### Expanding an accelerating access to tuberculosis diagnostics and laboratory services

2<sup>nd</sup> meeting of the Global Laboratory Initiative, Veyrier-du-Lac

### Scaling up management and control of multidrug resistant TB – what will it take?



Paul Nunn, WHO, Geneva





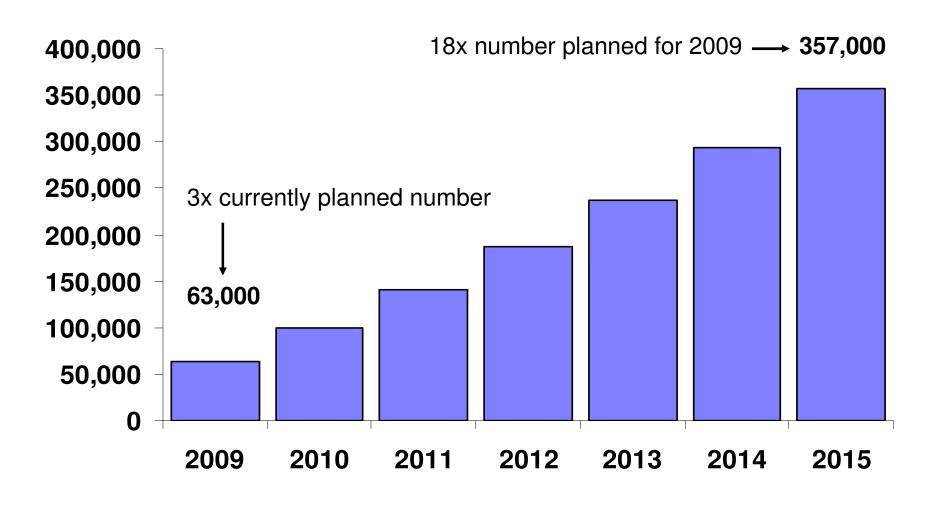
 Scaling up projections of the Global Plan to Stop TB, 2006-2015





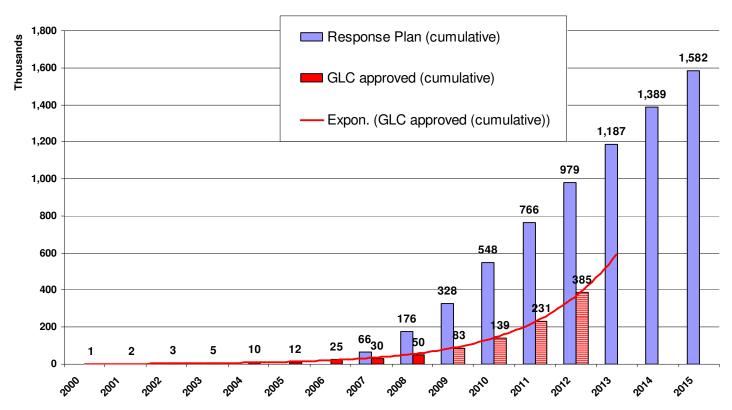
### Scaling up means to treat 80% of smear and/or culture-positive MDR-TB cases by 2015

Target: Total patients treated over 7 years = 1.4 million



#### Global MDR and XDR –TB Response Plan

In 2009, 3% of incident cases treated according to WHO standards







#### What will it take?

- Money
- Greatly strengthened laboratories with new tools
- Infection control
- Coordination





 Global Plan projections of funding required for MDR-TB, 2009–2015

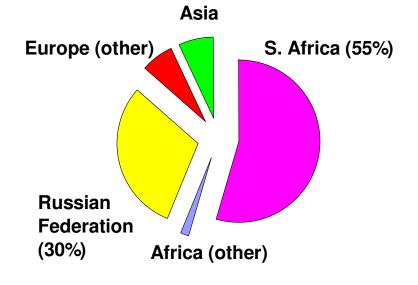




#### MDR-TB budgets and funding, 2009

Budgets, 2009 (total US\$ 438 million)

Funding, 2009 (total US\$ 72 million)



Asia Russian Federation

Africa Europe (other)

Patients to be treated = 20,000

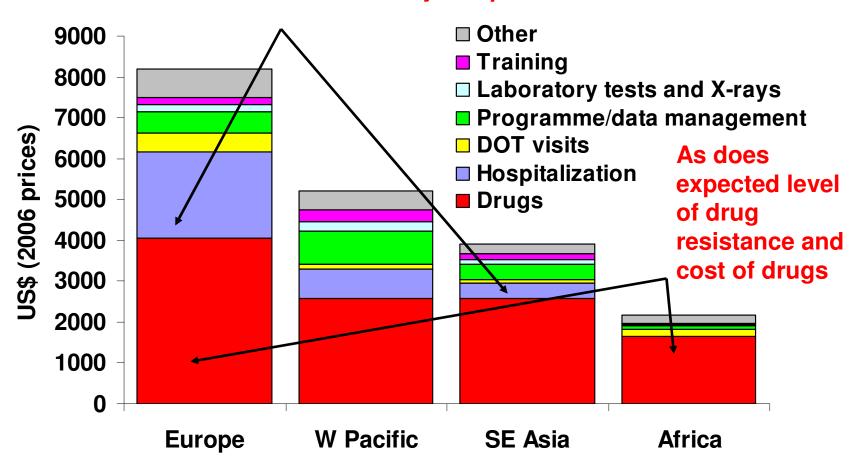
< 5% of estimated total of 435,000 cases

**Estimated cases, 2007 (total 435,000)** 

Source: WHO TB database

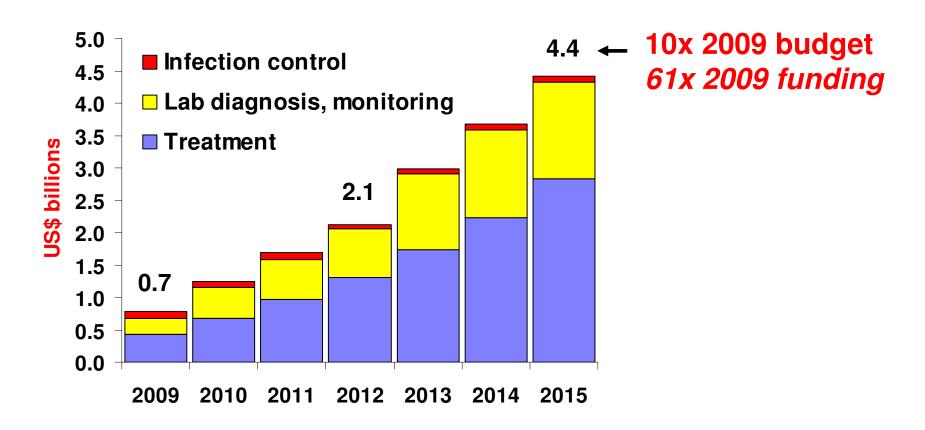
#### Cost per patient treated

N.B. "model of care" has major impact on treatment costs



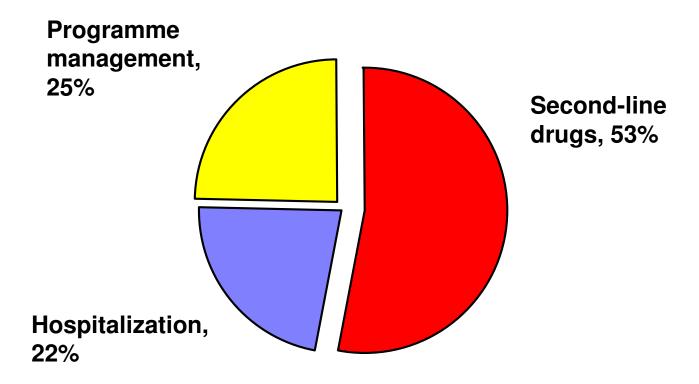
Costs estimated from detailed costing studies in Tomsk (Russia), Estonia, the Philippines and Peru, adjusted for pattern of drug resistance, country income level, anticipated use of hospitalization

#### Funding required, 2009–2015



Total US\$16.9 billion over 7 years, average US\$2.4 billion per year Much higher than existing budgets and funding

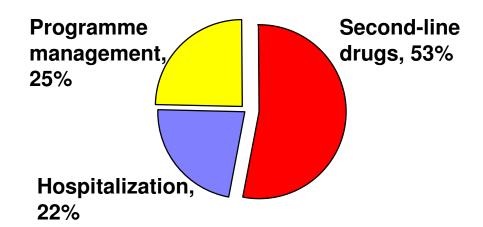
#### Treatment costs, 2009–2015



Reducing cost of second-line drugs and use of hospitalization would substantially lower funding requirements

#### Main cost components, 2009–2015

#### **Treatment**

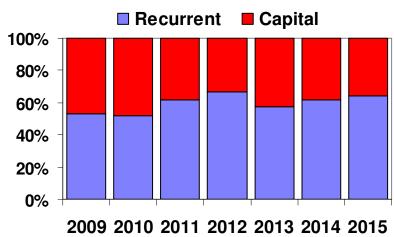


#### Infection control

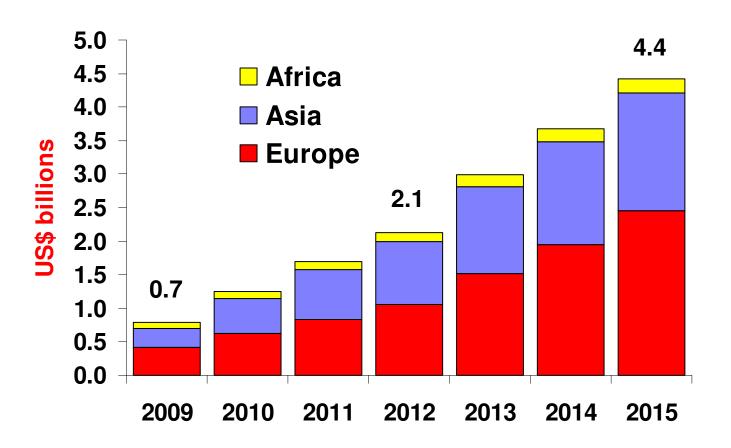
Personal protective controls, 2%



### Laboratory diagnosis and monitoring

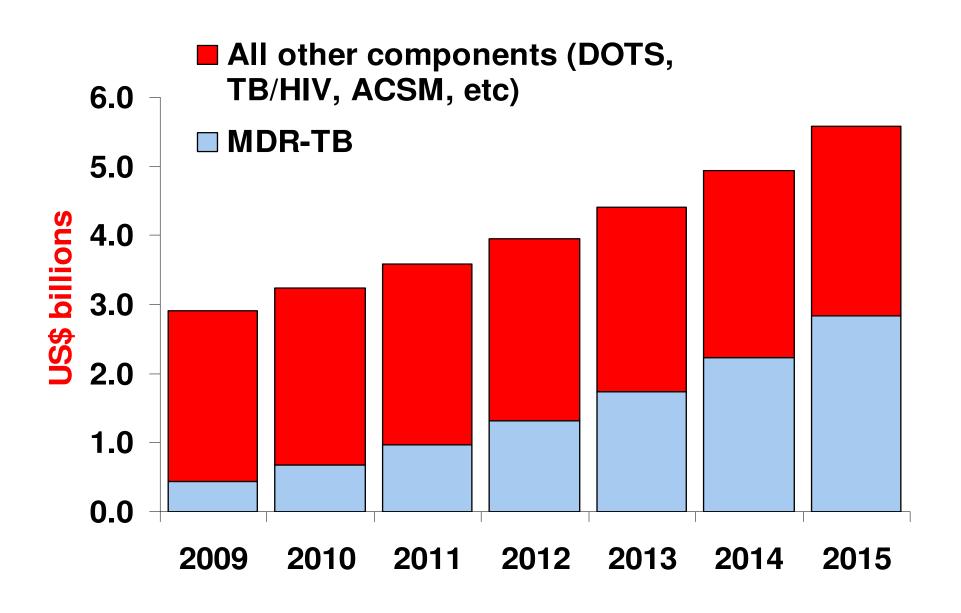


#### Funding required by region



Most of the funding required is in Europe (total US\$8.9 billion), followed by Asia (US\$7.1 billion, mostly in China and India)

#### Funding requirements in context



## Infection control costs, 2009-2015 – 22 High Burden Countries plus 14 MDR HBCs

DR or non DR	Predominant locus of care	Scenario 1 MDR Facilities only	Scenario 2 All TB Facilities and Community Health Centres	Scenario 3 All Facilities
DR only	Community	758	n/a	n/a
DR only	Hospitalised	1,045	n/a	n/a
DR Non DR	Community, Community	n/a	1,088	3,898
DR Non DR	Hospitalised, Community	n/a	1,425	4,240
DR Non DR	Hospitalised, Hospitalised	n/a	1,728	4,546

Work in progress as of October 2009



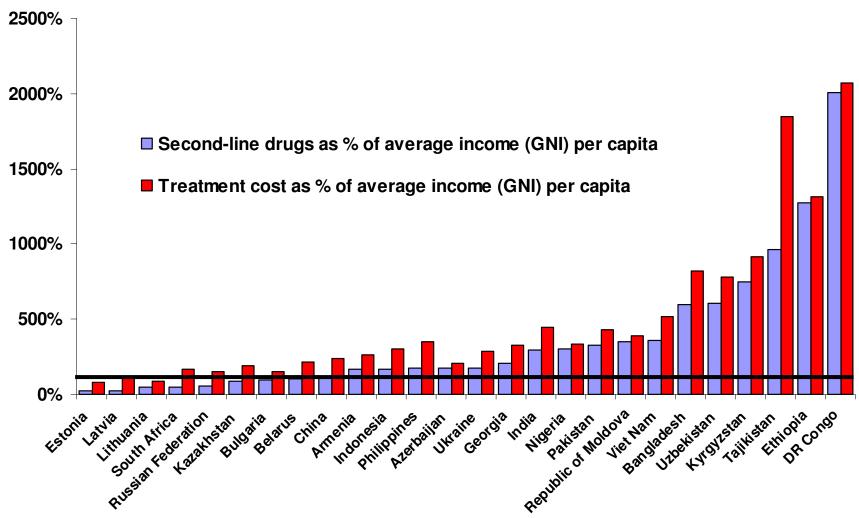


How can the required funding be mobilized?



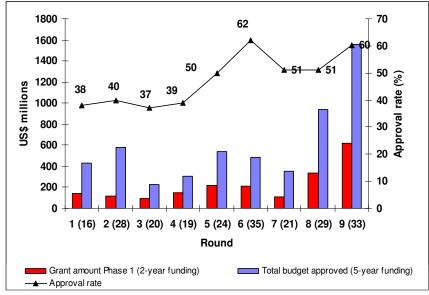


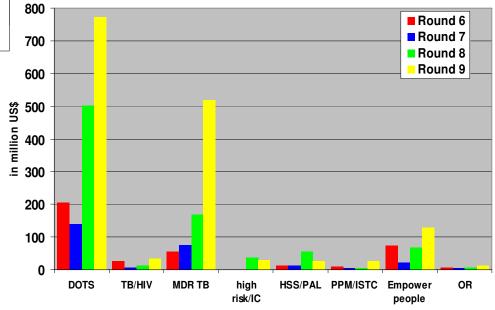
#### Can patients pay?



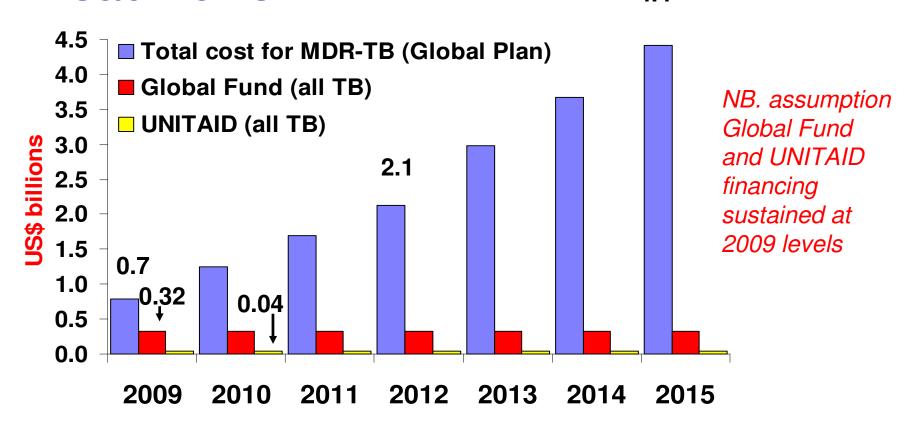
Catastrophic health expenditure defined as 40% of household "capacity to pay" "Capacity to pay" based on income after basic subsistence needs are met

# The Global Fund and UNITAID – the good news





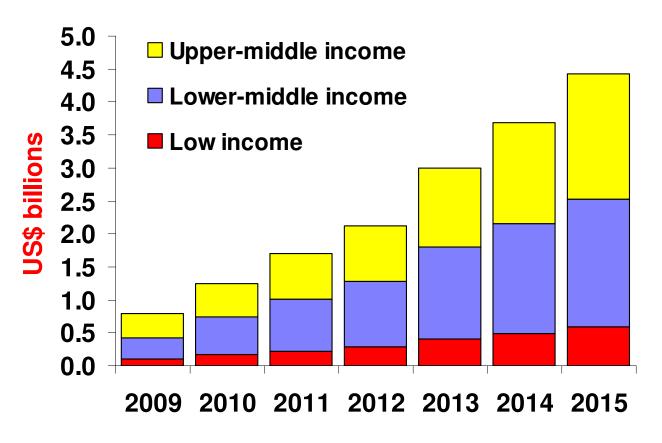
## The Global Fund and UNITAID – the sad news



Unlikely to finance more than a relatively small share of the costs of MDR-TB diagnosis and treatment, unless either

- a) both agencies mobilize substantially more funding and/or
- b) the cost of MDR-TB diagnosis and treatment can be reduced

#### Can HBC governments pay?



Commission on Macroeconomics and Health (2001) suggested middle-income countries could finance 96–100% of health care needs

High Level Taskforce (HLTF) on Innovative International Financing for Health Systems is focusing on lowincome countries

Low Income	Bangladesh, DR Congo, Ethiopia, Kyrgyzstan, Myanmar,
(GNI <us\$ 936="" capita)<="" per="" td=""><td>Nigeria, Pakistan, Tajikistan, Uzbekistan, Viet Nam</td></us\$>	Nigeria, Pakistan, Tajikistan, Uzbekistan, Viet Nam
Lower-middle income	Armenia, Azerbaijan, China, India, Indonesia,
(GNI US\$ 936–3705 per capita)	Philippines, Moldova, Ukraine
Upper-middle income	Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Latvia,
(GNI US\$ 3706–11455)	Lithuania, Russian Federation, South Africa

Some aspects of Coordination





#### The Green Light Committee

- Started up as a Committee to give a green light to MDR management proposals – AND prevent development of further resistance
- GLC has approved 108 projects in 68\* countries with 59,142 patients approved for treatment. About 20,000 have started treatment
- Also provides technical support for proposal development, follow-up, monitoring and evaluation and policy advice to WHO, and now to GFATM
- All GF MDR proposals require the "Green Light"





### The Green Light Committee

- GLC ensures quality of drugs, using its own procurement agent buying from stringent drug regulatory agency approved suppliers, or WHO pre-qualified suppliers (Stream A)
- GLC will soon approve "Stream B" that allows countries to procure drugs themselves from similarly QA'ed suppliers





#### Some other things needing coordination

- Better information
- Involvement of the private sector
- Human resources
  - Training, planning, recruitment
- Technical support
  - Short-, middle-, long-term
  - Centres of excellence
- Matching diagnoses with treatment
- Coordinating with other disease control programmes



#### Conclusions

- Substantial increases in funding are required for TB control going forward
- Fund-raising strategies need much more focus on national domestic expenditure needs
- More attention needed on reducing costs of commodities and models of care
- Countries may effectively postpone targets



