

Measure	Desired Change	Yesterday in the U.S.
No. of Tests	Increase	Up 7.2% (Cumulative)
Positive Test Rate	Decline	Steady at 19.4%
No. of Cases	Plateau	Up 7.3%, rate continues to slow
% of Deaths Per Case	Decline	Up to 3.7% (v. 3.6%)
No. of Deaths / 1M Pop.	Plateau	Up to 56.6 (from 50.4)
Recoveries : Deaths	Increase (>1:1)	Down to 1.46 (from 1.55)

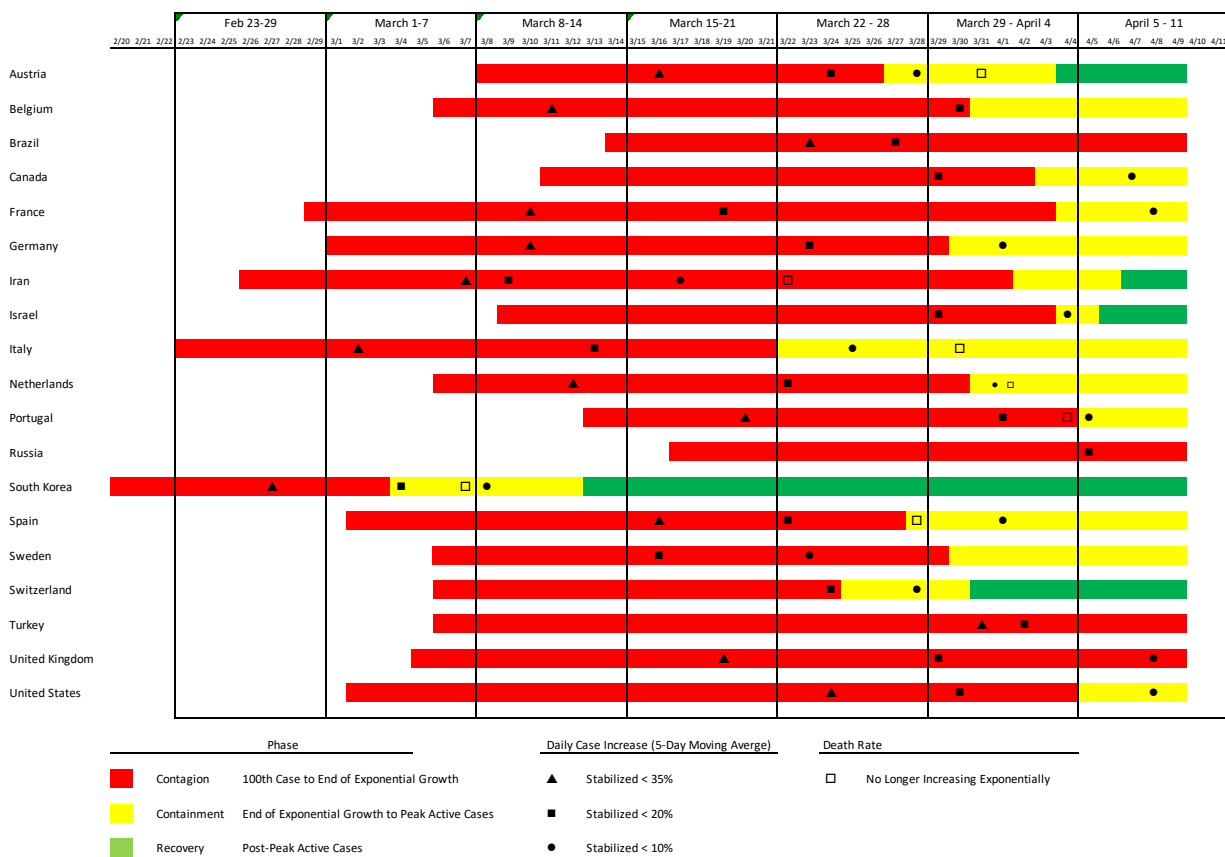
We are tracking the twenty countries with the most confirmed coronavirus cases; these represent 89.1% of all cases in the world. Additionally, we are tracking all fifty U.S. states, the District of Columbia and New York City.

Highlights from Friday include:

- Confirmed cases in the U.S. now exceed 500,000, although the rate of increase continues to decline each day. Active cases are over 450,000 and are also increasing at a slower rate each day. It certainly appears that confirmed cases are beginning to plateau, as these are no longer growing exponentially.
- At the state level, case growth has slowed to less than 10% (5-day moving average) in all except 15 states. This threshold has correlated in most other countries with a near-term peak in active cases. Indeed, active cases seemed to have peaked in Alaska, Hawaii, Maine, Montana and Wyoming; several other states appear to be nearing a peak.
- The number of confirmed cases per capita in the U.S. remains less than ½ that of Spain and lower than Belgium, France, Italy and Switzerland. Cases per capita in New York, New Jersey and Louisiana, which are the highest in the U.S., are also higher than in any of the twenty countries with the most confirmed cases. Massachusetts and Connecticut have more cases per capita than any of these countries except Spain.
- Deaths of persons with coronavirus in the U.S. exceeded 2,000 for the first time on Friday and now total just under 19,000. The death rate is still growing exponentially, although some experts have suggested that this is now peaking. This projection seems to be supported by the experience of other countries: death rates peaked in a number of countries within several days of the end of exponential case growth.
- The spread of the coronavirus is slowing appreciably in most of the twenty countries hardest-hit by the virus. The exceptions are Brazil, Russia and Turkey, which are seeing significant growth in cases.
- Nine of these twenty countries are now beyond or near their peak in active cases. Six countries are no longer seeing an exponential growth in deaths.
- The U.S. inched past Spain in the level of per capita testing but, remains well behind pace-setters Italy, Germany and Switzerland. New York, Louisiana Massachusetts, New Jersey and Washington, among the states with the most cases, are pacing the U.S in testing per capita – and at rates near or higher than Italy and Germany. New York’s is on par with Switzerland’s.

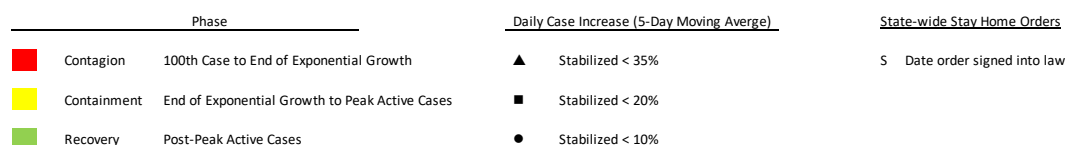
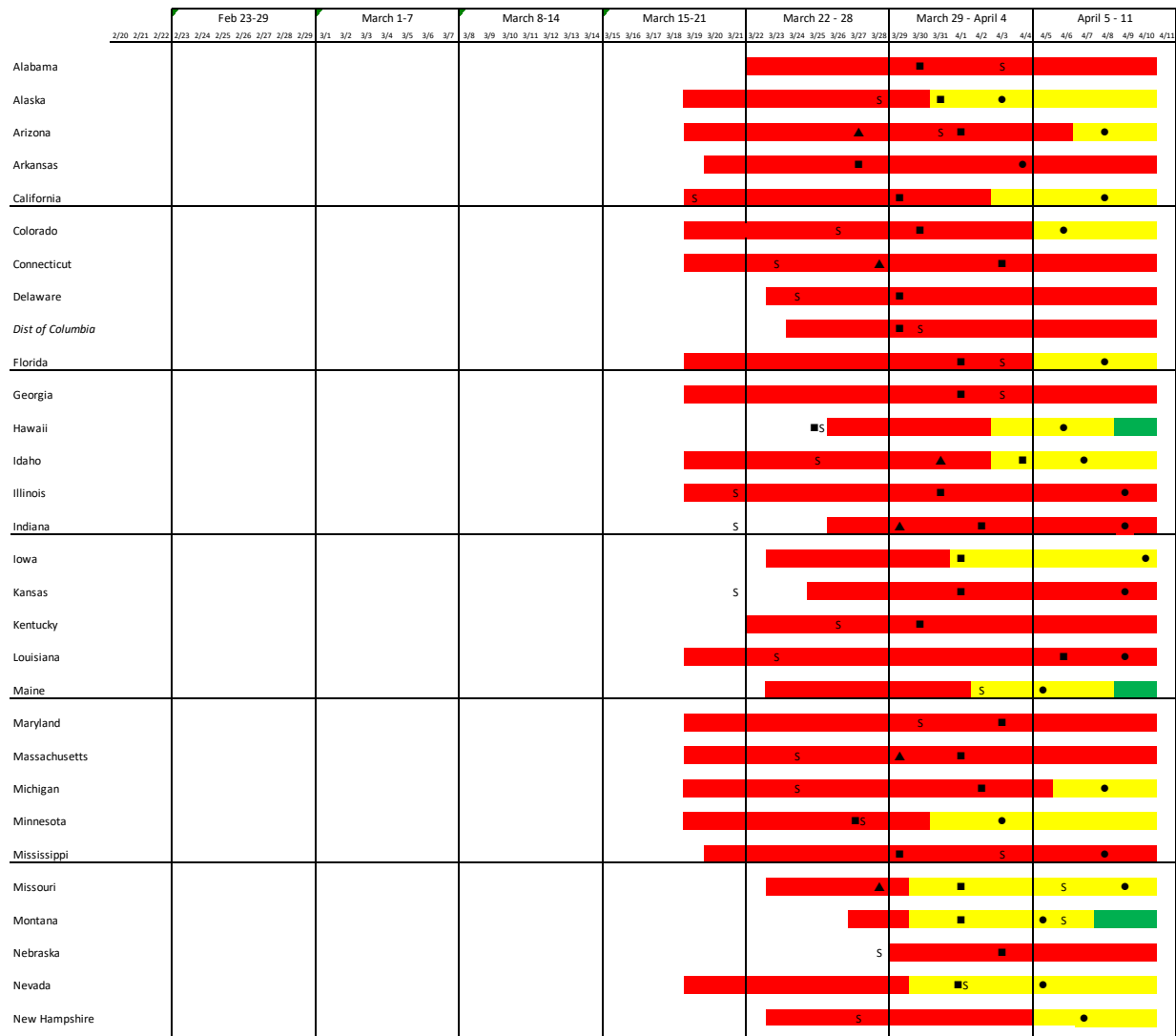
The graphic illustrates in color when the country first recorded 100 total cases (start of the "contagion" phase); when growth stopped following an exponential pattern (start of the "containment" phase); and, when peak total cases were recorded (start of the "recovery" phase). It uses symbols to indicate when average daily case growth rates fell (and was sustained) below certain benchmarks, as well as when deaths stopped growing exponentially.

A similar chart for selected U.S. states and New York City is provided on the next two pages.



Information throughout the Dashboard is 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 Graphics depict data as of April 10, 2020.

Please note: Due to data limitations, it is more difficult to discern when cases cease to grow exponentially at the State level. Thus, the determination of when to depict the containment phase on the chart below (yellow shading) was made on the basis of the state's timing of posting case growth rates $<10\%$; whether active cases appear to be plateauing; and, a visual interpretation of the state's logarithmic chart of total and new cases. **We have added a designation ("S") indicating the date that a state-wide stay home order was executed.**



Mark A. Van Sumeren
P. O. Box 1810
Ann Arbor, MI 48106

Phone: 804/402-1365
Email: Mark.VanSumeren@HealthIndustryAdvisor.com
Website: www.HealthIndustryAdvisor.com
Twitter: @HealthIndAdv



Phase		
	Contagion	100th Case to End of Exponential Growth
	Containment	End of Exponential Growth to Peak Active Cases
	Recovery	Post-Peak Active Cases

Daily Case Increase (5-Day Moving Average)

- ▲ Stabilized < 35%
- Stabilized < 20%
- Stabilized < 10%

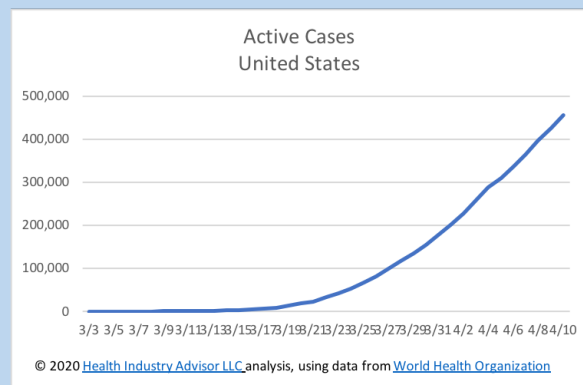
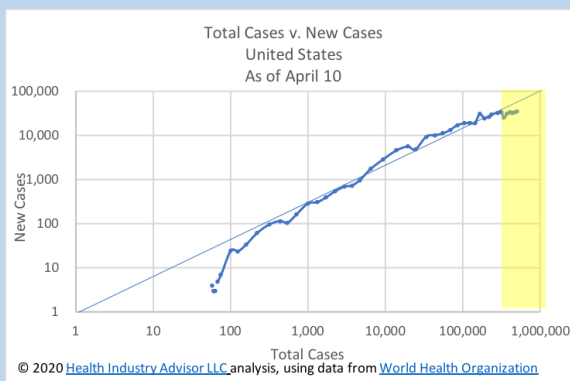
State-wide Stay Home Orders

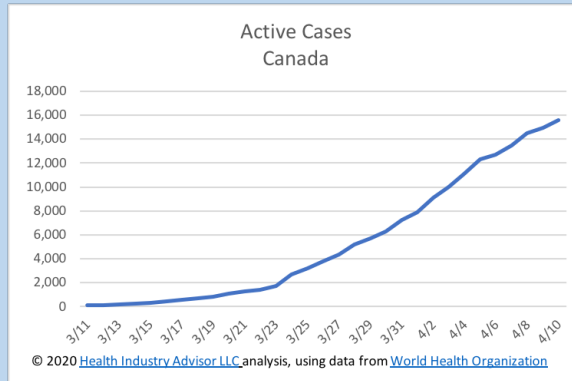
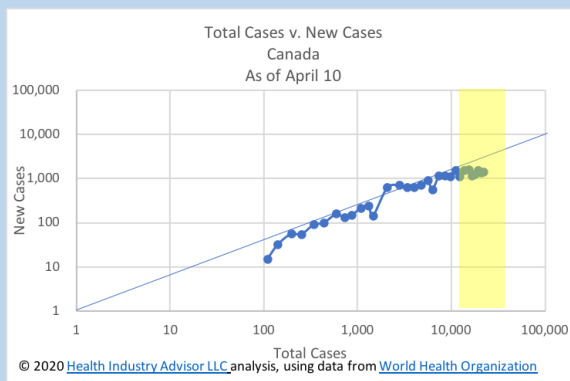
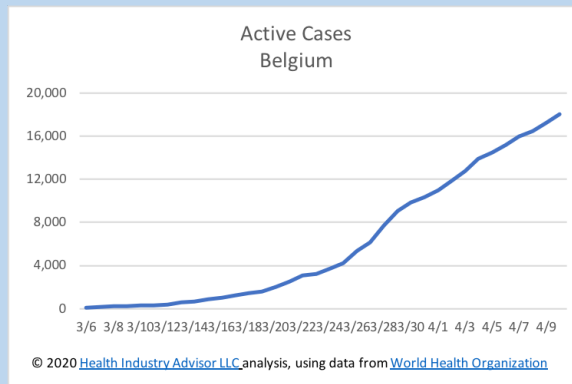
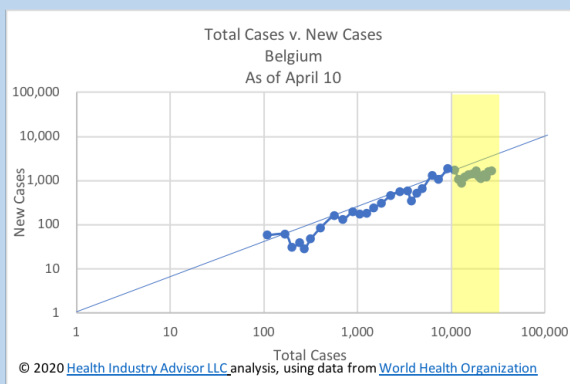
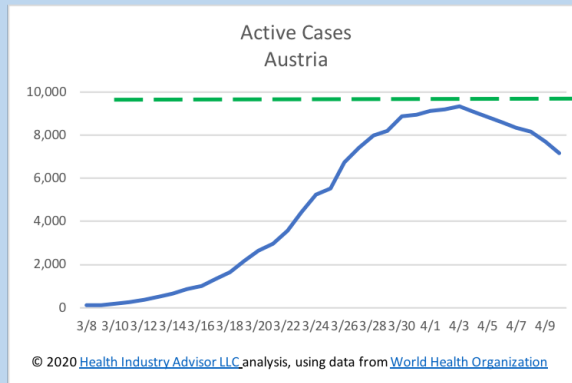
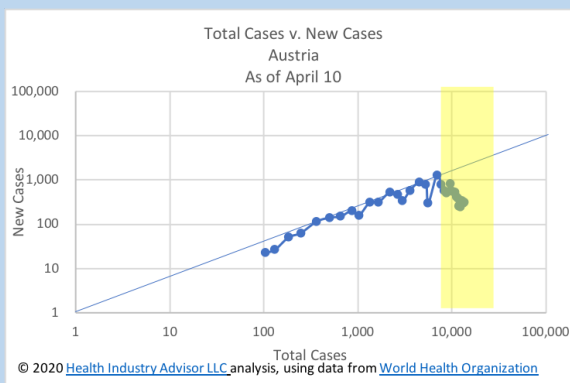
S Date order signed into law

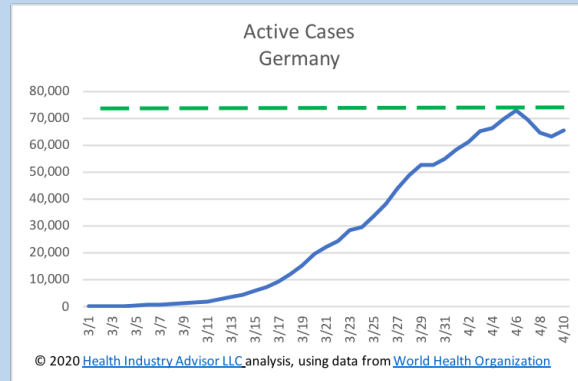
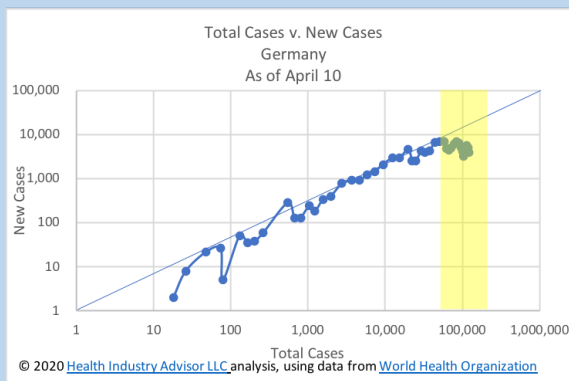
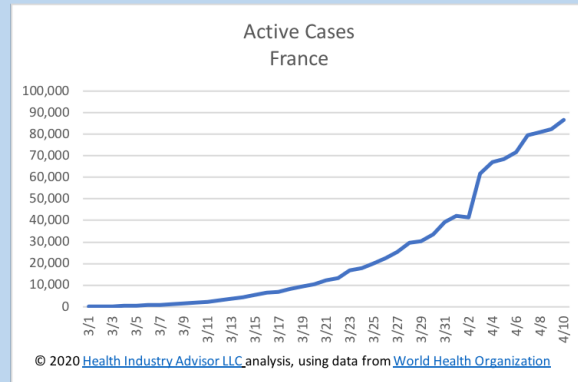
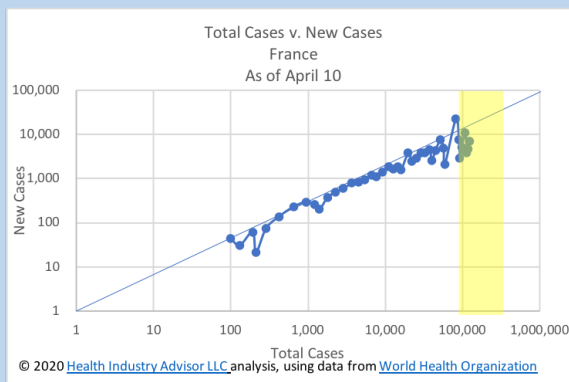
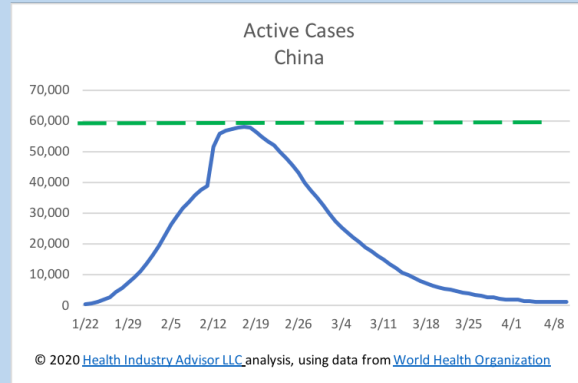
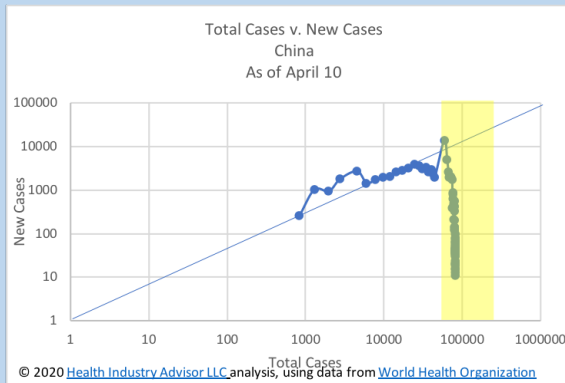
The following is an illustration of the exponential growth in cases in the U.S., alongside a graph of active cases. We are looking to observe when cases cease to grow exponentially (i.e. "containment" of the virus), followed by a peak in active cases.

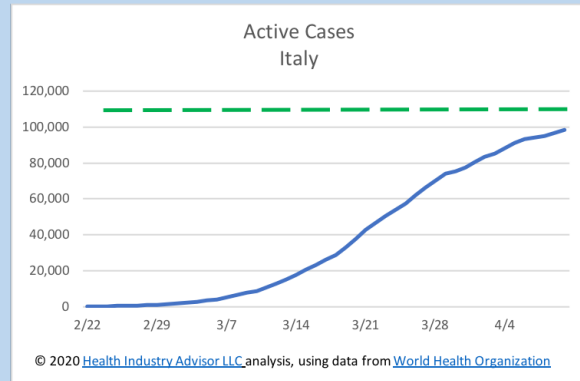
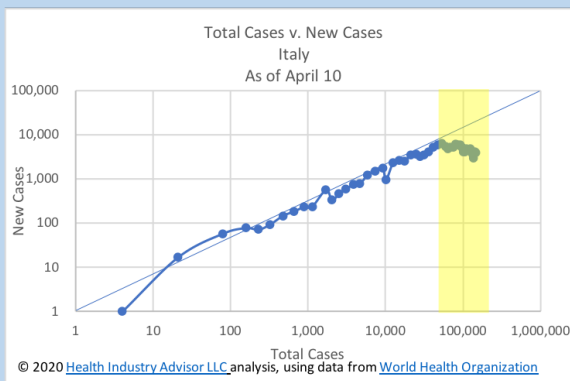
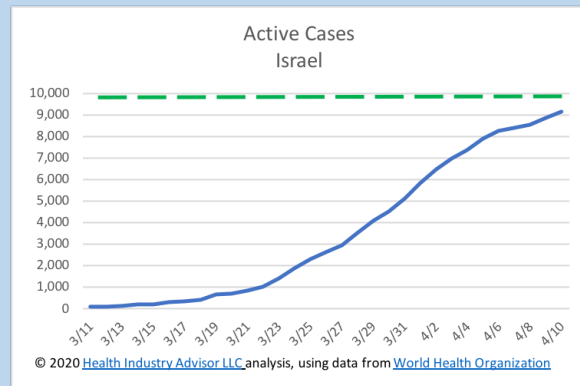
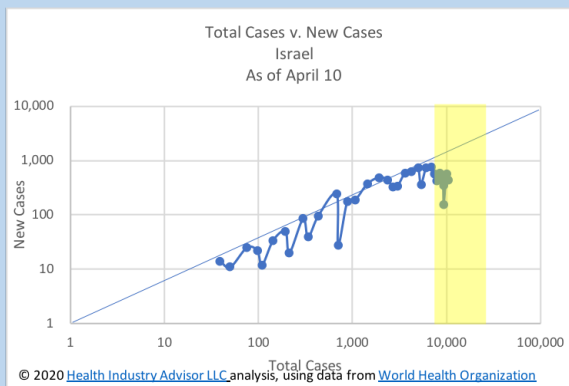
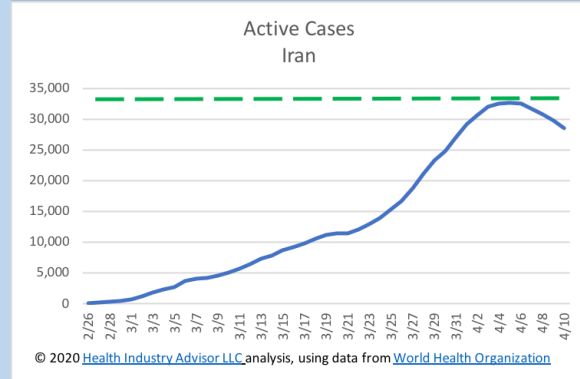
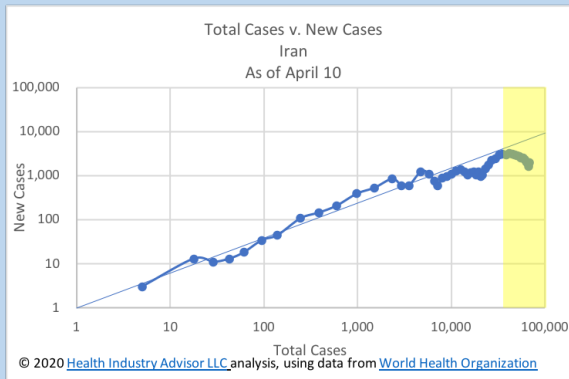
Following this page are similar graphs for selected countries that are showing evidence that cases are no longer growing exponentially (the yellow-shaded areas). Where appropriate, on the graphs of active cases, we indicate with a dashed green line the approximate peak.

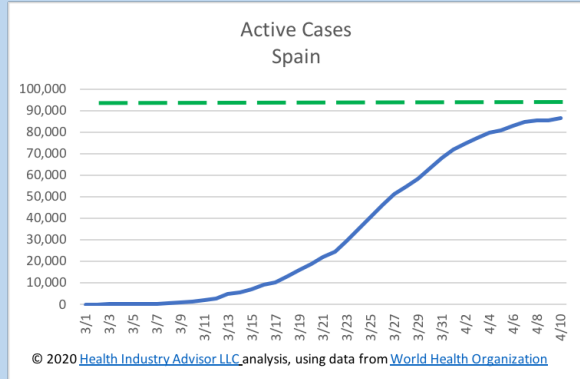
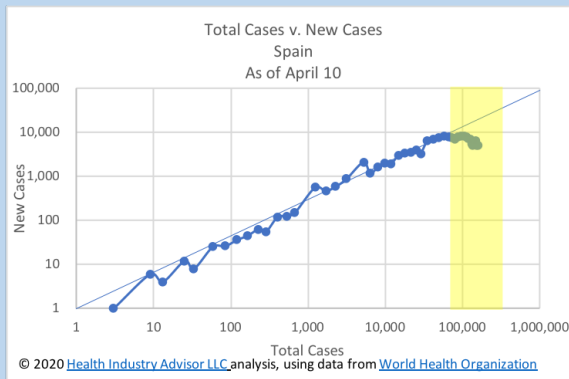
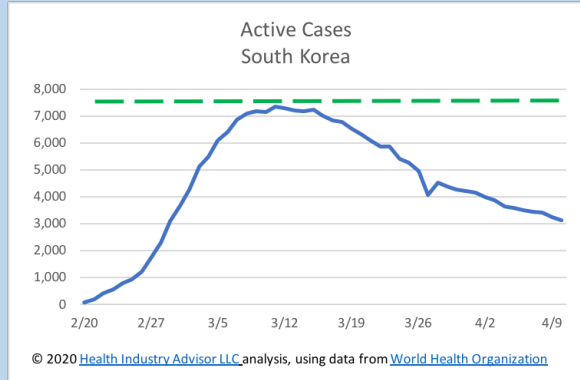
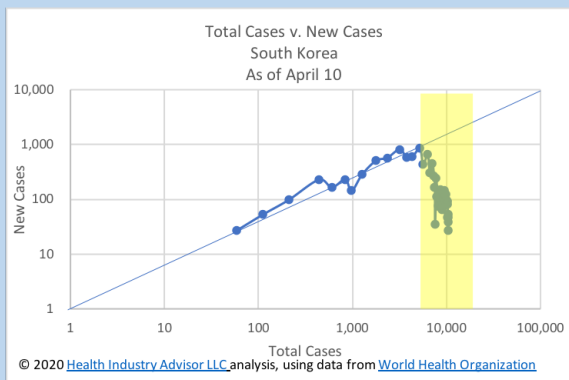
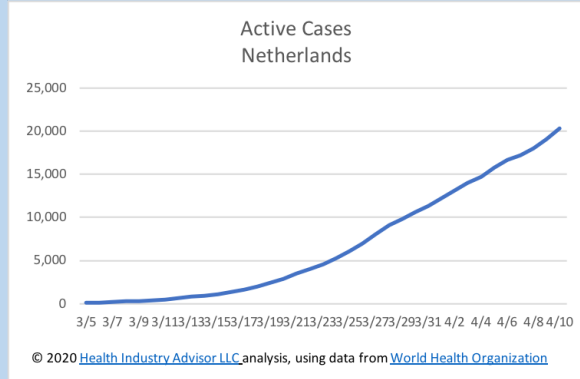
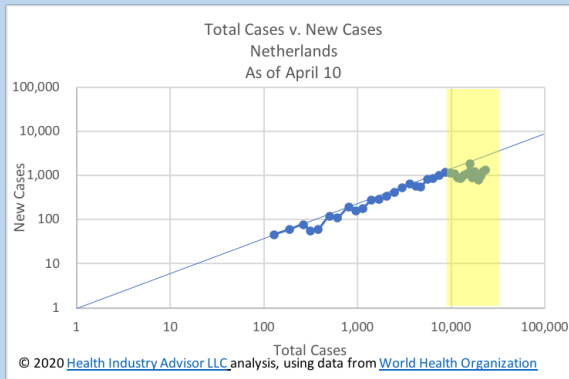
Cases in the U.S. are no longer growing at an exponential rate; active cases, however, have yet to peak.

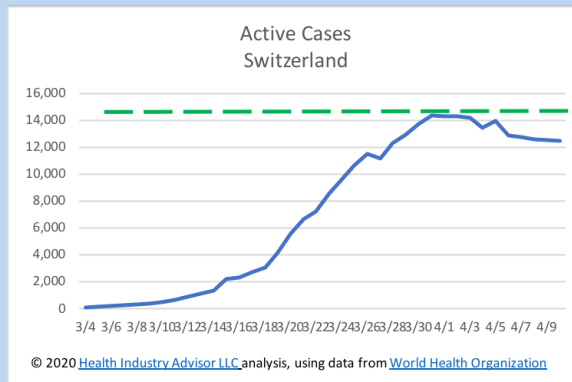
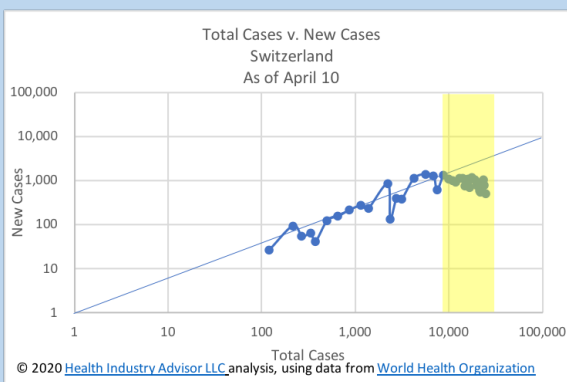
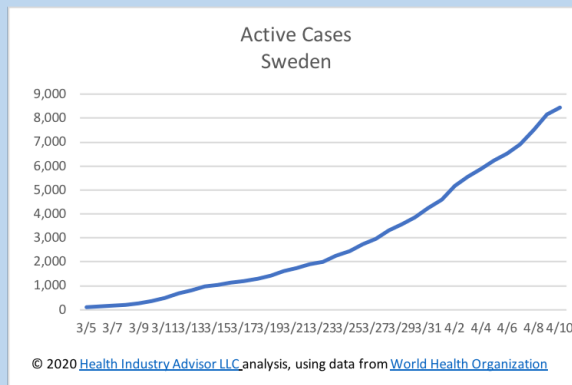
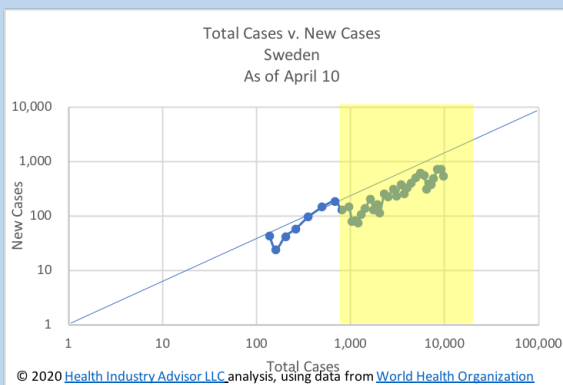




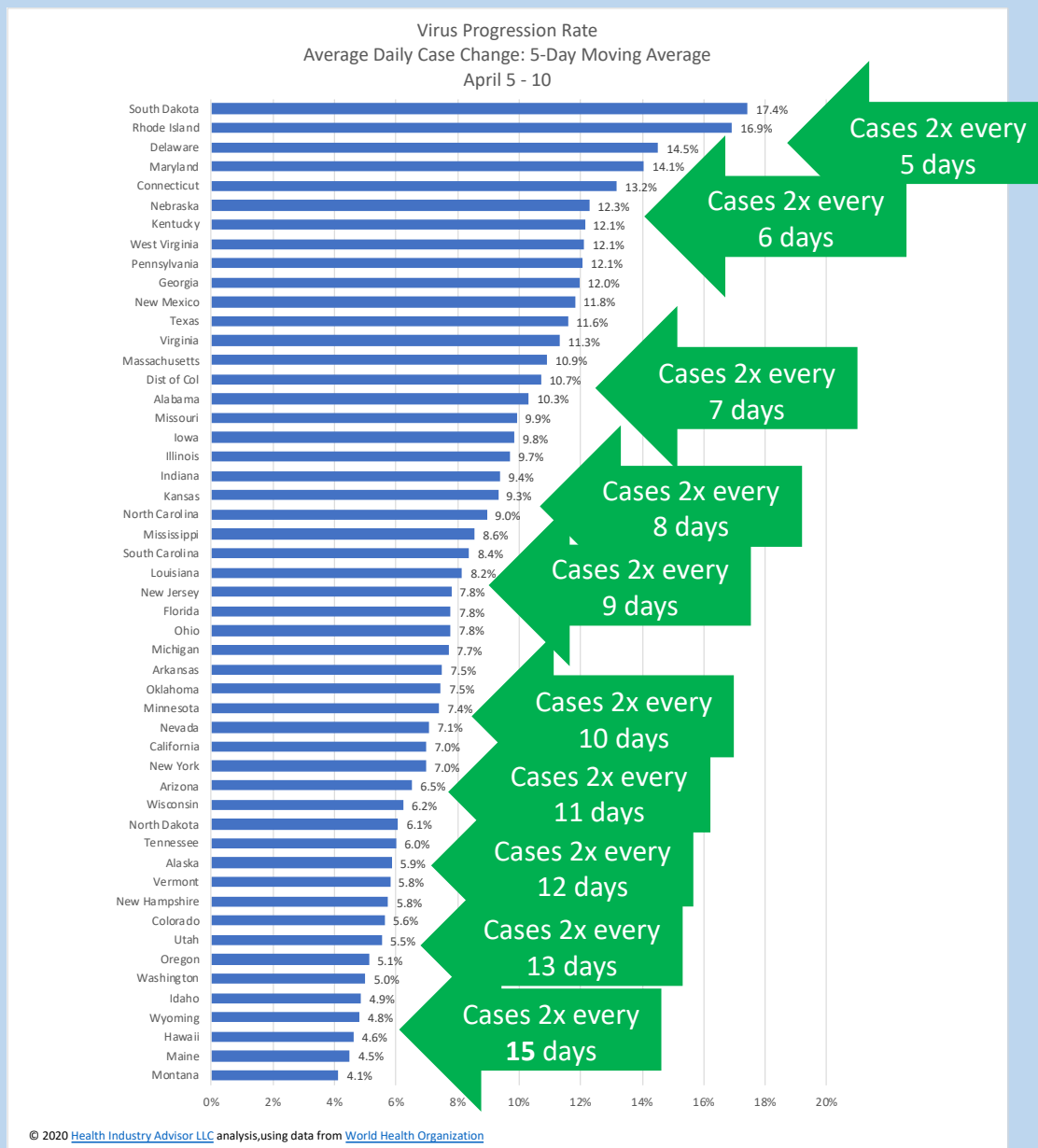








Growth is slowing across the U.S.:



On these two pages, we provide graphs depicting those states nearing or past the peak in active cases.

