
Neglected disease funders





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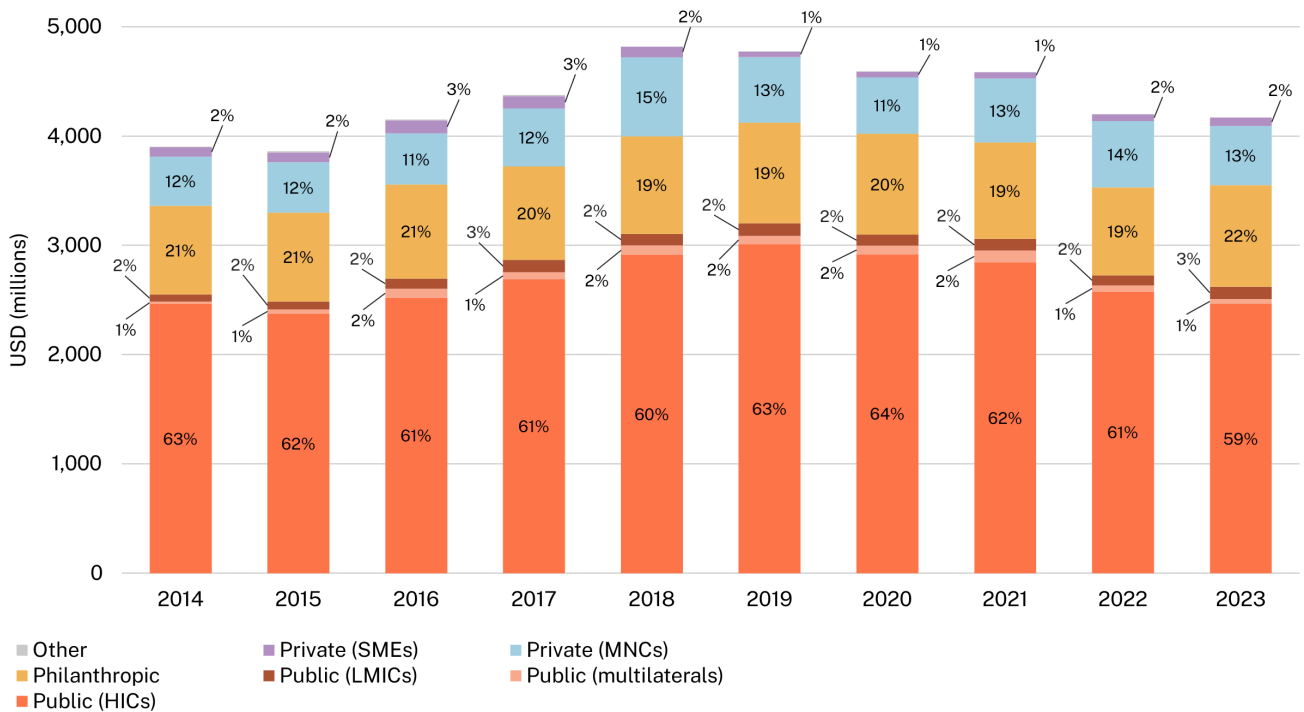
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Global funding for neglected disease basic research and product development totalled \$4,170m in 2023, a drop of less than 1% on the previous year, or just under 2% once we account for a rise in survey participation. Following on from 2022's much larger fall, this slight decline left funding nearly \$650m below its 2018 peak and 3% below its average over the previous decade.

While overall funding was relatively consistent, there were big changes in who provided it. Public sector funding fell, again, dropping by another \$103m (-4%) to its lowest level since 2015. Private sector funding fell too, dropping by \$52m (-8%) which, after two years of growth, left it roughly in line with its recent average. The substantial drops in both public and private sector funding were mostly offset by a big rise in philanthropic (mostly Gates Foundation) funding, which rebounded by \$125m (16%) to \$929m – its highest total since 2008 and the second highest total ever recorded.

Figure 3. Total R&D funding by sector 2014-2023





Public funding

Governments provided a record low 63% of global funding, mostly due to big cuts from the US that record funding from India could not come close to offsetting

The world's governments invested \$2,622m in neglected disease basic research and product development in 2023. This represented another small drop – of around \$100m, or 4% – after the record fall in 2022 and the fourth consecutive year of declining public funding. This has left the public sector \$580m (18%) below its 2019 peak – 8% below its average over the previous decade – and responsible for a record low 63% of global funding.

Public funding from high-income countries

The decline in overall public sector funding was driven by further drops in contributions from high-income countries (HICs), which fell by another 4% (\$113m) to \$2,465. This left HICs responsible for 94% of global public funding, a little below last year's level (94.6%) and their average over the preceding decade (94.4%).

A sharp drop in funding from the US government, which continued to contribute 80% of the high-income country total, was more than enough to account for the fall in HIC public funding. US public funding fell by 6% (\$120m) to \$1,968m – leaving it more than \$100m below its ten-year average – because of cuts from multiple US government agencies. The DOD's funding fell to an all-time low of \$75m (down \$29m, -28%), with almost half of this drop due to a sudden halt to its HIV/AIDS vaccine R&D (down from \$13m in 2022, and from \$36m in 2021). The CDC's tuberculosis funding also fell to zero, down from \$9.1m in 2022, leaving its overall contributions to neglected disease R&D at just \$0.3m (down \$13m, -98%), a far cry from its yearly average of over \$20m over the past decade. The US NIH's funding fell for a fourth consecutive year, dropping to \$1,827m (down \$76m, -4%), though the NIH alone continued to contribute 74% of total public HIC funding. And neglected disease funding from USAID fell again, albeit by a more modest \$2.6m (-4%) after last year's \$21m drop.

Alongside a drop in funding from the US, there were much smaller cuts from each of the next three largest public funders: the European Commission (EC), the UK and Germany. The fall in EC funding was just \$4.2m (-2%) – much smaller than the cuts it made in 2022. After a rebound in 2022, the UK's funding dropped back to its 2021 record-low of \$88m (down \$7.6m, -8%). While reduced FCDO funding is mostly responsible for the long-term decline in UK government funding, this year's fall was largely the result of record-low funding from the MRC. Funding from Germany declined again, though much more slowly than last year, falling by \$4.1m (-8%) to \$45m – half of what it was in 2021.

There were also large proportional drops in funding from Australia (down \$7.5m, -22%) and Switzerland (down \$5.6m, -33%). Funding from the Australian DFAT dropped to zero in 2023 after it made contributions of \$11m in 2021 and \$2.6m in 2022. Both this year's and last year's declines reflect the gap between the conclusion of its previous round of PDP funding and the commencement of the new one, which will distribute a total of \$75m between 2024 and 2028. The fall in Swiss funding was the result of steep reductions in funding from the SNSF, which fell by more than half to \$5.0m (down \$5.4m, -52%), its lowest level since 2009.

In contrast to the falls in funding from multiple public HIC countries, funding from Japan rose fourfold to \$28m (up \$21m, 314%). This year's rise and last year's slightly smaller decline were both driven by the regular two-year cycles in Japan's core funding to the GHIT fund. France's funding more than doubled to \$29m (up \$16m, 127%), two-thirds of which was due to record funding from the ANR across several diseases.



Public funding from low- and middle-income countries

Public funding from low- and middle-income countries (LMICs) totalled \$113m in 2023, a rise of \$22m (up 24% – or 20% if we adjust for a slight increase in survey participation) which left it just below its peak, and 16% above its long-term average.

Basically, all of the net growth in funding can be attributed to a sudden rebound in India's spending, which rose by \$21m (32%) to a record \$89m after having declined at least a little in each of the past three years. This left India responsible for a record 78% of LMIC R&D funding, compared to an average of 68% over the previous decade. Net contributions from other LMIC governments remained essentially unchanged at \$24m, with a \$2.5m (21%) increase in funding from Brazil – again the second largest contributor – basically offset by a \$2.3m (-29%) decrease from South Africa – the third largest.

The rise in Indian funding was mainly due to jumps in funding from the ICMR (up \$15m, 29%) and the DBT (\$12m, 384%). The ICMR's funding rebounded to \$68m following three years of decline, leaving it just below its 2017 peak. It increased its contributions across almost all its target diseases, headlined by substantial increases for tuberculosis (up \$4.6m, 34%) and kinetoplastid diseases (up \$3.1m, 71%). The Indian DBT's funding also rose to its second-highest level ever, at \$15m, with most of the increase directed to tuberculosis basic research. These rises offset falls from BIRAC (down \$2.1m, -48%) and the Department of Science and Technology (down \$3.5m, -61%).

The one-fifth increase in funding from Brazil (up \$2.5m, 21% to \$15m) was mostly an artefact of improved data collection, though the similarly-sized fall from South Africa (down \$2.3m, -29%) was, sadly, genuine – a result of cuts from both the South African DSI and MRC.

LMIC governments remain much more heavily focused than other funders on basic research, which received 57% of their funds in 2023, compared to just 18% for other funders. In 2023, their funding for basic & early-stage research rose to \$87m (up \$22m, 33%), capturing a record 77% of public LMIC funding. Partly as a result of this focus on basic research, the share of funding they commit to clinical development is much lower than other funders' – 6% compared to 26% across all other sectors. These gaps are smaller but still striking if we instead compare LMIC governments only to those in high-income countries.

Table 3. Top public R&D funders 2014-2023

Country	US\$ (millions)										2023 % of total
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
United States of America	1,910	1,833	2,011	2,029	2,187	2,274	2,242	2,226	2,081	1,961	75
EC	127	153	92	132	139	139	184	210	192	187	7.1
United Kingdom	135	111	121	229	257	249	217	88	96	88	3.4
India	45	51	59	81	72	81	73	68	67	88	3.4
Germany	54	61	54	72	77	93	62	90	49	44	1.7
France	72	72	56	54	46	51	44	35	13	29	1.1
Japan	9.3	12	14	15	28	27	9.5	21	6.7	28	1.1
Australia	38	23	34	27	45	57	51	46	27	22	0.8
Czechia					1.6	2.1	2.3	3.9	21	21	0.8
Canada	12	8.5	16	16	18	13	14	11	11	16	0.6
Brazil	8.7	8.8	15	10	17	16	13	18	12	15	0.6
Switzerland	22	24	22	21	19	19	20	28	17	12	0.4
Subtotal of top 12 [^]	2,456	2,367	2,524	2,719	2,930	3,042	2,943	2,868	2,594	2,511	96
Total public funding	2,549	2,486	2,695	2,865	3,105	3,203	3,096	3,059	2,725	2,622	100

[^] Funding organisations from this country did not participate in the survey for this year

[^] Subtotals for 2014-2022 top 10 reflect the top funders for those respective years, not the top 10 for 2023.



Funding from public multilaterals

Funding from multilaterals declined for a second consecutive year from their record high in 2021, dropping by a further \$12m (-21%) to \$44m. While this drop was smaller than last year's, it still brought funding to its lowest point since 2015, sitting at two-thirds of its ten-year average and well under half of its 2021 peak.

More than half of this fall was driven by Unitaid (down \$6.8m, -14%) – as always by far the largest multilateral funder, responsible for 95% of the 2023 total. Funding from CARB-X also fell, reflecting cuts to its *Salmonella* and rheumatic fever vaccine programmes. This left CARB-X only narrowly the second largest multilateral funder and took its funding to a low of just \$0.9m in 2023 (down \$4.0m, -81%), just 7% of its 2020 peak. After recent declines, funding from the only two other significant multilateral contributors – the Task Force for Global Health and Grand Challenges Canada – rebounded slightly. However, the World Bank, last year's third-largest multilateral contributor, provided no funding at all for the first time since 2014.

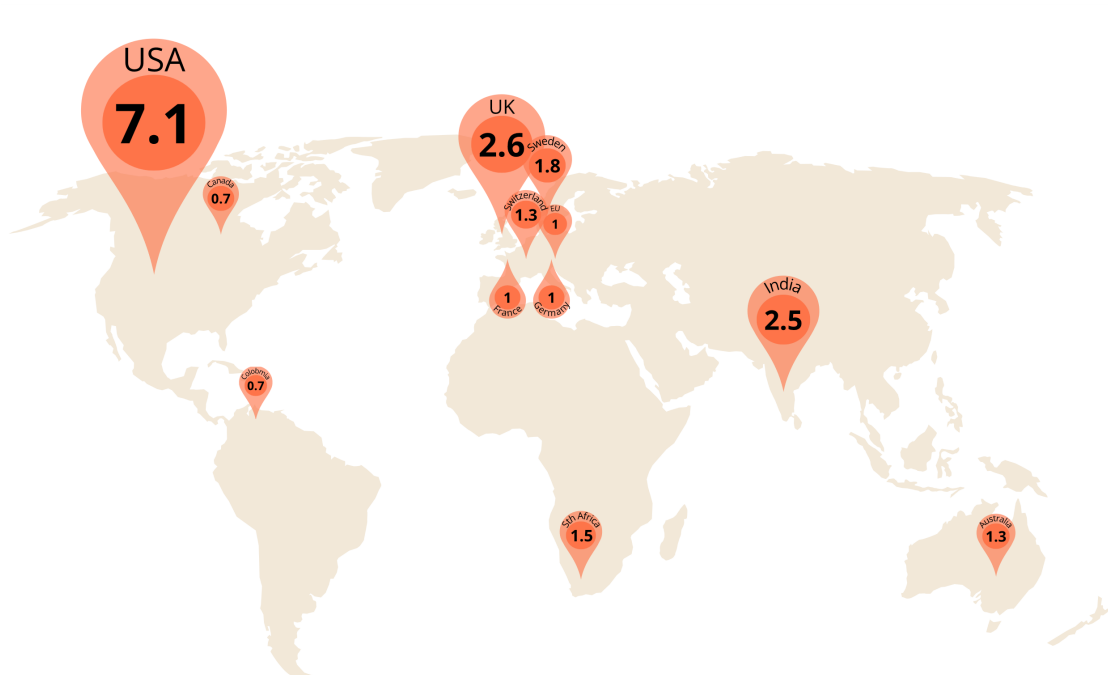
Public funding adjusted for GDP

Absolute funding can be a misleading measure of public investment in neglected disease R&D as it can understate the relative contributions of smaller and lower-income countries. For this reason, we also analyse countries' investments as a proportion of their gross domestic product (GDP).

The US remained the top funder by share of GDP in 2023, devoting \$7.07 per \$100k of its GDP to R&D for neglected diseases, down slightly from 2022. They were followed by the UK at \$2.61 per \$100k, with India close behind at \$2.46 per \$100k. Both the US and UK have seen their funding relative to GDP fall over the past few years, the US dropping from \$9.02 in 2020 to this year's \$7.07 per \$100k and the UK from \$6.90 to just \$2.61.

Conversely, there were three countries outside the top 12 largest funders which appear here when ranked by their contributions relative to GDP: Sweden (fourth highest by GDP and thirteenth largest funder overall), South Africa (fifth highest by GDP and seventeenth overall), and Colombia (twelfth by GDP and twentieth overall).

Figure 4. Public R&D funding by GDP 2023^{^*} (A value of 10 is equivalent to an investment of 0.01% of GDP)



[^] GDP figures taken from International Monetary Fund (IMF) World Economic Outlook database
^{*} Figure provides value of (USD funding / GDP) * 100,000



Philanthropic funding

A sharp rebound in funding from the Gates Foundation took philanthropic funding to its highest level in well over a decade

Philanthropic funding rebounded by \$125m (16%) after two years of decline. This growth lifted 2023 funding to \$929m, just above its 2020 total and, narrowly, its highest level since 2008.

Essentially all of this increase (\$125m, 99%) was thanks to an increase in funding from the Gates Foundation – the top philanthropic funder in 2023 and every other year – whose funding was up almost a fifth. This comes after three consecutive years of reduced funding from the Gates Foundation, reversing all of the decline and leaving 2023 funding \$50m higher than when the decline began. This was the most funding provided by the Gates Foundation since 2009 and the third-highest total on record, following a sharp increase in its TB R&D funding (up \$61m, 38%) and smaller rises in its malaria and multi-disease funding.

The only other substantial increase was from Spain's Fundacio La Caixa – now the third largest philanthropic funder – which saw its funding jump by \$8m (up 145%), more than double its previous high. Fundacio La Caixa's spending again came mostly via untied core funding contributions to IS Global, which more than doubled to \$11m, along with \$1.0m in new malaria diagnostics funding to Vall d'Hebron Research Institute.

Contributions from Wellcome – as always, the second largest philanthropic funder – were down just slightly (by \$4.9m, -4.3%), declining for the third year running and leaving them 26% below their 2020 peak. Funding from Open Philanthropy fell by a similar amount (down \$4.7m), though this represented a much larger proportional reduction (-63%). Like Wellcome's, Open Philanthropy's neglected disease R&D funding peaked in 2020 and has fallen every year since. It has now dropped by more than 90%, though preliminary data for 2024 and beyond suggests a significant rebound in Open Philanthropy's neglected disease funding.

The short and long-term declines in both Wellcome and Open Philanthropy's funding reflect declines across a number of disease areas, especially their multi-disease funding. One area that has experienced meaningful growth from both organisations is TB, with Wellcome providing a one-off increase in its funding of nearly \$12m (156%) in 2023 and Open Philanthropy by \$1.3m, a more than tenfold increase.

The rise in Gates funding, along with the declines from Wellcome and Open Philanthropy, had driven a big increase in the share of philanthropic funding provided by the Gates Foundation, which rose to 83% in 2023, its highest level since 2015, when Open Philanthropy did not yet exist.

Outside the top few contributors, the number and make-up of philanthropic funders remained relatively consistent. However, 2023 did see almost \$2m in funding from the UK's LifeArc, a new survey participant this year.

Most of the increase in philanthropic funding was invested in the 'big three' diseases – TB, malaria and HIV – and in platform technologies. The single biggest increase was in funding for tuberculosis (up \$72m, 41%, mostly for vaccines), mostly due to the increased investment from the Gates Foundation and, to a lesser extent, Wellcome. Much of this increase was directed to the Gates MRI's Phase II clinical trial of the M72 vaccine candidate.

Philanthropic non-disease-specific funding was up by \$21m, most of which was for platform technologies. Malaria funding was up \$24m, and HIV by \$10m – all mostly thanks to the Gates Foundation.

Over half of philanthropic funding went to academic & other research institutes (\$506m, 54%), followed by funding to PDPs (\$158m), which increased by \$11m after four years of decline. This still leaves philanthropic funding to PDPs more than a third lower than when the most recent decline began in 2018 and over 70% below its 2008 peak. Philanthropic funding to small pharmaceutical companies rose by \$44m (40%) to a record \$152m – more than six times their contributions to big pharma.



Table 4. Top philanthropic R&D funders 2023

Funder	US\$ (millions)										2023 % of total
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Gates Foundation	669	680	706	657	690	727	702	691	650	775	83
Wellcome	126	98	119	123	135	137	148	136	114	109	12
Fundació La Caixa		4.1	4.0	5.8	3.6	5.2	6.0	4.7	5.5	14	1.5
MSF	5.3	7.0	12	13	18	15	15	7.0	9.8	9.2	1.0
Individual donors and foundations	1.1	1.4	1.3	1.8	2.5	1.9	5.1	4.2	3.3	3.7	0.4
Open Philanthropy				9.6	5.2	16	29	21	7.6	2.8	0.3
Anonymous funder					<0.1	0.8	0.4	0.6	1.0	2.6	0.3
Gavi		13	7.4	9.1	4.1	4.4	3.3	3.9	1.9	1.8	0.2
Leducq Foundation									1.9	1.8	0.2
LifeArc										1.7	0.2
Dutch National Postcode Lottery	0.7	2.2	3.4	2.4	-	-	-	4.9	-	1.1	0.1
All other philanthropic organisations	13	9.0	7.5	35	34	12	18	8.9	8.5	6.2	0.7
Total philanthropic funding	814	814	861	857	893	919	926	882	803	929	100

■ Funding organisation did not participate in the survey for this year. Any contributions listed are based on data reported by funding recipients and so may be incomplete.

- No reported funding



Private sector funding

Private sector funding fell, partly undoing two years of growth; participation-adjusted funding was down for both large and small pharmaceutical companies

The private sector invested a total of \$619m in neglected disease basic research and product development in 2023, accounting for 15% of global funding. As in all previous years, multinational pharmaceutical companies ('MNCs') were responsible for most of this funding (\$541m, 87% of the private sector total), with small pharmaceutical and biotechnology firms ('SMEs') contributing the remainder (\$78m, 13%).

Multinational pharmaceutical companies

Investments from MNCs fell by 11% (down \$66m), undoing about two-thirds of the growth over the past two years and leaving it just above its 10-year average. The top two MNC funders from 2022 both made substantial reductions to their neglected disease R&D from that year's record highs. However, if we adjust for a slight fall in year-on-year survey participation, the overall decrease was a little smaller, at \$60m or 10%.

The share of MNC funding going to the big three diseases – HIV/AIDS, tuberculosis, and malaria – fell seven percentage points to 65%, driven by a sharp reduction in their HIV R&D (down \$80m, -38%), leaving big three funding more than \$80m below its average over the previous half-decade. Also driving this shift was record-high MNC funding for the WHO neglected tropical diseases (NTDs), which grew by more than a third (\$35m), mostly via increases for dengue (up \$30m, 68%), kinetoplastid diseases (up \$7.3m, 24%) and leprosy (up \$3.4m, 60%). MNCs' funding for NTDs has now grown by more than \$60m since 2020, with more than 80% of the increase driven by rising dengue drug funding.

MNC R&D fell across all of their major product areas, headlined by significant decreases in both vaccines (down \$32m, -32%) and drugs (down \$26m, -5.6%), taking their vaccine R&D to a near-record low and just a third of its peak in 2018. There were also proportionally significant decreases for biologics (down \$10m, -55%) – after a record year in 2022 – and basic research (down \$3.7m, -66%).

The drop in MNC vaccine funding resulted from decreases in R&D across all diseases except for tuberculosis, which nearly tripled (up \$4.9m, 286%). The decreases in vaccine development were heavily concentrated in two areas: HIV R&D (down \$28m, -58%), following the discontinuation of a late-stage vaccine candidate after two failed clinical trials, and diarrhoeal diseases (down \$6.4m, -68%). The fall for diarrhoeal diseases is likely to be at least partly artefactual: it represents funding for a *Shigella* vaccine candidate that changed hands to another organisation for which no spending data is available.

Total MNC funding for drug R&D dropped by \$26m (-6%) as investment in HIV drugs fell by a third (down \$52m, -32%). This decrease overshadowed record-high drug R&D investment for studies investigating the treatment and prevention of dengue (up \$30m, 70%), post-exposure prophylaxis for leprosy (up \$3.4m, 62%) and a once-a-week treatment for mycetoma (up \$0.3m, 625%).

The vast majority of the headline fall in MNC R&D was in clinical development (down \$50m, -15%) and post-registration studies (down \$20m, -26%), while their investment in early-stage research rose slightly.

Small pharmaceutical & biotechnology companies

Reported investment by small pharmaceutical companies ('SMEs') rose by a fifth (up \$14m, 22%). After adjusting for a big jump in survey participation, though, SMEs' funding was down by nearly half, with just \$28m reported by ongoing survey participants. These big shifts in participation mean that the headline data on SME funding are a bit misleading; we do our best to pick through the real and illusory changes below.

Funding for the 'big three' diseases – HIV, TB and malaria accounted for an uncharacteristically large 74% share of the SME total, compared to an average of just 24% over the previous decade. This swing, though, mostly reflects



the impact of new survey participants – funding for the ‘big three’ diseases from ongoing participants made up just 30% of their total, though this was still up from just 12% in 2022.

Also contributing to the swing towards the ‘big three’ – though also partly an artefact of participation changes – investment for bacterial pneumonia & meningitis fell from \$22m to zero after four years of steady funding as one of only two funders from 2022 reported zero funding and the other was unable to participate in the 2023 survey. Another artefactual drop in SME funding, this time for dengue (down \$3.3m, -88%) was caused by a lack of reporting for still-ongoing clinical trials of pan-serotype monoclonal antibody-based biologics, now being run by a new (and non-participating) corporate sponsor.

A key driver of the (as noted above, mostly artefactual) shift towards the ‘big three’ funding from SMEs was a big jump in reported malaria investment (up \$25m, 663%), which came mostly from new survey participants and was all for the clinical development of vaccines (\$24m). The \$20m increase in tuberculosis was also mostly an artefact of new participants and went to vaccine R&D to advance mRNA candidates (\$16m, from a low base) and to diagnostics (up \$4.0m, 224%) for a point-of-care blood-based test.

There was also record SME funding for snakebite envenoming, which jumped 307% (up \$4.8m), most of it going to drug development.

SME’s investment increased for both basic & early-stage research (up \$8.2m, 141%) and clinical development & post-registration studies (up \$16m, 40%), though the latter was entirely thanks to a new survey participant. Shifts in participation also meant that, for the first time since 2013, HIC-based SMEs provided the majority of funding (\$65m, 83%), as LMIC-based SMEs reported just \$13m (17%), almost all of which came from India.



Top funding organisations

Funding from the US NIH and industry declined, but both remained close to their recent averages; Gates Foundation funding surged; and the DOD's plummeted

As in every other year, the top three funders of neglected disease R&D were the US NIH, industry and the Gates Foundation, whose combined funding totalled \$3,220m, or 77% of the global total.

Funding from both the NIH and industry declined slightly (by 4 and 8%, respectively), in each case, returning funding to its average over the preceding decade. Funding from the Gates Foundation, on the other hand, rebounded sharply after three straight years of decline, rising by almost a fifth (to \$775m) and taking it to its highest level since 2009 and its third-highest total on record.

Funding from most of the other top 12 funders declined, headlined by record low funding from the US DOD (down \$29m, -28%), which ceased its funding for HIV altogether and drastically dropped its funding for diarrhoeal diseases, leaving its overall contributions down by half from their 2017 peak. We consider the sharp reduction in DOD vaccine R&D in more detail in the Discussion, below.

The sole exception to the (mostly slight) general decline was the Indian ICMR. Its funding rose \$15m (29%) to a near-record \$68m with increased funding across a number of diseases.

Funding from the UK FCDO declined just slightly in 2023 (-3%), to a new record low (\$42m), having dropped by \$92m from \$140m in 2020 and by a smaller amount every year since. The long-term decline in funding from the UK MRC has been slower, but its 2023 cuts were more profound than those of the FCDO; its funding was down almost a quarter (down \$8m, -23%) also to a record low (\$27m).

Tables 5. Top neglected disease R&D funders 2023

Funder	US\$ (millions)										2023 % of total
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
US NIH	1,652	1,619	1,750	1,733	1,934	2,052	1,999	1,979	1,903	1,827	44
Gates Foundation	669	680	706	657	690	727	702	691	650	775	19
Aggregate industry	535	551	587	643	820	652	566	643	671	619	15
EC	127	153	92	132	139	139	184	210	192	187	4.5
Wellcome	126	98	119	123	135	137	148	136	114	109	2.6
US DOD	124	102	140	155	131	129	149	147	103	75	1.8
Indian ICMR	38	38	47	71	59	61	59	56	53	68	1.6
USAID	99	94	104	112	89	76	72	81	60	57	1.4
UK FCDO	78	63	67	122	139	133	140	47	44	42	1.0
Unitaid	20	36	79	61	80	66	63	95	49	42	1.0
German BMBF	20	28	36	47	51	54	45	54	41	34	0.8
UK MRC	49	42	50	49	43	53	48	33	35	27	0.7
Subtotal of top 12 [^]	3,578	3,531	3,778	3,911	4,330	4,278	4,174	4,172	3,914	3,862	93
Total R&D funding	3,901	3,861	4,152	4,377	4,819	4,774	4,589	4,587	4,199	4,171	100

[^] Subtotals for 2014-2022 top 10 reflect the top funders for those respective years, not the top 10 for 2023.



Funding flows

Funding for PDPs and late-stage clinical development continued their slow decline

Funding flow trends

In 2023, just over three-quarters of investment in neglected disease R&D – amounting to \$3,176 million or 76% – came from external funding sources. The remaining 24% was spent internally through intramural funding or private sector self-funding. These proportions were broadly consistent with previous years.

However, there were shifts within these categories: external funding increased by \$116 million (up 4%), while internal funding decreased by \$146 million (down 13%). Although industry self-funding declined by 8% (\$55 million – and potentially more when adjusting for increased participation), the majority of the reduction in internal funding was due to a significant drop in public sector intramural funding, which fell by nearly \$90 million or 19%.

This, in turn, was mostly the result of a sharp drop in the NIH's intramural funding (down \$67m, -21%) from last year's record high, alongside smaller intramural funding reductions from the US DOD and CDC.

Most of the increase in external funding went to researchers & developers (up \$105m, 4%), with a smaller – though proportionally more significant – increase in funding to Other Intermediaries (up \$28m, 16%). Funding to PDPs fell by a further \$16m (-5%), their fifth consecutive year of decline.

A large share of the rise in funding to non-PDP intermediaries was the result of a scheduled cyclical increase in funding to the GHIT fund from the Japanese government (up \$18m), while funding from the EC (still the top funder of Other Intermediaries) was down by \$12m (-12%), mostly due to its reduced contributions to the EDCTP.

While funding from Gates – the top funder of PDPs – rebounded slightly, by \$12m (9%) after four years of decline, overall funding to PDPs was still down from 2022, mostly due to a \$17m drop from the US NIH (primarily in its funding for FHI360), as well as a fifth consecutive drop in PDP funding from the German BMBF (down \$6.1m, -62%). The Gates Foundation's increase was thanks to a \$24m rise in its funding to IAVI, along with a smaller (\$6m) increase to MMV, though these increases were partly offset by drops in its funding to several other PDPs, most prominently FHI360 and IVI.

How funding was allocated across the different stages of R&D

In 2023, a little under three-fifths of the funding allocated to a specific stage of R&D went to basic or early-stage research (58%, \$1,883m), with a third going to either clinical development or post-registration studies (33%, \$1,070m), both broadly in line with the shares across the last decade. The remaining 8.5% (\$276m) was for platform technologies, which had grown rapidly before remaining basically unchanged in 2023. These shares do not include an additional \$569m (14% of the global total) which did not specify an R&D stage (\$569m, 14%) or \$649m (16% of global funding) for non-disease-specific R&D (\$649m, 16%). Funding in the latter category skews much more heavily towards clinical and platform development, suggesting that our 58% share for basic and early-stage research is a slight overestimate.

These figures remained largely unchanged from their 2022 values, with basic & early-stage increasing by \$22m (1%) and clinical development & post-registration down by \$82m (-7%). This was the fifth consecutive year of decreasing funding for clinical development & post-registration studies from its industry-driven peak of \$1,603m in 2018, leaving it reduced by a total of more than half a billion dollars.

Basic research spending was essentially unchanged at \$789m (down 1%). In comparison, the slight rise in early-stage research (up \$31m, 3%) was due to increases in funding for discovery & preclinical drug research and early development of diagnostics.



The decrease in clinical development & post-registration studies was felt in both the private sector (down \$54m, -14%, or by 17% if we adjust for changes in survey participation) and the public sector (down \$80m, -14%, a little over half via the NIH), partly offset by a sharp rise in philanthropic product development (up \$53m, 43%).

Alongside a big fall in clinical development without a specified R&D stage (down \$70m), the drop was concentrated on later-stage product development, including Phase III development (down \$58m) and post-registration studies (down \$30m), reflecting a mix of successful and abandoned late-stage trials. This fall in late-stage development was partly offset by a \$65m increase in funding for Phase II clinical development, much of it for malaria drugs and vaccines. Most of the overall drop in clinical development was in drug R&D (-\$52m), but biologics, VCP and microbicides all experienced a decline.

Funding for product development partnerships

Funding to product development partnerships (PDPs) declined slightly in 2023 (down \$16m, -5%) to a new record low, following a fifth year of consecutive decline. The decline has, at least, begun to slow relative to the previous two years when funding dropped by over \$100m each time. Their cumulative effect still left funding at less than half of its 2014 decade high and more than 60% below its all-time high in back 2008.

The Gates Foundation was again by far the largest funder of PDPs in 2023, accounting for almost half of the total and over \$100m more than the UK FCDO, the next largest funder. While a large proportion of the longer-term decline in funding to PDPs was attributable to declining PDP funding from the Gates Foundation, its funding actually rebounded slightly in 2023, though it remained more than \$100m below where it was in 2018 when the recent decline began – and almost three-quarters below its peak in 2008.

Most of the 2023 increase in Gates PDP funding went to IAVI (up \$24m), though even IAVI's 2023 total was less than it had received from the Foundation in 2018. Gates Foundation's funding to MMV also increased (up \$6m), while its funding to most other PDPs declined, especially in its contributions to FHI 360 and IVI.

The 2023 decline in overall funding to PDPs was primarily due to a \$17m drop in funding from the US NIH – particularly their funding to FHI360 as part of the HIV Prevention Trials Network – and the German BMBF. The BMBF's 2023 funding to PDPs was just \$4m, having peaked at \$22m in 2018, with the BMBF 2023 cuts falling most heavily on DNDi and MMV and its long-term reductions on IPM and FIND. Funding from the UK stabilised at \$40m in 2023, after having dropped by almost two-thirds between 2020 and 2021, at least maintaining its new lower level of funding.

Funding to PDPs from the Netherlands Ministry of Foreign Affairs failed to recover the drop we saw in 2022. However, our forecasts show that with the advent of PDP IV – their new PDP funding round running from 2022-2027 – that total committed funding will remain similar to the previous round, implying an imminent rebound in disbursements. The situation is similar with PDP funding from the Australian DFAT, which was between its PDP funding cycles in 2023, with no funding disbursed before the new, slightly increased, cycle beginning in 2024.

Unitaid was the only PDP funder other than the Gates Foundation to significantly increase their funding – a rise of \$60m (up almost 80%) – which went mostly to MMV. There was also new, first-time PDP funding from the Japanese government, albeit just \$2.6m.

MMV was again the top-funded PDP in 2023, receiving 22% of all PDP funding. The Gates-driven rebound in IAVI's funding left it a close second, with 20% of the overall total. Funding to most other PDPs declined, most significantly FHI 360 and IVI, both of which saw their funding drop by 50% or more, compounding previous declines.



Figure 5. R&D funding flows 2023

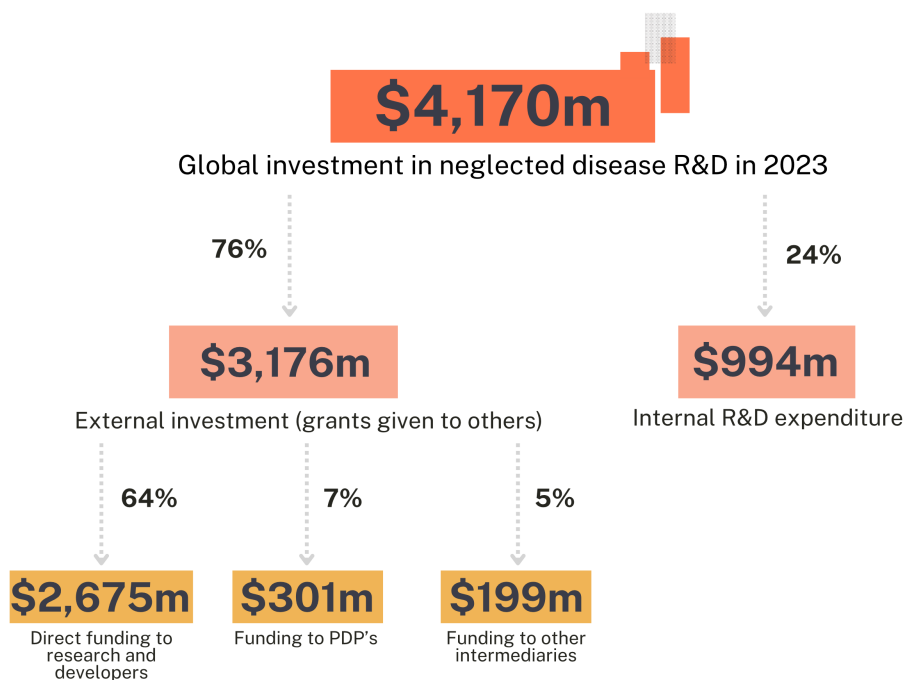
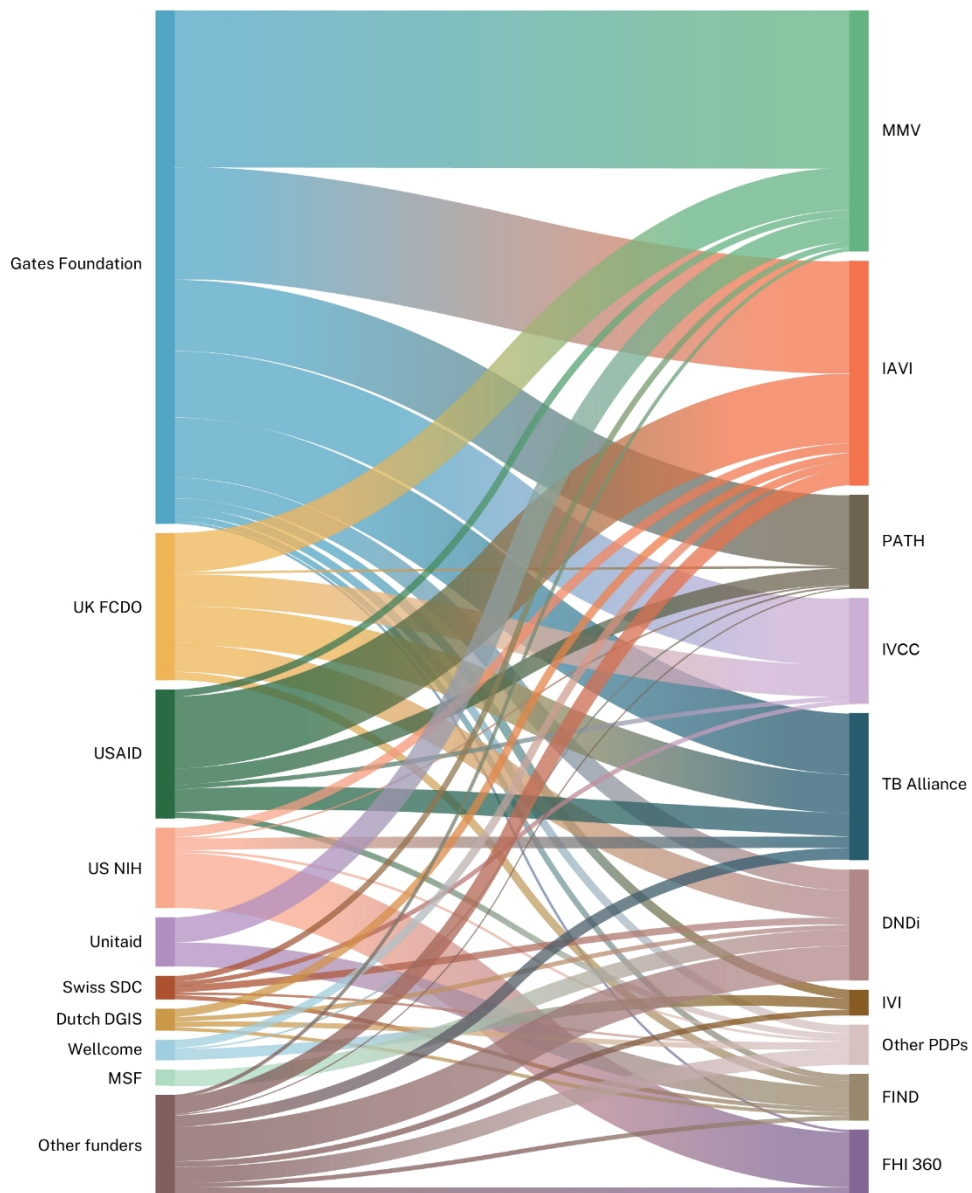




Figure 6. PDP funding 2023





Funding for other intermediaries

Funding for non-PDP intermediaries ('Other intermediaries') rebounded to \$199m, an increase of \$28m (16%), which restored about half the funding they lost in the previous year's sharp dip.

The bumpy path of Other Intermediary funding mostly reflects the two-year cycles on which the Japanese Government makes its disbursements to the GHIT fund; its contributions went from \$21m in 2021 to just over \$5m in 2022, to \$24m in 2023 – generating illusory changes in each year. Amid these cycles, GHIT funding has trended chiefly upward over time, reaching a record \$47m in 2023, thanks to record funding from the Japanese Government and a doubling in funding from industry, which rose from \$5.7m to \$11m.

The other major driver of non-PDP intermediary funding is the European and Developing Countries Clinical Trials Partnership (EDCTP). Though it remained the largest recipient of intermediary funding, the EDCTP saw its funding dip by \$5.5m (-5%) in 2023 to \$101m – its lowest level since it began benefiting from increased funding under the second EDCTP funding round in 2017. The decline in funding to the EDCTP was the result of a second consecutive drop in disbursements from the EC, which fell by another \$12m (-12%) after having dropped by \$16m in 2022. This fall was only partly offset by increased contributions from the German BMBF (up \$3.4m) and the UK MRC (up \$3.7m after a three-year absence).

The only other notable shift was an \$8.5m increase in funding to the Barcelona Institute for Global Health (up \$8.5m), mostly due to increased funding from the Spanish philanthropy Fundació La Caixa.

NEW DEVELOPMENTS

In 2024 announced it would join the Gates Foundation and Wellcome in providing core funding to the GHIT funding, promising an initial contribution of \$125k.



Figure 7. Intermediary funding 2023

