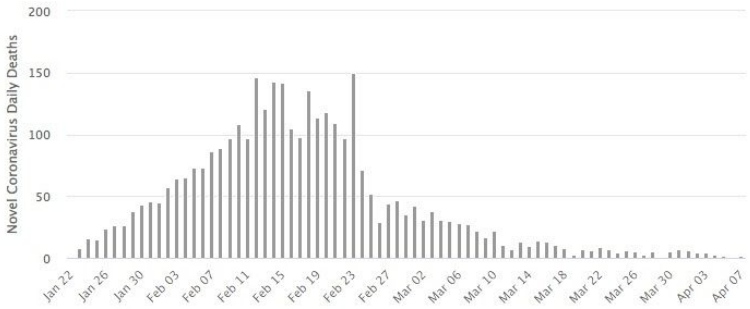
Coronavirus forecasting

http://sep.stanford.edu/sep/jon/Hubbert4Coronavirus2.pdf

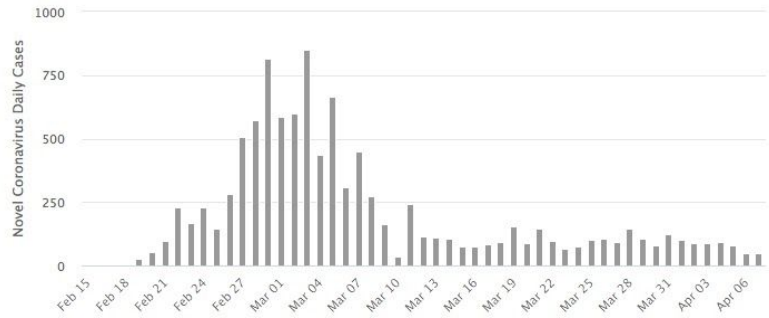
The common understanding of coronavirus disease intensity is that it looks like the Hubbert curve. From my office website:

> I've prepared a tutorial on the basic algebra behind oil crisis extrapolations. In Geophysics we call it the Hubbert curve. It is closely related to the logistic function, but it has two parameters, one for growth, another for decay. In practice, the two parameters are often presumed identical, but that's a doubtful assumption.



Observationally, in China the virus prevalence today seems to slowly diminish to zero. That's **pandemic** behavior.

(https://www.worldometers.info/coronavirus/country/china/)



Observationally, in South Korea today, the virus prevalence seems to persist at low levels. That's **endemic** behavior.

A model beyond Hubbert's is required for the coronavirus. Growth is faster than decay. Also, data fitting curves need not asymptote to zero. Seismologists might say, "The earth is not homogeneous." Human behavior is not homogeneous either. Neighborhoods may exist that reinfect others.

What will happen to subways and buses? It's easy to imagine future worlds that are wholly different from the one we are familiar with.