

Far Off Track: Funding for TB Research, 2018–2022

United Nations High-Level Meeting on TB Policy Note

September 2023

Research and innovation are essential to ending the tuberculosis (TB) epidemic, and all people affected by TB have the human right to enjoy the benefits of scientific progress against TB without discrimination. The theme of the 2023 United Nations High-Level Meeting on TB affirms the importance of science for TB elimination and frames the value of science in terms of the ability of people to access its benefits in the form of prevention, diagnosis, and treatment:

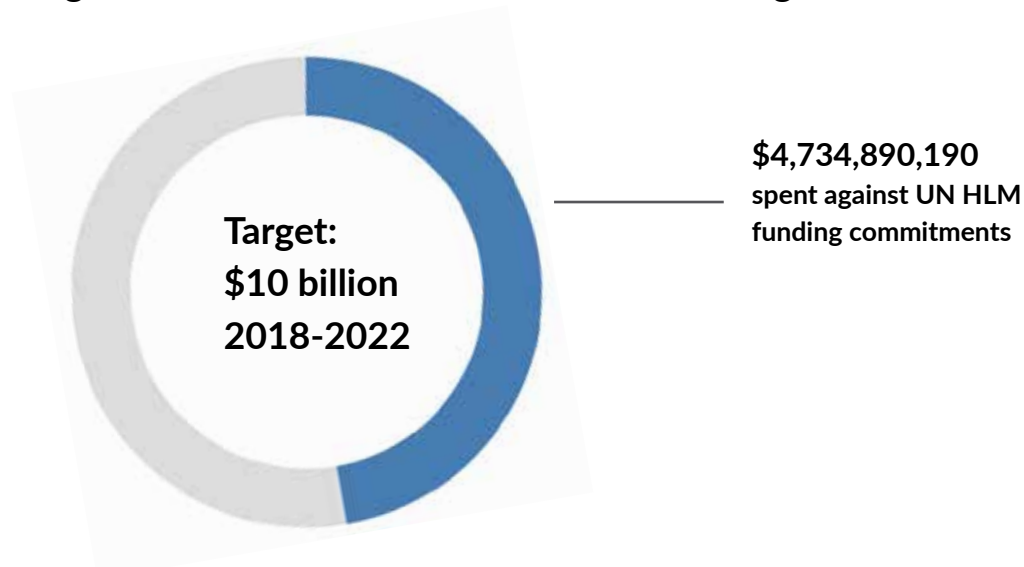
“Advance science, finance and innovation, and their benefits, to urgently end the global tuberculosis epidemic, in particular by ensuring equitable access to prevention, testing, treatment and care.”¹

One measure of the seriousness of states’ commitments to advancing TB innovation and access is the investments governments make in research and development (R&D). At the first UN High-Level Meeting on TB in 2018, member states pledged “to mobilize sufficient and sustainable financing, with the aim of increasing overall global investments to 2 billion dollars [...] in funding annually for tuberculosis research.” They further committed to “ensuring that all countries contribute appropriately to research and development” as a common and shared responsibility.² If upheld, these commitments would have translated into \$10 billion spent on TB R&D from 2018 to 2022, the five-year period covered by the 2018 political declaration.

Instead of raising \$10 billion for TB research over the past five years, the world spent less than half of that at \$4.7 billion (Figure 1).

FIGURE 1

Progress toward UN HLM TB Research Funding Commitments



This figure and other data presented here come from an annual survey of global funding for TB R&D conducted by Treatment Action Group (TAG) with support from Stop TB Partnership. Every year since 2005, TAG has surveyed public, philanthropic, private, and multilateral funders on their TB research spending.³ TAG will publish new data on fiscal year 2022 TB research funding in December 2023. This policy note previews the 2022 data on the eve of the 2023 UN High-Level Meeting on TB so that the TB research community can look back over the past five years and assess how countries performed against commitments made in 2018. The numbers for 2022 are preliminary and may change by the time the full report is released, but the reality of the situation is clear: the world is far off track achieving the 2018 commitments, much less the more ambitious ones articulated in the new political declaration that member states are expected to adopt during the 2023 UN General Assembly.

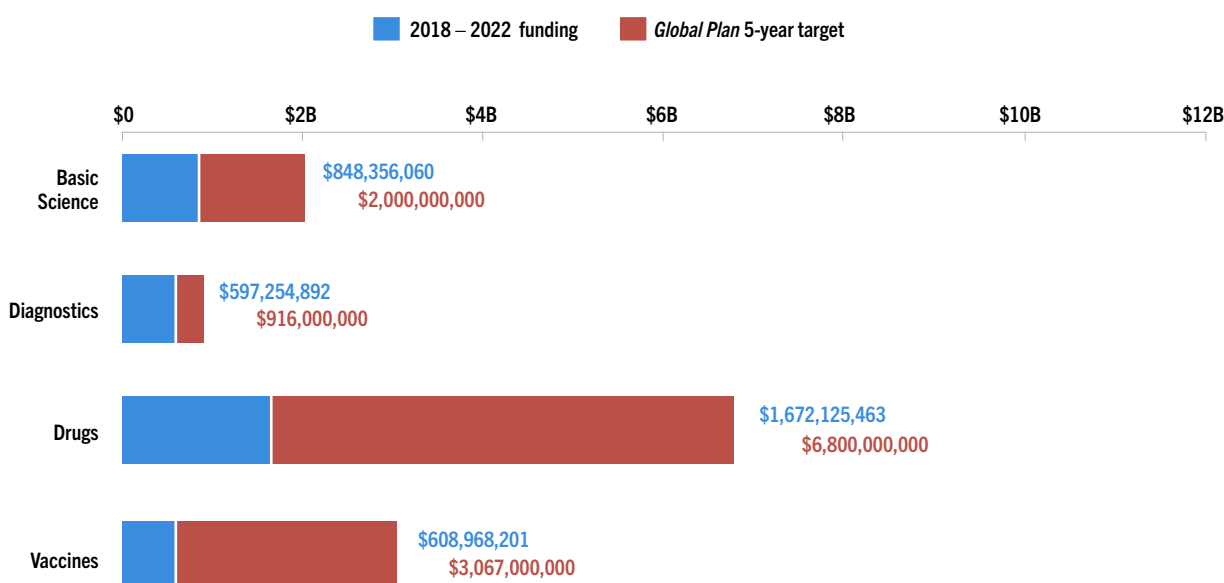
Falling behind

Investments in TB research fell more than halfway short of the overall goal and grave financial deficits hinder progress in every area of TB R&D, from basic science to the development of new drugs, diagnostics, and vaccines (**Figure 2**). The gap between actual spending and projected financing needs is wider for vaccines research than for any other area with 80 percent of the vaccines spending target unmet. The world will not end the TB epidemic without developing new safe, effective, and affordable vaccines against TB. Stop TB Partnership estimates that annual investments of at least \$1.25 billion in TB vaccine R&D will be necessary to introduce new vaccines this decade.⁴ In 2022, funders spent only \$143 million on TB vaccine research.

To rise to this challenge, funders must increase funding for TB vaccine R&D by a factor of ten. The good news is that investments in developing and delivering new TB vaccines will more than pay for themselves. Every dollar invested in TB vaccines will generate an estimated \$7 in health and economic returns over 25 years.⁵ This exceptional “bang for buck” illustrates a truth acknowledged by the 2023 TB political declaration: “Health is a pre-condition for, and an outcome and indicator of the social, economic and environmental dimensions of sustainable development.”⁶

FIGURE 2

Progress toward *Global Plan* TB Research Funding Targets



The steady, if slow, climb in TB research funding since 2005 shows that progress is possible. In nominal terms, annual expenditures on TB R&D have tripled between 2005 and 2022 (**Figure 3**). But the overall level of investment remains modest for an airborne disease that kills more people than any other infectious disease in the world.⁷ Close to 1.6 million people lost their lives to TB in 2021, and the epidemic took one billion lives over the past 200 years.⁸ Funding for TB research is nowhere near commensurate with the scale of suffering TB continues to exact on lives and livelihoods.

Charting the right course

Getting the scientific response to TB back on track will require determined political leadership. Government action is irreplaceable: of the \$4.7 billion spent on TB R&D from 2018 to 2022, \$3.3 billion (nearly 70 percent) came from the public sector. Public money underwrites most TB research endeavors and attracts investment from other sectors such as philanthropies (which gave 16 percent of total funding since 2018) and private industry (which contributed 10 percent). The commitments to TB research UN member states will make in adopting the 2023 political declaration matter. A confluence of factors—underspending in previous years, disruptions to the TB response caused by COVID-19, and the maturation of TB science to a place of unprecedented opportunity—mean that even larger resource allocations are now needed to meet the Sustainable Development Goal (SDG) target of ending TB by 2030. Specifically, the Stop TB Partnership calls for funders to mobilize \$40.18 billion for TB research over 2023–2030, or \$5 billion annually, in the *Global Plan to End TB*.

Encouragingly, the political declaration of the 2023 TB High-Level Meeting recognizes this \$5 billion figure. Concerningly, however, the language of the declaration turns a number intended to serve as a floor (a minimum annual funding level) into a ceiling (something to strive for over time): “Further commit to mobilize adequate, predictable and sustainable financing for tuberculosis research and innovation especially to high burden countries *towards reaching* 5 billion United States dollars a year *by 2027*” (emphasis added). In effect, UN member states have watered down the wine to make it stretch farther, but they cannot mask the obvious difference between spending \$5 billion each year versus reaching \$5 billion five years down the road.

Getting back on track

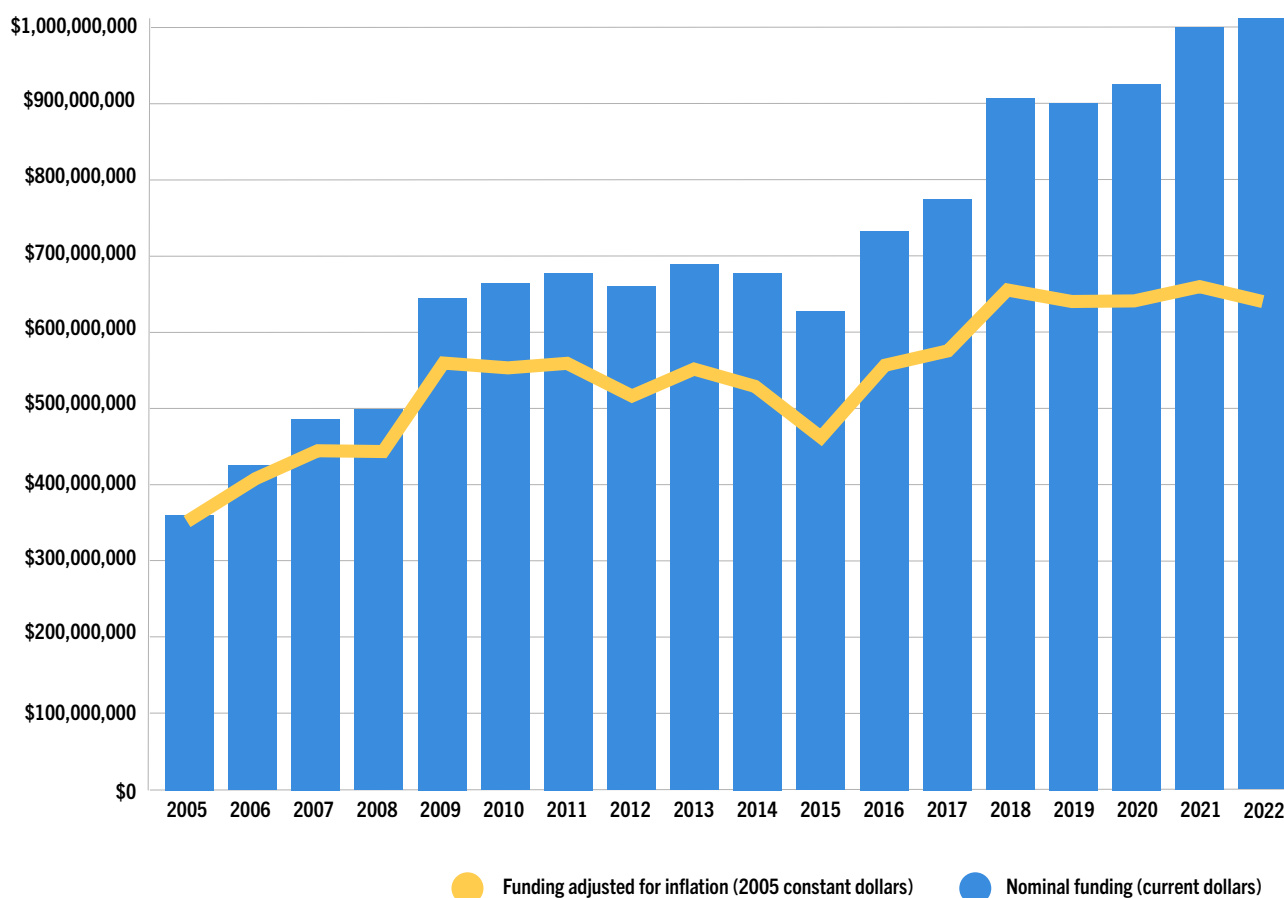
Governments can demonstrate the seriousness of their resolve to end TB by reading the political declaration as set of minimum requirements and then going beyond them. One way to do this is to reaffirm TB research as a shared responsibility to which all member states must contribute their fair share—an idea expressed in the 2018 political declaration. TAG introduced the concept of national “fair share” funding targets for TB research in 2017. At the time, the fair share targets called for each country to spend at least 0.1% of its overall R&D expenditures on TB in order to raise \$2 billion a year for TB research. To satisfy the higher funding goal of \$5 billion per year, governments must now commit 0.15% of their R&D expenditures to TB.⁹

Between 2017 and 2021, only five countries ever met their fair share target (defined as 0.1% of gross domestic R&D expenditure) in at least one of the evaluated years: Ireland, New Zealand, the Philippines, South Africa, and the United Kingdom. Measured against the higher 0.15% benchmark, no state met its fair share target in 2022 and only one (South Africa) achieved more than half.

In terms of absolute spending, the United States government remained the largest funder of TB R&D in 2022 with total spending of \$436 million, or 43 percent of the global total. The U.S. National Institutes of Health was the largest donor with \$377 million in spending followed by the Bill & Melinda Gates Foundation (\$154 million), Unitaid (\$40 million), and the U.S. Agency for International Development (\$37 million). **Table 1** lists other top 15 funders.

FIGURE 3

Total TB R&D Funding, 2005–2022



Year	Nominal funding (current dollars)	Year	Nominal funding (current dollars)
2005	\$358,476,537	2014	\$674,036,492
2006	\$418,928,300	2015	\$620,600,596
2007	\$478,343,421	2016	\$725,726,643
2008	\$494,576,235	2017	\$771,839,742
2009	\$636,979,349	2018	\$906,445,319
2010	\$643,360,390	2019	\$900,964,590
2011	\$675,328,887	2020	\$915,325,165
2012	\$638,783,272	2021	\$1,000,326,531
2013	\$686,303,295	2022	\$1,011,828,585

To ensure “equitable access and maximal return on public investment in scientific progress,” an objective emphasized by the 2023 political declaration,¹⁰ governments must pair investments in TB research with policy actions that support high-impact TB science. Governments should create enabling environments for TB research by taking the following steps:

1. Directing the research agenda purposively to address health challenges faced by the populations most vulnerable to TB.
2. Setting regulations to safeguard the quality and integrity of TB science and its results.
3. Establishing pro-access norms and principles to ensure that products resulting from publicly funded innovation are available, accessible, and affordable to all people affected by TB no matter where they live.
4. Promoting the equal participation of scientists from high-TB-burden countries in determining research priorities and leading key studies and initiatives.
5. Introducing innovative financing models and appropriate incentives, including ones that foster collaboration, promote Open Science, and separate the costs of R&D from the price and volume of sales of resulting products to facilitate equitable and affordable access to new tools against TB.

At current financing levels, the SDG target of ending the TB epidemic by 2030 will remain a promise on paper. As world leaders convene in New York for the UN High-Level Meeting on TB and the mid-point review of the 2030 Agenda for Sustainable Development, they will find that the TB response is far off track. Governments must take immediate corrective action and substantially increase investments in TB research to set the world on a course toward eliminating this deadly disease. The guideposts for the way forward remain good science, funded adequately, pursued as a political priority, and made accessible to the people and communities who need it most.

TABLE 1

Top 15 Funders of TB Research, 2022

RANK	FUNDER	FUNDER TYPE	2022 FUNDING
1	U.S. National Institutes of Health (NIH)	P	\$376,925,735
2	Bill & Melinda Gates Foundation	F	\$154,020,527
3	Unitaid	M	\$40,200,000
4	U.S. Agency for International Development (USAID)	P	\$37,435,817
5	Company X*	C	\$37,151,321
6	AMR Accelerator/Innovative Medicines Initiative	P	\$32,475,079
7	Otsuka Pharmaceutical	C	\$27,643,679
8	Wellcome Trust	F	\$26,452,024
9	European Commission	P	\$23,928,183
10	European and Developing Countries Clinical Trials Partnership (EDCTP)	P	\$17,516,947
11	U.S. Centers for Disease Control and Prevention (CDC)	P	\$17,420,159
12	Anhui Zhifei Longcom Biopharmaceutical Co.	C	\$15,766,810
13	U.K. Foreign, Commonwealth & Development Office (FCDO)	P	\$14,868,102
14	Korea Ministry of Health and Welfare	P	\$12,610,681
15	German Federal Ministry of Education and Research (BMBF)	P	\$11,513,871

C = Corporation/Private Sector; F = Foundation/Philanthropy; M = Multilateral; P = Public-Sector R&D Agency

* Private-sector pharmaceutical company that reports to TAG anonymously

Endnotes

1. United Nations General Assembly. Scope, modalities, format and organization of the high-level meeting on the fight against tuberculosis [A/77/L.51]. 2023 February 2. <https://www.un.org/en/ga/77/resolutions.shtml>
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3. Treatment Action Group. 2022 report on TB research funding trends. New York: Treatment Action Group; 2022. <https://www.treatmentactiongroup.org/resources/tbrd-report/>
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