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Private foundations and their global health grant-making patterns

A rapid analysis of the Rockefeller Foundation,
Wellcome Trust, and Bill and Melinda Gates Foundation



Imprint

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SUMMARY

Private foundations play an increasingly important and influential role in global health; however, this role has been poorly monitored and largely unevaluated, prompting calls for greater accountability. At a minimum level, clear information should be provided about their grant-making activities.

We describe the global health granting patterns of three private foundations: the Rockefeller Foundation (RF), the Wellcome Trust (WT), and the Bill and Melinda Gates Foundation (BMGF), using data publicly available on their websites, for the years 2018–2020. The BMGF is the largest private funder of global health; the RF is a pioneer foundation that played a dominant role in global health between the two world wars; and the WT is one of the largest philanthropic funders of clinical research. For each foundation we describe the amount of money granted, which organisation types received funding and their locations, the top-twenty biggest grants and the top-twenty biggest recipients of grant funding.

Based on our study criteria, the RF, WT, and BMGF were awarded a total of 199 million, 3.2 billion, and 7.8 billion USD through grants in the three-year period. While all three private foundations spread their granting across a range of organisational types, the RF favoured non-governmental organisations (NGOs) (50.2% of funding, 100 million USD), the WT favoured universities (56.6% of funding, 1.8 billion USD), while the BMGF also granted most to NGOs (34.3% of funding, 2.7 billion USD). Both the RF and BMGF allocated almost one third of their grant expenditure to international organisations (33.0% and 31.8% respectively), unlike the WT (2.4%). All three private foundations favoured grant recipients in high-income countries (HICs) over low- and middle-income countries (LMICs); for the WT, RF, and BMGF, 94.0%, 83.9%, and 81.4% of their granting was to HICs, respectively (when funding to international organisations was removed). This pattern was more explicit for universities, with over 90% of university funding from all three foundations awarded to those in HICs.

All three foundations concentrated their funding amongst a relatively small number of grantees. The biggest twenty recipients received 74.6% (2.4 billion USD), 67.9%, (135.3 million USD), and 46.5% (3.6 billion USD) of funding from the WT, RF, and BMGF, respectively. The top-two grantees for the RF were its offshoot RF Catalytic Capital and the Global Fund; for WT, its offshoot Wellcome Sanger

Institute, and the University of Oxford; and for the BMGF, the WHO and the Global Fund. These organisations received approximately 20% of the respective foundation's funding. Both the RF and BMGF included one and three private-for-profit companies, respectively, in their top-twenty grantees.

For the top-twenty individual grants, the RF favoured COVID-19-related projects and the digitalisation of health; WT targeted neglected or emerging infectious diseases with additional emphasis on neuroscience, bioinformatics, innovation, and funding for researchers; and BMGF grants were infectious disease-related, particularly involving vaccination.

The COVID-19 pandemic influenced 2020 funding; altogether, 72.3%, 18.0%, and 2.1% of 2020 funding went to COVID-19-related projects for the RF, BMGF, and WT, respectively; for the WT these were predominantly in the UK and for the BMGF and RF predominantly in the US. The pandemic influenced the types of organisations funded; in particular, the WT increased funding to universities (from 56.4% [non-COVID-19-related grants] to 74.6% [COVID-19-related grants]), the RF to NGOs (from 35.1% to 65.0%, respectively), while the BMGF increased its percentage funding to global health partnerships and private-for-profit organisations (from 17.0% to 33.6% and from 11.2% to 18.6%, respectively).

Key issues raised by these data include: the variation in scale and influence of granting by these private foundations; the perpetuation of patterns of coloniality in their granting; their ability to shape the global health landscape, through their funding of international organisations like the WHO; the favouring of infectious disease and health technologies over non-communicable diseases and health system strengthening; and the channelling of funding to the private-for-profit sector.

In conclusion, the global health grant portfolios of private foundations vary in scope and size. The three foundations favour specific organisational types for funding, especially universities and NGOs based in HICs and increasingly the for-profit private sector. They support a technologically driven, disease-oriented approach to addressing global health problems. Our analysis suggests that these granting patterns could reproduce power imbalances that already exist in global health.

I. Introduction

Recent calls to decolonise global health¹ have brought attention to the role and impact of global health funders² and raised questions about the colonial nature of their giving.³ Within these conversations, several arguments have been made for paying greater attention to the funding role of private foundations in global health.

First, the size and power of private foundations have grown over the last 30 years. Their financial contributions to development assistance for health⁴ (DAH) have increased from 590 million USD in 1990 to 15 billion USD in 2020, i.e., a rise from 7.0% to 14.6% of total contributions to DAH.⁵ Furthermore, while US-based private foundations have dominated philanthropic giving, a growing number of them, based in Europe and elsewhere, are now operating in the health sector.⁶ Second, in addition to their financial contributions, some private foundations are actively involved in policymaking, and shaping the global health agenda through their grant-making portfolios,⁷ and by sitting on the governing boards of global health partnerships (GHPs).⁸ Third, as private entities with charitable aims, private foundations are subject to weak systems of accountability.

Typically, private foundations are only formally held accountable by a small number of board members or trustees usually appointed through a private process. Even though in many countries they benefit from tax write-offs, private foundations are not required to report to governments or the public. In Britain and the US, tax exemption for private philanthropic donations is thought to cost the state approximately 4.3 billion USD and 50 billion USD, respectively.⁹

This paper addresses some of the public accountability gaps by providing information about three purposively selected global health private foundations: the Rockefeller Foundation (RF), Wellcome Trust (WT), and the Bill and Melinda Gates Foundation (BMGF). We selected the BMGF because it is the largest private funder of global health. The RF was selected as a comparator to the BMGF, because it played a similarly dominant role in global health between the two world wars. Finally, we chose the WT as it was a UK comparator and is one of the largest philanthropic funders of clinical research.¹⁰

Our aim was limited to describing the types of organisations they funded, their locations, and the kinds of programmes or projects that were prioritised. In addition, we looked at how the coronavirus disease (COVID-19) pandemic influenced grant-making in 2020.

1 Chaudhuri, Monica M. et al. (2021); Abimbola, Seye/Pai, Madhukar (2020)

2 Charani, Esmita et al. (2022)

3 Birn, Anne-Emmanuelle/Judith Richter (2018); Viergever, Roderik F./Hendriks, Thom C (2016); Kim, Hani (2021)

4 Defined by the Global Burden of Disease Health Financing Collaborator Network as: 'the financial and in-kind contributions from major development agencies to low and middle-income countries for the purposes of improving or maintaining population health. Available from: https://www.healthdata.org/sites/default/files/files/policy_report/FGH/2020/FGH-2020-Methods-Annex.pdf Accessed 14 Apr 2023

5 Institute of Health Metrics and Evaluation (2022)

6 OECD (2021)

7 Olusanya, Jacob O. et al. (2021); Sridhar, Devi/Batniji, Rajaie (2008)

8 Tchiombiano, Stéphanie (2019)

9 Valley, Paul (2020); Reich, Rob (2018)

10 Viergever, Roderik F./Hendriks, Thom C. (2016)

II. Methods

1. Source of data

Data on health-related grants awarded for the years 2018–2020 were obtained from the websites of the RF, WT, and the BMGF.¹¹

2. Inclusion and exclusion criteria

We developed bespoke inclusion and exclusion criteria for each of the three foundations based on the unique features of each foundation and the way their grant-making programmes are organised. For the RF, all grants under its “Health Initiative” were automatically included; grants under its other initiatives were screened first. For the WT, all grants were included because of the foundation’s explicit health focus. For the BMGF, all grants under the “Global Health” programme were automatically included, but grants under their “Global Development”, “Global Policy and Advocacy”, “Global Growth and Opportunity”, and “Communications” programmes were screened first. We excluded grants in its US programme and money dispersed through the BMGF Strategic Investment Fund, used to drive “private sector innovation” in all its programme areas but which is not technically part of its grant-making programme.

For all grants screened, those made out to a grant recipient that was clearly medical or health-focused were included, as were grants that had the word ‘health’, ‘disease’ or the name of a disease in its title. We included grants in traditional public health areas like infectious disease, non-communicable disease (NCD), family planning, tobacco control, dietary interventions targeting individuals, breastfeeding, humanitarian aid, and disaster preparedness but excluded interventions that did not target individuals (e.g., food fortification, and water purification) or addressed the social sector (e.g., gender-based social interventions, financial services for the poor, and electricity).

3. Data extraction

All grant details were downloaded for the years 2018–2020, and those that matched the inclusion criteria were individually selected. For every included grant, we extracted the following: grantee name, geographical location of the primary recipient, grant size (USD), year awarded, length of grant (months), type of recipient organisation, and grant description. Grant descriptions were extracted verbatim and, in the case of WT, edited for length.

4. Coding

Data on the recipient location and organisation type were then coded according to a set of pre-determined categories as shown in Table 1.

5. Data management

Data were entered into and coded using an Excel spreadsheet by one researcher using a written guide. Coding was reviewed by a second and third researcher to ensure consistency and accuracy. If any discrepancies in classification were identified, this was discussed until agreement was reached. The top twenty individual grants and cumulative grantees were also reanalysed collectively and data checked for data entry errors.

6. Analysis

Data were analysed using SPSS Statistics for Windows to provide simple descriptions of the amounts of funding allocated to different organisations across the three years. For each private foundation we also generated a list of the twenty biggest individual grants and the twenty biggest individual funding recipients. The mean is used to describe normally distributed data and the median if data is skewed. The term ‘total funding’ is used to refer to funding granted by the private foundation over the three-year period.

11 Accessed from <https://www.rockefellerfoundation.org/grants/>, <https://wellcome.org/grant-funding/funded-people-and-projects>, and <https://www.gatesfoundation.org/about/committed-grants>.

Table 1:
Categories and system of classification for recipient location and organisational type

Recipient Location	International ^a
	United States
	United Kingdom
	Other high-income countries ^b
	Low- and middle-income countries ^b
Organisation type	Global health partnership ^c
	Intergovernmental organisation ^d
	Non-governmental organisation ^e
	University ^f
	Governmental organisation ^g
	Private-for-profit commercial company ^h

- a Organisations classified as international included inter-governmental organisations, international federations, and international networks/alliances, unless money was granted to a specific country chapter, and global health partnerships. International non-governmental organisations were categorised according to where their head office was situated.
- b The World Bank's classification of countries by income level, as of July 1, 2022, was used to categorise countries as low-, middle- and high-income countries.
- c Global health partnerships included multi-stakeholder initiatives/collaboration, and global public-private partnerships.
- d Intergovernmental organisations included UN agencies, the World bank, regional development banks, and other regional organisations.
- e The non-governmental category was broad and included non-profit private foundations, charities, trusts, non-profit companies, professional organisations, non-profit research institutes, and think tanks.
- f Includes public, non-profit, and for-profit universities
- g Governmental organisations included government departments and public/parastatal agencies.
- h Private for-profit recipients included publicly listed companies as well as one state-owned for-profit company.

7. Limitations

There are five main limitations associated with this research. First, decisions about which grants to include in the analyses were affected by the fact that the information provided about individual grants was often sparse and ambiguous, particularly for the BMGF and RF.

Second, our definition of health was narrow and did not include grants that did not explicitly mention 'health' yet had bearing on the social determinants of health.

Third, the organisational typology used does not accommodate the full and diverse range of organisational types. For example, organisations classified as non-governmental organisations (NGOs) in this study include those established or funded by universities and range from small community-based organisations to large, highly professionalised international organisations.

Fourth, our study provides a three-year snapshot of grant-making patterns which may not be representative of longer-term patterns and trends. For example, a large one-off grant within a three-year period could skew the pattern, or cyclical grants may not appear in a three-year window.

Finally, our analysis of grant recipients is limited to the primary recipient and does not include secondary recipients. For example, much of the funding awarded to the Global Fund and Gavi is used to assign grants to other recipients. To ensure full transparency, our data are available [here](#).

III. Findings

1. The Rockefeller Foundation

1.1 Background

The RF was founded in the US in 1913, by oil tycoon John D. Rockefeller, to help restore calm at a time of deep political unrest and boost labour productivity.¹² It placed a strong emphasis on public health and contributed to US hookworm elimination. Its reach extended globally, becoming the most influential private foundation of its time¹³ and shaping WHO's inception. The RF continues to fund WHO, although its position and influence have since been eclipsed by other private foundations.¹⁴ In 2021, its net assets amounted to 6.9 billion USD, and it disbursed 319 million USD in grants and other donations.¹⁵

1.2 Grant overview

Between 2018–2020, the RF awarded a total of 199 million USD to 163 different grantees through 178 health-related grants. Grants varied in size and duration, ranging from 15,000 USD to 30 million USD (median, 0.4 million USD) and from 1 month to 95 months (median, 16.5 months). There was an increase in the annual number of grants awarded from 27 in 2018 to 104 in 2020 and in the funding allocated, from 13 million USD in 2018 to 133 million USD in 2020. Funding awarded in 2020 was three-fold that of the previous two years.

1.3 Grantee locations

Just over half the funding (50.8%, 101.2 million USD) was granted to organisations based in the US, followed by international organisations (33.0%, 65.7 million USD). The remaining money was split between grantees in low- and middle-income countries (LMICs) (10.8% of total funding, 21.5 million USD) or other high-income countries (HICs) (5.4% of total funding, 10.8 million USD). When grants to international organisations are removed, 83.9% of grant funding went to grantees based in HICs.

1.4 Types of grantees

The distribution of funding across organisational types is shown in Table 2.

1.5 Twenty biggest grants

The twenty biggest grants amounted to 127.7 million USD, 64.1% of total funding (see Table 3). The biggest grant (30 million USD) was to RF Catalytic Capital, Inc. for an advanced market commitment to supply of COVID-19 testing kits, 15.1% of total funding. The next two biggest grants (15 million USD each, 7.5% total funding) were awarded to the Global Fund in 2020 and the United States Fund for UNICEF in 2019, both for strengthening health data systems in LMICs.

Eleven of the top-twenty individual grants specifically mentioned COVID-19. These included grants for acquiring diagnostic tests, community testing programmes in the US, supporting the pandemic response in West Africa, and developing a global pandemic knowledge platform. Seven of the top-twenty grants included gathering health data or digitalisation of health systems including for the pandemic response; health data systems in low-income countries (LICs); childhood immunisation; maternal, newborn, child, and adolescent health; gathering information on the determinants of health; and the Sustainable Development Goals (SDGs). Two non-COVID-19 or data/digitalisation grants were for supporting the SDGs and developing healthy, sustainable food systems in LMICs.

The COVID-19 pandemic clearly influenced the RF's funding pattern. For 2020, 72.3% of funding (100.6 million USD) was allocated to 59 COVID-19-related grants awarded to 55 different organisations. Indeed, COVID-19 funding amounted to 50.5% of all funding across the three-year period. Most of the funding (75.5%) allocated to COVID-related grants was to grantees in HICs (mostly the US – 64.5%) once international funding is removed.

¹² Birn, Anne-Emanuelle/ Fee, Elizabeth (2013)

¹³ *ibid*

¹⁴ Birn, Anne-Emanuelle (2014)

¹⁵ The Rockefeller Foundation (2022)

Table 2:
Types of Rockefeller Foundation grantees, 2018–2020

	Percentage total funding (Allocation, USD)	Number recipients	Number grants	% funding to HIC recipients (Number recipients)
NGOs	50.2 % (100 million USD)	87	106	82.6 % (80)
GHPs	16.3 % (32.4 million USD)	5	8	Not applicable
IGOs	15.8 % (31.5 million USD)	13	16	Not applicable
Universities	9.4 % (18.6 million USD)	25	33	> 94.9 %* (23)
Governmental	5.3 % (10.6 million USD)	7	8	60.7 % (7)
Private-for-profit	3.0 % (6 million USD)	7	7	100 % (7)

* 94.9% of university funding was awarded to US-based recipients, 95.2% to HIC-based recipients

Abbreviations:

NGO – non-governmental organisation; **HIC** – high-income country; **IGO** – intergovernmental organisation; **GHP** – global health partnership

1.6 Biggest grantees

The twenty biggest cumulative recipients accounted for 67.9% of the total amount disbursed by the RF in 2018–2020 (see Table 4); four were based in LMICs. Since the RF tended not to give multiple grants to the same organisation, these organisations are like those in Table 2. Of note, the WHO received 5.2% of total funding (10.4 million USD, 4 grants). Boston University was the only university to feature in the top twenty (2.0% of total funding, 4 million USD, 2 grants).

The top three most funded NGOs were RF Catalytic Capital (30.0% of NGO funding, 30 million USD, 1 grant), a US-based organisation set up by the RF to encourage governments and private businesses to pool their finances to reduce the impact of “poverty, hunger, inequality, and climate change”¹⁶; Africa Public Health Foundation (12.0% of NGO funding, 12 million USD, 1 grant), a Kenyan based NGO that supports public health efforts throughout the African region¹⁷; and PATH (3.7% NGO funding,

3.7 million USD, 5 grants), a US-based NGO that “delivers the expertise, resources, and innovations of private industry to improve health for all”¹⁸.

The Global Fund (46.2% of GHP funding, 15.0 million USD, 1 grant), the Foundation for Innovative New Diagnostics (FIND) (30.8% of GHP funding, 10 million USD, 1 grant), which “promotes equitable access to reliable diagnosis around the world,”¹⁹ and Gavi (15.6% of GHP funding, 5.1 million USD, 1 grant) were the three most funded GHPs.

The top-three most funded universities were US-based and are in descending order of magnitude, Boston University, University of Illinois, and Tufts University, which combined received 36.2% of university funding (6.8 million USD, 6 grants). The most highly funded intergovernmental organisation (IGO) was the United States Fund for UNICEF (47.5% IGO funding, 15.0 million USD, 1 grant), followed by the WHO (33.1% of IGO funding, 10.4 million USD, 4 grants), and the World Bank (7.9% of IGO funding, 2.5 million USD, 1 grant).

16 The Rockefeller Foundation (2020)

17 <https://aphf.africa/>

18 <https://www.path.org/about/>

19 <https://www.finddx.org/>

Table 3:
Twenty biggest Rockefeller Foundation grants, 2018–2020

Recipient organisation Organisation type Recipient location	Amount (USD) Duration Share* Year	Grant description**
RF Catalytic Capital, Inc NGO US	30,000,000 17 m 15.1 % 2020	Support an advanced market commitment to enable sourcing, purchasing and stocking of an array of rapid COVID tests for sale to states and aligned buyers <i>Much of RF's COVID-19 focus was on the US, although Asia and Africa were included.</i>
Global Fund GHP International	15,000,000 47 m 7.5 % 2020	Support strengthening of health data systems to enable scale-up and use of data analytics by Ministries of Health in at least 4 LICs (<i>Burkina Faso, Rwanda, Uganda, and Ethiopia</i>) through a Digital Health Catalytic Fund
United States Fund for UNICEF IGO International	15,000,000 44 m 7.5 % 2019	Support implementation of "Intelligent Community Health Systems: A Partnership between The Rockefeller Foundation and UNICEF" to strengthen data-driven community health <i>This project appears to have been for India and Uganda and targeted maternal and child mortality reduction.</i>
Africa Public Health Foundation NGO Kenya	12,000,000 23 m 6.0 % 2020	Support the Partnership to Accelerate COVID-19 Testing in collaboration with the Africa Centers for Disease Control and Prevention
FIND GHP International	10,000,000 16 m 5.0 % 2020	Support expanding access and deployment of rapid diagnostic testing for COVID-19 in LMICs
Gavi GHP International	5,054,000 41 m 2.5 % 2019	Support efforts to develop a digitally competent and adaptive frontline workforce to benefit the health of children in Gavi-supported countries
World Health Organization IGO International	4,931,546 42 m 2.5 % 2019	Support developing a digital governance framework and accelerating the digitalisation of WHO guidelines, norms, and standards to make them readily available to help countries achieve their SDG3 targets, especially regarding maternal and child health
IDRC Governmental organisation Canada	4,000,000 59 m 2.0 % 2020	Support a research partnership initiative that seeks to catalyse change for healthy and sustainable food systems in LMICs
Centre for Cellular and Molecular Platforms Governmental organisation India	3,500,000 21 m 1.8 % 2020	Support expanding domestic supply chains of critical COVID-19 diagnostics in India
Baltimore Civic Fund NGO US	3,000,000 15 m 1.5 % 2020	For use by Baltimore Community Health Worker Corps, toward the costs of a pilot project to recruit and hire workers for COVID-19 contact tracing and care coordination in Baltimore
PAHO IGO International	3,000,000 18 m 1.5 % 2020	Support provision of technical assistance and protocols to countries in the LAC region to expand testing capacity, improve surveillance systems, and establish contact tracing strategies with the aim of controlling the COVID-19 pandemic and enabling communities to remain open

Recipient organisation Organisation type Recipient location	Amount (USD) Duration Share* Year	Grant description**
Medic Mobile NGO US	2,999,759 47 m 1.5 % 2019	Support the development of Medic Research, an innovation lab focused on ideas and projects to support the potential of precision public health to benefit vulnerable communities <i>An example is the Community Health Toolkit Reference App: Maternal, Newborn, and Child Health which helps CHWs track antenatal visits and complications.</i>
Lumira DX UK Ltd. Private-for-profit UK	2,999,700 4 m 1.5 % 2020	Support the purchase, deployment, and scale of LumiraDx multi-use, point-of-care testing devices and test kits to African Union member states to increase access to accurate and timely COVID-19 testing
Boston University University US	2,500,000 59 m 1.3 % 2019	For use by the School of Public Health for research, the development of a website and to commission a report on health determinants, data and decision-making, designed to increase the use of data-driven insights to improve the health of vulnerable people
Brookings Institution NGO US	2,500,000 27 m 1.3 % 2020	Support the annual Rooms process, which includes events and research focused on advancing the SDGs, specifically to support working groups for each of the 17 SDGs
World Bank IGO International	2,500,000 35 m 1.3 % 2019	Support the Global Financing Facility for Women, Children and Adolescents to identify and support the national scale up of evidence-based data science and digital health innovations to accelerate reproductive, maternal, newborn, child, and adolescent health
World Health Organization IGO International	2,500,000 21 m 1.3 % 2020	Support developing a global knowledge platform and products to support countries in maintaining the provision of essential health services amid the challenges of resource-intensive COVID-19 pandemic responses
Praekelt Foundation NGO South Africa	2,176,824 24 m 1.1 % 2020	Support AI-based symptom checking to catalyse the adoption of quality telehealth, maintain essential health services, and enable smart testing strategies in South Africa during the COVID-19 pandemic
Dalberg Group ApS NGO Denmark	2,000,000 11 m 1.0 % 2020	Support the set up and implementation of a West Africa Platform for Public Health Emergency Operations Centers, which would serve to increase country-level capacity to respond to COVID-19 and upcoming public health emergencies in Senegal, Gambia, Guinea, Guinea Bissau, Mali, and Mauritania
PATH NGO US	2,000,000 15 m 1.0 % 2020	Support demonstration of cost-effective, sustainable, and scalable COVID-19 testing solution packages for vulnerable populations in India
Total	127,661,829 64.1 %	

* As a percentage of total RF funding over three years

** Taken directly from the RF website with additional information in italics if available/needed for explanation.

Abbreviations:

RF – Rockefeller Foundation; NGO – non-governmental organisation; GHP – global health partnership; LIC – low-income country; IGO – intergovernmental organisation; FIND – Foundation for Innovative New Diagnostics; SDG – Sustainable Development Goals; IDRC – International Development, Research Centre; PAHO – Pan American Health Organisation; LAC – Latin America and Caribbean; CHW – community health workers; AI – artificial intelligence; PATH – Program for Appropriate Technology in Health

The biggest governmental grantee was the International Development and Research Centre (IDRC) in Canada (37.7% governmental funding, 4.0 million USD, 1 grant), followed by the Centre for Cellular and Molecular Platforms in India (33.0% governmental funding, 3.5 million USD, 1 grant). The biggest US-based government grants (each 10.2% of governmental funding, 675,000 USD) were to the Pathways to Health Community Partnership, Inc., a branch of the Tulsa health department, and to New Orleans Public Schools; both were for piloting and evaluating testing protocols for schools to remain open during the COVID-19 pandemic.

The most highly funded private-for-profit organisation was UK-based Lumira Dx UK, Ltd (50.1% of private-for-profit funding, 3.0 million USD, 1 grant), a company which makes “point-of-care diagnostic platforms”.²⁰ The remaining six grants, went to US-based companies; four to media companies (for data gathering on COVID-19, communication around Hurricane Maria (2 grants), and a podcast outlining solutions for general challenges faced by the world’s poor and vulnerable people), one for supporting small and medium enterprises in Kenya to improve access to medications, and one for supporting digital solutions for the pandemic response in LICs.

Table 4:
Twenty biggest Rockefeller Foundation grantees, 2018–2020

Recipient organisation	Organisation type	Recipient location	Number grants	Allocation (USD)	Share* (%)
RF Catalytic Capital Inc.	NGO	US	1	30,000,000	15.1 %
Global Fund	GHP	International	1	15,000,000	7.5 %
United States Fund for UNICEF	IGO	International	1	15,000,000	7.5 %
Africa Public Health Foundation	NGO	Kenya	1	12,000,000	6.0 %
WHO	IGO	International	4	10,446,546	5.2 %
FIND	GHP	International	1	10,000,000	5.0 %
Gavi	GHP	International	1	5,054,000	2.5 %
Boston University	University	US	2	4,000,000	2.0 %
IDRC	Governmental	Canada	1	4,000,000	2.0 %
PATH	NGO	US	5	3,738,805	1.9 %
Centre for Cellular and Molecular Platforms	Governmental	India	1	3,500,000	1.8 %
Baltimore Civic Fund	NGO	US	1	3,000,000	1.5 %
Medic Mobile	NGO	US	1	2,999,759	1.5 %
Lumira DX UK Ltd.	Private-for-profit	UK	1	2,999,700	1.5 %
Brookings Institution	NGO	US	2	2,775,000	1.4 %
World Bank	IGO	International	1	2,500,000	1.3 %
Praekelt Foundation	NGO	South Africa	1	2,176,824	1.1 %
GAIN	GHP	International	4	2,150,189	1.1 %
Dalberg Group ApS	NGO	Denmark	1	2,000,000	1.0 %
Piramal Swasthya Management and Research Institute	NGO	India	1	2,000,000	1.0 %
Total				135,340,82	67.9 %

* As a percentage of total funding of the Rockefeller Foundation throughout the three years.

Abbreviations:

RF – Rockefeller Foundation; NGO – non-governmental organisation; GHP – global health partnership; IGO – intergovernmental organisation; FIND – Foundation for Innovative New Diagnostics; IDRC – International Development Research Centre; PATH – Program for Appropriate Technology in Health; GAIN – Global Alliance for Improved Nutrition

²⁰ <https://www.lumiradx.com/uk-en/who-we-are>

2. The Wellcome Trust

2.1 Background

The WT is a UK-based charity established in 1936 after the death of the pharmaceutical entrepreneur, Sir Henry Wellcome.²¹ Historically, it has funded predominantly UK-based biomedical research and science outreach activities. Notable initiatives include the Human Genome Project (est. 1990)²² and the development of the anti-malarial drug, artemisinin (1990s); more recently (2000s), it has allocated funding towards public health projects.²³ In 2021, WT had assets worth 40.4 billion USD, produced an annual return of 35%, and spent 1.4 billion USD on charitable initiatives.²⁴ Grants were awarded under the following categories: science, innovation, culture and society, mental health, climate change and infectious programmes: disease.²⁵

2.2 Grant overview

A total of 3.2 billion USD was awarded through 2,306 health-related grants to 485 different grantees in 2018 – 2020. Grant sizes and lengths ranged from 910 USD to 322 million USD (median 0.3 million USD) and from <1 to 132 month(s), respectively (mean 36 months). The year 2020 saw a change in the pattern compared to 2018 and 2019, with fewer grants awarded but the total amount allocated increasing by approximately 50% more than the preceding two years.

2.3 Grantee locations

Most of WT's funds (74.6%, 2.4 billion USD) were allocated to grantees based in the UK, followed by an allocation of 13.5% of total funding to grantees in the US. The remainder was split between grantees in LMICs (5.9% of total funding), or other HICs (3.7% of total funding), and international organisations (2.4% of total funding). When international grants are removed, 94.0% of funding went to HIC grantees.

2.4 Types of grantees

Table 5 shows the distribution of funding across organisational types. Universities were the most highly funded type of organisation, receiving 56.6% of all funding (1.8 billion USD, allocated through 1,749 grants to 164 different universities). Altogether, 98.8% of university funding went to HIC universities (predominantly the UK, 94.4%), and the median grant size and the mean grant length awarded to HIC universities were almost three times bigger and 1.3 times longer than for LMIC universities. The most well-funded university, Oxford University, received 217 grants worth 349 million USD, while the most well-funded LMIC university, University of the Witwatersrand South Africa, received 7 grants worth 2.0 million USD.

Table 5:
Types of Wellcome Trust grantees, 2018 – 2020

	Percentage total funding (Allocation, USD)	Number recipients	Number grants	% funding to HIC recipients (Number recipients)
Universities	56.6 % (1.8 billion USD)	164	1,749	> 94.4 %* (135)
NGOs	33.6 % (1.1 billion USD)	215	361	85.3 % (167)
Governmental	4.5 % (145.0 million USD)	30	84	95.1 % (21)
Private-for-profit	3.2 % (79.2 million USD)	44	53	100 % (44)
IGOs	1.6 % (50.8 million USD)	6	45	Not applicable
GHPs	0.6 % (20.2 million USD)	6	14	Not applicable

* 94.4% was awarded to UK-based recipients, 98.8% to HIC-based participants

Abbreviations:

HIC – high-income country; **NGO** – non-governmental organisation; **IGO** – intergovernmental organisation; **GHP** – global health partnership

21 <https://wellcome.org/who-we-are/history-wellcome>

22 Dexter, T. Michael (2000)

23 No author listed (2008)

24 The Wellcome Trust Annual Report (2021)

25 *ibid.*

2.5 Twenty biggest grants

The twenty largest grants amounted to 1.0 billion USD (31.9% of total funding) and are shown in Table 6. Most of these grants were dedicated to

clinical and biomedical research, including the building of researcher capacity and the development of new products. Many were dedicated to infectious diseases, including neglected tropical diseases such as dengue, malaria, leishmaniasis, and shigella.

Table 6:
Twenty biggest Wellcome Trust grants, 2018 – 2020

Recipient organisation Organisation type Recipient location	Amount (USD) Duration Share* Year	Grant description**
Wellcome Leap Inc. NGO US	322,712,933 119 m 10.0% 2020	Wellcome Leap. <i>This has an aim to "builds bold, unconventional programmes, and funds them at scale", including access to surgery, prevention of stillbirth, understanding and treating depression, predictive markers of disease, understanding and promoting healthy brain development in children, and bioengineered solutions to organ damage.</i> ¹
Wellcome Sanger Institute NGO UK	302,640,000 23 m 9.4% 2020	Sanger Supplementary Award 2021–2023 <i>Wellcome Sanger Institute is a genomic research institute</i>
African Academy of Sciences NGO Kenya	68,224,490 18 m 2.1 % 2020	To develop excellence in African leadership in health research by funding programmes to enhance research quality, women's engagement, and policy impact
Wellcome Trust/DBT India Alliance NGO India	52,000,000 132 m 1.6% 2019	To support postdoctoral scientists in their biomedical research career <i>This is a non-profit, independent, biomedical research charity supported by the Government of India in conjunction with Wellcome Trust.</i>
University College London University UK	32,500,000 59 m 1.0% 2020	To the Sainsbury Wellcome Centre, which works with other laboratories to identify neural processes which explain behaviour using computer algorithms
University of Oxford University UK	31,966,503 59 m 1.0% 2019	Part of the Thailand, Africa, and Asia Programme, which does research on prevention and treatment of infectious diseases, including malaria, dengue, and melioidosis. This is for strengthening the research network, to increase collaboration and influence policy, with an aim to improve life quality and expectancy and reduce disparity in health metrics between HIC and LMICs
UK Biobank Ltd NGO UK	26,000,000 63 m 0.8% 2019	To develop an informatics platform for UK Biobank data, which provides access to a biomedical database of genetic and health information, to make it easier for researchers seeking to understand the determinants of disease to access data
Rosalind Franklin Institute Governmental UK	25,001,297 59 m 0.8% 2020	Develop new technologies that use electron imaging technology to visualise components of cells. This is part of the Electrifying Life Science project with Diamond Light Source and the Medical Research Council, which will help with drug discovery.
Scripps Research Institute NGO US	24,325,678 35 m 0.8% 2019	New drugs for neglected tropical diseases including schistosomiasis, leishmaniasis, Chagas disease, cryptosporidiosis, and dengue

Recipient organisation Organisation type Recipient location	Amount (USD) Duration Share* Year	Grant description**
University of Oxford University UK	23,270,000 59 m 0.7% 2020	Part of Thailand Africa and Asia Programme See above.
Monash University University Australia	17,737,966 41 m 0.5% 2018	To World Mosquito Program, to help control dengue, Zika, and other mosquito borne viruses, by using the bacterium, Wolbachia, to reduce the ability of mosquitoes to transmit dengue.
Drugs for Neglected Diseases Initiative NGO Switzerland	13,057,777 37 m 0.4% 2018	Developing simple oral effective and low-cost treatments for visceral and cutaneous leishmaniasis with minimum side-effects in resource poor settings
European Bioinformatics Institute IGO International	13,000,000 23 m 0.4% 2020	For the European Molecular Biology Laboratory expansion due to the increased need to store and process large amounts of data
University College London University UK	12,479,644 59 m 0.4% 2019	To Sainsbury Wellcome Centre, which works with other laboratories aiming to use computer algorithms to identify neural processes that explain behaviour
Novartis Institute for BioMedical Research Private-for-profit US	12,010,432 47 m 0.4% 2020	Developing innovative therapeutics for Chagas disease and Cryptosporidiosis
Diamond Light Source Ltd. Governmental UK	11,414,151 11 m 0.4% 2020	Diamond Operating Award 2019/20 <i>For the UK's national synchrotron, which uses intense beams of light to research, among other things viruses, and vaccines, new drugs, genes, Alzheimer's disease, ageing, food science, and antimicrobial resistance.²</i>
GlaxoSmithKline Biologicals SA Private-for-profit Belgium	11,032,538 62 m 0.3% 2018	To support the manufacturing of a new 4-valent Shigella vaccine for a phase I/II trial in endemic regions
Diamond Light Source Ltd. Governmental UK	10,841,514 11 m 0.3% 2019	Diamond Operating Award 2018/19. See above.
Academy of Medical Sciences NGO UK	10,832,900 39 m 0.3% 2019	For research fellowships for undergraduates, exchange programs for researchers between UK and the Middle East, and to support biomedical research
Diamond Light Source Ltd. Governmental UK	10,622,300 11 0.3% 2018	Diamond Operating Award 2017/18. See above.
Total	1,031,670,124 31.9%	

* As a percentage of total funding of the Wellcome Trust throughout the three years

** Abbreviated from the Wellcome Trust website with additional information in italics

1 Wellcome Leap. Changing the business of breakthroughs. Programs. Available from: <https://wellcomeleap.org/> Accessed 30 Dec 2022.

2 Diamond. A brighter light for science. Available from: <https://www.diamond.ac.uk/Home/About.html> Accessed 12 Apr 2023.

Abbreviations:

NGO – non-governmental organisation; IGO – intergovernmental organisation

COVID-19 grants did not noticeably alter the funding pattern. Altogether, only 2.1% of total funding (32.0 million USD) was allocated to 32 COVID-19-related grants to 26 different grantees, most of which, (82.9%, 26.5 million USD) went to universities. The biggest COVID-19-related grant was 6.9 million USD for the University of Oxford to investigate chloroquine prophylaxis in healthcare workers.

2.6 Biggest grantees

The twenty biggest recipients of funding captured 74.6% of the total amount disbursed (see Table 7); two of these were in LMICs. Thirteen of these re-

cipients were universities (all UK-based), which collectively received 44.2 % of all funding (1.5 billion USD). The three most-funded universities, University of Oxford, University College London, and the University of Cambridge, received a combined total of just over one-quarter of WT funding (26.0% of total funding, 842.5 million USD, 524 grants).

WT-affiliated NGOs, Wellcome Sanger Institute (32.5% of NGO funding 302.6 million USD, 26 grants) and Wellcome Leap Inc., (29.1% of NGO funding, 322.7 million USD, 2 grants) together received almost one-fifth of total funding. In total, 85.3% of NGO funding went to HIC organisations (mostly the UK) and 14.7% to LMIC ones.

Table 7:
Twenty biggest Wellcome Trust grantees, 2018–2020

Recipient organisation	Organisation type	Recipient location	Number grants	Allocation (USD)	Share* (%)
Wellcome Sanger Institute	NGO	UK	26	361,541,144	11.2 %
University of Oxford	University	UK	217	348,674,018	10.8 %
Wellcome Leap Inc.	NGO	US	2	323,730,705	10.0 %
University College London	University	UK	165	265,712,619	8.2 %
University of Cambridge	University	UK	142	228,068,582	7.1 %
University of Edinburgh	University	UK	85	121,434,996	3.8 %
King's College London	University	UK	91	108,283,999	3.3 %
Imperial College London	University	UK	69	86,308,590	2.7 %
African Academy of Sciences	NGO	Kenya	11	81,009,315	2.5 %
University of Glasgow	University	UK	49	55,877,138	1.7 %
Diamond Light Source Ltd.	Governmental	UK	13	52,189,550	1.6 %
Wellcome Trust/DBT India Alliance	NGO	India	2	52,027,450	1.6 %
University of Bristol	University	UK	45	51,081,576	1.6 %
UKRI-MRC	Governmental	UK	23	50,410,240	1.6 %
University of Dundee	University	UK	27	48,729,108	1.5 %
University of Manchester	University	UK	46	41,415,239	1.3 %
London School of Hygiene & Tropical Medicine	University	UK	55	39,298,130	1.2 %
Newcastle University	University	UK	34	33,185,968	1.0 %
European Bioinformatics Institute	IGO	International	16	32,190,579	1.0 %
Liverpool School of Tropical Medicine	University	UK	36	31,618,501	1.0 %
Total				2,412,787,447	74.6 %

* As a percentage of total funding of the Wellcome Trust throughout the three years

Abbreviations:

NGO – non-governmental organisation; DBT – Department of Biotechnology; UKRI–MRC – UK Research, and Innovation – Medical Research Council; IGO – intergovernmental organisation

For governmental grantees, the biggest recipient was Diamond Light Source Ltd. (52.2 million USD, 13 grants), followed by the UK Research and Innovation –Medical Research Council (50.4 million USD, 23 grants), and the Rosalind Franklin Institute (26.2 million USD, 2 grants) — a national research institute focussed on “developing new technologies to tackle important health research challenges”.²⁶

For IGO grantees, the highest was the European Bioinformatics Institute (63.3% IGO funding, 32.2 million USD, 16 grants). The second highest IGO awarded was the WHO (30.0% IGO funding, 15.2 million USD, 22 grants).

No GHPs or private-for-profit organisations featured in the top-twenty biggest recipients.

For private-for-profit organisations, the three largest cumulative grantees were GlaxoSmithKline Biologicals SA, Novartis Institute for BioMedical Research, and GlaxoSmithKline which together received 36.2 million USD (6 grants).

For GHPs, the International AIDS Vaccine Initiative (IAVI) was the most-highly funded one (51.8% of GHP funding, 10.4 million USD, 5 grants), followed by the International Vaccine Institute (31.9% of GHP funding, 6.4 million USD, 3 grants).

3. The Bill and Melinda Gates Foundation

3.1 Background

The BMGF was established in 2000²⁷ and has become the current-day largest private foundation donor in global health. In 2020, 7.4% of all DAH (4.6 billion USD) was sourced from the BMGF; indeed, that year it was the second biggest source of DAH after the US government (which provided 21.0% of total funding, 13 billion USD in 2020).²⁸ In addition to providing funding, the BMGF has helped establish several GHPs, including Gavi and the Global Fund. In 2021, the BMGF had assets worth 55 billion USD with an annual return of 18.9% and disbursed 6.7 billion USD (6.0 billion USD in grants)²⁹, most of which (4 billion USD) was awarded via their Global Health and Global Development programmes.³⁰

3.2 Grant overview

In 2018 – 2020, a total of 7.8 billion USD was awarded through 2,804 health-related grants to 1,079 different grantees. This makes the BMGF’s total global health funding two and half times that of the WT and almost forty times that of RF. However, if one uses a wider definition of health to include grants related to water and sanitation, agriculture, and poverty, the BMGF’s contribution to global health will be even greater.

The value and length of these grants ranged from 435 USD to 731 million USD (median 0.7 million USD) and 1 to 239 months (mean 28 months). There was an increase in the number of grants awarded each year from 811 in 2018 to 1075 in 2020. Total grant amounts were approximately 2.2 billion USD in 2018 and 2019; funding in 2020 reached 3.4 billion USD.

3.3 Grantee locations

Altogether, 31.8% of total funding was awarded to international organisations (2.5 billion USD) while 39.9% went to US-based grantees (3.1 billion USD) and 15.6% (1.2 billion USD) went to grantees in other HICs (including the UK). The remainder (12.7%, 1.0 billion USD) went to grantees based in LMICs. When international grantees are removed, 81.4% of funding was awarded to HIC grantees and 18.6% to LMIC ones.

3.4 Types of grantees

Table 8 shows the distribution of funding across organisational types. The organisation type most funded was NGOs, receiving over a third of all funding (34.3%, 2.7 billion USD, 495 different NGOs through 1,193 grants). The ten most well-funded NGOs were based in the US. In total, 84.8% of NGO funding (2.2 billion USD) was allocated to HIC-based NGOs (after excluding a small proportion of NGO funding that went to international non-profit federations/networks).

Universities were the second-most funded organisation type (18.2% of total funding, 1.4 billion USD, 918 grants to 237 different universities). Altogether, 91.2% (1.3 billion USD) of university funding went to HIC-based universities. Although some LMIC

26 <https://www.rfi.ac.uk/about/>

27 <https://www.gatesfoundation.org/about/our-story>

28 Institute of Health Metrics and Evaluation (2022)

29 KPMG 2022

30 The Bill and Melinda Gates Foundation (2022)

Table 8:
Types of Bill and Melinda Gates Foundation grantees, 2018–2020

	Percentage total funding (Allocation, USD)	Number recipients	Number grants	% funding to HIC recipients (Number recipients)
NGOs	34.3% (2.7 billion USD)	495	1,193	84.8% (336)
Universities	18.2% (1.4 billion USD)	237	918	> 65.0%* (177)
GHPs	16.5% (1.3 billion USD)	14	56	Not applicable
IGOs	16.2% (1.3 billion USD)	35	222	Not applicable
Private-for-profit	12.1% (0.9 billion USD)	222	286	79.5% (172)
Governmental	2.7 % (1.0 million USD)	78	129	19.7% 26

* 65.0% was awarded to US-based recipients, 91.2% to HIC-based recipients

Abbreviations: **HIC** – high-income country, **IGO** – intergovernmental organisation; **GHP** – global health partnership; **NGO** – non-governmental organisation

universities received several grants, most only received one grant.

3.5 Twenty biggest grants

The top-twenty biggest grants accounted for 26.1% of total funding (2.0 billion USD) and are shown in Table 9. All but three of these grants were directed towards one or more infectious diseases, predominantly polio and malaria but also including HIV, TB, and COVID-19. Of the remaining three, one was for non-specific diagnostic improvements, one for unspecified drug development, and one for the ONE Campaign “to end poverty and preventable disease”.

COVID-19 shifted the BMGF’s funding patterns with 18% of 2020 funding (603 million USD) allocated through 306 COVID-19-related grants to 214 different organisations. The biggest COVID-19-related grant was 200 million USD for Gavi to accelerate the delivery of COVID-19 vaccines in LMICs (2.6% of total BMGF funding and 33.2% of all COVID-19 funding). The second biggest was to LumiraDx UK Ltd., for the introduction and uptake of COVID-19 testing across African countries (2.8% of COVID funding, 17 million USD). Notably, LumiraDX UK Ltd also featured in the top-twenty RF biggest grants. The third biggest grant was awarded to private-for-profit Novavax Inc., an American biotechnology company (0.2% of total funding, 15 million USD), for COVID-19 vaccine development in South Africa.

3.6 Biggest grantees

The twenty biggest grantees (see Table 10) accounted for 46.5% of all monies allocated (3.6 billion USD) through a total of 2804 separate grants; three were

based in LMICs, two of which were private-for-profit companies. The biggest grantee was the WHO (10.2% of BMGF funding, 796.0 million USD, 120 grants), followed by the Global Fund (9.9% of total funding, 771.3 million USD, 4 grants). PATH, a US-based NGO (3.5% of total funding, 276.4 million USD, 80 grants), was the third biggest grantee.

Six of the twenty biggest recipients were NGOs, all US-based, and six were HIC universities. The universities were the University of Washington, Imperial College London, Johns Hopkins University, and the University of California San Francisco. Together they received 4.6% of all BMGF funding (360 million USD, 154 grants). The most well-funded LMIC university (the 26th most-funded university by BMGF) was Aga Khan University (0.2% of total funding, 16.5 million USD, 13 grants).

The GHPs featured among the twenty biggest grantees apart from the Global Fund, were Gavi (15.7% GHP funding, 202 million USD, 2 grants) and the Medicines for Malaria Venture (14.4% GHP funding, 185 million USD, 4 grants). The WHO entities aside, the IGO category included UNICEF (15.6% IGO funding, 196.9 million USD, 36 grants) and the World Bank (6.9% of IGO funding, 63.7 million USD, 22 grants) as prime recipients.

Three of the twenty biggest recipients were for-profit organisations involved in vaccine manufacturing: the US-based Inventprise (8.2% of for-profit funding, 78.1 million USD, 6 grants), the Indian-based Biological E. Ltd. (6.4% of for-profit funding, 60.2 million USD, 5 grants), and the Indonesian-government owned PT. Biofarma (Persero) (5.9% of for-profit funding, 56.2 million USD, 3 grants).

Only one governmental agency was among the top twenty recipients. This was the Government of Nigeria (35.5% governmental funding, 75 million USD, 1 grant). The next governmental recipients were the US-based National Institute of Allergy

and Infectious Diseases (6.4% governmental funding, 13.6 million, 11 grants) and the Indian-based Biotechnology Industry Research Assistance Council (5.2% governmental funding, 13.0 million, 13 grants).

Table 9:
Twenty biggest Bill and Melinda Gates Foundation grants, 2018–2020

Recipient organisation Organisation type Recipient location	Amount (USD) Duration Share* Year	Grant description**
The Global Fund GHP International	731,783,690 25 m 9.4% 2020	To support the Global Fund as part of the 2020–2022 funding cycle
GAVI Alliance GHP International	200,000,000 116 m 2.6% 2020	To reduce the impact of the COVID-19 pandemic within low-income, lower-middle income, and IDA-eligible upper-middle income economies by accelerating the introduction and scale up of vaccines
Medicines for Malaria Venture GHP International	180,000,000 73 m 2.3% 2018	To further drug discovery and development aimed at delivering innovative medicines required to enhance the clinical case management of malaria in malaria-endemic countries
World Health Organization IGO International	121,393,753 53 m 1.6% 2018	To support the Global Polio Eradication Initiative's (GPEI) efforts to replenish the mOPV2 stockpile to ensure necessary supply to effectively respond in a timely manner to a cVDPV2 or WPV2 outbreak, should they occur
Imperial College London University UK	79,006,570 60 m 1.0% 2020	To develop a new tool for malaria control and elimination in sub-Saharan Africa
Government of the Federal Republic of Nigeria Governmental Nigeria	75,000,000 55 m 1.0% 2019	To support Nigeria through its transition from Gavi by providing additional financing for its primary health care system
World Health Organization Pakistan Country Office IGO Pakistan	70,947,628 40 m 0.9% 2018	To provide enhanced technical and operational assistance to Pakistan to stop the transmission of wild polio virus
Clinton Health Access Initiative Inc. NGO US	70,598,262 48 m 0.9% 2020	To advance data-driven, sub-nationally tailored malaria interventions in high burden Africa & the GMS, along with targeted support to and time-limited transition from previously prioritised elimination geographies
PATH NGO US	55,272,694 56 m 0.7% 2018	To develop FxRTS,S as a tool for Plasmodium falciparum elimination
Calibr, a division of The Scripps Research Institute NGO US	50,137,945 61 m 0.6% 2019	To increase the number and quality of drug development candidates entering the pre-clinical and clinical development pipelines of the PDPs to deliver drugs to treat the diseases prioritised by the Foundation

Recipient organisation Organisation type Recipient location	Amount (USD) Duration Share* Year	Grant description**
Islamic Development Bank IGO International	50,000,000 239 m 0.6% 2019	To support the eradication of polio in Pakistan
PT. Bio Farma (Persero) Private-for-profit*** Indonesia	45,758,365 35 m 0.6% 2020	To support expansion of manufacturing and filling capacity to allow for the accelerated production of nOPV2 for use after WHO EUL is achieved to then produce stockpile of 100M doses of nOPV2 to replace mOPV2
European Commission IGO International	45,178,000 238 m 0.6% 2019	To provide additional funding to the European Fund for Sustainable Development Guarantee, which includes the African Health Diagnostics Platform to support projects that increase access to cost-effective, quality diagnostic testing services
Biological E. Limited Private-for-profit India	40,600,000 47 m 0.5% 2019	To supply LHV to target populations through UNICEF, PAHO and GAVI agencies at affordable rates, thereby increasing adoption and coverage of this vaccine <i>LHV covers diphtheria, tetanus, pertussis, polio, hepatitis B, and Haemophilus Influenza type B.</i>
The ONE Campaign NGO US	40,000,000 49 m 0.5% 2020	To provide for general operating support
World Health Organization IGO International	37,372,618 39 m 0.5% 2020	To support personnel and activities that will work to interrupt the transmission of polio virus – <i>countries unspecified</i>
World Health Organization IGO International	37,103,732 35 m 0.5% 2019	To support WHO to implement quality and timely outbreak vaccination activities in response to the circulation of vaccine-derived viruses, particularly in the Africa region
Clinton Health Access Initiative Inc. NGO US	36,528,600 57 m 0.5% 2018	To identify, develop and scale new approaches to enhance immunisation coverage globally
PATH NGO US	36,305,538 47 m 0.5% 2020	To advance data-driven, sub nationally tailored malaria interventions in high burden Africa, along with targeted support to and time-limited transition from previously prioritised elimination geographies
World Health Organization IGO International	34,400,000 41 m 0.4% 2020	To support the Global Fund to Fight AIDS, Tuberculosis, and Malaria
Total	2,037,387,395 26.1 %	

* As a percentage of total funding of the total BMGF funding throughout the three years

** Taken directly from the BMGF website, with additional information provided in italics

*** Government owned

Abbreviations:

GHP – global health partnership; **IDA** – International Development Association; **IGO** – intergovernmental organisation;

mOPV2 – monovalent type 2 oral polio vaccine; **cVDPV2** – circulating vaccine-derived poliovirus type 2; **WPV2** – wild poliovirus type 2;

NGO – non-governmental organisation; **GMS** – Greater Mekong subregion; **FxRTS,S** – fractionated to one-fifth of the standard dose malaria vaccine;

PDP – product development partnership; **EUL** – emergency use listing; **nOPV2** – novel oral polio vaccine type 2; **LHV** – liquid hexavalent vaccine

Table 10:
Twenty biggest Bill and Melinda Gates Foundation grantees, 2018–2020

Recipient organisation Organisation type Recipient location	Number grants	Allocation (USD)	Share* (%)
World Health Organization** IGO International	120	795,790,313	10.2 %
The Global Fund to Fight AIDS Tuberculosis and Malaria*** GHP International	4	771,300,348	9.9 %
PATH*** NGO US	80	276,361,866	3.5 %
Clinton Health Access Initiative Inc. NGO US	57	223,069,764	2.9 %
GAVI Alliance*** GHP International	2	202,498,750	2.6 %
United States Fund for UNICEF IGO International	36	196,851,802	2.5 %
MMV Medicines for Malaria Venture*** GHP International	4	185,549,649	2.4 %
University of Washington*** University US	62	113,129,518	1.4 %
Imperial College London*** University UK	19	97,314,096	1.2 %
Jhpiego Corporation NGO US	17	89,899,053	1.1 %
Inventrise Private-for-profit US	6	78,124,768	1.0 %
Johns Hopkins University*** University US	49	75,894,925	1.0 %
The Government of the Federal Republic of Nigeria Governmental Nigeria	1	75,000,000	1.0 %
University of California San Francisco University US	27	73,296,326	0.9 %
Population Services International NGO US	8	72,598,872	0.9 %
Calibr a division of The Scripps Research Institute NGO US	7	71,089,158	0.9 %
International Bank for Reconstruction and Development*** IGO International	22	63,721,186	0.8 %
Biological E. Limited Private-for-profit India	5	60,224,551	0.8 %
FHI Partners LLC NGO US	5	57,518,134	0.7 %
PT. Bio Farma (Persero) Private-for-profit (government-owned) Indonesia	3	56,217,890	0.7 %
Total		3,635,450,969	46.5 %

* As a percentage of total funding of the BMGF throughout the three years

** These grants went to WHO headquarters, regional offices, and four country offices (Pakistan, India, Democratic Republic of Congo, and Central African Republic)

*** Among the top-twenty cumulative recipients in the period 1998 – 2007. In: McCoy, David et al. (2009) The Bill & Melinda Gates Foundation's Grant-Making Programme for Global Health. The Lancet 373, no. 9675 p.1645–53.

Abbreviations:

IGO – intergovernmental organisation; GHP – global health partnership; NGO – non-governmental organisation; FHI – Family Health International

3.8 Comparison with a previous review

This section compares the results of the present analysis with a prior review of the BMGF's granting pattern for the period 1998 – 2007.³¹ The most notable change is the almost three-fold increase in average funding/year across the two time periods, from 895 million USD to 2.6 billion USD/year, with a simultaneous nine-fold increase in the annual number of grants awarded (109 to 935 grants/year).

In addition, there were changes to the share of funding across the different locations. The share to international organisations declined from 40% to 31.8%. When the funding to international organisations is excluded, we also find that the share of the remaining funding to HIC organisations declined from 95.0% to 81.4%.

There were also changes to the percentage share awarded to different organisational types. Although the share of funding to international organisations declined, there was an increase in the share to IGOs, mostly explained by an almost eight-fold increase in the annual funding to WHO from 34 million USD to 265 million USD. The World Bank's annual funding also increased, albeit to a lesser extent, from 13.4 million USD to 18.8 million USD. In contrast, the share awarded to GHPs declined by almost half (32.5% to 16.5%). Gavi's annual funding declined from 151.2 million to 67.5 million (16.9% to 2.6%), due to the replenishment cycle occurring outside the review period; 1.6 billion USD was awarded to Gavi in July 2021.³² NGOs were allocated the greatest share of funds across both periods. Notably, there was a thirteen-fold increase in the percentage share directed to the private sector (0.9% to 12.1%). While governmental organisations remained the least funded organisation type, their share almost doubled (1.4% to 2.7%), primarily a result of the large grant to the Nigerian government.

Altogether, the percentage share allocated to the top twenty grantees decreased over the two periods, from 65% to 46%, although the money allocated to the top twenty grantees increased from 0.6 billion to 1.2 billion USD/year. Three private-for-profit sector grantees and one governmental agency were among the top twenty grantees in 2018–2020; however, these organisational types were absent in the earlier review. The nine organisations in the top twenty of both periods are marked with an asterisk in Table 10 and include WHO, the Global Fund, Gavi, the

World Bank, and PATH. There were no LMIC organisations funded in the top-twenty grantees in the previous review compared with three in this analysis.

4. Comparisons across the three private foundations

Each of three foundations described above are separate and independent organisations with their own missions and priorities. Although they are not strictly comparable, it is worth noting the different approaches that their grant-making programmes take. How each organisation shares its funding across organisational types is shown in Figure 1.

While both the RF and BMGF devoted a considerable proportion of their funds to international organisations (33.0% and 31.8% respectively), the WT only allocated 2.4%. This marks the fact that both RF and BMGF have explicit programmes of work targeting global health policy and programmes, while the WT is much more of a dedicated medical and public health research organisation.

All three organisations tended to support on grantees based in HICs. For the RF and BMGF, most recipients were US based, for WT they were UK based. When funding to international organisations is excluded, the proportions directed at HIC-based recipients were 94.0%, 83.9%, and 81.4% for the WT, RF and BMGF, respectively. Most LMIC funding went to organisations based in lower-middle income countries relative to organisations in LICs or upper-middle-income countries, for all three foundations.

As far as organisational type, the WT's focus on research meant that universities were the most heavily funded type of organisation (56.6% of funding), followed by NGOs (33.6%) of which many were non-governmental research organisations. By contrast, the RF directed more than half its funds towards NGOs, while splitting another third of its funds between IGOs and GHPs. The BMGF, on the other hand, had the most even spread across the different organisation types. It was the only foundation to fund private-for-profit organisations in LMICs and allocated more funds to governmental agencies in LMICs compared to the RF and WT in the period of analysis.

Although we did not analyse all individual grants, reviewing the top-twenty grants revealed a flavour

31 McCoy, David et al. (2009)

32 <https://www.gatesfoundation.org/about/committed-grants?q=gavi&yearAwardedEnd=2022&yearAwardedStart=2021>

of the type of global health issues funded. RF grants favoured COVID-19-related projects and the digitalisation of health. WT targeted neglected or emerging infectious diseases with additional emphasis on neuroscience, bioinformatics, innovation, and supporting researchers. Most top-twenty BMGF grants were infectious disease related (especially malaria and polio), particularly involving vaccination.

Of interest is the concentration of funding among the top twenty biggest recipients of the three foundations. Several universities received funds from all three foundations. For example, Imperial College in London was among the top twenty grantees of both the WT and BMGF (totalling 184 million USD in three years), while receiving an additional 786,000 USD from the RF. Although a smaller proportion of BMGF's overall funding went to universities compared with WT (18.2% versus 56.6%, respectively), BMGF's total allocation to universities of 1.4 billion USD was quite close to WT's allocation of 1.8 billion USD. Other top twenty grantee overlaps for the BMGF and RF included the WHO, World Bank, UNICEF, Global Fund, Gavi, and the US-based NGO, PATH; indeed, PATH amassed 280 million USD from both organisations combined over the three years, with an additional 1.8 million USD from WT, making it the most-funded NGO.

All three foundations also funded their own offshoots. For example, RF Catalytic Capital received 15.1% of RF's total funding, while the WT's Wellcome Leap Inc., Wellcome Sanger Institute, and WT/DBT alliance received 21% of WT total funding. The BMGF granted 4.0 million USD to the Gates Medical Research Institute. Cross-funding from one foundation to each other's offshoots amplified their funding. For

instance, BMGF funded the Wellcome Sanger Institute and Rockefeller University, with each receiving 22.9 million USD through multiple grants.

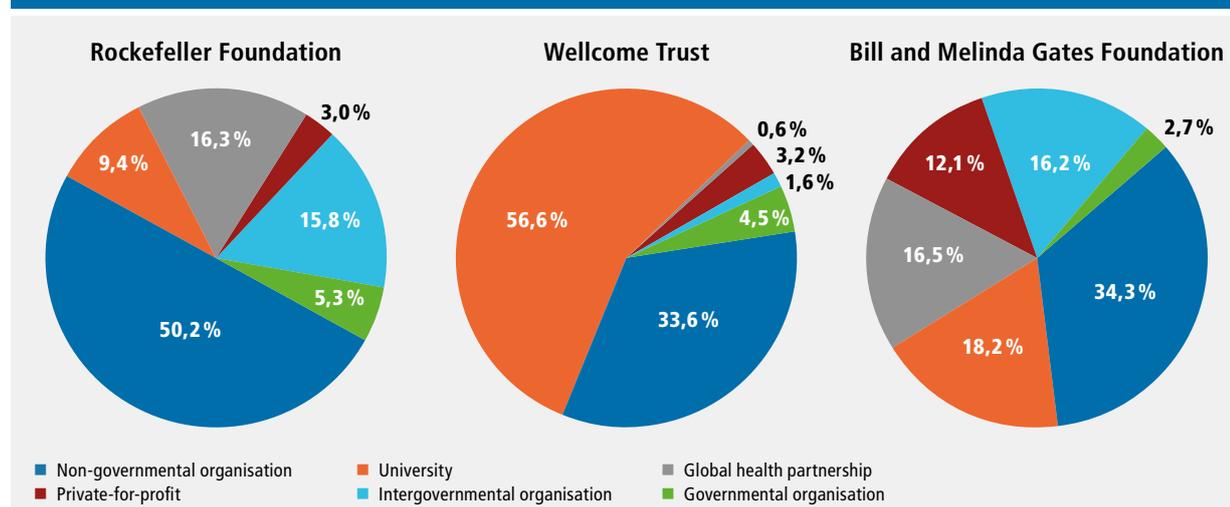
Funding in 2020 increased in all three foundations compared to previous years, in part influenced by COVID-19 grants. The pandemic influenced the RF most (72.3% of 2020 funding went to COVID-19-related projects) and had the least influence on WT (2.1% of 2020 funding), with BMGF in between (18.0% of 2020 funding). Most COVID-19 funding was allocated to US-based grantees by the RF and BMGF, whereas for the WT it was to UK-based ones.

Further analysis showed shifts in the organisational share of funding for COVID-19 grants compared with non-COVID-19 grants (2018 – 2020). BMGF increased its percentage funding to GHPs and private organisations, from 17.0% to 33.6% and from 11.2% to 18.6% respectively, reflecting a cash injection to Gavi for making available vaccines in LMICs and to private biotechnological companies for the development of COVID-19 vaccines and tests. For WT, more COVID-19 funding went to universities (74.6%) than non-COVID-19 funding (56.4%), while RF increased its share to NGOs from 35.1% to 65.0%, respectively.

5. Emergent themes

Private foundations are powerful global health players. Aside from their own financial power, they can leverage the influence and resources of the institutions they fund. While their independence and agility as private actors are seen as positive attributes, they

Figure 1: Types of grantees, Rockefeller Foundation, Wellcome Trust, and Bill and Melinda Gates Foundation, 2018–2020



have few in-built mechanisms to hold them accountable to the public. At the very least, there should be an account of the grant-making activities of private foundations. This report uses data made available by the foundations to generate a very simple picture of the grant-making activities of three foundations that nonetheless provides enough information to generate five interesting discussion points.

5.1 Varying in size and influence

Our findings confirm the BMGF as the biggest and most influential private foundation in global health. Its global health funding was two and half times that of WT, and almost forty times that of the RF. Furthermore, while the WT has a funding portfolio that is concentrated around research, the BMGF's portfolio includes research, policymaking, and programme implementation. Notably, it is also the second largest single funder of the WHO and an influential presence on the governing structures of the major GHPs. Although other private foundations working in global health may be smaller, it would nonetheless be important to generate a better understanding of their roles in the global health ecosystem and to also examine the emergence of influential foundations from within Asia, Latin America, and Africa and their impacts regionally.

5.2 Reproducing power imbalances

Grants from all three foundations were mainly received by HIC-based recipients. After excluding grants to international organisations, the BMGF, RF, and WT directed only 18.6%, 16.1% and 6.0%, respectively, of their remaining grant funding to LMIC-based organisations. Noteworthy is that among LMIC recipients, lower-middle income countries were favoured over LIC ones. When funding to international organisations is included, the share of funding to LMIC organisations drops even further. For example, only 12.7% of all BMGF funding went directly to LMIC recipients. This pattern was most apparent in relation to universities; over 90% of university funding awarded by all three foundations went to HIC-based universities, often to so-called 'elite' institutions in the UK and US, typically through multiple grants. A quarter of all WT funding went to just three universities (University of Oxford, University College London and University of Cambridge). The median grant amount to universities funded by BMGF and WT was 1.5 to 3 times larger for HICs compared with LMIC ones. Taken together, our findings suggest that this pattern of grant-making places financial control and decision-making with HIC-based institutions.

5.3 Shaping the global health landscape

Private foundations have been increasingly important funders of global health organisations since the turn of the millennium. Our analysis shows that the BMGF dominated in this regard. Although 32% of both RF and BMGF funding was directed at either GHPs or IGOs, the overall influence of RF at the global level is much smaller due to the smaller size of its contributions. Likewise, the WT has less influence than the BMGF at the global level as its monetary contributions are mainly directed at national organisations. With regards to WHO funding, the contributions of the RF (10.4 million USD) and WT (15.2 million USD) pale compared with 796 million USD of the BMGF. Likewise, BMGF's contributions to the World Bank (63.7 million USD) dwarf those of the RF (2.5 million USD). All three foundations allocated a substantial proportion of grant funding to NGOs (RF 50.2%, BMGF 34.3%, WT 33.6%). PATH, an NPO based in Seattle, remained in the unchallenged position as the highest-funded NGO.

5.4 Favouring infectious diseases and health technologies

There was an overwhelming focus on infectious diseases, biotechnology, and digital health. Among prioritised infectious diseases were COVID-19, several "neglected tropical diseases" and HIV/AIDS, polio, malaria, and tuberculosis. These projects focused on vaccine development or distribution; diagnostic technologies (especially for COVID-19); strengthening surveillance systems, primarily by investing in digital technologies; and drug development. While taking a disease-oriented approach, the three private foundations pay sparse attention to NCDs and broader health systems strengthening, apart from investments in disease surveillance.

5.5 Funding the for-profit private sector

The BMGF allocated 12.1% of its total funding to for-profit companies compared with 3.2% and 3.0% for the WT and RF, respectively. Three private-for-profit biotechnology firms (two based in LMICs) appeared among its top-twenty grantees, compared with one for the RF and none for the WT. The total amount of money awarded to for-profits by the BMGF was 947 million USD versus 103.0 million USD and 6.0 million USD from WT and the RF, respectively. Much of the private sector funding appears to be channelled towards technological innovation.

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Abbreviations

AI	artificial intelligence
BMGF	Bill and Melinda Gates Foundation
CHW	community health workers
COVID-19	coronavirus disease
cVDPV2	circulating vaccine-derived poliovirus type 2
DAH	development assistance for health
DBT	Department of Biotechnology
EUL	emergency use listing
FHI	Family Health International
FIND	Foundation for Innovative New Diagnostics
FxRTS,S	fractionated to one-fifth of the standard dose malaria vaccine
GAIN	Global Alliance for Improved Nutrition
GHP	global health partnership
GMS	Greater Mekong subregion
HIC	high-income country
HIV	human immunodeficiency virus
IDA	International Development Association
IDRC	International Development, Research Centre
IGO	Intergovernmental organisation
LIC	low-income country
LHV	liquid hexavalent vaccine
LMIC	low- and middle-income country
mOPV2	monovalent type 2 oral polio vaccine
NCD	non-communicable disease
NGO	non-governmental organisation
nOPV2	novel oral polio vaccine type 2
PAHO	Pan American Health Organisation
PATH	Program for Appropriate Technology in Health
PDPs	product development partnerships
RF	Rockefeller Foundation
SDG	Sustainable Development Goals
TB	tuberculosis
UK	United Kingdom
UKRI – MRC	UK Research, and Innovation – Medical Research Council
UNICEF	United Nations International Children’s Emergency Fund
US	United States
USD	United States Dollars
WHO	World Health Organisation
WT	Wellcome Trust

