THE FUNDING GAP IN TB DIAGNOSTICS R&D

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WITH THANKS TO MIKE FRICK

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FIND & NDWG SYMPOSIUM
GUADALAJARA, MEXICO
DIAGNOSTICS FUNDING: HOW DID WE DO AGAINST GLOBAL PLAN TO STOP TB FUNDING TARGETS?

Annual Global Plan Research Funding Targets versus 2015 Funding

- Basic Science: $455,000,000 (Global Plan), $139,794,597 (2015)
- New Diagnostics: $364,000,000 (Global Plan), $62,807,118 (2015)
- New Drugs: $810,000,000 (Global Plan), $231,852,022 (2015)
- New Vaccines: $445,000,000 (Global Plan), $80,736,948 (2015)
- Operational Research: $86,000,000 (Global Plan), $61,040,756 (2015)

**TB Diagnostics R&D Progress Report**

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<tbody>
<tr>
<td>Number of new tests for the diagnosis of active TB that can be used in district labs</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Number of new tests for active TB in peripheral labs</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Number of new point-of-care tests for the diagnosis of active TB in peripheral health centers</td>
<td>2</td>
<td>1*</td>
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<td>Number of new tests for the diagnosis of DR-TB in district labs</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Number of new tests for the diagnosis of DR-TB in peripheral-level labs</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Number of new tests for the diagnosis of DR-TB in health center</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Number of new tests for LTBI and prediction of the risk of progression to TB disease</td>
<td>1</td>
<td>0**</td>
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* Plus a negative recommendation against using serological tests (2011).
** Plus a negative recommendation against using IGRAs to predict progression from infection to disease (2011).
Diversity matters, as well as quantity:

- Over half of all diagnostics R&D funding comes from just 3 sources
- Extreme vulnerability to changes in priorities

Source: http://www.treatmentactiongroup.org/tbrd2016
LACK OF FUNDING FOR TB R&D IS A HUMAN RIGHTS ISSUE

**ICESCR Article 12**
The right to enjoy the highest attainable standard of physical and mental health

**ICESCR Article 15**
The right to enjoy the benefits of scientific progress and its applications

TB research and access to its benefits…
1. can either reinforce or resolve ethical dilemmas in TB prevention, **diagnosis**, treatment and care;
2. can change the way TB is culturally perceived;
3. can galvanize advocacy and clarify social or legal petitions for redress of TB-related harms.
LIMITED FUNDING HAS HELPED GIVE RISE TO ETHICAL DILEMMAS FACED BY TB PROGRAMS

1. Weak R&D environment leaves people with TB and health systems reliant on diagnostics that are complicated, expensive, and difficult to access, or have low sensitivity.

2. Limitations to TB diagnosis and treatment—still unresolved by research—have changed the nature of TB disease itself, making the curable intractable.

1. Where inadequate and outdated tools hinder a vigorous public health response, fulfilling the Right to Health may require investing in R&D.
LIMITED FUNDING LIMITS THE EQUITY PROPOSITION OF TB RESEARCH FROM THE OUTSET...

...and means compromise is woven into the fabric of TB research itself.

1  ex: research that includes most vulnerable populations scarce – diagnosis for children still extremely challenging

2  ex: without a true POC diagnostic, equity is impossible for people living in rural areas / areas with worse health infrastructure

3  ex: given limited understanding of progression from TB infection to active disease, LTBI test and treat strategies cannot well distinguish those most at risk, leading to over- or undertreatment rather than equitable access to preventive therapy based on risk
WE CAN DO BETTER

“Essentially, there can be no End to TB, without an end to political indifference in this R&D agenda.”

--Lynette Mabote, AIDS & Rights Alliance for Southern Africa

Closing the funding most likely needs to come from public sector

The Global Plan to End TB era features several important opportunities for raising political will for R&D funding

• **BRICS Declaration** Sep 2017: "We agree to [...] foster the development and improve the availability of innovative medical products through promotion of research and development and access to affordable, quality, effective and safe drugs, vaccines, diagnostics and other medical products and technologies"

• **2017 Ministerial Conference**

• **2018 High Level Meeting on TB**

We will need ACCOUNTABILITY to ensure more than words
INVEST IN TB RESEARCH
WHILE R&D IS CRUCIAL, WE CAN DO MUCH BETTER WITH WHAT WE HAVE—

All Countries need:

• GeneXpert Xpert MTB/RIF ULTRA as the initial test for ALL people needing testing for TB

• Line Probe Assay (both first- and second-line) to quickly guide treatment decisions

• Liquid culture (MGIT) for full drug susceptibility testing AND monitoring drug-resistant TB treatment

• Smear microscopy for monitoring drug-susceptible TB treatment

In areas with high burdens of TB/HIV:

• TB LAM (Determine TB LAM Ag) for quickly, easily finding TB in people very sick with HIV and starting them on TB treatment
ADDITIONAL RESOURCES

Treatment Action Group (TAG) has created *An Activist’s Guide to Tuberculosis Diagnostic Tools*:  

TAG also issued *An Activist's Guide to the TB LAM Test*, available at: http://treatmentactiongroup.org/content/activists-guide-tb-lam-test

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