

Measure	Desired Change	Yesterday in the U.S.
No. of Tests	Increase	Up 8.2% (Cumulative)
Positive Test Rate	Decline	Up slightly 18.8% (from 18.7%)
No. of Cases	Plateau	Up 8.2%, rate continue to slow
% of Deaths Per Case	Decline	Up slightly to 2.9% (v. 2.7%)
No. of Deaths / 1M Pop.	Plateau	Up to 29.1 (from 25.5)
Recoveries : Deaths	Increase (>1:1)	Up to 1.87 (from 1.75)

- Deaths of persons with coronavirus will generate a great deal of focus in the U.S. this week, certainly because they are a tragic consequence of the virus. These numbers are – and will continue – increasing exponentially. The U.S. recorded 1,164 deaths on Sunday, the 4th of 5 days in a row with more than 1,000 deaths.

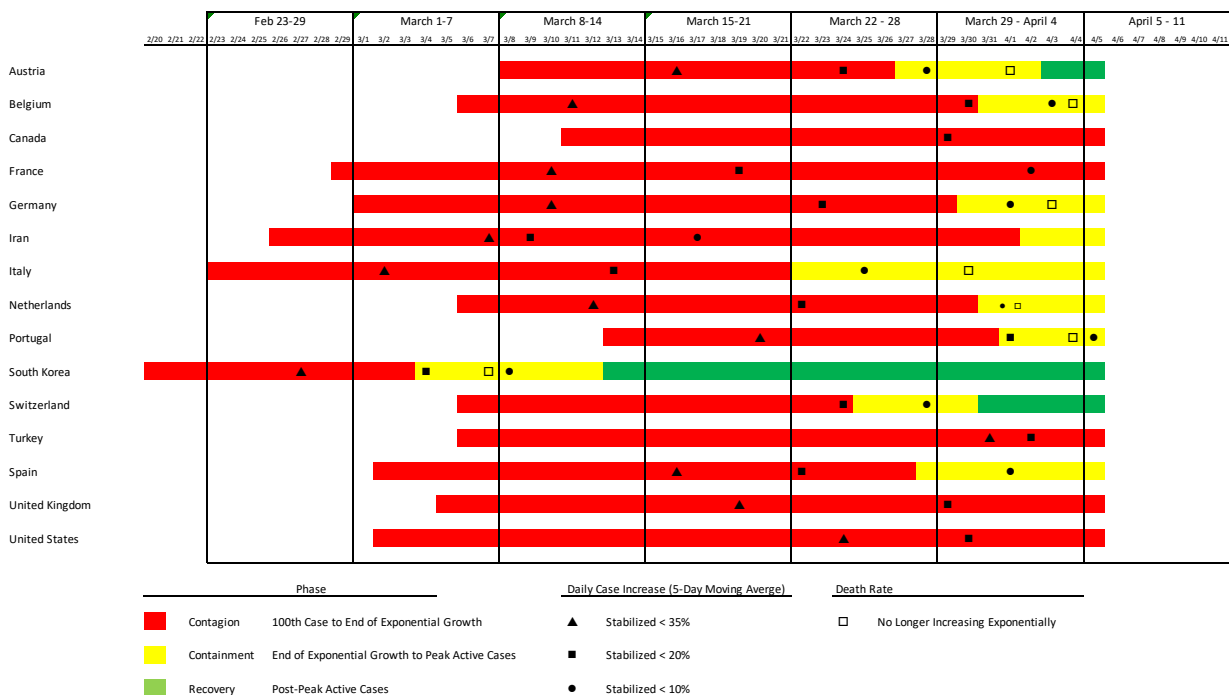
And, they generate headlines.

We should not, however, assume that the death rate implies that progress is not being made in containing the virus. As one would expect, cases will begin to taper off before the death rate plateaus. Evidence shows that both confirmed cases and deaths grow exponentially for a period of time before, eventually, slowing. In those countries that have already experienced slowing death rates, cases ceased growing exponentially, at the median, **4 days** before a similar pattern occurred for deaths (the range has been -1 to 8 days). So, expect the death rate in the U.S. to continue increasing, until several days after cases stop growing exponentially.

- The evidence continues to mount that many parts of the world are beginning to contain the virus: of the 16 countries we are following (the 15 with the most confirmed cases, plus South Korea), cases are no longer growing exponentially in 10 (possibly, 11: the Netherlands, hasn't yet shown sufficient evidence to be conclusive). Six of these have passed their peak in active cases (Austria, China, South Korea and Switzerland) or, nearing it (Belgium and Iran are plateauing and may peak in the next few days). The peak in active cases was recorded 5-7 days after the exponential case growth trend was broken (although its taking longer in Italy and Spain).
- The U.S. continues to show signs that the days of exponential case growth may be near at hand, certainly in a number of states. Interestingly, one of the stronger signals is from New York, where case growth may have slowed from its exponential trend about a week ago. In all, data from 12 states are signaling that cases may no longer be growing exponentially. These patterns need to hold for several more days before a definitive conclusion can be reached.
- Daily average case in the U.S. (5-day moving average) is down to 12.3%, which is now on par with France and lower than the United Kingdom and Canada. At this rate, cases double about every 6 days. In Arkansas, Alaska, Minnesota, Montana, Oregon, Tennessee and Washington, this rate is now <10%; In Georgia, Kentucky and New York, its just higher than 10%.

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

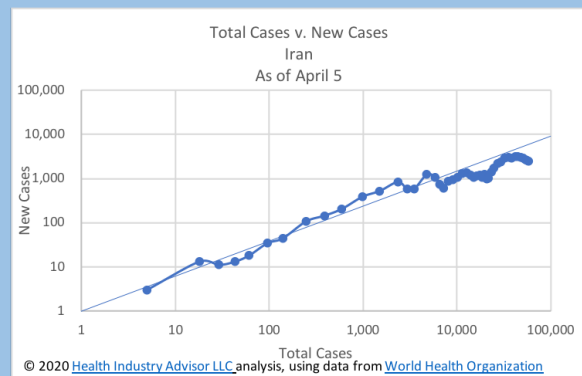
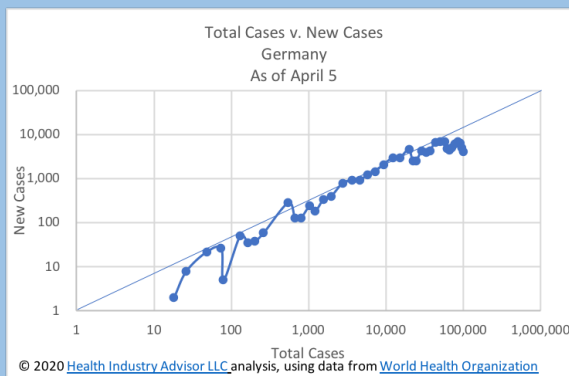
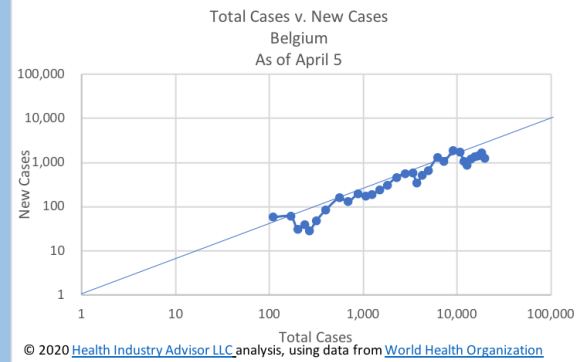
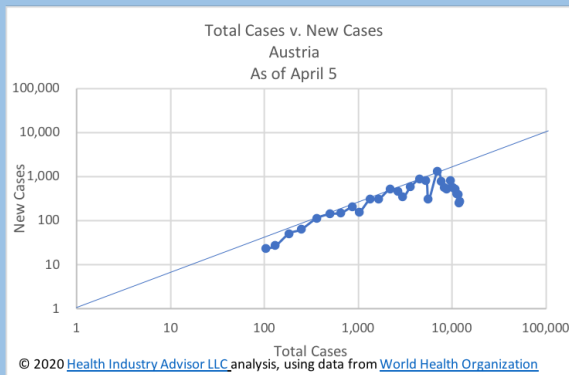
A similar chart for selected U.S. states is provided on the next page.

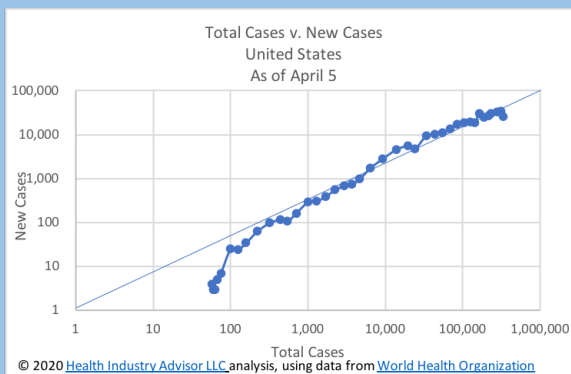
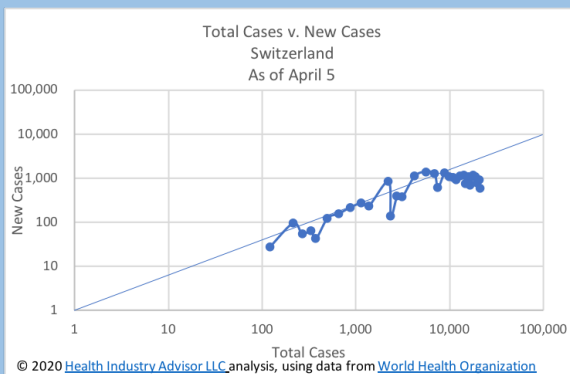
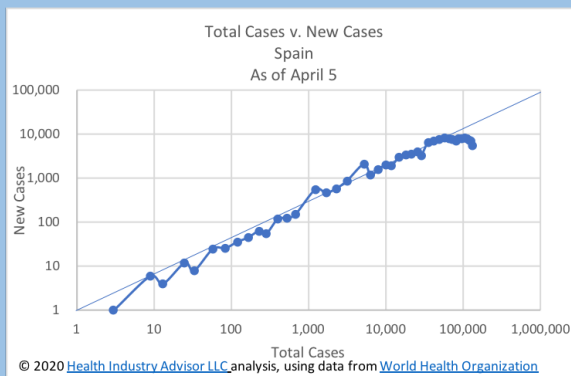
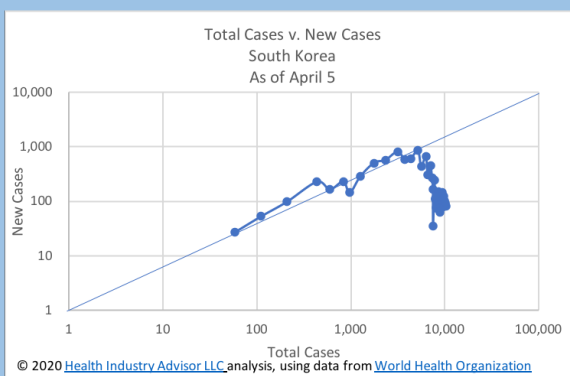
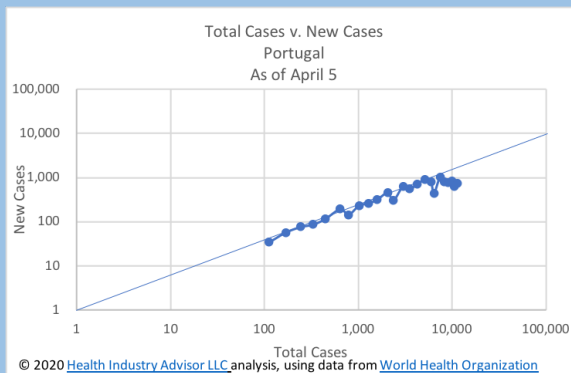
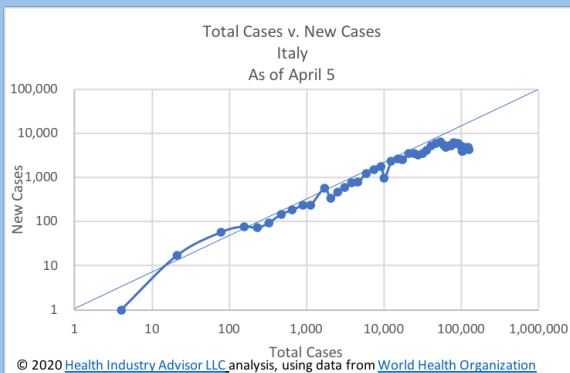


Information throughout the Dashboard is provided as a courtesy, based on data from the above-named sources. HIA has no responsibility for the accuracy and updating of any data. Sources: worldometers.info; covidtracking.com Graphics depict data as of April 5, 2020.



Illustration of countries which are showing evidence that cases are no longer growing exponentially - in other words, containment may have begun (China is not illustrated) plus the United States.





Growth is slowing across the U.S.:

