



Hanoi, Vietnam, 4 May 2010

Multi-Drug Resistant tuberculosis: update on epidemic and response

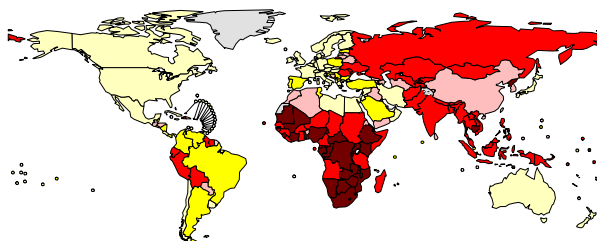
2010 Global report on drug resistance surveillance and response

Multidrug and extensively drug-resistant TB (M/XDR-TB)

2010 GLOBAL REPORT ON
SURVEILLANCE AND RESPONSE



The global burden of TB in 2008



**Estimated
number of
cases**

**Estimated
number of
deaths**

All forms of TB

9.4 million
(range 8.9–9.9 million) **1.8 million**
(range 1.6–2.3 million)

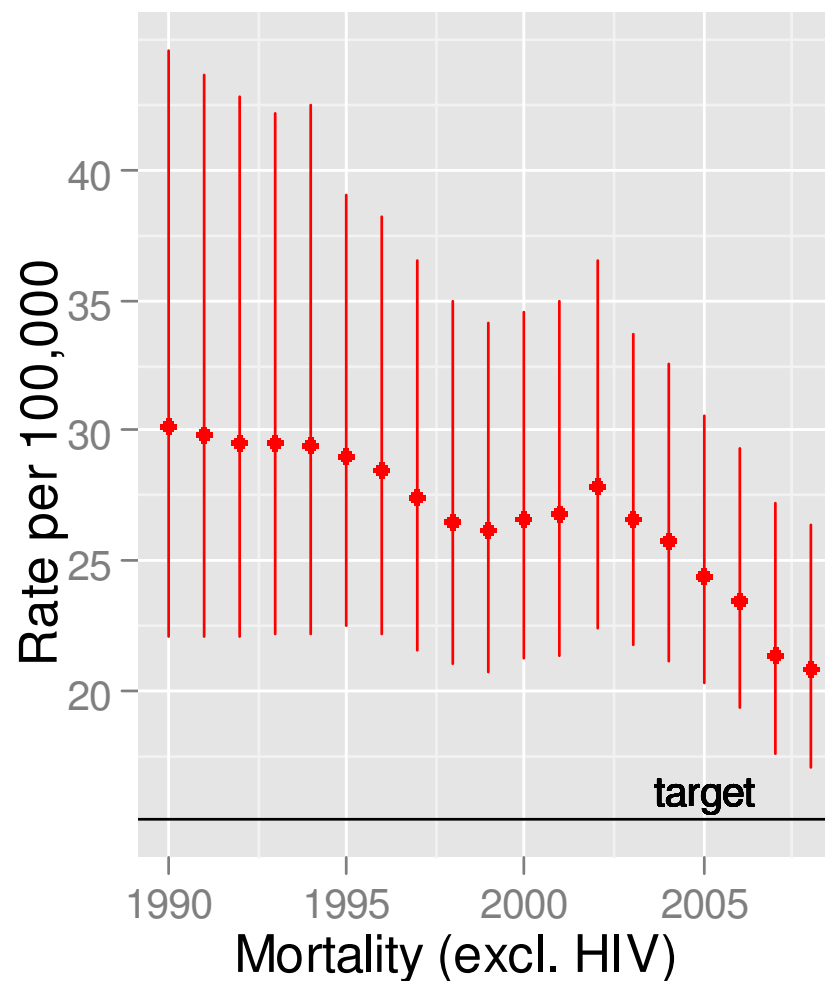
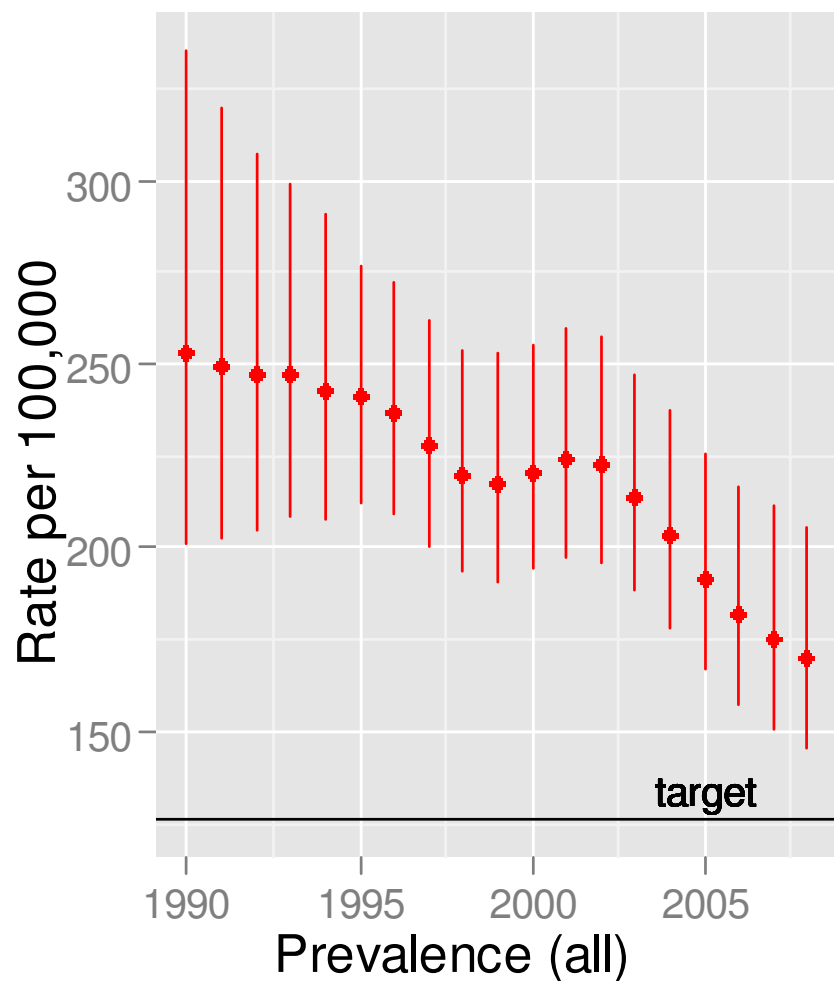
HIV-associated TB

1.4 million (15%)
(1.3–1.6 million) **520,000**
(0.45–0.62 million)

**Multidrug-resistant
TB (MDR-TB)**

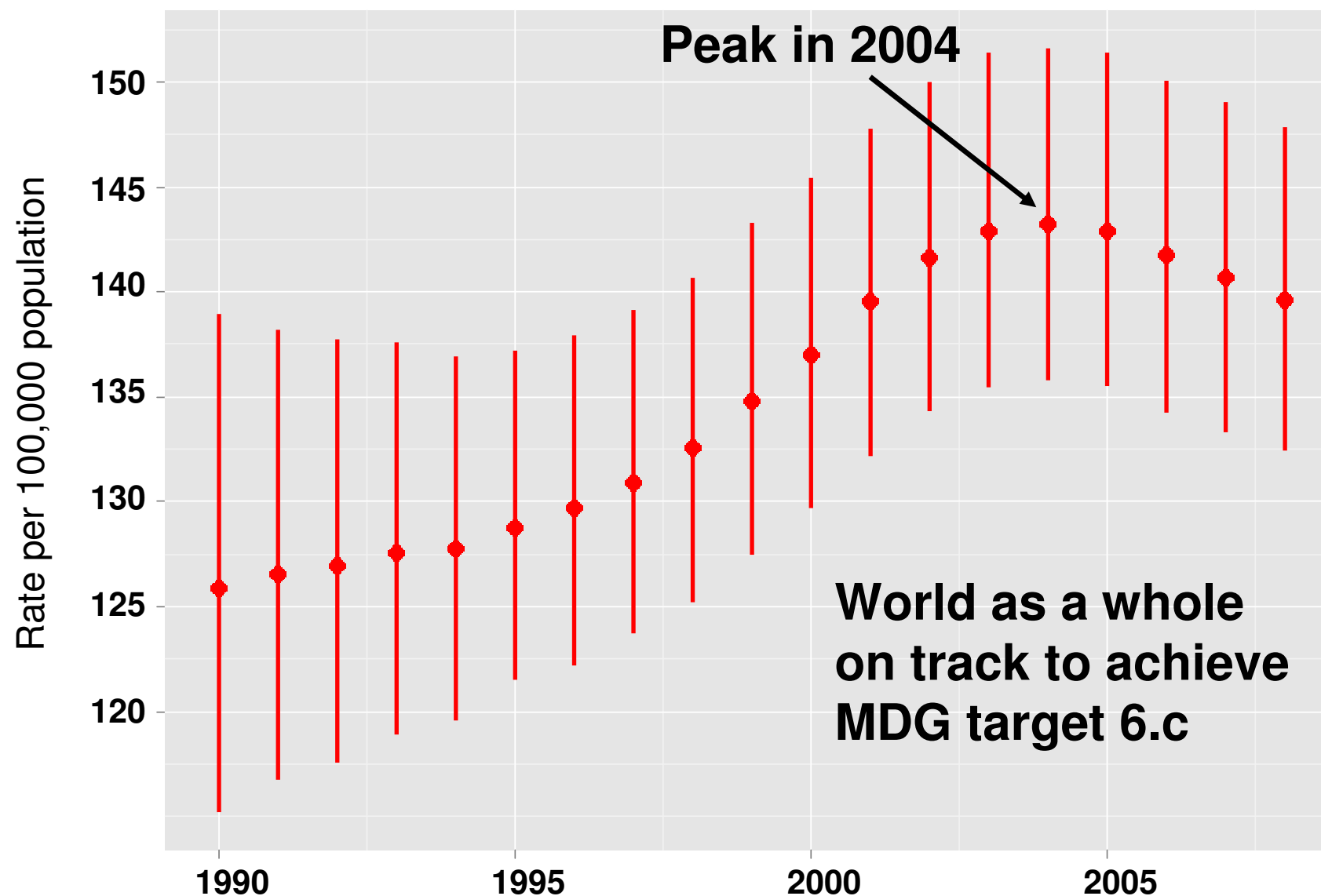
440,000
(0.39–0.51 million) **150,000**
(0.05–0.27 million)

TB prevalence and mortality



On track everywhere except for Africa

Incidence rates falling globally after peak in 2004, but only at $<1\%$ /year



1995-2008: 15 years of progress through DOTS/Stop TB Strategy

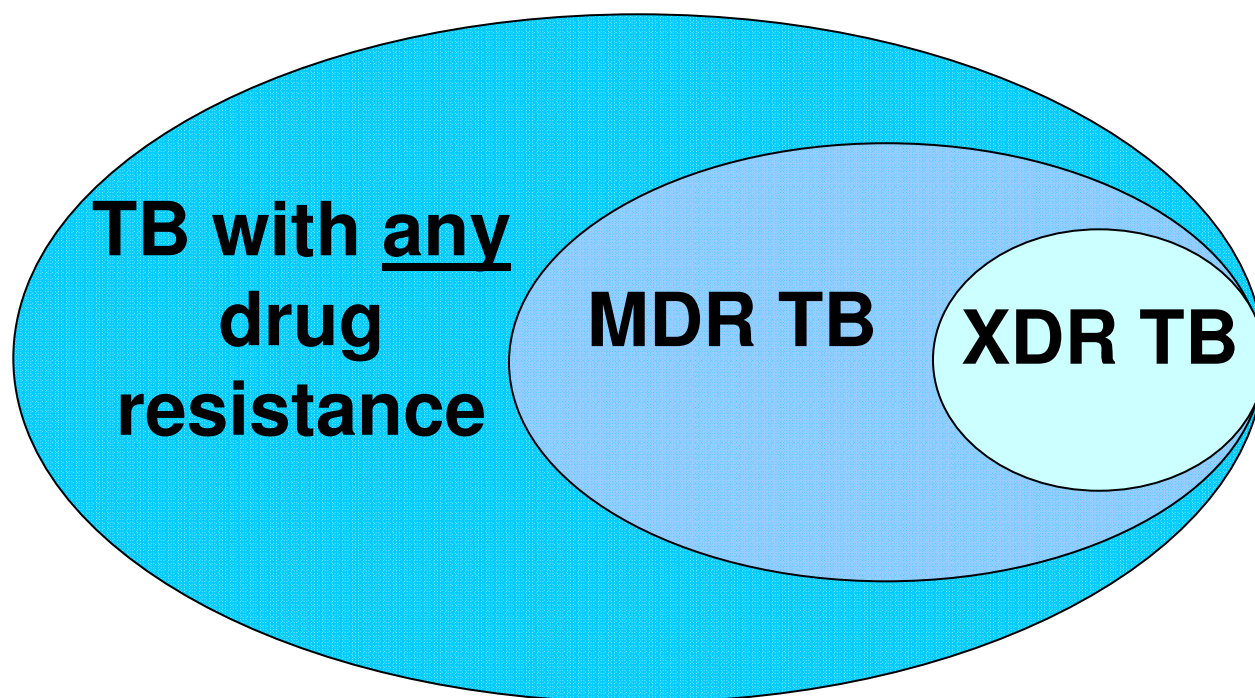


- **36 million patients cured in 1995-2008**
- **About 6 million deaths averted counterfactual 1995 care standards**
- **Case fatality rate halved from 7.6% to 4%**
- **Cure rate at its highest ever (87% in 2007-8)**
- **But....MDR-TB and XDR-TB are threatening these achievements**

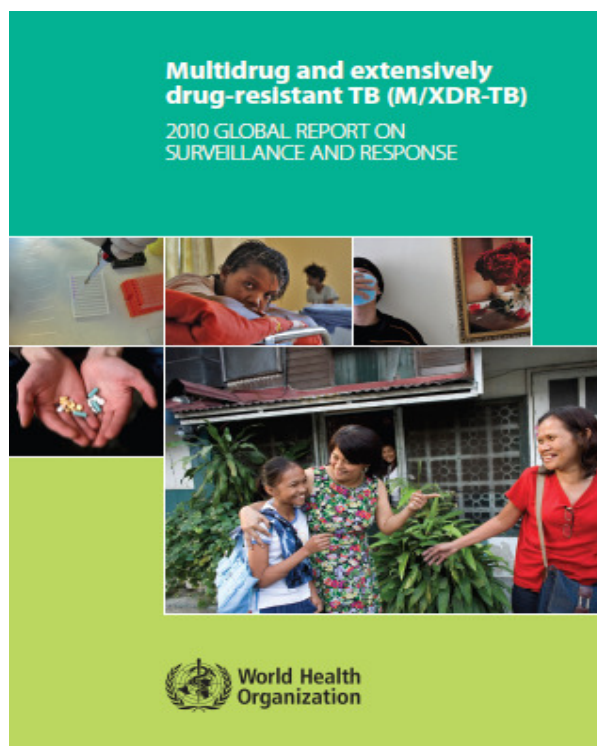
Definitions

MDR TB = Strains resistant to at least INH and RIF
(most important 1st-line drugs)

XDR TB = MDR TB strains with additional resistance to
any fluoroquinolone and any of the 3 injectable
second-line drugs (amikacin, kanamycin, capreomycin)



M/XDR-TB 2010 global report on surveillance and response



440,000 MDR-TB cases
estimated to have emerged in 2008
(3.6% of all incident TB cases globally)

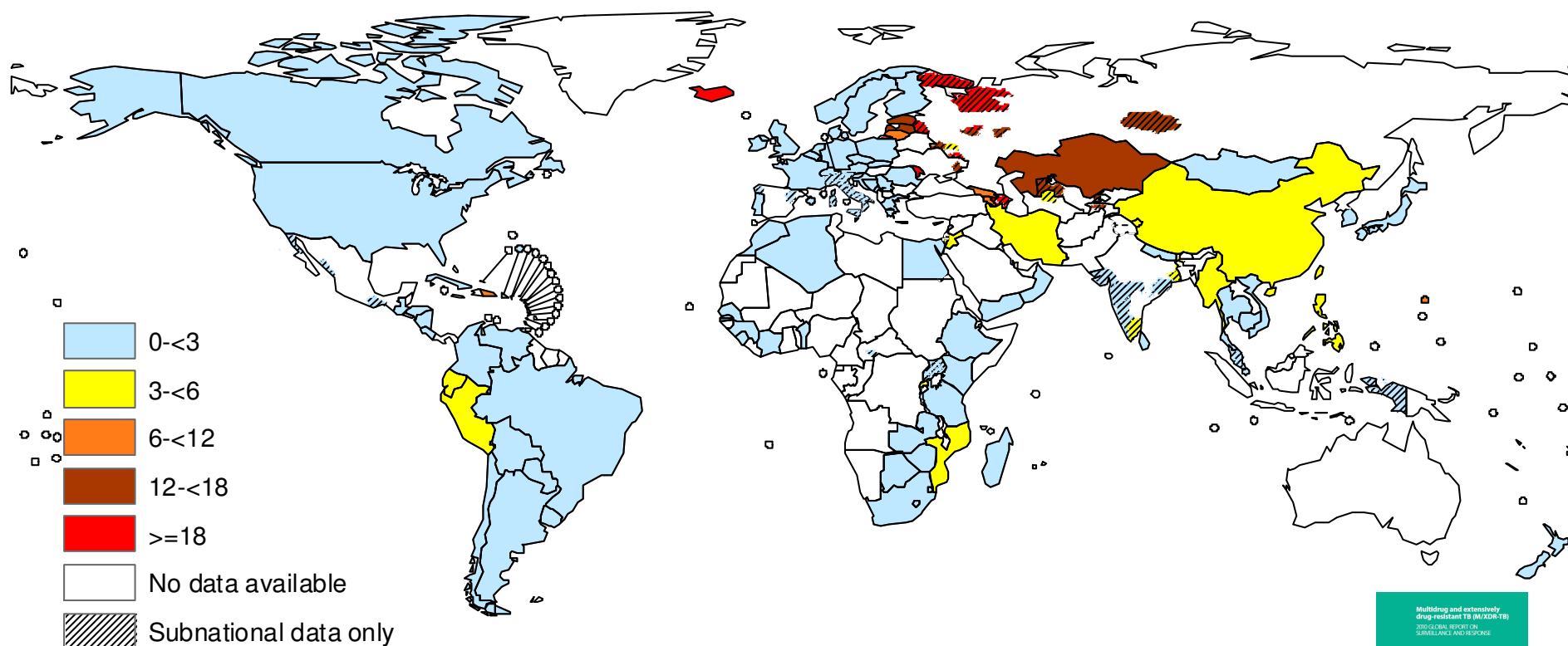
150,000 MDR-TB cases
estimated to have died in 2008

Data available from 114 out of 193 countries (59%)

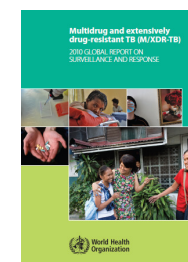
- 42 countries have continuous surveillance systems
- 72 countries rely on periodic surveys

Data not available from 79 countries (41% of all countries)

% MDR-TB among new TB cases, 1994-2009



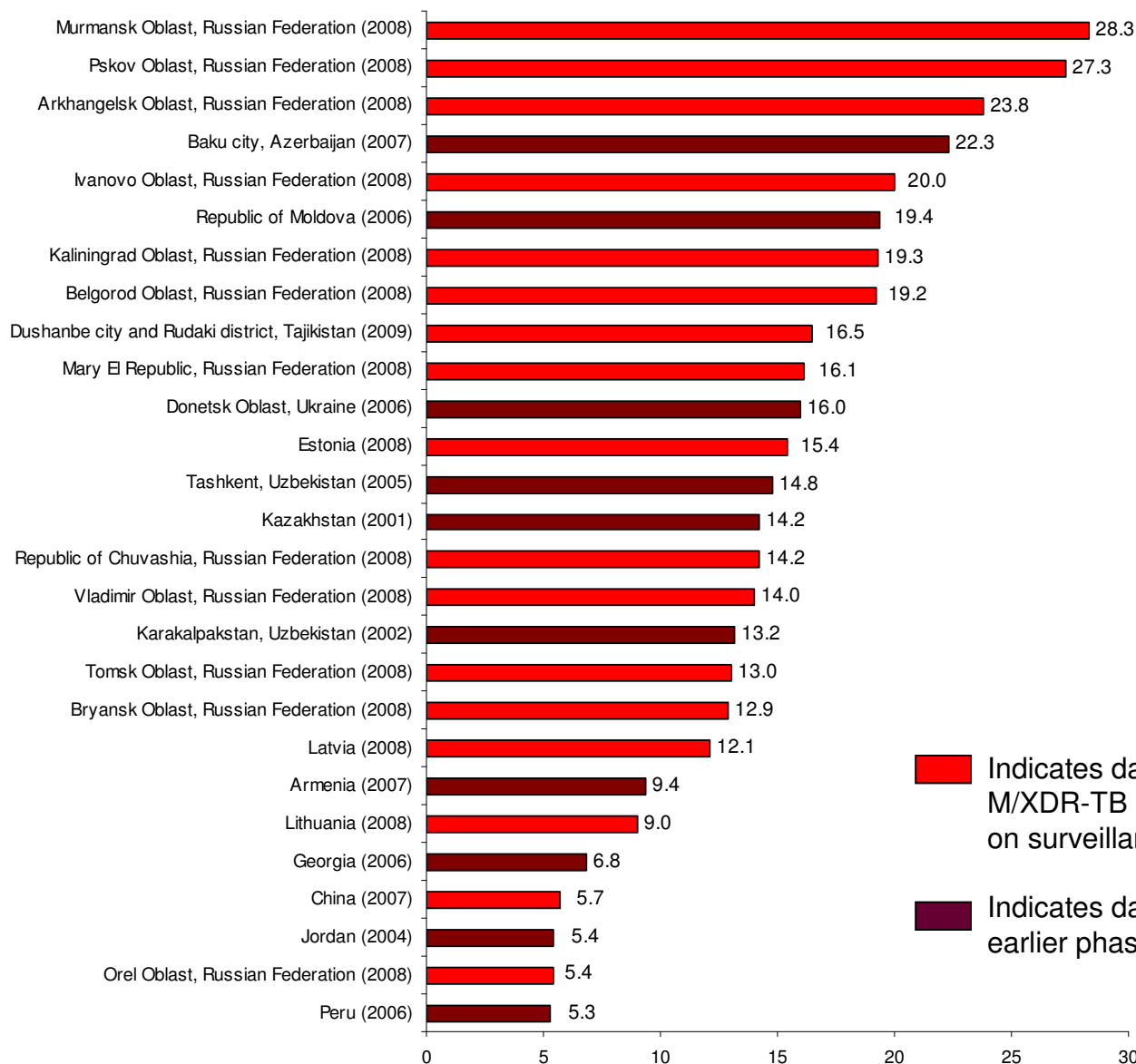
Australia, Democratic Republic of the Congo, Fiji, Guam, New Caledonia, Solomon Islands and Qatar reported data on combined new and previously treated cases.



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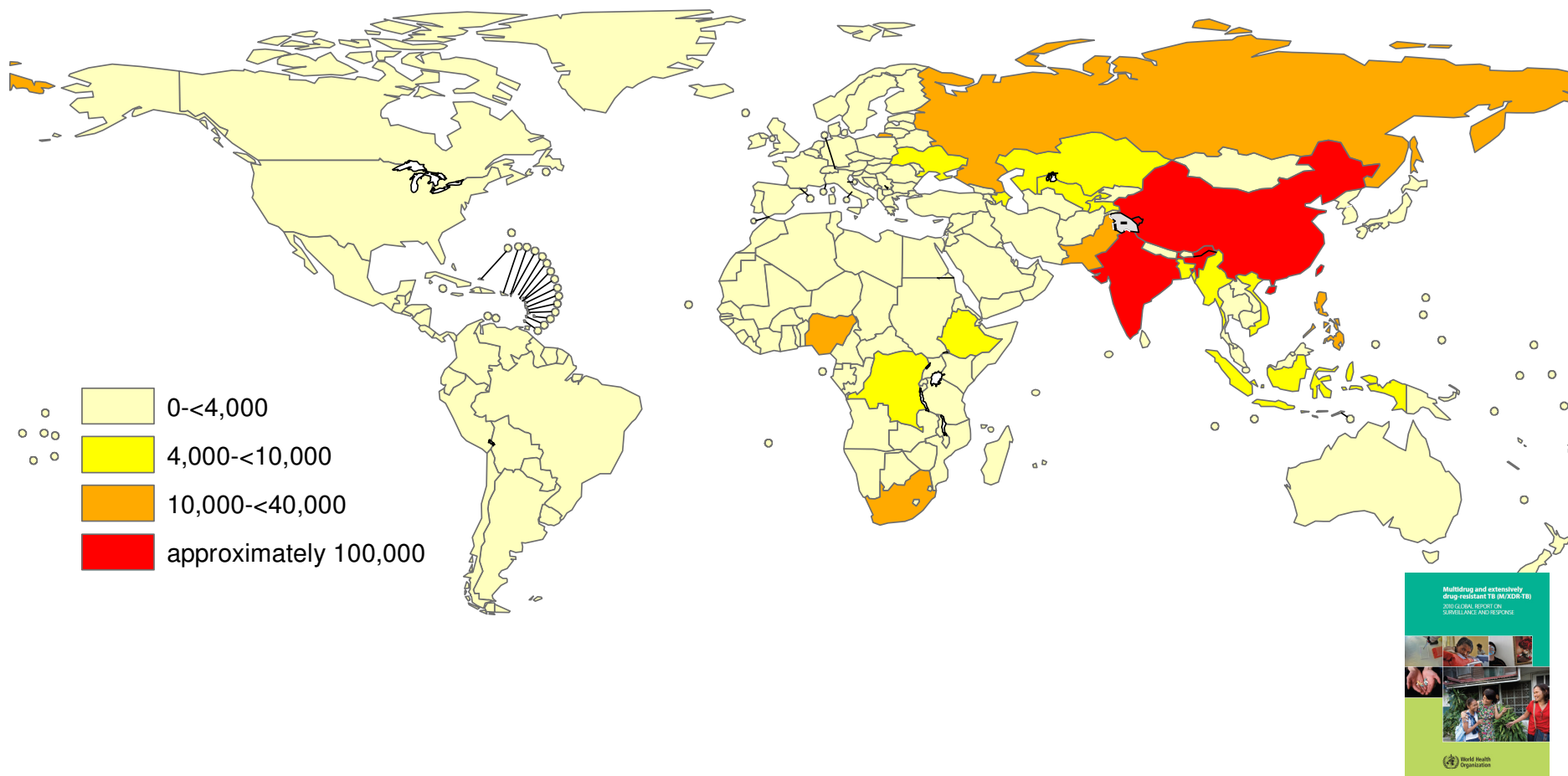
28 settings with > 5% MDR-TB among new TB cases, 2001-2009



Indicates data presented in the M/XDR-TB 2010 global report on surveillance and response

Indicates data reported in an earlier phase of the project

Estimated absolute number of MDR-TB cases, 2009

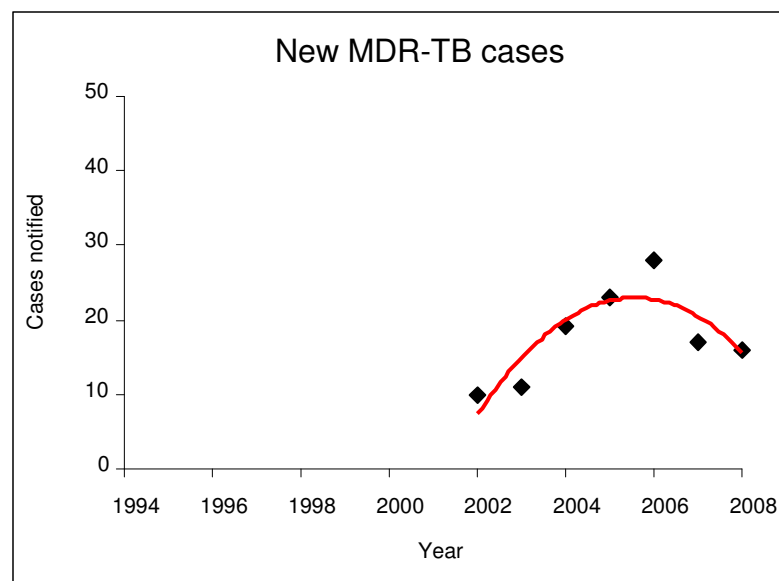


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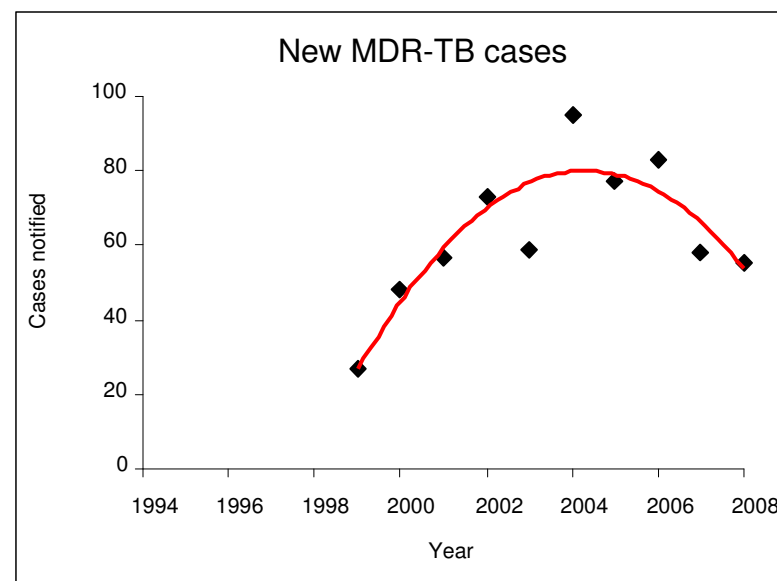
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Trends of MDR-TB cases in selected settings

Orel Oblast, Russian Federation



Tomsk Oblast, Russian Federation

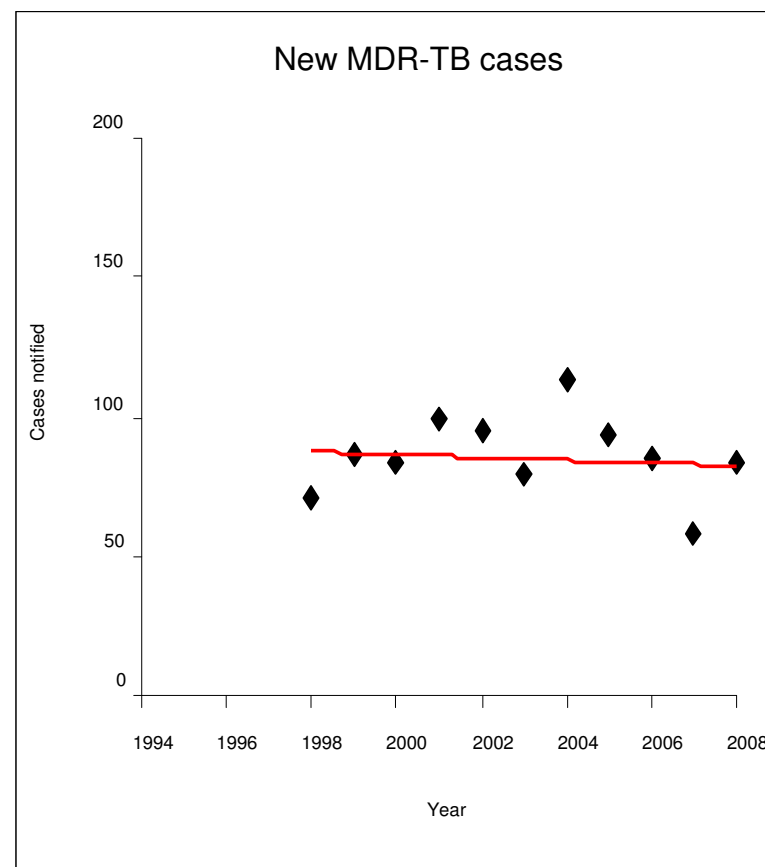


Trends of MDR-TB cases in selected settings

Estonia

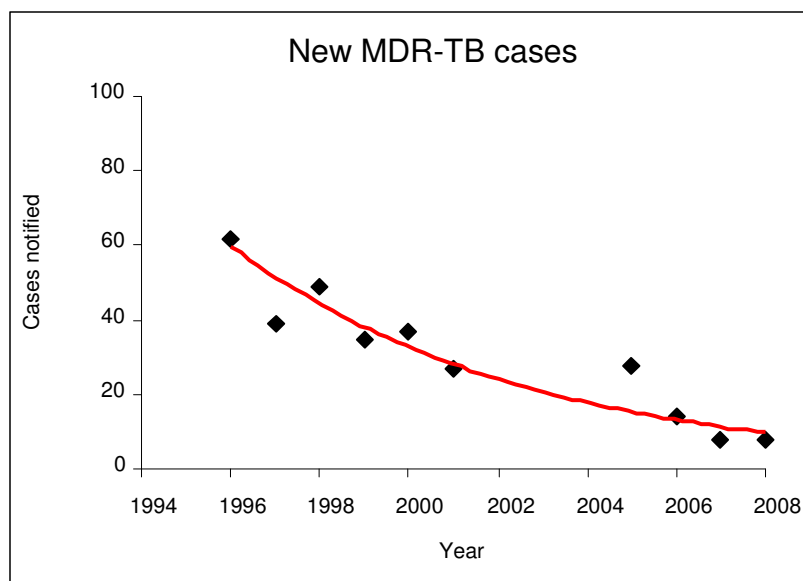


Latvia

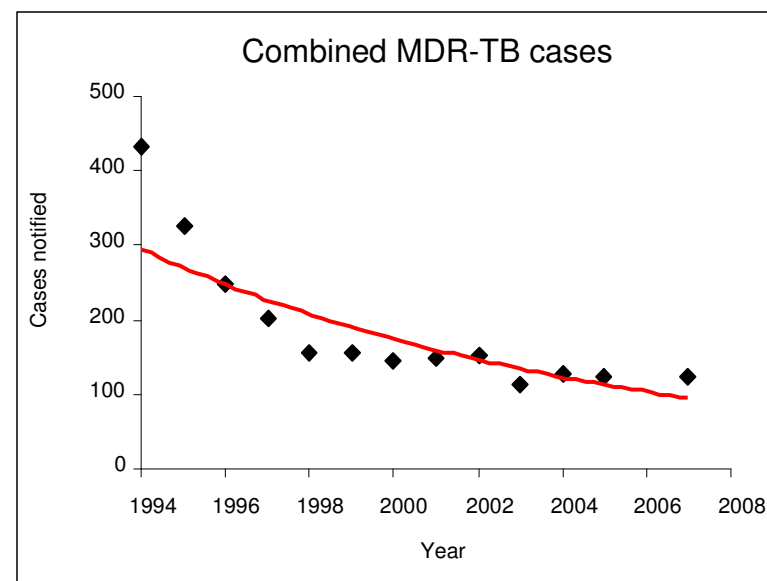


Trends of MDR-TB cases in selected settings

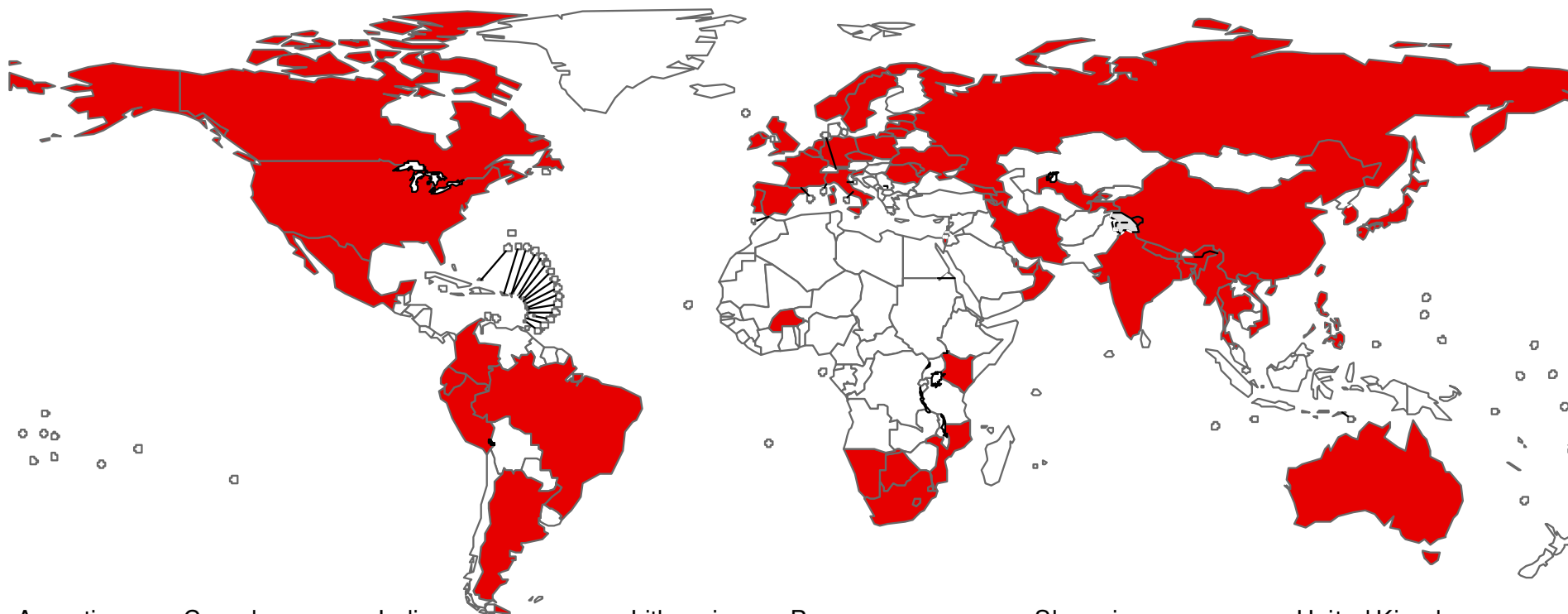
China, Hong Kong SAR



United States of America



Countries that had reported at least one XDR-TB case by end March 2010

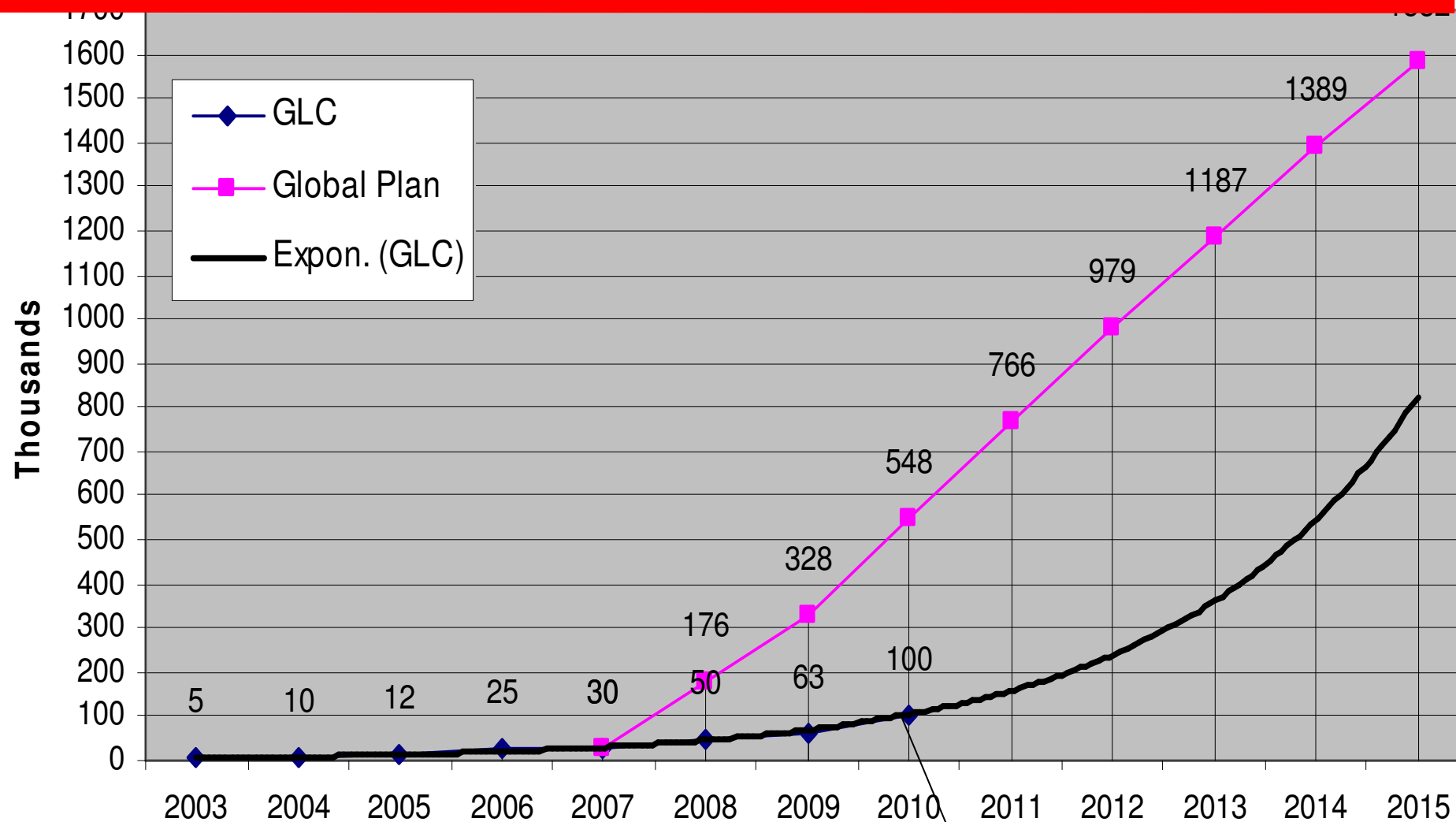


| | | | | | | |
|--------------|----------------|------------------------|-------------|---------------------|----------------------|--------------------------|
| Argentina | Canada | India | Lithuania | Peru | Slovenia | United Kingdom |
| Armenia | China | Iran (Islamic Rep. of) | Mexico | Philippines | South Africa | United States of America |
| Australia | Colombia | Ireland | Mozambique | Poland | Spain | Uzbekistan |
| Azerbaijan | Czech Republic | Israel | Myanmar | Portugal | Swaziland | Viet Nam |
| Bangladesh | Ecuador | Italy | Namibia | Qatar | Sweden | |
| Belgium | Estonia | Japan | Nepal | Republic of Korea | Tajikistan | |
| Botswana | France | Kenya | Netherlands | Republic of Moldova | Thailand | |
| Brazil | Georgia | Latvia | Norway | Romania | Ukraine | |
| Burkina Faso | Germany | Lesotho | Oman | Russian Federation | United Arab Emirates | |

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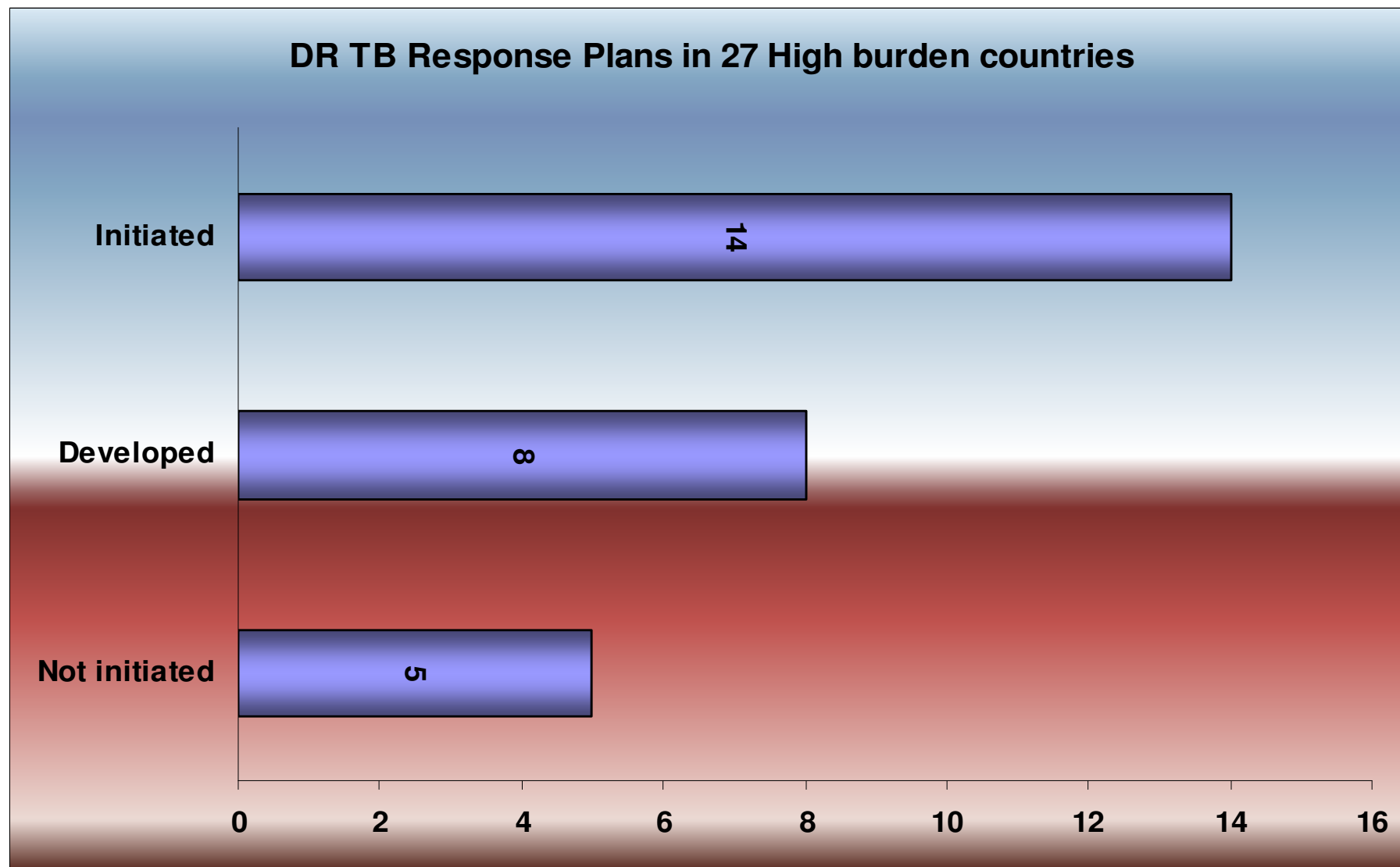
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Gap between GLC approved treatments and revised Global Plan, 2006-2015



100,000 treatments are estimated to be approved in 2010 by GLC, about 80,000 treatments have been approved as of April 2010

National MDR/XDR-TB Response Plans



Response in selected countries



- Bangladesh**

- continuous surveillance for drug resistance

- China**

- first nationwide drug resistance survey conducted

- Ethiopia and Lesotho**

- introducing or using rapid diagnostic tests

- India**

- ambitious plan for national scale up

- Nepal and Romania**

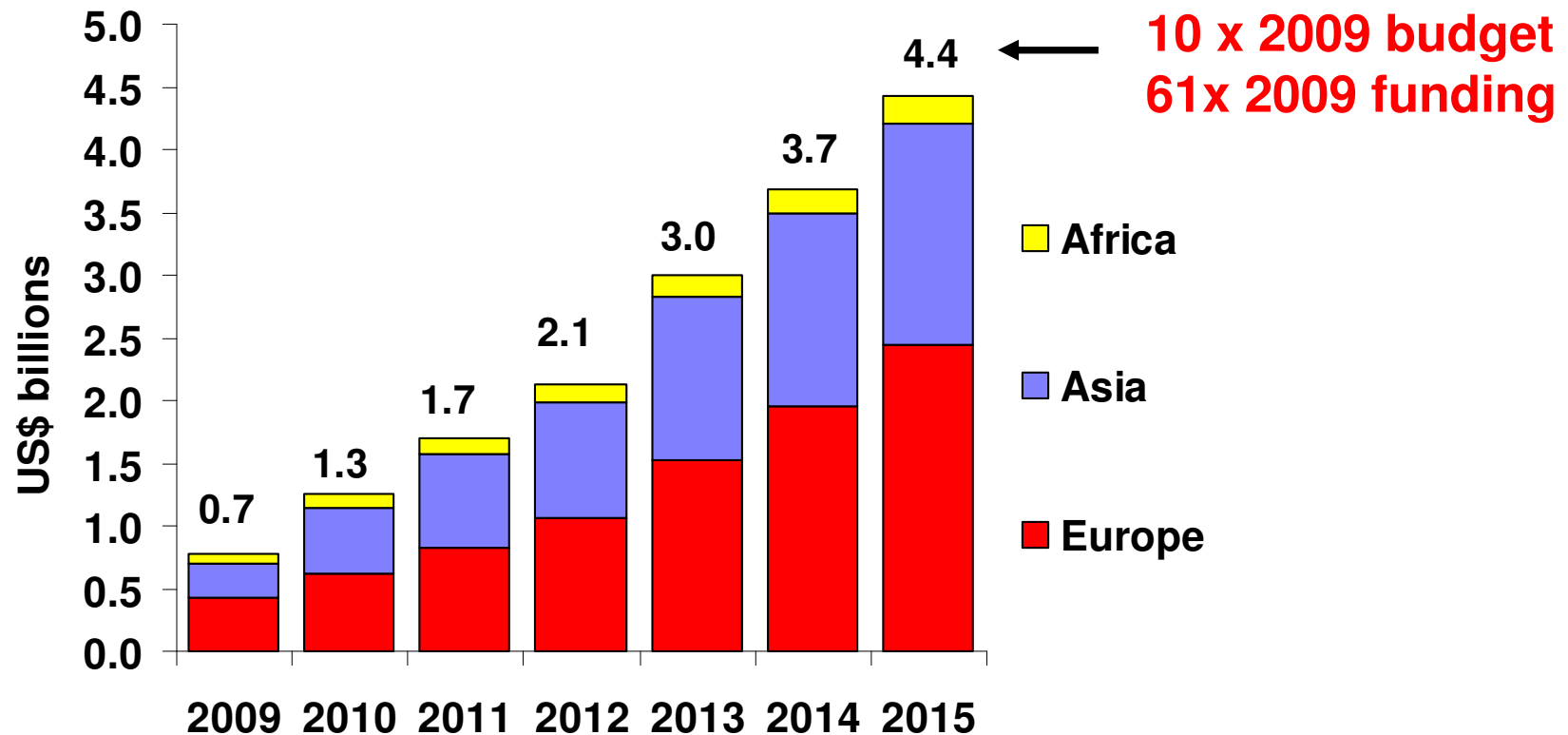
- successful treatment outcomes

- South Africa**

- policy changes to enable access to treatment

Funding requirements 2009-2015

27 MDR-TB high-burden countries



Most of the funding required is in the European Region, followed by Asia. In Asia the funding is mainly required in China and India

High-level policy changes are fundamental!

World Health Assembly, May 2009...



In addition to proper basic control..

1. Remove financial barriers (UHC)
2. Ensure well trained and sufficient human resources
3. Establish a network of labs where rapid tests are also available
4. Ensure availability of quality drugs
5. Regulate the use of all anti-TB drugs
6. Introduce infection control
7. Establish proper surveillance
8. Promote Research & Development
9. Mobilize resources domestically and internationally



Document WHA 62.15, 2009



"MDR-TB scale-up"

Revisiting the Global Architecture

The Workshop

Background



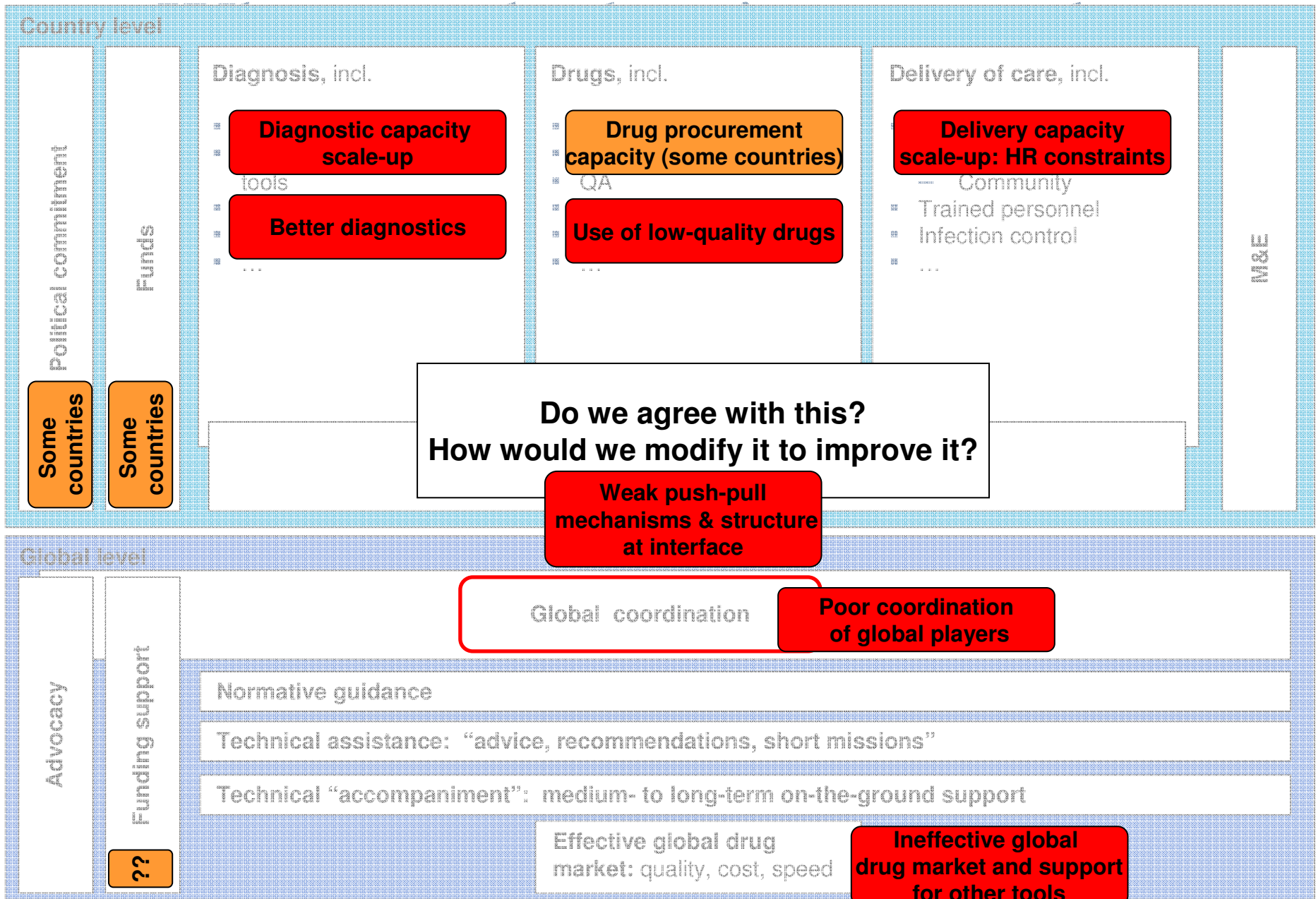
- Only a tiny proportion of MDR-TB cases is properly treated
 - In 2008, countries notified 29,000 (7.2%) patients out of 440,000 estimated incident cases
 - About 10,000 new patients were enrolled under WHO/GLC standards in 2009
 - 68% increase of enrolment from the previous year
 - Cumulative number of treated patients under GLC mechanism is around 30,000 since 2000
- MDR-TB incidence is likely rising in the former Soviet Union and probably also in Africa
- HIV is multiplying cases with a high mortality (and that therefore remain undetected)
- MDR-TB rates can be reduced with existing tools
- But the national and international response to MDR-TB is weak
- Although properly managed patients are increasing, the overall effect is far too small

MDR-TB Scale-up Workshop (Geneva, February 2010)



Objectives

1. Objectives and Strategy for scale-up of MDR-TB management (*what is required for countries to scale-up and main barriers to scale-up*)
2. Architecture (*what international support model is required and what does this imply for changes to the existing support model*)
3. Next steps (*for a new effective support model fully functional by the end of 2010*)



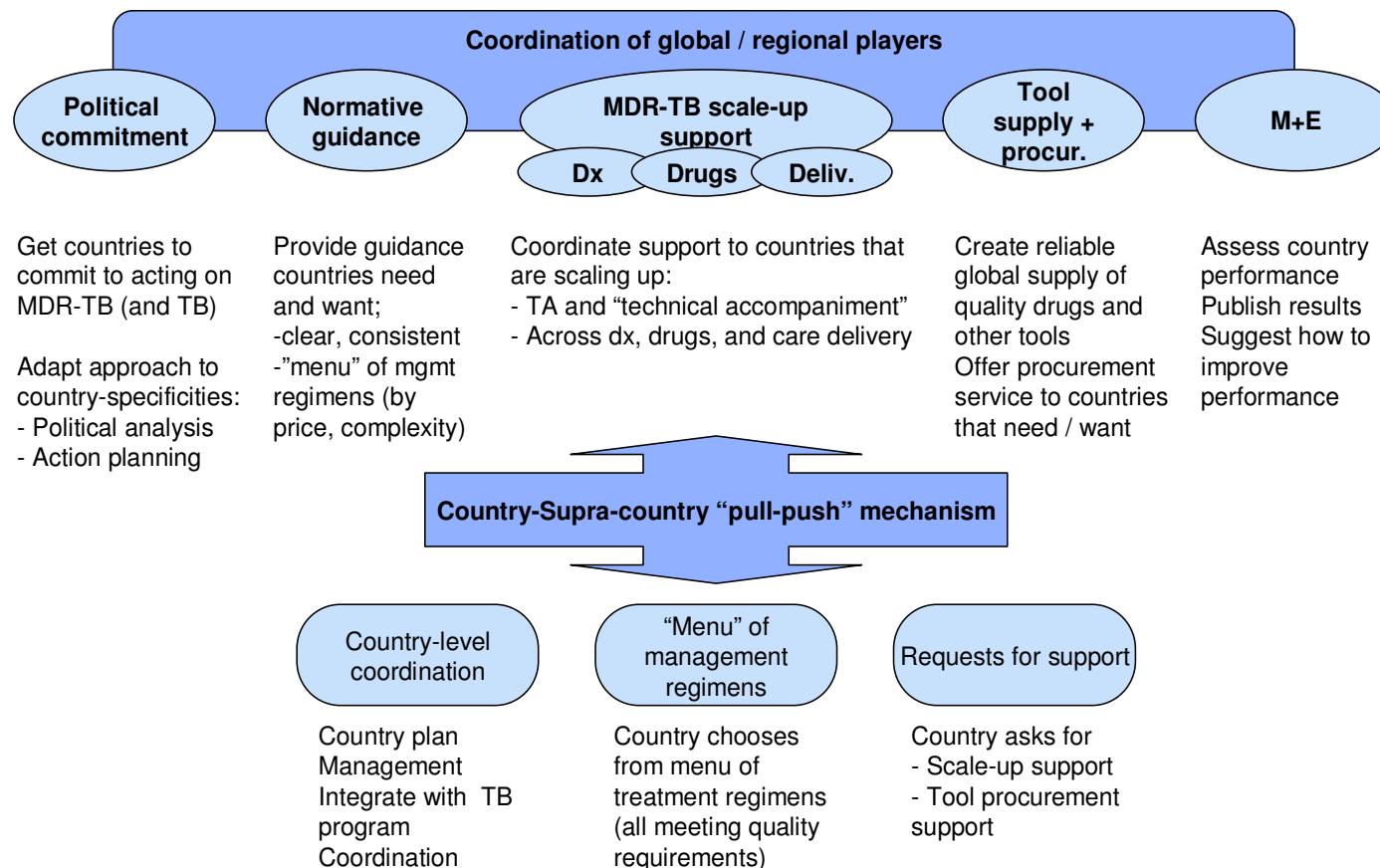
Objective 1. Main barriers to scale-up



- *Country level:* (1) weak political commitment (incl. advocacy), (2) low funding, (3) poor national coordination and management. (+ HR constraints in some countries)
- *International level:* (4) poor coordination of global players, (5) weak supply mechanism for drugs and other tools
- *Country – international interaction:* (6) weak pull-push mechanisms and structures

Objective 2. Proposed new model for international support

Proposed model: overview



Aims of the new model under development



- A more effective “pull-push” mechanism to allow a richer debate between countries and international organisations ("wants" & "needs")
- Increase country political commitment –including country-specific political analysis and action planning; **expanded country ownership and accountability**
- Harmonize M&E and technical support, towards more support and "rating" performance on MDR-TB scale-up

Objective 3. Next Steps towards a new effective support model by the end of 2010



3 Task Forces established :

1) MDR-TB scale-up support function (Paul Nunn and Agnes Gebhard)

2) Tool supply and procurement function (Thomas Moore and Myriam Henkens)

3) New mechanisms and tools for reviewing, evaluating, monitoring and supporting MDR-TB control scale-up (Ernesto Jaramillo and Salmaan Keshavjee)



"Task Forces"

Revisiting the Global Architecture

Work going on.....

Task Force 1: "MDR-TB Scale-Up Support Function"



Aims and expected deliverables:

1. Paper on "MDR-TB scale-up support function"

- summarize the services the GLC mechanism delivers now and the problems with the current system
- describe the spectrum/range of services that should be provided from the global level to countries in order to scale up MDR-TB treatment.
- define the minimum standards required for the services and the mechanism(s) by which these services will be delivered.

2. A standardized assessment tool to define countries needs and action taken

Task Force 2:

"Tool Supply and Procurement function"



Aims and expected deliverables:

1. Recommendations on best options to help countries assess drug quality
 - a data base with product quality information
 - interim quality approval mechanism
2. TORs for a focused analysis of the supplier landscape for 2nd-line drugs
 - short and medium term forecasts and mechanism to adapt the forecasting tool
 - mechanism to offer suppliers a purchase commitment
3. Identification of short-term opportunities to improve global supply of quality drugs, in light of MDR-TB diagnostics scale-up
 - central conductor role for GDF
 - GDF sources of products are made publicly available
 - model would provide technical assistance in drug management

Task Force 3:

New mechanisms and tools for reviewing, evaluating, monitoring and supporting DR-TB control scale-up"



Aims and expected deliverables:

1. TORs for the new bodies that will review, evaluate, and monitor MDR-TB control efforts

- Paper with rationale and TORs for a WHO-based body advising donors on technical issues
- Paper with rationale and TORs for a rating system of countries and key implementing institutions
- Paper with rationale and TORs for a functional group that monitors and evaluates DR-TB progress

2. Organigram with clear description of roles and lines of accountability

- Paper describing actors, bodies, and responsibilities of the new architecture of the MDR-TB area of the Stop TB Partnership

Coming next...



Task Forces are working on different elements and eventually must be harmonized

A wide consultation is being planned to get inputs on the new architecture