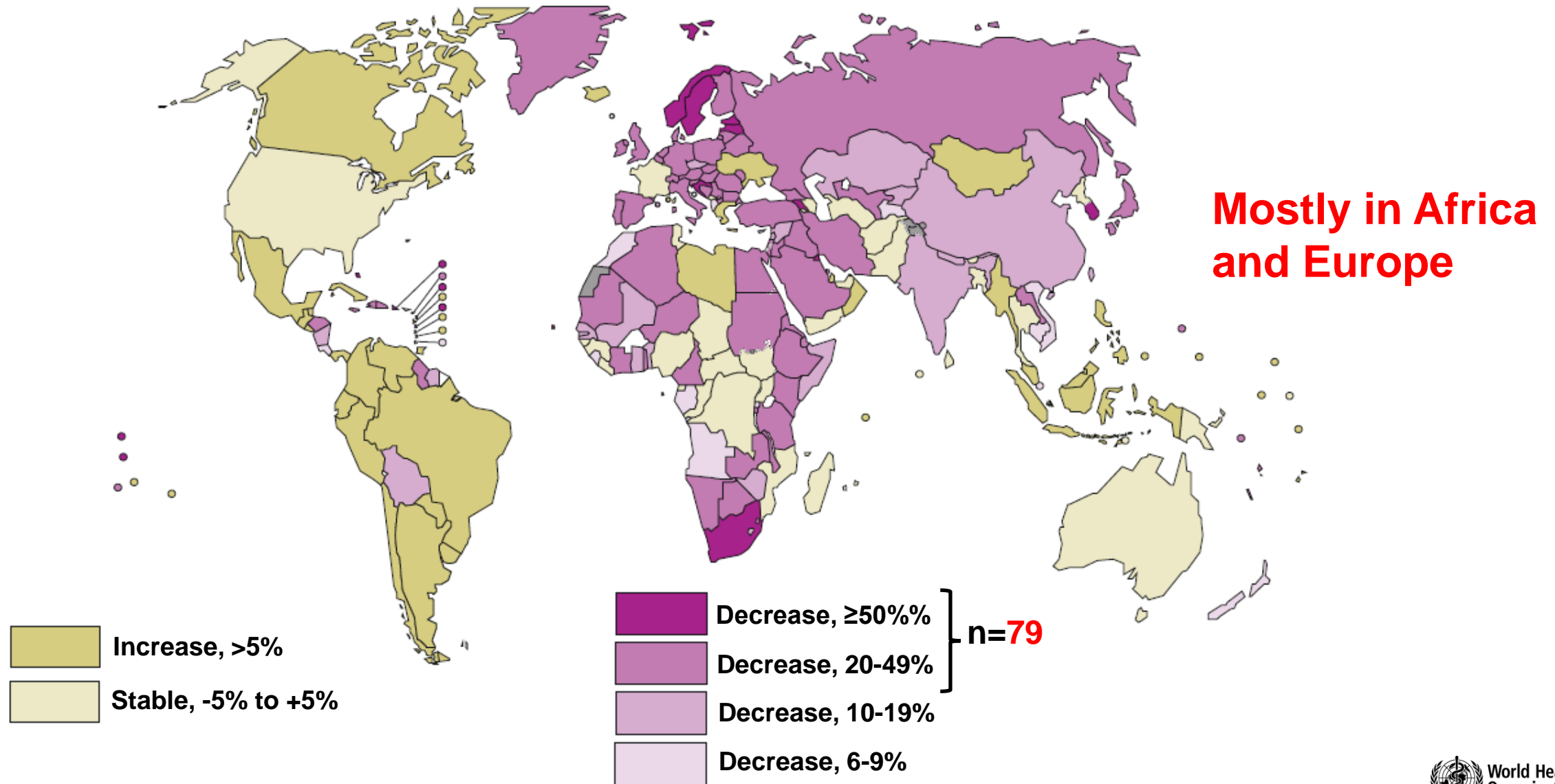
**African Region
&
European
Region**
estimated to
have passed
first Strategy
milestone
(**20%** reduction
from 2015)



Dashed lines
show 2025
milestone of
the End TB
Strategy: 50%
reduction,
2015–2025

Shaded areas
show 95%
uncertainty
intervals

79 countries estimated to have achieved reduction of $\geq 20\%$ since 2015

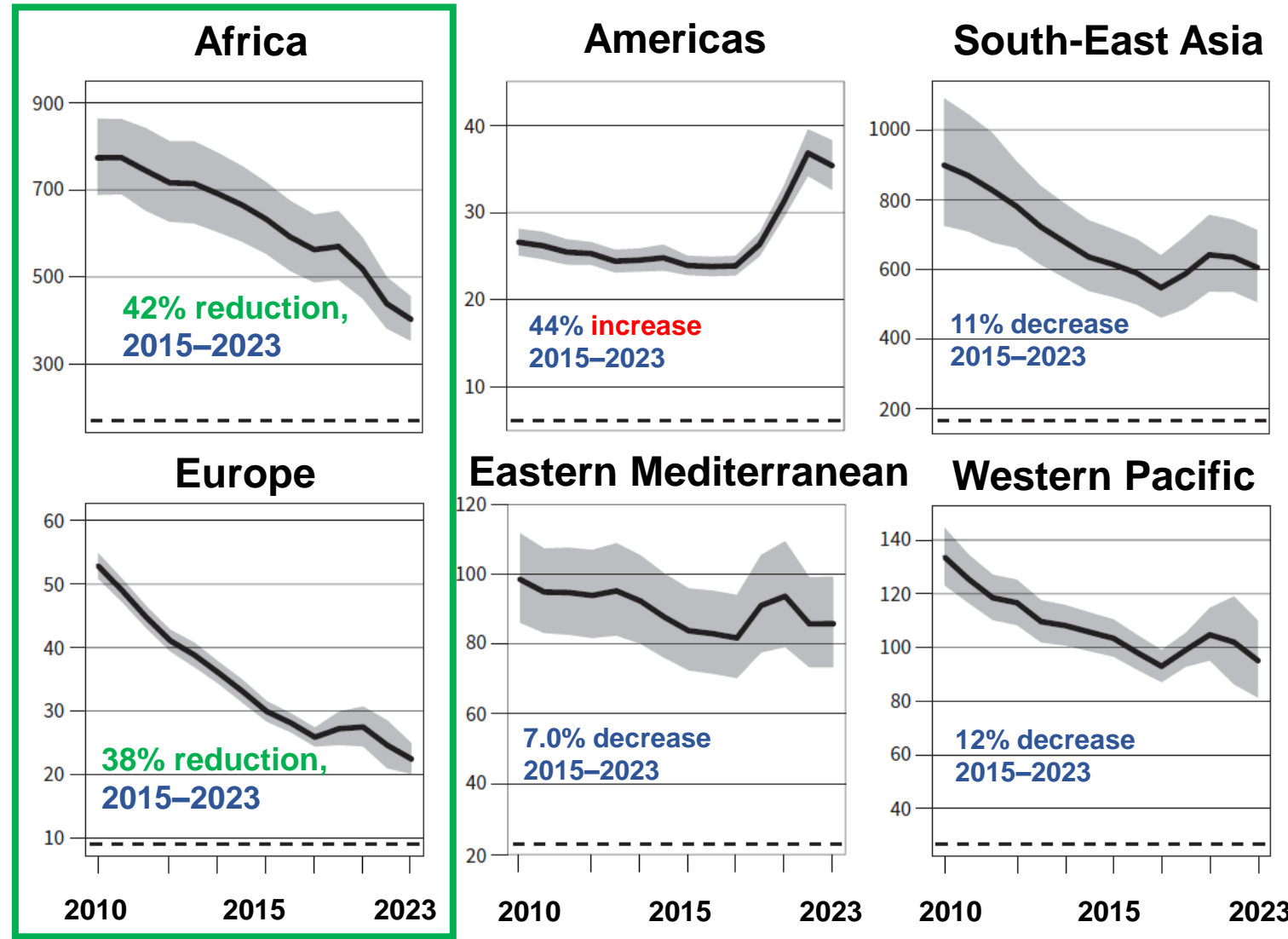


Better progress in reducing TB deaths in 2 regions

African Region & European Region estimated to have passed first Strategy milestone (35% reduction from 2015)

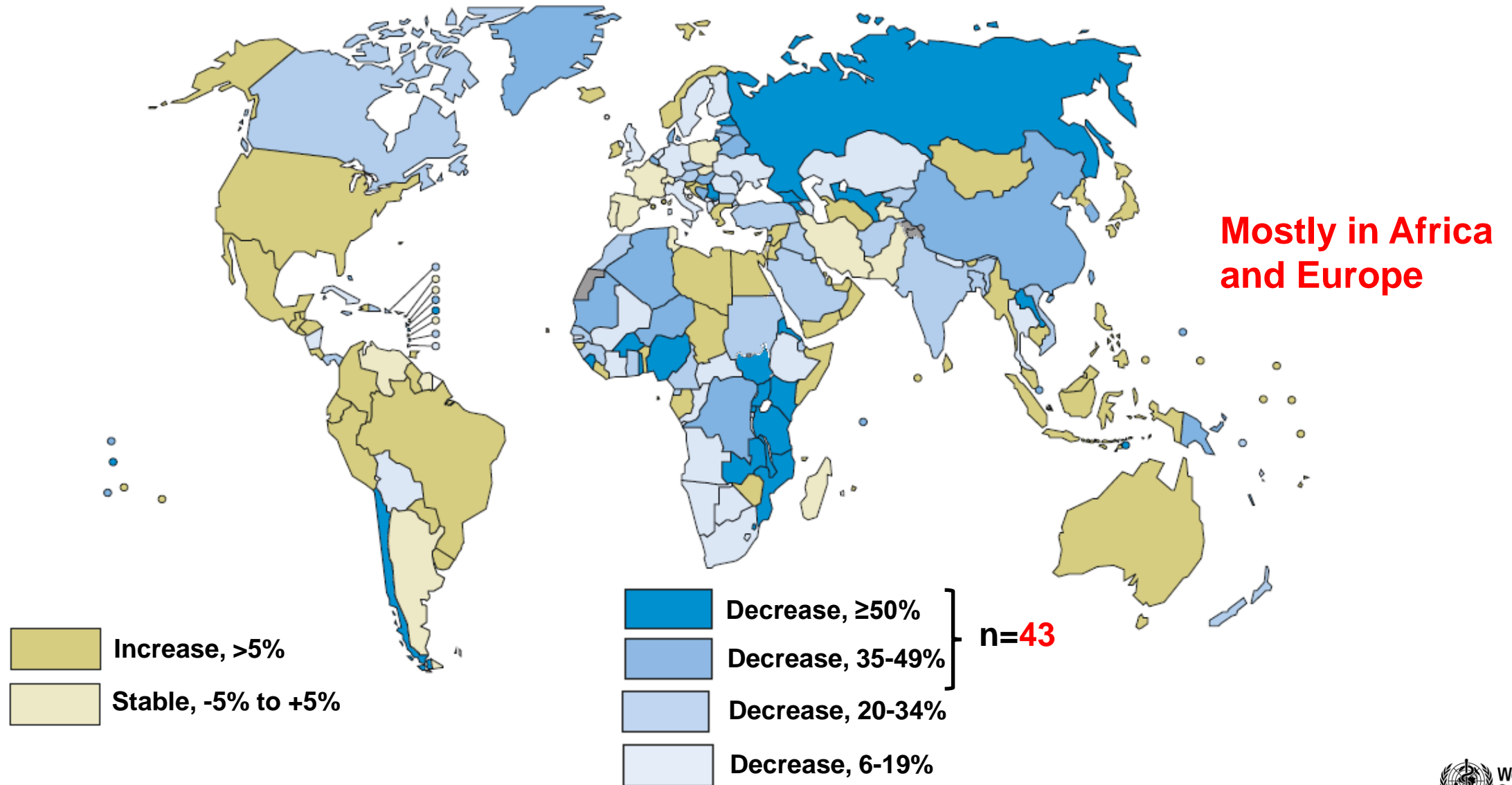
Shaded areas show 95% uncertainty intervals

Total TB deaths per year (thousands)



Dashed lines show 2025 milestone of the End TB Strategy: 75% reduction, 2015–2025

43 countries estimated to have achieved reduction of $\geq 35\%$ since 2015



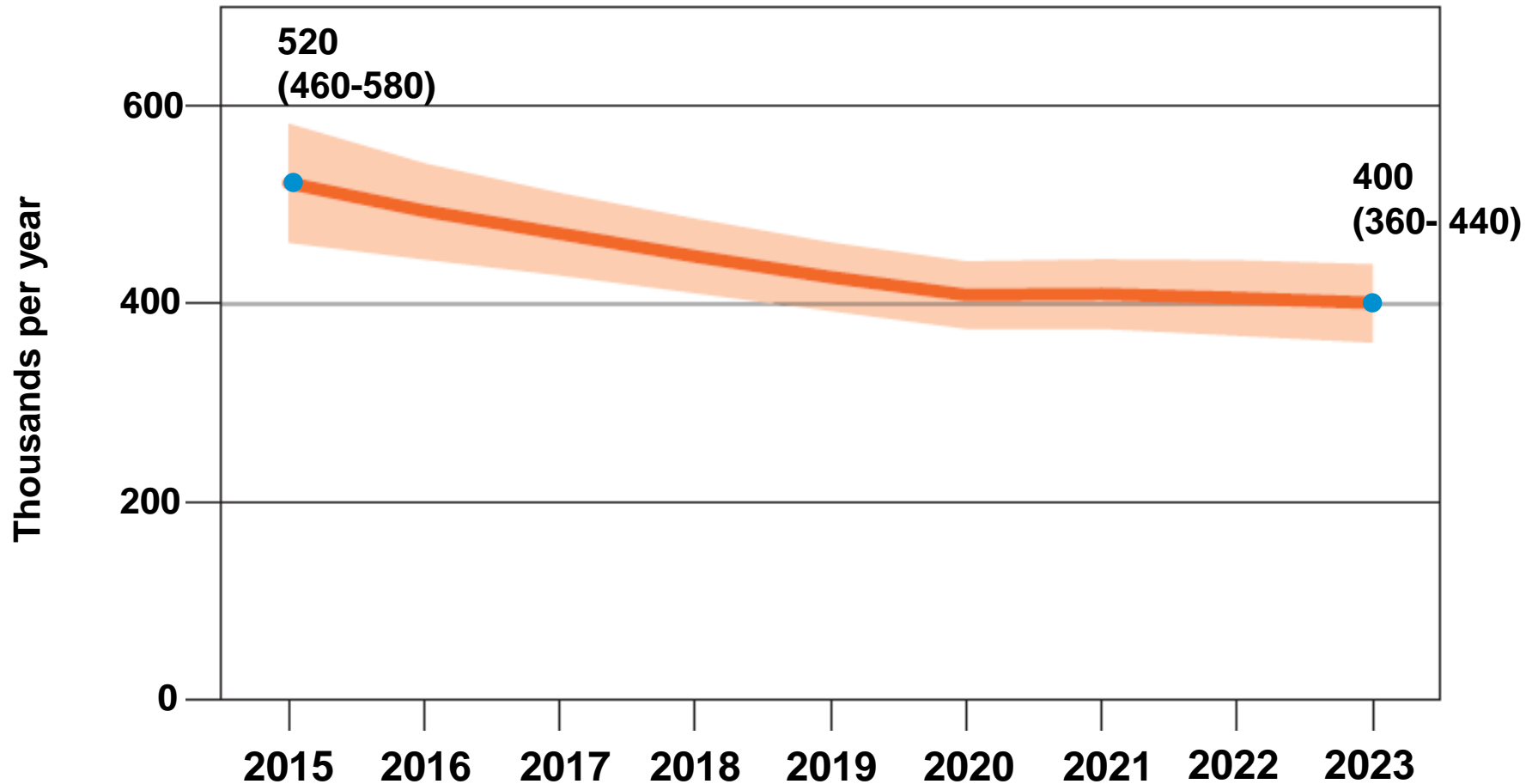
Estimation of TB disease burden during COVID-19 pandemic and its aftermath is difficult

- **Country and region-specific dynamic models relied upon for low and middle-income countries with large absolute or relative reductions in TB case notifications (beyond historical trends) in 2020 and/or 2021**
- **New direct measurements of disease burden needed**
 - **National VR systems**
 - **National TB prevalence surveys***
 - **National inventory studies to measure underreporting****

*Surveys recently completed in Cambodia (3rd survey) and Timor-Leste; 12 countries considering repeat surveys: Bangladesh, Ethiopia, Ghana, Indonesia, Malawi, Nigeria, Pakistan, Thailand, Uganda, Tanzania, Zambia, Zimbabwe.

**Second study completed in 2023 in Indonesia (see the report “featured topics”; planned in the Philippines and Viet Nam

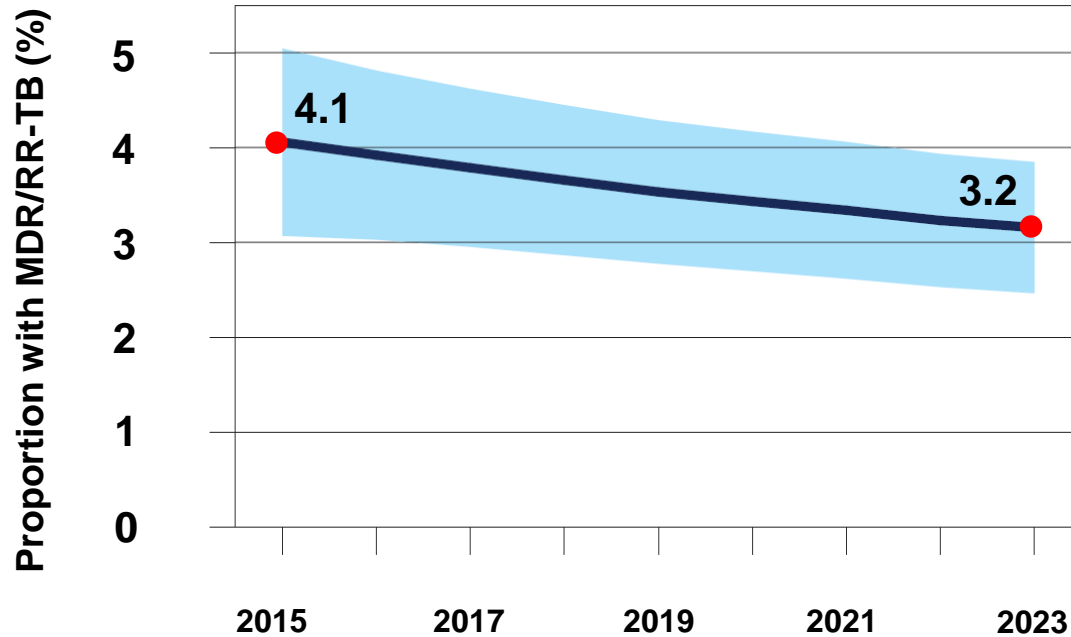
Estimated number of people developing MDR/RR-TB relatively stable from 2020–2023



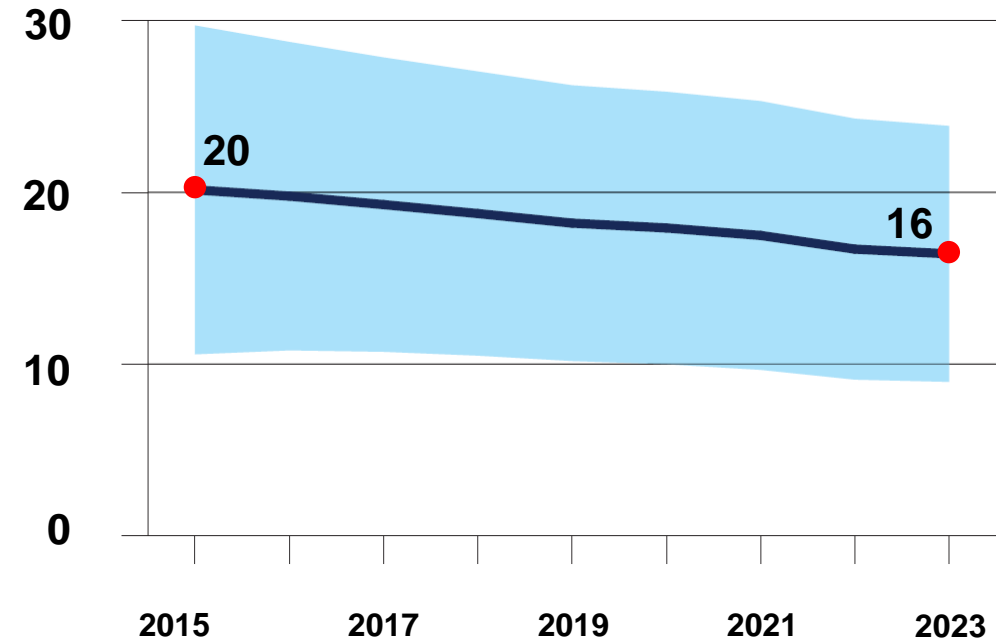
Shaded area shows 95% uncertainty interval

Declines in proportion of people with TB who have MDR/RR-TB, 2015–2023

People with no previous history of TB treatment



People previously treated for TB

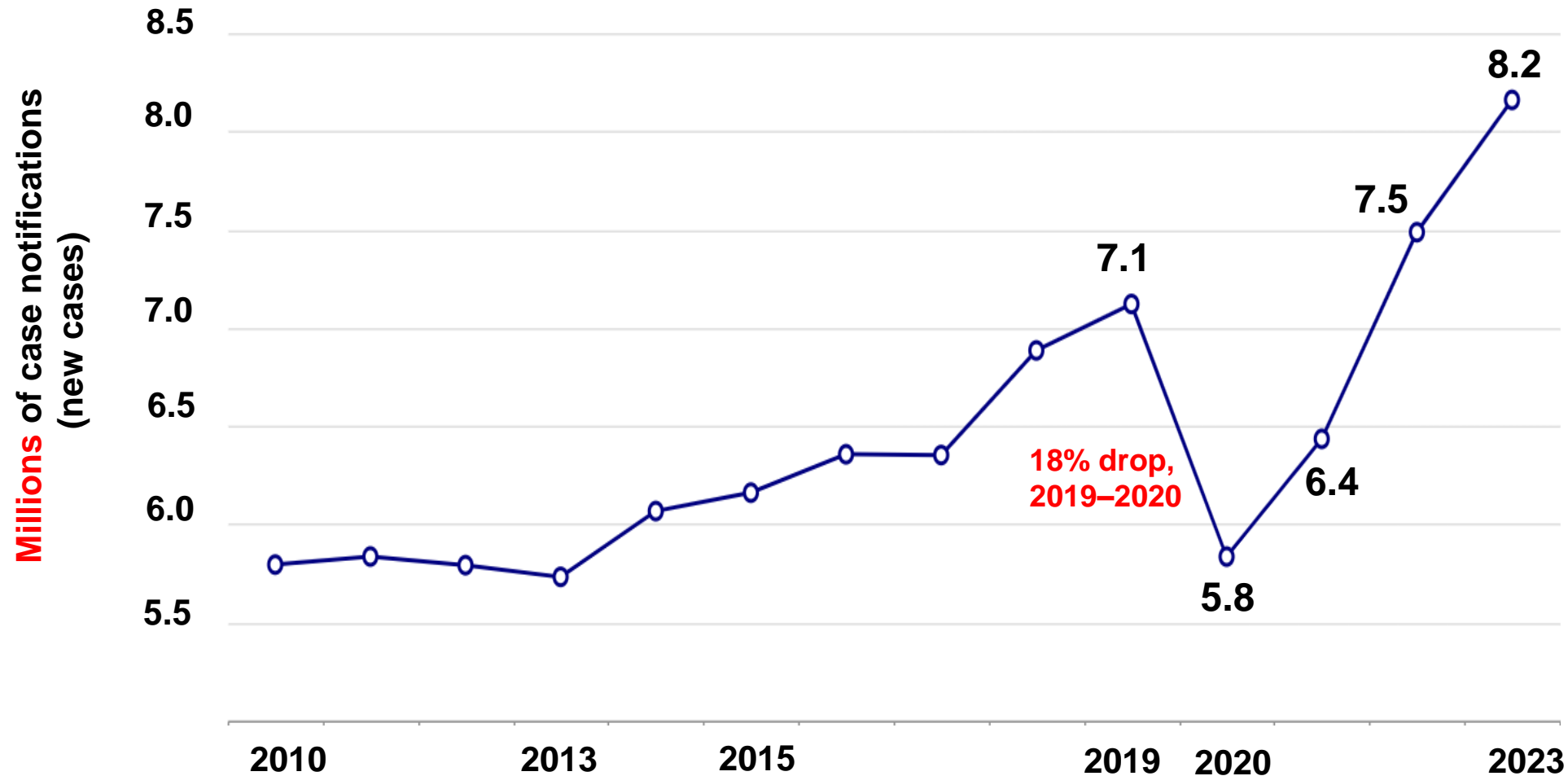


Shaded areas show 95% uncertainty intervals

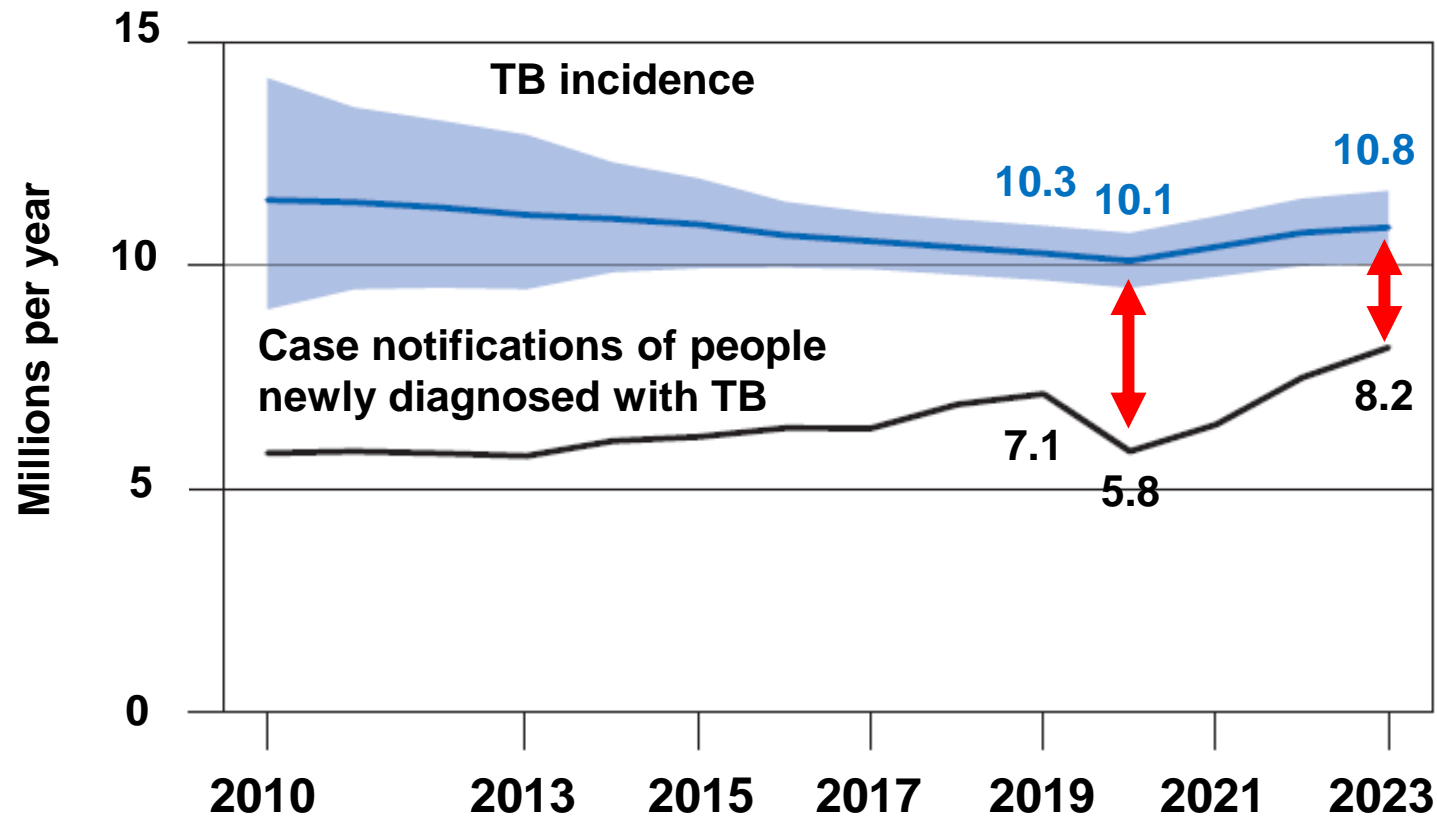
TB diagnosis & treatment

Further global recovery in number of people newly diagnosed with TB, to new historic high

Numbers in 2022 & 2023 probably include sizeable backlog of people whose diagnosis was delayed by COVID disruptions



Further narrowing of global gap between estimated number of people falling ill with TB and reported number newly diagnosed

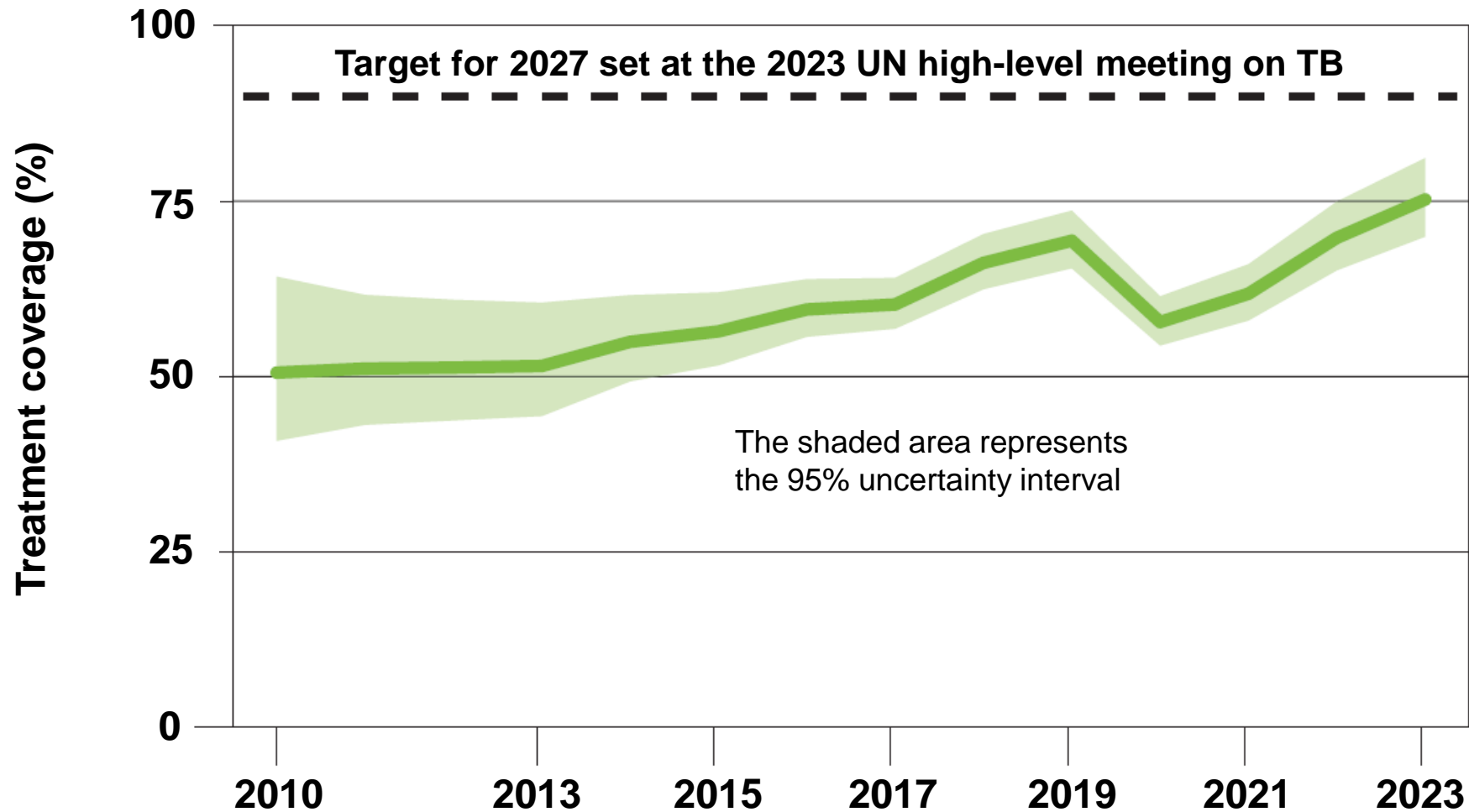


Case notifications in 2022 & 2023 probably include sizeable backlog of people whose diagnosis was delayed by COVID disruptions

Shaded area shows the 95% uncertainty interval

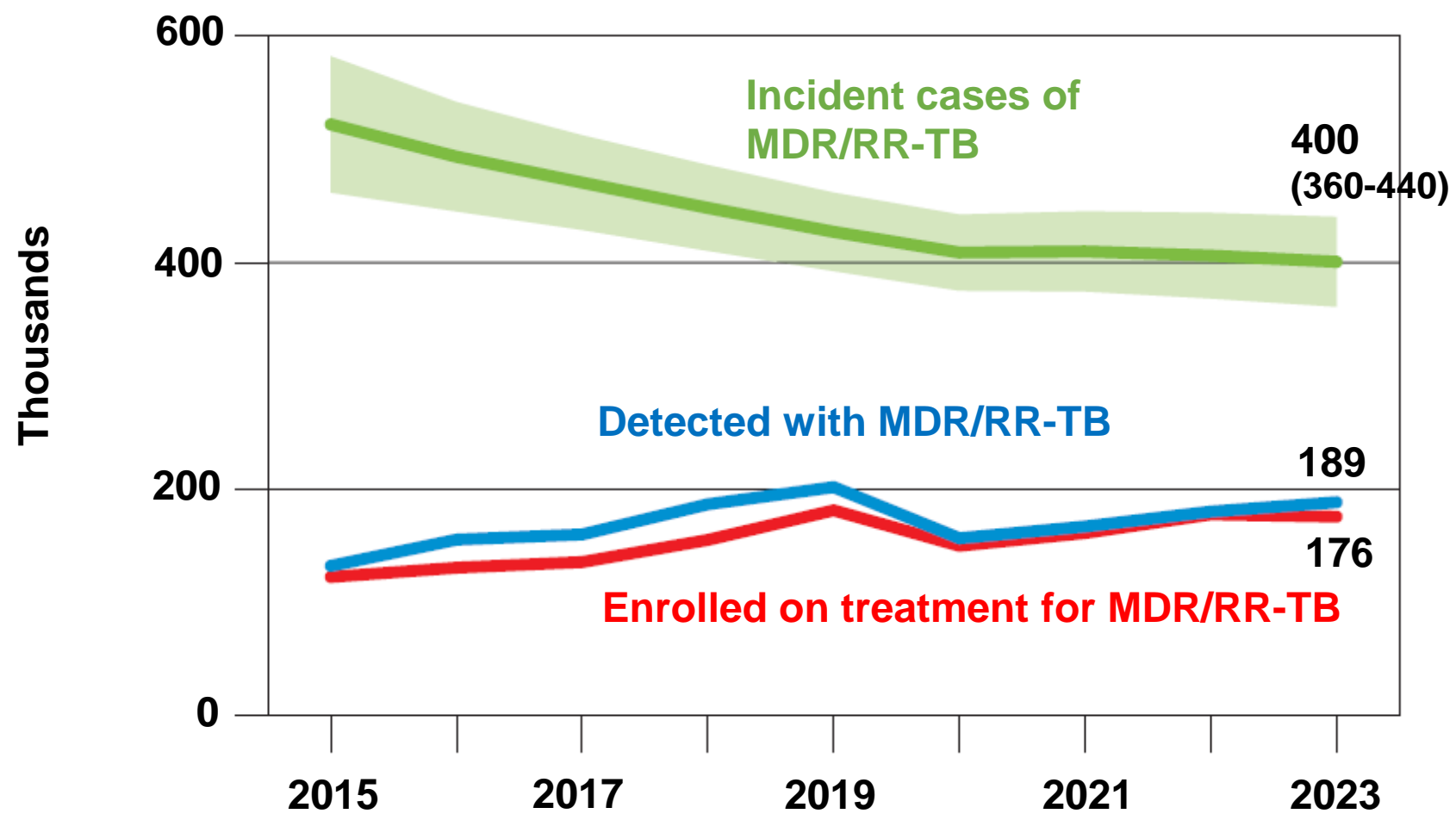
TB treatment coverage* *appears* to have recovered to above pre-pandemic levels

*Approximated as the number of people newly diagnosed in a given year divided by estimated TB incidence in the same year



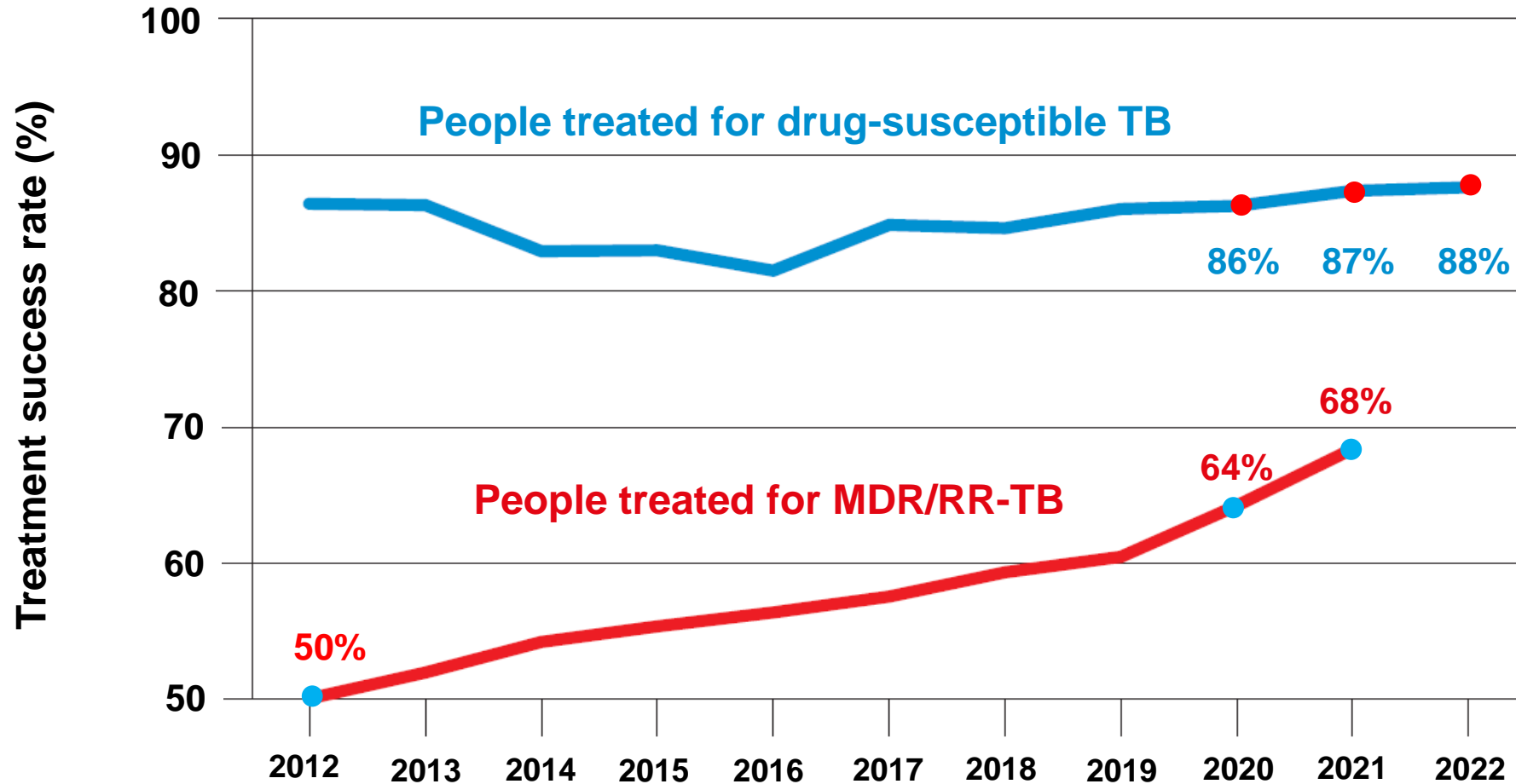
Estimates for 2022 and 2023 probably distorted by sizeable backlog of people newly diagnosed in 2022 and 2023, whose diagnosis was delayed during COVID disruptions

Number of people diagnosed & **treated for MDR/RR-TB** virtually stable and considerably below estimated number developing MDR/RR-TB each year

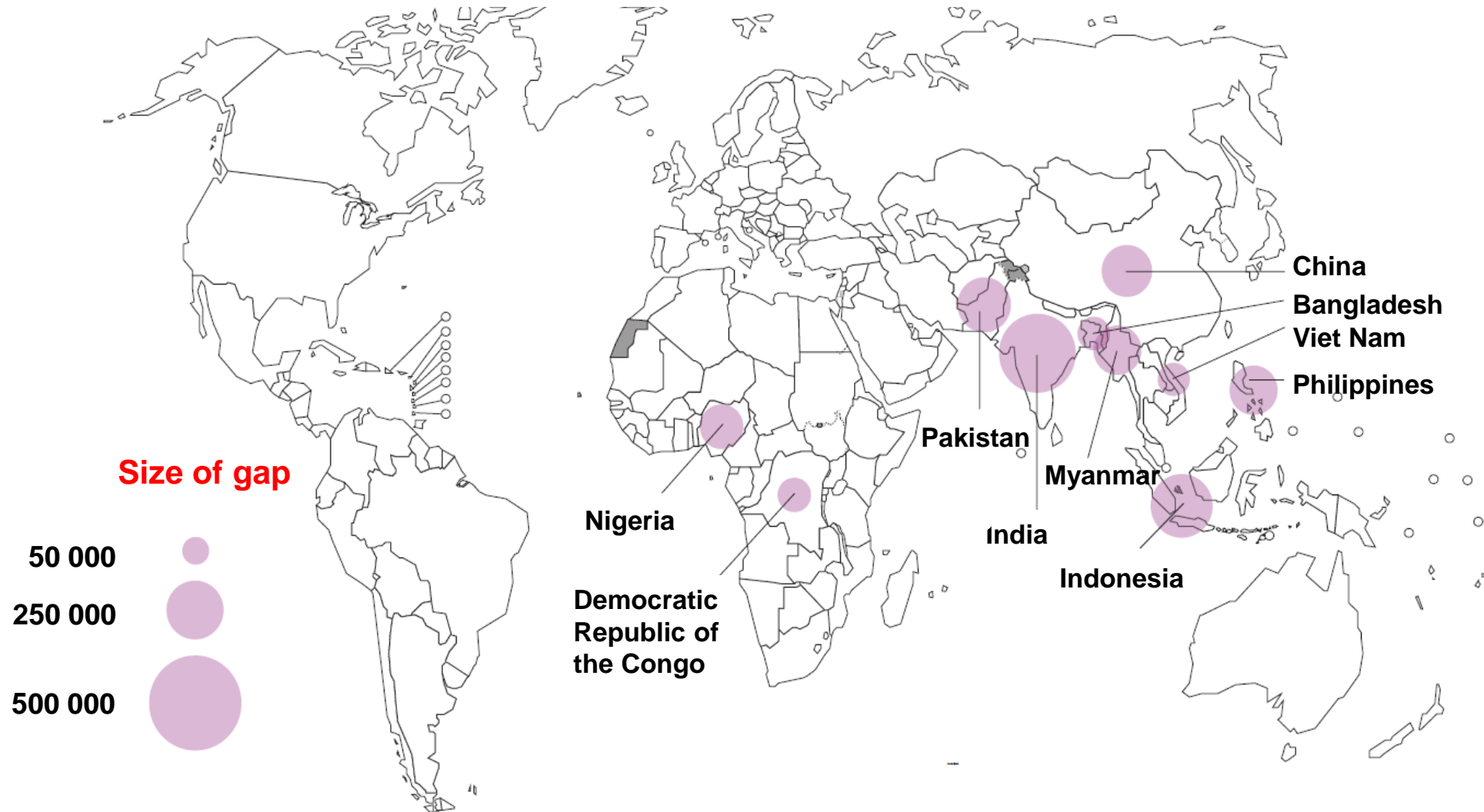


Treatment success rates

Sustained or improving

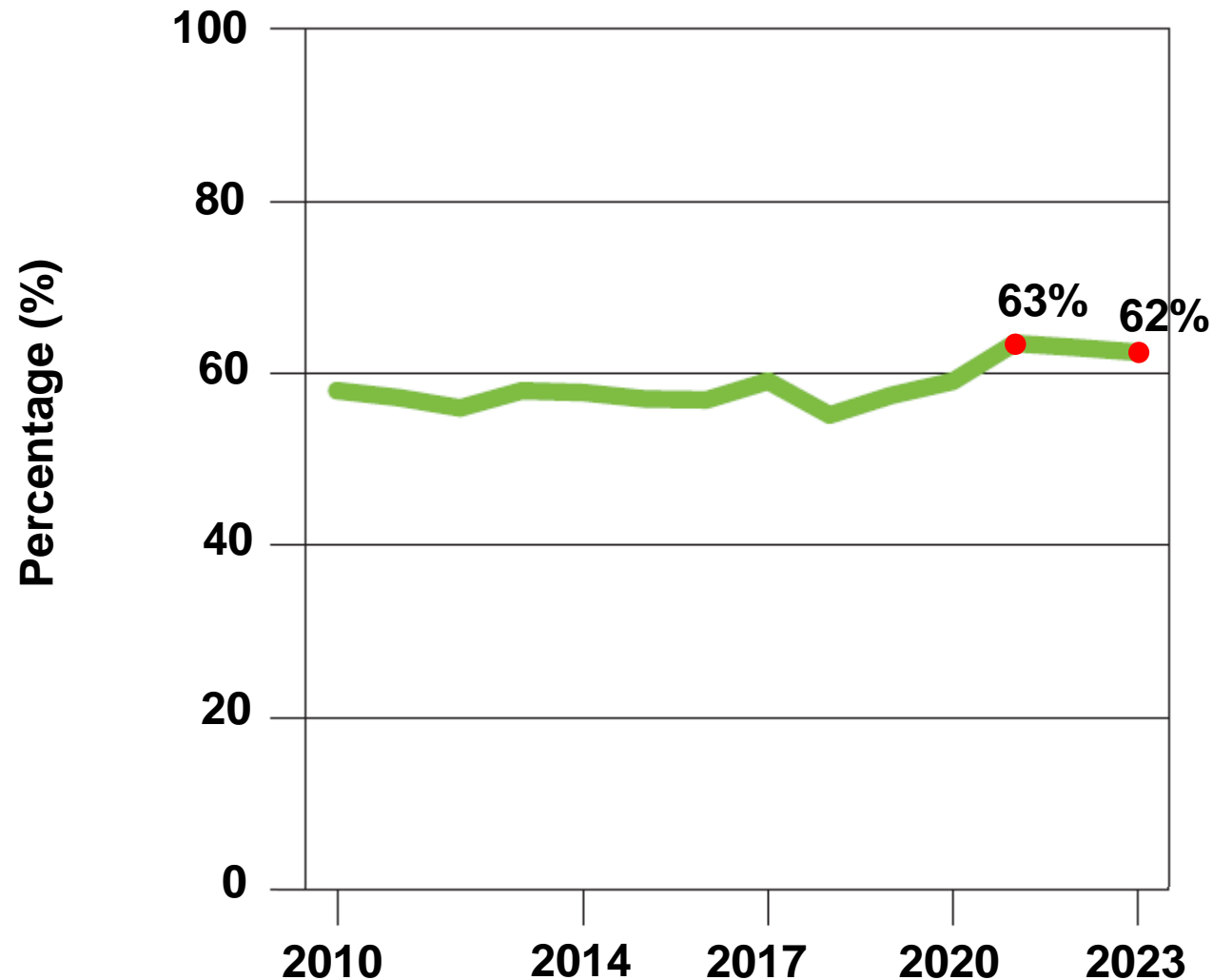


10 countries account for 67% of the global gap between TB incidence and reported cases



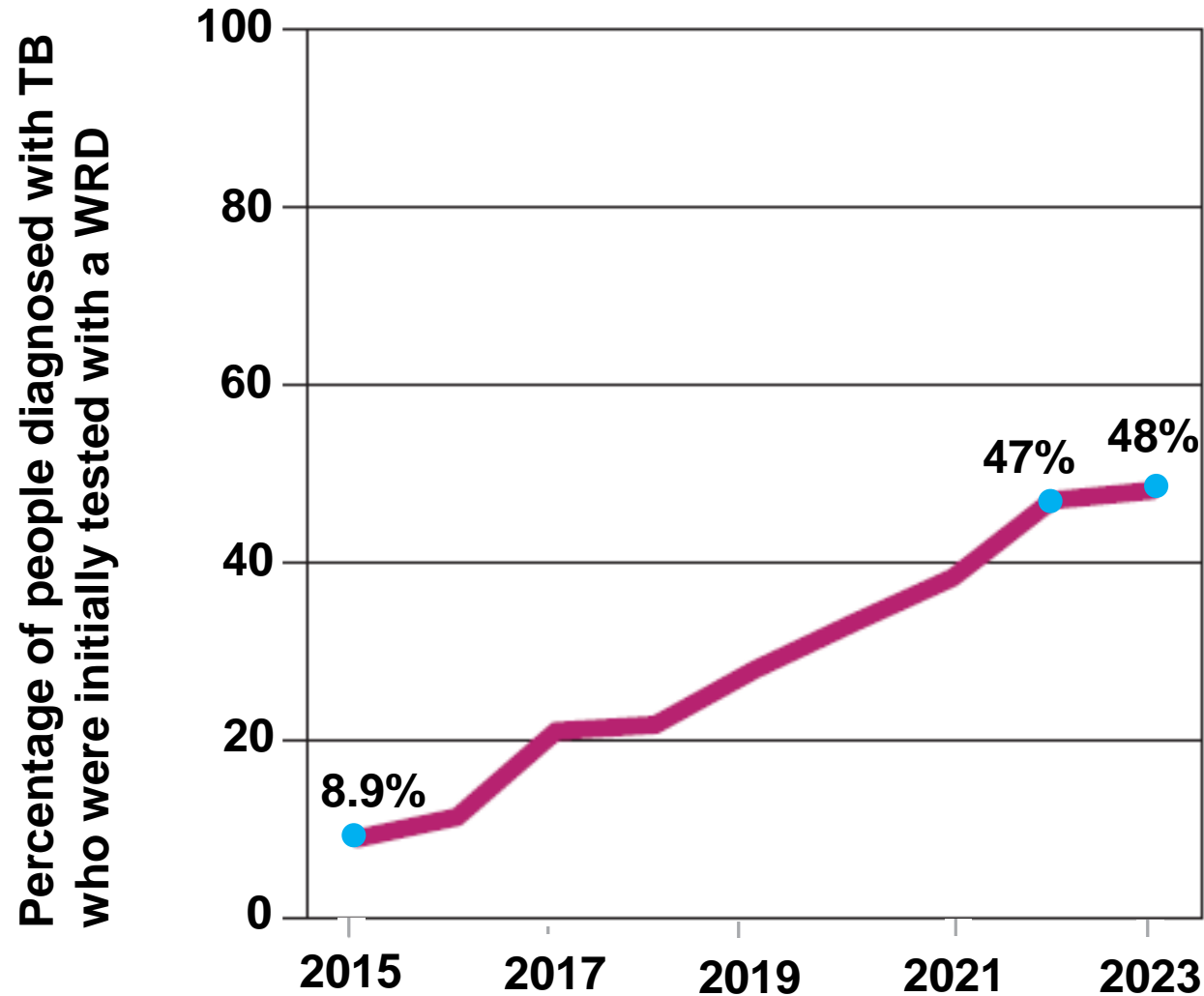
From global perspective, increased coverage of diagnosis and treatment of particular importance in these countries

Global stagnation in % of people diagnosed with TB that was bacteriologically confirmed



Global coverage of rapid testing

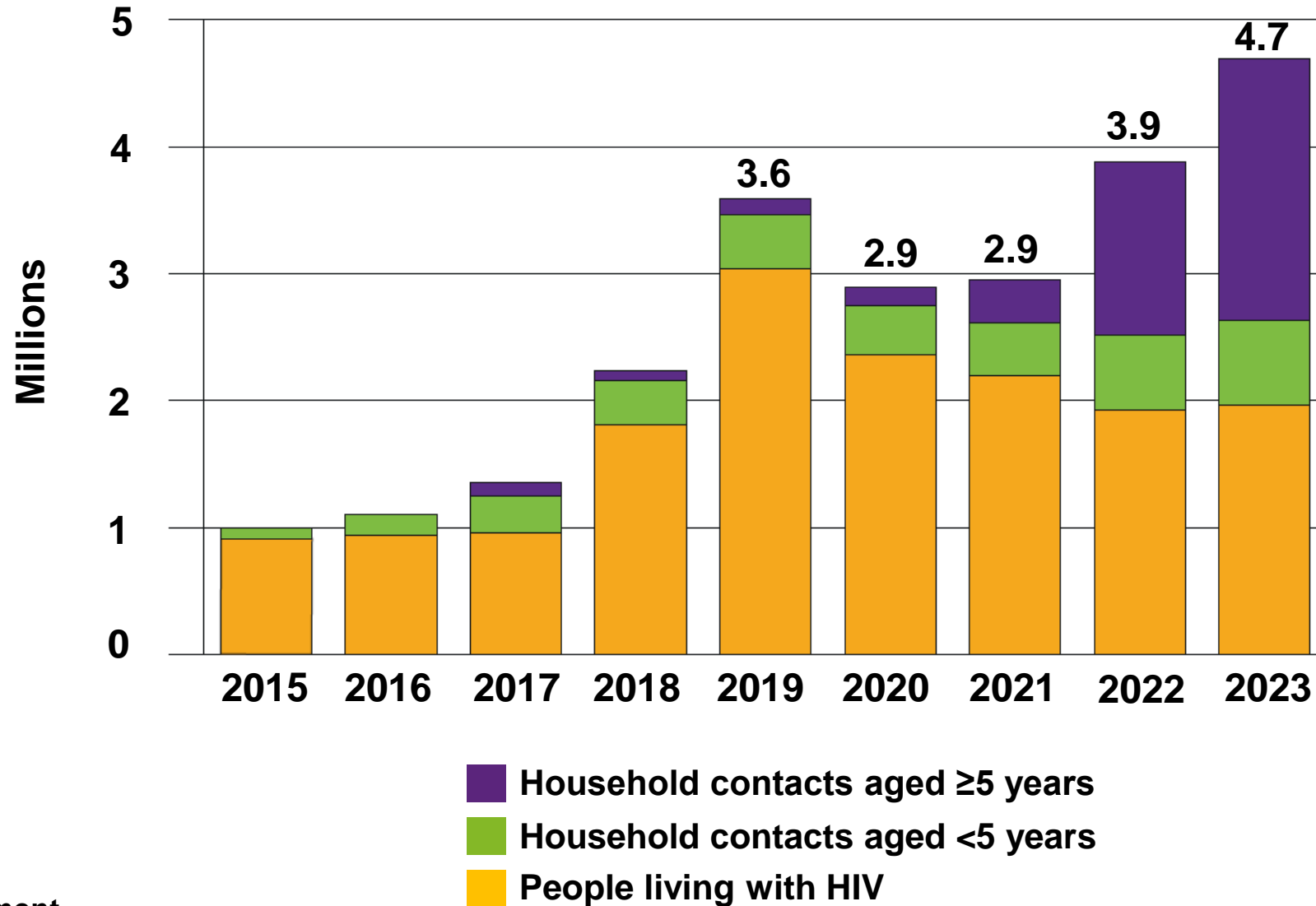
limited increase in *coverage* in 2023, but much higher *number* of people tested



TB prevention & screening

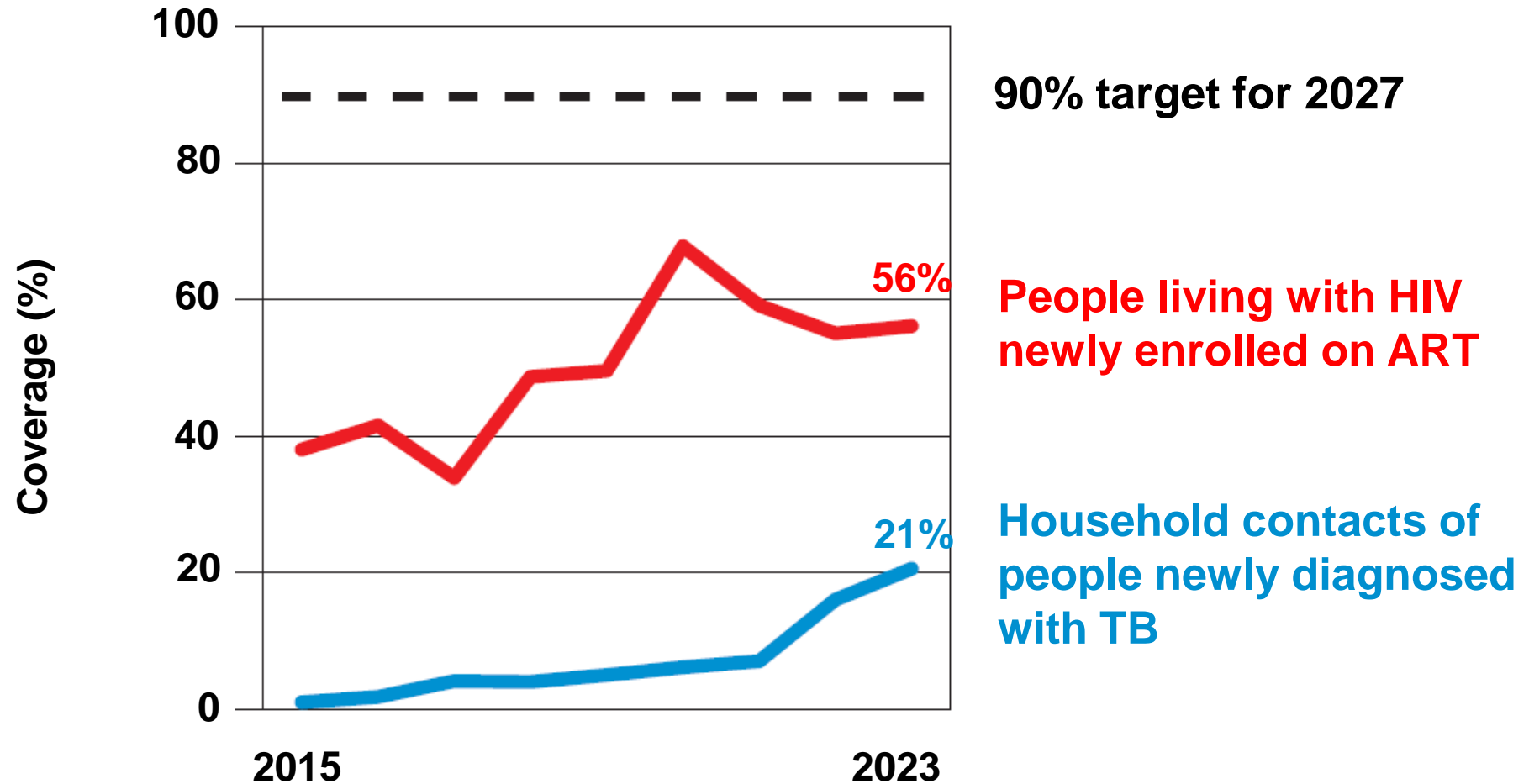
*Most emphasis on TB preventive
treatment (TPT)*

Number of people provided with TPT* increasing, due to growing provision to household contacts



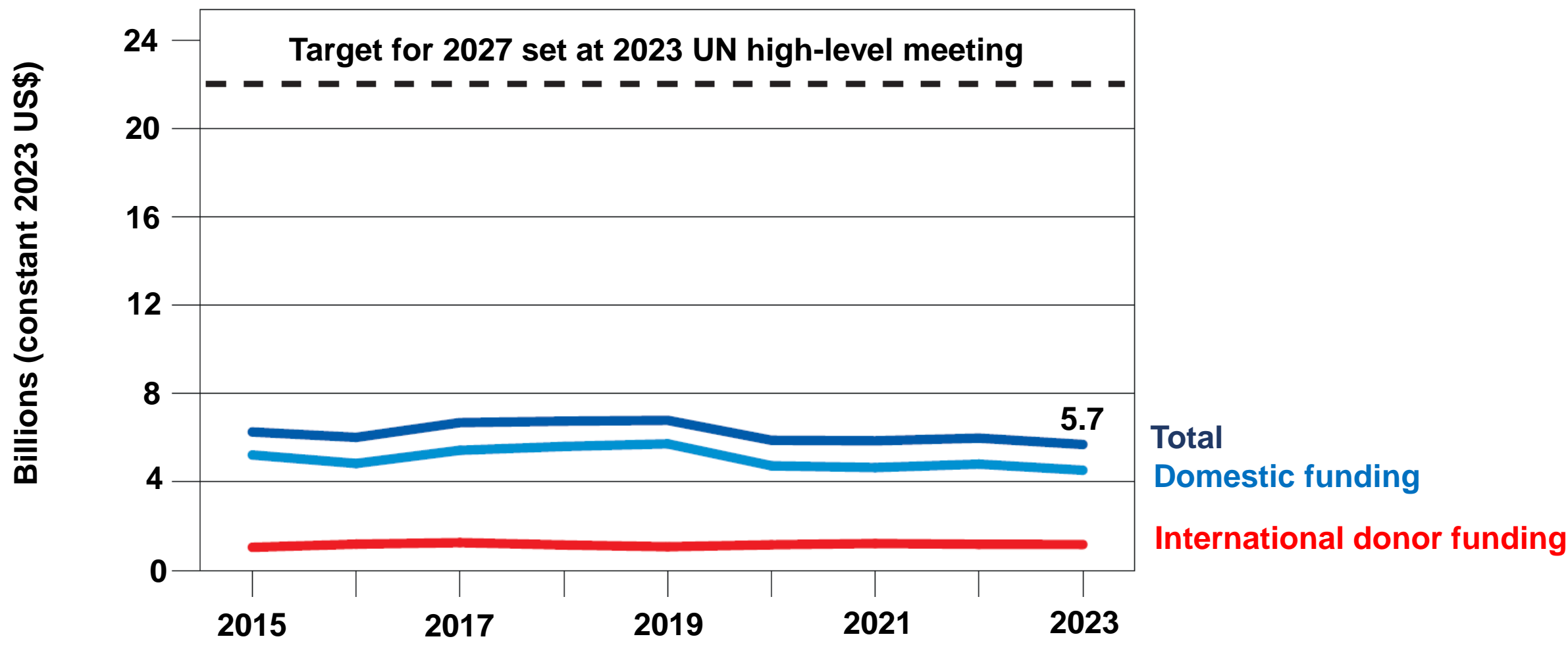
*TPT;
TB preventive treatment

Global coverage of TB preventive treatment improving for household contacts, stable for people living with HIV, both short of 90% target

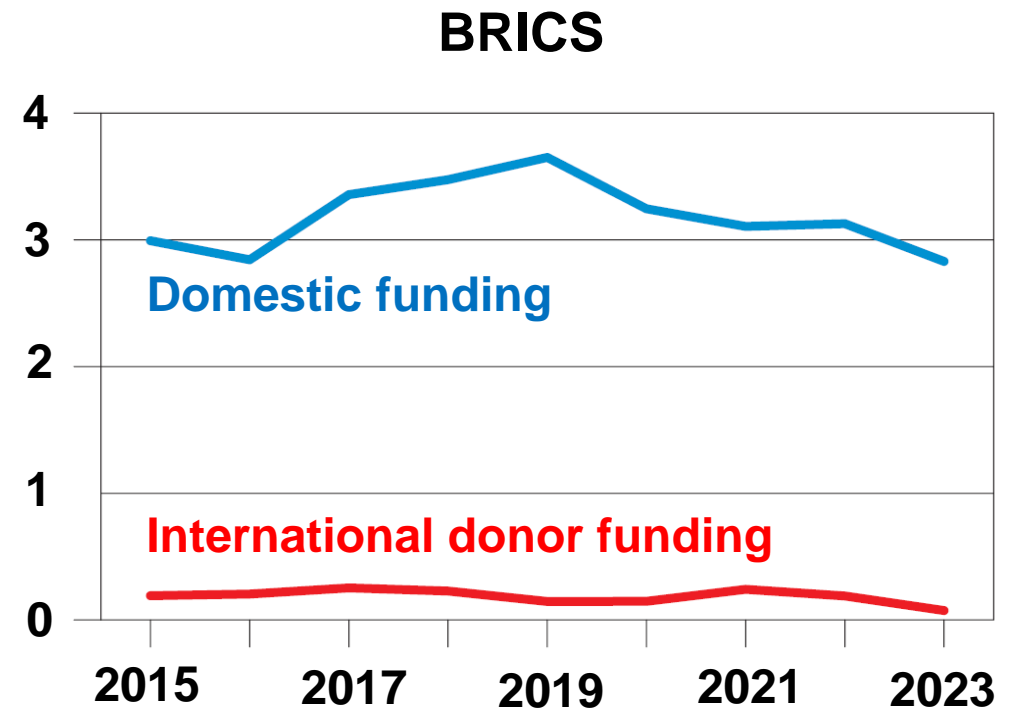
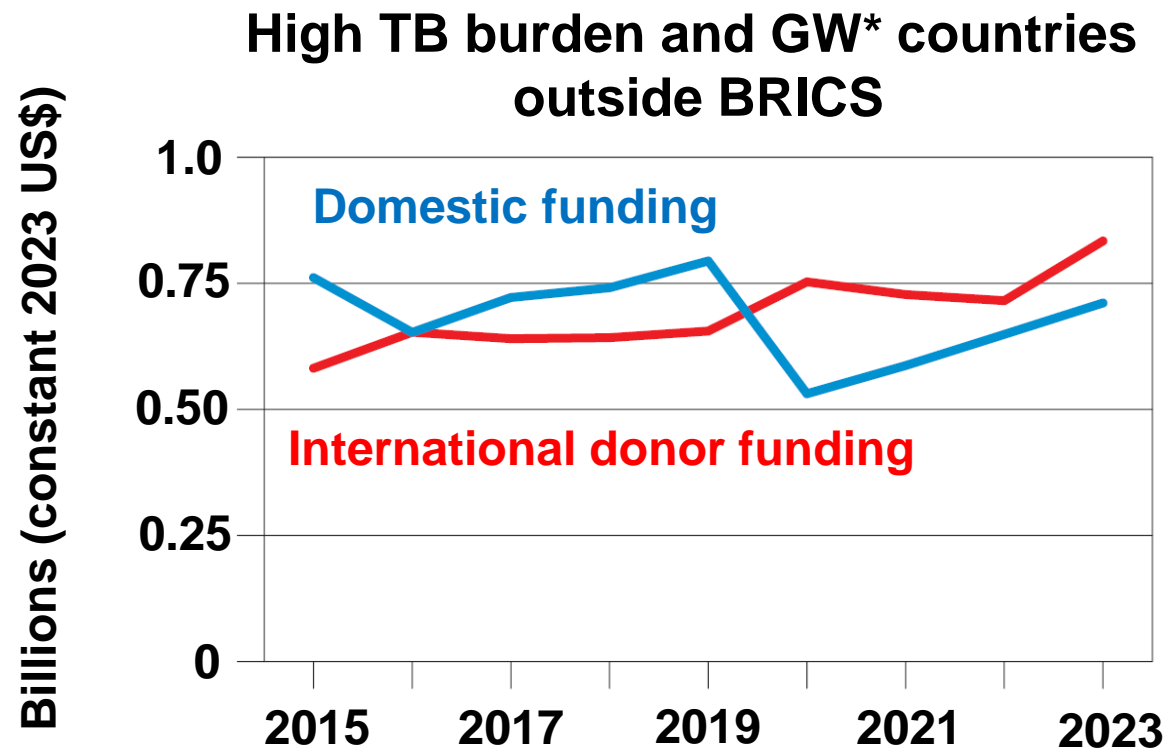


Funding for TB diagnosis, treatment and prevention

Funding for TB prevention, diagnosis and treatment down since 2019 and only **26%** of 2027 target



Funding has increased in high TB burden and global watchlist countries outside BRICS, and fallen in BRICS



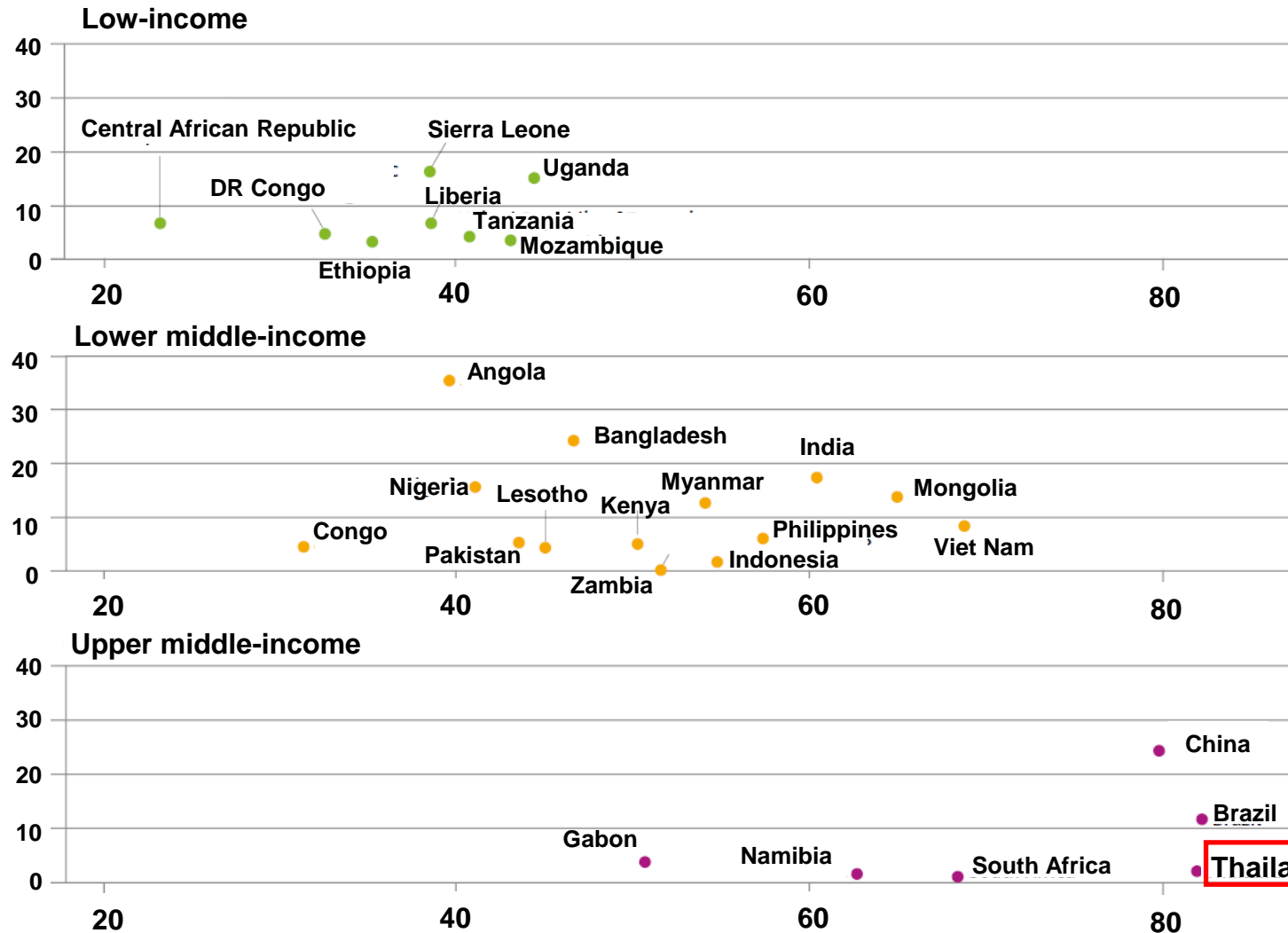
GW: global TB watchlist countries; Cambodia, Russian Federation (part of the BRICS group) and Zimbabwe
BRICS: Brazil, Russian Federation India, China, South Africa

UHC and TB determinants

Almost all high TB burden countries far from UHC*, based on status of SDG UHC indicators

16
with
values
>5%

% of the general population facing
catastrophic health expenditures



* **Universal health coverage**
Everyone can access the health services they need without suffering financial hardship

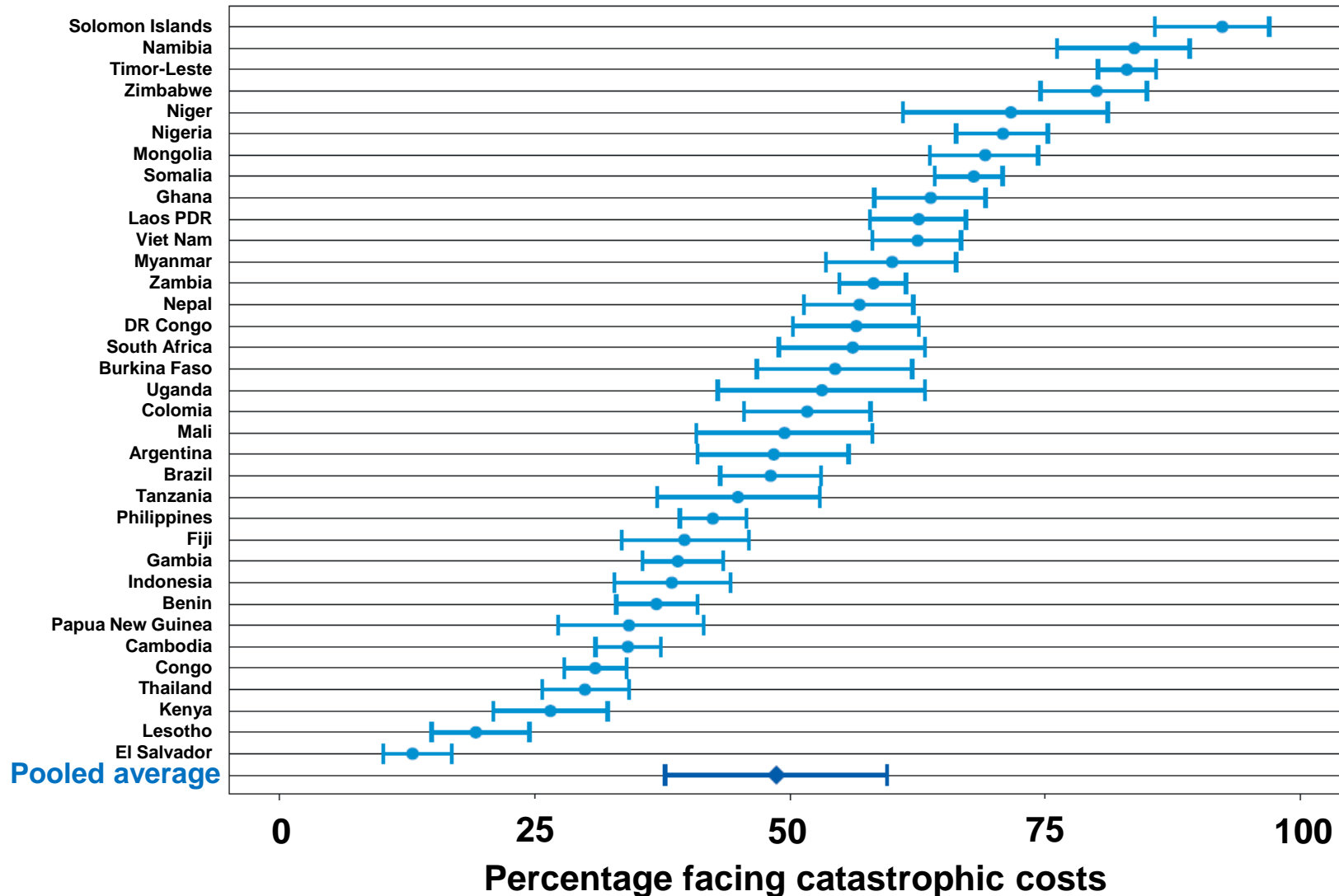
Thailand closest

Health service coverage index (0-100)

About half of people with TB and their households face catastrophic costs

pooled average = 49%; far above End TB Strategy target of zero

35
countries
including
18 high TB
burden
countries
and **1**
global TB
watchlist
country

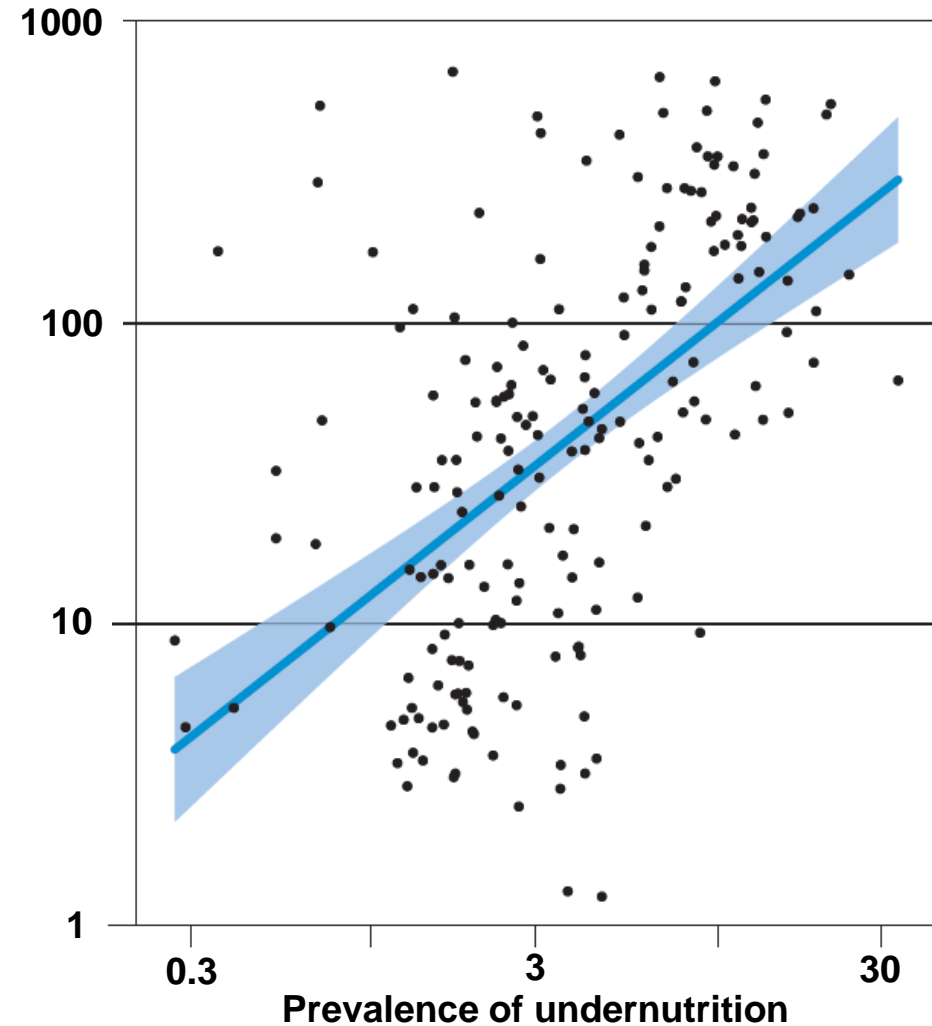
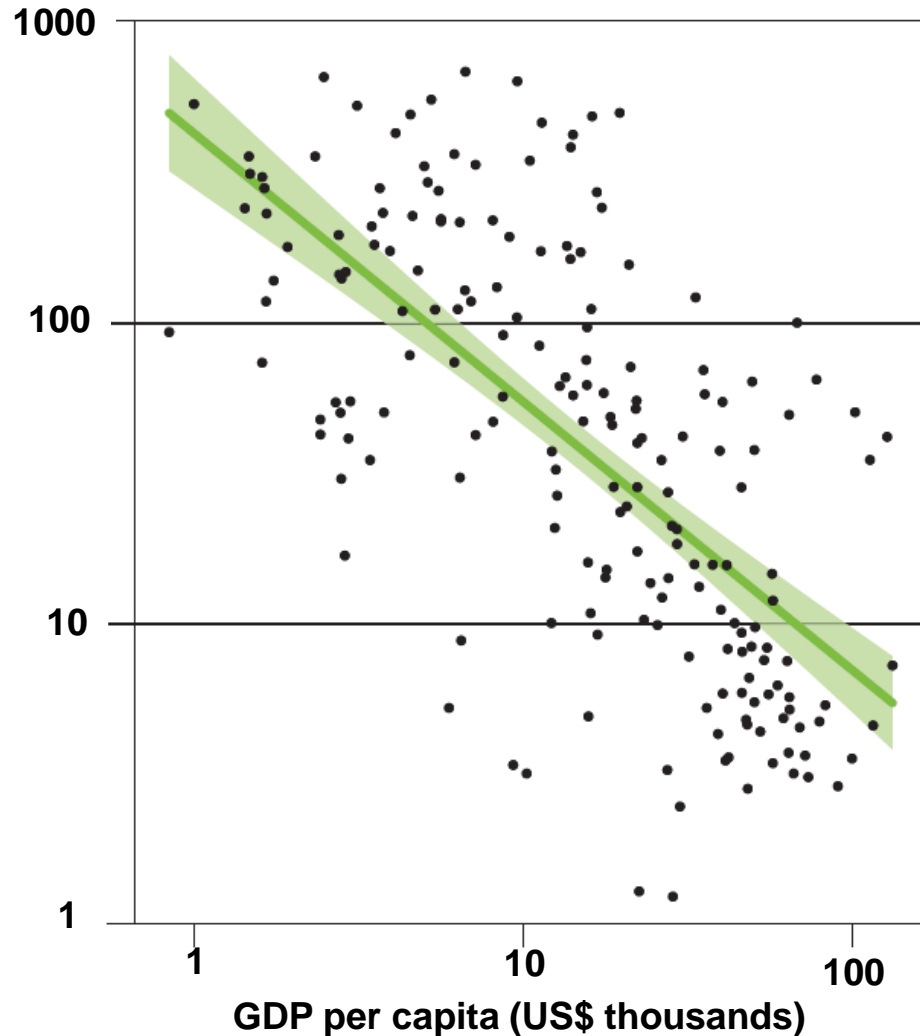


Even higher for
people with drug-
resistant TB: pooled
average **82%**

TB incidence rate is strongly associated with average income levels and undernutrition

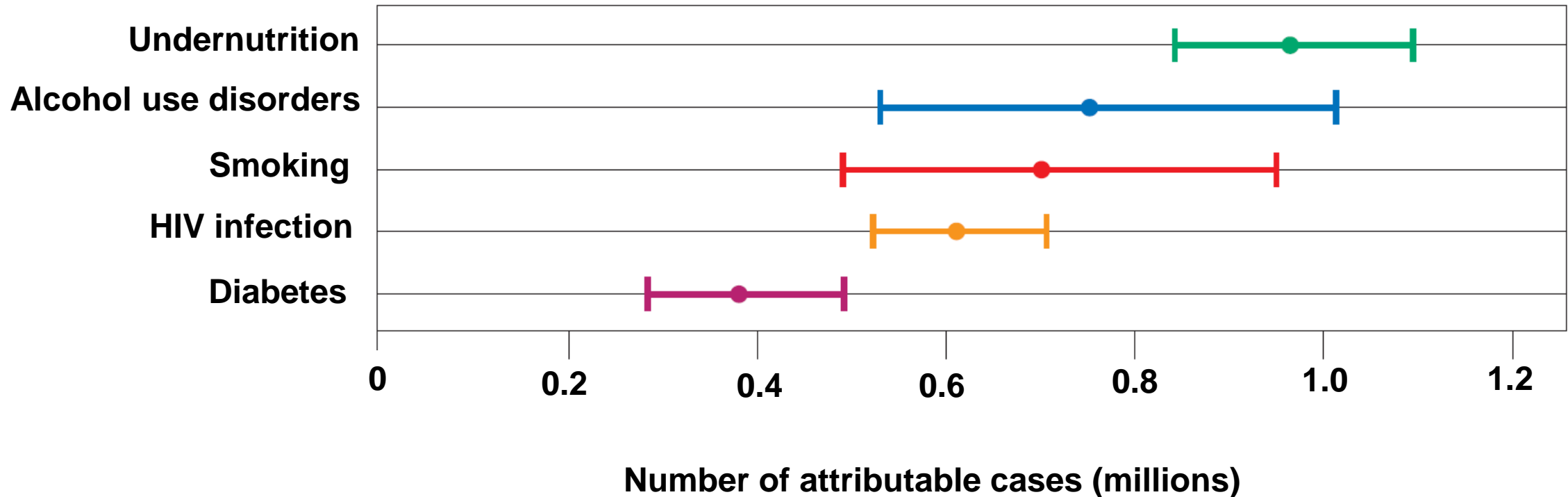
Each dot represents a country or area

TB incidence per 100,000 population in 2023 (log scale)



A large number of new TB cases are attributable to five risk factors:

undernutrition, alcohol use, smoking, HIV infection, diabetes



TB research

Requirements to reach 2030 and 2035 targets

**Technological breakthrough by 2025, to
enable acceleration of decline in TB incidence
to far beyond levels achieved historically**

e.g. a new TB vaccine

Status of pipelines for diagnostics, drugs and vaccines*

50+ diagnostic tests for TB disease and infection in development

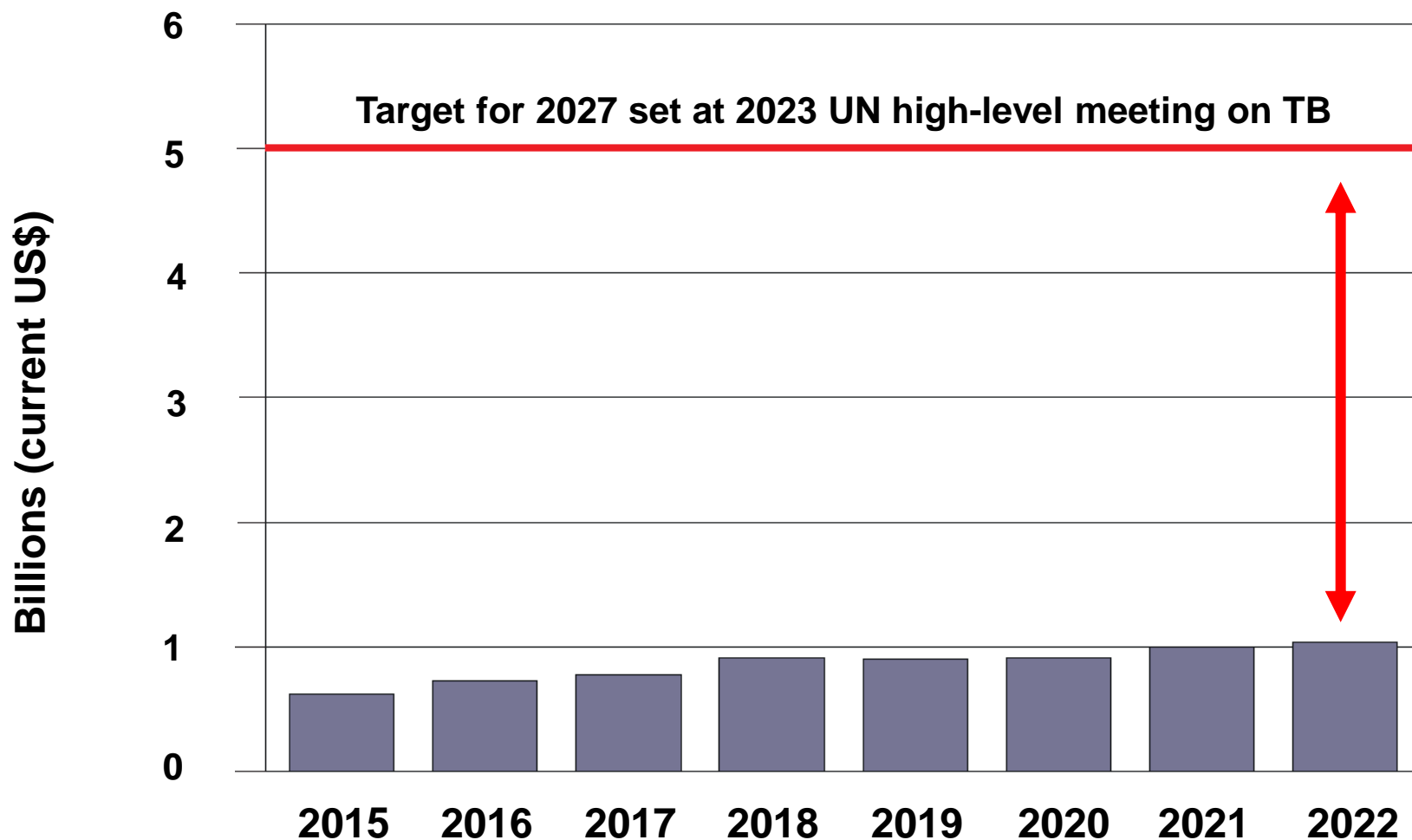
30+ clinical trials and other research studies for treatment of TB infection

29 drugs for treatment of TB disease in clinical trials

15 vaccine candidates in clinical trials

*as of August 2024

Funding for TB research growing very slowly and insufficient, only **20%** of global target



Source: Treatment Action Group, Stop TB Partnership. Tuberculosis research funding trends 2005-2022. New York: Treatment Action Group; 2023 (<https://www.treatmentactiongroup.org/resources/tbrd-report/tbrd-report-2023/>)

Conclusions

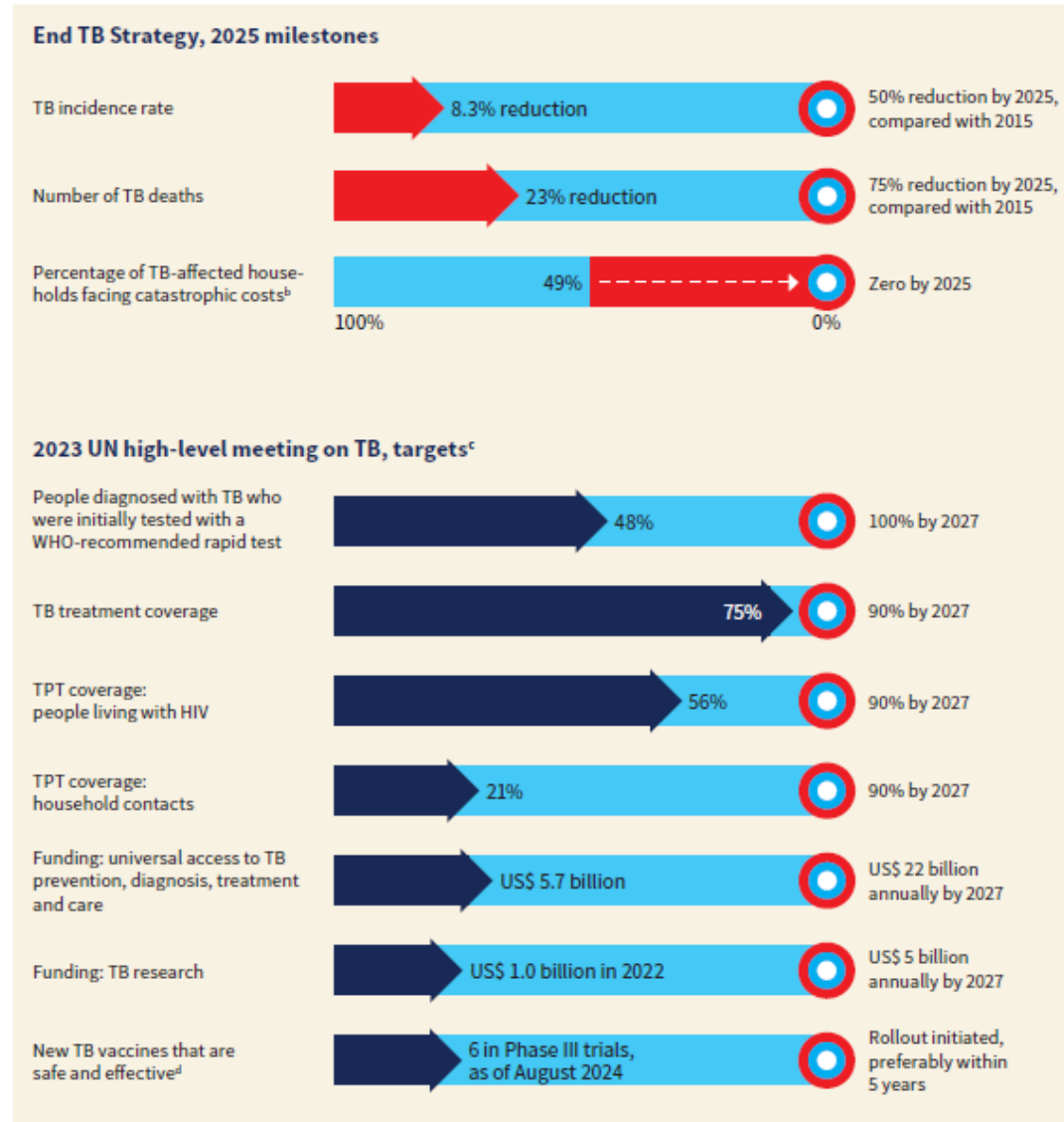
Global tuberculosis report

2024

Overarching conclusion

Ending the global TB epidemic requires translating the commitments made at the 2023 UN high-level meeting on TB into action

Summary of progress towards global TB targets

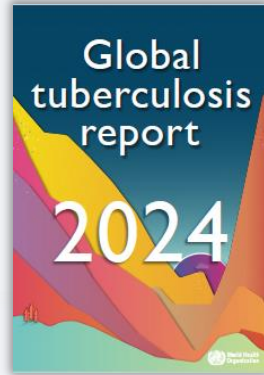


See Introduction facing page in the report

**For more
information**

Report landing page

Read the main report findings and messages



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Standard topics

- 1. TB disease burden >
- 2. TB diagnosis & treatment >
- 3. TB prevention & screening >
- 4. TB financing >
- 5. UHC & TB determinants >
- 6. TB research & innovation >

Featured topics

- Engagement of civil society and communities affected by TB >
- Asymptomatic TB >
- TB and pregnancy >
- The second national TB inventory study in Indonesia >
- MAF-TB: progress and way forward >

Data

- Country, regional and global profiles >
- TB data >
- Slide set >

Other

- Technical appendices >

Report app

