COVID-19: extending or relaxing distancing control measures



Study by Kiesha Prem and colleagues (1) indicate the effects of extending or relaxing physical distancing control measures on the coronavirus disease 2019 (COVID-19) outbreak in Wuhan, China. They use data on COVID-19 spread from Wuhan and empirical data from China on the number of contacts per day by age group at home, school, work, and other locations (2). "Their model indicates that if the physical distancing measures begun in late January, 2020, in Wuhan are gradually relaxed in March, the virus could start to resurge 3 months later in June, and generate a second peak 5 months later at the end of August, 2020. However, if measures were relaxed a month later in April, 2020, the resurgence would start an additional 2 months later, in August, 2020, and peak in October." Based on their projections, they suggest that an additional month of physical distancing measures (or other methods, such as widespread testing) could buy 2 additional months before such measures would have to be reinstated to prevent the resurgence of the epidemic toward health-care system overload.

Given many countries have implemented some form of lockdown or movement restrictions. New COVID-19 country-specific models should incorporate testing, contract tracing, and localised quarantine of suspected cases as the main alternative intervention strategy to distancing lockdown measures (at the start of the epidemic or if cases are low), or after the relaxation of lockdown conditions, if lockdown had to be imposed, to prevent health-care system overload in an already mounting epidemic (3).

Importantly, Prem and colleagues (1) model of the effect of distancing interventions on the Wuhan COVID-19 epidemic in 2020 also explores uncertainty in the infectiousness of children and the duration of infectiousness. "As more data emerge, up to date relevant parameters that influence transmission of this novel coronavirus, models can more accurately predict the success or failure of different strategies to control the epidemic and limit mortality. Such models and projections should be made available in the public domain without delay to inspire public trust and allow wider potentially beneficial input (3)."

References

- 1. Prem K, Liu Y, Russell TW, et al. <u>The effect of control strategies to reduce social mixing on outcomes of the COVID-19 epidemic in Wuhan, China: a modelling study.</u>
 Lancet Public Health 2020
- 2. Prem K, Cook AR, Jit M. <u>Projecting social contact</u> matrices in 152 countries using contact surveys and demographic data. PLoS Comput Biol 2017
- 3. Colbourn, T. (2020). <u>COVID-19</u>: <u>extending or relaxing distancing control measures</u>. The Lancet Public Health. doi: 10.1016/s2468-2667(20)30072-4

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