

DNDi response to the UK International Development Committee Inquiry: DFID Aid effectiveness

The Drugs for Neglected Diseases initiative (DNDi) welcomes the opportunity to contribute to the International Development Committee's Inquiry.

DNDi is a collaborative, patients' needs-driven, non-profit drug research and development (R&D) organization, that is developing new treatments for neglected diseases. Our mission is to improve the quality of life and the health of people suffering from neglected diseases, by using an alternative model to develop drugs for these diseases, and by ensuring equitable access to new and field-relevant health tools.

DNDi's primary focus has been the development of drugs for the most neglected diseases. These include Human African Trypanosomiasis (sleeping sickness), American trypanosomiasis (Chagas Disease), leishmaniasis and mycetoma. We also engage in R&D for other neglected patients (e.g. malaria, paediatric HIV, Hepatitis C and filarial infections) and support development of diagnostics and/or vaccines to address unmet needs.

With offices in 9 countries around the world (Brazil, The Democratic Republic of Congo, India, Japan, Kenya, Malaysia, South Africa, Switzerland and the USA), we work closely with clinicians and patients groups in endemic countries, and leverage the support of 180 institutional partners worldwide. Core funding from DFID enables DNDi to approach drug development in a results-oriented and cost-effective manner, which results in significantly lower costs for drug development than seen in the private sector alone, and for treatments which are adapted for the needs of patients in resource-limited settings. DFID funding support has significantly contributed to DNDi's ability to deliver 8 new treatments for five diseases in 15 years, building on global collaborations with the public and private sectors.

DFID's global health leadership

DFID takes a long-term approach to achieving sustainable international development, through policy engagement and direct funding and has helped in the R&D sphere to maximize involvement, impact, efficiency and cohesion with immediate and long-term benefits.

DFID's leadership is exemplified in its **innovative, holistic approach**, funding initiatives to develop and provide treatments, while also supporting disease prevention through water, sanitation and hygiene (WASH) initiatives to contribute to and other environmental and behavioural measures, and supporting the strengthening of health systems. The results have been transformative. In particular, UK Aid provided through DFID is contributing to investments across research and development for new and improved tools (drugs and diagnostics) and implementation of treatment and prevention programmes. These new health tools are critical components for progress towards achieving the Sustainable Development Goals, and particularly SDG3 to ensure healthy lives and promote well-being for all at all ages, and the specific target of by 2030, end[ing] the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat[ing] hepatitis, water-borne diseases and other communicable diseases.

DFID has also been instrumental in analysing why such aid is necessary. DFID played a catalytic role in the understanding of the ecosystem for public health R&D. Its commissioning of a series of landmark reports¹

¹ DFID was the first public funder to undertake a comprehensive analysis of the bottlenecks in health R&D, launching early reviews of the manner and extent to which trade barriers, and the management of knowledge and intellectual property, for example, impacted UK overseas development assistance. The findings of the Commission on Intellectual Property Rights triggered an international multilateral policy debate on the importance of access to the products of scientific advancement, including medicines products. In the UK, it also spurred a review by the Royal Society on the global impact of management of intellectual property, which in its

including the Commission for Intellectual Property Rights and global dissemination of their conclusions, provided an important evidence base for focusing global attention on a dual failure: the failure of the market to respond to, prioritize, and ensure R&D investments in the needs of patients who do not necessarily represent a 'lucrative market', and the compounding failure of public policy to rectify this situation, resulting in the exclusion millions of people cannot benefit from scientific progress and medical advances. The report's recommendation helped spur continuing debates at the global and regional levels on the importance of access to the products of scientific advancement, and how to address those market failures.

DFID was one of the first public donors to fund efforts to address these shortcomings in the commercially focused R&D system, and remains a leader in funding public health R&D as part of its overseas development aid². In 2006 DFID granted a total of £17.5 million to kickstart investments in R&D for infectious diseases primarily affecting poor people in the tropics, including £6.5 million to DNDi. As the first major public donor to fund DNDi, DFID played a signalling role in attracting further investment other public funders.

Specifically, DFID's contributions have helped:

Close key gaps in biomedical R&D, – through pioneering investment in public-private partnerships for product development (more commonly known as PDPs) –, in the development of an innovative, collaborative, sustainable multisectoral approach to closing health technology gaps. DFID's investments have immediate, longer term and broader catalytic effects

It is not just what DFID funds that it is important but also how it does so. The R&D process is long term and entails risk. Individual projects may fail where others require extra investment. The UK has maintained uninterrupted investment in DNDi's portfolio of projects since its inception. These investments support activities incorporating R&D, training and capacity strengthening, and transfer of technology to achieve lasting impact. This has contributed significantly to our development of new medicines.

Most recently, we have developed a new paediatric formulation for children living with HIV. In 2018, we delivered a new chemical entity – [fexinidazole](#) – the first all-oral, short course treatment for both stages of sleeping sickness, a treatment that should also contribute to reducing burdens on health systems by simplifying access to care. It is only the sustained, long-term commitment of donors such as DFID that make such medical breakthroughs possible.

With such investment, PDPs have in just under 2 decades of existence accelerated the development of diagnostics, medicines and vaccines to meet the health needs of the most vulnerable, including children, and those living with neglected tropical diseases, HIV and malaria.

Advanced collaborative, open science approaches: In providing core funding to PDPs, DFID allows the exploration of new approaches to managing knowledge and data, which involve sharing research inputs (e.g. specimens, compound libraries, datasets with appropriate protections), processes (e.g. protocols, trial designs, cost data) and outputs (e.g. trial results, publications). This improves efficiency, enables follow-on science, and contributes to accelerating and democratising access to the fruits of scientific progress.

turn led to the recommendation of the need to “keep science open” – particularly for early drug discovery. Though controversial at the time, collaborative, open approaches to drug discovery have become an accepted norm in biomedical R&D, and have most recently proved pivotal in the rapid response to the COVID-19 crisis

² <https://s3-ap-southeast-2.amazonaws.com/policy-cures-website-assets/app/uploads/2020/02/11150341/G-Finder2019.pdf>

[1] https://accessmedicinefoundation.org/media/uploads/downloads/5d93329e141cb_Access-to-Medicine-Index-10-Year-Analysis.pdf

Enhance co-ordination and collaboration among R&D actors: DFID's decision to champion PDPs, and to remain a long-term funder, has also catalyzed both direct and indirect involvement by academia and the pharmaceutical industry into research for neglected populations. A 10-year analysis by the Access to Medicine Foundation attributed the increase in NTD R&D to "efforts led by the World Health Organization (WHO) and product development partnerships (PDPs), such as the Drugs for Neglected Diseases initiative (DNDi), which have coordinated and driven attention for pharmaceutical R&D targeting NTDs"^[1].

Both DFID's funding and its convening power have brought together PDPs with research actors from the UK pharmaceutical, academic and research community, and catalysed collaboration among them to leverage the comparative advantages of each to address key bottlenecks or to devise new unexpected approaches to R&D for neglected populations. For example, as part of DNDi's Open Synthesis Network, a collaborative project has been established to design new candidate compounds. This project, now involving 20 participating institutions around the world, was initiated by DNDi, Imperial College, London and Optibrium™. Through it, UK medicinal chemistry students and the UK software industry are active contributors to the DNDi's early drug discovery work, synthesizing new products for use in trials to generate lead candidates for kinetoplastid diseases in the DNDi portfolio. In contributing to real-life medicinal chemistry projects featuring neglected disease research, students will get an opportunity to enhance their skills in medicinal chemistry research, and will potentially develop an interest to continue to work in this field.

Strengthening capacities and building resilient health systems in affected countries: DFID's strategic decision to provide core funding to PDPs has allowed them to allocate resources to strengthening infrastructure and training research personnel, enhancing clinical research capacity, strengthening ethics review, adapting regulatory pathways, and building community engagement for both advocacy and implementation of activities to meet their health needs. These investments have long term benefits as skills and resources can be deployed to address other health needs.

As an example, as of 2018, 34% of DNDi partners are in low- and middle-income countries (LMICs). The core funding that DNDi receives from DFID contributes to developing new innovation ecosystems, driven by scientific leaders in LMICs that will fundamentally change how research priorities are defined. DFID support has contributed to the physical upgrading of facilities needed for clinical research (such as patient wards and diagnostics laboratories) at our trial sites, to ensure they are compliant with Good Clinical Practice (GCP) international standards. This improved infrastructure remains the property of the local public health provider.

Over the last decade, over 5000 people **have been trained in a range of skills: as laboratory technicians, in good clinical practice and as community health workers.** Support for such work enables transfer of knowhow, technologies and facilities to affected countries that can be applied to other disease areas: it also expands access within communities, and empowers health workers and community leaders to voice and advocate for their needs. The net result is to increase health system resilience even in hardest-to-reach communities.

Maximise efficiency of investment and cohesion: DFID is a founder member of the PDP Funders group which brings together [key public and philanthropic funders](#) of PDPs to facilitate exchange which helps funders identify and facilitate ways to work together, and facilitates peer support for funding, commissioning, managing and evaluating PDPs. This enhances the good stewardship of public investments in biomedical R&D.

The PDP Funders Group undertakes joint physical reviews of their grantees. For PDPs, this joint review approach has allowed for a more streamlined approach to oversight and allowed joint learning, which encourages further collaboration between PDPs around common issues.

DFID also undertakes periodic stringent assessments reviews of each of its grantees, using a 3E framework – economy, efficiency and effectiveness – to track value for money of the public investment in international development assistance through its results chain, from inputs to outputs, including outcomes and impact). This DFID benchmark review is used by countries and funders to assess the impact of international development.

Conclusion

DFID's leadership needed now more than ever.

DFID's strategic, approach has made a lasting impact in the global health landscape. It has helped cement the UK role as a key champion of global health. Its championing of the need to tackle extreme poverty, help the world's most vulnerable and provide direct support for the development of new health tools and more resilient health systems is needed now more than ever. The most fragile health systems are confronted with addressing both the immediate challenges of responding to the COVID-19 pandemic, which threaten to overwhelm these already fragile health systems, and pre-existing health challenges such as HIV/AIDS, tuberculosis, malaria, neglected tropical diseases and growing threats such as antimicrobial resistance .

DFID has continued to champion the need for alternative models for R&D through its investments and through the exercise of its influence in global health to stimulate further reform. For example, DFID has had an important role in raising and securing other government interest in tackling anti-microbial resistance (AMR). DFID is also currently supporting the UK Government efforts to help drive an international response to the COVID-19 pandemic based the key principles including leaving no one behind and ensuring equitable access for all. It is important that this role is maintained for both current, existing and future health issues.

Of concern is the drive to control and eliminate Neglected Tropical Diseases (NTD) to get millions of poor out of the cycle of poverty and disease has been significantly slowed down by the emergence of COVID both in country and at the global policy level.

It is important that the UK and DFID at the global policy level support the publication of, and maintain momentum behind the new WHO NTD Roadmap which contains useful action points for R&D, disease surveillance and control , resource mobilization, advocacy and expanded access to existing and new tools, and should not be delayed.

At country level, this will require strengthening capacity to track resource gaps, support mobilization of investment from national and regional actors and ensuring cohesive approaches between these and existing multilateral actors. it will require support for deployment of human resources, and finances, in a way that does not undo progress in other disease priorities. At the multilateral level it will require continued leadership and advocacy with other funders in the interest of attending to global health and achieving the SDGs.

This will be happening against the backdrop of an already difficult funding environment, likely to be further affected by the economic impact of COVID-19. Despite DFID's critical investments, funding for neglected tropical diseases (NTDs) on the WHO NTD list has been essentially flat for the past decade³. The G-Finder report 2019 found that funding for NTDs has in fact, it has gone backwards, being nearly 10% lower in 2018 than it was 2009, falling by \$34m (- 9 .1%). Flatlined funding for NTDs an example of where the world is not paying enough attention to the biomedical needs of the most vulnerable. It will be impossible to alleviate poverty, or achieve gender equity, quality universal health coverage, or any of the other Sustainable Development Goals without urgent course correction, and increased, sustained political attention to people living with NTDS and investment in R&D For health tools to treat them.

³ <https://s3-ap-southeast-2.amazonaws.com/policy-cures-website-assets/app/uploads/2020/02/11150341/G-Finder2019.pdf>

