



Science and Technology Committee

House of Commons London SW1A 0AA

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From Rt Hon Greg Clark MP

Rt Hon Boris Johnson MP
Prime Minister
By email

29 May 2020

Dear Prime Minister,

The scientific evidence for social distancing guidelines

At the Liaison Committee hearing on 27 May, you indicated that the 2 metre guidance was based on advice from SAGE.

The evidence base for this guidance appears to be summarised in the SAGE paper on the 'environmental influence on transmission of COVID-19' from 28 April. The evidence presented in this paper does not, however, seem to establish the need for a recommended distance of 2 metres rather than 1.5 metres. Although the risk of transmission will inevitably be lower at further distances, the paper indicates that:

- droplet exposure and infection risk fall sharply by 1.5m (Figure 1); and
- simple "turbulent jet mixing theory" suggests that the concentration of droplets would be reduced by around 90% at 1.5m compared to the concentration at 5cm, with an improvement only to 93% at 2m (paragraph 44)

This evidence is consistent with the guidance of many countries to maintain social distancing of 1.5 metres (such as in Germany, Australia or the Netherlands).¹ Some administrations that have had success in tackling the COVID-19 pandemic, such as those in Hong Kong and Singapore, even recommend a distance of 1 metre—as does the World Health Organization.²

Giving evidence to my Committee, Professor Noakes said that although the relevant working group in SAGE had reviewed international literature, it had "not formally discussed with other countries why they made their decisions".³

Professor Noakes further suggested that mandatory mask wearing and good public compliance could enable shorter distances to be recommended.⁴ Professor Noakes also said "the chances of you being able to inhale enough in an outdoor environment are very small."⁵

¹ '[Coronavirus Disease 2019 Daily Situation Report](#)', Robert Koch Institute, 27 May 2020; '[Physical distancing for coronavirus \(COVID-19\)](#)', Australian Government Department of Health, accessed 28 May 2020; and '[Avoid busy places and stay 1.5 metres away from others](#)', Government of the Netherlands, accessed 28 May 2020

² '[FAQs on the COVID-19 Situation](#)', Singapore, accessed 22 May 2020; '[Tips for you and me to prevent COVID-19](#)', Hong Kong Centre for Health Protection; and '[Coronavirus disease \(COVID-19\) advice for the public](#)', World Health Organization, accessed 22 May 2020

³ Oral evidence to the Science and Technology Committee, taken on 22 May 2020: [Q715](#)

⁴ Oral evidence to the Science and Technology Committee, taken on 22 May 2020: [Qq716-717](#)

⁵ Oral evidence to the Science and Technology Committee, taken on 22 May 2020: [Q671](#)

At the Liaison Committee hearing, you expressed your hope that the 2 metre distance could be reduced, noting that SAGE had updated its advice on other matters as the pandemic has developed and that you would ask SAGE to consider again its advice in good time ahead of the planned return to business of shops on 15 June.

I would therefore ask that you ensure that SAGE urgently reviews the 2 metre guidance and publishes its updated analysis. This analysis should include, as far as is possible:

- formal engagement with other relevant countries to establish and document why they have recommended distances under 2 metres and what their experience in practice of this has been;
- consideration of the potential for a shorter distance to be recommended where face coverings are worn; and
- consideration of the potential for a shorter distance to be recommended in open air settings.

Were SAGE's updated analysis not to recommend reducing the advised distance, it would be important for it to clarify the rationale for 2 metres compared to 1.5 metres and why the guidance in the UK differs from so many international comparators.

I am copying this letter to the Government Chief Scientific Adviser, Sir Patrick Vallance, and the Chair of the Liaison Committee, Sir Bernard Jenkin MP. A copy will be published on my Committee's website as is standard practice.

With best wishes,

A handwritten signature in black ink, appearing to read 'Greg Clark', with a stylized, cursive script.

Rt Hon Greg Clark MP
Chair