Questionnaire

UK COVID-19 Inquiry: Module 2 - Rule 9 Request to Professor Lucy Yardley - Reference:

M2/SAGE/01/LY

Please provide the following information:

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

Qualifications

BSc Psychology, 1984, University of Southampton

PhD Psychology, 1992, University of Southampton

Employment

Current: Professor of Health Psychology

School of Psychological Science, University of Bristol (0.5FTE)

School of Psychology, University of Southampton (0.5 FTE)

2017-2018: Professor of Health Psychology, Nuffield Department of Primary Care Health Sciences, University of Oxford (0.5FTE)

1998-2017: Senior Lecturer/Reader/Professor University of Southampton

1992-1998: Lecture/Senior Lecturer University College London

Summary of expertise (when joined SAGE)

International reputation for developing effective digital interventions, pioneered the 'LifeGuide' software for creating digital interventions and 'Person-Based Approach' to maximizing engagement with interventions (www.personbasedapproach.org).

Over 600 publications, resulting in 43704 citations and h index of 90 (Google Scholar 22/09/2020). Principal investigator on grants totalling over £10 million from UKRI, NIHR, ESRC, EPSRC, Wellcome Trust and other sources, and co-investigator on grants totalling well over £60 million (funding bodies include MRC, ESRC, EC, NIHR, HTA, Wellcome Trust, other medical charities).

NIHR Senior Investigator, Behavioural theme lead for NIHR Biomedical Research Centre at University of Southampton, NIHR Applied Research Collaboration-West and NIHR Health Protection Research Unit University of Bristol. Fellow of the Academy of Social Sciences and British Psychological Society.

Principal grants concurrent with SAGE membership (with P.I.)

Yardley, L. et al. (2020-2021) Implementation of a digital behavioural change intervention to improve hand hygiene. **UKRI**. £249,056

Thomas M, Wang K, (P.I.s) **Yardley L** (WP co-lead) et al (2020-2025) Development and evaluation of an online FeNO-guided primary care asthma management intervention. **NIHR-PGfAR**, £2,480,562

Lambert H, **Yardley L**, et al. (2019-2022) Strategies to reduce the burden of antibiotic resistance in China. **MRC, £965,017**

Little P, **Yardley L.** et al. (2019 – 2024) REducing Common infections in Usual practice for Recurrent Respiratory tract infections. (RECUR). **NIHR PGfAR £2,462,362**

Sheikh A, **Yardley L** et al. (2019 –2024) Development and evaluation of a complex ePrescribing-based Antimicrobial Stewardship (ePAMS+) intervention for hospitals. NIHR **PGfAR, £2,480,562**

Peto, T., Walker, S. **Yardley, L.** et al. (2016-2021) Antibiotic Reduction and Conservation in Hospitals (ARK-Hospital) **NIHR-PGfAR, £2,649,834**

Little, P., Yardley, L. (P.I.s) et al. (2016-2020) Cancer: Life Affirming Survivorship support in Primary care (CLASP) Programme. **NIHR-PGfAR, £2,499,011**

Little P, Yardley L (P.I.s) et al (2017- 2026) Reducing and preventing Cognitive impairment iN older age groups (the RECON programme), **NIHR £2,799, 331**

Selected relevant publications

Morton K, Ainsworth B, Miller S, Rice C, Bostock J, Denison-Day J, et al. (Yardley senior author) Adapting Behavioral Interventions for a Changing Public Health Context: A Worked Example of Implementing a Digital Intervention During a Global Pandemic Using Rapid Optimisation Methods. Frontiers in Public Health. 2021;9(369).

Horwood J, Chalder M, Ainsworth B, Denison-Day J, de Vocht F, Elwenspoek MMC, et al. (Yardley senior author) Primary Care implementation of Germ Defence, a digital behaviour change intervention to improve household infection control during the COVID-19 pandemic: A structured summary of a study protocol for a randomised controlled trial. Trials. 2021;22(1):263.

Gold N, Hu XY, Denford S, Xia RY, Towler L, Groot J, et al. (Yardley senior author) Effectiveness of digital interventions to improve household and community infection prevention and control behaviours and to reduce incidence of respiratory and/or gastro-intestinal infections: a rapid systematic review. BMC Public Health. 2021;21(1):1180.

Ainsworth B, Miller S, Denison-Day J, Stuart B, Groot J, Rice C, et al. (Yardley senior author) Infection Control Behavior at Home During the COVID-19 Pandemic: Observational Study of a Web-Based Behavioral Intervention (Germ Defence). J Med Internet Res. 2021;23(2):e22197.

Little P, Read RC, Amlôt R, Chadborn T, Rice C, Bostock J, et al. (Yardley senior author) Reducing risks from coronavirus transmission in the home—the role of viral load. BMJ. 2020;369:m1728.

Ainsworth B, Steel M, Stuart B, Joseph J, Miller S, Morrison L, Yardley L (2016) Using an analysis of behavior change to inform effective digital intervention design: how did the PRIMIT website change hand hygiene behavior across 8993 users?. Annals of Behavioral Medicine 51(3) 423-431

Little P et al. (Yardley senior author) (2015) An Internet –delivered handwashing intervention to modify influenza-like illness and respiratory infection transmission (PRIMIT): a primary care randomized trial. The Lancet 386, 10004, 1631-1639

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.

SAGE – participated in 41 meetings; first meeting Meeting 19 (March 26th 2020), last meeting Meeting 90 (May 27th, 2021)

SPI-B – participated from inception until it was stepped down; first meeting 24th February 2020, then approximately once a fortnight throughout the pandemic

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;

I was originally a member of the SPI (Scientific Pandemic Influenza) committee for the H1N1 pandemic. I was asked to join SPI because in the year prior to the H1N1 pandemic I had commenced a Medical Research Council funded project to develop an online interactive website ('Germ Defence') to support people to engage in infection control in the home to reduce the spread of respiratory infection. I was therefore contacted by James Rubin (who had also been a member of the H1N1 SPI) from Health Protection Research Unit in Emergency Preparedness and Response on 26th January 2020 to ask if I agreed it would be appropriate to approach DHSC to reconvene SPI-B, which I agreed with. Prior to that, I had been asked in January to provide advice to DHSC on behavioural aspects of the Covid response through my role as academic lead of the Intervention Development theme of the Health Protection Research Unit in Behavioural Science and Evaluation at University of Bristol, which role involved working closely with Public Health England.

I became a member of SAGE shortly after lockdown commenced, as a consequence of being asked by James Rubin to become co-chair of SPI-B in order to share the SPI-B responsibilities, including representing SPI-B at SAGE meetings (see below).

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

meetings;

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

In terms of expertise, my role was to provide advice on supporting infection control behaviour (e.g. hand hygiene, social distancing) and adherence to health protection and health management. My expertise is in supporting infection control behaviour of individuals and groups (such as families and workplaces) so I was not able to comment on mass behaviour or behaviour unrelated to infection control and health management.

I was initially a member of SPI-B, and immediately following lockdown in late March 2020 James asked me to become a co-chair of SPI-B. As James Rubin and Brooke Rogers were experienced in policy work and I had little policy experience I saw my role as principally to support them and reduce the workload on them (particularly during family holidays as they both had children in the household and I did not). With their guidance (and guidance from Prof Theresa Marteau) I quickly learned how

to provide the advice required, and took the lead in doing this on topics I felt were in my area of expertise. In addition to leading or contributing to SPI-B papers, this advice included responding to specific requests from particular government departments (e.g. advice on sustaining adherence from CO, advice on carrying out qualitative research for Office of National Statistics), and representing SPI-B on other relevant committees such as Joint Committee on Vaccination and Immunisation (to advise on behavioural aspects of vaccine rollout) and the Testing Initiatives Evaluation Board (to advise on evaluation of initiatives to optimise the Test, Trace and Isolate system).

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.

As co-chair of SPI-B I contributed to most papers by inputting some text and/or comments on drafts, except those relating purely to topics I had no relevant expertise on (e.g. policing, school closures). My main contributions in these papers were to input text on positive ways to sustain adherence and overcome barriers to adherence to the infection control measures advised by the government, and especially to support people to continue as much activity safely as possible. Note that SPI-B advised on potential psychosocial consequences of infection control measures, barriers to their implementation and ways of overcoming those barriers. Recommendations for which infection control measures were likely to be required/effective were made by other SAGE subgroups (e.g. EMG, SPI-M, NERVTAG) and consequently some SPI-B papers were joint with these other subgroups.

Below are the papers on which I played a leading role initiating, drafting and revising the SPI-B contributions to text:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/884013/28-easing-restrictions-on-activity-and-social-distancing-comments-suggestions-spi-b-01042020.pdf

https://www.gov.uk/government/publications/principles-for-the-design-of-behavioural-and-social-interventions-20-april-2020

https://www.gov.uk/government/publications/managing-infection-risk-in-high-contact-occupations-11-june-2020

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/923605/s0744-4a-mhclg-housing-impacts-summary-paper.pdf

https://www.gov.uk/government/publications/spi-b-positive-strategies-for-sustaining-adherence-to-infection-control-behaviours-22-october-2020

https://www.gov.uk/government/publications/emgspi-b-mitigating-risks-of-sars-cov-2-transmission-associated-with-household-social-interactions-26-november-2020

https://www.gov.uk/government/publications/emg-and-spi-b-application-of-co2-monitoring-as-an-approach-to-managing-ventilation-to-mitigate-sars-cov-2-transmission-27-may-2021

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 specifically declined to comment on SAGE work and government policy throughout and after the pandemic. However, I input to national radio, TV and print media regularly to explain why infection posed a risk to everyone (e.g. by overwhelming the NHS so that people without Covid could not be treated) and to suggest ways of reducing the risk to families (e.g. when meeting at Christmas). I also commented that it was important to support people to overcome barriers to adherence to infection control (e.g. quarantine), including by allowing them to carry out activity safely where possible (e.g. outdoors).

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 felt SPI-B included a good broad representation of relevant psychology disciplines and it would have been difficult to have managed a larger group. Few people had directly relevant experience, which made it difficult for a wide pool of people to input confidently at first simply because they lacked relevant expertise. I felt we had good and vital working relationships with SAGE and with other sub-groups, including EMG, SPI-M, NERVTAG, Ethnicity, SPI-KIDS (as evidenced by joint papers).

Initially we were told that we could only respond to requests for advice as framed by the government and SAGE, which meant that we were unable to provide advice that we regarded as important if it was not requested. We were progressively more able to suggest advice topics that government could officially request from us, which worked better. I feel that the advice we gave was as good as could be expected given the difficulty of predicting behaviour in such a novel situation and the limitations of the available resources (see below), and I am not aware of any advice that in retrospect seems inappropriate or inadequate.

The GO-Science support was invaluable and very high quality. However, there was virtually no support for SPI-B to review and analyse relevant research and evidence (apart from some short-term part-time support late in the pandemic), and we were all contributing on top of our day jobs (although the university was eventually given a small sum to compensate for 0.5FTE of my time for 15 months as Chair). This meant that we had to try to review rapidly emerging relevant evidence ourselves in our spare time, which made it impossible to undertake this systematically and comprehensively while also rapidly drafting and disseminating advice. It also made it difficult for people to engage with SPI-B who were unable to free up substantial time in their diaries due to their other work and home commitments. In addition, there was no infrastructure or support for engaging in co-production of advice and interventions with members of the relevant communities. As we noted in our advice, such co-production is vital to ensure that advice and interventions are sensitive and appropriate to the diverse people and contexts they need to be relevant to. Members of SPI-B (including myself) initiated rapid research programmes to try to fill the evidence gaps we were aware of, but this was inevitably a slow process requiring obtaining funding, appointing researchers etc. and so took several months.

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.

In terms of the work of SPI-B, if this is to be properly evidence-based then in future there needs to be much better infrastructure for supporting rapid behavioural research, including rapid qualitative research and co-production of interventions with diverse communities and rapid real-life surveys, objective measurement and trials/natural experiments to test the effects of advice and interventions in different population sectors. In addition, the terms of reference should allow SAGE and its subgroups to be more independent and proactive in providing (and immediately publishing, to allow scrutiny by the public and peers) advice its members consider important, rather than simply responding to government requests.

In terms of SPI-B membership, a pre-existing register of behavioural expertise would facilitate rapid recruitment of a more socio-culturally diverse group (at first we were only able to recruit from the circle of people we knew had relevant expertise).

There is a legacy of misinformation and misconceptions from the Covid pandemic that is likely to seriously undermine future pandemic management if no attempt is made to better inform the public. There has never been sufficient explanation about how and why achieving better infection control would have reduced the impact of the pandemic on everyday life, the economy and NHS ability to provide normal care and there has been little attempt to provide the evidence we have that unfortunately some restrictions on activity were indeed necessary and did save many lives and prevent worse disruption. I sincerely hope this inquiry will help to remedy this problem.

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.

I hold some email correspondence and drafts relating to the development of all the papers listed above. SPI-B secretariat hold the shared Word documents that will show how everyone on SPI-B input to papers to achieve a consensus.