rGLC/Europe: country technical support mechanism

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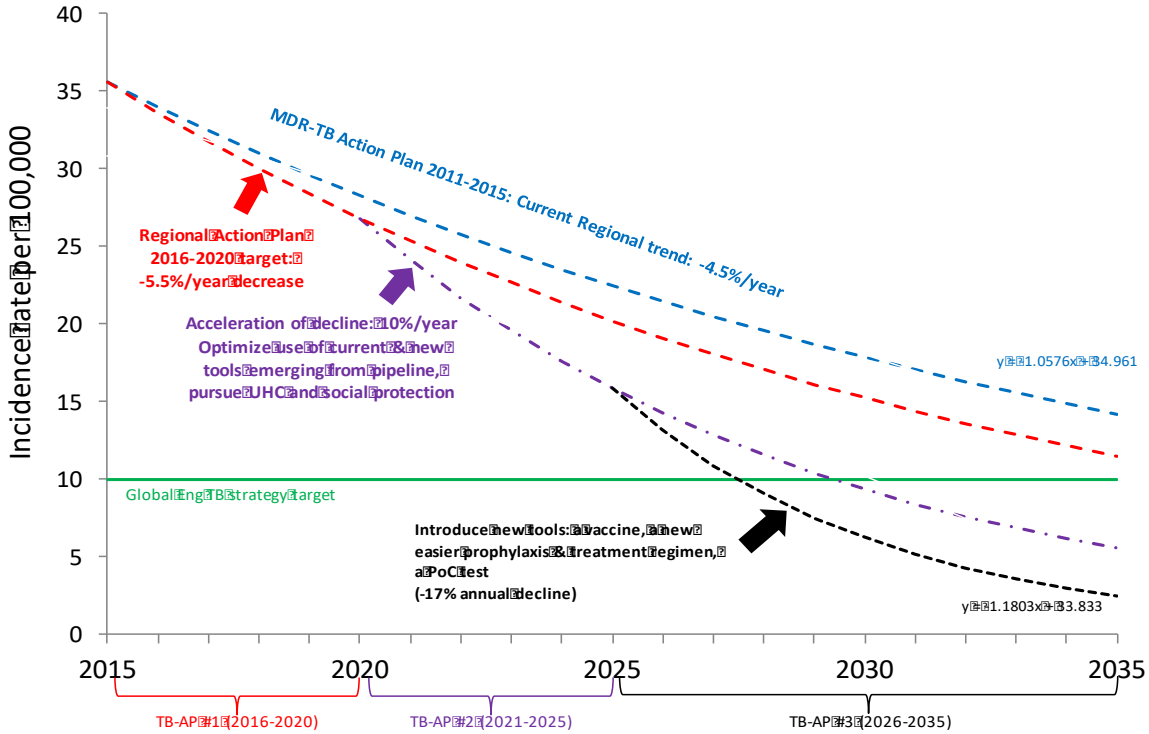
Moving towards 2035 EndTB Target



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Milestones

- Created as Advisory board on M/XDR TB for WHO EURO in 2011;
- Consisted of 11 members, with different role: clinical, laboratory, managerial, programmatic, civil society, partner/implementer organisation;
- New Chair Dr Alena Skrahina (since June 2018);

Achievements: 2010-2019

- 12 countries with GF grants
- 9 face to face & 34 virtual rGLC meetings
- rGLC mission: 126
- rGLC+NTP M&E missions: 20
- TA missions: 25
- # workshops IC, PMDT, capacity building lab: 10

rGLC/Europe meeting and w/shop on New drugs and Short Treatment Regimens

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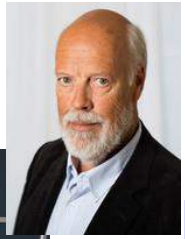
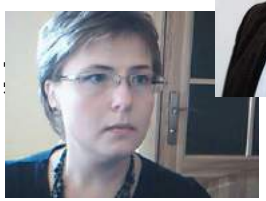
Rotation of rGLC/Europe consultants and new consultants

- Dr Alena Skrahina: Kazakhstan, Kyrgyzstan and Tajikistan;
- Dr Askar Yedilbayev: Azerbaijan and Georgia;
- Dr Elmira Gurbanova: Uzbekistan;
- Dr Inna Motrych: Turkmenistan;
- Dr Kai Blondal: Belarus and Ukraine;
- Dr Liga Kuksa: Albania, Bulgaria and Kosovo;
- Dr Natavan Alikhanova: Moldova;
- Dr Nino Lomtadze: Armenia and Romania;
- Dr Svetlana Setkina: all countries
- Dr Sven Hoffner: all countries



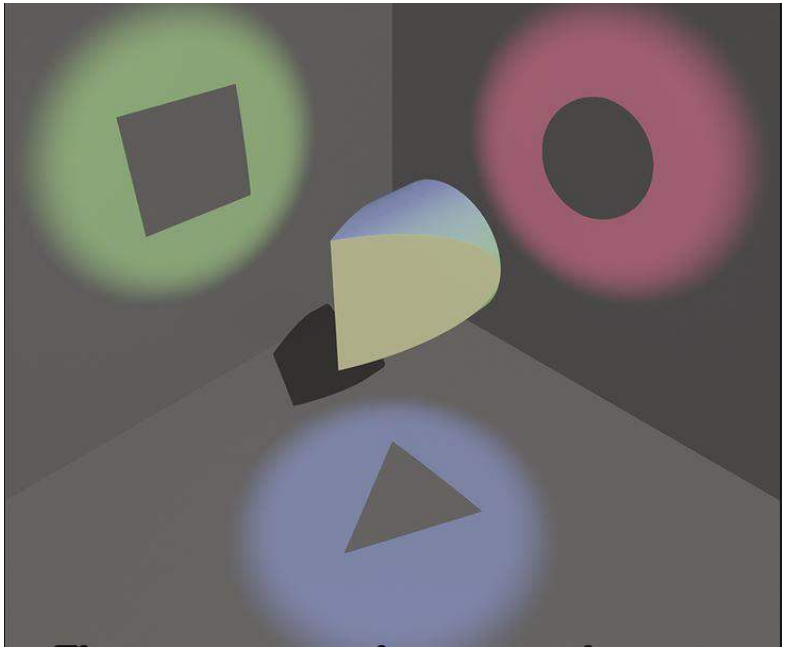




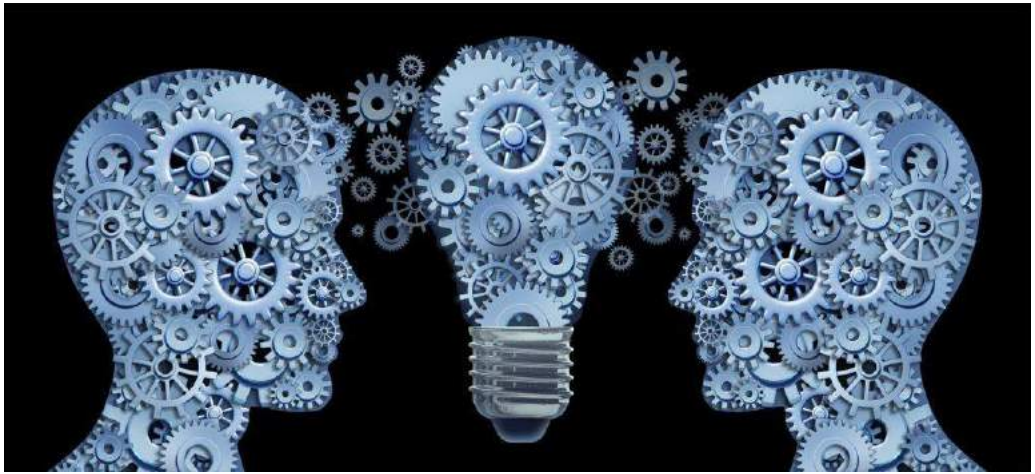
Complexity of truth

How many dimensions you can see?
Why we still making same recommendations?
Why recommendations are repetitive?
What could be improved?



Factors contributing to the recommendations

- NTP is asking to make it more diplomatic;
- MoH is asking to reformulate;
- Partners not happy with findings;
- Consultant is under influence of … ;
- And what we have at the end?



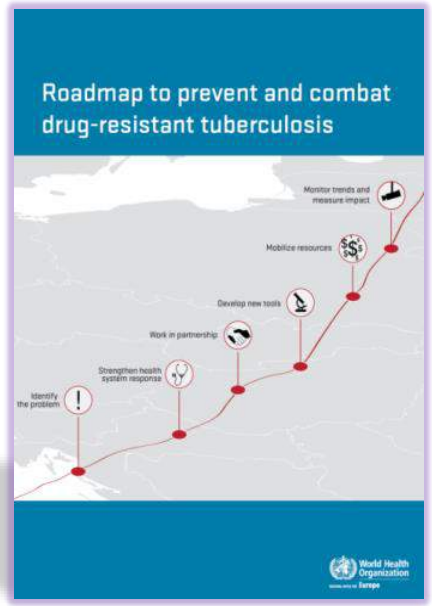
Source: https://goo.gl/images/z5kdma and https://valueinvestasia.com/introduction-behavioral-biases-individuals-part-1/

Tailoring technical assistance to the needs of the countries

- How can one size fit all?
- Why not to propose different format for different TA?

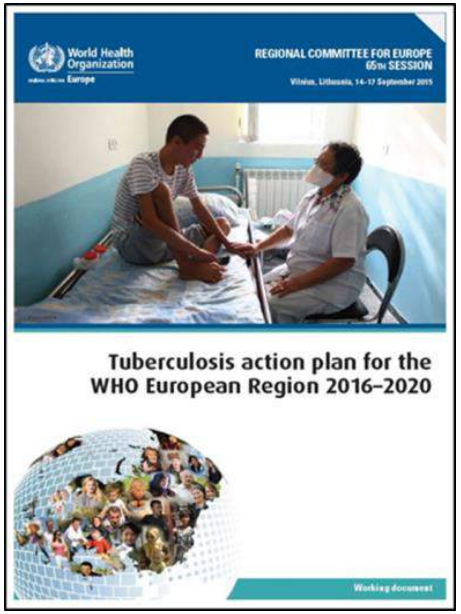
Source: Voon Pang, March 2015, https://www.stutteringhelp.org/blog/problem-one-size-fits-all

2011-2015



THE END TB STRATEGY

2016-2020



1 million TB patients cured

2.6 million lives saved

1.4 million TB patients will be cured

3.1 million lives will be saved

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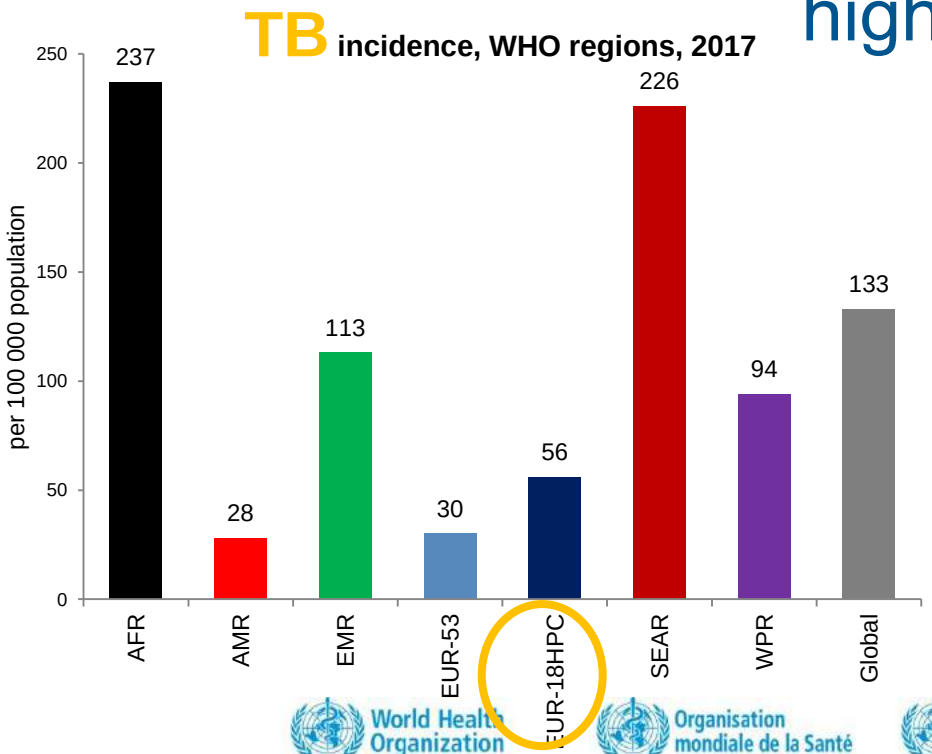
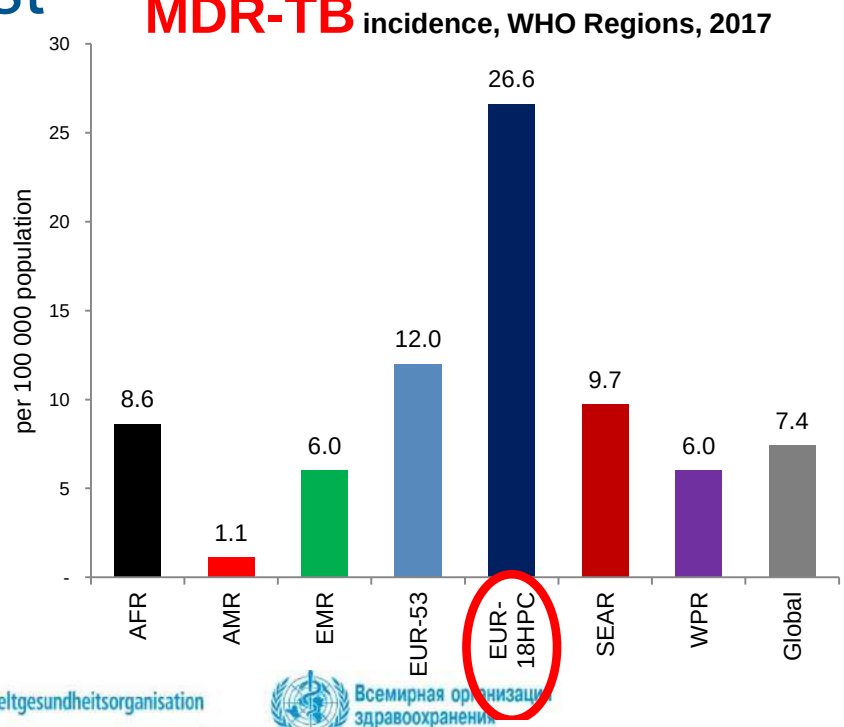
Europe's TB burden is among the lowest in the world, but the rates of new MDR-TB cases is the highest





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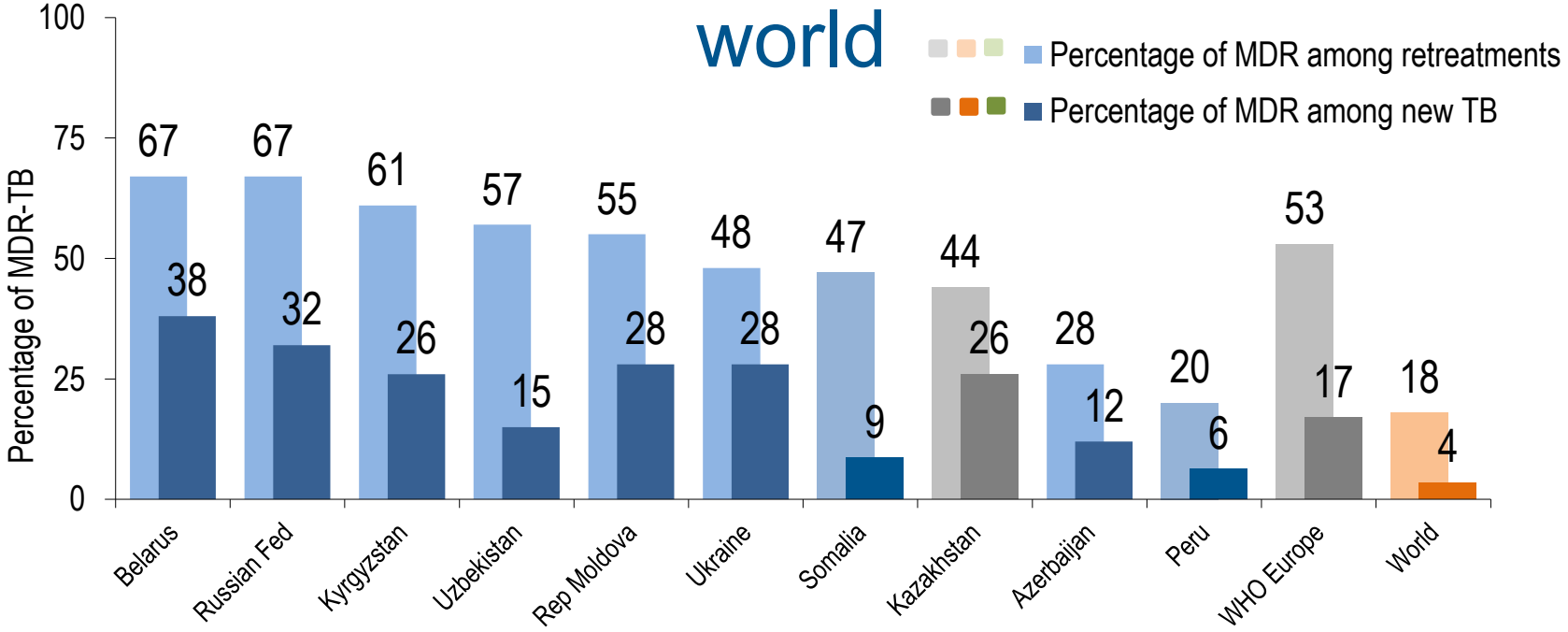
MDR-TB in new TB cases occurs 4 times more often in Europe than in the rest of the world



WHO Global TB Report 2018. Geneva: WHO, 2018 (WHO/CDS/TB/2018.20)

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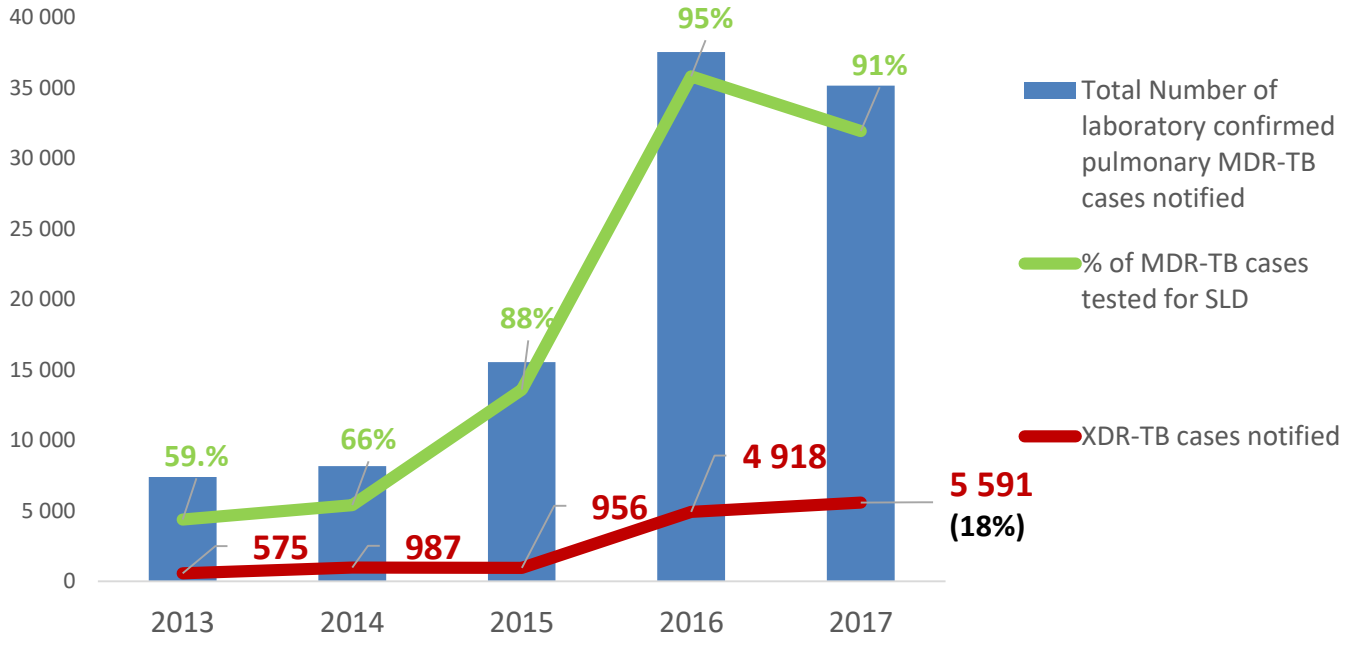
Extensively drug resistant TB is on the rise

In 2017 about **one in five** MDR-TB patients had XDR-TB.

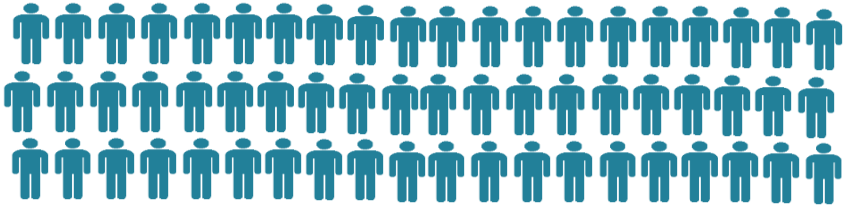
XDR-TB is more difficult to treat than MDR-TB.



*Data for 2017 is provisional

Only about 62% of MDR-TB patients are detected (2017 data)

77 000



drug-resistant TB cases in WHO European Region

47 697 (62%)

drug-resistant TB cases detected and enrolled on treatment

26 404 (57.2%)

drug-resistant TB cases started treatment in 2015 with successful outcome

Source: Tuberculosis surveillance and monitoring in Europe 2017. European Centre for Disease Prevention and Control / WHO Regional Office for Europe.

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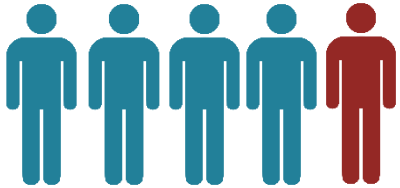
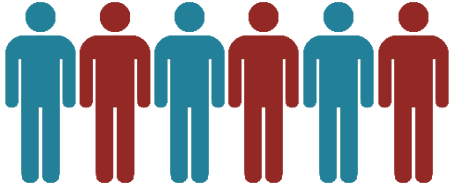
MDR-TB is one of key drivers of the TB epidemic in Europe



EVERY 5TH NEW TB PATIENT



EVERY 2ND PREVIOUSLY TB PATIENT

are found with

MDR TURBERCULOSIS

Source: WHO Europe / ECDC. Tuberculosis surveillance and monitoring in Europe 2017

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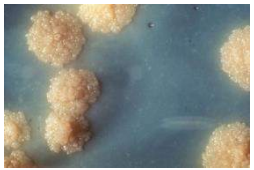
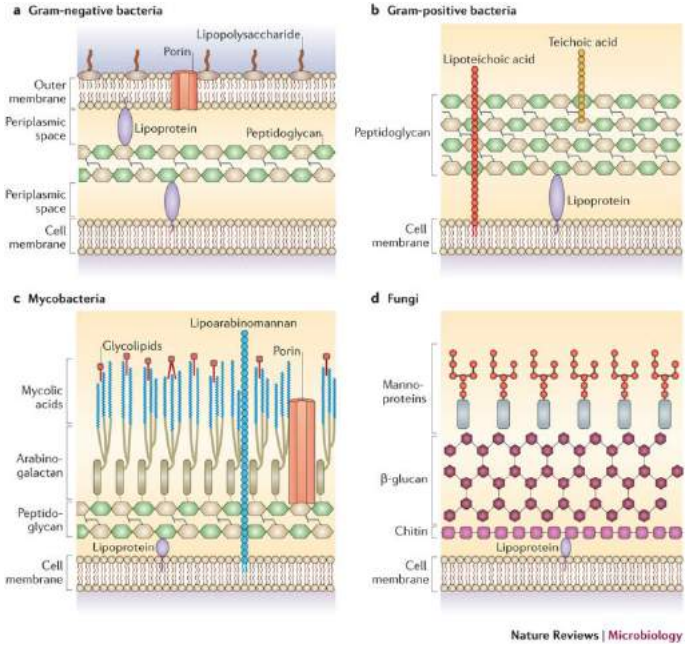
Clinical Strategies to kill Mycobacteria Tuberculosis

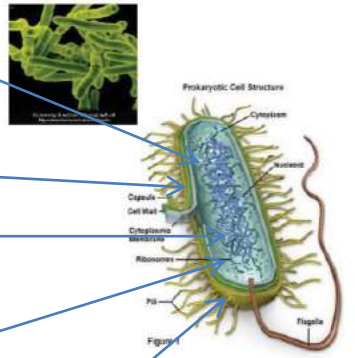


- Block RNA synthesis
- Block DNA (replication) process
- Block ATP production

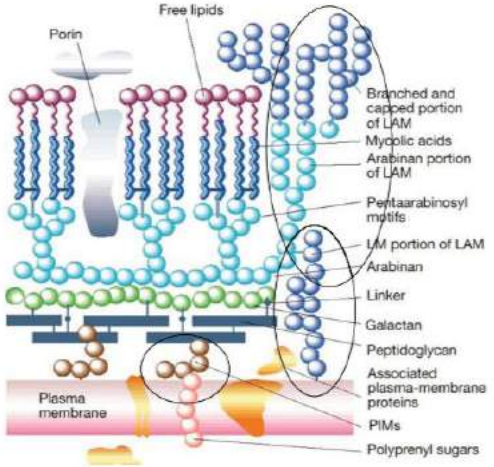


Actions of all TB drugs

GROUP NAME	ANTI-TB AGENT	ABBREVIATION
Group 1. First-line oral agents	Isoniazid	H
	Rifampicin	R
	Ethambutol	E
	Pyrazinamide	Z
	Rifabutin[a]	Rfb
	Rifapentine[a]	Rpt
Group 2. Injectable anti-TB drugs (injectable agents or parental agents)	Streptomycin[b]	S
	Kanamycin	Km
	Amikacin	Am
	Capreomycin	Cm
Group 3. Fluoroquinolones (FQs)[d]	Levofloxacin	Lfx
	Moxifloxacin	Mfx
	Gatifloxacin[c]	Gfx
Group 4. Oral bacteriostatic second-line anti-TB drugs	Ethionamide	Eto
	Prothionamide	Pto
	Cycloserine	Cs
	Terizidone[e]	Trd
	Para-aminosalicylic acid	PAS
	Para-aminosalicylate sodium	PAS-Na
Group 5. Anti-TB drugs with limited data on efficacy and/or long term safety in the treatment of drug-resistant TB (This group includes new anti-TB agents)	Bedaquiline	Bdq
	Delamanid	Dlm
	Linezolid	Lzd
	Clofazimine	Cfz
	Amoxicillin/ clavulanate	Amx/Clv
	Imipenem/cilastatin[f]	Ipm/Cln
	Meropenem[f]	Mpm
	High-dose isoniazid	High dose H
	Thioacetazone[g]	T
	Clarithromycin[g]	Clr

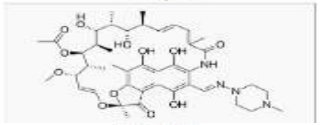


- TB infection is currently spreading at the rate of one person per second
- *"The single most lethal bacterial disease in the world"*

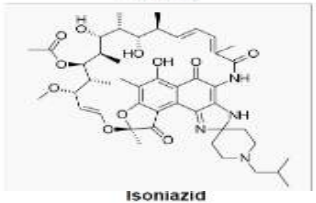


Action of the First Line TB drugs

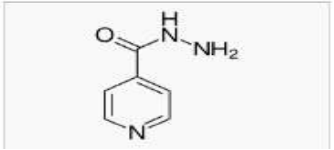
Rifampicin



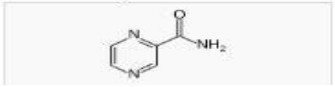
Rifabutin



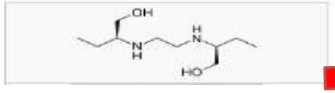
Isoniazid

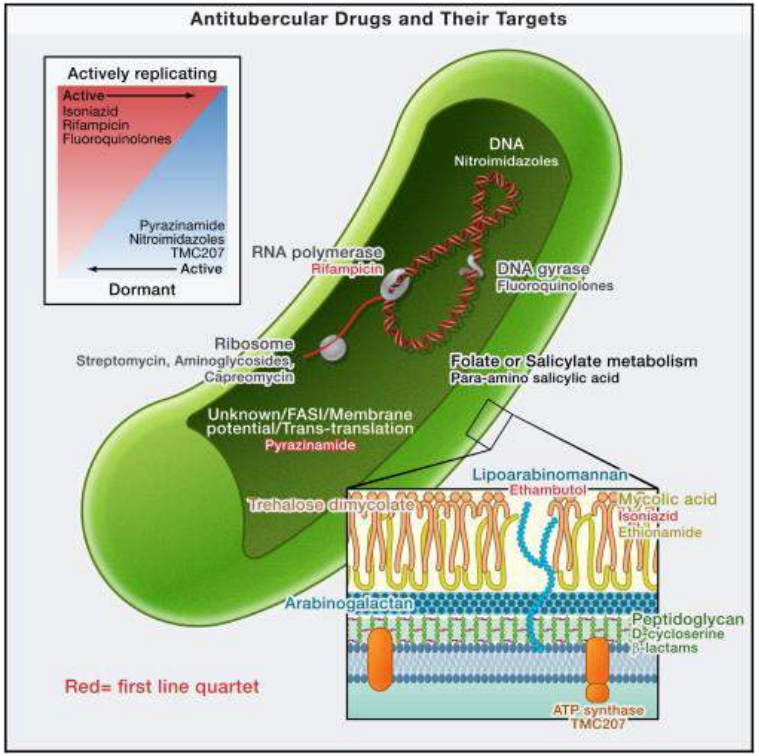


Pyrazinamide



Ethambutol





Specific actions of the TB drugs

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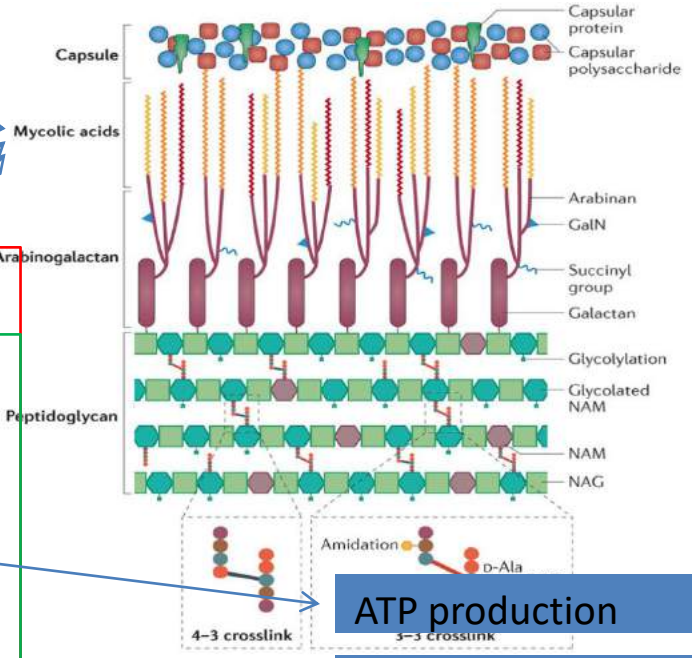
	Linezolid	Lzd
	Clofazimine	Cfz
	Amoxicillin/ clavulanate	Amx/Clv
	Imipenem/cilastatin[f]	Ipm/Cln
	Meropenem[f]	Mpm
	High-dose isoniazid	High dose H
	Thioacetazone[g]	T
	Clarithromycin[g]	Clr



ATP production

RNA factory

DNA factory

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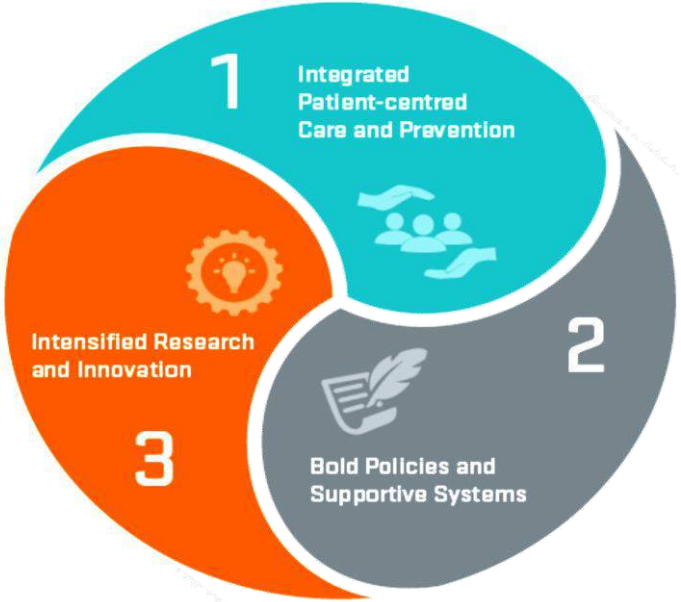
Key strategic directions



1. Full scale-up of rapid diagnosis
2. Rapid uptake of new medicines
3. Expanding patient- and people-centred care
4. Shorter and more effective treatment regimens
5. Research for new tools
6. Intersectoral approach to address inequities

Recent rGLC/Europe activities

- Finalized Action plan 2011 – 2015
- Endorsed Tuberculosis Action Plan for the WHO European Region 2016-2020
- Organized TA mission to all countries receiving support from TGF
- Follows up on the recent developments on End TB Strategy implementation
- Provides necessary input on treatment regimens composition and new drugs inclusion to the treatment of M/XDR TB (for all countries with GF grants)
- Providing countries with TA on new drugs introduction
- Coordinate activities with the other regional platforms, such as ELI (European Laboratory Initiative) and RCC (Regional Coordination Committee).

Work in progress

1. Strong advocacy for TB prevention and care
2. Strong partnerships, (ex)patient and civil-society involvement and empowerment
3. Adapt national strategic plans
4. Scale up intersectoral collaboration, in line with Health 2020
5. Continue exchange of good practices
6. Intercountry peer support and partnership with other projects like Challenge TB; MSF and Project HOPE leaded projects.
7. Cross border prevention and care
8. Close coordination with other Regional initiatives, TB-REP, ELI, RCC-TB, etc.

The way forward

1. Intensify country specific work on diagnosis, treatment and care with focus on M/XDR – TB prevention and management of co-infection through integrated TB/HIV health services.
2. Boost exchange of good practices
3. Scale up TB Control activities in prisons through the WHO Collaboration Center in Penitentiary
4. Foster full implementation of National TB and MDR TB Action Plans
5. Organize training on new drugs and new treatment regimens for rGLC/Europe members and consultants

Acknowledgments

- WHO Regional office for Europe: Dr Masoud Dara, Dr Andrei Dadu, Dr Pierpaolo de Colombani, Dr Martin van den Boom, Dr Soudeh Ehsani;
- Karen J. Kieser & Eric J. Rubin, Nature Reviews Microbiology 12, 550–562 (2014) doi:10.1038/nrmicro3299 (http://www.nature.com/nrmicro/journal/v12/n8/box/nrmicro3299_BX1.html)
- Lisa Brown, Julie M. Wolf, Rafael Prados-Rosales & Arturo Casadevall, Through the wall: extracellular vesicles in Gram-positive bacteria, mycobacteria and fungi, (http://www.nature.com/nrmicro/journal/v13/n10/fig_tab/nrmicro3480_F1.html)
- Hugues Ouellet, Jonathan B. Johnston, Paul R. Ortiz de, Department of Pharmaceutical Chemistry, University of California at San Francisco, Genentech Hall, N572D, 600 16th Street, San Francisco, CA 94158-2517, (http://www.cell.com/trends/microbiology/fulltext/S0966-842X(11)00146-6)
- Daniel E. Goldberg, Robert F. Siliciano, William R. Jacobs Jr., Outwitting Evolution: Fighting Drug-Resistant TB, Malaria, and HIV, (http://www.cell.com/fulltext/S0092-8674(12)00221-8)
- Matthew Vandepol, Structure and Function, (https://prezi.com/y_xsz3ugw20b/structure-and-function/)

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