

DISCUSSION

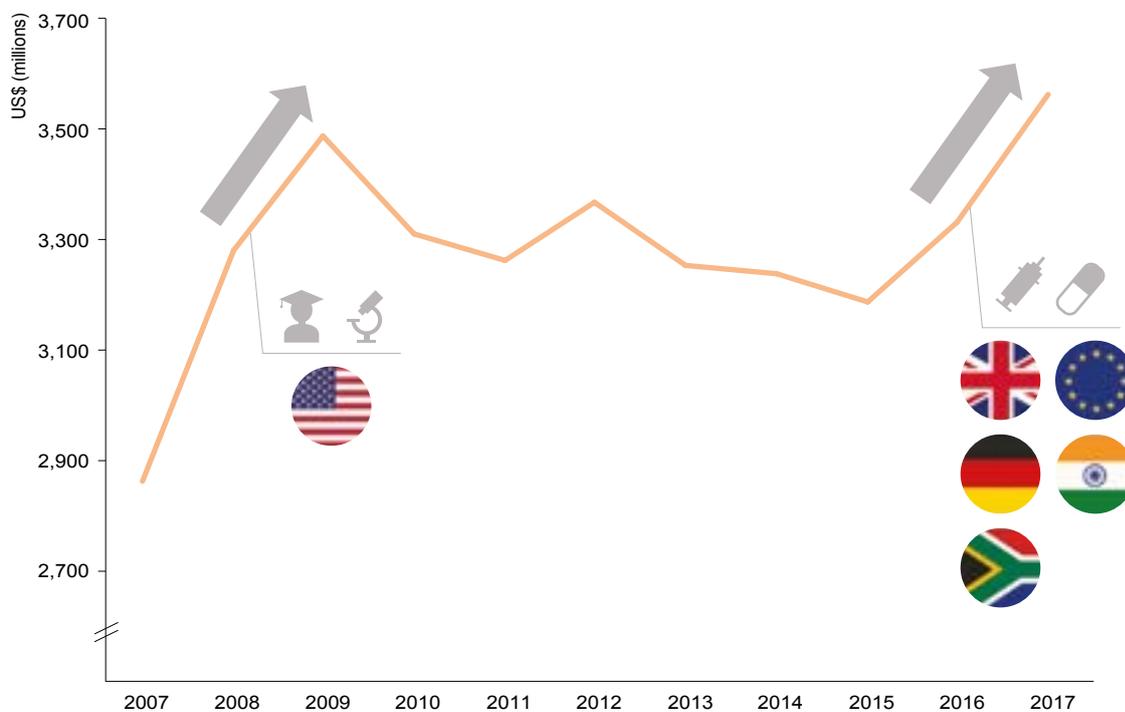
Global funding for neglected disease R&D reached a record high in 2017, on the back of a second consecutive year of increasing investment

Global funding for basic research and product development for neglected diseases in 2017 totalled \$3,566m. This was an increase of \$232m (up 7.0%) from the previous year, and the highest level ever recorded by the G-FINDER survey – an achievement that continues to hold even taking into account the changes in survey participation and to the scope of the survey over the 11 years since G-FINDER’s inception. This was both the largest annual increase in global funding for neglected disease R&D and the first time that funding had increased in two consecutive years since the previous, fiscal stimulus-driven peak of 2008-2009, allowing total funding to finally eclipse its previous high of 2009 after spending nearly a decade below this peak.

Funding growth in 2017 was very different from that in 2009: this time it came mainly from Europe, not the US, and went to product development, not basic research

Although both the 2009 and 2017 increases were driven by public spending, their characteristics were markedly different. The increase in global funding for neglected disease R&D in 2009 was driven by US government spending, as the global financial crisis prompted a rapid release of funding aimed at stimulating the domestic economy. The US NIH played the key role, accounting for almost 98% of the net increase in global funding for neglected disease R&D. Most of this net increase in investment went to academic institutions – which typically focus on basic research – and US-based SMEs.

Figure 23. Total R&D funding for neglected diseases 2007-2017



The 2017 increase also came from the public sector, but this time it was primarily driven by the UK government – on the back of a strategic review and additional ODA funding – and the European Commission – via increased funding for the EDCTP – alongside the governments of India and Germany. The 2017 increase was also primarily directed towards PDPs and intermediaries – organisations that focus on clinical trials and product development – with 90% of the new investment going to either core funding or clinical development.

The combined effect of these changes was twofold. Firstly, the gap between the share of funding coming from the US government and that from the second-largest public funder shrank to its lowest level on record. And secondly, 2017 marked the first time ever that PDPs received more of their funding from governments than they did from philanthropic organisations. It also marked the first time on record that overall funding increased despite decreases from both the NIH and the Gates Foundation, normally the bellwethers for global funding.

Funders outside of the traditional top three or four continued to increase their commitment to neglected disease R&D

Last year's G-FINDER report recognised important increases in funding from a range of emerging funders, including Unitaid, Médecins Sans Frontières, Gavi, and the governments of Japan, India and Brazil. With the exception of Brazil, where a cap on public spending led to large reductions in R&D funding, every one of these funders increased their investment in 2017.

In addition to the emerging funders called out in last year's report, German government funding for neglected disease R&D also increased significantly in 2017. This eclipsed its previous high (set in 2012) by 24%, clearly establishing Germany's position as the most significant European public funder after the UK and EC. Two of the three largest LMIC public funders also increased their funding for neglected disease R&D: as noted above, the Indian government sharply increased its funding (up \$21m, 38%), remaining the fourth-largest public funder overall, and providing the highest reported level of public funding from an LMIC. South Africa's government also increased its contribution (up \$2.7m, 24%), resulting in the largest ever investment as a share of gross domestic product (GDP) provided by an LMIC.

A half decade of consecutive yearly increases in industry investment has come to an end, but this is not necessarily cause for alarm

Industry funding provided by regular survey participants was down slightly in 2017, for both MNCs and SMEs, bringing to an end five consecutive years of growth. While any further decline would be worth monitoring closely, this slight fall should be viewed in the context of the recent strong and consistent growth in industry investment in neglected disease R&D, and of the potential for real increases in investment from new survey participants; if historical data was available for these organisations, it may have shown that overall industry investment in 2017 did indeed increase for a sixth consecutive year.

Changes in industry investment are also driven by the state of the product pipeline. The recent rise and fall of industry investment in malaria drug development, for example, reflected the progression of tafenoquine through late-stage trials and to successful registration. A similar pattern was seen for pneumococcal vaccines, with a steady rise and subsequent fall in MNC investment aligned with the late-stage development, approval and introduction of the new conjugate vaccines Synflorix and Prevnar.

Industry's investment in neglected disease R&D is also less concentrated than either public or philanthropic funding, each of which is dominated by two or three organisations. Since the inception of the G-FINDER survey, the top three industry funders in any given year have accounted for an average of only 55% of all industry funding, compared to 73% for the top three public funders and 97% for the top three philanthropic organisations – a pattern that continued to hold in 2017. Similarly, the ranking of industry funders within the top 12 shows more year-to-year variation than either philanthropic or public funding, as industry investment follows the progression of candidates through the R&D pipeline. As long as it is maintained, this diversity should help guard against any precipitous decline in industry investment, which should in fact continue to grow as a healthy pipeline of early-stage neglected disease product candidates proceeds to late-stage clinical trials. But ongoing industry investment in neglected disease R&D can only be guaranteed if there is sustained public and philanthropic commitment.

We are seeing the impact of sustained investment in neglected disease R&D, but we are still falling short of where we need to be

This year alone saw several significant new product approvals: fexinidazole, the first all-oral, short course treatment for both stages of sleeping sickness; moxidectin, the first new onchocerciasis treatment in 20 years; tafenoquine, the first single-dose radical cure for *P. vivax* malaria; Typbar TCV, the first conjugate typhoid vaccine; and ROTASIL, a heat-stable rotavirus vaccine designed for developing country use.

But despite the positive stories of new product approvals and global funding for neglected disease R&D reaching a record high in 2017, we are still falling short of where we should be, and where we need to be. Not a single country government in 2017 met the recommendation of the WHO Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property (GSPOA) that member states dedicate at least 0.01% of their GDP to research into the health needs of developing countries. In fact, over the 11 year history of the G-FINDER report, only the United States has ever met this target (which it did between 2007 and 2012). Only two countries – the United States with 0.0082% and the UK with 0.0071% – were even close to the target in 2017, with no other country even half way there.

The gap is narrowing between the two largest funders of neglected disease R&D (the US government and the Gates Foundation) and the rest of the world. This follows record investments by many members of the next tier of funders, including the UK, India, Germany and Unitaid; along with close-to-historic highs from the EC, the Wellcome Trust, and the pharmaceutical industry. This is unequivocally a positive development, but it also means that continuing to deliver the impact we've seen recently will require these funders to either sustain or further increase their current level of investment in neglected disease R&D. And despite this progress, public and philanthropic funding for neglected disease R&D is still too reliant on a handful of organisations. The Gates Foundation and the Wellcome Trust together accounted for 95% of all philanthropic funding in 2017, while the top three public funders – the US, the EC and the UK – jointly made up 82% of public funding. Even with the diversification of funding we saw in 2017, the largest single funder, the US NIH, still provided 39% of all neglected disease R&D funding; more than the Gates Foundation, EC, Wellcome Trust and the entire industry sector combined.