

Public request to take stronger measures of social distancing across the UK with immediate effect

14th March 2020

As scientists living and working in the UK, we would like to express our concern about the course of action announced by the Government on 12th March 2020 regarding the Coronavirus outbreak. In particular, we are deeply preoccupied by the timeline of the proposed plan, which aims at delaying social distancing measures even further.

The current data about the number of infections in the UK is in line with the growth curves already observed in other countries, including Italy, Spain, France, and Germany [1]. The same data suggests that the number of infected will be in the order of dozens of thousands within a few days.

Under unconstrained growth, this outbreak will affect millions of people in the next few weeks. This will most probably put the NHS at serious risk of not being able to cope with the flow of patients needing intensive care, as the number of ICU beds in the UK is not larger than that available in other neighbouring countries with a similar population [2]. Going for “herd immunity” at this point does not seem a viable option, as this will put NHS at an even stronger level of stress, risking many more lives than necessary.

By putting in place social distancing measures now, the growth can be slowed down dramatically, and thousands of lives can be spared. We consider the social distancing measures taken as of today as insufficient, and we believe that additional and more restrictive measures should be taken immediately, as it is already happening in other countries across the world.

We urge anyone who has sympathy with our views, and access to the government strategy group, to make our concerns more widely known.

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References

- [1] <https://medium.com/@tomaspueyo/coronavirus-act-today-or-people-will-die-f4d3d9cd99ca>
- [2] https://left.it/2020/03/13/covid_19-open-letter-from-italy-to-the-international-scientific-communi