

TUBERCULOSIS: Funding the Research in the Global Response

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TB RESEARCH & DEVELOPMENT

- U.S. government is the world's leading funder of TB research at \$313.5 million of \$767.7 million globally (2017).
- USG funds 40% of global TB R+D.
- NIH/NIAID, USAID, CDC, FDA, OGAC all support research.
- Most recipients are U.S. institutions.





BUILDING MOMENTUM

- NIAID released 5-year strategic plan for TB research in September 2018 (<u>https://www.niaid.nih.gov/sites/defa</u> <u>ult/files/TBStrategicPlan2018.pdf</u>)
- Groundbreaking results on GSK/Aeras TB vaccine candidate shows promise.
- New TB drug pretomanid submitted to FDA.
- Global TB R+D needs \$2B/year vs. \$767.8 actual (2017).



PREPARED BY THE NIAID TUBERCULOSIS RESEARCH STRATEGIC PLAN WORKING GROUP

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NIAID STRATEGIC PLAN FOR TUBERCULOSIS RESEARCH



seases



SUSTAINING MOMENTUM: CLOSING THE \$1.3B GAP



"Total global investment in TB research over the 13 years from 2005 to 2017 adds up to \$7.8B. In order to meet the Stop TB Partnership's *Global Plan* target of investing \$9B from 2016 to 2020, the world will now have to invest almost as much (\$7.5B) in the three years from 2018 to 2020, since investments in 2016 and 2017 only amounted to \$1.5B combined."

SHARING MOMENTUM: The global burden in funding research for TB and the way forward

- U.S. investment in TB R&D is foundational and catalyzing other countries to invest in TB R+D.
- UN High-Level Meeting on TB: countries agree to take on \$2 billion funding target by paying "fair-share" – what does that look like?
- **Proposal:** if each country devotes 0.1% of gross expenditures on R&D ("GERD"), we can overcome the gap

A FAIR-SHARE PROPOSAL TO FUND TB R&D

- All countries can make contributions to fund TB R&D.
- Even countries that already fund TB R&D, like the U.S., can do even more.
- Some countries have hit their target (New Zealand, South Africa) and some are nearly there (U.S.).

TABLE 1

Majority of Countries Have Not Met TB R&D Fair Share Funding Targets

RANK	COUNTRY	2017 FUNDING	ANNUAL FAIR SHARE TARGET	PERCENT OF TARGET MET IN 2017
1	United States	\$311,939,843	\$444,500,000	70%
2	European Union	\$36,983,994	\$202,400,000	18%
3	United Kingdom	\$36,065,970	\$40,400,000	89%
4	Germany	\$18,901,110	\$99,700,000	19%
5	Canada	\$18,573,136	\$25,300,000	73%
6	India	\$16,842,455	\$46,500,000	36%
7	South Korea	\$15,100,698	\$64,000,000	24%
8	Australia	\$9,578,906	\$21,200,000	45%
9	South Africa	\$8,402,370	\$4,600,000	183%
10	The Netherlands	\$5,558,751	\$15,100,000	37%
11	Japan	\$5,508,140	\$154,900,000	4%
12	Switzerland	\$5,292,685	\$13,400,000	39%
13	Norway	\$3,424,657	\$5,300,000	65%
14	Sweden	\$2,644,386	\$13,700,000	19%
15	Brazil	\$2,116,380	\$35,000,000	6%
16	Ireland	\$2,098,544	\$3,300,000	64%
17	New Zealand	\$2,055,977	\$1,800,000	114%
18	Singapore	\$1,814,213	\$8,400,000	22%
19	Taiwan	\$1,323,230	\$4,369,762	30%
20	The Philippines	\$1,128,864	\$700,000	161%

Table includes countries that reported more than \$100,000 in TB R&D funding to TAG and select other high-income or high-TB-burden countries. Countries that met the target of spending 0.1% of overall R&D expenditures on TB research are shaded.

WHAT SHOULD THE USG DO?

- Fair-share target going from 70% to 100%
 - U.S. needs to spend \$131 million in additional funding to fully fund meeting its target.
 - Can be split across several agencies, some already doing TB R&D, and many that could play an important research role if given resources.
 - Ensures research is coordinated and funded across the pipeline with unique roles played by agencies from basic sciences (NIH/NIAID), clinical trials (USAID and CDC), to end stage product development (BARDA) and access (FDA).
 - Maintains U.S. leadership in TB R&D; funds jobs.

TABLE 1: TB R&D TARGETS BY AGENCY					
Agency	FY2017 (\$M)	0.1% Target (\$M)	Difference (\$M)		
NIH/NIAID	206.6	293.4	86.8		
NIH/Other IC	41.5	57.8	16.3		
USAID	34	48.9	14.9		
CDC	18.3	26.7	8.4		
DoD MRDP	6.1	8.9	2.8		
NSF	3.4	4.4	1.0		
PEPFAR	1.6	2.2	0.6		
VA	1.2	1.8	0.6		
FDA	1	1.3	0.3		
Total	\$313.5	\$444.5	+\$131		

RESEARCH: Merging Domestic and Global Epidemics

- U.S. taxpayer research at the CDC domestic program's TB Trials Consortium (TBTC) has led to global implications
- Example: 3HP for TB prevention
 - 13 million people in U.S. have TB infection
 - 3HP reduces treatment from 9 months daily to 3 months once a week
 - TBTC conducts practical research for TB programs, yet TB programs are underfunded to implement
- Breakthroughs at TBTC informed WHO guidelines and implementation of TB prevention through PEPFAR
- DTBE needs at least \$195.7 million in FY20 to carry out the benefits of this research for all Americans



Thank you!

- In summary, we need political will and Congress to End TB:
 - \$131 million of additional funding for TB R&D
 - Some of this can be funded through:
 - \$400 million in FY20 for USAID TB program
 - \$195.7 million in FY20 for CDC DTBE
- Questions? Contact:
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