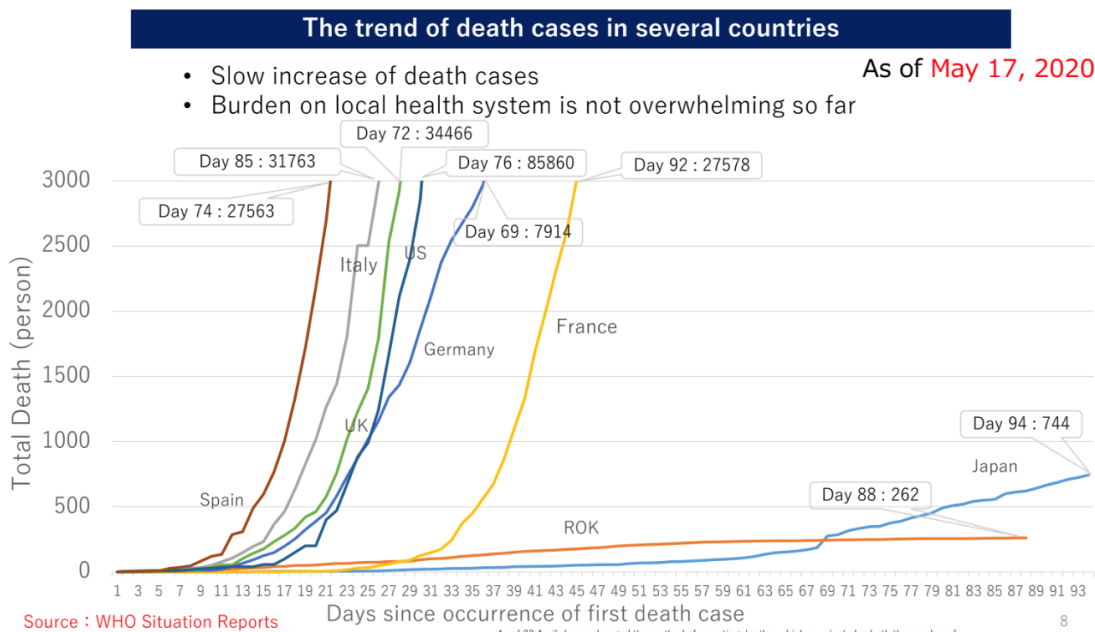


## Opinion – Do foreigners in Japan need to wear masks?

Now that the first wave of the COVID19 pandemic is over, media speculation has focused on the reasons for comparative mild nature of Japan's outbreak. Through April there was much dispute as to whether Japan's "unicorn numbers" could really be trusted, fueled by anger over restricted access to testing and what was widely seen as inept handling of both the Diamond Princess cruise ship outbreak and the impact of the novel coronavirus on the 2020 Tokyo Olympic Games. There is now really no doubt that Japan did experience a significantly less severe outbreak than Europe or the US, though this is by no means unique. Similar or better outcomes were seen in several other Asian countries, most notably including Korea, Taiwan and Vietnam. Neither is this limited to Asia, New Zealand's handling of COVID19 also being held up as a success story.

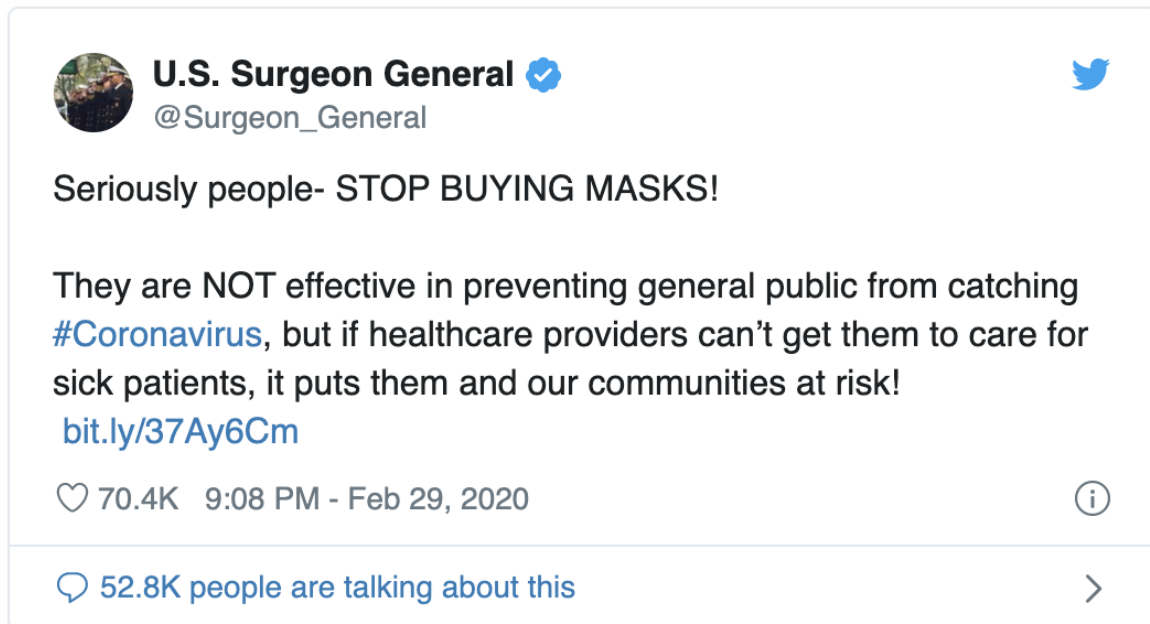
Less than two months ago Japan's testing policies were under attack from all sides and the deficiencies of the overworked local public health units (hokenjo) were regular features in the Japanese press. During these more anxious times, the message from officialdom frequently carried a somewhat paternalistic streak with implications that individual failures to show restraint and to abstain from visiting nightlife venues were a significant driver of the ongoing crisis. In contrast, we are now being told that Japan's comparative success in managing the outbreak was down in part to earlier detection of the initial cases and to a more effective public health response that was able to quickly and effectively characterize and follow up clusters of infection. This may be true, but making meaningful comparisons between different countries' responses to COVID19 is difficult and leaves commentators open to accusations of political or national bias.

There has also been speculation that cultural differences and in particular, early and widespread adoption of face masks by the general public contributed to the slower spread of COVID19 in Asia. So many different factors are at play when an infection moves through a population that it will never be possible to accurately assign a proportional weight to the individual variables which determine speed of contagion. Regardless of the contributions of different factors, though, the difference has been dramatic as this graph of the pandemic's initial surge in different countries illustrates:



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Face masks are problematic. Their widespread uses comes at a cost as almost everywhere, personal protective equipment remains in short supply. Widespread use by the general public quickly deprives medical workers of sufficient supplies which can actually make outbreaks worse as health care workers become needlessly infected, causing further spread of disease and weakening the health infrastructure. In this context most public health bodies initially actively discouraged their use, this widely reported tweet from Jerome Adams, the US Surgeon General being the best example:



Since the end of February matters have changed and in April both the Surgeon General and the CDC amended their advice to recommend cloth face covering use in public. The rationale behind this shift was sound – from detailed analysis of transmission pairs we now know that up to 60% of SARS-CoV-2 transmission comes from individuals with no symptoms, either because they are yet to become unwell (presymptomatic transmission) or, less commonly, from individuals who never get unwell (asymptomatic transmission). A lack of clarity and consensus over mask use remains and the WHO still remains broadly opposed to use in the general population.

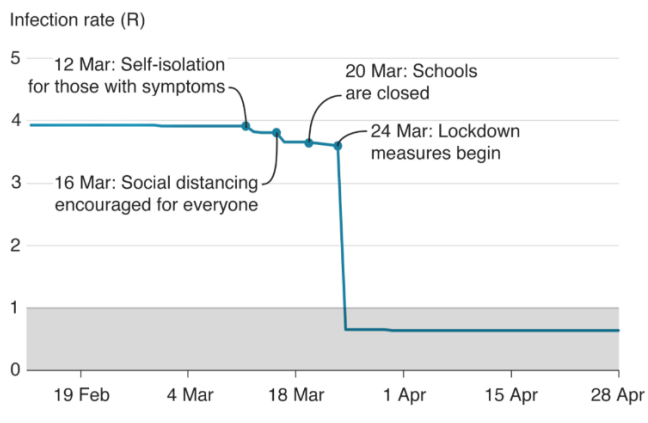
Masks may not be especially effective at protecting well people from catching COVID19 should they be exposed. It's very hard to make a completely tight seal to one's face and regular disposable facemasks don't block the passage of a particle as small as the coronavirus. However, they are quite effective at stopping transmission when worn by a person who is infected. If you cough, sneeze, talk loudly or laugh with a mask on, the majority of the respiratory droplets generated should be caught on the inside of your mask. Given that a significant proportion of transmission comes from people with no symptoms, one way to limit onward infection is for everyone to wear a mask as currently we have no way of identifying asymptomatic spreaders. However, this requires masks to be used appropriately and disposed of safely.

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Imagine two railway carriages. One is full of Japanese commuters. All of them are wearing masks and only a few of them are talking in quiet voices. Contrast this to the trains as I've experienced them in the UK. Naturally, no one is wearing a facemask and quite a lot of people are talking loudly, laughing or perhaps arguing with the railway staff as the train is running late. If we randomly introduce a few asymptomatic carriers onto each of these hypothetical carriages, it's hard not to imagine that there will be more transmission in the UK train.

With this in mind, let's go back to the earlier stages of the pandemic. In the UK, where the same explosive growth in infections occurred as was seen in Italy and much of the rest of Europe, the underlying cause was the high reproduction rate ( $R$ ). This remained close to 4 until the country went into lockdown:

## Spread of Infection in the UK

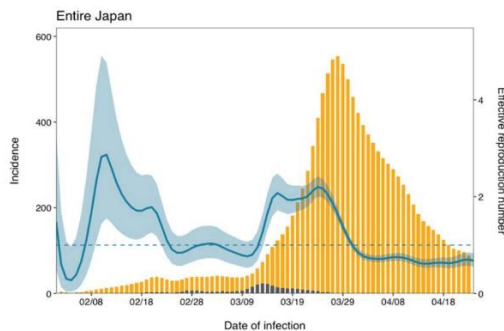


In comparison, COVID19 never really spread like this in Japan. Whether it was due to differences in people's behavior or differences in the public health system's response, in Japan, prior to the state of emergency, ( $R$ ) remained at a much more manageable level of close to 2, allowing more time for hospitals to prepare for an increase in cases.

## Spread of Infection in Japan

### Effective Reproduction Number

(<1 since the beginning of April)



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Some collection of circumstances led to a big difference in the effective reproduction number between Japan and the UK, with the average infected Briton spreading disease to twice as many people as their infected Japanese counterpart. This is definitely not all down to face mask use. Neither, though, does it seem likely that face mask use in Japan has had no effect at all. This same thought process seems to be guiding public health policy outside of Japan, face coverings now being mandatory on trains in Germany and in shops in Austria in addition to the aforementioned CDC guidance from the US.

Accepting that face masks are at least of some benefit, we will now have to adapt to them as a part of the “new normal” for some time to come. Japan’s legal framework stresses individual rights and freedoms, so it probably won’t become illegal to leave home without a mask any time soon. As foreigners living in Japan, we are often excused from the expectations that we will comply with more onerous social customs. It’s common to see foreigners indulging in behaviors which are frowned on if not banned – crossing at red lights or eating on public transport being the first examples which come to mind. This is sometimes described as “using my gaijin pass”. We may well see foreign residents deciding to dispense with face masks even when they are in confined, crowded spaces. However, responding to a pandemic requires collective effort across the whole of a society so personally, I hope not to see larger numbers of the foreign community choosing to assert their individual freedom by packing onto rush hour trains without the anticipated face mask.

It’s hard to say how long we should expect this to continue. Exits would appear to be a sustained period of zero transmission either through effective public health measures or from a technological breakthrough such as a vaccine. This is unlikely any time soon and for now my recommendation to foreign residents of Japan is to use their gaijin passes elsewhere but to comply with recommended face mask use.