As part of the COVID CIRCLE learning element, we have developed case studies involving research projects and programmes which have demonstrated innovative best practice in research in epidemics. Each case study highlights factors of success in applying one or more of the Funder Principles for supporting high quality research for the most pressing global needs in epidemics and pandemics, to inform future funding and research practice.

INTRODUCTION

The 2014-2016 West Africa Ebola outbreak highlighted the inadequacies of global health research systems to respond to acute crises and galvanized global health actors around initiatives to boost preparedness and capacity for effective future epidemic response. Key among these is the WHO Research & Development Blueprint mechanism which focuses on priority pathogens of epidemic potential and outlines a framework for prompt response to disease outbreaks. Further, funders drew on their experiences from funding research during the West Africa Ebola outbreaks (2014-2016), Zika epidemic (2015-2016), North Kivu Ebola epidemic (2018) and other acute health emergencies to refine their approach to funding COVID-19 related research.

This mechanism was rapidly triggered at the onset of the current COVID-19 pandemic in early 2020, resulting in a WHO Coordinated Global Research Roadmap to which several funders aligned their research responses. The Global Effort on COVID-19 Health Research (GECO), European and Developing Countries Clinical Trial partnership (EDCTP) and Research for Health in Humanitarian Crises (R2HC) funding programmes in particular have demonstrated innovative funder practices which are highlighted here.
European and Developing Countries Clinical Trials Partnership (EDCTP) COVID-19 Response

Global Effort On COVID-19 Health Research (GECHO)

International COVID-19 Data Alliance (ICODA)

Research for Health in Humanitarian Crises (R2HC) COVID-19 Response

Africa CDC Response to COVID-19

COVID-19 Child Abuse Prevention Emergency Response
EDCTP is the major channel of European support for global health research in Africa, aimed at developing tools for the prevention and control of poverty-related infectious diseases. EDCTP initiated a rapid emergency funding mechanism under its Research and Innovation Actions in response to the COVID-19 pandemic. This response is remarkable in that it harnessed existing rapid funding mechanisms and built on previous investments in pandemic preparedness and capacity strengthening activities that were initiated after the Ebola 2014-2016 outbreak.

### KEY INFORMATION

- **Funders:** European Commission, European and African Participating States
- **Duration of COVID-19 Emergency call:** Opened on 3 April 2020 and closed on 17 April 2020
- **Total investment:** Over €4.75m was initially invested in COVID-19 emergency call. Additional support from Participating States raised this amount to €13.11m
- **Number of projects funded:** 27 projects funded
- **Countries of focus:** Funded projects are being implemented in 25 sub-Saharan African countries. Each project is conducted by a consortium of at least 2 European and 1 African institutions.
BACKGROUND

The European and Developing Countries Clinical Trials Partnership (EDCTP) is a public-public partnership, launched in 2003. Supported by the European Commission’s Horizon 2020 Research and Innovation programme, which has provided a €683m investment for the period between 2014 and 2024, the EDCTP2 programme was initially implemented by an association of 14 European and 16 African countries. The partnership has expanded and, as of December 2022, involves 15 European and 21 African countries. The €683m EU investment is complemented by contributions from European and African Participating States, and further support is received from third party partners.

Research is normally funded through annually launched funding calls with research themes outlined in annual workplans which are approved by the European Commission. Workplans for a particular year are submitted in the preceding year for approval. Hence the 2020 workplan, which was drafted in the course of 2019, included funds earmarked for emergency response in the event of an infectious disease outbreak in 2020.

EDCTP’s Emergency COVID-19 response call inspired the development of the COVID CIRCLE funder principles for supporting high-quality research for the most pressing global needs in epidemics & pandemic (Funder Principles). Some examples of innovative practice of the Funder Principles are highlighted below.

- Alignment to global research agendas and locally identified priorities

The call was aligned to the WHO Research Roadmap with a focus on the following four thematic gaps: therapeutics, diagnostics, serological testing and understanding the natural history of infection.

- Research capacity for rapid research
  - Investment in pandemic preparedness

Following the 2014 West Africa Ebola outbreak, an EDCTP Call for Proposal aiming to develop a new workstream for epidemic preparedness was approved by the European Commission as part of the 2016 EDCTP Work Plan. The €10 m from the H2020 programme was matched by the Participating States supported the initiation of the African coalition for Epidemic Research, Response and Training (ALERRT) and the Pan-African Network for Rapid Research, Relief and Preparedness for Infectious Diseases Epidemics (PANDORA-ID-NET). The continued support for these international multidisciplinary consortia built research capacity and promoted a rapid response at the onset of the COVID-19 pandemic. For instance, ALERRT was involved in the development of crucial guidance and protocols (adapted to the African context) for the clinical management of COVID-19 (1) and PANDORA-ID-NET carried out early studies that informed countries about the necessary strategies for the detection of COVID-19 cases at points of entry in various African countries (2).

- Rapid research mechanism

Since 2018, the EDCTP Strategic Research Agenda has included an emergency response mechanism to support research response in the event of an infectious disease outbreak. This was incorporated into annual work plans with a commitment of €2.25m by the European Commission. The first projects funded under this mechanism were in response to the 2018 Ebola outbreak in the Democratic Republic of the Congo and lessons learnt from this call have informed the

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European countries
Austria, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, UK, Belgium.

African countries
process used to activate the mechanism in response to the COVID-19 pandemic. Before and after the COVID-19 Emergency call closure, there were continued efforts to secure additional funding for research. As a result, 27 projects were supported after additional funds were secured from Participating States including France, Sweden, South Africa, Austria, Norway and the United Kingdom.

Specific modifications to normal funding processes to facilitate rapid research include:

1. Call readiness ahead of the approval of the 2020 work plan (which was still under review at the onset of the pandemic) leading to rapid launch of the emergency call

2. Shortening call duration to 2 weeks

3. Expedited proposal review process
   a. Shortening duration of expert review process
   b. Organising a series of small consensus meetings

4. Support for the initiation of research in advance of proposal review and contracting
   a. Applicants with fundable proposals could ask for an immediate start date for projects, the earliest being the date of call closure. Any accrued costs were potentially eligible for reimbursement. Although this favoured the initiation of rapid research, less-resourced institutions could have been put at a disadvantage

5. Expedited contracting processes

Conditions stipulated in the Horizon 2020 framework do not allow supplementation of existing awards (in addition to agreed project budgets). Acknowledgement of the potential to generate evidence on COVID-19 led to EDCTP accepting amendment requests from projects seeking to add on COVID-19 research questions to their previous objectives.

- Equitable, inclusive, cross-sectoral and interdisciplinary partnerships

EDCTP’s funding model promotes inclusivity and interdisciplinarity, with research partnerships required to include at least two European and one African partner in their research. 15 of the 27 COVID-19 projects were led by institutions from Sub-Saharan Africa.

- Open science and data sharing

Costs related to data management and data sharing were eligible for reimbursement during the project duration.

- Appropriate ethical consideration

Consistent long-standing investments in ethics and regulatory capacities of countries in Sub-Saharan Africa have strengthened capacity for ethical oversight and governance over the years. Over 45 grants (valued at €15.59m) to support ethics capacity were awarded by EDCTP between 2014-2020. EDCTP also supported the African Vaccine Regulatory Forum (AVAREF) bringing together multi-country experts who play a key role in ethics guidance during the COVID-19 pandemic.

- Collaboration and learning enhanced through coordination
  o Strategic partnerships

EDCTP provides a coordinated approach to the European Union’s support for collaborative clinical research addressing poverty-related infectious disease in Sub-Saharan Africa. These efforts are supported by strategic partnerships with policy and governance agencies including the WHO Regional Office for Africa, AU-NEPAD and Africa CDC to promote collaboration.

In addition to the emergency response mechanism for COVID-19, EDCTP collaborated with the Africa CDC to launch a call for “Capacity development for disease outbreak and epidemic response in

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**Trigger Criteria for emergency response**

An official declaration of a situation as:

1. a Public Health Emergency of International Concern (PHEIC) according to the WHO
2. a public health emergency under Decision 1082/2013/EU
3. an emergency under applicable national frameworks and regulations
Sub-Saharan Africa” in 2020. The objective of the call is to establish a cohort of epidemiologists and biostatisticians to boost capacity for surveillance of infectious diseases outbreaks.

Another collaboration with the Botnar Research Centre for Child Health (BRCCH) resulted in jointly funded multi-country research projects aiming to mitigate the impact of COVID-19 through improved surveillance and management of infections.

- **Researcher support**

The EDCTP knowledge hub is an online platform which fosters researcher collaboration and supports researchers from LMICs with data management and research protocol development resources.

- **Engagement with funder coordination activities**


These resources serve as “important tools used by funders including EDCTP to gather information on knowledge gaps in terms of research topics and geographical coverage”.

- **Key outputs and potential impacts of funded research**

The pandemic affected the conduct of the funded research projects with significant delays arising from:

- disruption in supply chains which affected shipping of laboratory samples across research sites
- research teams directly affected by illness of research personnel
- overwhelmed ethics review boards resulting in delayed ethics approvals
- limited time of researchers, who also had clinical and care responsibilities, to undertake research

As of September 2022, 15 of the 27 funded projects (55%) had reached their end date. These projects contributed to evidence on therapeutic strategies, diagnostics (3), genomic surveillance, disease dynamics in healthcare workers and interactions between COVID-19 and other infections (4,5). Several of the projects were instrumental in generating local evidence for guiding policy, influencing management and supporting hypothesis for further research. For instance, genomics and surveillance research in Republic of the Congo and Gabon yielded local evidence on circulating variants and contributed to the WHO global database on COVID-19 variants (6,7). Other projects provided insights into the effects of COVID-19 in pregnant women, children, persons living with HIV and other vulnerable groups (8,9). To allow for the completion of the remainder of the funded research projects, EDCTP has approved extensions of the delayed projects, and these are expected to be completed by June 2023.
LEARNINGS

1. Capacity to undertake rapid research was facilitated by:
   a. Prior investment in pandemic preparedness initiatives
   b. Existence of a ‘tested’ emergency response mechanism which could rapidly be activated

2. Researcher support promoted application of the COVID CIRCLE Funder Principles

3. Strategic partnerships and collaborations with diverse global health actors strengthened the research response to the COVID-19 pandemic

4. Flexibility of EDCTP to review and adapt call process facilitated rapid research response funding

REFERENCES AND IMPORTANT LINKS


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ACKNOWLEDGEMENTS

This case study was developed by Emilia Antonio, Alice Norton and the COVID CIRCLE Team in collaboration with Jean Marie Vianney Habarugira, European and Developing Countries Clinical Trials Partnership (EDCTP).
GECO is a cross-UK funder initiative specifically targeted at the COVID-19 research response, to address knowledge gaps in applied research in low-and-middle-income countries (LMICs), as defined by OECD-DAC classification. The call was underpinned by: the need to employ a truly global approach to health research in LMICs, taking cognisance of the unique contextual research needs; alignment to best research practice guidance (by GECO and other UK funders); and the need to address gaps in research evidence based on WHO Research Roadmap (and other research priorities).

**KEY INFORMATION**

- **Funders:** UK Research and Innovation (Medical Research Council – MRC) and the UK Department of Health and Social Care (DHSC) through the National Institute of Health Research (NIHR). Funds form part of UK Official Development Assistance (ODA) commitments.
- **Duration of funding call:** The call was open between 18 May and 28 September, 2020 and decisions were made on a rolling basis in 3 consecutive rounds, with awards of up to two years length.
- **Total investment:** DHSC £8m and UKRI (MRC) £6.82m
- **Countries of focus:** Projects involve 21 countries across Africa, Southeast Asia, Latin America and South America
BACKGROUND

The COVID-19 pandemic poses a particular challenge for resource-constrained settings considering the wide-reaching health, economic and social impacts. Given the global nature of the pandemic funders of the GECO call were quick to recognise that research portfolios could be skewed to high-income settings, potentially leaving pertinent research questions relevant to or specific to LMICs unaddressed. Further, these recognised that “a global pandemic requires a world effort to end it – none of us will be safe until everyone is safe”(1). The GECO call was therefore designed and launched to address specific gaps in funded research addressing specific areas of the WHO Coordinated Global Research Roadmap with a focus on LMICs.

As part of the partnership to fund GECO, two other initiatives were developed:

Developing the Seven Funder Principles for High Quality research in Epidemics and Pandemics

The Seven Funder Principles were created as part of the development of the GECO call and were inspired by the EDCTP emergency COVID-19 response call specifications published in April, 2020. The UK Department of Health and Social Care (DHSC) initiated this work and further refinement and linkage to best practice guidance was undertaken by the UK Collaborative on Development Research (UKCDR) and the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R) Secretariats between May and June 2020. In the interim, the GECO funders agreed to incorporate the EDCTP call specifications into the GECO call requirements with the subsequent linkage made to the Seven Funder Principles in the GECO Call Specification once they were formally adopted.

The Principles are of particular relevance to LMICs although they are globally applicable to research funding practice, aimed at improving an effective research response to this and future epidemics and pandemics. The major UK funders of development research and other GloPID-R members have agreed to align to the Principles which were published in the Lancet in July, 2020. Continuing engagement and further endorsement is being sought from other research funding organisations, researchers and other actors in the international development research sector.

UKCDR & GloPID-R COVID-19 Research Project Tracker

The UKCDR & GloPID-R COVID-19 Research Project Tracker is a live database of funded COVID-19 research mapped against the WHO research priorities. This initiative was strengthened through the development of the GECO funding call which provided further resource for running the database and regular analyses of funded projects to facilitate the identification of research gaps during the pandemic.

PRINCIPLES IN PRACTICE

The GECO call was aligned to all Seven Principles as outlined in the GECO call specifications. Examples where activities of the call to met the Principles are outlined here.

- Alignment to global research agendas and locally identified priorities

The GECO call was aligned to the research priorities outlined in the WHO Coordinated Global Research Roadmap with a focus on addressing the research gaps relevant to low and middle income settings, in particular: ‘epidemiological studies’, ‘infection prevention and control’, ‘clinical management’ and ‘social sciences in the outbreak response’. The call also aligned to the research priorities of relevance to LMICs identified in the collaborative study undertaken by the African Academy of Sciences (AAS), the Global Health Network (TGHN) and UKCDR (2).

The remaining research priorities which were of global goods were covered by early investments of UK funders (including MRC and DHSC) in large clinical trials for vaccines, diagnostics and drug treatments. Noteworthy among these is the RECOVERY trial which demonstrated that dexamethasone (a readily available drug) improves the prognosis of severe COVID-19 infections and has significantly influenced treatment practice globally including in LMICs (3).

- Equitable, inclusive, cross-sectoral and interdisciplinary partnerships

The call particularly encouraged applications from LMIC-based researchers and at least 6 of the funded research projects are led by research organisations in LMICs. All projects involved research partnerships between LMIC and UK-based institutions.
• Collaboration and learning enhanced through coordination

Funder co-ordination and collaboration

Funders collaborated to fund the GECO call building previous experience of collaboration and joint funding of research projects. This model improved efficiency and scale by:

1. Increasing efficiency and reducing administrative burden
2. Combining expertise from both organisations to co-develop the call specification
3. Increasing the budget available for the scheme

This approach ensured the successful and rapid delivery of the GECO call. By working flexibly together the two funders ensured that all on-going GECO research awards were maintained and supported until their end dates, at a time of reductions in ODA budgets in the UK.

Researcher support and coordination

These two funders also worked together to ensure researchers funded by the GECO call are supported throughout their awards to undertake high quality research which results in useful outputs. DHSC with MRC and Wellcome contributed funds to develop a coordination platform for researchers which was developed and delivered by UKCDR. This became part of the activities of the COVID-19 Research Coordination and Learning (COVID CIRCLE) initiative. The support ran for the duration of the GECO funded projects.

The [COVID CIRCLE Researcher Platform](https://www.covidcircle.org) has two parts:

- a public facing website which collates relevant resources and events and links to epidemic research networks to enable coordination and collaboration
- a closed networking platform for the GECO funded grantees for enhancing interaction between researchers, engaging with funders, providing access to guidance and resources and promoting exchange of ideas. This platform has also been opened to grantees of the main UK-funded rapid response calls including [FCDO](https://www.gov.uk/government/organisations/department-for-international-development) and [R2HC](https://www.gov.uk/government/organisations/royal-british-legion).
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This case study was developed by Emilia Antonio, Alice Norton and the COVID CIRCLE Team in collaboration with Val Snewin, UK Department of Health and Social Care (DHSC).
ICODA was a collaboration aimed to unite and make global health research data accessible to researchers everywhere, enabling them to address key questions relating to COVID-19 and provide new insights that led to improved health outcomes for all. To achieve this vision, it built an open, international alliance of partners that brought together stakeholders, including public and patients, to shape the initiative and demonstrate trustworthiness. ICODA focused on improving data discoverability through the ICODA Gateway, providing researchers with a trusted research environment, ‘The Workbench’, through which data partners and researchers could securely access and analyse data and collaborate throughout their projects, supported by data curation and data bank partnerships. Central to ICODA’s approach was a cohort of exemplar or driver projects that helped test and shape the approaches, tools and policies to ensure trustworthy and effective data infrastructure and governance were developed.
BACKGROUND

The impetus for ICODA came from the COVID-19 pandemic, but the issues it sought to address in data discoverability, access and re-use are long-standing. Researchers, especially in lower-resource settings, face barriers to accessing data, due to discoverability, handling, management, governance, and storage requirements of health-related data. To address these challenges, ICODA took the following approaches. It sought to improve discoverability through developing the ICODA Gateway, a portal that provided an entry point for researchers to discover and request access to COVID-19-related data sets. With delivery partners, ICODA also provided a secure platform for researchers, the Workbench. This allowed researchers to securely access and analyse data held by a data partner (or via a third party), without having to store and manage the data themselves.

ICODA also sought to build trustworthiness of data infrastructure, governance, and processes to enable better collaboration and confidence of all stakeholders, including communities, patients and the wider public. This was achieved through the development of clear and transparent governance processes, embedding public and patient activities in all ICODA projects, and establishing two advisory bodies, the Scientific & Strategic Advisory Council and Ethics Advisory Council, with the latter playing a key role in the development of ICODA’s Ethics and Governance Framework.

A core element of the initiative was the cohort of 12 exemplar or driver projects that helped pilot and shape development of the Gateway, Workbench, partnerships, tools and policies to ensure they best enabled effective and trustworthy approaches for supporting researchers in generating new evidence to address challenges of COVID-19, and improving health outcomes for all.

PRINCIPLES IN PRACTICE

Alignment to global research agendas and locally identified priorities

The approach taken on identifying and supporting research driver projects ensured a strong alignment to global research agendas and locally identified priorities. This was a key driver of the open funding call that was run to identify new driver projects early in 2021, which resulted in the identification of a cohort of ten Grand Challenges ICODA pilot projects, which covered a range of locally identified, priority research questions reflecting the WHO’s COVID-19 Global Research Roadmap. ICODA’s Gateway, Workbench and associated policies and tools were also developed so they could be easily leveraged to facilitate research that was shifting to address emerging priorities.

In addition, by facilitating strong working relationships between partner organisations and researchers, ICODA built engagement and trustworthiness in the approaches and processes so they can be used to address a wider range of global health challenges in the longer term.

Building capacity, enabling rapid research and legacy

One of the key criteria for the Grand Challenges ICODA driver projects was that they had the potential to achieve rapid insights, enabled by ICODA’s Gateway, Workbench, tools, wider support and capacity building. Each research team received a 12-month award, with all studies completing by October 2022. The outputs from these studies have been significant, with a large number of publications, dashboards created for the public and policy-makers, transformation code, metadata for datasets made “FAIR” (findable, accessible, interoperable and reusable) and community engagement.

Though ICODA arose from the rapid response surrounding the COVID-19 pandemic, its intention was to serve as a foundation for preparedness for future pandemics and global health challenges by developing approaches and resources, and to strengthen governance for longer term use and applicability in a non-crisis period. In this context, Health Data Research (HDR) UK has received follow-on funding to convene a new programme, HDR Global, which seeks to enable trustworthy data access, re-use and analysis in regions, communities and areas of global health challenge where evidence to tackle threats to public health is lacking. HDR Global is working in close partnership with The Global Health Network and regional partners in Africa, Asia and Latin America; and the five partner organisations have received funding from BMGF for a foundational programme that seeks to strengthen the health research and data science ecosystem in all low-resource settings.

Equitable, inclusive, cross-sectoral and interdisciplinary partnerships

By working to remove the barriers of data discovery, access and analysis to provide new insights, ICODA sought to leverage more equitable partnerships between researchers and partner organisations.
It also sought to establish and build a global community of practice, with 135 researchers from 19 countries involved in the driver projects, with the majority based in low-resource settings. These driver project researchers became part of the wider Grand Challenges Data Science community of practice.

Open science and data sharing

ICODA was developed to facilitate data sharing in a secure manner, and to provide best practices, learnings and methodologies that others could use in further work. The initiative also sought to demonstrate trustworthiness in taking these approaches, and in openly sharing the outputs, approaches, policies, tools and other resources that were developed and used. All the programme assets are available from ICODA’s website for re-use, with clear attribution guidance.

Protection from harm and appropriate ethical consideration

An Ethics Advisory Council was established to oversee ICODA’s activities, and they played a key role in guiding development of an Ethics and Governance Framework. The framework set out a set of principles which were followed by each of ICODA’s driver projects and focused on:

1) delivery of public benefit
2) being equitable in supporting researchers in low-resource settings to engage with parity, including clear attributions
3) embedding community, public and patient involvement
4) protecting privacy through the ‘five safes’ approach (safe people, projects, data, settings and outputs)
5) providing responsible data stewardship

Use of this framework has been monitored closely and has played an important role in developing trustworthiness and ensuring good governance of the ethical acquisition and use of health data under this initiative.

Collaboration and learning enhanced through coordination

ICODA fostered collaboration by building a community of practice and a platform that emphasised the open sharing of knowledge, approaches, outputs, policies, resources and results. Through the Workbench, it was possible to work with several data sets from different sources, enabling collaboration between multiple countries, researchers, and organisations.

SUMMARY OF LEARNING

Initiatives such as ICODA are not easy to set up, and require extensive funding, effort and continued vision to succeed. As a new initiative, major outputs and impact were not anticipated within the first year of funding. However, significant progress has been delivered thereafter, with rapid insights emerging from across the entire cohort of driver projects, 29 publications to date with more in the pipeline and outputs as outlined above. ICODA’s vision and approach of being a bridge between data partners and researchers could catalyse long-term changes in the ways researchers collaborate with data partners; and it has provided a strong foundation for the establishment of the new HDR Global and associated partnership programmes.

Key learnings were:

1. Continued feedback from driver projects was critical in ensuring data infrastructure and governance approaches and policies responded to changing needs and met the requirements of data partners and researchers
2. It was important to ensure that governance processes were developed in ways that maximised simplicity and transparency, to build trustworthiness
3. Strong partnership between the funders and the convening organisation, HDR UK, was a key strength in the rapid establishment and delivery of the initiative
4. Effective stakeholder involvement and engagement - including communities, public and patients - was essential from the outset to build trustworthiness, ensure appropriate prioritisation and uptake of insights and evidence to improve health outcomes for all
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In response to the COVID-19 pandemic, R2HC triggered its “responsive funding mechanism” to generate rapid evidence for the control of infections in humanitarian settings. The emphasis on strong partnerships and extensive experience in funding research in often very challenging contexts were key factors in the response’s success. Lessons learnt from funding research in the West Africa Ebola outbreak (2014-2016) and food security crisis in the Horn of Africa (2017) were also key in facilitating an effective response (1).

KEY INFORMATION

Funders: R2HC is co-funded by the UK Foreign, Commonwealth and Development Office (FCDO), Wellcome, and the Department of Health and Social Care (DHSC) through the National Institute for Health Research (NIHR).

Duration of funding call: COVID-19 responsive call was open between March and May 2020 and decisions were made on a rolling basis across 3 consecutive rounds.

Total investment: Up to £2.44m invested

Number of projects funded: 15 projects

Countries of focus: Columbia, Turkey, Burkina Faso, Mali, Zimbabwe, DRC, Kenya, Uganda, Somalia, Lebanon, Ethiopia, Ukraine, Afghanistan, Gaza, Jordan, and Bangladesh.
BACKGROUND

Research for Health in Humanitarian Crises (R2HC) was launched in 2013 under Elrha, an independent charity and subsidiary of Save the Children, UK. It seeks to improve health outcomes for people affected by humanitarian crises, including refugees and internally displaced persons (IDPs) in camps or urban humanitarian settings, by strengthening the evidence base for public health interventions.

Targeting people affected by humanitarian crises ensures the inclusion of often marginalised vulnerable groups in research and promotes the identification of unique context-relevant solutions to health challenges. Research projects are funded through annual “open” funding calls to yield evidence around specific health issues or themes to improve health outcomes of populations involved. Up to £4.5m was invested in the 2020 open funding call and an additional responsive funding call was triggered at the onset of the COVID-19 pandemic.

PRINCIPLES IN PRACTICE

Grantee requirements for best practice are outlined in the rapid responsive call specifications and some innovative applications are highlighted below.

Alignment to global research agendas and locally identified priorities

The call was geared at generating rapid evidence to respond to on-the-ground needs and address research gaps. Hence, there was engagement of reviewers and experts with operational background with deep contextual knowledge of research priorities in funding processes. The call was also aligned to the WHO Coordinated Global Research Roadmap priorities.

Research capacity for rapid research

The majority of projects were funded through the rapid responsive call and only a few existing projects pivoted to COVID-19. The R2HC Strategic Advisory Group - comprising representatives from key UN and humanitarian agencies and public health research institutions - and subsequently the funders, approved the launch of the responsive mechanism following an assessment of the COVID-19 crisis against the trigger criteria (Table 1) which assess the need for research, feasibility of research, and research scope for alignment with R2HC funding.

The rapid call built on review processes for the regular (annual) funding calls with the following modifications, as shown in Figure 1:

1. Shortening of proposal submission and review processes (from a two-staged process to a single stage)

2. Expedited review processes. This was facilitated by:
   a. Directing existing capacity to the COVID-19 funding call
   b. Reviewing proposals at multiple designated timepoints as they were received (3 rounds of proposal review were employed)
   c. Drawing on an existing network of technical reviewers and a Funding Committee with expertise across multiple thematic areas and humanitarian settings

3. Expedited contracting and due diligence. This was facilitated by:
   a. Releasing Grant agreement template and due diligence requirements as part of the application process and requiring them to be accepted in full (non-negotiable)
   b. Having different tiers of due diligence requirements relative to the perceived risk of grantees
   c. Enabling existing Elrha grantees to carry forward their previous due diligence

4. Initiation of research in advance of contracting
   a. This was facilitated by ensuring award letters indicating the funding agreement were available in advance of the contract

These processes enabled rapid funding of research without compromising on quality of funded projects. Further, rapid research was facilitated by pre-existing research relationships and building on the annual funding call networks. This enabled attraction of large numbers of diverse proposals (over 450) and positioned humanitarian researchers to rapidly produce and submit research proposals. Another factor of success was the commitment of R2HC to fund applicants located in any country based on quality of their proposals.

In reality, most projects took longer than the six months anticipated for producing rapid knowledge to influence policy, with some unforeseen factors such as lockdowns interrupting data collection. Further, some projects required modification of their objective to account for emergent needs. R2HC had anticipated these delays at proposal
review stage and built-in flexibility with provision of funding for projects which inadvertently needed to be extended, allowing projects to meet their objectives. Despite the delays the research outputs remained relevant as the COVID-19 pandemic persisted into 2021.

Table 1
Some elements of the trigger criteria for the responsive funding mechanism

| 1. A significant emergency event e.g. PHEIC |
| 2. Context of emergency response |
| a. Humanitarian LMICs or fragile States |
| b. Protracted or sudden onset crisis |
| c. Conflict |
| d. Refugee situation |
| e. Natural disaster |

| 3. The need for research |
| a. Significant gaps in research identified |
| b. The potential for research outputs to have real impact/contribute to existing evidence |

| 4. Feasibility of research |
| a. Considering the security situation |
| b. Timely research |
| c. Ethical considerations in an emergency context |
| d. Accessibility of research sites |

Equitable, inclusive, cross-sectoral and interdisciplinary partnerships

Partnerships between academic institutions and humanitarian organisations are a requirement for applying for R2HC funding as these promote research relevance, rigor and uptake into policy and practice. Partnerships were even more relevant during the COVID-19 pandemic where travel restrictions required strong local involvement to undertake research successfully. In most cases, research teams included academic institutions from the country or region where the study was conducted, as well as the local operational partners – including host governments - who were key audiences for research findings.

R2HC’s innovative activities for promoting equitable partnerships in normal times (open funding call) include:

1. Provision of seed money (up to £10k) to support development of partnerships for selected proposals in the review process

2. Provision of bespoke partnership support

3. Provision of written guidance materials and tools on effective partnerships

On account of the speed with which the research processes were initiated, activities to support gradual building of partnerships could not be undertaken.
Rather, existing relationships between researchers working together prior to the pandemic were harnessed leading to rapid mobilization for response. Of the 15 projects funded in the responsive mechanism 14 were led by organisations R2HC had not previously funded. For this cohort of grantees, partnerships were supported by rapidly bringing grantees (including in-country partners) together as a cohort to regularly discuss challenges faced in conducting rapid research. Learning and best practice was shared across the cohort on topics including operational challenges, research uptake and working with communities affected by crises. Further, regular formal and informal follow-ups to assess adherence to the principles and address any difficulties faced in ensuring equity in partnerships were also done.

Open Science and data sharing

R2HC requires research outputs to be open access and allows for flexibility around funding to support this. For instance, providing support for publications resulting from grants even after grant closure.

Protection from harm and appropriate ethical consideration

R2HC has developed an ethics tool to offer practical ethical guidance to researchers to address ethical challenges related to the design, implementation of research and dissemination of research outputs.

Collaboration and learning enhanced through coordination

Researcher support

Grantees were brought together into a learning cohort which promotes exchanging ideas, collaboration and addressing potential challenges with adherence to the principles.

Evaluation and learning

A process evaluation of the COVID-19 rapid response has been undertaken to gain insights into ways of improving funding processes for rapid research and some of these are discussed in a blog which summarises key findings (2,3). Lessons learnt from this will improve preparedness for future pandemics.

Key outputs and potential impact of R2HC rapid funding response

The funded projects generated evidence on various aspects of understanding the COVID-19 pandemic and response measures among refugees, IDPs and other humanitarian contexts (4). These lessons will likely be crucial for informing strategies for the response to the next epidemic/pandemic in these settings and provide a basis for further work.

SUMMARY OF LEARNINGS

1. Support provided by funders to research teams promotes adherence to the seven funder principles

2. Harnessing existing rapid research funding mechanisms promotes the initiation of rapid research

3. Running an open funding call, rather than working only through pre-existing partnerships, enables a diversity of research teams to apply for funding (including from LMIC settings), and encourages a diverse range of research topics that address locally identified research needs, and where there is greatest potential for real-time uptake of findings

4. Research funding processes can be adapted/modified in acute crises to address research needs without compromising research quality

5. In the delivery of research, funder flexibility is key in a rapidly evolving context with evolving complexities in research conduct. This allows for extension of project duration, pivoting research projects and adapting research objectives
RECOMMENDATIONS

1. Evaluation and learning from the response to COVID-19 to:
   a. Identify characteristics of studies that succeeded in influencing emergency response in real-time to guide prioritisation of research during future epidemics and pandemics
   b. To inform funders’ approach to funding research in future epidemics and pandemics

2. Further review of rapid funding mechanisms to develop innovative ways of further expediting funding processes

3. As the majority of the COVID-19 research projects have rounded up, R2HC has undertaken an evaluation of its COVID-19 research response.
   A blog summarising five factors that make for successful research in a pandemic provides the following recommendations:
   a. Flexibility of funders to:
      i. Allow for adaptation/modification of research objectives in response to emerging needs during a rapidly changing pandemic including through pivoting research/addition of supplements to original proposals
      ii. Allow for extensions of project duration with the provision of supplementary budget to facilitate research continuity
   b. Modification of funder policies on data sharing:
      To enable rapid data sharing funders should facilitate grantees to share interim findings as research progresses rather than at publication of research findings. This can be achieved through regular briefings and presentations, and bringing of research cohorts together with intended end users of research outputs
      R2HC has amended its policies based on the learnings from COVID-19 stating that, “for subsequent funding calls we have emphasised the need for teams to be ‘positioned for impact’ — to already be well-networked with intended users of research findings — and made this a key evaluation criterion”
   c. Funders should facilitate the engagement of research users including operational partners who are often overstretched during an emergency. One approach could be through the facilitation of joint engagement to minimise time demands and support to produce more digestible reports/research summaries for key stakeholders

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This case study was developed by Emilia Antonio, Alice Norton and the COVID CIRCLE Team in collaboration with Simon Pickard, Research for Health in Humanitarian Crises (R2HC).
The Africa CDC Response to COVID-19 programme aimed to develop a unified regional approach by Africa Centres for Disease Control and Prevention (Africa CDC) and the African Union to tackle the rapid spread of COVID-19. In collaboration with multi-sectoral partners, Africa CDC developed an overarching framework for Africa’s COVID-19 preparedness and response. Through implementing the framework, this programme has contributed to building research capacity, cross-sectoral and multi-disciplinary partnerships and supported coordination and collaboration for pandemic preparedness and emergency response.

**Funders:** Wellcome and UK Foreign, Commonwealth & Development Office (FCDO)  
Fund/Funding programme: Wellcome/FCDO Joint Initiative on Epidemics Preparedness (JIREP)

**Total investment:** £2m

**Project dates:** 10 April 2020 - 10 April 2021

**Lead Institutions:** Africa CDC & the Institute Pasteur Dakar

**Partner Institutions:** Wellcome, UK Foreign, Commonwealth and Development Office (FCDO), Africa CDC, WHO, African Union, and member states.

**Countries of focus:** Multiple African countries [Pan-African focus – 5 sites/hubs across Africa through the Africa CDC coordinating centres – Ethiopia (the Africa CDC headquarters), Kenya (East Africa regionals collaborating centre), Nigeria (Western centre), Gabon, Zambia (Southern centre)] with 20% funding provided to each centre.
BACKGROUND

As COVID-19 cases emerged in Africa, African leaders united to develop a joint African continental strategy to deal with the rapid spread of the COVID-19 pandemic. On 22 February 2020 in collaboration with WHO, the African Union and Africa CDC, developed the ‘common pandemic preparedness strategy’ to provide an effective, united response against the pandemic. Africa’s comprehensive continent-wide response strategy against the crisis was boosted by the Wellcome/FCDO JIREP funding. The strategy highlighted the importance of greater coordination, collaboration, cooperation and communication and intended to provide direct technical assistance to Member States in the six strategic technical areas: laboratory and sub-typing, surveillance and enhanced port of entry screening, infection prevention and control, clinical case management, risk communication and supply chain management. 1 The Institute Pasteur Dakar, Senegal managed the funds for the project activities on behalf of Africa CDC. 2 Keeping research capacity strengthening at the core of the project, the Africa CDC project highlighted the value of multi-sectoral partnership, collaboration and coordination for pandemic preparedness and emergency response.

PRINCIPLES IN PRACTICE

Research capacity for rapid research

Within two months of the first African COVID-19 cases, Africa CDC received funding from Wellcome/FCDO for emergency response in resource limited contexts. To ensure rapid disbursement of funds, Institute Pasteur Dakar (IPD) managed the funding on behalf of Africa CDC. As previous Wellcome grantees, IPD had existing mechanisms to rapidly receive and manage research funding which enabled Wellcome/FCDO to circumvent the potential complexities of funding an institution which they had not previously funded. IPD also provides an existing research platform and reputation to facilitate research in response to COVID-19. The Wellcome/FCDO funding facilitated specialised training in different aspects of the response including exchange of data, knowledge, and information; stockpiling and distribution of essential commodities needed by the member states, which enhanced research capabilities of local institutions. The institutional capacity built through this funding in the early stages of the pandemic (e.g. through laboratory strengthening, surveillance, clinical case management, infection prevention and control etc), enabled a stronger emergency response system, which will benefit future research response to epidemics and pandemics – particularly laboratory and sequencing components.

Equitable, inclusive, cross-sectoral, and interdisciplinary partnerships

For this project, which was led by LMIC researchers, cross-sectoral and multi-disciplinary partnerships were formed across different sectors including partnerships between the African Union, WHO, Regional Economic Communities, member states, private sector actors, donors, foundations, and other stakeholders. These partnerships helped to harmonise the political, social, economic, and public health responses to the pandemic. 3 By providing support to develop relevant policies and implement essential public health operations across the continent, the cross sectoral and multilateral partnerships developed by Africa CDC facilitated greater regional response to the COVID-19 pandemic. In addition, Africa CDC gained trust through public and community engagement, ensuring consideration of marginalised and vulnerable people through inclusive partnership.

Protection from harm

The grant conditions for this project highlighted risk mitigation for COVID-19 projects. During the early stages of the pandemic, there was widespread recognition of the difficulties and expense of sourcing personal protective equipment (PPE). To address this and ensure researchers were protected from harm, Wellcome and FCDO implemented a change in grants policy, allocating specific funding to ensure PPE was provided for all researchers and participants, which they aim to sustain for future funding of epidemics research projects.
Collaboration and learning enhanced through coordination

This project exemplifies the importance of regional coordination and collaboration in response to an epidemic. As a result of the collaboration between partners, the resultant diverse expertise, additional regional resources, and in country collaborators, strengthened the regional response to the COVID-19 pandemic. In addition, the multisectoral collaboration and coordination catalysed research to policy pathways supporting the uptake of research.

The existing funding partnership between Wellcome & FCDO through the Joint Initiative on Epidemics Preparedness (JIREP), which was established in response to the 2014 Ebola pandemic, also enabled coordination in research funding response, and built on the funders complementary expertise and systems (FCDO’s in-country experience and Wellcome’s previous funding of Institute Pasteur). This facilitated rapid disbursement of funds at a pivotal time in the pandemic, which enabled rapid response.

KEY TAKEAWAYS

Key learning and recommendations are as follows:

1. The Africa joint continental strategy for COVID-19 outbreak led by Africa CDC demonstrates the value of multisectoral partnerships for political and regional collaboration, particularly in low resource settings where capacity may be limited, and therefore efficient resourcing is a greater priority

2. The existence of the Wellcome funding relationship with Institute Pasteur enabled rapid disbursement of funds. However, there is a need for improved processes and mechanisms to enable rapid funding to LMIC institutions and partnerships

3. Cross-funder coordination and pre-established funding partnerships support rapid response during emergencies. Partnership between research funders also ensure efficient and coordinated funding which builds on each funders systems and expertise

4. The joint strategy highlighted the importance of funders prioritising locally led research and local capacity building in resource limited settings which enhance the capabilities of local institutions to handle future epidemics or pandemics

5. The programme highlighted the importance of adaptability from funders through the funding allocation for personal protective equipment (PPE) to protect researchers and participants from harm during global health emergencies, particularly in low resource settings

6. Rapid funding is essential to respond to global health emergencies of new infectious diseases. However, this is most effective where it builds on pre-existing research capacity for epidemics and pandemic response. Furthermore, funding preparedness activities in between epidemics is important to ensure effective and pre-emptive response for future epidemics and pandemics

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This case study was developed by Nusrat Jabin, Sheila Mburu, Alice Norton and the COVID CIRCLE Team in collaboration with Peter Hart and Alexina Weekes, Wellcome Trust.
COVID-19 Child Abuse Prevention Emergency Response

In response to the COVID-19 pandemic, the ‘COVID-19 Child Abuse Prevention Emergency Response’ project developed a set of evidence-based open-source resources that reached over 193.6 million families to reduce parent stress and prevent child abuse at a pivotal point during the pandemic. The resources were also used by 33 governments, the WHO, UNICEF, USAID, and other implementing partners. The project built on the existing research capacity and systems established by the broader ‘Parenting for Lifelong Health’ programme. The success of the projects activities and subsequent outcomes highlight the importance of long-term research capacity building, multi-sectoral partnerships, and open-access resources in response to public health emergencies.

- **Funders:** UK Research and Innovation (UKRI), University of Oxford, Oak Foundation, The Human Safety Net and LEGO Foundation. UKRI GCRF Accelerate Hub

- **Fund/Funding schemes:** UKRI GCRF/Newton Fund Agile Response call to address COVID-19; University of Oxford COVID-19 Research Response Fund, TIDES/Oak Foundation grant, The Human Safety Net donation, LEGO Foundation grant. UKRI GCRF Accelerate Hub.

- **Total investment:** £1,662,537 (UKRI GCRF/Newton Fund: £472,297, LEGO: £716,875, Oak: £145,503, THSN: £124,155.09, University of Oxford: £203,707.18)

- **Project dates:** 14 Aug 2020 - 13 Feb 2021

- **Lead Institutions:** University of Oxford


- **Countries of focus:** Global including all DAC countries (except Western Sahara, Guinea, and North Korea)
BACKGROUND

Challenges faced by families and children were significantly exacerbated by COVID-19 due to the social and economic ramifications of the pandemic, and mobility and social networking disruptions. Globally, more than 1.37 billion children were out of school or childcare which increased the risk of an upsurge in child abuse. In response to the crisis, the University of Oxford built on their alliance with multiple global and local grassroots partners to prevent child violence and mitigate parenting stress during the peak of the crisis. Through this project, they aimed to deliver evidence-based resources against child violence to 57 million families in DAC countries.

In the early stages of the pandemic, grants from the LEGO Foundation, Oak Foundation, and the University of Oxford COVID-19 Research Response Fund, as well as the UKRI GCRF Accelerate Hub supported the initial groundwork, by establishing relationships with key partners and developing the evidence-based child abuse prevention programme content. Subsequent UKRI GCRF/Newton funding built on this and facilitated the global delivery of COVID-19 parenting resources, enabling rapid scale-up in low resource settings, multi-sectoral engagement, easy access for resource limited populations, and adaptive evaluation. In the immediate and urgent pandemic response period, the project demonstrated the value of capacity building, multi-sectoral collaborative partnerships, and data sharing, with demonstrated effectiveness against child violence.

The materials have been distributed across 193.6 million families, and taken up by 33 governments, and incorporated onto websites by UNICEF, WHO, and the World Childhood Foundation and more – exceeding the target milestones and expectations. The project has also delivered initial impact. A survey of 1371 families receiving COVID-19 parenting resources in Nepal, Malawi, Cambodia, South Africa, Sri Lanka, Zambia, Pakistan, North Macedonia, India and Cameroon also reported 78% reduction in physical abuse and 76% less emotional abuse for children, as well as a 84% increase in parent engagement in play, 91% increased confidence in positive relationship building, 84% increase in confidence to protect children from online and offline sexual abuse, and 74% increase capacity to cope with parenting stress.

PRINCIPLES IN PRACTICE

Alignment to global research agendas and locally identified priorities

Due to existing partnerships with WHO, UNICEF and grassroots organizations and networks, this project had an in-depth understanding of local needs and priorities. As a result, the resources developed were easily adaptable to different contexts. For instance, the Malaysian University of Putra Malaysia is working with the Department of Islamic Development (JAKIM) to produce a faith-based package integrating COVID-19 parenting resources with messages from the Quran, Hadith or Sirah for use by religious leaders to support families during the pandemic.

Additionally, and importantly, this project proactively contributed to WHO and UNICEF’s COVID-19 priorities on protecting children against elevated violence during the pandemic.

Research capacity for rapid research

The COVID-19 parenting project ensured rapid response to the pandemic by utilising the pre-existing research capacity and systems, which were established in part due to previous UKRI funding.

From 2012-2019 UKRI/ESRC supported evidence-based in-person parenting programmes, which built institutional and individual capacity through various schemes including UKRI GCRF Accelerating Achievement for Africa’s Adolescents Hub, UKRI/ESRC studentships and UKRI/ESRC Future Leaders Awards. The additional funding provided in 2020 through the UKRI GCRF/Newton Fund COVID-19 rapid response call, enabled the project to build on the existing capacity and partnerships, which facilitated a rapid and
timely response to the COVID-19 crisis. As a result, within 6 months, the resources were translated into 100 languages, and reached over 193.6 million people in 198 countries and territories.

Open science and data sharing

Open access of the COVID-19 parenting project resources led to wide uptake and impact. Additionally, the use of open-source platforms and accessible versions of the resources enabled collaboration with over 600 implementing partners in 198 countries and territories and supported 33 governments. Lessons learned from the project were also actively shared with the global community of practitioners, policymakers and academics preventing violence against children through different channels: social media, meetings, webinars, and reports.

Equitable, inclusive, cross-sectoral, and interdisciplinary partnerships

The COVID-19 parenting program was developed and implemented through extraordinary stakeholder engagement and trusted partnerships, demonstrating the value of multilateral and cross-sectional partnerships for efficient response during a global health emergency. Multi-sectoral partners from grassroots to global level were involved in this project, which enabled rapid delivery of locally relevant content through equitable partnerships between these institutions and organisations. The project placed significant emphasis on co-creation and shared ownership of resources, which also supported the wide dissemination and uptake of the resources. Public and community engagement was also an integral part of this project, which enhanced the acceptance of the parenting resources in local communities. The focus on inclusivity through these partnerships further ensured easy access for families with disabilities and limited contexts such as humanitarian settings (e.g., refugees, internally displaced persons).

KEY TAKEAWAYS

1. A combination of long-term and rapid response funding is important to ensure effective research response in epidemics and pandemics. Long term funding enables capacity building for research, which can then be built on by rapid response funding to facilitate fast and effective research response during epidemics and pandemics for greater impact.

2. Multi-sectoral and interdisciplinary partnerships across global, national, and local levels are important in ensuring rapid and effective research response. Furthermore, relationships and trust established through long term partnerships facilitate greater collaboration and coordination for greater impact.

3. Innovative and open resource dissemination methods, which are based on understanding of cultural context and local priorities ensure acceptance and large-scale impact of research.

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ACKNOWLEDGEMENTS

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