

INFORMATION NOTE

August 2023

New Fair Share Funding Targets for TB Research: 0.1% → 0.15%

Updated for a New Global Plan to End TB and United Nations Political Declaration

In 2017 Treatment Action Group (TAG) and partners introduced the “fair share” funding targets for TB research. The fair share targets called for each country to spend at least 0.1% of its overall R&D expenditures on TB R&D in order to meet global TB research funding goals set by Stop TB Partnership and endorsed by United Nations (UN) member states. The fair share framework was created to give advocates a metric that could parcel out a global funding estimate into country-level funding targets in a way that reflected countries’ ability to pay while promoting solidarity and fairness in the global TB response. The framework also functioned as an accountability measure: TAG and Stop TB Partnership reported on countries’ progress toward meeting the fair share targets in annual reports tracking global funding for TB R&D.

Six years on, it is time to refresh the fair share targets to reflect current TB research funding needs and changes in country R&D capacity and spending. The updated fair share targets increase minimum annual national contributions to TB research from 0.1% of overall R&D spending to 0.15%. This TAG Information Note provides detail on the new 0.15% fair share targets and the methodology and sources of data behind them. Structured as a series of 12 questions/answers, this document is intended to be used as reference by advocacy partners and can be cited by partners when using the fair share targets to raise global and national funding for TB R&D.

1. How Much Money is Needed to Accelerate Research to End TB by 2030?

TB research funding targets estimate the financial needs required to put the world on track to end TB as an epidemic by 2030—a Sustainable Development Goal (SDG) committed to by UN member states in 2015.¹

Since UN member states committed to end TB by 2030, Stop TB Partnership has published three costed plans outlining the funding needed to meet the SDG target: the *Global Plan to End TB, 2016–2020*; the *Global Plan to End TB, 2018–2022*; and the *Global Plan to End TB, 2023–2030*.

The annual TB research funding target has risen from just under \$2 billion in Stop TB Partnership’s first *Global Plan (2016–2020)* to \$5 billion in the most recent *Global Plan (2023–2030)*; see **table 1**. The TB research investment target has been revised twice to reflect the reality that under-investment in TB R&D since 2015 means that more must now be spent in the time remaining to end the TB epidemic by 2030.

Reaching the \$5 billion annual target would build on and expedite promising research underway in TB basic science, diagnostics, drugs, and vaccines to deliver new critically needed new tools and approaches to end the TB epidemic. A breakdown of the projected financial needs by TB research area is provided in **table 2**.

Table 1. How have TB R&D funding targets changed?

	Annual TB R&D investment target (US\$ billions)
Global Plan to End TB, 2016–2020	\$1.767
Global Plan to End TB, 2018–2022	\$2.56
Global Plan to End TB, 2023–2030	\$5.022

Table 2. How much is needed by research area annually?

Research area	2023–2030 Global Plan annual TB R&D investment target (US\$)
Basic science	\$800,000,000
Diagnostics	\$965,000,000
Drugs	\$2,007,500,000
Vaccines	\$1,250,000,000
Total	\$5,022,500,000

2. Why Use the Fair Share Framework?

The fair share framework provides a simple methodology for translating a global target into national targets. This allows advocates to hold individual governments accountable for meeting their piece of the overall funding need and to track progress over time.

The ideas at the heart of fair share are rooted in the SDG evaluation framework, where one of the indicators for SDG 9 is “research and development expenditure as a proportion of GDP,” and in the World Health Organization (WHO) End TB Strategy, where objective two of the WHO Global Strategy for TB Research and Innovation includes the following measure of effectiveness: “At the country level, proportion of gross domestic expenditure on research and development that is allocated to TB research.”²

By using Gross Expenditure on Research and Development (GERD) instead of GDP, the fair share methodology sets country-level TB research funding targets in closer relation to national research capabilities than a measure based on overall GDP. By acknowledging that TB R&D is a shared responsibility—but that states hold different shares of this responsibility—the fair share framework echoes accepted principles of international environmental and health law such as “common but differentiated responsibilities.”

Box 1. Timeline of TB R&D funding targets and commitments

- 2015:
 - UN member states commit to end TB as an epidemic by 2030 (SDG 3.3) and to foster innovation (SDG 9.5), an indicator of which is “research and development expenditure as a proportion of GDP.”
- 2016:
 - Stop TB Partnership and partners call on funders to increase TB R&D funding to \$1.767 billion annually.
- 2017:
 - TAG and partners publish the first “fair share” targets, calling on countries to allocate 0.1% of their total research spend towards TB R&D to meet TB research funding targets.
- 2018:
 - UN member states commit to mobilizing \$2 billion annually for TB R&D during the first UN High-Level Meeting on TB and to “contribute appropriately” to TB R&D as a “shared responsibility.”
 - Stop TB Partnership and partners call on funders to increase TB R&D funding to \$2.56 billion annually.
- 2020:
 - The WHO Global Strategy for TB Research and Innovation includes a fair share-like target as an “indicator of effectiveness” of objective 2: increase financial investments in TB research and innovation. (“At the country level, proportion of gross domestic expenditure on research and development that is allocated to TB research.”)
- 2021:
 - TB research investments reach \$1 billion for the first time.
- 2023:
 - Stop TB Partnership and partners call on funders to increase TB R&D funding to \$5 billion annually.
 - TAG and partners call on governments to increase public allocations for TB R&D to 0.15% of their countries’ total research spend to meet their fair-share of the \$5 billion TB R&D funding target.
 - UN members states to reconvene in September for the second UN High-Level Meeting on TB.

Note: The table uses the start year of each Global Plan, rather than the publication year.

3. How Much Have Governments Committed to Invest in TB R&D?

UN member states committed in the 2018 Political Declaration of the UN High-Level Meeting on TB to increase annual research funding for TB to \$2 billion.³ While this is double what was spent in 2021, it is less than half of the updated TB research funding target (\$5 billion annually) outlined in the latest *Global Plan to End TB (2023–2030)*.

As governments assemble again for the next UN High-Level Meeting on TB—taking place in September 2023—they will have the opportunity to reflect on what has been achieved since the last High-Level Meeting, on where they have fallen short, and on what is now needed to put the world on track to end TB by 2030. A political commitment to reach the new \$5 billion annual target for TB R&D is the first step required to mobilize critically needed new and expanded funding for TB research.

4. How Much Money Is Invested in TB R&D Annually?

To date, the TB R&D investment targets have not been met. TB research funding reached \$1 billion in 2021 for the first time.⁴ While achieving \$1 billion in annual funding for TB R&D marks an important milestone, it is far below the financing needs for TB R&D. Moreover, only three countries met their fair-share targets for TB research financing in 2021 by spending at least 0.1% of their overall R&D expenditures on TB R&D: Ireland, the Philippines, and South Africa. Between 2017 and 2021, only five countries have met their fair-share targets in at least one of the evaluated years: Ireland, the Philippines, New Zealand, South Africa, and the United Kingdom.

5. How Does the New TB R&D Funding Target Affect the Fair-Share Metric?

The fair-share metric was developed by TAG in consultation with advocacy partners in 2017. The metric was developed as a tool for setting country-level funding targets and evaluating countries' contributions to TB R&D. The fair-share metric seeks to align country-level funding targets with the global funding needs for TB research, as well as countries' ability to pay—while promoting solidarity and fairness in the global TB response.

The fair-share metric calls on countries to allocate a set percentage of their overall research spend (gross expenditure on R&D, or GERD) to TB research. The metric allows countries to set TB research funding targets within existing research budgets.

In 2017, when the fair-share metric was initially proposed by TAG and partners, global research spending was \$1.7 trillion.^{5,6} Therefore, achieving the TB R&D investment target of \$1.7 billion annually, as advocated in the 2016–2020 *Global Plan to End TB*, would require that 0.1% of global research spending be allocated towards TB R&D. To reach the \$2 billion annual target, committed to by UN members states in 2018, investments would need to increase to 0.117% of global research spending.

Reaching the new TB research funding target of \$5 billion annually—which is now required to put the world on track to end TB by 2030 after years of underinvestment—requires revision of the fair-share targets. To meet this new target, countries must now allocate a larger portion of their total research budget towards TB R&D.

Global research spending currently sits at around \$2.4 trillion annually.^{7,8,9} To meet the \$5 billion TB research funding target, 0.2% of global research investments must be directed towards TB R&D. If governments were responsible for raising this amount alone, then countries would need to allocate 0.2% of their total research spending towards TB research to meet the new target.

6. How Much of the New Fair-Share Target Must Governments Fund?

Governments currently shoulder an outsized burden for financing TB research due to neglect of the disease by the pharmaceutical industry and other health research funders. Between 2018 and 2021, governments on average contributed 70 percent of total TB research funding. If current proportional contributions to TB research by funding source hold, then governments must provide 70 percent of the overall TB research need.

To reduce the burden of financing on public funders, governments should seek to use their public investments to mobilize greater spending by other types of funders, while also ensuring that safeguards are in place to ensure the affordability and accessibility of any health technologies developed with public contributions.

7. How Much Must Governments Contribute to TB R&D to Give Their Fair Share?

If proportional contributions to TB R&D by funder type remain steady, then governments must contribute 70 percent of the total \$5 billion yearly target—which amounts to \$3.5 billion annually. Non-governmental intramural funders must provide the remaining \$1.5 billion to meet the \$5 billion target. In other words, governments must devote 70 percent of 0.2% of their countries' GERD on TB R&D, or 0.1458%.

On this basis, TAG is proposing to establish a new fair-share target of 0.15%. Table 3 shows the new fair share funding targets for the 24 countries that reported their TB research funding to TAG in 2021, as well as China, Russia and Italy. Fair-share targets can be calculated for other countries on request.

8. Can Public Funding Targets Be Lowered If More Money Is Mobilized From Other Sectors?

Yes! TAG's annual TB Research Funding Trends report tracks public contributions to TB R&D as a proportion of overall spend. If contributions by non-governmental funders increase as a proportion of overall TB research funding, TAG can adjust the country-level funding targets to reflect this change. Currently there is an over-reliance on governments for TB research funding. Non-governmental research funders—including private-sector corporations, philanthropies, and multilateral development banks—must give more to TB research.

9. What Data Are Used to Calculate the New Fair-Share Targets?

When TAG first developed the fair-share targets in 2017, we used GERD data from the UNESCO Institute of Statistics (UIS) to calculate country-level fair share targets. However, UIS no longer publishes data on countries' gross R&D spend, instead publishing annual data for an indicator called "R&D intensity": GERD as a percentage of GDP.¹⁰

In the absence of GERD data from the UIS, country-level GERD data will now be sourced from OECD Statistics or, when unavailable from OECD Statistics, from the United States National Science Foundation (US NSF) to set fair-share targets.

OECD Statistics provides GERD data for 43 countries: 36 OECD member countries and six non-OECD countries (Argentina, China, Romania, Russia, Singapore, South Africa, and Taiwan) up to financial year 2021.¹¹ The US NSF provides GERD data for 72 countries up to financial year 2019.¹²

The most recently available country-level GERD data from OECD or US NSF were used to calculate updated investment levels that countries much reach to contribute their fair-share to TB R&D financing (see table 3). All GERD data used to calculate country-level fair share funding targets was extracted on June 19, 2023 and reported in US\$ purchasing power parities (PPPs). The source and year of GERD data used to set country-level targets is clarified in table 3.

10. What Data Source Was Used to Assess Gross Spending on Research by EU Member States?

TAG used GERD data reported by the OECD in US PPPs to determine the gross expenditure on R&D of EU countries. The US\$ PPPs for GERD spending reported by the OECD for EU countries are established together with Eurostat, which is managed by the European Union.¹³

Eurostat and the OECD explain that PPPs “convert different currencies to a common currency and, in the process of conversion, equalize their purchasing power by eliminating the differences in price levels between countries.”¹⁴ The US\$ PPPs established by the OECD working together with Eurostat and national statistical institutes are weighted against the “average of the purchasing power of the national currencies of OECD Member Countries” and therefore have the same purchasing power across the OECD region.¹⁵

US\$ PPPs reported by the OECD were selected as the reference currency for EU member states’ GERD spending, rather than purchasing power standards (PPS, or Euros that have the same purchasing power across Europe), because this reference currency allows for comparison of GERD spending by EU countries with countries outside of the EU. OECD and the US NSF also report country-level GERD in US\$ PPPs.

11. How Did We Calculate EU Member States’ TB R&D Spend?

Investments in TB research by EU countries are made both at a national and EU level. The TB research investments reported in table 3 include both countries’ national spending on TB R&D, as well as their proportional contributions to EU-level TB research investments. EU-level investments include spending by the European Commission, the European and Developing Countries Clinical Trials Partnership (EDCTP), the Innovative Health Initiative (IHI), and the European Investment Bank. The proportional contribution of EU countries to EU-level spending on TB research is calculated according to each country’s proportional national contribution to the overall EU budget (as provided for each fiscal year in the Definitive Adoption of the European Union’s General Budget).¹⁶

12. What’s at Stake?

Stop TB Partnership’s most recent 2023–2030 *Global Plan to End TB* shows that ongoing under-investment in TB research will result in millions of avoidable deaths, substantial health impairment and illness, and vast economic losses due to the reduced ability of people living with TB and their caregivers to engage in educational and occupational activities. The *Global Plan* estimates that maintaining the status quo will result in an additional 43 million people falling ill with TB and 6.6 million people dying from TB by 2030, as well as \$1 trillion in economic losses.

The costed plan shows that scaling up financing for TB research and responses will significantly cut rates of illness and death and deliver strong economic returns. Scaling up financing for TB research to \$5 billion annually—within a broader budget of \$31 billion annually for a robust global response to TB that is commensurate with the disease’s impact—will deliver an 80% decline in TB cases and a 90% drop in TB deaths by 2030, compared with 2015 levels. As TB predominately affects people during their most productive years, scaled-up investments will also deliver substantial returns on investment. Every dollar invested in TB research and responses will deliver a \$40 return through 2050. For investments by low- and middle-income countries, this return increases to \$59.

Table 3. New country-level fair-share targets

Country	2021 TB R&D funding (in US\$)	GERD (in current US\$ PPP)	Source, Year	New fair-share target (0.15% of GERD [in US\$])
Australia	14 278 848	24 057 300 000	OECD 2019	36 085 950
Brazil	3 144 645	36 315 500 000	U.S. NSF 2018	54 473 250
Canada	16 901 263	34 452 503 000	OECD 2021	51 678 755
China	822 581	465 287 491 000	OECD 2018	697 931 237
Denmark	2 807 466	10 685 467 000	OECD 2021	16 028 201
Finland	2 331 089	9 059 272 000	OECD 2021	13 588 908
France	31 877 418	76 952 313 000	OECD 2021	115 428 470
Germany	42 364 069	153 232 260 000	OECD 2021	229 848 390
India	23 395 082	58 721 400 000	U.S. NSF 2019	88 082 100
Ireland	3 391 982	5 662 799 000	OECD 2021	8 494 199
Italy	N/A	40 939 873 000	OECD 2021	61 409 810
Japan	6 193 074	176 961 456 000	OECD 2021	265 442 184
Netherlands	12 464 380	25 080 981 000	OECD 2021	37 621 472
New Zealand	1 130 047	3 210 949 000	OECD 2019	4 816 424
Norway	1 066 682	8 578 637 000	OECD 2021	12 867 956
Philippines	2 746 963	1 150 900 000	U.S. NSF 2015	1 726 350
Russia	N/A	47 954 153 000	OECD 2020	71 931 230
South Africa	4 818 168	5 147 873 000	OECD 2019	7 721 810
South Korea	19 585 820	119 617 289 000	OECD 2021	179 425 934
Spain	8 893 597	27 549 978 000	OECD 2021	41 324 967
Sweden	6 870 953	20 974 102 000	OECD 2021	31 461 153
Switzerland	5 890 596	19 892 367 000	OECD 2019	29 838 551
United Kingdom	38 791 419	90 094 367 000	OECD 2020	135 141 551
United States	416 045 586	806 013 000 000	OECD 2021	1 209 019 500
European Union	N/A	470 730 460 000	OECD 2021	706 095 690

Fair-share targets can be provided for other countries not included in table 3 on request.

Faire-share targets for EU member states include countries’ national spending on TB R&D, as well as their proportional contributions to EU-level TB research investments. EU-level investments include spending by the European Commission, the European and Developing Countries Clinical Trials Partnership (EDCTP), the Innovative Health Initiative (IHI), and the European Investment Bank.

END NOTES

- 1** United Nations. Sustainable Development Goal 3 [Internet]. n.d. (cited 2023 May 19). <https://sdgs.un.org/goals/goal3>.
- 2** World Health Organization. Global strategy for tuberculosis research and innovation. Geneva: World Health Organization; 2020. <https://www.who.int/teams/global-tuberculosis-programme/research-innovation/development-of-a-global-strategy-for-tb-research-and-innovation>.
- 3** United Nations General Assembly. Political declaration of the UN General Assembly High-Level Meeting on the fight against tuberculosis (A/73/L.4). New York: United Nations; 2018. https://cdn.who.int/media/docs/default-source/documents/tuberculosis/political-declaration-un-general-assembly-tb-tuberculosis77cd7a27-7e8d-4fbb-9729-a5dbd505798f.pdf?sfvrsn=4f4090dc_1&download=true.
- 4** Treatment Action Group. Tuberculosis research funding trends, 2005–2021. New York: Treatment Action Group; 2022. https://www.treatmentactiongroup.org/wp-content/uploads/2022/12/tb_funding_2022.pdf.
- 5** UNESCO Institute for Statistics. Global spending on R&D reaches record high of almost US\$1.7 trillion [Tweet]. 2017 May 30, 3:30 PM (cited 2023 May 15).
- 6** UNESCO Institute for Statistics. “How much does your country invest in R&D? [Internet]. n.d. (cited 2023 May 19). <https://uis.unesco.org/apps/visualisations/research-and-development-spending/>.
- 7** U.S. National Science Foundation. Research and development: U.S. trends and international comparisons. [Internet]. 2022 April 28 (cited 2023 June 19). <https://www.ncses.nsf.gov/pubs/nsb20225/cross-national-comparisons-of-r-d-performance>.
- 8** Congressional Research Service. Global research and development expenditures: Fact sheet. 2022 September 14 (cited 2023 June 19). <https://crsreports.congress.gov/product/pdf/R/R44283/15>.
- 9** R&D World. 2022 Global R&D funding forecast. Spring 2022 (cited 2023 June 19). <https://forecast.rdworldonline.com/product/2022-global-rd-funding-forecast/>.
- 10** UNESCO Institute for Statistics. Science, technology and innovation: Research and experimental development; Indicator: GERD as a % of GDP. Data extracted on 2023 June 19 from UIS.Stat.
- 11** OECD.Stat. Research and development statistics: Gross domestic expenditure on R&D by sector of performance and type of R&D; Total intramural, PPP Dollars – Current prices. Data extracted on 2023 June 19. https://stats.oecd.org/Index.aspx?DataSetCode=GERD_TORD.
- 12** U.S. National Science Foundation. Research and development: U.S. trends and international comparisons.
- 13** Eurostat. Eurostat-OECD Methodological Manual on Purchasing Power Parities 2012 Edition. Luxembourg: Publications Office of the European Union, 2012. Cited 2023 June 20.
- 14** Ibid.
- 15** Ibid.
- 16** For fiscal year 2022, see table 6 “share in total national contributions (%)” in: Definitive adoption (EU, Euratom) 2022/182 of the European Union’s general budget for the financial year 2022. OJ L 45. 24 February 2022. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022B0182>