

DRUG-RESISTANT TB

SURVEILLANCE & RESPONSE

2nd Meeting of the Core Group of GDI
27 October 2014
Barcelona, Spain

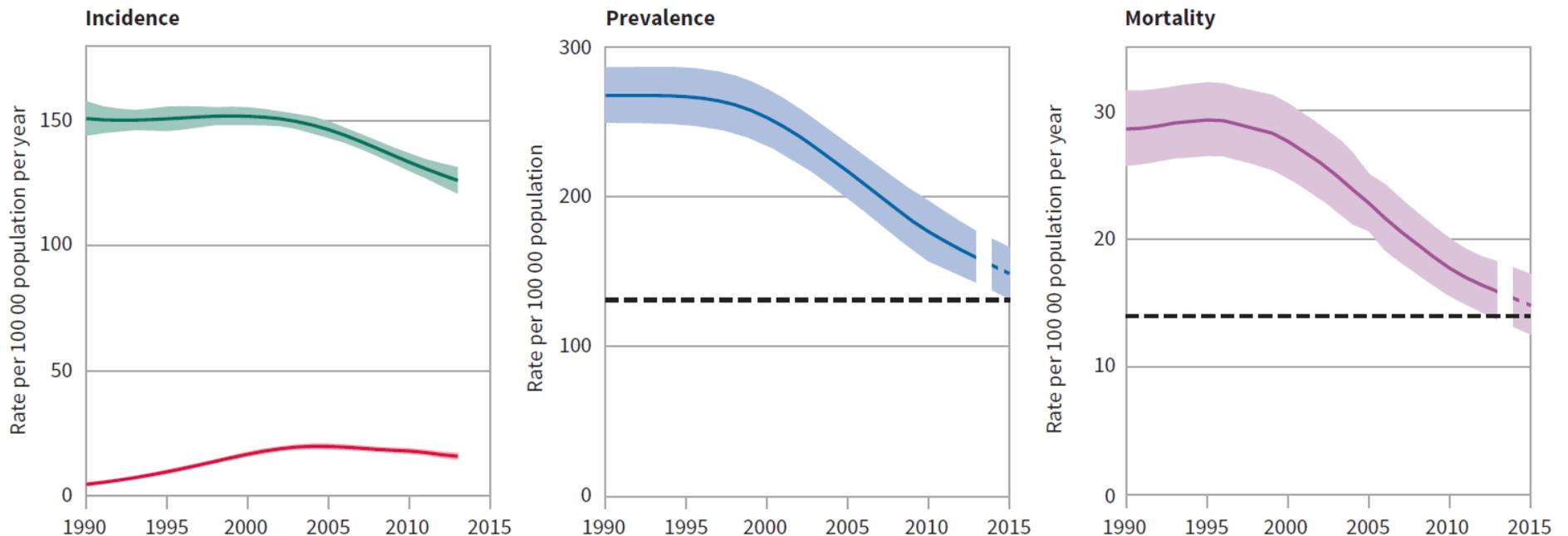


The global TB situation (1)

	Estimated incidence, 2013	Estimated number of deaths, 2013
All forms of TB	9.0 million (8.6–9.4 million)	1.1 million* (1.0–1.3 million)
HIV-associated TB	1.1 million (1.0–1.2 million)	360,000 (310,000–410,000)
Multidrug-resistant TB	480,000 (350,000–610,000)	210,000 (130,000–290,000)

The global TB situation (2)

Global trends in estimated rates of TB incidence, prevalence and mortality



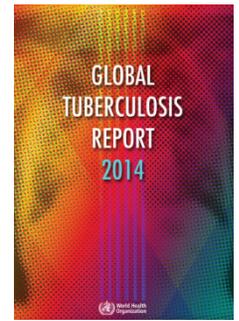
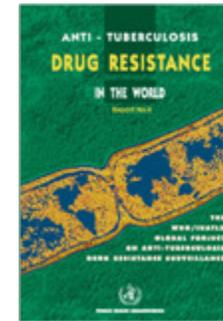
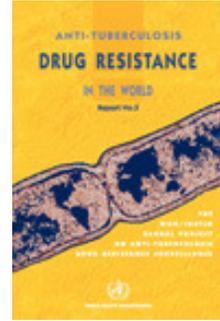
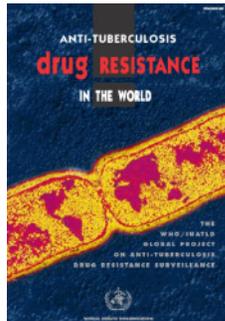
Global trends in estimated incidence rate including HIV-positive TB (green) and estimated incidence rate of HIV-positive TB (red). The dashed lines represent the Stop TB Partnership targets of a 50% reduction in prevalence and mortality rates by 2015 compared with 1990. Shaded areas represent uncertainty bands. Mortality excludes TB deaths among HIV-positive people.

DR-TB SURVEILLANCE

The Global Project on Anti-TB Drug Resistance Surveillance, 1994-2014

Global Project launched

SRL network launched



1st global DRS report

2nd global DRS report

3rd global DRS report

4th global DRS report

M/XDR-TB report

2014 TB report

1994

1997

2000

2003

2004

2008

2009

2010

2014

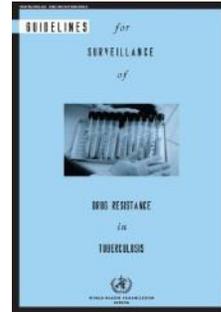
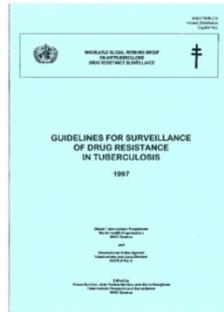
1st ed. DRS guidelines

2nd ed. DRS guidelines

3rd ed. DRS guidelines

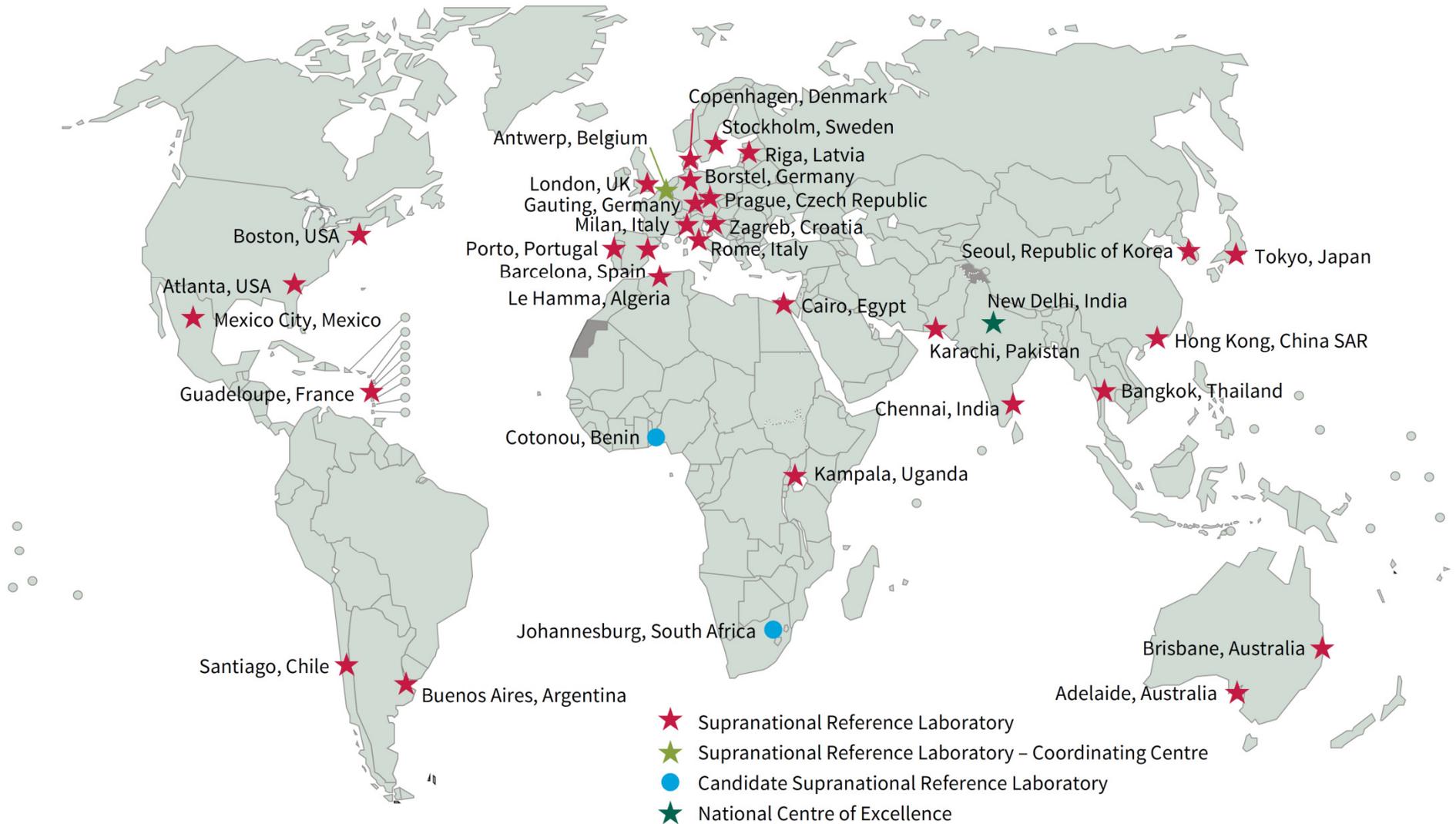
4th ed. DRS guidelines

5th ed. DRS guidelines



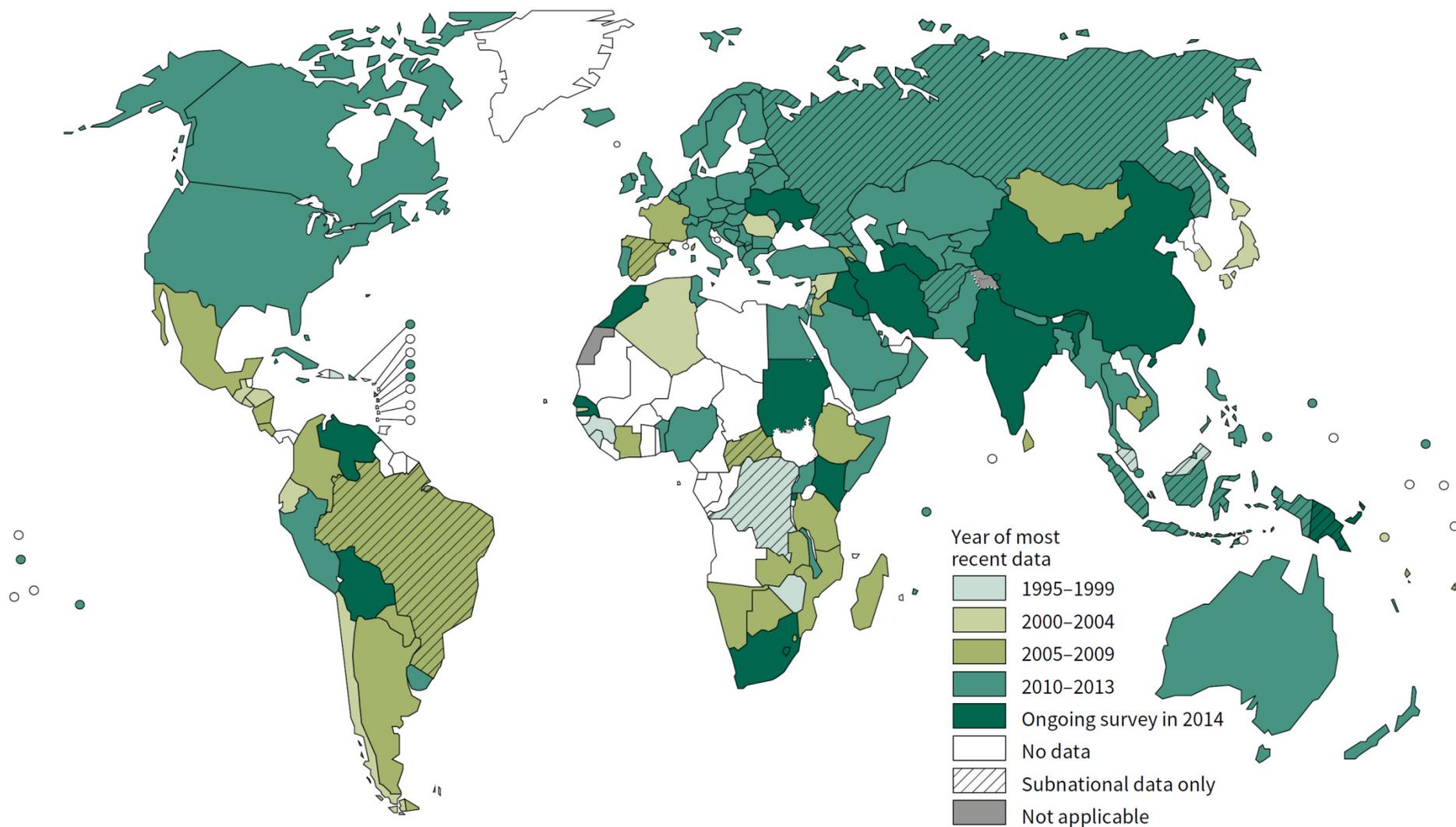
being finalized

The SRL Network, 2014



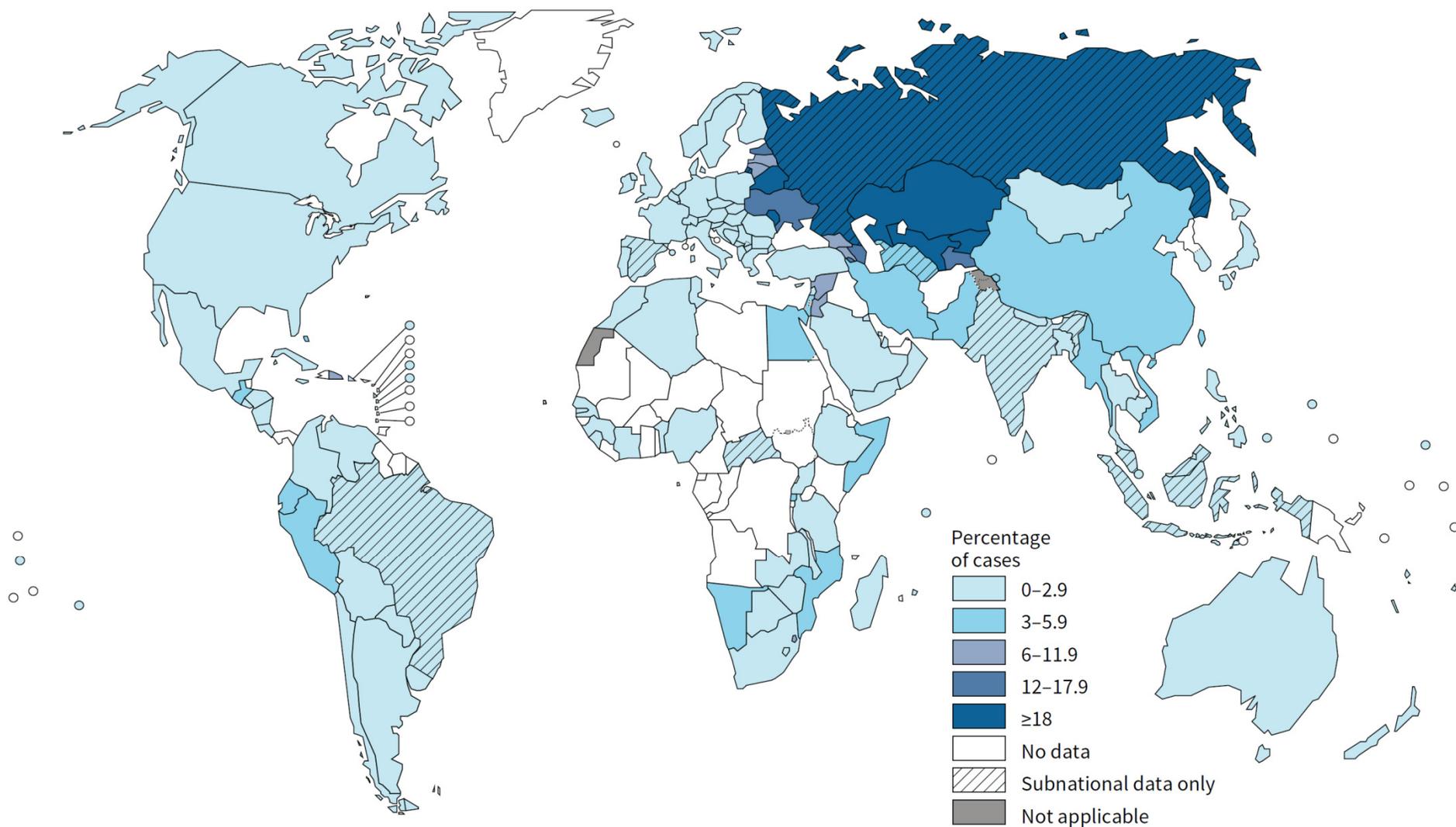
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Progress in global coverage of surveillance data on drug resistance, 1994-2014



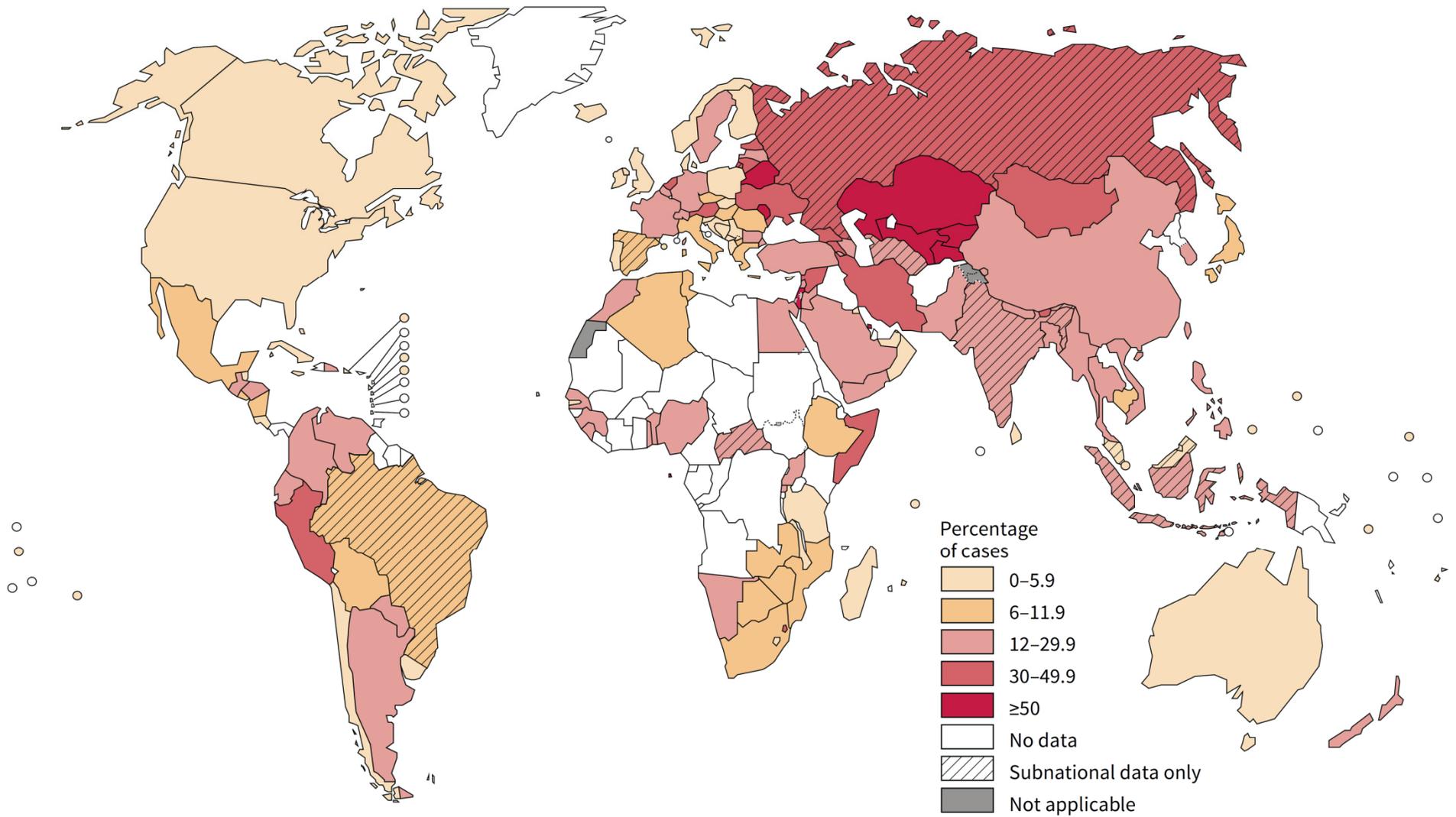
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Percentage of new TB cases with MDR-TB



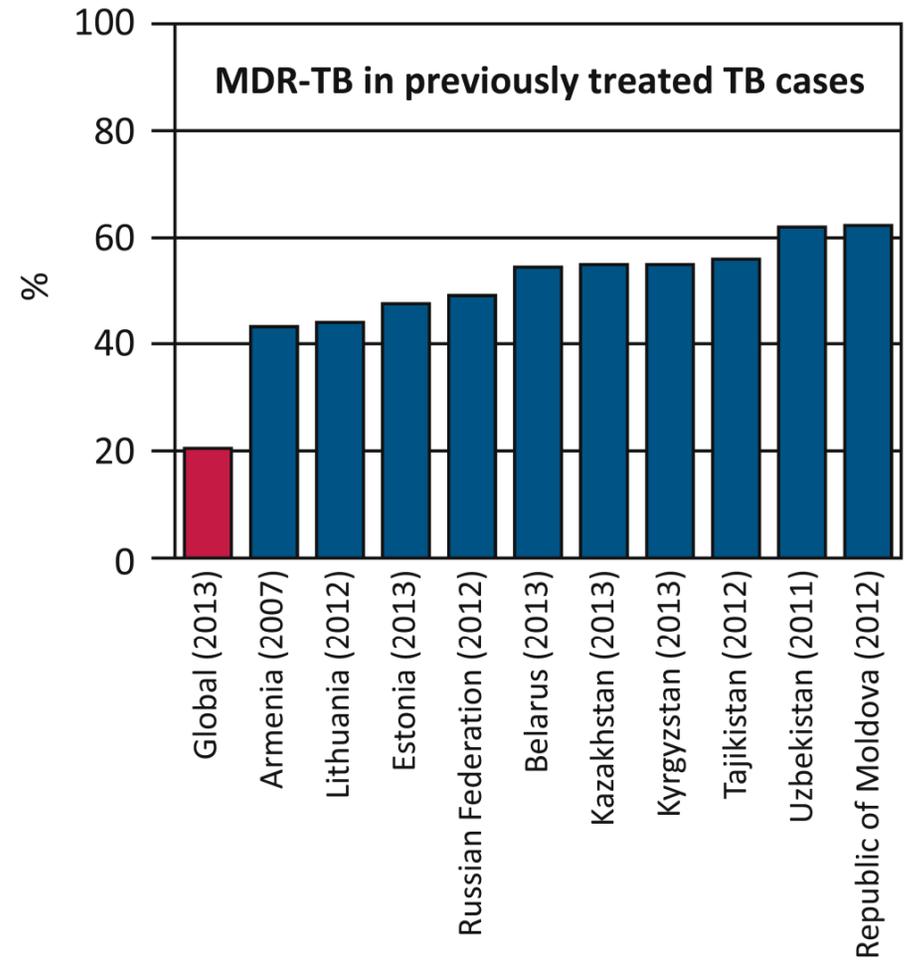
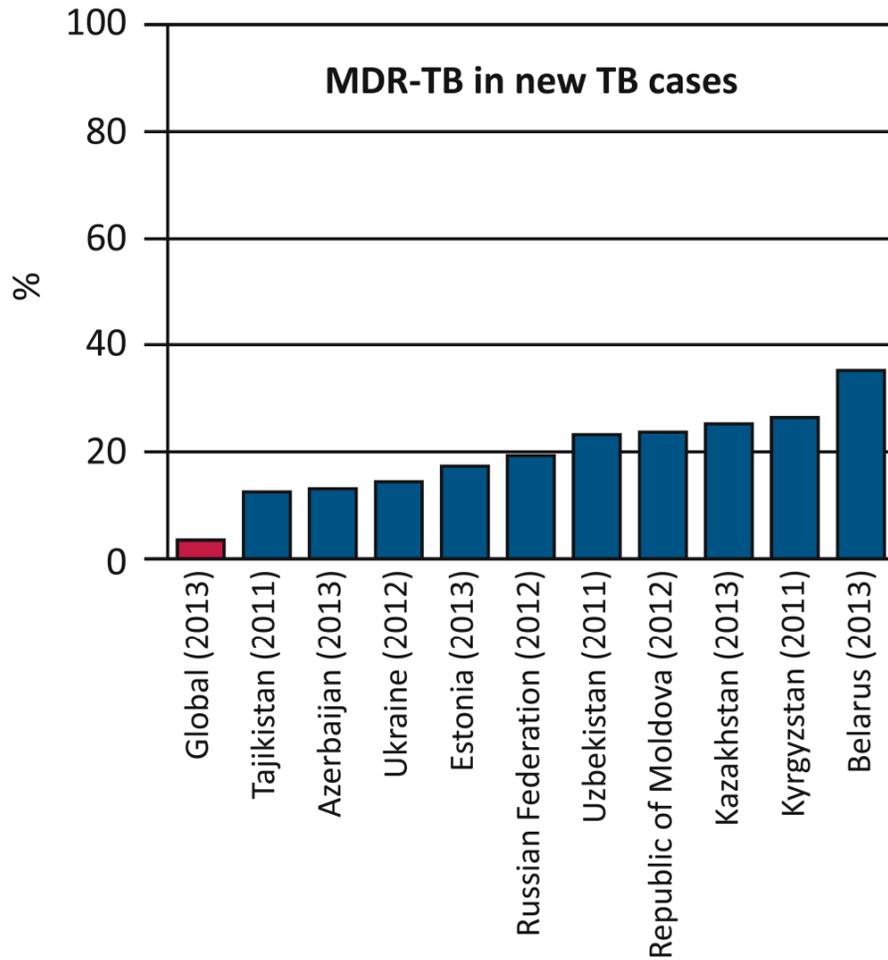
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Percentage of previously treated TB cases with MDR-TB



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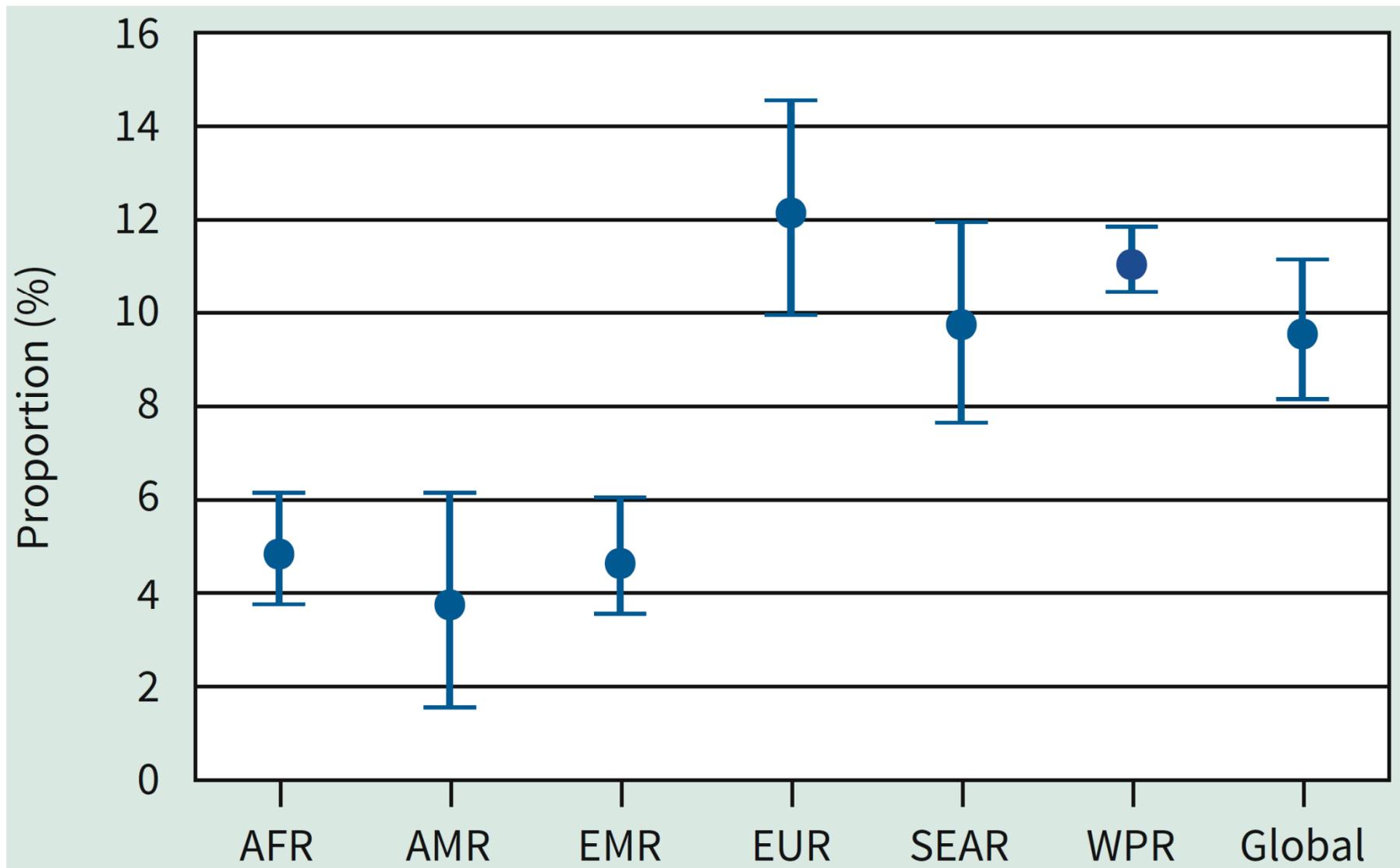
Percentage of new and previously treated TB cases with MDR-TB globally and in the top 10 countries, 2014



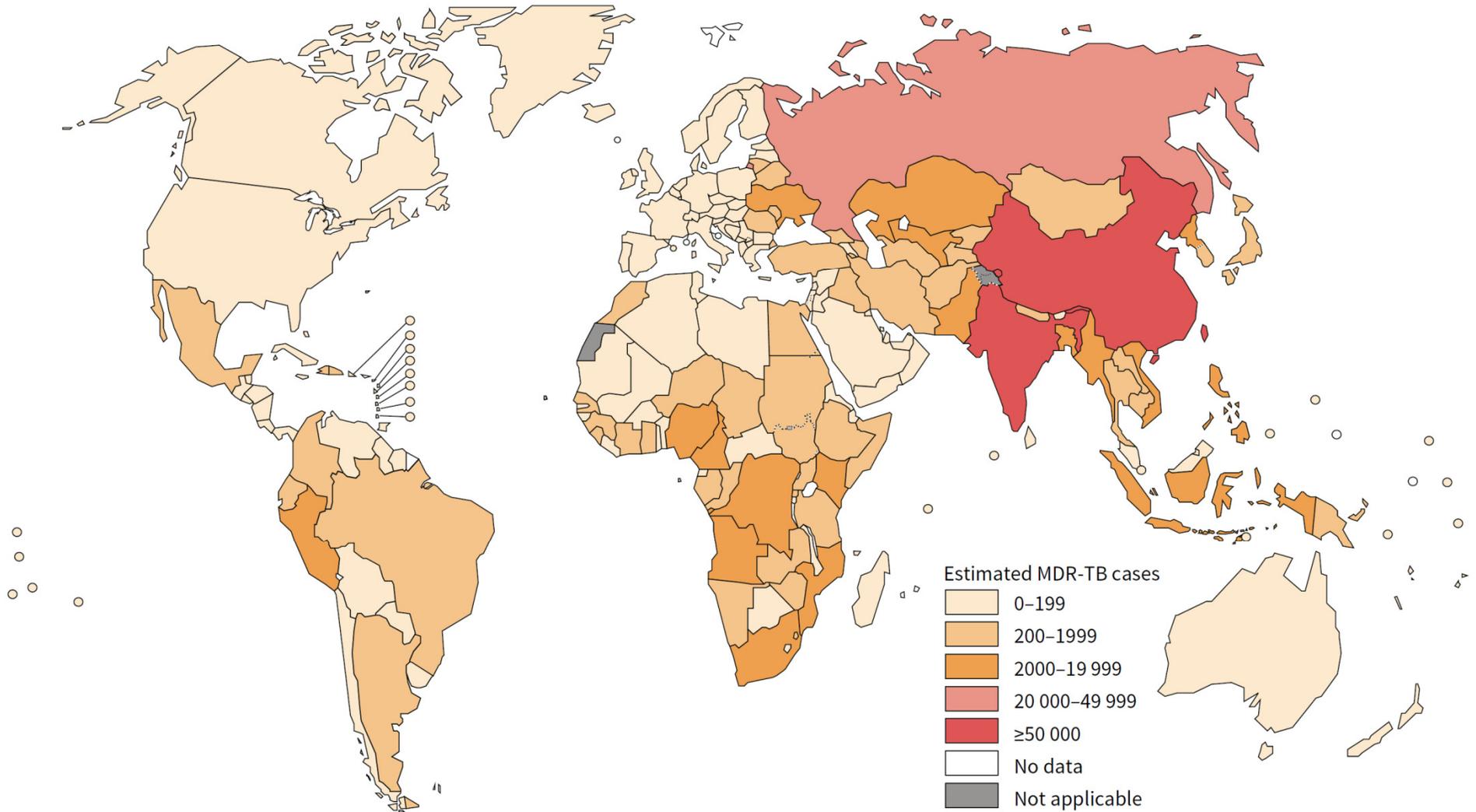
Percentage of new and previously treated TB cases with MDR-TB globally and in the top 10 countries, 2014

	ESTIMATED % OF NEW TB CASES WITH MDR-TB ^a	CONFIDENCE INTERVAL	ESTIMATED % OF RETREATMENT TB CASES WITH MDR-TB ^a	CONFIDENCE INTERVAL
AFR	2.4	0.2–5.0	13	0.02–27
AMR	2.2	1.3–3.0	13	4.9–22
EMR	3.6	2.3–5.0	22	12–32
EUR	14	9.7–19	44	36–52
SEAR	2.2	1.8–2.7	16	12–20
WPR	4.4	2.6–6.3	22	18–26
Global	3.5	2.2–4.7	21	14–28

Proportion of all TB cases with resistance to isoniazid but without resistance to rifampicin, 1994-2013

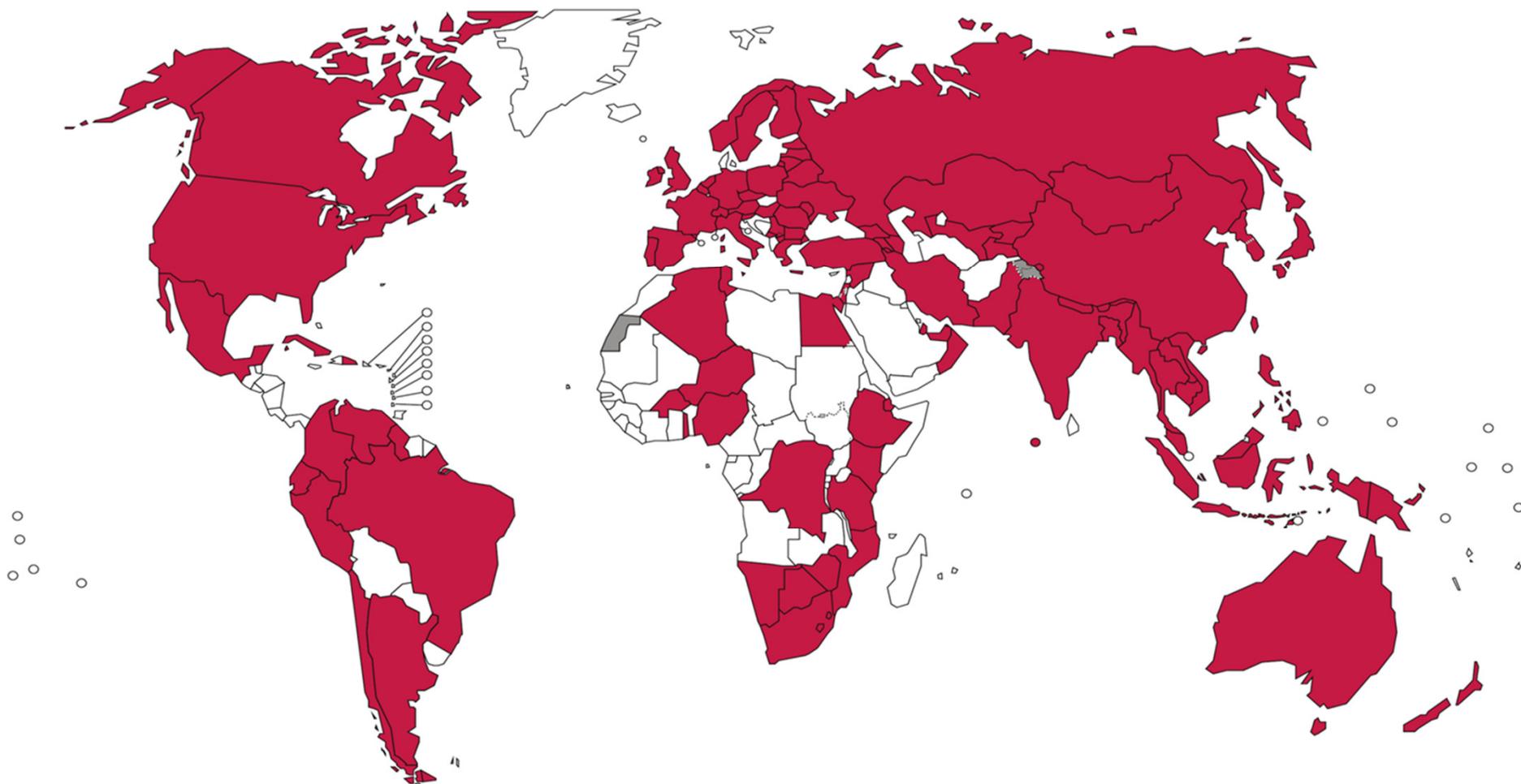


MDR-TB cases estimated to occur among notified pulmonary TB cases, 2013



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Countries that notified at least one case of XDR-TB



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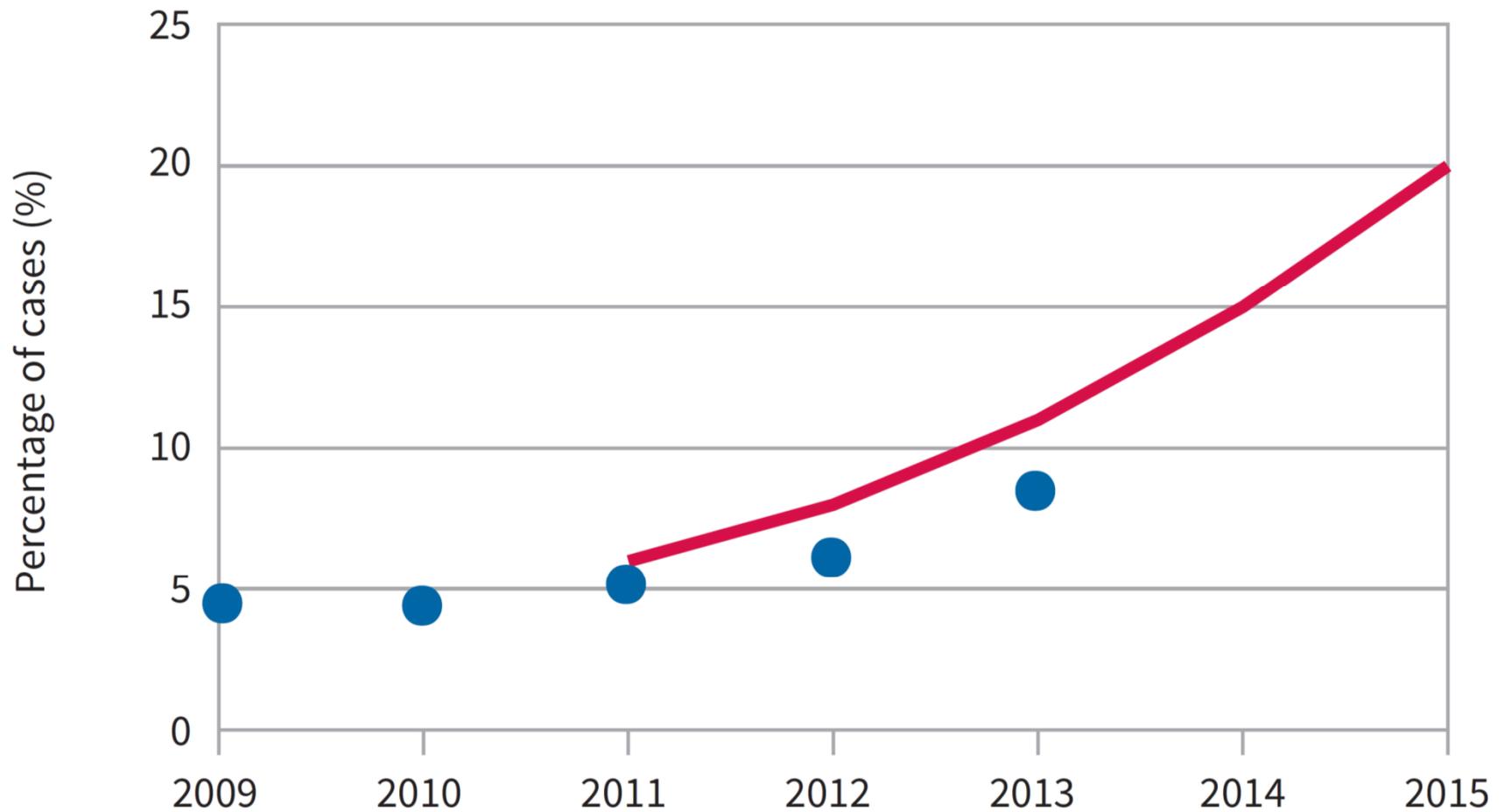
DR-TB RESPONSE

WHO guidance on the management of drug-resistant TB, 1996-2014



Diagnostic DST (1)

For rifampicin +/- isoniazid in new bacteriologically-confirmed TB cases, 2009-2013
(& projections 2011-15 as per Global Plan)



Diagnostic DST (2)

For rifampicin +/- isoniazid in retreatment
TB cases by Region, 2009-2013



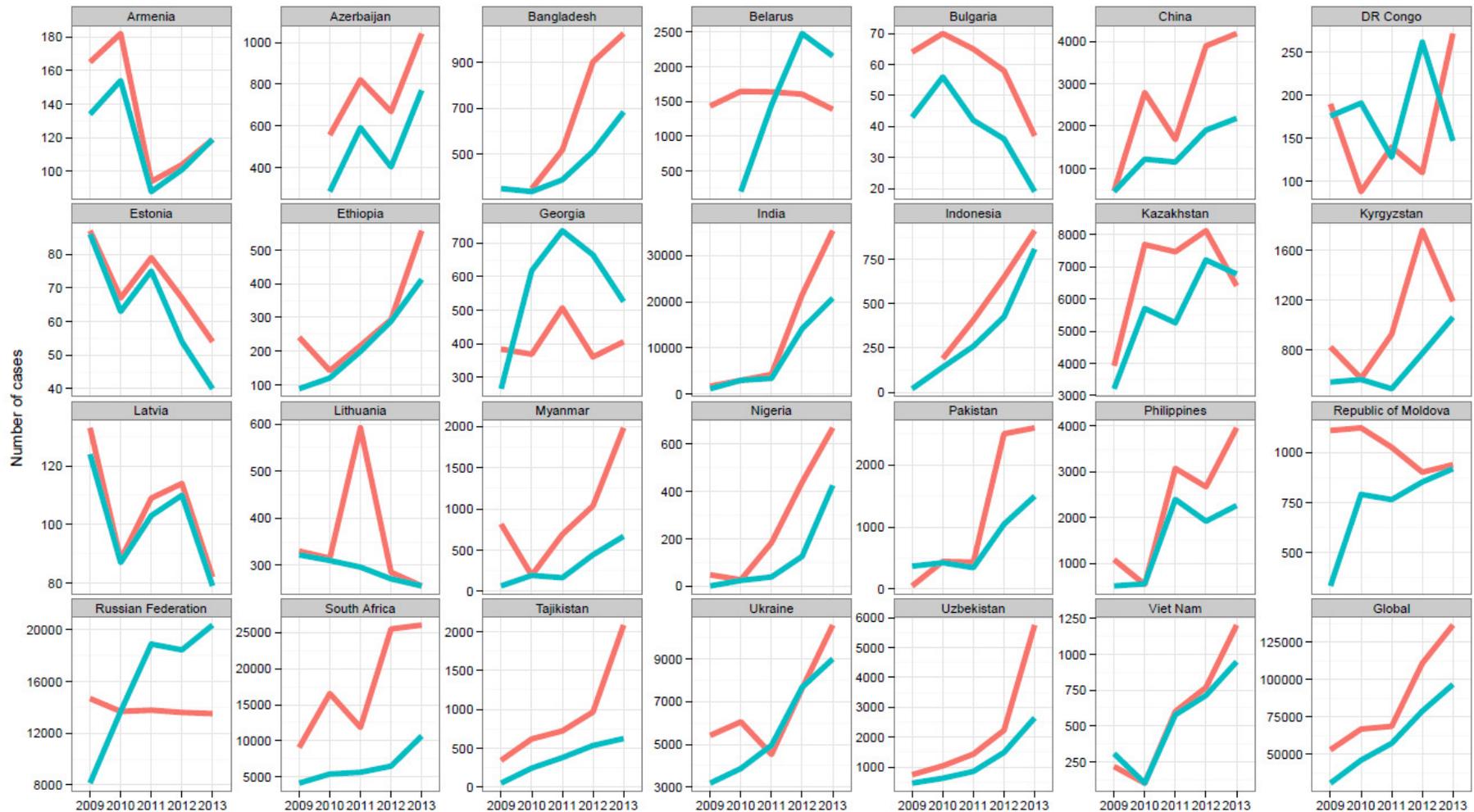
Diagnostic DST (3)

For fluoroquinolones and second-line injectable drugs among MDR-TB cases, 2013

	CONFIRMED MDR-TB CASES	
	NUMBER WITH DST RESULTS	% OF CASES WITH DST RESULT
AFR	9 045	64
AMR	1 364	46
EMR	2 299	79
EUR	3 758	9.5
SEAR	3 088	11
WPR	2 326	39
Global	21 880	23

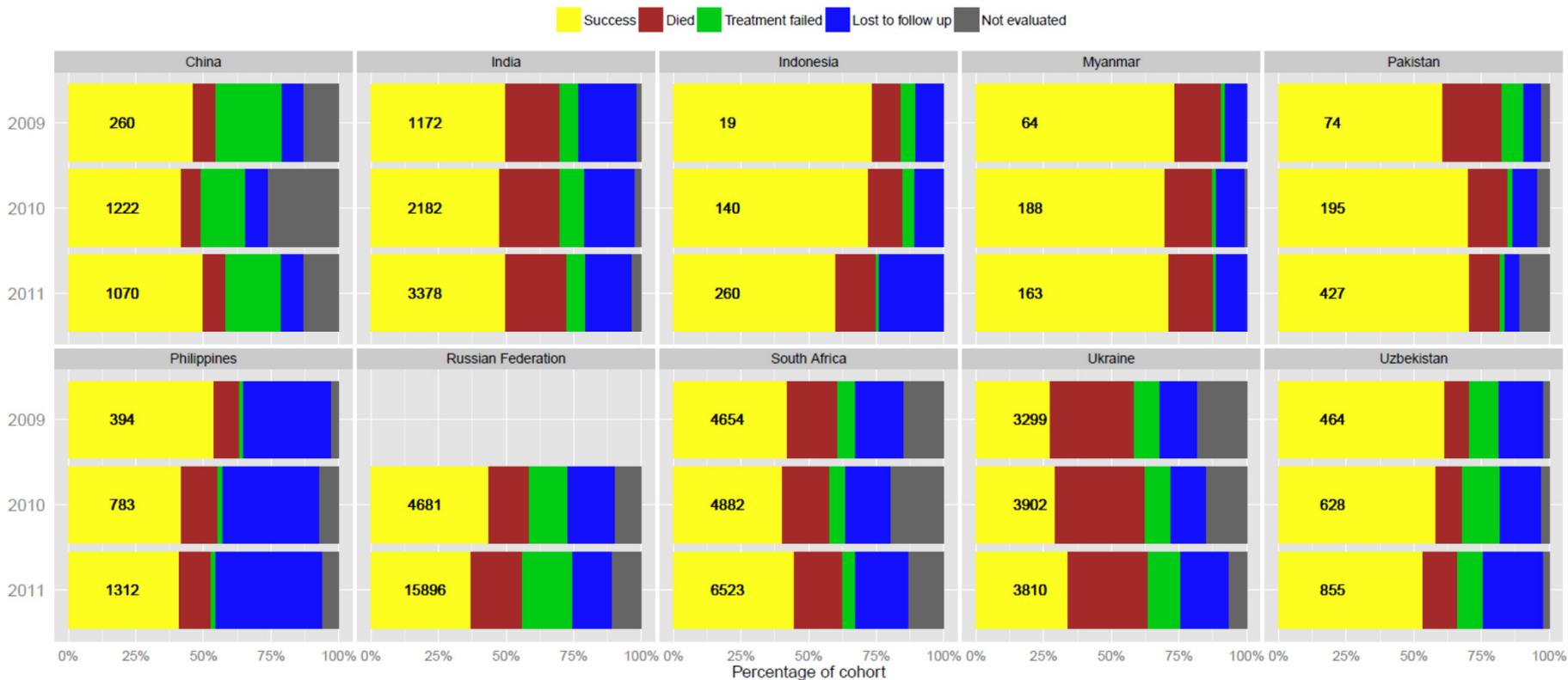
RR-/MDR-TB notification and enrolment

MDR-TB cases and additional rifampicin-resistant TB cases detected (orange)
compared with TB cases enrolled on MDR-TB treatment (turquoise),
global trend and trend in 27 high MDR-TB burden countries, 2009–2013



Outcomes of MDR-TB treatment

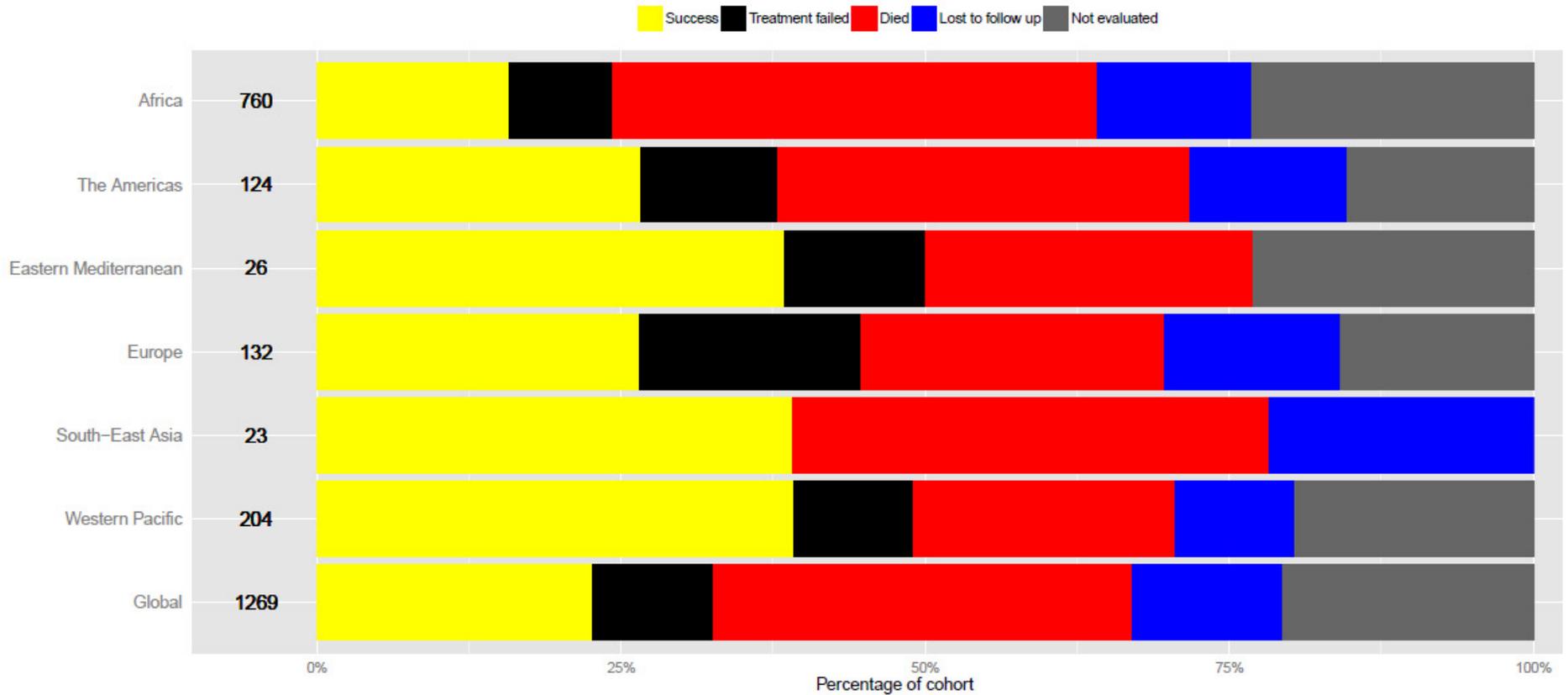
MDR-TB cohorts 2009-2011, top 10 MDR-TB burden countries*



*number of cases observed shown over the bars

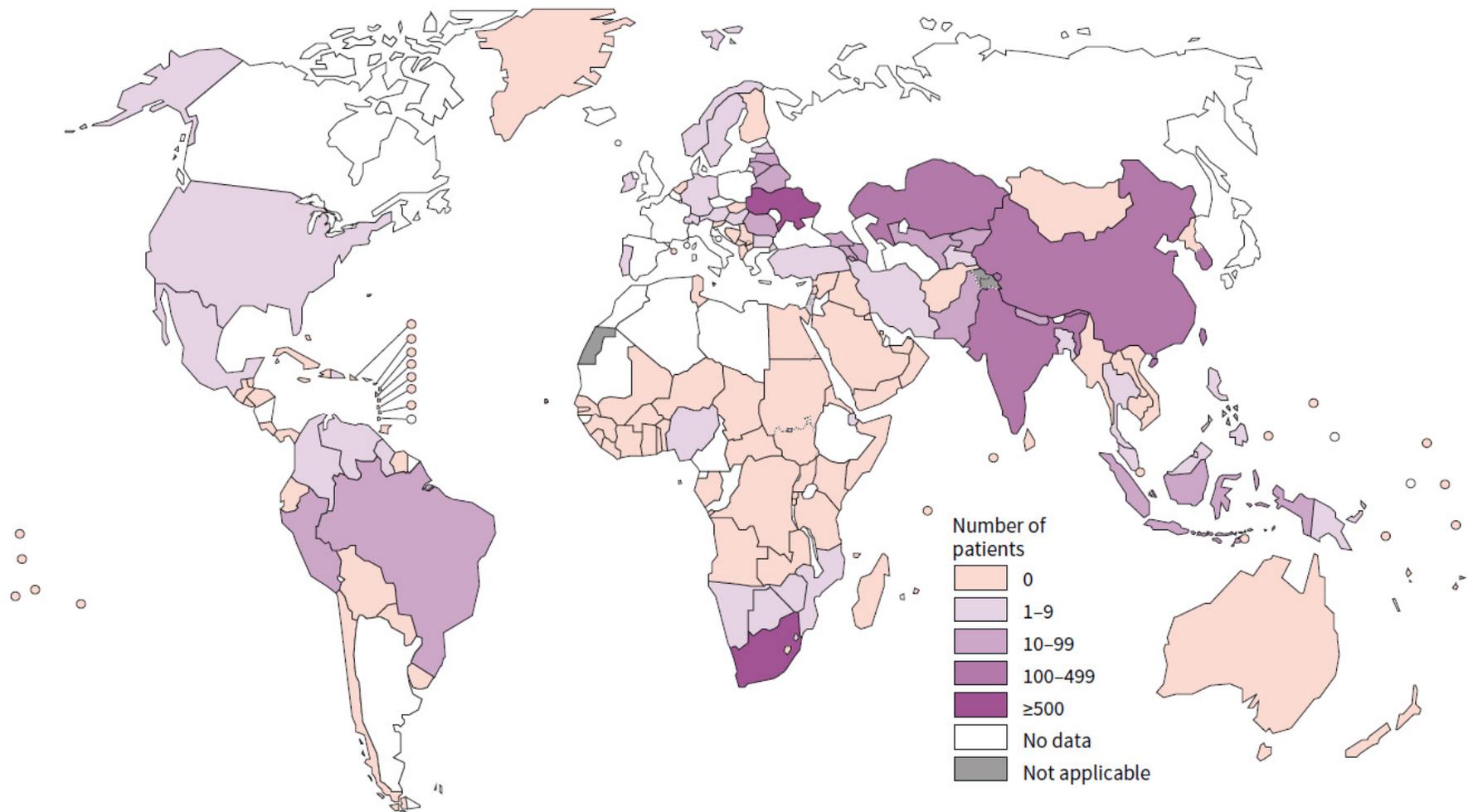
Outcomes of XDR-TB treatment

XDR-TB cohorts 2011, by WHO Region*



*number of cases observed shown over the bars

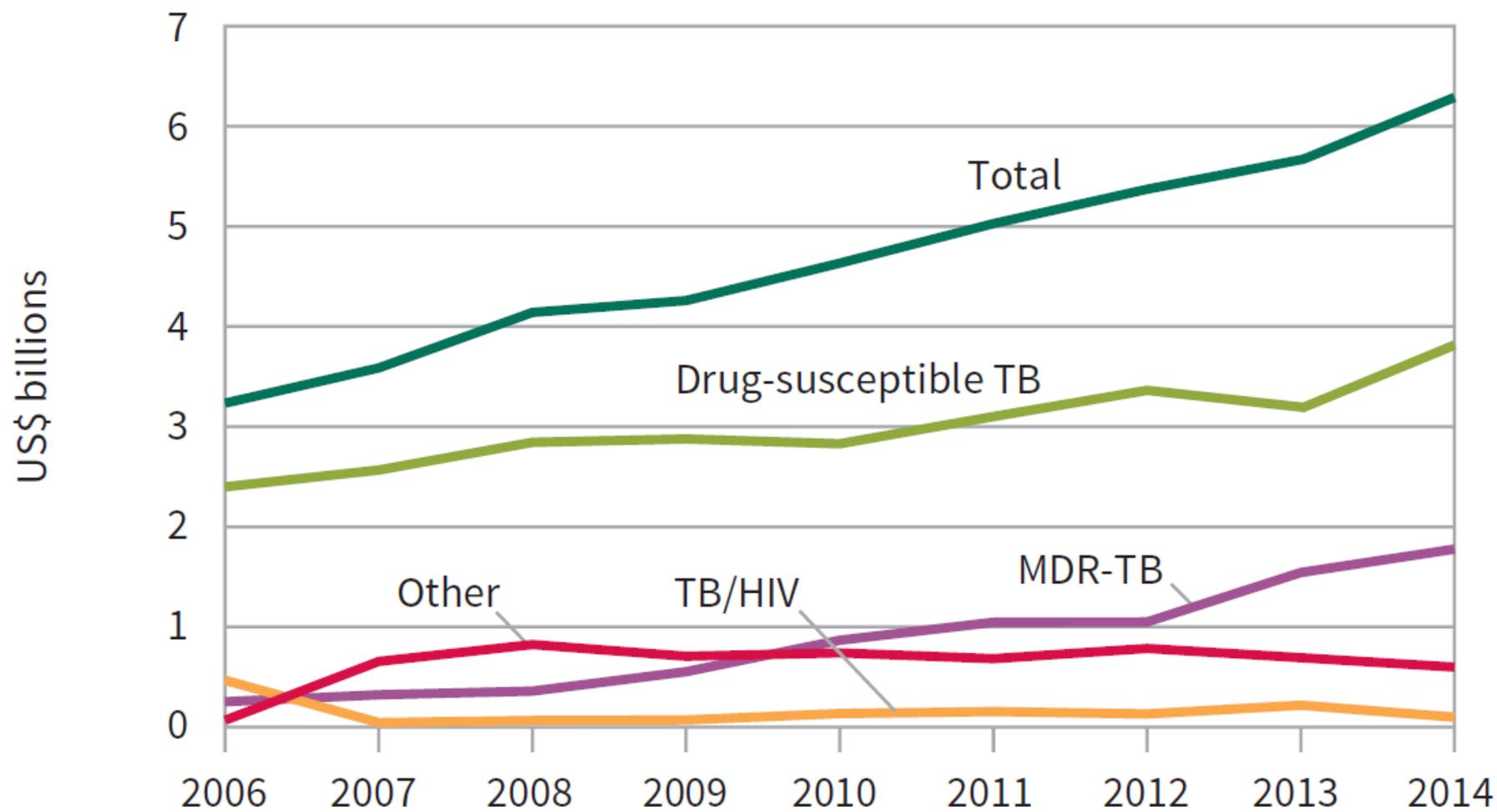
Number of patients with laboratory-confirmed XDR-TB started on treatment in 2013



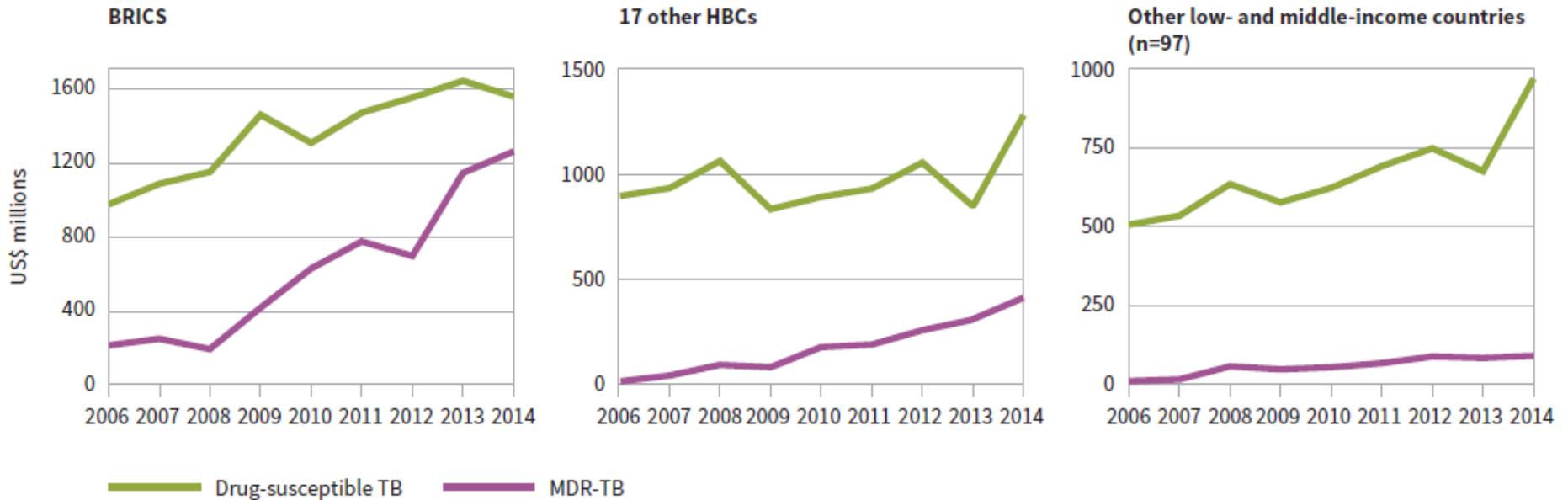
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Funding for TB prevention, diagnosis and treatment by intervention area, 2006–2014 (constant 2014 US\$ billions)

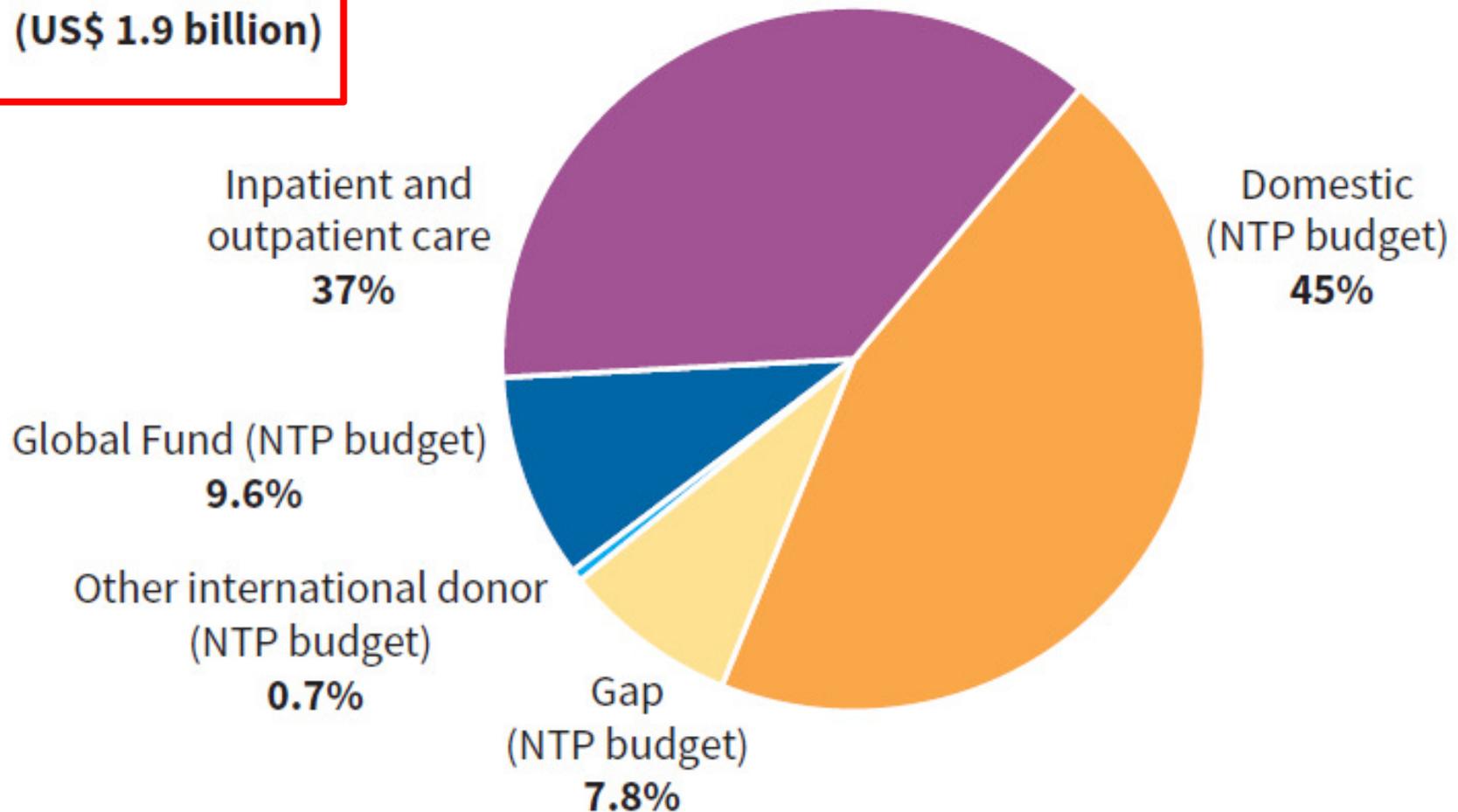


Funding for drug-susceptible TB and MDR-TB, 2006–2014, by country group (constant 2014 US\$ billions)



Funding sources and funding gap for MDR-TB, 2014

**MDR-TB
(US\$ 1.9 billion)**



300 000



cases of MDR-TB estimated among TB patients reported by national TB programmes in 2013

136 000



patients with MDR-TB

(136 000 out of 300 000) were detected and reported in 2013

97 000



people with TB were started on second-line treatment for MDR-TB in 2013, leaving many patients on waiting lists for treatment

48% 

of MDR-TB patients globally had a successful treatment outcome

Five out of the 27 high MDR-TB countries achieved a treatment success rate of $\geq 70\%$

Conclusions (1)

- Even if most TB patients in the world are not drug-resistant, the burden of MDR-TB in the world poses a formidable challenge to the prospect of controlling TB. More resources need to be committed in future to ensure that targets are reached.
- Coverage of DST for TB patients remains low and thus a minority of drug-resistant TB patients are detected and notified. Information remains incomplete.
- Progress has been achieved in recent years in scaling-up MDR-TB care. However, 1/3 of the estimated cases eligible for MDR-TB treatment among known TB patients were started on treatment. In many countries, a sizeable gap has developed between diagnostic and enrolment capacity, leading to waiting lists for MDR-TB treatment.

Conclusions (2)

- Treatment of MDR-TB is complicated and less effective than for drug-susceptible TB. Countries need to place more MDR-TB patients on adequate treatment and strive to attain the Global Plan target of 75% success.
- Country reporting of surveillance and monitoring data continues to improve. However, efforts need to take better advantage of available information & communication technologies to collect data efficiently and provide managers with indicators for timely action.

FIVE PRIORITY ACTIONS TO ADDRESS THE GLOBAL MDR-TB CRISIS



Prevent the development of drug resistance through high quality treatment of drug-susceptible TB



Expand rapid testing and detection of drug-resistant TB cases



Provide immediate access to effective treatment and proper care



Prevent transmission through infection control



Increase political commitment with financing

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