

What we need to see, as evidence of progress:

Measure	Desired Direction	What Happened Yesterday
No. of Tests	Increase	Up 25%
Positive Test Rate	Decline	Up to 14.1%
No. of Cases	Plateau	Up 38.6%
% of Deaths Per Case	Decline	Steady @ 1.2%
No. of Deaths / 1M Pop.	Plateau	Up to 1.27
Recoveries : Deaths	Increase (>1:1)	Down

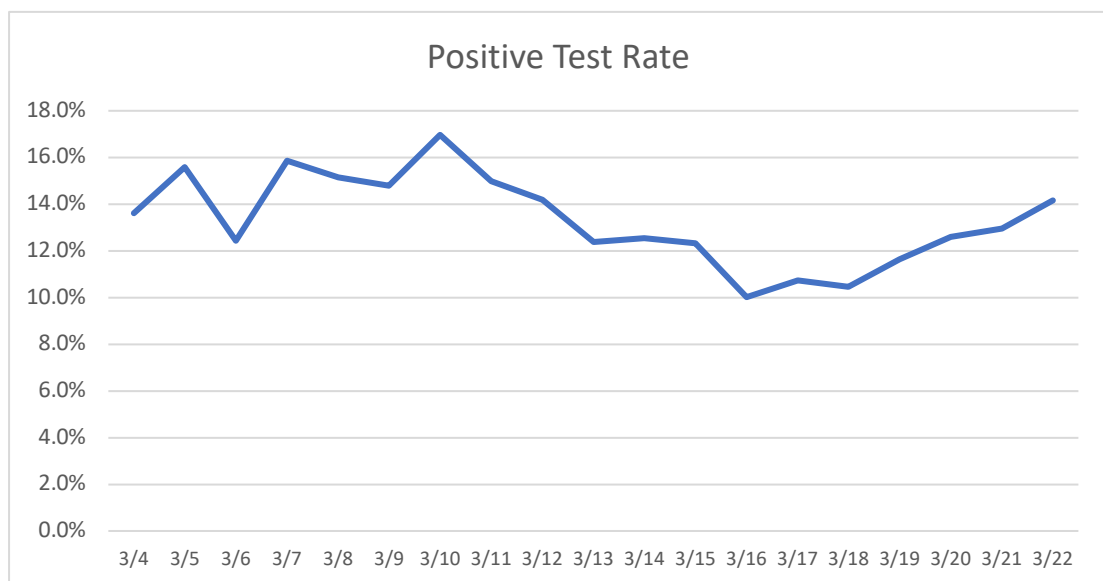
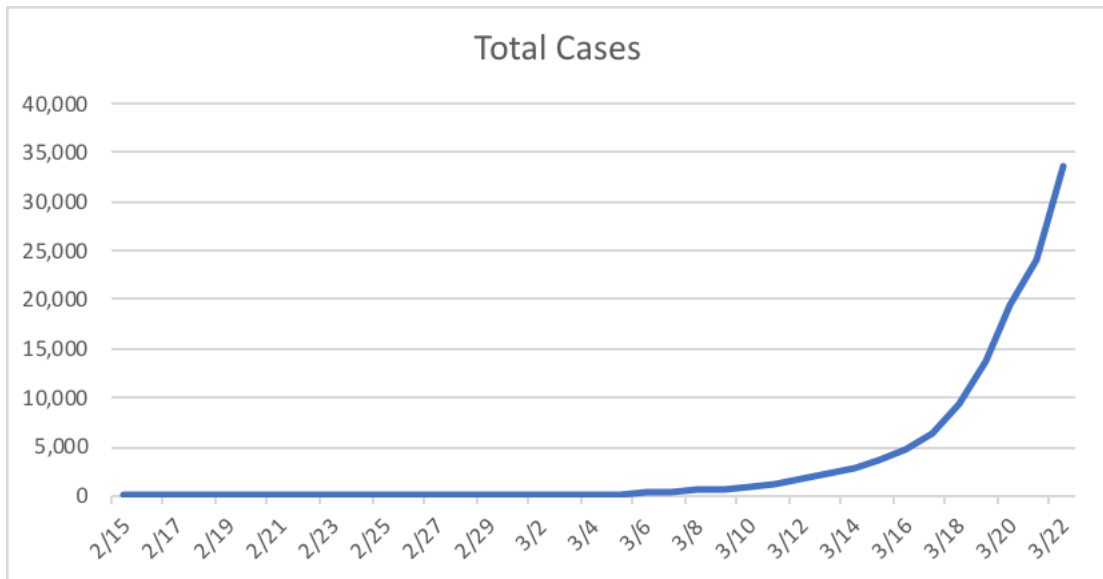
Yesterday's Highlights:

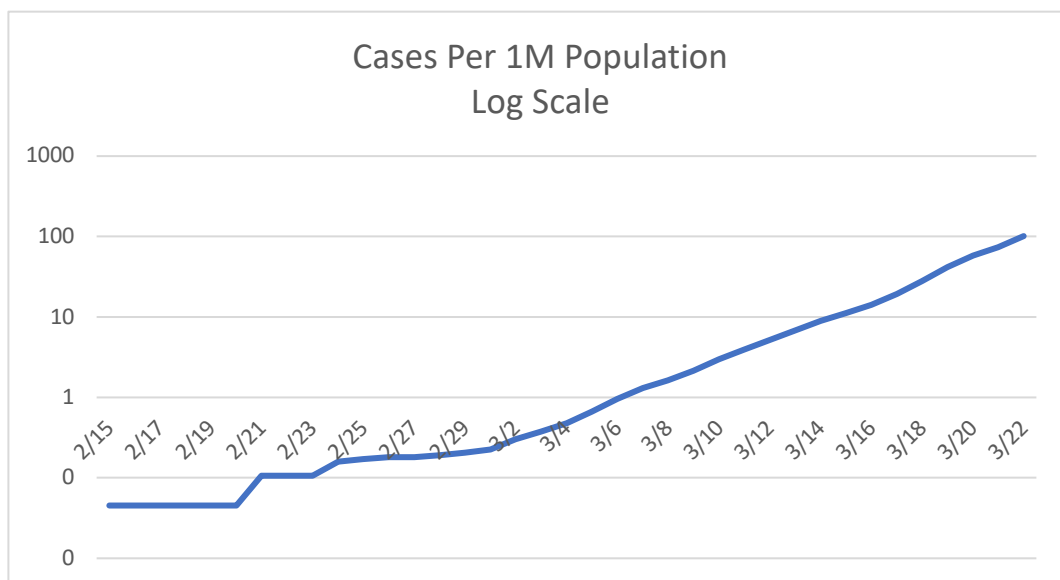
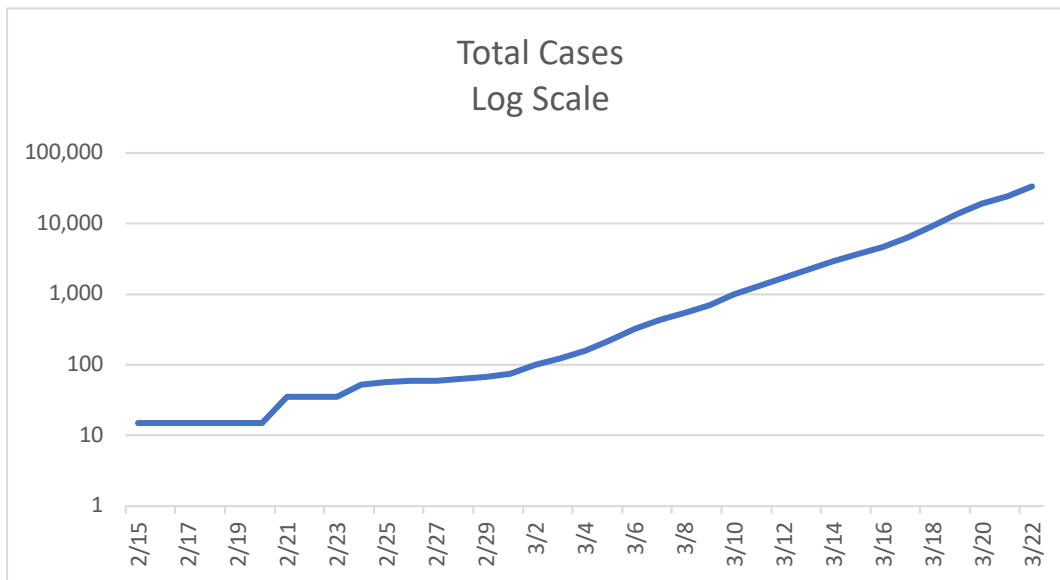
- Testing in the US continues to accelerate; we have more than doubled the total tests in the past 3 days. Given that the rate of positive tests continues to increase suggests that we may still be playing catch-up.
- Increases in case volume continues at a high rate, likely due to a combination of the true rate of infection and our catch-up in testing
- The US death rate for coronavirus is holding steady at 1.2%, which on par with South Korea and significantly lower than many other countries; China, UK, Netherlands and France are between 4-4.9%; Italy is at 9.3%
- Four states (NY, WA, LA, NJ,) and the District of Columbia appear to be the "hot spots" for cases in the US, on a per capita basis. All other states are below the national average. A sign of turning the corner? - WA's - the original epicenter - case volume grew at 1/3 the national rate over the past 2 days and at less than 10% daily over the past three days. Based on China and South Korea's experience, discussed 2 bullets below, 10% seems to be an important threshold.
- NY continues to be the critical "hot spot" in the US. Cases per 1M at 811 are 7.5x the US average and are beginning to approach Italy's level. The next closest state, Washington, is at 262. Importantly, the death rate in NY remains low at 0.7%
- China and South Korea represent the benchmarks for demonstrating progress against spread of the virus. China reached peak active cases on February 17; South Korea on March 11. Both countries reported daily average increases in case volume in the 24-28% range before experiencing a sustained decline to 5-10% average per day. Notably, peak active cases occurred about 9-10 days after the (trending) daily average increase in cases dropped below 10% (HIA analysis, see attached charts) Italy has been at 13.3% over the past week.

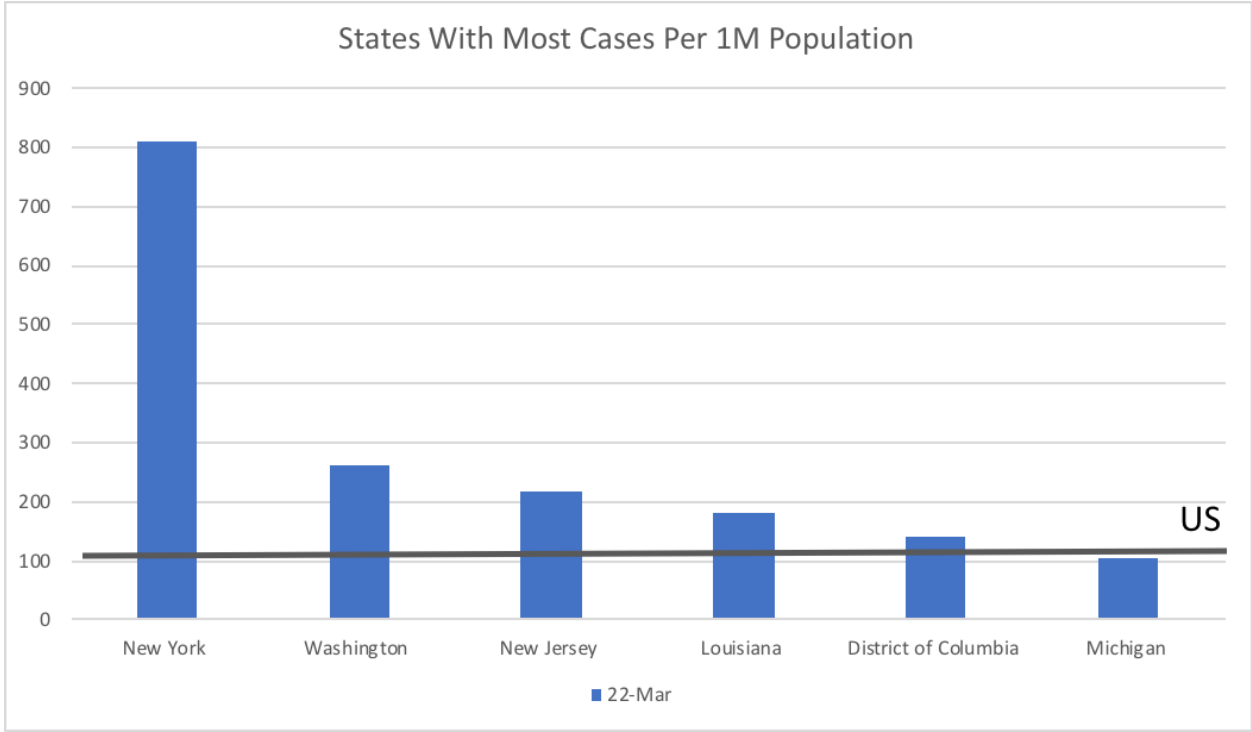
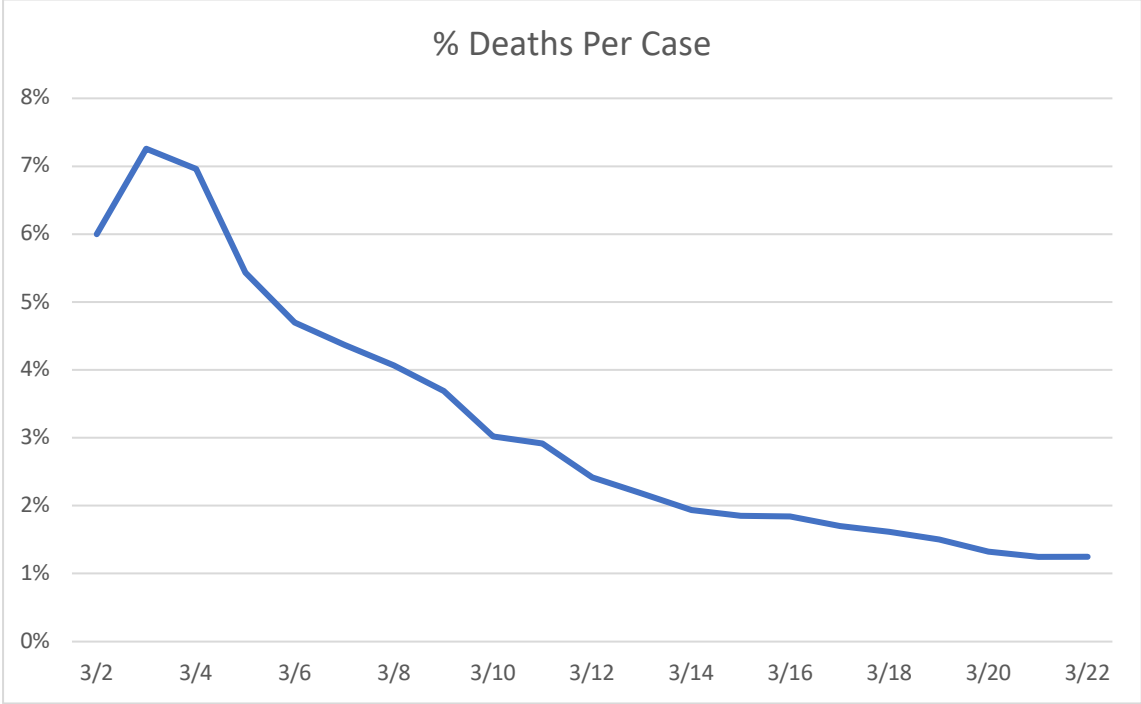
Information provided as a courtesy, based on data from the above-named sources. HIA has no responsibility for the accuracy and updating of any data.

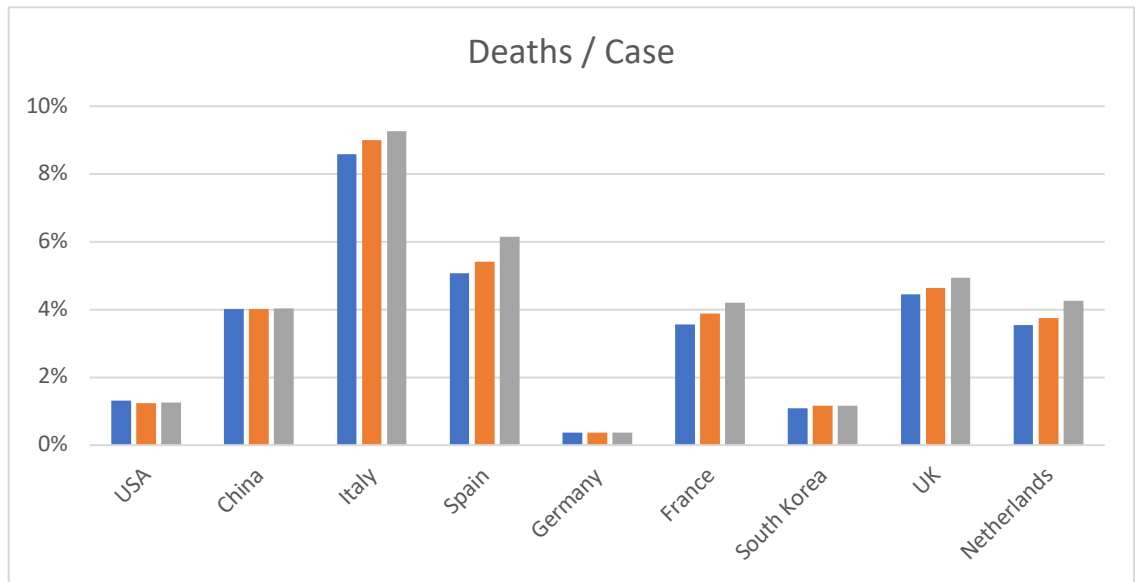
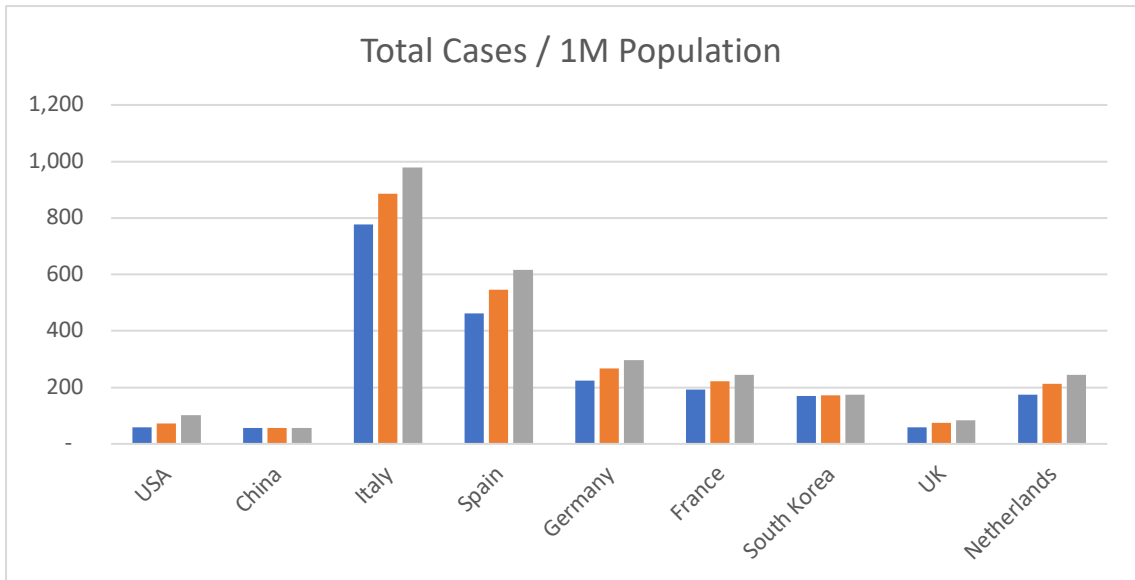
Sources: worldometers.info; covidtracking.com, Financial Times

Data for U.S.

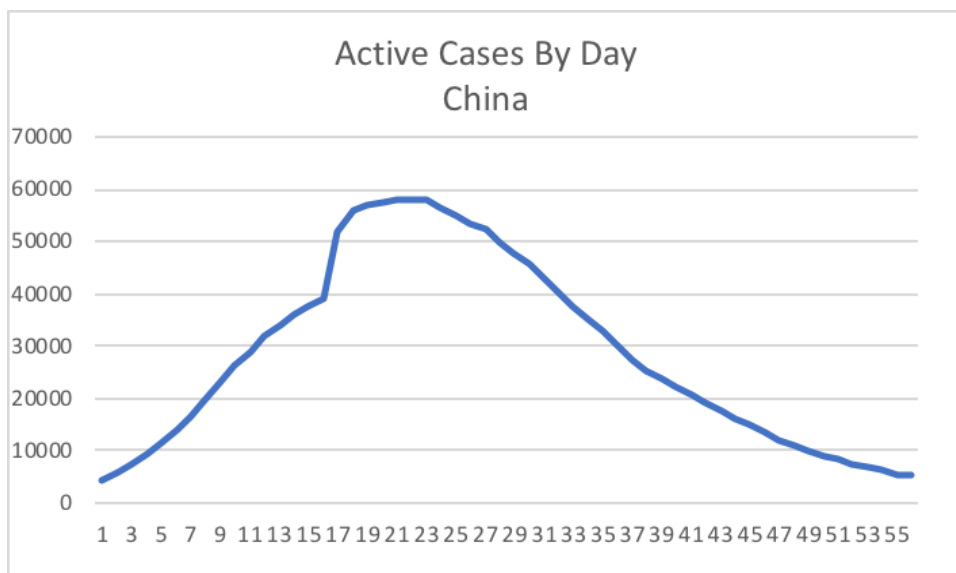
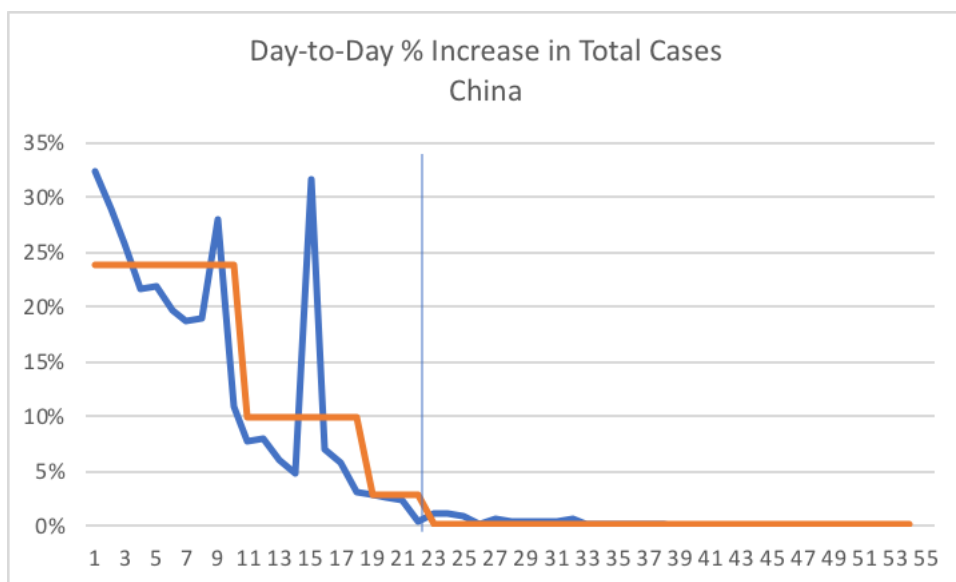




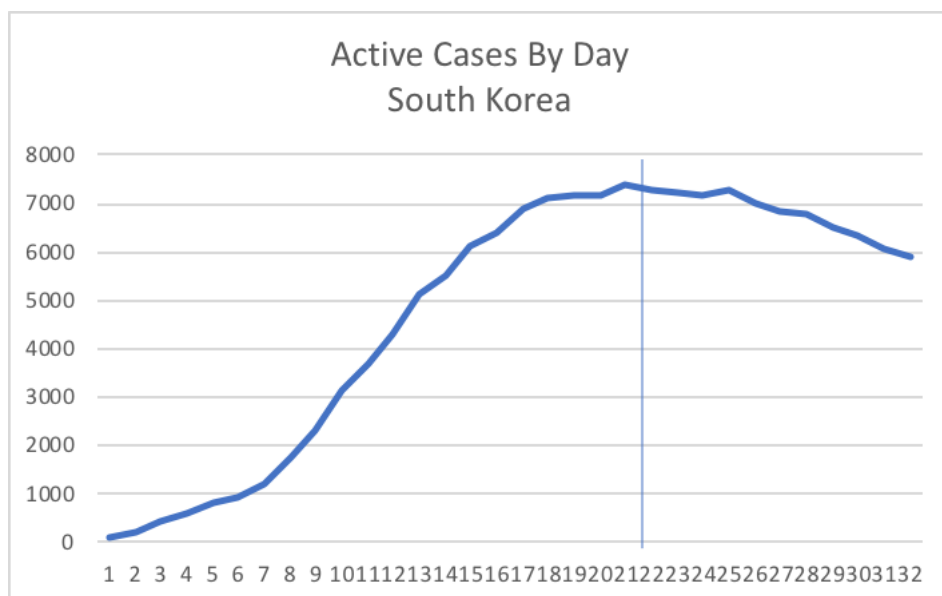
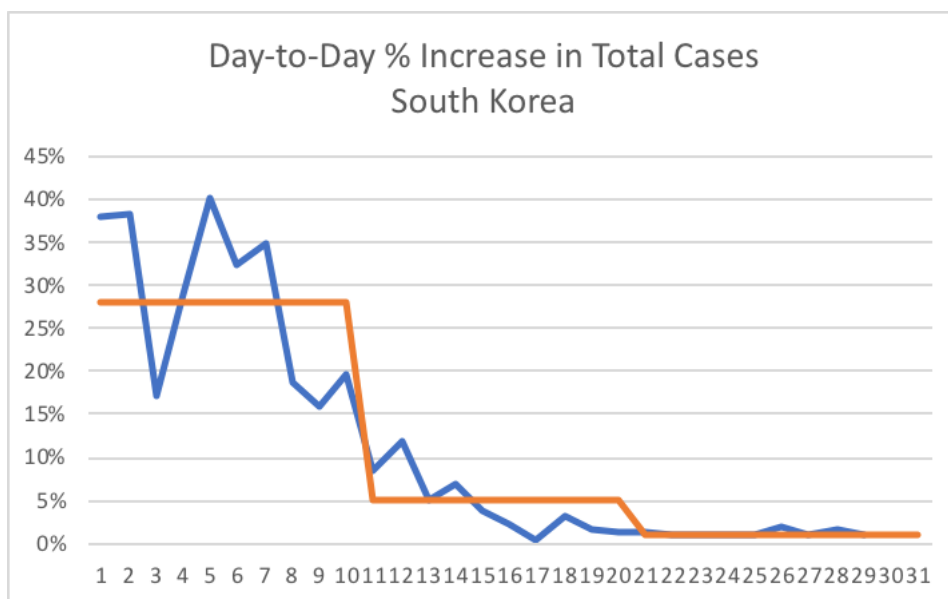




China's average daily increase in cases trended down below 10% on about February 7; 10 days later, on February 17, its active cases peaked at 58,016.



South Korea's average daily increase in cases trended down below 10% on about March 2; 9 days later, on March 11, its active cases peaked at 7,362.



Graphics depict data as of March 22, 2020