There is no evidence to suggest a coronavirus 'second wave' is coming

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The functions of a Covid-19 press conference seem to be to transmit information, praise the indefatigable, and brandish a doom-laden cudgel at the public. A common theme is that if virus-control measures are not observed, or are relaxed too soon, there will be a second “wave” or “peak” of infections.

In the UK, an often-repeated prognostication has been that this second wave might be more virulent than the first and that the NHS would be overwhelmed. The message from Geneva during the World Health Organisation’s press briefing on May 25 was more nuanced, but of the same ilk. The point was made that the decline in cases in many countries has been due to the control measures, rather than to the virus running out of steam of its own accord, and that relaxing them could lead to an immediate second peak for which we should get ready.

I am a second-wave sceptic. I said so in evidence to the Scottish Parliament’s health and sport committee in April, and was criticised by Nicola Sturgeon for it.

I started my virological career working on viruses spread by the respiratory route and was mentored at that time by June Almeida, the discoverer of human coronaviruses. I consider that the evidence supporting the notion of a second wave or peak of Covid-19 infections in the UK that would swamp the NHS is very weak. If we get the easing of lockdown wrong, far more likely would be a continuation of infections, many in the form of localised outbreaks, but not waves or peaks.

The idea of a devastating second wave comes almost entirely from the 1918 Spanish flu pandemic. The first wave occurred in June and July and the second in October and November. The first was mild and the second was lethal. It is yet to be explained why the infections occurred in waves and why the virus faded away after the first and then returned.

Mathematical modelling textbooks do not discuss it. There was no effective social distancing in 1918 and it had nothing to do with herd immunity. It is possible that the first-wave virus differed genetically from the one that caused the second, but this is an entirely speculative theory because no virus samples from the first are available for scientists to test – influenza virus wasn’t discovered until 1933.

Subsequent flu pandemics have been much less lethal. The Asian flu second wave was less lethal than the first. Hong Kong flu in 1968-69 caused fewer deaths but had a second wave that killed more in Britain than the first (though the first was more lethal in America). And swine flu in 2009 killed 10 in its first wave and 137 in its second.

Flu is very different from Covid-19. Although both are commonly spread by the respiratory route, and both have infected prime ministers (David Lloyd George got the Spanish flu), the more we learn about Covid-19, the less its biology and epidemiology resemble that of flu.

There have been no flu-like second waves (or even peaks) in China, South Korea or New Zealand. There was no second wave with Sars, another coronavirus.

In the absence of controls, flu has an R rate of seven; Covid-19's is between two and three. And far more than with flu, Covid-19 cases have very commonly occurred in clusters. In New Zealand (which may well have eradicated the virus), 41 per cent of cases occurred in 16 clusters of 13 or more cases in each. And, sadly, in the UK the virus has taken an enormous toll on residents of care homes, many of which have had multiple cases.

The only country so far to have made a good start with virus control and then suffered a relapse has been Singapore, when the virus got into the migrant-worker dormitories in which infection control and social distancing was almost impossible (just as in British care homes).

Defeatist flu models still lurk behind current Covid-19 predictions. That the virus will persist for ages is a flu concept. These predictions should be put to one side. Like Sars, and unlike flu, the virus is eradicable. If China and New Zealand are striving to be free of it, we should be, too.

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