

Invited reply



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**Author for correspondence:**

Julian Peto

e-mail: [julian.peto@lshtm.ac.uk](mailto:julian.peto@lshtm.ac.uk)

# Reply to comment on Peto *et al.* (2020): Weekly COVID-19 testing with household quarantine and contact tracing is feasible and would probably end the epidemic

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Julian Peto

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London School of Hygiene and Tropical Medicine, London, UK

JP, 0000-0002-1685-8912

An epidemic model is a hypothesis, not an observation. Few scientists would question our statement that the impact of ‘the combination of weekly SARS-CoV-2 testing with an earlier test if symptoms appear, strict household quarantine and contact tracing ... cannot be reliably predicted by further modelling’ [1, p. 3]; yet Planck and colleagues [2] claim that their simple model shows that mass weekly testing and household quarantine, even if it were perfectly achievable, would not be sufficient to control the spread of COVID-19. This is contradicted by the transient reversal of rising prevalence in Slovakia after two rounds of weekly national testing and household quarantine. Prevalence fell by 58% within a week, and a microsimulation calibrated to the observed results confirms that quarantining the whole household following a positive test made a dominant contribution, with an estimated weekly reduction in the prevalence of 59% with and only 10% without household quarantine [3]. We need real data on the effects of different population testing protocols in whole cities [4], not uncalibrated simulations predicting that it cannot work.

The accompanying comment can be viewed at  
<https://doi.org/10.1098/rsos.201546>.

# References

1. Peto J *et al.* 2020 Weekly COVID-19 testing with household quarantine and contact tracing is feasible and would probably end the epidemic. *R. Soc. Open Sci.* **7**, 200915. (doi:10.1098/rsos.200915)
2. Plank MJ, James A, Steyn N. 2021 Comment: Weekly COVID-19 testing with household quarantine and contact tracing is feasible and would probably end the epidemic. *R. Soc. Open Sci.* **8**, 201546. (doi:10.1098/rsos.201546)
3. Pavelka M *et al.* 2020 The impact of population-wide rapid antigen testing on SARS-CoV-2 prevalence in Slovakia. *Science* **372**, 635–641. (doi:10.1126/science.abf9648)
4. Peto J, Hunter DJ, Riboli E, Griffin JL. 2020 Unnecessary obstacles to COVID-19 mass testing. *Lancet* **396**, 1633. (doi:10.1016/S0140-6736(20)32170-X)