

# Written Evidence Submitted by The UK Collaborative on Development Research (UKCDR)

(C190080)

[The UK Collaborative on Development Research \(UKCDR\)](#) here provides evidence on the rapid and comprehensive UK research response to the COVID-19 pandemic, to support the Science and Technology Committee (Commons) inquiry on *UK Science, Research and Technology Capability and Influence in Global Disease Outbreaks*. This evidence will focus on the parts of the terms of reference which have the greatest overlap with UKCDR's expertise, and accordingly will take examples primarily from UK ODA and Wellcome-funded research. In addition, in responding to these Terms of Reference, this evidence focuses chiefly on health sector research investments, rather than investments in other investments which are still relevant in the context of the COVID-19 pandemic, such as growth, living standards and jobs, WASH and so on.

## Overview of key messages

- The UK has a broad and strong research base for a response to global disease outbreaks;
- During COVID-19, the UK has provided world-leading and influencing research, with global impact, on modelling and predicting the nature and spread of the virus, vaccine development and therapeutic testing;
- UK ODA research funding has a significant role to play in responding to the COVID-19 pandemic in low- and middle-income countries, enhancing understanding of the virus in these settings and leading to global benefit;
- Collaboration between research funders within the UK has been strong and this has helped ensure an agile and coordinated response;
- UKCDR is contributing to research funding coordination to support COVID-19 research globally, and in particular in, for and with low- and middle- income countries (LMICs), to improve relevant research outputs, ensure outputs are shared rapidly to permit consolidation and review, inform policy and practice and ensure lessons are learned to improve responses within this outbreak and for future outbreaks
- Both UK research funders and UK researchers are actively engaged in global response bodies, through which they have had broad influence during the pandemic.

## About UKCDR

UKCDR is a group of government departments and research funders working in international development. For over a decade, we have brought UK research funders together to discuss priorities and coordinate efforts to garner maximum impact. Our mission is to amplify the value and impact of research for global development by promoting coherence, collaboration and joint action among UK research funders.

We are governed by the [Strategic Coherence of ODA-funded Research \(SCOR\) Board](#). The SCOR Board is chaired by an independent member, Professor Peter Piot, and brings together the Chief Scientific Advisers and Directors of our core members to provide oversight of UKCDR's work and to discuss international development research priorities across their own organisations and coordinate efforts to garner maximum impact. The funding bodies that make up UKCDR's core membership are:

- Department for International Development (DFID)

- Department for Business, Energy and Industrial Strategy (BEIS)
- Department for Health and Social Care (DHSC)
- UK Research and Innovation (UKRI) (incorporating the seven UK Research Councils, Innovate UK and Research England)
- Wellcome Trust
- Independent non-affiliated experts

UKCDR also convenes a wider stakeholder group and [impartial funder fora](#) for discussion on key themes, identified through our mapping and analysis work, where joint or complimentary research investment has the potential to increase impact for developing countries. We draw on the complimentary skills of our UK members and wider international stakeholders across civil society, business, philanthropy and academia by supporting them to work collaboratively and in partnership to make a difference in gap or opportunity areas, to reduce the risk of duplication and share accountability. We undertake projects in partnership with our members, to enhance the collective policy for UK funded development research.

UKCDR is conducting significant activities relating to COVID-19 research, particularly collaborating on ODA-funded research and research with a focus on LMICs or global impacts. This includes:

- Convening its [Epidemics Preparedness and Response Group](#) of UK research funders;
- Developing the publicly available global [COVID-19 Research Project Tracker](#) in collaboration with the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R);
- Collaborating with the African Academy of Sciences and The Global Health Network to undertake a [global study](#) on research priorities for COVID-19, with a particular focus on lower resourced settings; and
- Launching the [COVID-19 Research Coordination and Learning Initiative](#) (COVID CIRCLE), also in collaboration with GloPID-R, to further facilitate these coordination activities and ensure that lessons are learnt for future epidemics and pandemics.

### **The contribution of research and development in understanding, modelling and predicting the nature and spread of the virus**

The UK has a broad and strong research base for infectious disease modelling, and UK researchers have played an important leading global role on modelling the COVID-19 epidemic to inform decision making. UKCDR and GloPID-R's [COVID-19 Research Project Tracker](#), which tracks global research projects against the WHO global research and development priorities, shows that as at 14<sup>th</sup> July 2020, out of 1,858 projects tracked from 25 funders taking place in 96 countries, at least 22 research projects have been funded by UK funders (UKRI, DHSC, NIHR, CSO Scotland, Wellcome and DFID) relating to modelling of the virus and other aspects of the pandemic.

Examples of particularly high-profile and impactful UK-funded contributions of research and development in understand, modelling and predicting the nature and spread of the virus include:

- The [MRC Centre for Global Infectious Disease Analysis \(MRC GIDA\)](#) at Imperial College London is a WHO Collaborating Centre for Infectious Disease Modelling. Its researchers are providing epidemiological analysis and modelling of the disease to inform policy, and the UK government (and several other governments) on the COVID-19 response, and producing [regular reports](#) on COVID-19 to support the global response.
- The [Centre for the Mathematical Modelling of Infectious Diseases](#), at The London School of Hygiene and Tropical Medicine, a world leading global health research institution, has also been actively [undertaking research](#) to support the COVID-19 outbreak response.

- The University of Oxford Big Data Institute has provided [important modelling data informing contact tracing needs](#) led by Prof Christophe Fraser.
- Health Data Research UK (HDR UK) is working in partnership to support the UK Government and the NHS in England, Northern Ireland, Scotland and Wales to enable rapid health data research into COVID-19 utilising the UK's data assets, skills and expertise. This includes [advising the Strategic Advisory Group for Emergencies \(SAGE\)](#) on the most important health data research questions to prioritise.
- The International Severe Acute Respiratory and Emerging Infection Consortium (ISARIC) has developed a [portfolio of resources to accelerate outbreak research and response](#).

Moreover, while much of this research is for global benefit, ODA-funded research has an essential role to play in responding to the COVID-19 pandemic in low- and middle-income countries. For example, the cross-government NIHR and UKRI [Global Effort on COVID-19 \(GECO\)](#) focuses on understanding the pandemic and mitigating its health impacts in low- and middle-income countries. prioritising epidemiology, clinical enhancing understanding of the virus in these settings. Professor Chris Whitty, Chief Medical Officer and NIHR co-lead said "COVID-19 is a global problem. This important call for research will directly benefit people living in low- and middle-income countries. The virus presents different challenges in different settings, so research is needed across these settings. Unless we address COVID-19 globally, we will not reduce it to a manageable level as a global public health issue."<sup>1</sup>

#### **The capacity and capability of the UK research base in providing a response to the outbreak, in terms of vaccines and therapeutics**

The UK has rapidly funded development in the range of tools needed to help control the pandemic and has already achieved world-leading results on both vaccine development and testing of therapeutics. This research will have an impact on global progress towards safe and effective vaccines. The UKCDR and GloPID-R [COVID-19 Research Project Tracker](#), shows that as of 14<sup>th</sup> July 2020 UK funders (UKRI, DHSC, NIHR, CSO Scotland, DFID and Wellcome) had supported:

- At least 19 projects relating to the development and testing of vaccines.
- At least 62 projects relating to the development and testing of therapeutics.
- At least 32 research projects relating to testing and diagnostics.

The UK research on vaccine development and therapeutics have been world-leading, including notably:

- Vaccines developed by the University of Oxford and Imperial College London have been world leading in terms of speed of development. Funding from the UK Government through The DHSC [UK Vaccine Network](#) directly underpins both of these vaccine technologies.
- The [UK RECOVERY trial](#), funded by DHSC through NIHR, has led the world in the testing of therapeutics through a Randomised Control Trial, which built on established protocols and capability linked between researchers and the NHS. RECOVERY announced in June 2020 that the steroid dexamethasone has been identified as the first drug to improve survival rates in certain coronavirus patients. These results have already informed practice and will save lives globally. Professor Nick Lemoine, Chair of NIHR's Urgent Public Health group and Medical Director of NIHR's Clinical Research Network, said "this is hugely promising news from a world-leading team of researchers. Once again, this shows how UK research is truly at the

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<sup>1</sup> <https://www.nihr.ac.uk/news/new-cross-government-research-response-to-tackle-covid-19-in-low-and-middle-income-countries/24836>

forefront of the fight against the coronavirus, and how the NIHR's unique funding, support and delivery model leads to meaningful breakthroughs in unprecedented time-frames."<sup>2</sup>

UK Aid has a crucial role to play in providing a response to the outbreak in terms of vaccines, treatments and tests, with a focus on LMICs and equitable access. Over £313 million of ODA has been committed, including:

- Up to £250m to the Coalition for Epidemic Preparedness (CEPI). The largest country contribution to CEPI's COVID-19 work, this will fund the rapid development of the most promising COVID-19 vaccine candidates and ensure no delay in enabling access for developing countries to a suitable vaccine.
- Up to £40m to the COVID-19 Therapeutics Accelerator initiative. This new initiative, launched by Wellcome, the Bill & Melinda Gates Foundation and Mastercard, will accelerate development, manufacturing and distribution of treatments for COVID-19 in low and middle-income countries.
- Up to £23m to the Foundation for Innovative New Diagnostics (FIND). This will support access to accurate and high-quality diagnostic testing for COVID-19. They will be designed for developing countries by enabling self-testing at home and decentralised testing in the community by health workers.

**The flexibility and agility of institutions, Government departments and public bodies, and processes to respond appropriately during the crisis**

UK research funders have demonstrated their agility by launching rapid funding calls to support the necessary research during this pandemic. UK funders have shown flexibility through joint and partnership funding to share risk and enable more rapid aligned processes. Some, such as UKRI, have also been re-purposing existing grants to meet current priorities.

There are many examples of joint initiatives by UK research funders for COVID-19. In addition to those listed elsewhere in this evidence, the following provide further examples of partnerships which have a focus on LMICs or international development, include:

- Up to £15m committed by Wellcome and DFID, through the Joint Initiative on Research in Epidemics Preparedness and Response, to accelerate research and support global efforts to tackle the ongoing COVID-19 epidemic.
- The [UK-Public Health Rapid Support Team](#) led by Prof. Daniel Bausch, funded by the Department of Health and Social Care [has deployed public health experts from the London School of Hygiene and Tropical Medicine \(LSHTM\)](#) to support with the international response to COVID-19, including providing support to countries in Africa through the Africa CDC and the Nigerian CDC, and in Asia through the Global Outbreak Alert and Response Network (GOARN).

UKCDR has contributed to coordinating the research response, helping foster collaborative partnerships and tracking the research response globally to ensure alignment with global priorities and prevent duplication. UKCDR have also aligned research funders to [seven principles for funding high-quality research during epidemics and pandemics](#) which the UKCDR core funders (UKRI; UK BEIS; UK DHSC; UK DFID and Wellcome) have signed up to along with the GloPID-R Secretariat. These principles aim to support research funders to respond appropriately during the crisis.

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<sup>2</sup> <https://www.nihr.ac.uk/news/first-drug-to-reduce-mortality-in-hospitalised-patients-with-respiratory-complications-of-covid-19-found/25061>

### **The capturing during the crisis of data of the quantity and quality needed to inform decisions made during the crisis and to maximise the learnings afterwards**

UKCDR has contributed to research funding coordination to support COVID-19 research globally. In particular, it has focused on research funding in, for and with LMICs, to improve relevant research outputs, ensure outputs are shared rapidly to permit consolidation and review, inform policy and practice and ensure lessons are learned to improve responses within this outbreak and for future outbreaks.

To inform decisions made during the crisis, UKCDR have supported the collation and categorisation of globally funded research, including:

- Developing in collaboration with GloPID-R the [COVID-19 Research Project Tracker](#) to ensure alignment of UK funded research with the WHO global R&D priorities agreed by global experts at the WHO Research & Development meeting on COVID-19 on the 11<sup>th</sup> and 12<sup>th</sup> February 2020 and coordination at both the UK and Global Level.
- Presenting analyses of the data within the COVID-19 Research Project Tracker to the [epidemics preparedness and response group](#) on a fortnightly basis to enable funders to identify gaps and opportunities and inform future research investments or coordination needs.
- Collaborating with the African Academy of Sciences and The Global Health Network to undertake a [global study](#) to establish what are the remaining research priorities for COVID-19 and whether they are the same across the globe (with a particular focus on research priorities for lower resourced settings). This work has been presented to the [epidemics preparedness and response group](#) to inform their ongoing funding decision making.

UKCDR is now undertaking efforts to strengthen the evidence base to maximise learnings after the crisis and to inform both funder and researcher preparation for and responses to future epidemics:

- UKCDR has launched the [COVID Research Coordination and Learning Initiative](#) (COVID CIRCLE) in response to discussions with, in particular, DHSC, Medical Research Council and Wellcome. COVID CIRCLE aims to further facilitate these coordination activities and ensure that lessons are learnt for future epidemics and pandemics. This initiative is underpinned by the aforementioned [seven principles](#) which the UKCDR core funders (UKRI; UK BEIS; UK DHSC; UK DFID and Wellcome) have signed up to along with the GloPID-R Secretariat to date. These principles have already been incorporated into the [Global Effort on COVID-19 \(GECO\) Health Research call](#) funded by DHSC and MRC/UKRI.

### **The mechanisms for communication of scientific evidence internationally, within national governments and with the public**

Both UK research funders and UK researchers are actively engaged in global response bodies and coordinating mechanisms. Through these, they can have broad influence and ensure the coordinated global research response which is necessary during a pandemic. These mechanisms include:

- The WHO R&D Blueprint [Global Coordinating Mechanism](#) which brings together a variety of stakeholders involved in epidemics preparedness, to support the rapid activation of R&D activities for epidemics.
- The Global Research Collaboration for Infectious Disease Preparedness ([GLOPID-R](#)), which brings together global funders of epidemics research. This is co-chaired by Sir Jeremy Farrar

Director of Wellcome, a global expert in infectious diseases, tropical health and emerging infections.

- The [Scientific Advisory Group \(SAG\)](#) of the WHO R&D Blueprint which convenes a broad global coalition of experts to develop the work of the WHO R&D blueprint, and provide a platform for accelerated research and development. The SAG is also chaired by Sir Jeremy Farrar.

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