



Xpert MTB/RIF global roll-out update

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Global Forum of Xpert MTB/RIF implementers

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Contents of this presentation

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- Global landscape of Xpert MTB/RIF use
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THE GLOBAL PLAN TO STOP TB 2011–2015

Objective 3: Increase access to rapid laboratory diagnosis of drug-resistant TB among TB patients considered at risk of M/XDR-TB. By 2015, all patients that have been previously treated for TB should be tested for MDR-TB. Furthermore, any new TB cases (i.e. that have not had TB in the past) should also be tested for MDR-TB, if they are considered at

Objective 2: Improve the diagnosis of TB among AFB smear-negative TB cases, especially among people living with HIV. A key target is to improve diagnosis of smear-negative cases by using culture and/or molecular-based tests. By 2015, the 36 countries that are in one or both lists of the 22 high-burden and the 27 high MDR-TB burden countries should have at least one culture laboratory per 5 million population, or equivalent capacity to diagnose smear-negative TB using rapid molecular tests.³⁶

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nfirmed cases of
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nd-line injectable

Policy uptake in countries



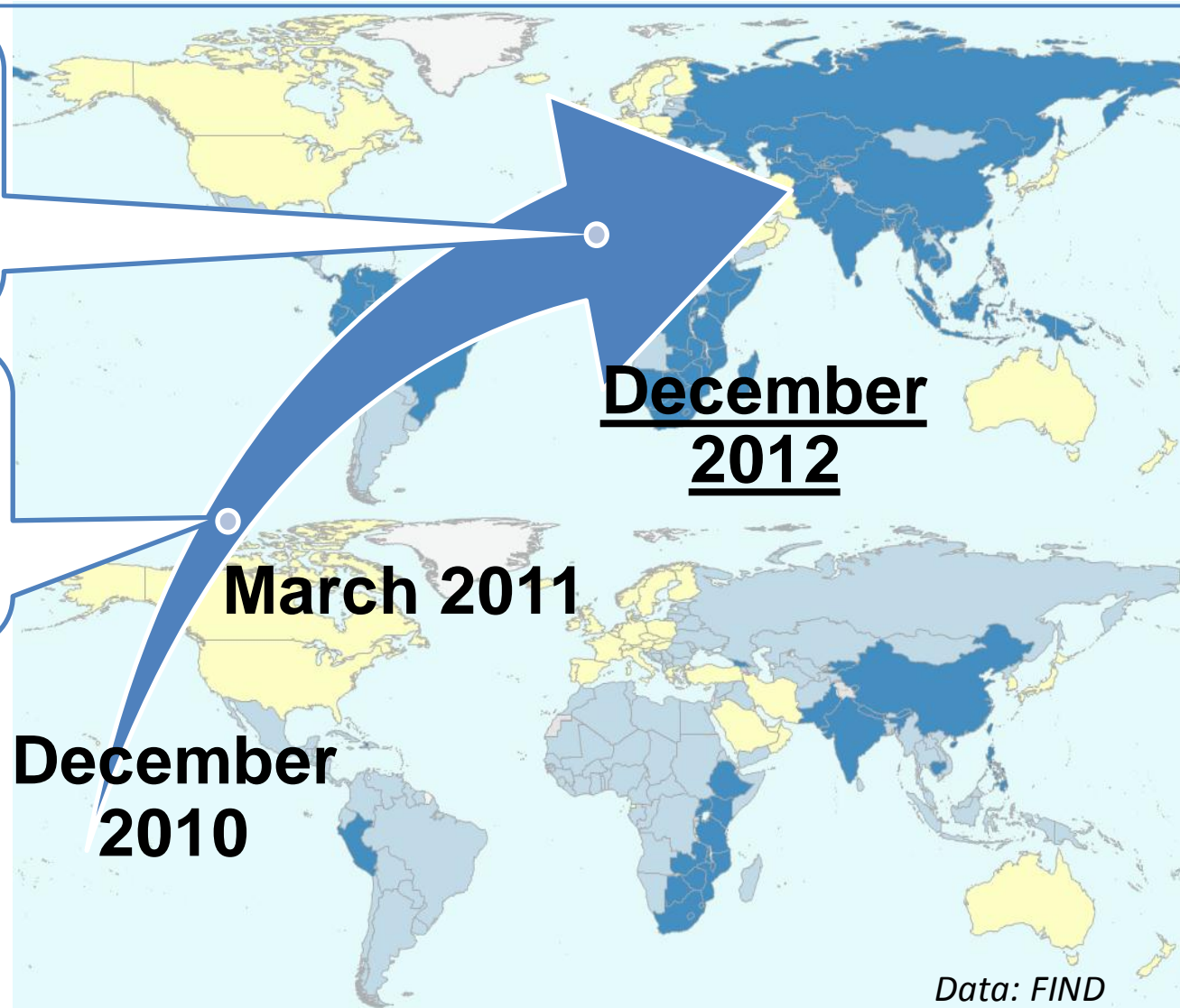
Incorporation of WHO policy guidance for diagnosis of TB, 2011	High-burden countries	High MDR-TB burden countries	Global
Conventional drug susceptibility testing (DST)	95%	100%	85%
Liquid culture and rapid speciation test	73%	75%	67%
Line probe assay for detecting resistance to rifampicin	64%	74%	44%
Algorithm for the diagnosing of TB in people living with HIV	86%	87%	74%
Xpert MTB/RIF assay	64%	50%	33%

Global Progress

Xpert MTB/RIF roll-out: global progress

**966 GeneXperts
(5,017 modules)
in the public sector
in 77 countries**

**99 GeneXperts
(524 modules)
in the public sector
in 23 countries**

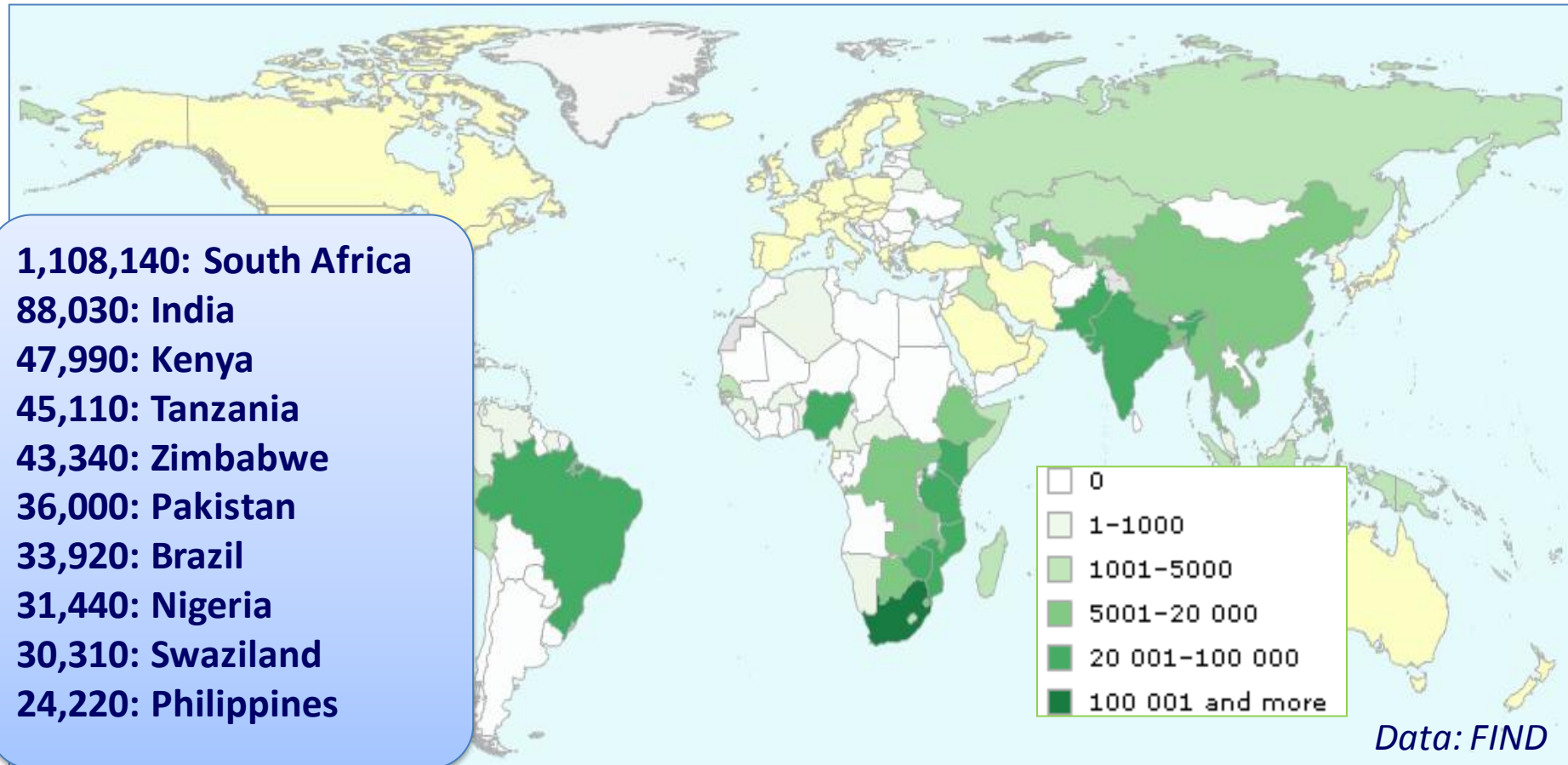


Data: FIND



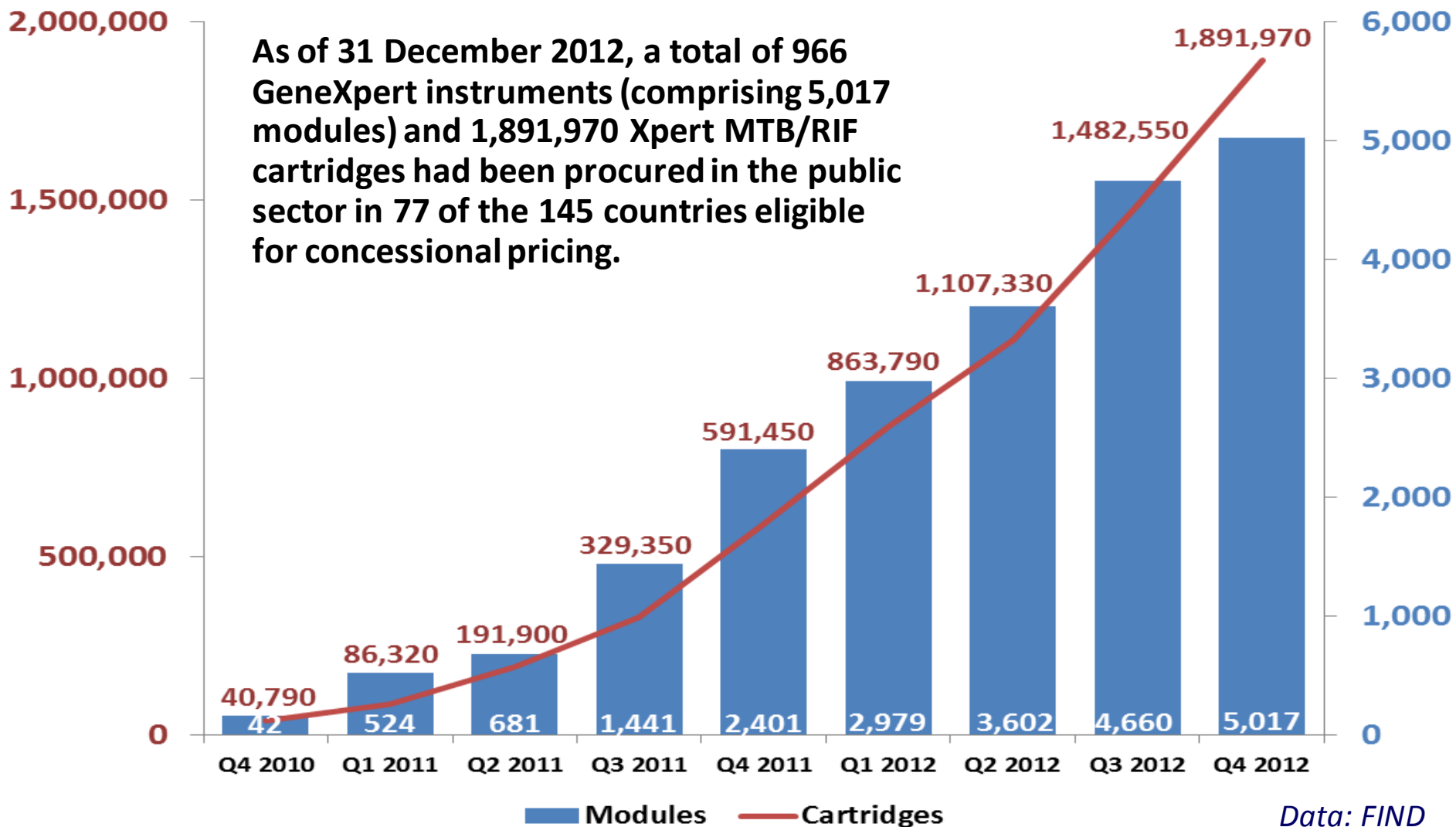
Xpert MTB/RIF global landscape

- 1,891,970 Xpert MTB/RIF cartridges procured, as of 31 December 2012 (public sector in eligible countries)



Cumulative number of GeneXpert modules and Xpert MTB/RIF cartridges procured under concessional pricing

As of 31 December 2012, a total of 966 GeneXpert instruments (comprising 5,017 modules) and 1,891,970 Xpert MTB/RIF cartridges had been procured in the public sector in 77 of the 145 countries eligible for concessional pricing.



Data: FIND

Donors supporting Xpert MTB/RIF roll-out



UNITAID : EXPAND-TB and TBXpert projects – 31 countries



PEPFAR : multiple countries



USAID: TB Care I and II



World Bank: East Africa Public Health Laboratories Project



Global Fund: multiple grants to countries



CIDA: TB Reach Initiative

WHO activities to facilitate the global roll-out

Guidance documents

2011

Automated Real-time
Nucleic Acid Amplification
Technology for Rapid
Simultaneous Detection of
Tuberculosis and
Rifampicin Resistance
Xpert MTB/RIF System

Policy Statement



2011

Rapid Implementation of
the Xpert MTB/RIF
diagnostic test

Technical and Operational 'How-to'
Practical considerations



2011

Prerequisites to country
implementation of Xpert
MTB/RIF and key action
points at country level.

Checklist



Monitoring the global roll-out

Firefox

WHO | WHO monitoring of Xpert MTB/...

who.int/tb/laboratory/mtbrifrollout/en/index.html

World Health Organization

www.who.int/tb/laboratory/mtbrifrollout

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WHO monitoring of Xpert MTB/RIF roll-out

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Xpert MTB/RIF is an automated, cartridge-based nucleic amplification assay for the simultaneous detection of TB and rifampicin resistance directly from sputum in under two hours. The technology is based on the GeneXpert platform and was developed as a partnership between the Foundation for Innovative New Diagnostics (FIND), Cepheid Inc. and the University of Medicine and Dentistry of New Jersey, with support from the US National Institutes of Health. WHO endorsed the technology in December 2010 and is monitoring the global roll-out of the technology to promote coordination.

New data collection website on Xpert MTB/RIF use

Early implementers of Xpert MTB/RIF are invited to share basic information on the ongoing use of their GeneXpert instruments.

[More information can be found here.](#)

Global summary statistics of procurement

Cumulative number of GeneXpert modules and Xpert MTB/RIF cartridges

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- Policy statement: Xpert MTB/RIF system (WHO/HTM/TB/2011.4)**
[pdf 930kb]
- Rapid implementation of the Xpert MTB/RIF diagnostic test (WHO/HTM/TB/2011.2)**
[pdf 1.3Mb]
- Checklist of prerequisites to country implementation of Xpert MTB/RIF and key action points at country level (WHO/HTM/TB/2011.12)**
[pdf 364kb]

[Published evidence and commentary on the Xpert MTB/RIF assay](#)

Mapping of instruments and cartridges

→ www.stoptb.org/wg/gli/assets/documents/map/1/atlas.html

WHO monitoring of Xpert MTB/RIF roll-out: Orders of GeneXperts and Xpert MTB/RIF cartridges

Data through Q4 2012 - Information provided by FIND



Indicator: Number of modules ordered

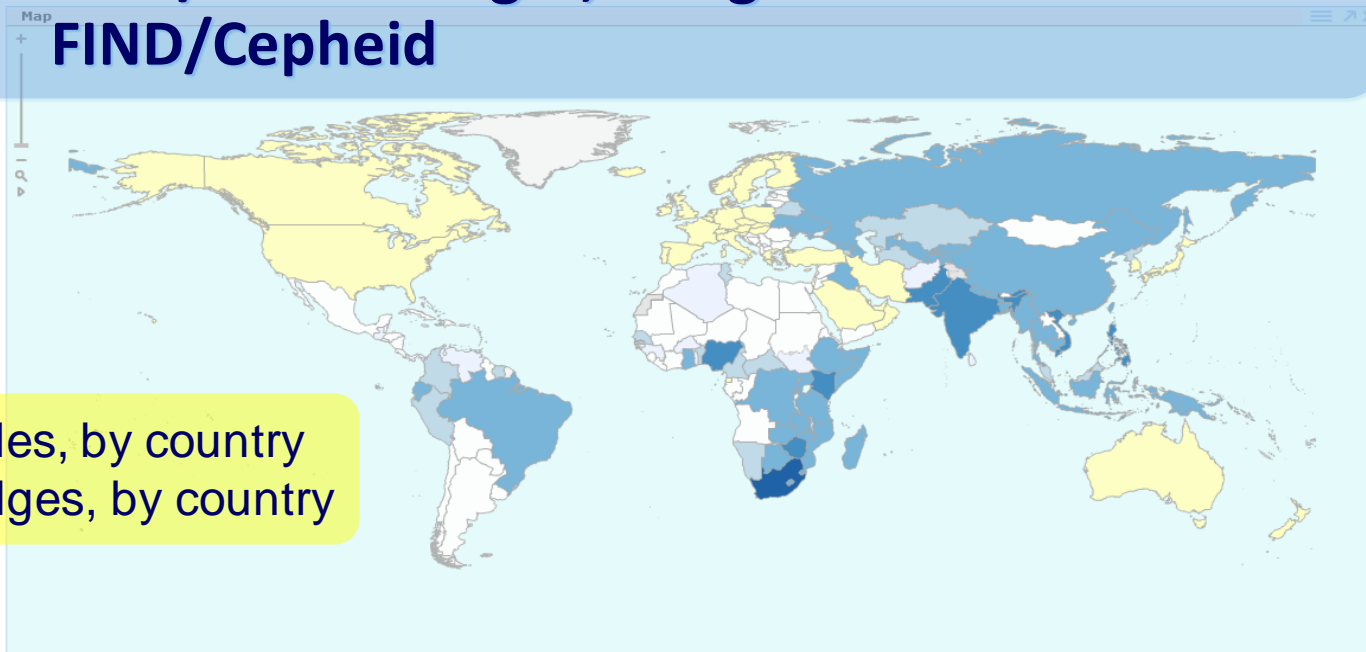
View more indicators

Filter by WHO region

Help

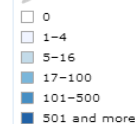
Table	Country	Data
	Afghanistan	2
	Albania	0
	Algeria	4
	Andorra	Not eligible for preferential pricing
	Angola	0
	Antigua and Barbuda	0
	Argentina	0
	Armenia	12
	Australia	Not eligible for preferential pricing
	Austria	Not eligible for preferential pricing
	Azerbaijan	28
	Bahamas	Not eligible for preferential pricing
	Bahrain	Not eligible for preferential pricing
	Bangladesh	72
	Barbados	Not eligible for preferential pricing
	Belarus	16
	Belgium	Not eligible for preferential pricing
	Belize	0
	Benin	12
	Bhutan	0
	Bolivia (Plurinational)	0
	Bosnia and Herzegovina	0
	Botswana	68
	Brazil	76
	Brunei Darussalam	Not eligible for preferential pricing
	Bulgaria	0
	Burkina Faso	2
	Burundi	0
	Cambodia	60
	Cameroon	6
	Canada	Not eligible for preferential pricing
	Cape Verde	4
	Central African Republic	12
	Chad	0

Global maps of procured GeneXperts and Xpert MTB/RIF cartridges, using data from FIND/Cepheid



Use your mouse to select data. Use Ctrl-key to make multiple selections. Click on the right mouse button to clear selections.

Legend



- Number of modules, by country
- Number of cartridges, by country

Knowledge sharing

- Organization of annual global meetings of Xpert MTB/RIF implementers, for experience sharing and coordination
- Quarterly updates on the Xpert MTB/RIF roll-out, sent to our mailing list (over 675 subscribers)
- Online list of published literature on Xpert MTB/RIF, updated monthly
- Publication of ERJ paper on Xpert MTB/RIF policy development and evidence (Weyer et al.)
- Development of revised definitions for TB cases and treatment outcomes, and consequent revised framework for reporting
- Stop TB/HIV department Information Note promoting use of Xpert for improved detection of TB in people living with HIV

Collaboration with partners

- Coordination, project planning and support of several donor funded implementation projects
- Management of an Italian Ministry of Health-funded project to support 2 NGOs in Burkina Faso and Ethiopia for introducing Xpert MTB/RIF
- Collaboration within TBCARE I: two regional trainings and training of consultants
- Panelists on 2 Global Health Delivery Online (GHDOnline) forums

News and upcoming events

WHO Expert Group Meeting on Xpert MTB/RIF 20-21 May 2013

- Diagnostic accuracy of Xpert for detection of TB and rifampicin resistance for:
Pulmonary TB;
Extrapulmonary TB and
Children
- Affordability, cost-effectiveness and resource implications

Xpert MTB/RIF training modules review

- Separate training modules on Xpert MTB/RIF have been developed by KNCV (TBCARE I), FIND and Cepheid
- Various training modules to be combined, updated, and published as a GII product
- planned release: fall 2013

Next steps to facilitate scale-up

- Continued coordination between implementing partners
- Innovations to facilitate use in peripheral sites
- Adoption of the technology by the private sector
- Improved country/partner forecasting to allow adequate manufacturing capacity
- Development of fast followers
- **Matching capacity for diagnosis of TB and rifampicin resistance with capacity for appropriate treatment**

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