

UK COVID-19 Inquiry: Module 2 - Rule 9 Request to Professor Sarah Walker - Reference: M2/SAGE/01/SW

Please provide the following information:

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

- PhD in Medical Statistics (1998), following a MA in Maths (1993) and an MSc in Statistics with Applications in Medicine (1994)
- Worked as a statistician at the MRC Clinical Trials Unit at UCL from 1999, with multiple internal promotions and then promoted to Professor of Medical Statistics and Epidemiology at UCL in 2013 (currently 40% FTE, but seconded to COVID-19 Infection Survey)
- Took a second independent post at the University of Oxford from 2006, promoted to Professor of Medical Statistics and Epidemiology at the University of Oxford in 2014 (currently 60% FTE)
- Expertise in the statistical design, management and analysis of randomised controlled trials and other interventional and observational studies in the field of infectious diseases
- 450 peer-reviewed publications to date, Google H-index 93, covering results of major randomised controlled trials and studies translating advances in genetic sequencing into microbiology services, and linking this sequence data to electronic health records for large-scale epidemiology.

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 note that I am listed as being a member of both SAGE and SPI-M. I believe this is incorrect and that I was not a formal member of either group, only attending by invitation as follows: I attended SAGE to report findings from the COVID-19 Infection Survey (for which I am Chief Investigator and Academic Lead) twice, on 22 December 2020 (meeting #74) and 22 July 2021 (meeting #94). I attended the SAGE Working Group on COVID-19 vaccines on 2 September 2021.
- I had no involvement with the COVID-19 response until 28 March 2020 when I discussed with Tamsin Berry regarding sensitivity and specificity of diagnostic tests, relating to antibody lateral flow tests. I subsequently developed the protocol for the COVID-19 Infection Survey from 14 April 2020 onwards.

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;

- Dates above; I came to be a participant through my role as Chief Investigator and Academic Lead for the COVID-19 Infection Survey

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

- Two SAGE meetings and one SAGE Working Group; my contribution was to present and explain analyses of data from the COVID-19 Infection Survey.

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

- My key role is to ensure that the COVID-19 Infection Survey is designed and managed in such a way as to provide data that can be analysed to provide the necessary information for government, by statisticians at ONS, my small team at Oxford and other independent researchers. See <https://www.ndm.ox.ac.uk/covid-19/covid-19-infection-survey/results> for a summary of results from the survey to date.

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.

- 22 December 2020; discussed data from the COVID-19 Infection Survey on the new variant (Alpha) – data under “Quick links to information about the Alpha (B.1.1.7) variant (December 2020-January 2021)” on <https://www.ndm.ox.ac.uk/covid-19/covid-19-infection-survey/results>
- 22 July 2021: presented three analyses from the COVID-19 Infection Survey
 - Impact of Delta and calendar time on symptoms reported by individuals testing swab positive – preliminary analysis of data (to 12 July 2021) <https://www.gov.uk/government/publications/ons-impact-of-delta-and-calendar-time-on-symptoms-reported-by-individuals-testing-swab-positive-preliminary-analysis-of-data-to-12-july-2021-22>
 - Impact of Delta and calendar time on vaccine effectiveness against new SARS-CoV-2 infection and Ct/viral burden in infections post-vaccination – preliminary analysis on data (to 12 July 2021) <https://www.gov.uk/government/publications/ons-impact-of-delta-and-calendar-time-on-vaccine-effectiveness-against-new-sars-cov-2-infection-and-ctviral-burden-in-infections-post-vaccination>
 - Anti-spike Immunoglobulin G (IgG) antibody response after second vaccine dose - preliminary analysis on data to 5 July 2021 <https://www.gov.uk/government/publications/ons-anti-spike-immunoglobulin-g-igg-antibody-response-after-second-vaccine-dose-preliminary-analysis-on-data-to-5-july-2021-22-july-2021>
- 2 September 2021: discussed results from the COVID-19 Infection Survey regarding effectiveness of Pfizer and AstraZeneca vaccines against the Delta variant compared with the Alpha variant, updated from the July 2021 SAGE papers above and published at <https://www.nature.com/articles/s41591-021-01548-7>

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 written any articles, given interviews or other evidence regarding the work of SAGE or the UK’s response to COVID-19.

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;
- b. The way in which the groups were commissioned to work on the relevant issues;
- c. The resources and support that were available;

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

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

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

- I consider that the work of SAGE in responding to the COVID-19 pandemic succeeded in its aims. As above, I had very limited contact with SAGE, so am not able to comment in further detail.

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.

- No specific lessons or changes. Hindsight is always 20/20, but the challenge with infectious diseases is that they are inherently difficult to predict and very similar initial conditions can lead to very different long-term outcomes by chance.

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.

- Academic papers are published on <https://www.ndm.ox.ac.uk/covid-19/covid-19-infection-survey/results/longer-articles> - I have drafts and further background analyses on these.
- All ONS analysis is published, as are the papers from the COVID-19 Infection Survey presented to SAGE, links above.