

M2/SAGE/01/RC

- 1. A brief overview of your qualifications, career history, professional expertise and major publications.**

See attached CV.

- 2. A list of the groups (i.e. SAGE and/or any of its sub-groups) in which you have been a participant, and the relevant time periods.**

I participated in SPI-M-O, and the regional subgroup of SPI-M-O. I attended 2 meetings of the Variant Technical Group.

- 3. An overview of your involvement with those groups between January 2020 and February 2022, including:**

- a. When and how you came to be a participant;**

To begin with I attended SPI-M-O as cover for Leon Danon on an intermittent basis, when he was unable to attend, and the earliest meeting I attended was at the end of June 2020. Later during the pandemic when work I was doing on SARS-CoV-2 variants became more relevant (from Dec 2020 until Feb 2022) I attended regularly.

- b. The number of meetings you attended, and your contributions to those meetings;**

I don't have an exact record of the number of meetings I attended, but the SPI-M secretariat will be able to provide an answer to this question.

My contributions were largely presenting data on the current state of the pandemic, with a particular focus on estimates of the reproduction number and growth rate, analysis of the regional emergence of new variants, and age and regional stratification of COVID cases in the UK.

- c. Your role in providing research, information and advice.**

I did not have a defined role, as such, but provided analysis on general state of the pandemic mostly limited to England with a particular focus on estimates of the current reproduction number and growth rate, the regional emergence of new variants, and age and regional stratification of COVID cases in the UK. My contribution was mostly analysing past data rather than predicting the future.

- 4. A summary of any documents to which you contributed for the purpose of advising SAGE and/or its related subgroups on the Covid-19 pandemic. Please include links to those documents where possible.**

Reproduction number estimates - Weekly spreadsheets via the CrystalCast RiskAware SPI-M Rt submission portal¹.

Regular reports on growth rate of cases, hospitalisations and deaths by age, documents available on the SPI-M group site².

¹https://riskawarecouk-my.sharepoint.com/personal/sowdagar_badesha_riskaware_co_uk/

²https://dhexchange.kahootz.com/connect.ti/DHSC_SPIM/grouphome

Ad hoc analysis on emerging threats due to variants: I wrote a paper on the emergence and early spread of the Delta variant that was sent to SAGE³.

5. A summary of any articles you have written, interviews and/or evidence you have given regarding the work of the above-mentioned groups and/or the UK's response to the Covid-19 pandemic. Please include links to those documents where possible.

I have not given any interviews or evidence regarding the work of SPI-M-O, beyond presenting published work in academic conferences.

The pandemic and the analysis conducted during it are the major topic of my PhD thesis which is available through the University of Exeter⁴. This summarises all the academic papers written as part of the pandemic.

Alongside one of the published pieces I wrote we also wrote an opinion piece which describes the circumstances of one of the pieces of analysis including commentary on the nature of collaborative working in SPI-M-O⁵.

6. Your views as to whether the work of the above-mentioned groups in responding to the Covid-19 pandemic (or the UK's response more generally) succeeded in its aims. This may include, but is not limited to, your views on:

a. The composition of the groups and/or their diversity of expertise;

I am not qualified to comment.

b. The way in which the groups were commissioned to work on the relevant issues;

I am not qualified to comment.

c. The resources and support that were available;

The SPI-M secretariat provided excellent logistical support.

The main resources available were the data on the pandemic. This evolved throughout the pandemic from extremely limited at the beginning of the pandemic, mostly delivered in spreadsheets of variable data quality, to a rich and detailed linked set of data delivered by secure download from PHE, supported by the publically available data from coronavirus.gov.uk.

d. The advice given and/or recommendations that were made;

I am not qualified to comment.

e. The extent to which the groups worked effectively together;

³

<https://www.gov.uk/government/publications/juniper-potential-community-transmission-of-b16172-inferred-by-s-gene-positivity-briefing-note-11-may-2021>

⁴ <https://ore.exeter.ac.uk/repository/handle/10871/130590>

⁵

<https://blogs.bmj.com/bmj/2021/03/19/increased-hazard-of-mortality-in-cases-compatible-with-sars-cov-2-variant-of-concern-202012-1/>

The SPI-M-O group was conducted in a respectful manner and teams from a range of universities worked together effectively. There was some uncertainty whether or not all teams from all universities got access to the same data at the same time, with some groups seemingly having access to key pieces of data earlier than others. This was occasionally frustrating.

f. The extent to which applicable structures and policies were utilised and/or complied with and their effectiveness.

I am not qualified to comment (and I am not sure I understand the question).

7. Your views as to any lessons that can be learned from the UK's response to the Covid-19 pandemic, in particular relating to the work of the above-mentioned groups. Please describe any changes that have already been made, and set out any recommendations for further changes that you think the Inquiry should consider making.

Assuming a future pandemic will rely on voluntary contributions from academics in a similar manner to COVID-19 there is much can be learned about facilitating that engagement.

The heterogeneity of data from the different nations of the UK was extremely frustrating. Even at the level of key reference data such as geographical boundary data, or population data there are multiple platforms for distributing data which use inconsistent terminology. There was no publicly available NHS capacity data, and much of the early data analysis had to be cobbled together from spreadsheets found around the internet. The COVID data was delivered in different formats and via different technical platforms with differing degrees of detail for each of the 4 nations of the UK.

Remote access to trusted research environments such as the ONS SRS were not practically available to all participants due to a lack of organisational level agreement between the universities and the ONS.

These are all examples of poor preparation for a large-scale operational analysis. We should now be using our knowledge of the pandemic to develop data standards for sharing anonymised linked structured data, and working on effective collaboration between universities and PHE/NHS such that there are fewer barriers to emergency operational analysis in the future. The better information available to academic researchers in the early stage of the pandemic the better the information they can provide to decision makers.

As said above the data about COVID evolved and eventually a rich linked anonymised data set became available for England (but not Scotland, Wales or Northern Ireland), through the huge efforts of colleagues at the DSTL and PHE. The development of the 'coronavirus.gov.uk' API was another huge leap forward. The status of the linked data set for further research is unclear, and this limits the knowledge we can derive from the pandemic, and risks wasting the huge amount of effort put into collating the data in the first place.

8. A brief description of documentation relating to these matters that you hold (including soft copy material held electronically). Please retain all such material. I am not asking for you to provide us with this material at this stage, but I may request that you do so in due course.

Beyond the reports provided to SPI-M at the time, and the documents described above, there is nothing else specific I hold.