

UKRI open call for research and innovation ideas to address Covid-19 Observations and Lessons Learnt to inform applicants

The invitation to submit short-term projects addressing and mitigating the health, social, economic, cultural and environmental impacts of the Covid-19 outbreak remains open until December 15th.

Since we opened this competition in March 2020 the research and innovation community have responded with some excellent ideas and proposals. Sadly, Covid-19 is still with us, and robust solutions to many problems are still needed. That said, there are some areas that are already well funded, and others where few high-quality proposals have been submitted.

To date, nearly 3000 applications have been submitted with just over 350 awards made. The resulting rate of success, at around 11% overall, is a result of both a variable quality of proposals and the high volume. As the call progressed, we provided as much information as possible on [what had already been funded](#) as well as which areas are still [priorities for funding](#).

In this public health emergency of international concern, it is more important than ever that only the highest quality research proposals are supported – standards will be maintained.

To support the development of excellent proposals, the following observations and lessons learnt, have been collated from across all areas within UKRI's remit:

- **Identification of the issue;** proposals must clearly articulate what the issue being targeted is, why it is important and why it needs to be addressed urgently (within 18 months as opposed to a standard application);
- **Positioning within the landscape;** high quality proposals clearly explain how the new work is positioned against existing UKRI and non-UKRI research, the benefits to be achieved and how the work is different and value-adding to what has been funded previously.
 - Weaker proposals either don't explore the relationship to existing work in detail or are unrealistic of their added value.
 - Weaker proposals use this section of the form to make general unsubstantiated statements about the research's importance.
- **Objectives;** proposals must clearly demonstrate how the project will address the targeted issue in a robust and usable way within a timeframe that is relevant to downstream partners and is likely to have health, social, economic, and/or behavioural impact;
 - Weak proposals fill a gap in knowledge, without explaining why a funder or policy maker should pay attention
 - Weak proposals fit a pre-existing piece of work to the Covid call, while strong proposals work backwards from a real problem and design research to address it in the best way possible.
- **Research design;** must be clearly explained, including the nature of the question(s) to be addressed, how these relate to the targeted issue, how they will be answered, and why particular methods and data have been chosen
 - Unsuccessful proposals frequently fail to articulate the research design or confuse it with methods, or simply say they will collect data without explaining how it would be utilised.

- **Sampling and samples size and methods;** proposal must provide a clear rationale, justification and explicit detail on each of these aspects e.g. demonstration of power calculations where appropriate, inclusion of explicit detail of techniques and methodology as opposed to high level terms such as ‘machine learning’ and ‘AI techniques’. Also required are:
 - demonstration of awareness and positioning to existing nationally representative data.
 - attention to dynamics and how the situation may be changing through time and across subpopulations.
 - Weak proposals often focus on very specialised subpopulations (for example, subpopulation x, in region of the UK y, that do z) and do not adequately explain potential for scale up and relevance of proposal to UK as a whole. Although a very specific focus can be appropriate, it can sometimes narrow down the value of the research and make it less relevant for policy and practice.

It is noted that for some of the clinical questions, numbers are underpowered given paucity of samples at this stage in outbreak, however, proposals which clearly consider and address each of the above points are likely to be viewed more favourably.

- **Risk and risk mitigation;** proposals should clearly explain risks and how they will be mitigated.
 - Weak proposals do not address obvious risks i.e. inability to access data, potential biases in sampling, etc.
- **Research teams and management:** Proposals must clearly explain how large teams fit together, why the team is the best team for the work, and how they will be managed and integrated. In formulating the proposal, consideration should be given to the team composition, expertise required including whether collaboration with another academic would be stronger than recruitment of a PDRA.
 - Weak large projects fail to explain how the various parts fit together to sum to more than their parts, and do not explain clearly what each component will do.
- **Deliverables, outputs and impact:** Proposals should detail tangible deliverables and project outputs. Additionally, detail is required on the path by which these outputs will provide the specified benefits. A clear description should be provided of how the impact will be scaled, who needs to be involved, and how they will help reach the audience needed to be engaged. Strong proposals will clearly state how and why the project will have more of an impact than others to be supported in the same area
 - Weak proposals list research activity milestones and frequently lack explanation of how the project will deliver impact within a relevant timescale, with poor or absent information on links to relevant stakeholders to give credible route to impact.
 - Strong proposals build in outputs and actionable insights across the lifetime of the project rather than simply at the end.
 - Proposals which only have academic impact in mind will be rejected.

Other recommendations:

- **Read the Je-S guidance;** proposals have needed to be returned for amendment due to mistakes such as forgetting to add in Co-Investigators, inputting the incorrect costings etc. all of this slows down processing and requires additional resourcing

- **Consider the reading audience;** make it easy for UKRI to identify expertise required to review this proposal and make it easy for the expert reviewers to understand what you are trying to achieve. Bear in mind that like for yourself, this is a challenging environment so be concise and give the reviewers an easier job.
- **Share best practice;** speak with successful colleagues to gauge the required quality standards. Additionally, the option to share successful proposals in a semi-public domain, within host HEI, might be considered.