



Progress on the DR-TB targets in the Global Plan

- updates &
estimates

GDI Meeting, Geneva, 1 May 2014

Updates

The Global Plan to Stop TB, 2011-2015 (1)

Between 2011 and 2015 ...

- Increase in TB cases tested for R & H yearly from 0.8 million to 1.9 million
- 1 million multidrug-resistant TB (MDR-TB) patients detected and put on treatment
- USD 7.1 billion spent

The Global Plan to Stop TB, 2011-2015 (2)

GOAL AND OBJECTIVES	MAJOR ACTIVITIES	INDICATOR(S)	BASELINE (2009)	TARGET FOR 2015
Goal: To reduce the global burden of drug-resistant TB		Trend in the incidence of MDR-TB	n/a	Declining
Objective 1: Scale up access to testing for resistance to first-line anti-TB drugs among TB patients	Testing for MDR-TB using culture and DST* and molecular technologies (e.g. LPAs).	Percentage of new bacteriologically-positive TB patients tested for resistance to first-line drugs	7%	20%**
		Percentage of previously treated TB patients tested for resistance to first-line drugs	7%	100%
		Number of countries among the 22 HBCs and 27 high MDR-TB burden countries with ≥1 culture laboratory per 5 million population	18–21**	36
Objective 2: Scale up access to testing of susceptibility to second-line anti-TB drugs, as well as HIV testing among confirmed cases of MDR-TB	Testing for susceptibility to second-line drugs using culture and DST; testing for HIV.	Percentage of confirmed MDR-TB patients who had a second-line DST result	15%	100%

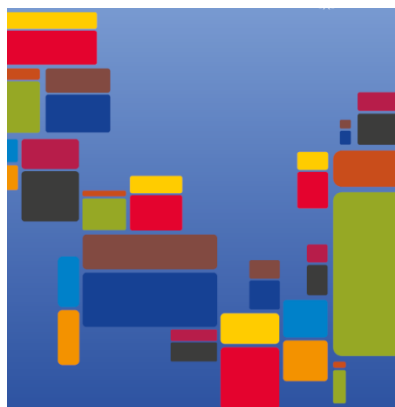
The Global Plan to Stop TB, 2011-2015 (3)

OBJECTIVES (CONTINUED)	MAJOR ACTIVITIES	INDICATOR(S)	BASELINE (2009)	TARGET FOR 2015
Objective 3: Scale up access to effective treatment for drug-resistant TB	Procurement and supply of second-line TB drugs; provision of treatment in hospitals and outpatient clinics, including use of incentives and enablers where appropriate; management of adverse events; training; programme management and supervision; data management; technical assistance.	Percentage of cases with confirmed MDR-TB started on treatment in programmes that follow international guidelines	36%	100%
		Treatment success rate among patients with confirmed MDR-TB	60%	≥75%
Objective 4: Scale up TB infection control in MDR-TB hospital wards and outpatient clinics	Development of national plan on infection control as part of a national plan for MDR-TB; assessments of the current status of infection control; training; implementation of administrative, personal protection and environmental measures, based on results of assessments.	Ratio of TB notification rate among health care workers to notification rate among general population	n/a	~1

The Global Plan to Stop TB, 2011-2015 (4)

OBJECTIVES (CONTINUED)	MAJOR ACTIVITIES	INDICATOR(S)	BASELINE (2009)	TARGET FOR 2015
Objective 5: Strengthen surveillance, including recording and reporting, of drug-resistant TB	Surveillance of drug resistance (DRS) among TB cases through routine testing of patients and/or surveys; provision of international technical assistance for DRS and the development and implementation of recording and reporting systems; advocacy at country level and among international technical and financial partners; training workshops; development and implementation of electronic tools, and associated guidelines and standard operating procedures.	Number of countries reporting results from drug resistance surveys and/or Class A* continuous surveillance	78	110, including the 36 countries that are among the 22 HBCs and/or 27 high MDR-TB burden countries
		Number of high MDR-TB burden countries with an electronic case-based database for MDR-TB patients on treatment at national level	10	27
		Percentage of countries reporting $\geq 50\%$ of the MDR-TB cases that are expected to exist among notified TB cases	23%	100%
		Percentage of countries reporting treatment outcomes for all confirmed cases of MDR-TB	21%	100%
		Number of high MDR-TB burden countries reporting treatment outcomes for all confirmed cases of MDR-TB	2	27
Objective 6: Expand country capacity to scale up the management of drug-resistant TB through global advocacy and policy guidance	Operations of the Working Group on MDR-TB, including meetings, advocacy for access to and effective treatment of drug-resistant TB; resource mobilization.	Number of partners attending meetings of the Working Group	15	30
		Number of high-level missions to countries with a high burden of MDR-TB	1	10

Source: The Global Plan to Stop TB 2011-2015 (www.stoptb.org/assets/documents/global/plan/TB_GlobalPlanToStopTB2011-2015.pdf)



The global TB situation (1)

**Estimated
incidence, 2012**

**Estimated number
of deaths, 2012**

All forms of TB

8.6 million
(8.3–9.0 million)

940,000*
(0.8–1.1 million)

HIV-associated TB

1.1 million
(1.0–1.2 million)

320,000
(300,000–340,000)

**Multidrug-
resistant TB**

450,000
(300,000–600,000)

170,000
(100,000–240,000)

Source: WHO Global Tuberculosis Report 2013

* Excluding deaths attributed to HIV/TB

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Progress on MDR-TB targets of Global Plan
1 May 2014



World Health
Organization

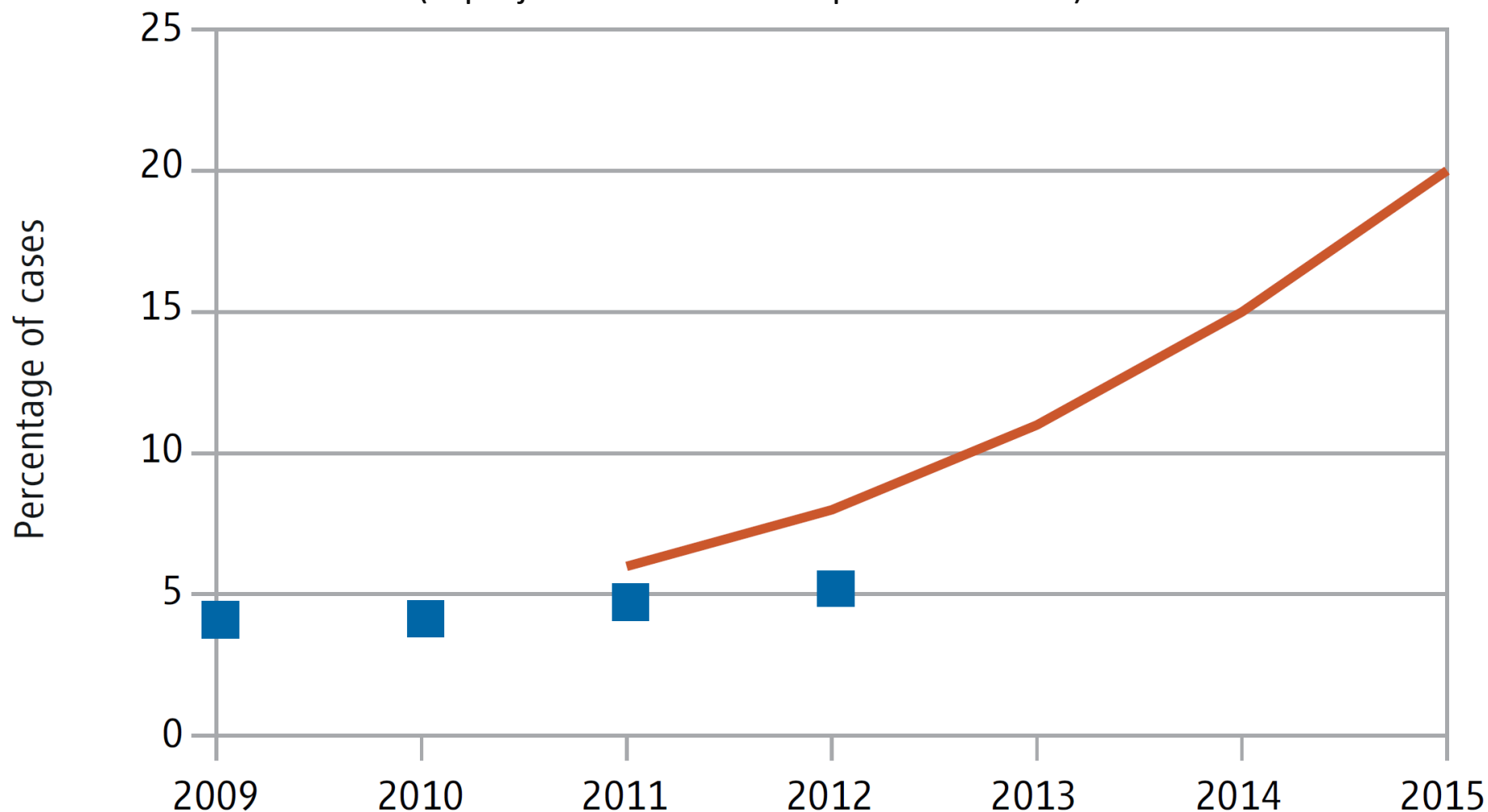
Time trends in MDR-TB incidence

- The global trend in MDR cannot as yet be inferred from pooled national data given their incompleteness.
- Recent surveillance data from Eastern Europe, where the frequency of MDR in TB patients is the highest globally, show different trends by setting:
 - In Estonia and Latvia, rates of both TB and MDR-TB continue to decline;
 - In Lithuania, Georgia, the Republic of Moldova and much of the Russian Federation, MDR-TB rates appear to be stable; and
 - In Ivanovo Oblast and Mary-El Republic in the Russian Federation, MDR-TB rates are increasing

Diagnostic DST for rifampicin and isoniazid (1)

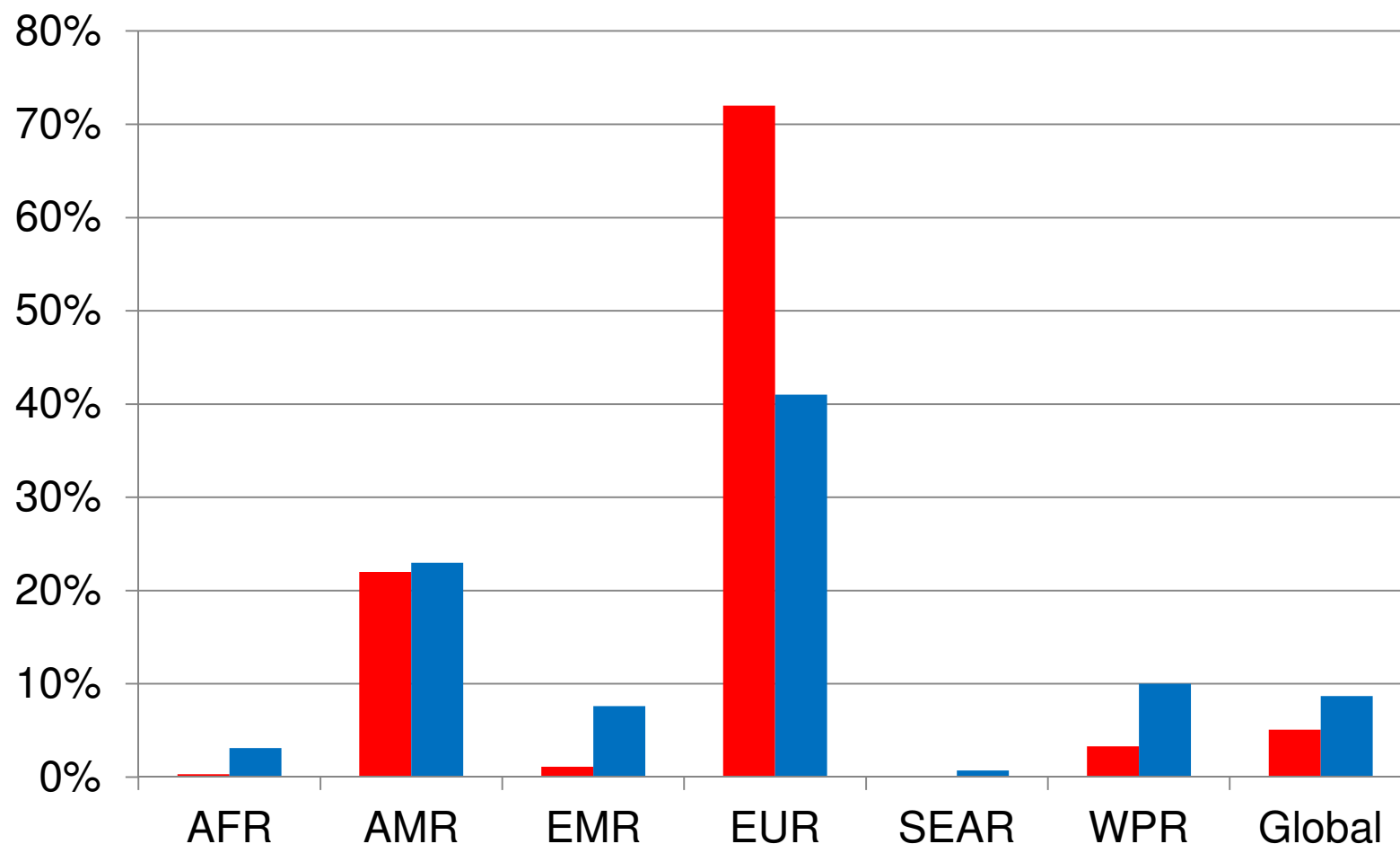
Among new bacteriologically-positive TB cases, 2009-2012

(& projections 2011-15 as per Global Plan)

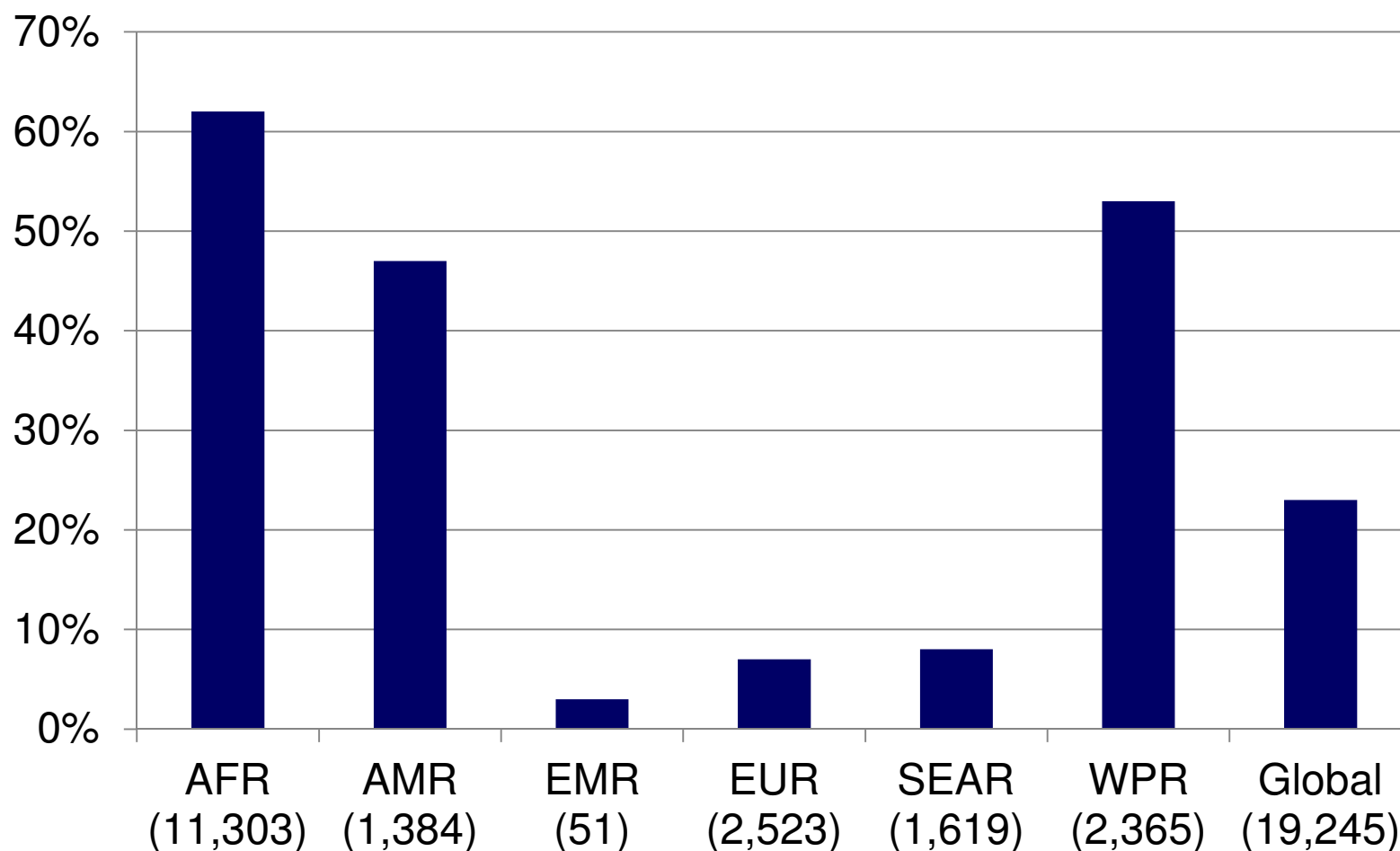


Diagnostic DST for rifampicin and isoniazid (2)

In new (red) and retreatment (blue) TB cases by Region, 2012

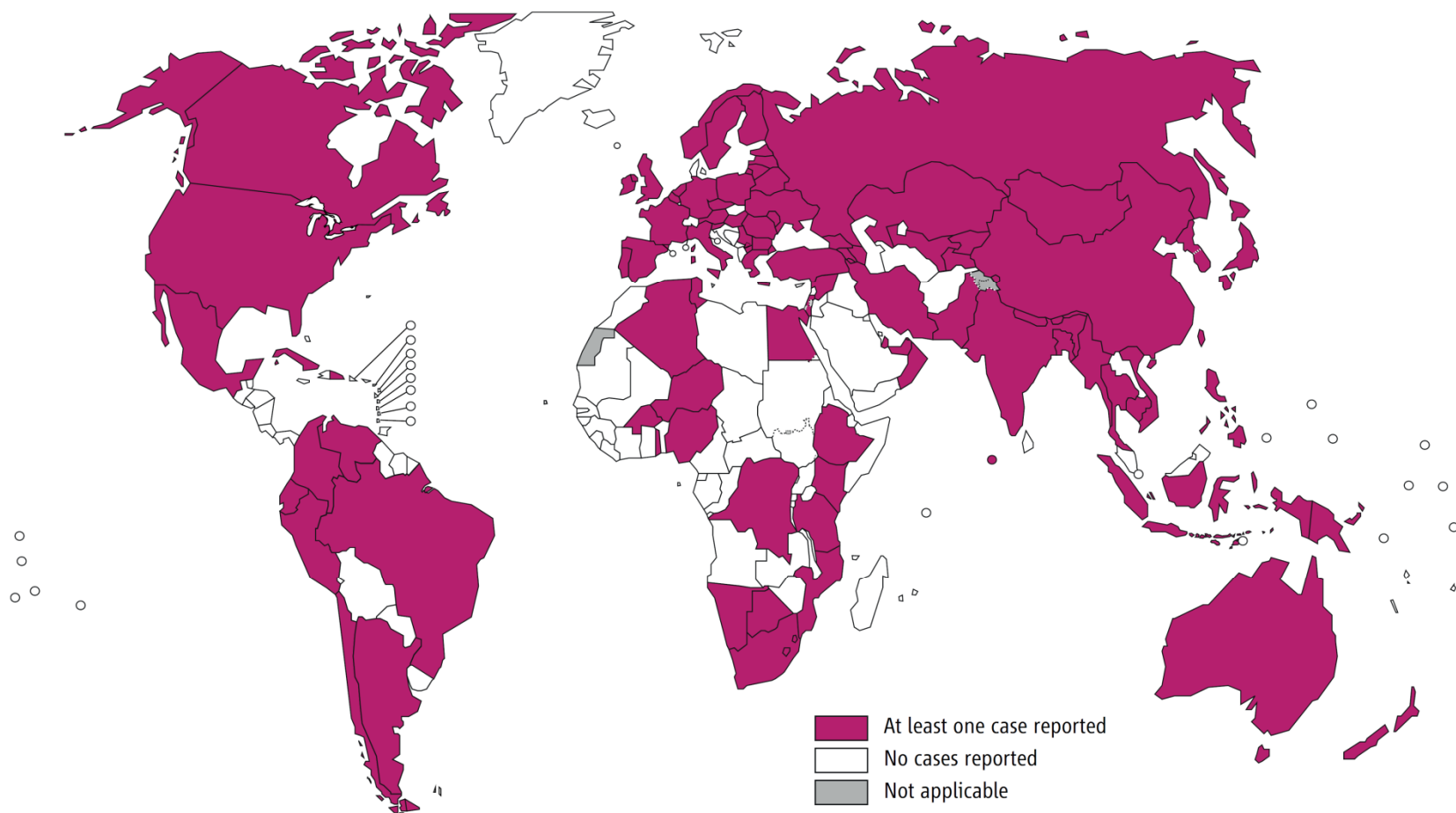


DST coverage for second-line drugs among MDR-TB cases, 2012*



* Number of MDR-TB cases with 2nd line DST results shown next to Region name

Countries that had reported at least one XDR-TB case by Oct 2013

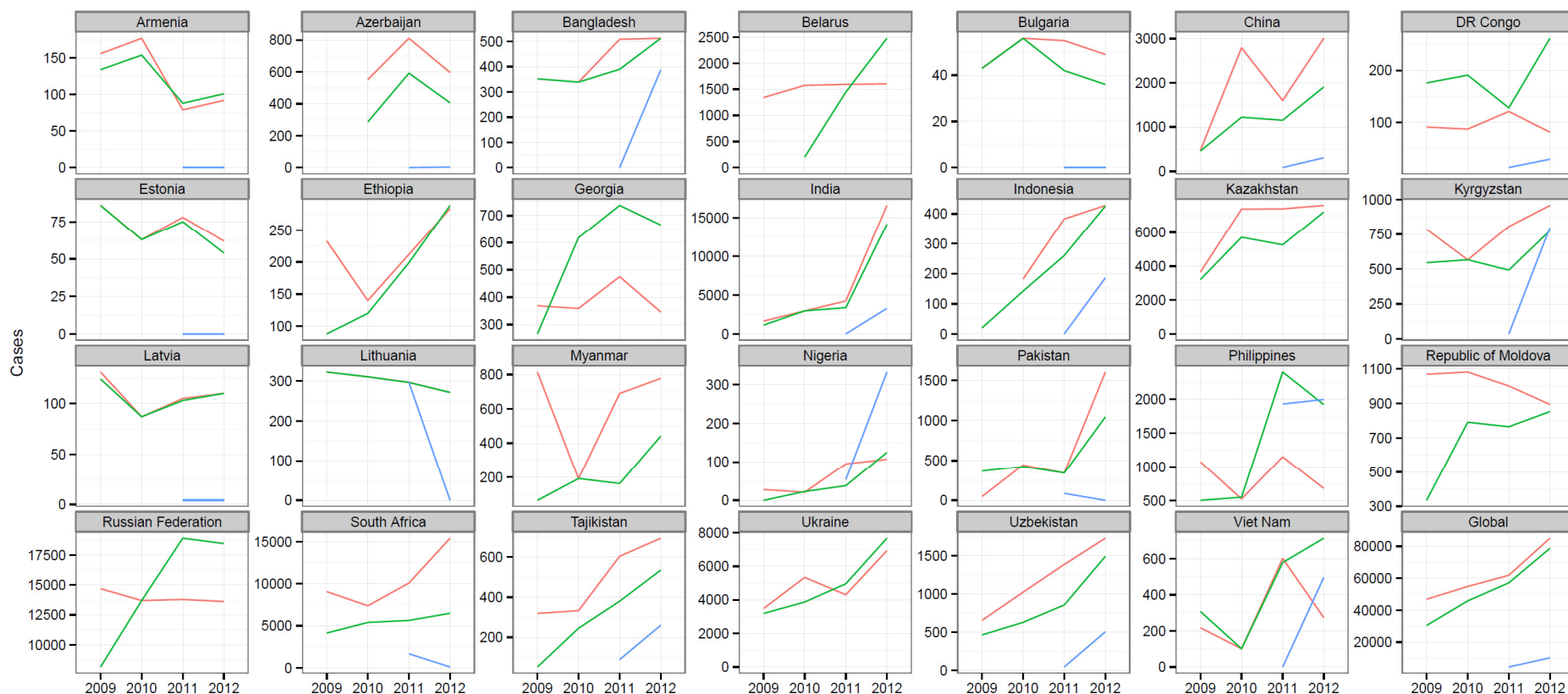


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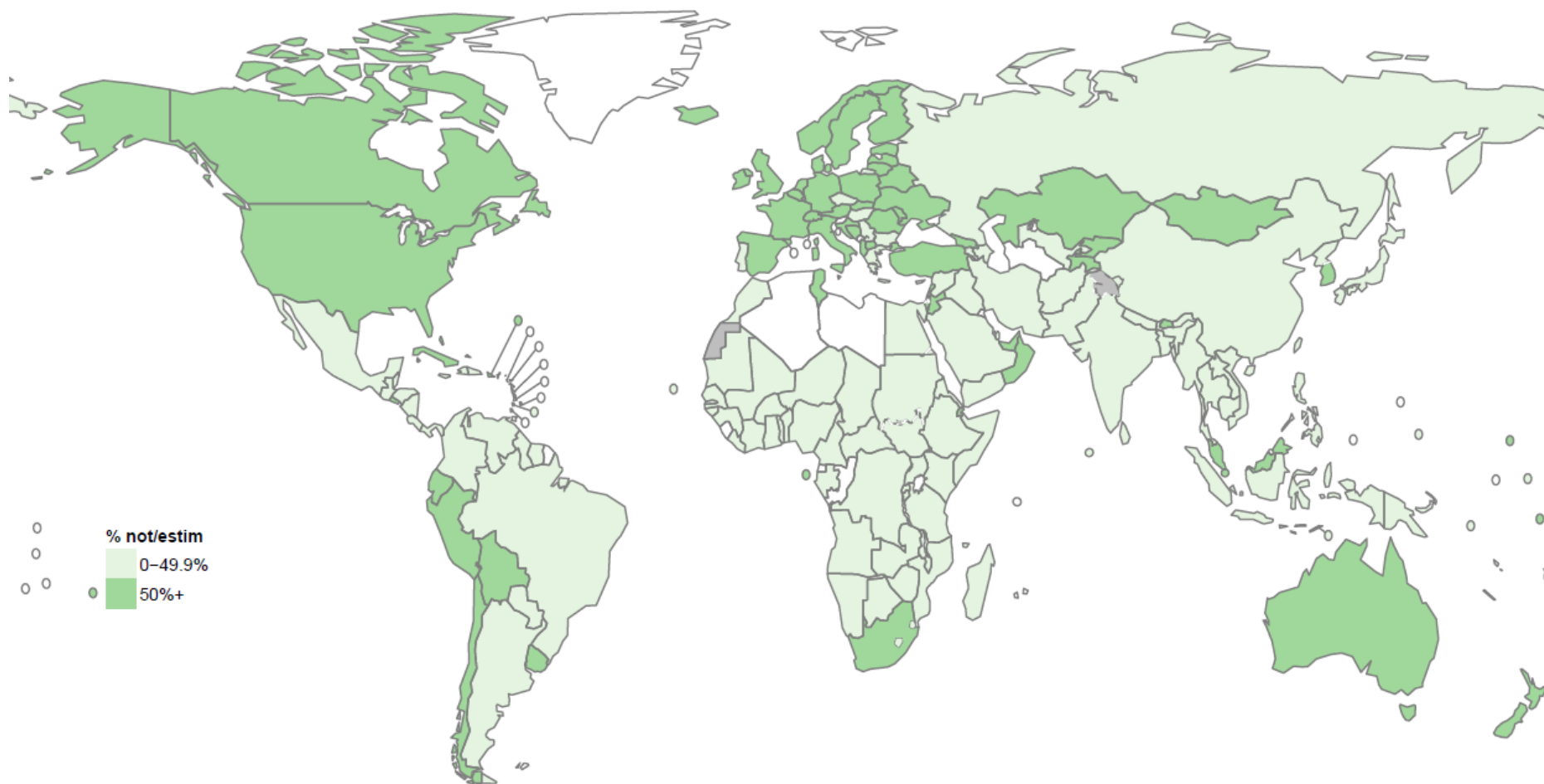
MDR-TB notification and enrolment (1)

MDR-TB cases (orange) and additional rifampicin-resistant TB cases (blue) detected compared with TB cases started on MDR-TB treatment (green), trend in 27 high MDR-TB burden countries and globally, 2009–2012



MDR-TB notification and enrolment (2)

Notified cases of MDR-TB as a % of MDR-TB cases estimated among notified pulmonary TB cases, 2012



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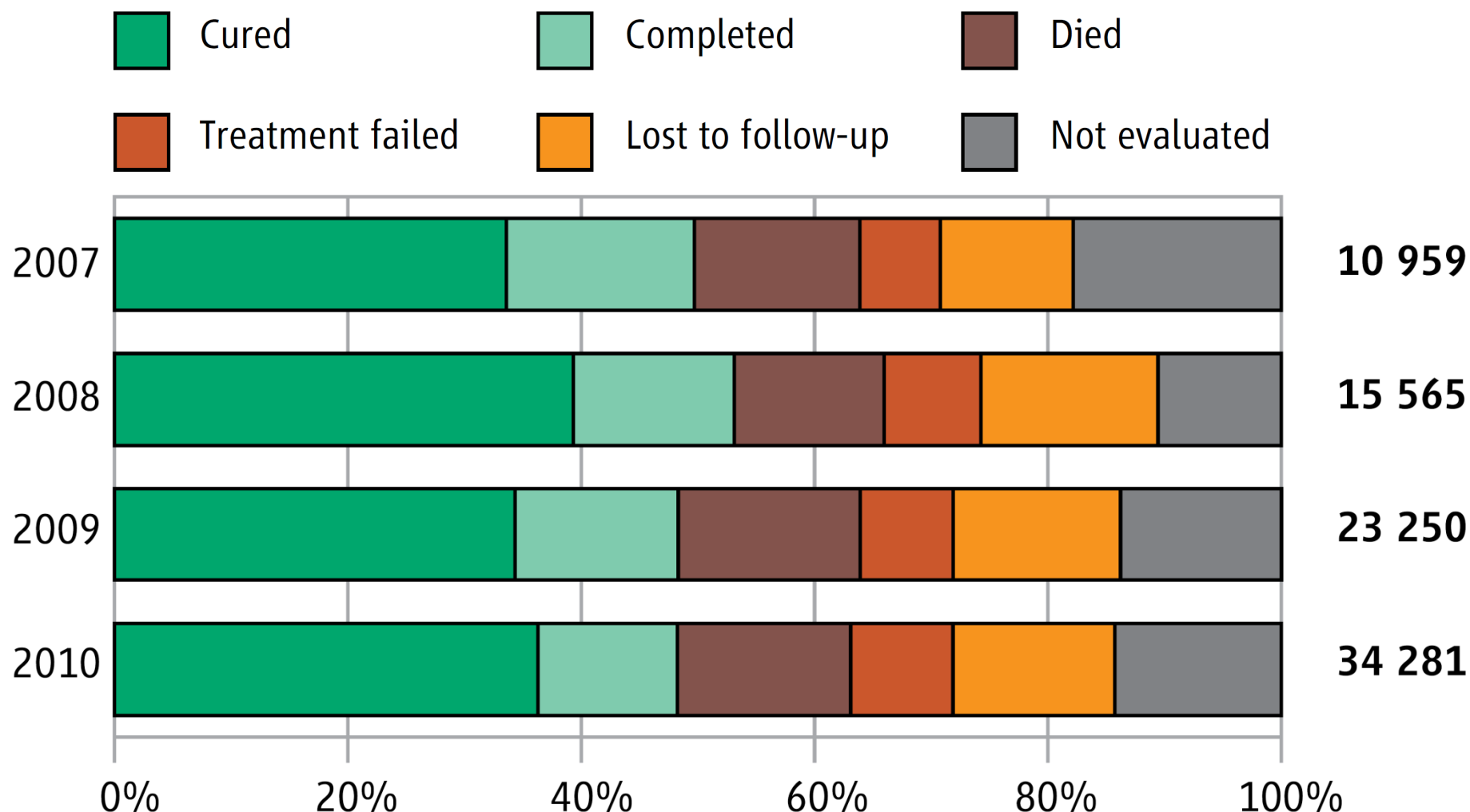
MDR-TB notification and enrolment (3)

MDR cases reported vs estimated among notified TB, 2012

WHO Region	2012		
	Estimated	Reported	Ratio
African	38,000	18,129	48%
American	7,100	2,967	42%
East Med.	18,000	2,236	12%
European	74,000	36,708	50%
S-E Asian	90,000	19,202	21%
West Pacific	74,000	4,473	6%
Global	300,000	83,715	28%

Outcomes of MDR-TB treatment (1)

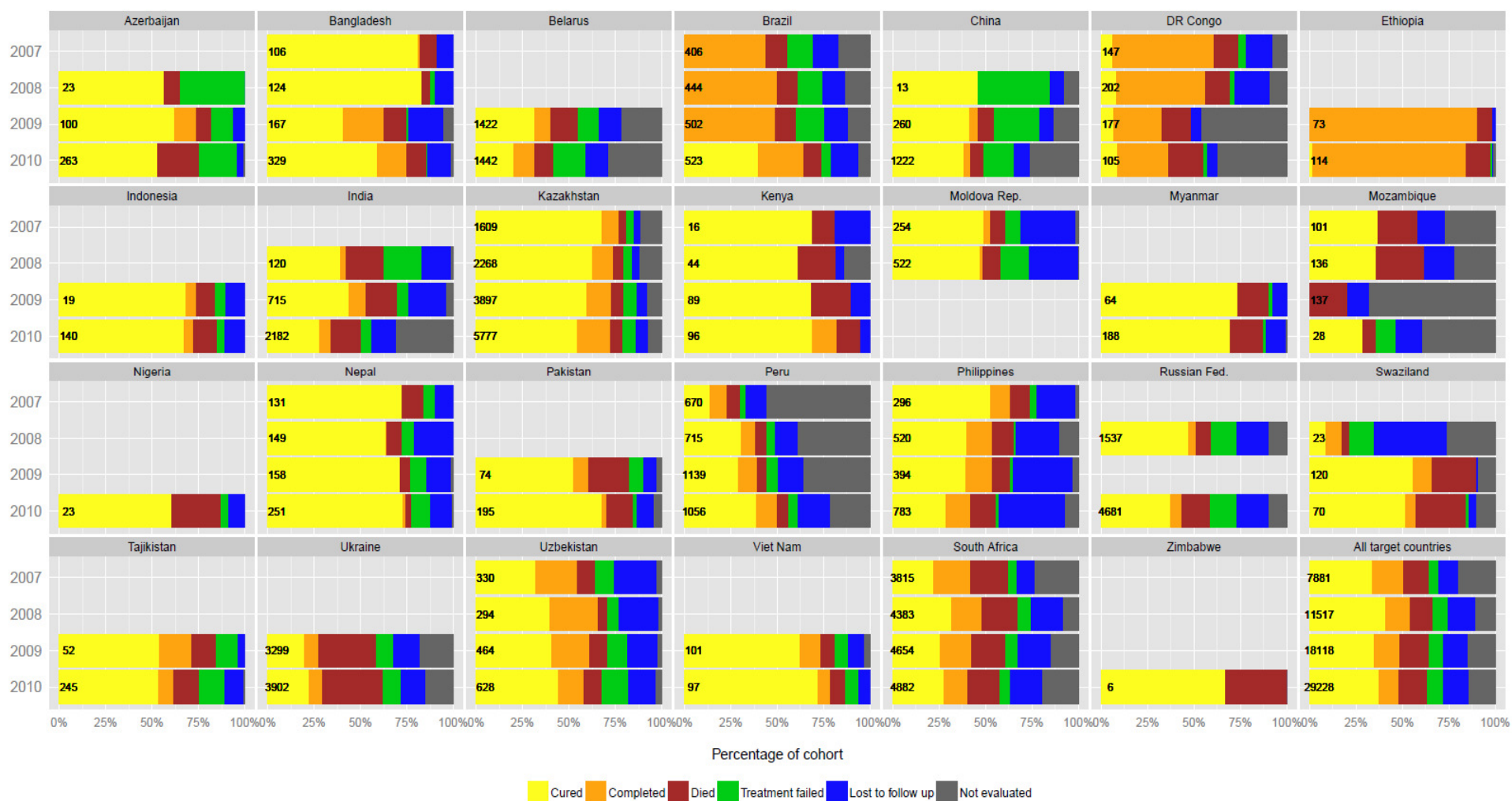
MDR-TB cohorts 2007-2010, global*



*number of cases observed shown on the right

Outcomes of MDR-TB treatment (2)

Figure 5. Treatment outcomes for patients diagnosed with MDR-TB by target country, 2007–2010 cohorts
Total number of cases in each annual cohort shown on bars

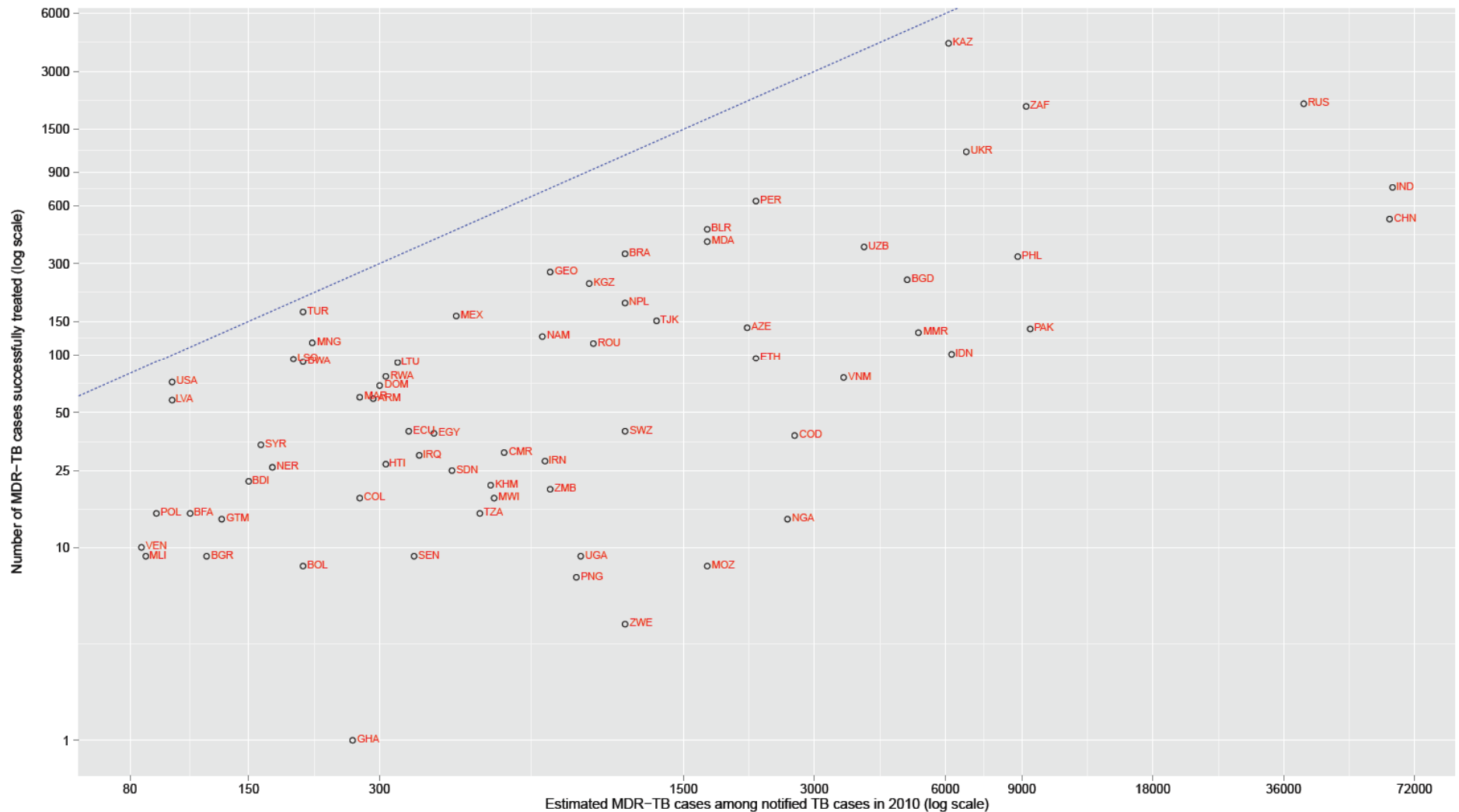


Outcomes of MDR-TB treatment (3)

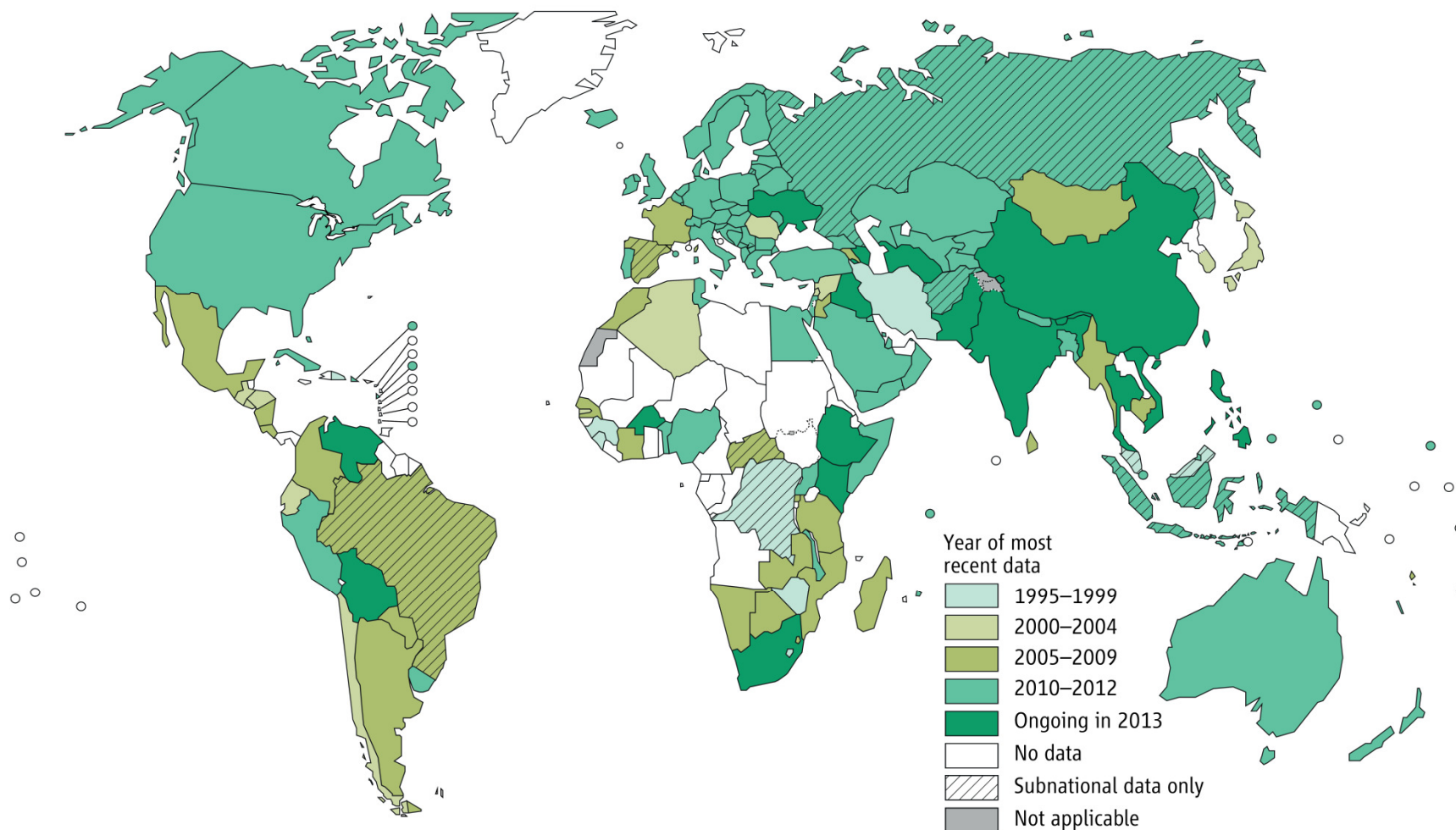
Estimated MDR-TB cases among notified TB patients and number of MDR-TB cases successfully treated in 2010

-----Countries with >80 estimated MDR-TB cases and >0 cases successfully treated-----

-----Diagonal representing unity-----



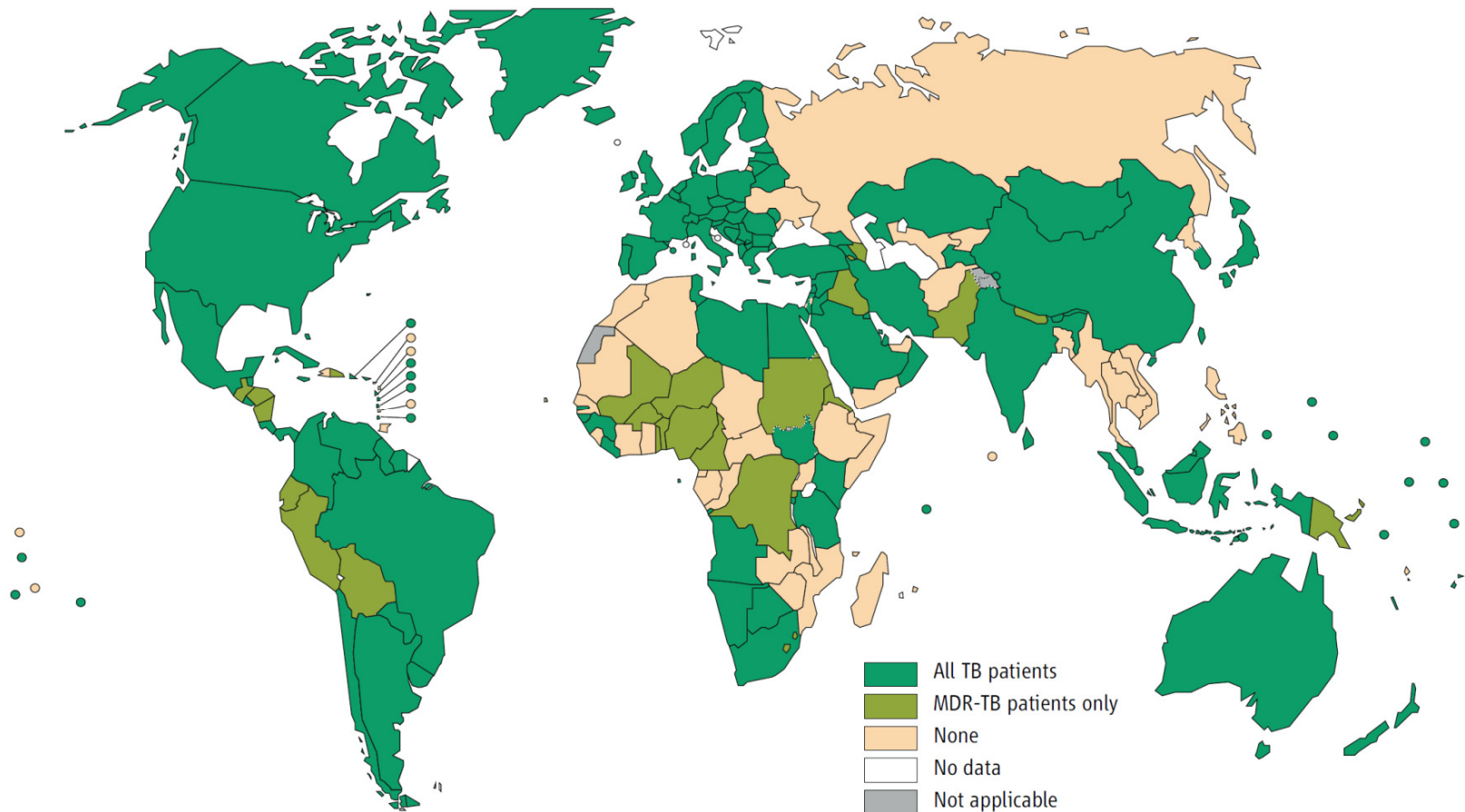
Global coverage of drug resistance surveillance data



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Improved recording and reporting (1)

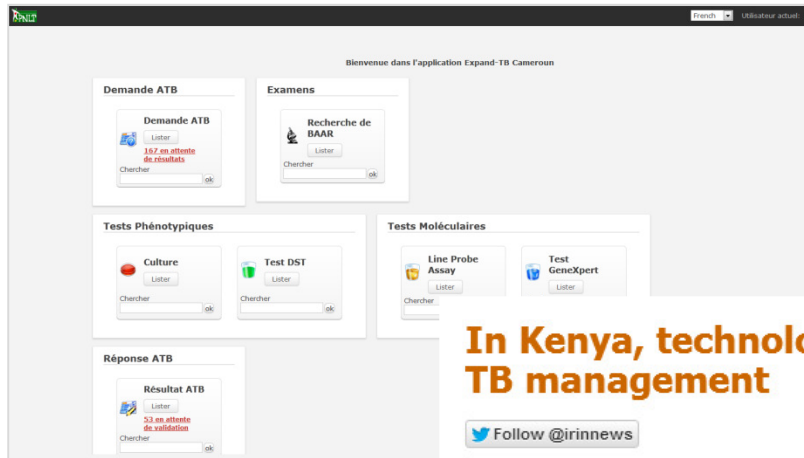
Availability of national electronic case-based databases of TB patients, 2012



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Improved recording and reporting (2)



In Kenya, technology revolutionizes TB management

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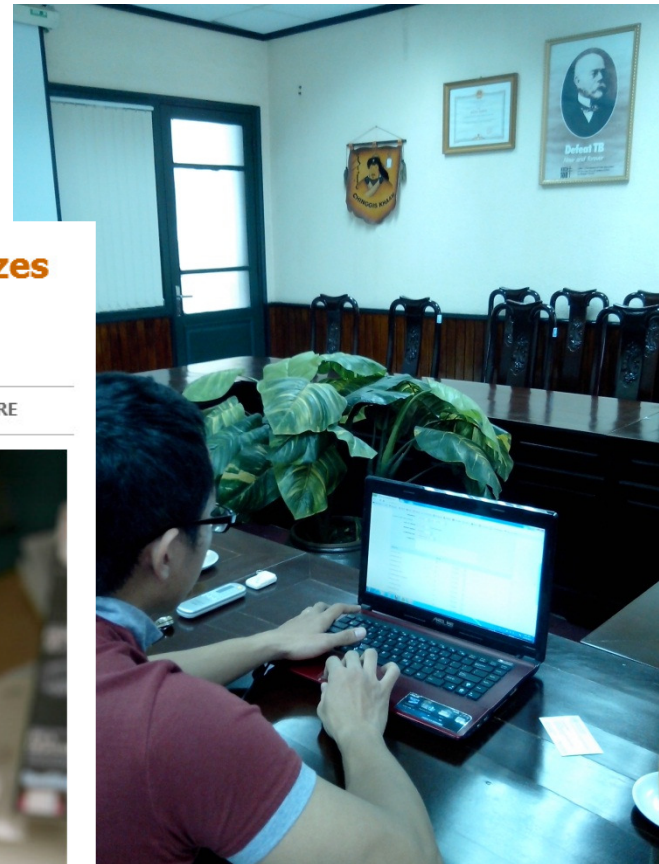
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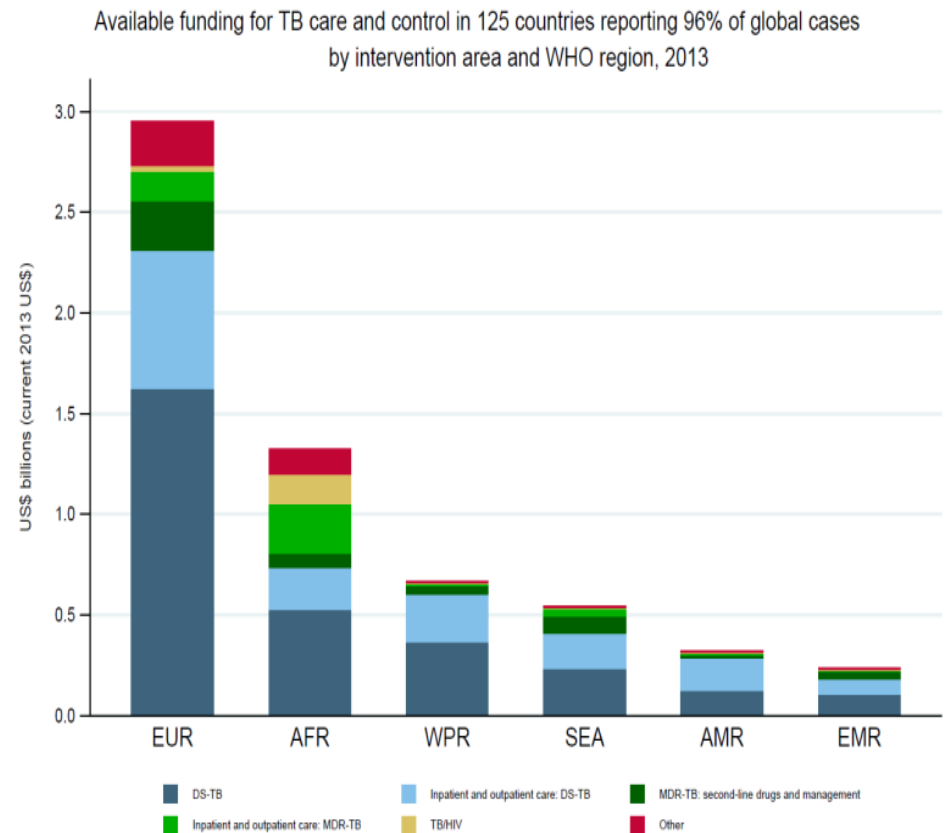
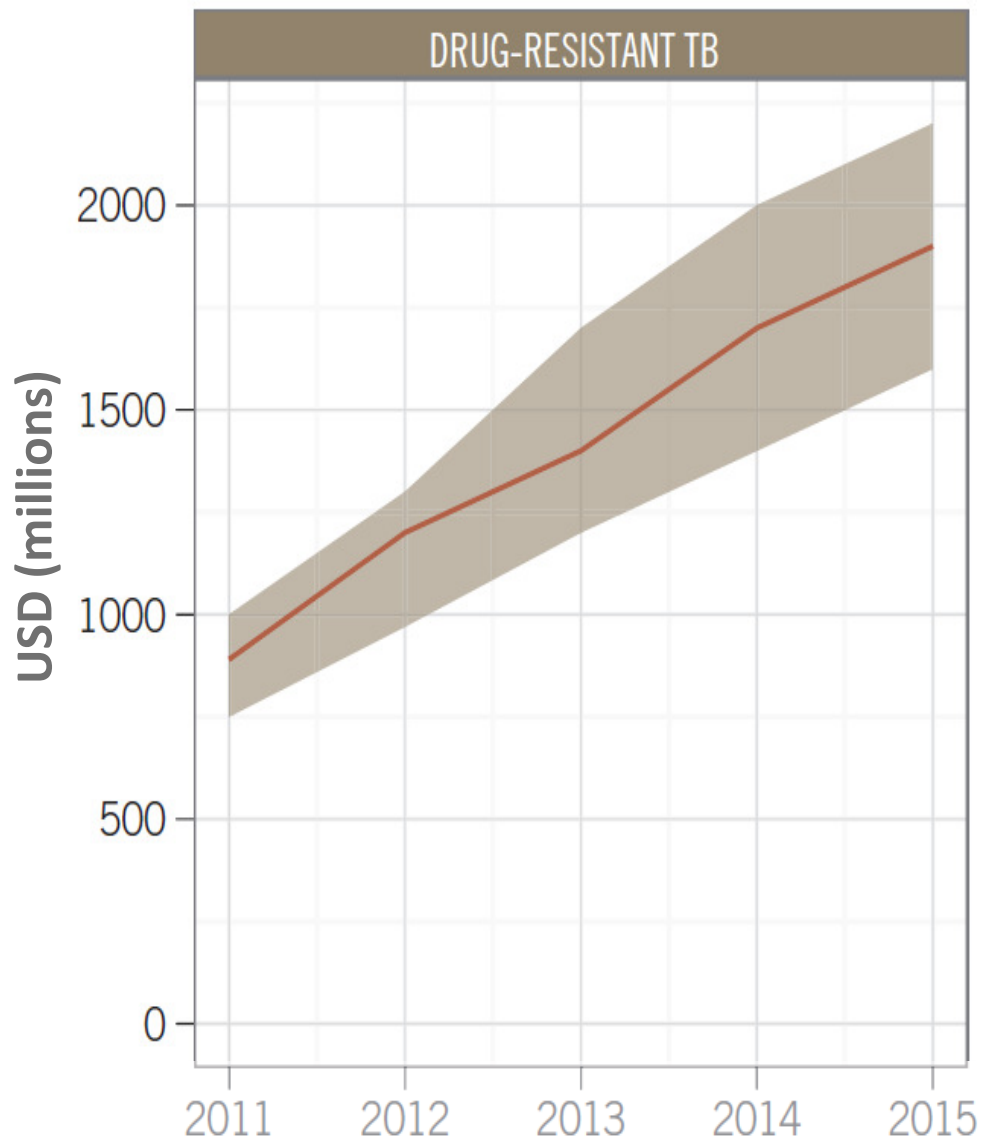
Photo: Edgar Mwakaba/IRIN

Saving lives with mobile phones

NAIROBI, 18 April 2013 (IRIN) - The use of technology is revolutionizing the way Kenya manages tuberculosis (TB). Through a computer- and mobile-phone



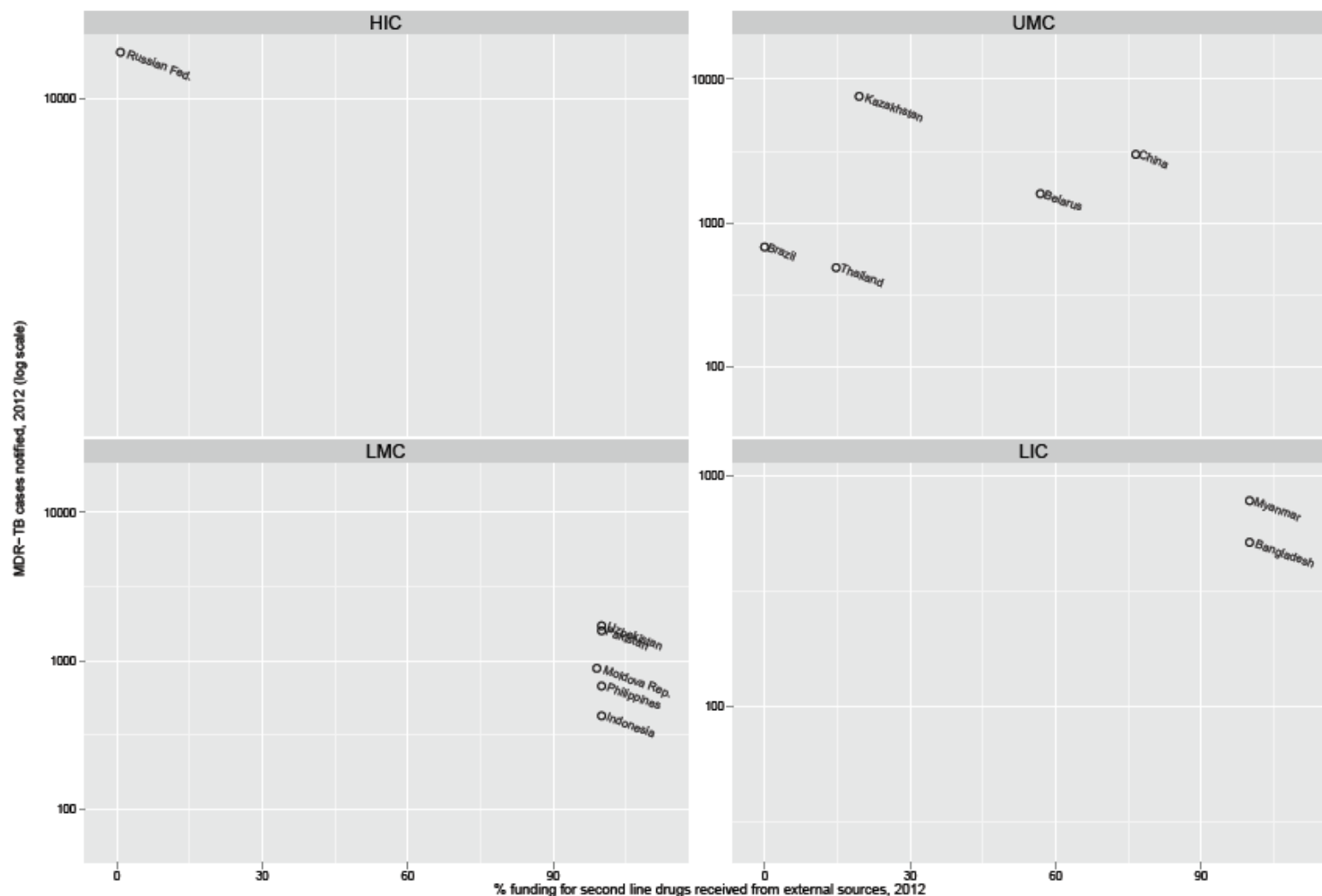
Funding for MDR-TB (1)



Funding for MDR-TB (2)

MDR-TB notifications (vertical; log scale) and % of funding received for second line drugs originating from external sources, by income groups, 2012

* data available for 13 of the 30 target countries; information on Thailand refers only to Bangkok



Estimates

Stakeholders Meeting, Paris, October 2013

As per request of WHO STAG 2013,
discussion of estimates of DR-TB to
measure disease burden and to
monitor programmatic response:

what indicators should be used and
for what purpose?

1) MDR-TB cases among notified cases of pulmonary TB

- assessing programmatic performance in diagnostic and treatment coverage, at country and global levels
- planning and budgeting purposes
- in some instances useful for advocacy purposes, especially at country level

2) MDR-TB incidence

- global-level, advocacy
- country-specific numbers become increasingly relevant as a) overall detection of TB cases approaches 100% and b) treatment coverage among notified TB cases approaches 100%

3) MDR-TB prevalence

- global-level, for advocacy
- only appropriate at country level if directly measured

NB: to avoid confusion in publications either incidence or prevalence will be cited

4) MDR-TB mortality

- global-level, for advocacy
- Country-level estimates are only appropriate where vital registration system of high quality and coverage *and* specific code for MDR-TB as a cause of death are present.

5) % new and previously treated TB cases with MDR-TB

- monitoring trends in levels of drug resistance at global and country levels

Conclusions (1)

- Coverage of DST for TB patients remains low and a minority of drug-resistant TB patients are detected and notified. Information remains incomplete.
- Progress has been achieved in recent years in certain countries in scaling-up MDR-TB care; almost 94 000 TB cases eligible for MDR-TB treatment were detected globally. Just over 77 000 cases were reported to have been placed on MDR-TB treatment during the same period, i.e. only 26% of the estimated MDR-TB patients

Conclusions (2)

- In a number of countries, a sizeable gap has developed between diagnostic and enrolment capacities, leading to waiting lists for treatment.
- Treatment of MDR-TB is complicated and less effective than for drug-susceptible TB. Globally less than 50% of cases put on treatment completed it successfully.
- Countries need to place more MDR-TB patients on adequate treatment and strive to attain the Global Plan target of 75% success. The rational use of drugs, including new ones and introduction of novel regimens, is required. This will require concerted action on different components of PMDT (HR, drug management ...)

Conclusions (3)

- Country reporting of surveillance and monitoring data continues to improve. However, efforts need to take better advantage of available technologies to collect data efficiently and provide managers with indicators for timely action.
- The budgeted funds fall short of targets. Dependence on external sources of funding for PMDT remains widespread across low and middle-income countries making these efforts vulnerable. Approaches to mobilize further domestic and external funding will be needed.

Events 2013-2014

- June 2013: Interim policy guidance on Bedaquiline
- April 2014: Expert Group Meeting Delamanid
- April 2014: release of updates to the Xpert policy and how to guide
- June 2014: Expert Consultation PPM DR-TB
- Companion Handbook (shortly)
- Revision of recommendations on PMDT – 2014-2015

Additional slides

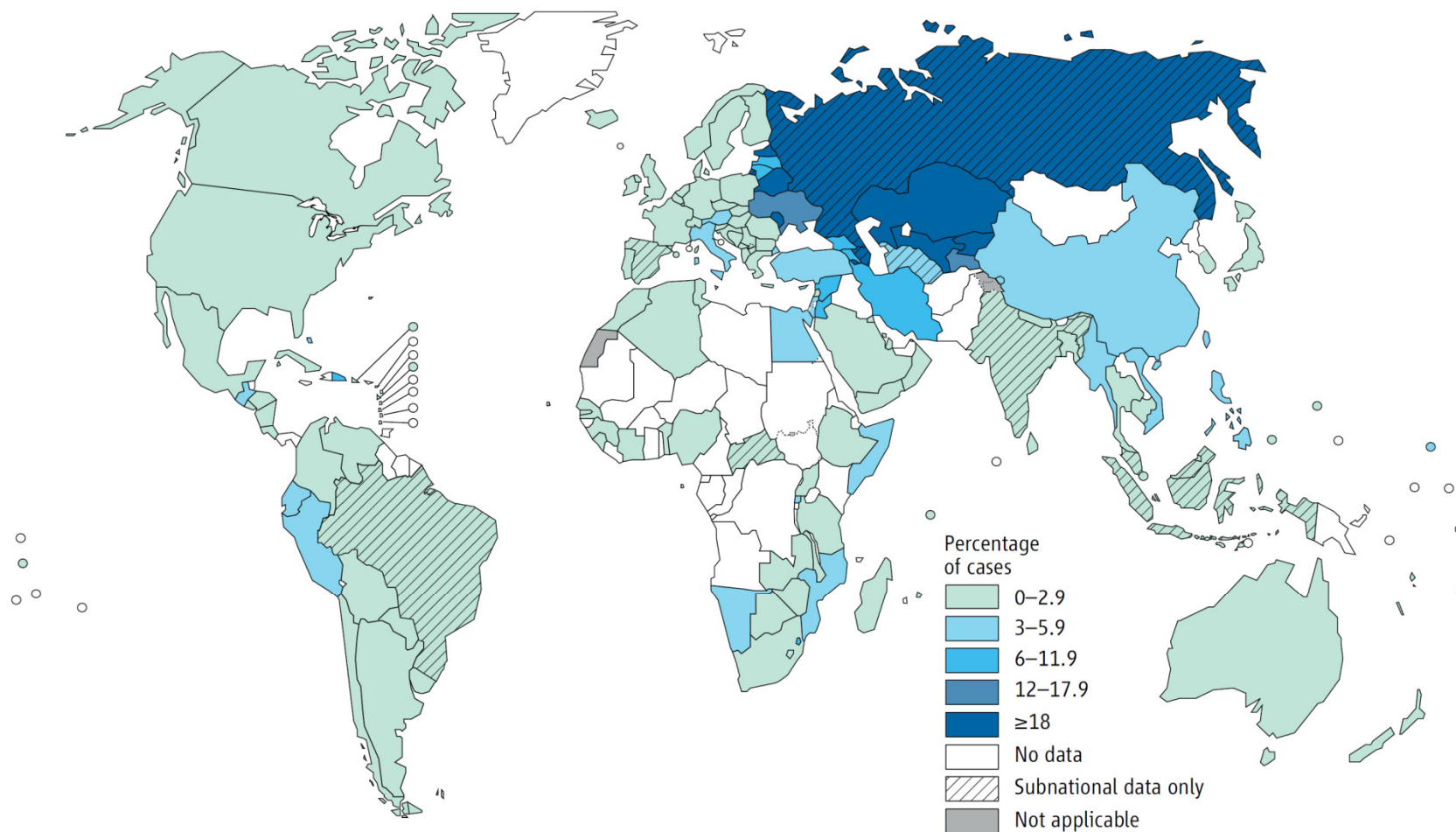
The global TB situation (2)

Estimated TB incidence rates by WHO region, 1990–2012. Regional trends in estimated TB incidence rates (green) and estimated incidence rates of HIV-positive TB (red). Shaded areas represent uncertainty bands.



Proportion of MDR among new TB cases

Latest available data, 1994-2012



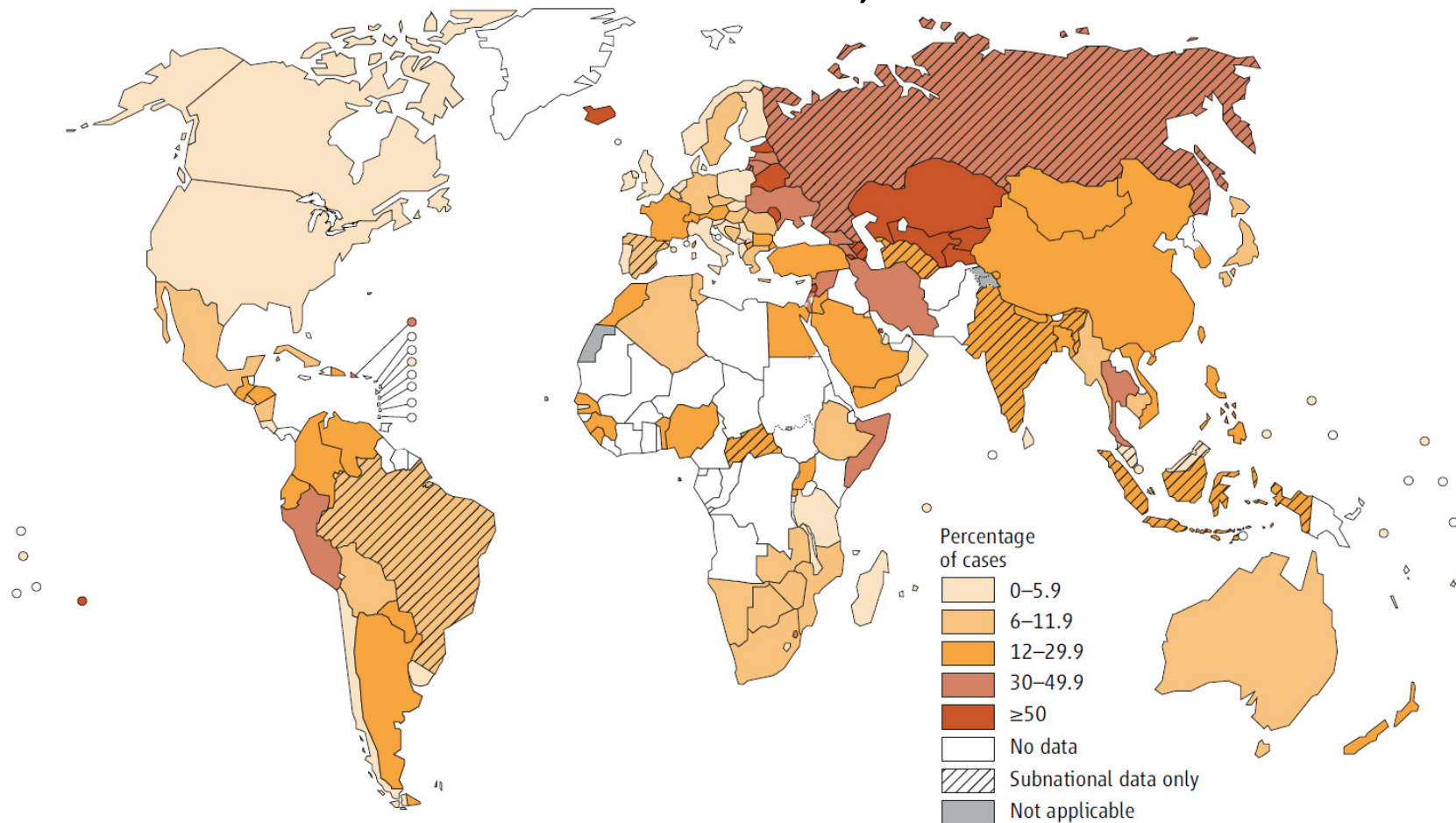
^a Figures are based on the most recent year for which data have been reported, which varies among countries.

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Proportion of MDR among previously treated TB cases

Latest available data, 1994-2012



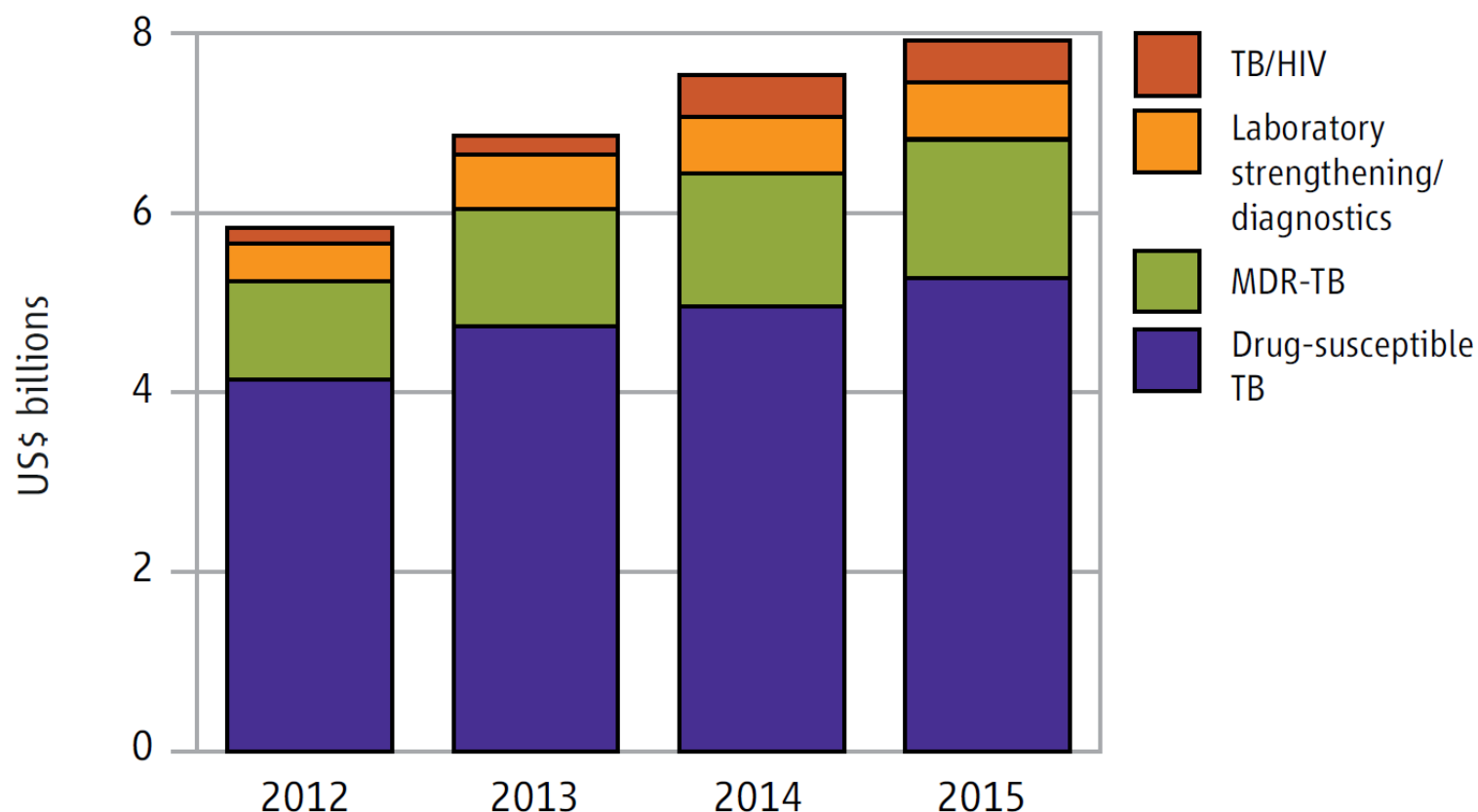
^a Figures are based on the most recent year for which data have been reported, which varies among countries. The high percentages of previously treated TB cases with MDR-TB in Bahrain, Bonaire – Saint Eustatius and Saba, Cook Islands, Iceland, Sao Tome and Principe, and Lebanon refer to only a small number of notified cases (< 10).

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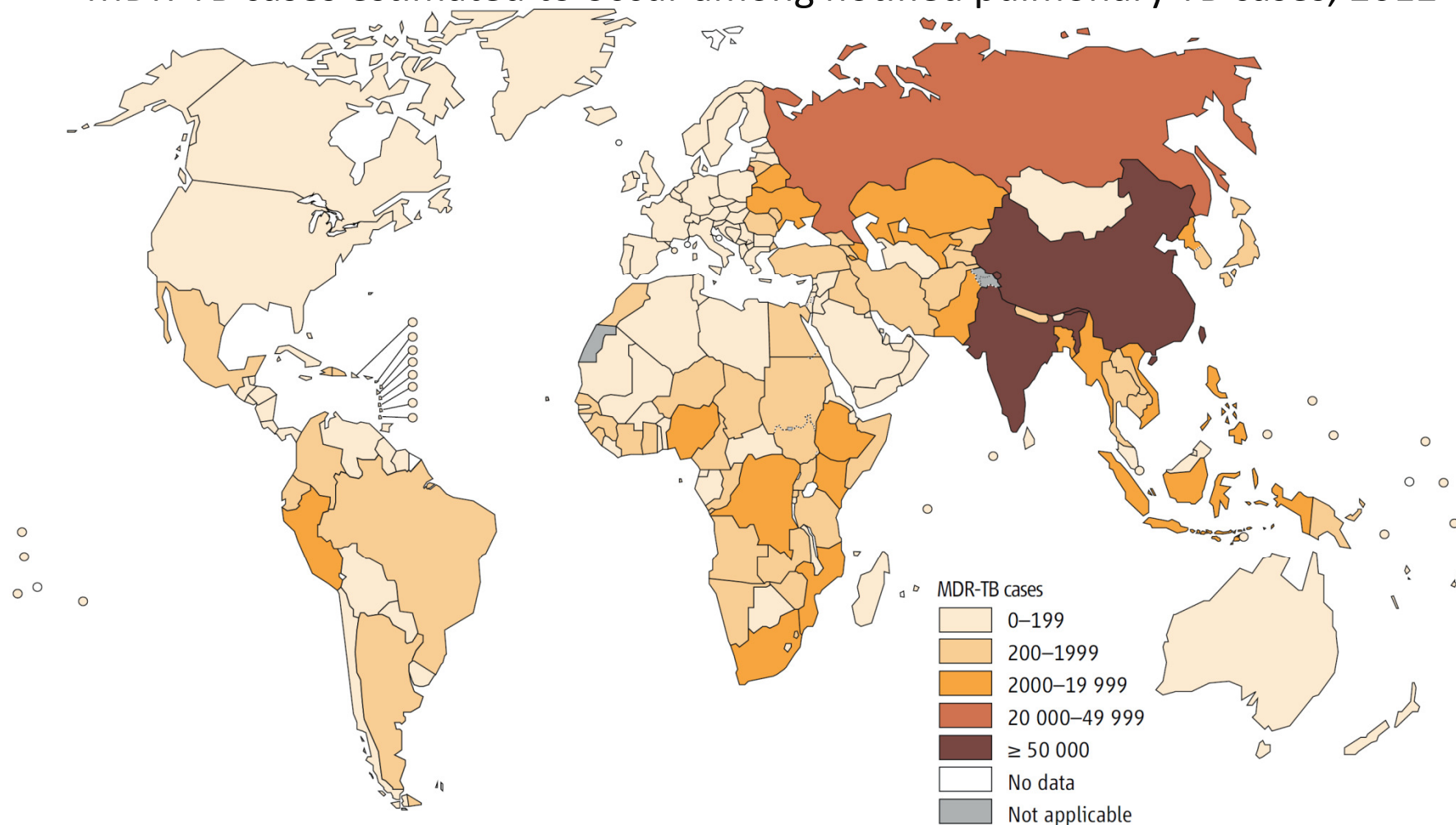
Funding for MDR-TB (2)

Total funding required for a full response to the global TB epidemic, by intervention area, 2013–2015



MDR-TB notification and enrolment (2)

MDR-TB cases estimated to occur among notified pulmonary TB cases, 2012



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