

Priority research questions

14 April 2020



Priority research questions

There has been a welcome volume of health data research ideas, questions and requests to support the COVID-19 response from the research community. We are capturing these in the HDR UK online [COVID-19 Matchmaker tool](#) and need to ensure that time and resources are focused on the right priorities in this fast-moving situation.

This paper shares the HDR UK prioritised questions on **14 April 2020**. These have been selected through a simple prioritisation process (see Appendix) that aims to facilitate a transparent and objective selection of which research questions HDR UK should direct our expertise, time and resources towards. This prioritisation will also be used to support our partners NHSX, NIHR, NHSD and other data custodians in their priorities.

The purpose of this exercise is to ensure that where HDR UK central, data custodian and Alliance support is needed this is aligned to the right questions at the right time. We expect to make this process iterative and we will undoubtedly learn along the way.

Many of the research questions that have not been selected through this process, may of course progress faster and better with no or little additional support from HDR UK, other than the useful connections that are already being made through the Slack channel and other community efforts.

HDR UK Top 9 health data research questions: 14 April 2020

Scored out of 10 (10= High priority, 1 = Low priority) by online panel

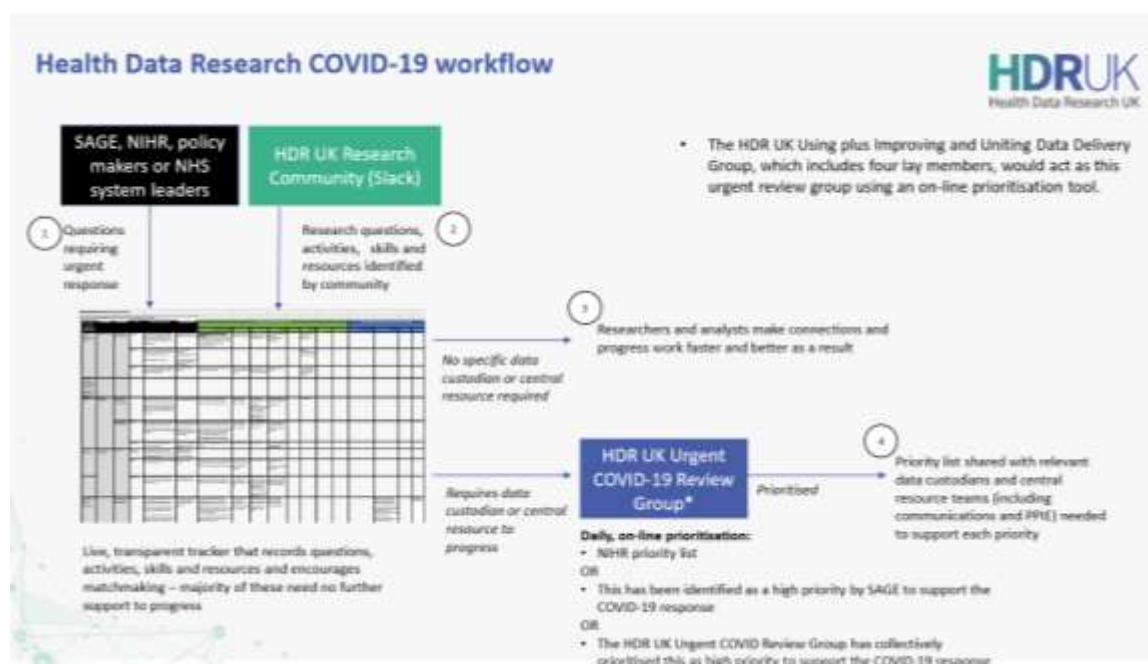
Note three questions have been automatically selected as they have already been prioritised by NIHR

Matchmaker ID	Research question	Short question title	Median score
Apr-01	COG-UK Can study of the whole virus genome enable scientists to monitor changes at a national scale, reveal how the virus is spreading and whether different strains are emerging?	COG-UK - whole virus genome?	Auto
Apr-05	ISARIC-CCP What are the clinical characteristics of COVID-19 positive patients; what are the determinants (genetic, other omic, prior medical history, other) of good and poor outcome; and how can knowledge of this help to target clinical and public health strategies?	ISARIC - CCP - clinical characteristics?	Auto
Apr-19	RECOVERY Can Lopinavir-Ritonavir vs Interferon β vs lowdose corticosteroids be effective in treating COVID 19 test +ve hospitalised patients?	RECOVERY clinical trial?	Auto

Apr-37	Why do BME groups appear to have increased risk of severe COVID outcomes (e.ventilation and motality)? Is this caused by social, environmental and/or genetic factors? Are BME outcomes the same or different across the UK? And internationally? Does this tell us anything about the different outcomes?	BME groups increased risk outcomes?	10
Apr-03	How do we support the scale-up of COVID-19 testing, by making sure that the data that is provided on the confirmed state of COVID-19 diagnosis and antibody levels is robust and reliable?	Support scale-up of COVID-19 testing?	9.5
Apr-20	Is the rubella vaccination (or prior exposure to German measles) protective against COVID-19 due to shared capsid sequence homology between SARS-CoV2 and Rubella?	Rubella vaccine?	9
Apr-03a	How can we accurately measure the ongoing prevalence of COVID-19 in the population following identification of a "good enough" antibody diagnostic? (This requires representative and random sampling from the whole or at-risk sub-populations).	Ongoing prevalence of COVID-19 following antibody diagnostic?	9
Apr-35	Understanding vulnerable patients: How are underlying conditions defined, and what is the impact of infection on a range of outcomes, and what are the benefits of 'shielding' and other preventive interventions?	Understanding vulnerable patients?	9
Apr-44	Are there any treatments which show evidence of improving outcomes for patients infected with coronavirus? Clinicians are having to make real-time decisions today, on the best possible treatment options for critically ill patients without robust evidence of harm or potential benefits of the therapeutic interventions. Better use of routine medication data could provide additional evidence to inform these decisions prior to the definitive outcomes of clinical trials.	Treatments that show improving outcomes for infected patients?	9

Appendix: Workflow v1

This paper shares the prioritised list, step 4 in the diagram below:



Prioritisation criteria for Week 15:

The current status (where known) of each question was added to give a sense of which entries are time critical, or otherwise. Column (G) in the [Matchmaking tool](#) indicates the status of a particular question.

The questions were then prioritised based on where the Urgent Review Group believed additional support is required and might progress an important research question to the next stage of maturity e.g.:

Stage 1: Important & urgent unanswered question– support required to matchmake skills/expertise/data to progress further

Stage 2: Preliminary discussions – requires additional skills/expertise/data to progress to full set-up

Stage 3: Research underway – but requires additional enhancements (e.g. data linkage support)

Stage 4: Important future question – but requires early preparations to start ASAP