COVID-19 FUNDED RESEARCH PROJECTS IN FOCUS







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Key Findings:

Number of indirect health impacts projects:

142

Funding investments (known funding amounts):

\$202.1m

Top funders:

NIH, NRF South Africa & UKRI

Research Capacity Strengthening

The coronavirus pandemic has triggered an unprecedented global research response across multiple disciplines to gain insights into this novel infection and its impacts. To date, thousands of research activities have been embarked on with a predominance of research projects in higher income countries. Strengthening research capacity, particularly in low-resourced settings, facilitates an equitable response to the COVID-19 pandemic and is likely to be most effective when funded as part of preparedness. Research capacity strengthening activities are purposeful initiatives which enhance the ability of individuals, organisations and systems to successfully undertake research (1). Here, we present the scope of funded research activities with capacity strengthening as an objective within the COVID-19 pandemic, drawing on evidence from the seventh version of the Living Mapping Review (LMR) of COVID-19 funded research projects and the UKCDR/GIOPID-R COVID-19 Research Project Tracker.

Methodology

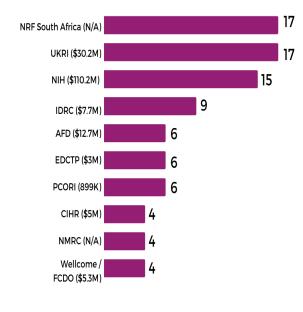
Descriptive and thematic analysis were done as outlined in the LMR study protocol. Projects with a capacity strengthening objective explicitly mentioned were identified (capacity strengthening at all levels - individual, institutional and national were included). Further funders, funding amounts, country distribution of projects and projects' specific research focus were determined.

Findings

Locations, funders and funding amounts

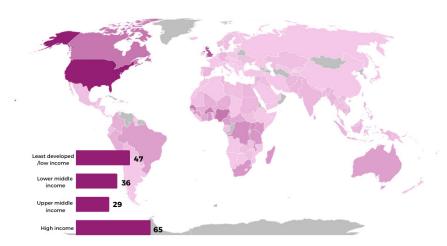
The 142 projects identified with a capacity strengthening objective were funded by 48 funders with a total investment of at least \$202.1m as shown in Figure 1. However, \$101m of this amount was invested in one National Institutes of Health (NIH) vaccine site preparation project with sites in Sub-Saharan Africa and South America. NRF South Africa and UKRI funded the most projects (17 projects) whereas NIH funded the highest amount 110m in 15 projects. Figure 2 shows research projects involved at least one of 81 countries. Overall, 58.5% of research capacity strengthening projects involved at least one of the 67 low- and middle-income countries included in this version of the tracker database – with Nigeria, Senegal and Burkina Faso being involved in the greatest number of these projects (10, 9 and 9 projects, respectively). In particular, partnerships involving Senegal were the most prominent among all multicountry projects, with 9 out of all 38 multi-country projects involving the Western African nation.

Figure 1: Funders of capacity strengthening projects* (funders of 3 or more projects shown)



*known funding amounts

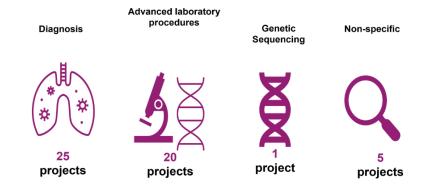
Figure 2: Locations of capacity strengthening projects



Research focus and WHO research priorities

Most of the projects focused on strengthening laboratory capacity in less-resourced countries followed by strengthening capacity through research training as indicated in Table 1. It is therefore unsurprising that the majority of the projects fell under "virus: natural history, transmission and diagnostics", "Social sciences in the outbreak response" research priority areas. Laboratory capacity strengthening activities were predominantly focused on diagnostics. Some projects involved advanced laboratory procedures such as coronavirus manipulation and genomic sequencing whereas as other projects referred to laboratory capacity strengthening with no details as shown in Figure 3.

Figure 3: Area of focus of laboratory capacity strengthening projects



Discussion and conclusion

The prioritisation of laboratory research capacity strengthening activities indicates the importance funders and researchers attach to these activities and their importance for an effective pandemic response.

Limiting the studies included in this analysis to only those mentioning research capacity strengthening implies some projects are likely to have been missed. Existing capacity leveraged for the response to this COVID-19 pandemic is also relevant to capacity strengthening and will also promote preparedness for future pandemics.

Table 1: Area of focus for Capacity Strengthening projects

Area of Capacity Strengthening projects	No. of projects
Laboratory	43
Research training	29
Clinical management	15
Surveillance	13
Data management	11
Pandemic preparedness	11
Policy response	10
Clinical trials	8
Infection prevention	8
Ethical governance	1
Digital transformation & learning	1

About the UKCDR/GloPID-R **Tracker**

The UKCDR/GLOPID-R COVID-19 Research Project Tracker (the Tracker) is a live open access database which categorises COVID-19 research activity funded around the world against the WHO research priorities outlined in the WHO Coordinated Research Roadmap. **COVID CIRCLE** has initiated a Living Mapping Review of these projects, published in Wellcome Open Research, to support funders and researchers in the achievement of a coherent response to this pandemic.

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Limitations of data and findings: Study protocol is outlined in Living Mapping Review of COVID-19 funded research projects. Analysis was limited by: o A lack of completeness of funding and/or qualitative data for some projects.

o Tracker data is more likely to be derived from UKCDR and/or GloPID-R funders.

o The absence of commercial research.

References

[1] Enough J. Health Research Capacity Strengthening: A UKCDS Mapping {Internet}. [cited 2020 Dec 1]. Available from: https://www.ukcdr.org.uk/resource/health-research-capacity-strengthening-2/