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Pandemic potential of 2019-nCoV

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An important determinant of whether or not 2019 novel coronavirus (2019-nCoV) will ultimately cause a global pandemic is its ability to become established upon its importation to a new country. Cases of 2019-nCoV infection have so far been reported in 24 countries, yet little human-to-human transmission outside of China has occurred.

The key quantity governing whether or not 2019-nCoV can establish and generate a sustained outbreak on arrival in a new country is the reproduction number, *R*, which represents the average number of individuals that each infector will transmit the virus to. If *R* is greater than 1, sustained transmission can occur; if *R* is less than 1, then chains of transmission will simply stutter out.

In the ongoing outbreak, assuming an *R* of 2·2, as reported by Li and colleagues,[1] then just over half of infections must be prevented to bring *R* below 1. This might be expected to be challenging if 2019-nCoV can be transmitted when infectors are not symptomatic.

However, there is little evidence to suggest presymptomatic transmission of 2019-nCoV.[2] Even if 20% of infections are occurring because of presymptomatic infectors (a level roughly halfway between the respective values for severe acute respiratory syndrome and influenza viruses,[3] which is likely to be an overestimate), then 80% of infections would be due to symptomatic infectors. Because only slightly more than half of infections need to be prevented to bring *R* below 1, effective isolation of symptomatic hosts alone should be sufficient to prevent sustained outbreaks of 2019-nCoV outside China.

Of course, detection and isolation of symptomatic hosts is not always carried out effectively, and detection is challenging when symptoms are mild. Therefore, efforts to counter presymptomatic transmission might sometimes be merited. However, when implementing such measures (eg, the UK's isolation of passengers returning from Hubei, infected or not), the substantial cost to individuals who might not be carrying the virus should be considered carefully. With fast isolation of symptomatic individuals alone, including self-isolation of those with mild symptoms, sustained outbreaks outside of China can be prevented.

I declare no competing interests.

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Measles vaccination in infants younger than 9 months

In their meta-analyses, Laura Nic Lochlainn and colleagues[1,2] reported moderate to very low quality of evidence for good seropositivity, T-cell responses, and vaccine effectiveness in infants vaccinated with a first dose of measles-containing vaccine (MCV1) before 9 months of age, although the beneficial effects increased with increased age at vaccination. We are concerned about the data presented in one of the Articles.[1] For example, in the table the same number (54/106) is listed for the study by Murray and Rasmussen[3] regarding the number of measles infections in unvaccinated infants younger than 9 months and the number of infections in unvaccinated infants aged 9 months and older. However, in the original paper,[3] 563 (94%) of 601 Pakistani children were older than 9 months and therefore eligible for vaccination. The remaining 38 children were younger than 9 months, of whom five (13%) were infected with measles. In their crude analysis, Murray and