

Measure	Desired Change	Yesterday in the U.S.
No. of Tests	Increase	Up 4.5% (Cumulative)
Positive Test Rate	Decline	Steady at 19.4%
No. of Cases	Plateau	Up 4.9%, rate continues to slow
% of Deaths Per Case	Decline	Up to 4.4%
No. of Deaths / 1M Pop.	Plateau	Up to 86.2 however, rate no longer exponential
Recoveries : Deaths	Increase (>1:1)	Up to 1.71

We are tracking 20 of the 23 countries with the most confirmed coronavirus cases (India, Ireland and Peru - 18th, 20th and 22nd in most cases, respectively, have not yet been included); these represent 88.4% 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 Wednesday include:

- Initial unemployment claims, seasonally-adjusted, last week were 5.245 million, the 4th consecutive week it has run at a high rate. Prior to the coronavirus outbreak, these would typically run in the low 200,000s.
- Deaths reported on Wednesday (2,482) exceeded the previous high recorded only one day earlier (2,407). These figures, however, should be viewed cautiously: In the past 2 days, several states with significant death counts announced that either: 1) they had added thousands of people to the death count, who were now presumed to have died from the virus weeks ago, but had not had a positive test and were previously not counted in the totals; 2) should have been included in total from the past weekend but were not due to a lag in reporting; or, both.
- Recoveries spiked on Wednesday, with 9,888 newly-reported recoveries – perhaps, partly caused by lags in reporting. Perhaps more instructive, over the past 3 days these recoveries averaged over 5,300 per day, compared to just over 2,000 each day the preceding 3 weeks. Given the [World Health Organization](#)'s published guideline of expected recovery time, we continue to anticipate seeing an extended period of accelerating pace of recoveries.
- Among the countries we are tracking, only Russia has yet to break the trend of exponential growth in coronavirus cases. Breaking this trend is a critical early step in containing the virus. Only 7 states have similarly yet to break this trend: Massachusetts, Nebraska, Rhode Island, South Carolina, South Dakota and Virginia. (Of these, Rhode Island, South Carolina and Virginia are providing solid indication that they may be breaking from the trend. At least one more data point, however, is required to statistically confirm this break.)
- Active cases seemed to have now peaked in ten states: Alaska, Hawaii, Iowa, Kansas, Montana, Oklahoma, Tennessee, Vermont, Washington and Wyoming and may be near peak in 12 other states: Arkansas, Colorado, Delaware, Louisiana, New Hampshire, New Mexico, North Carolina, Oregon, Texas, Utah, Vermont and West Virginia.

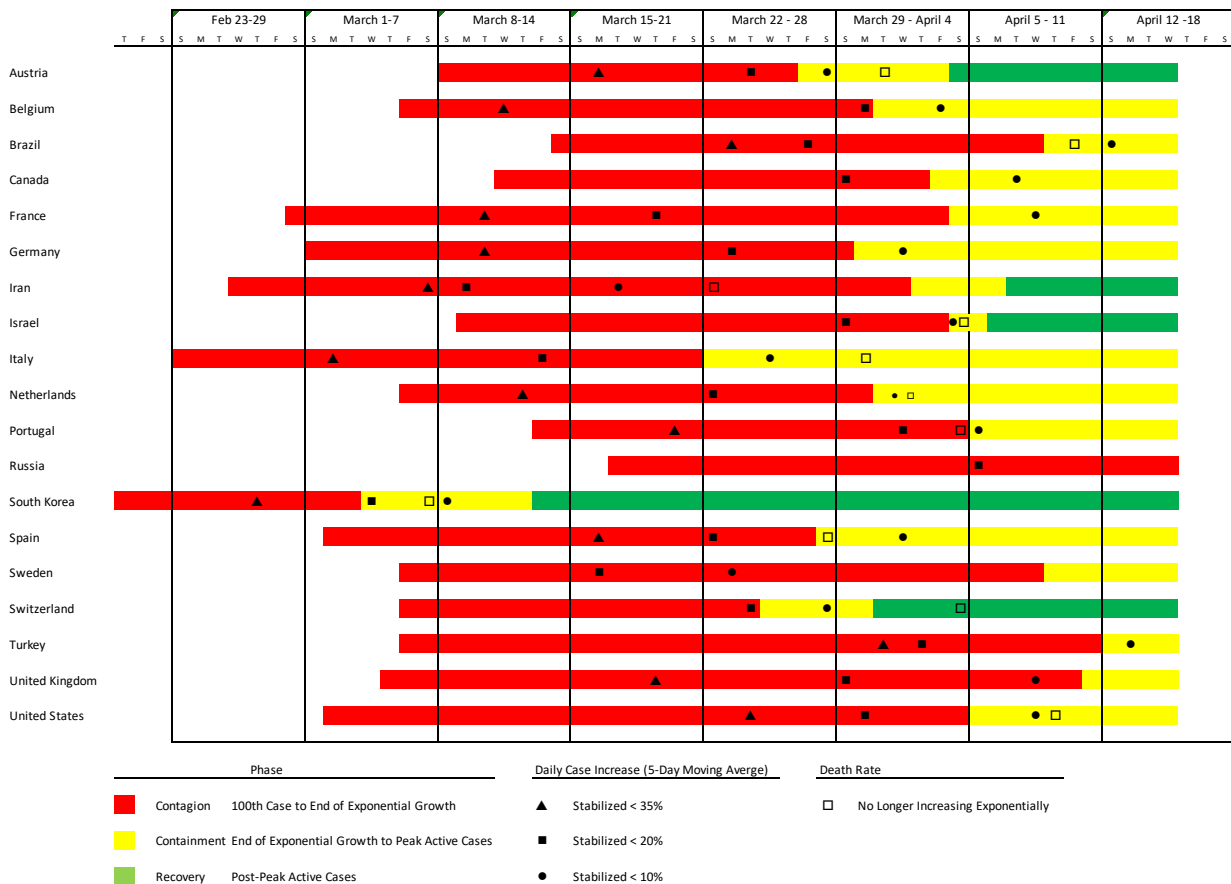
We have added a new table to the back of this report: This table shows statistics and rankings among the state and D.C. in: cases, cases per capita, deaths, death rates and case growth rates.

Virus Progression: Hardest Hit Countries

Hardest-Hit Countries Continue Progressing Toward Containment and Recovery; Only Russia Among These Countries Still Experiencing Exponential Growth

Austria, China (not pictured), Iran, Israel, South Korea and Switzerland are already in Recovery (past peak cases); only Russia is still experiencing exponential case growth.

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 were sustained) below certain benchmarks, as well as when deaths stopped growing exponentially.

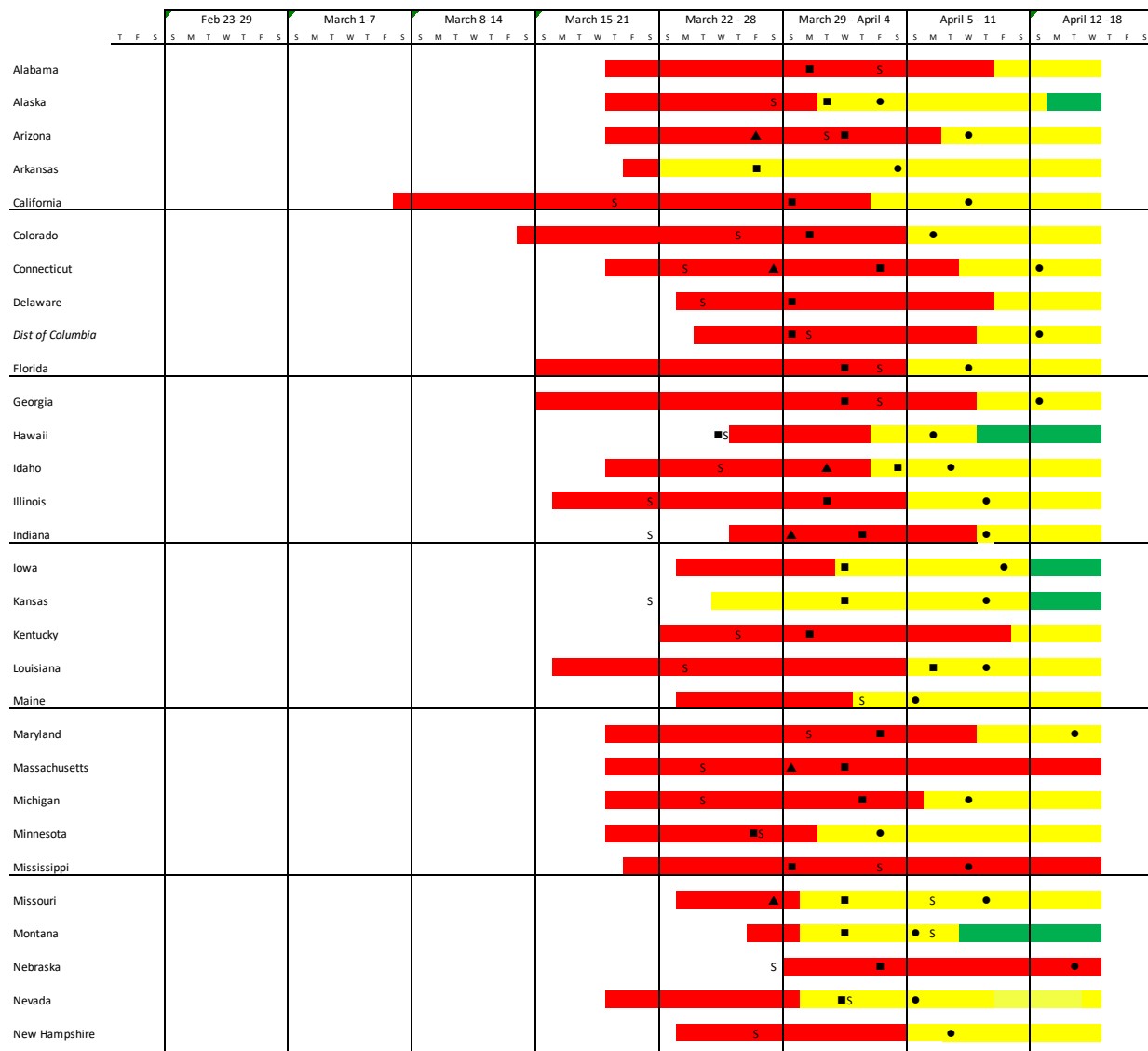


Virus Progression: US States, District of Columbia and New York City

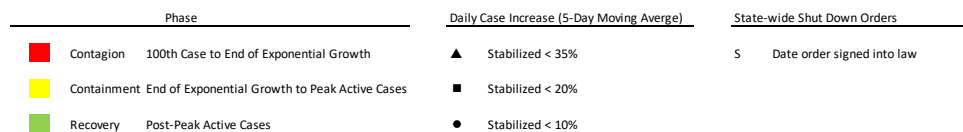
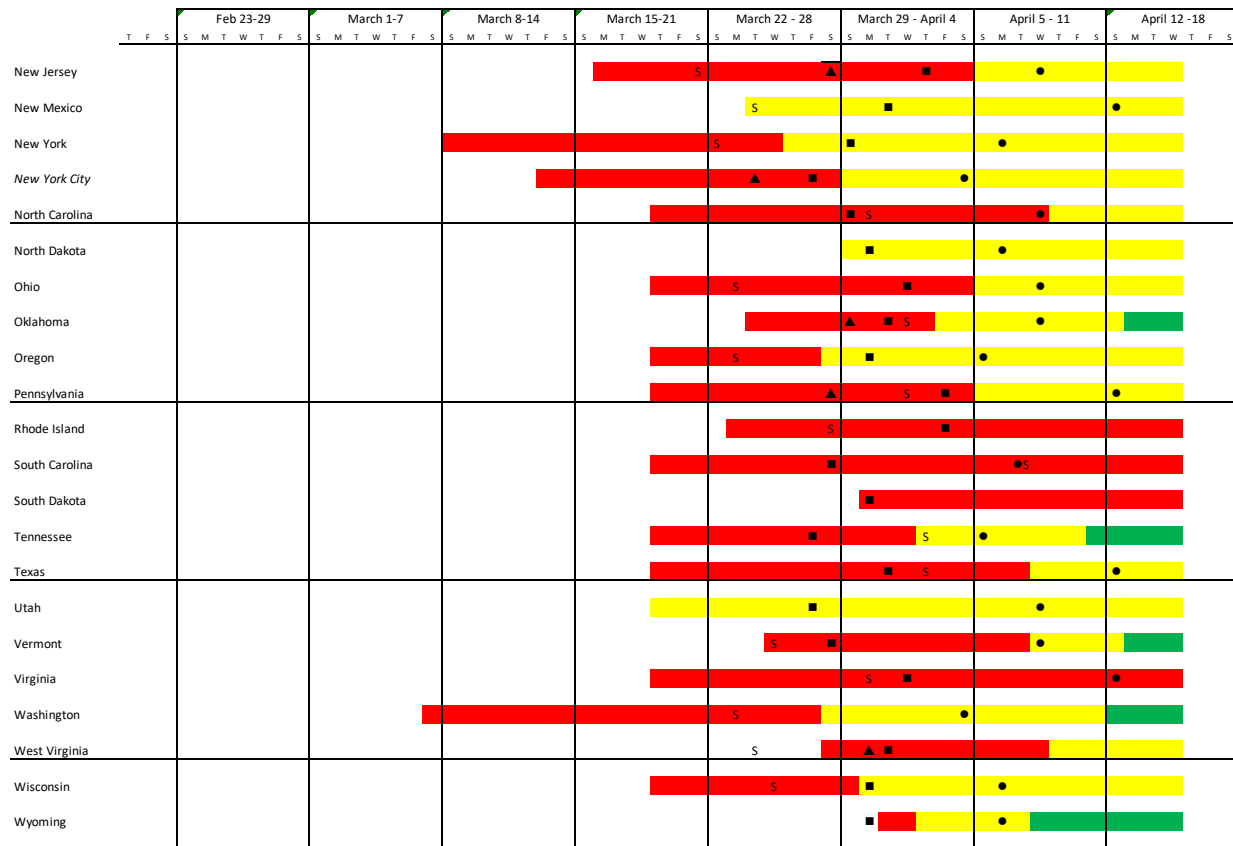
The Majority of U.S. States are in Containment and Well on Their Way Toward Recovery

A few notable changes from Tuesday: Utah's active cases eclipsed its prior peak (by 129 cases) (shading changed from green to yellow).

It now appears that Maryland no longer experiencing exponential case growth (shading changed from red to yellow). Only seven states have yet to demonstrably stop the exponential growth in cases.



(continued on next page)

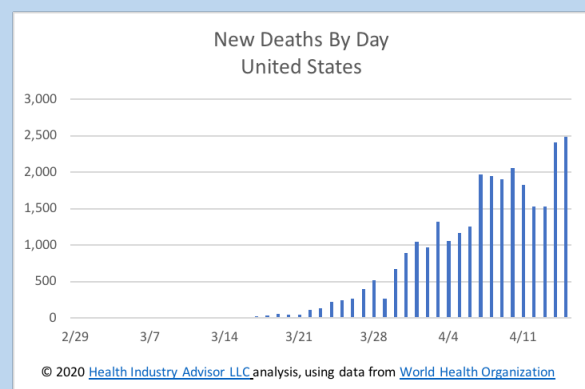
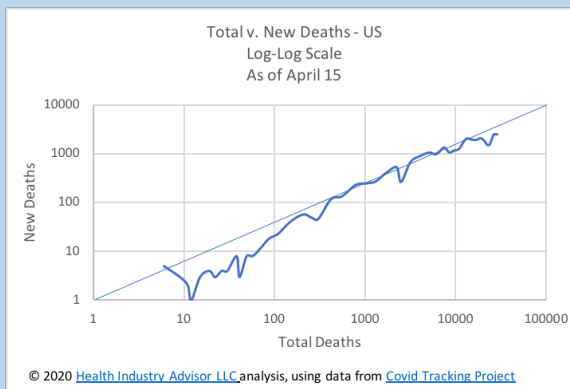
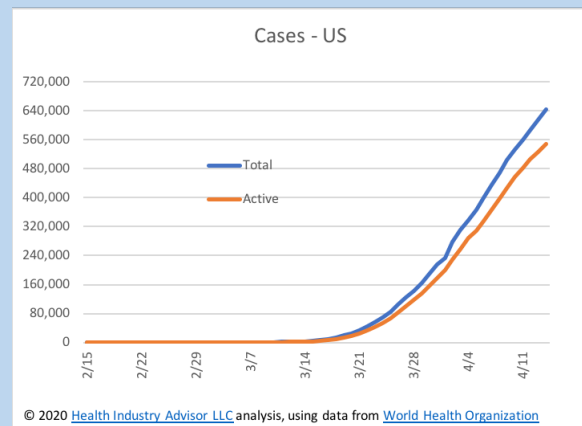
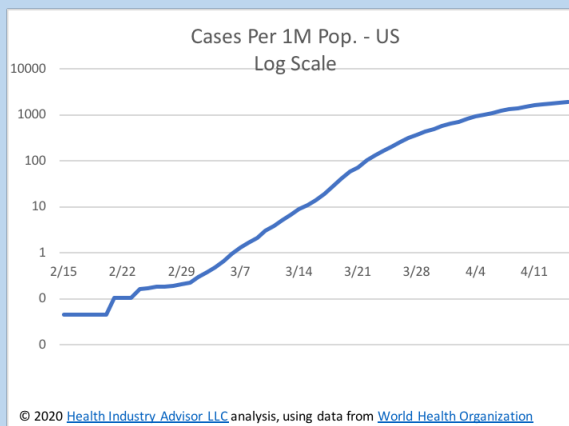


Cases and Death Rates in the U.S.

Case Growth has Begun to Plateau in the U.S., Deaths Had Appeared to Have Peaked, But Spiked on Tuesday

Cases in the U.S. are no longer growing at an exponential rate; active cases, however, have yet to peak. As infected persons begin to recover, active cases are beginning to separate from total cases.

Deaths have ceased their exponential growth in the past few days, and new daily deaths had appeared to be declining, until until the past 2 days. Several states with significant death counts, however, announced in the past two days that either: 1) they had added thousands of people to the death count, who were now presumed to have died from the virus weeks ago, but had not had a positive test and were previously not counted in the totals; 2) should have been included in total from the past weekend but were not due to a lag in reporting; or, both.



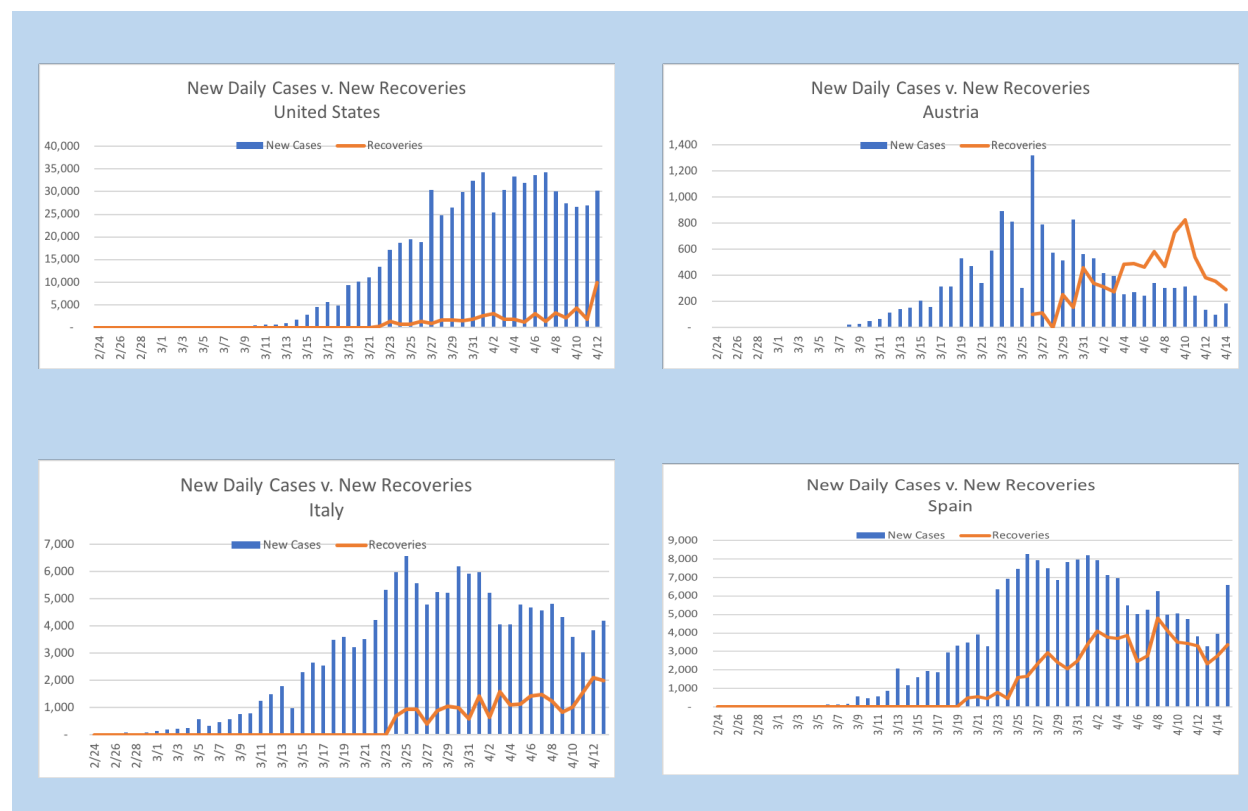
Recovery Rates.

Recovery Rates From the Coronavirus Remain Low, But Are Showing Signs of Accelerating in the U.S.

Recoveries from the coronavirus averaged over 5,300 per day compared to just over 2,000 each day the preceding 3 weeks.

According to a [World Health Organization report](#), recoveries from the coronavirus should occur in about 2 weeks for mild cases, 3-6 weeks for severe or critical cases. Given that we would expect to see a 2-4 week lag between the pattern for new cases and that for new recoveries. This would suggest that the U.S. should soon see an acceleration in recoveries, although it hasn't become fully apparent yet..

Actual patterns for the United States, Austria, Italy and Spain are shown below.

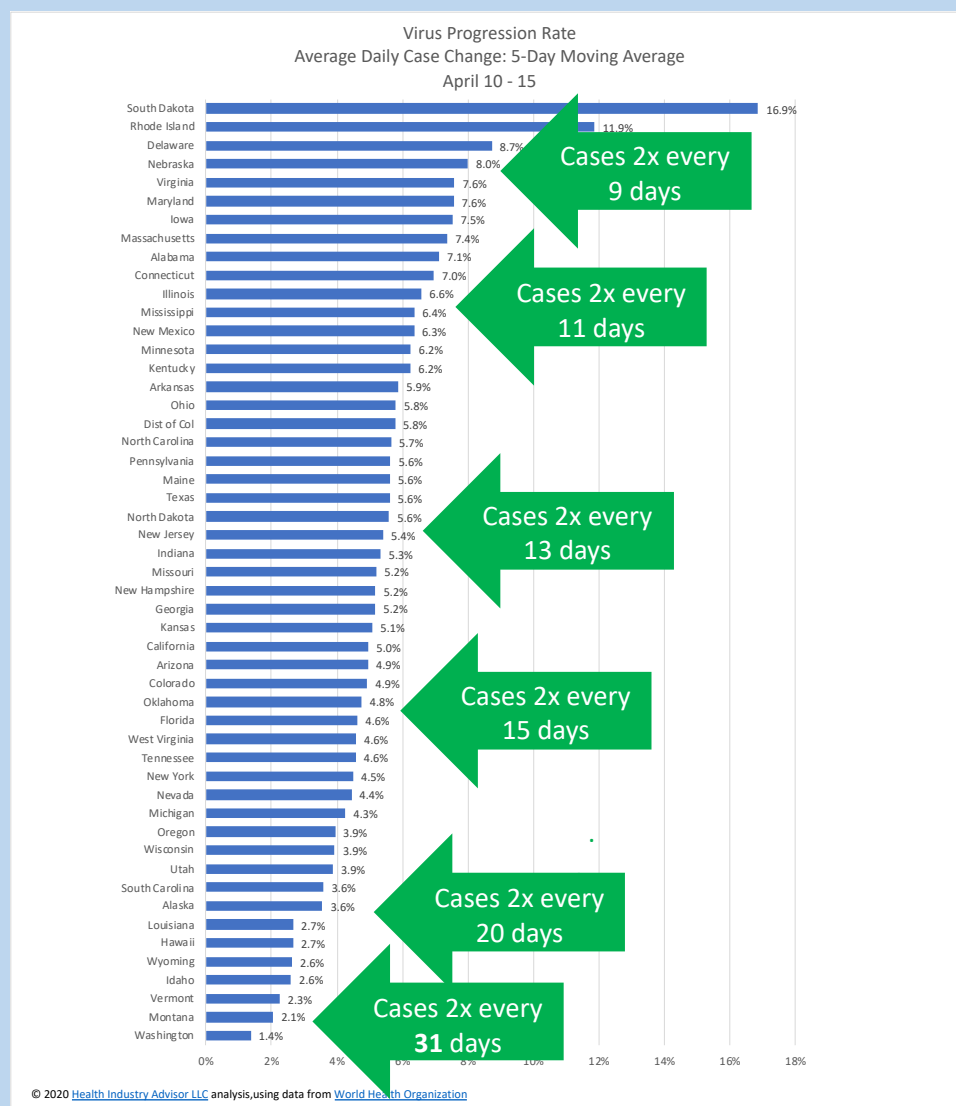


Daily Case Growth Rates By State

Case Growth Rates Continue to Fall Dramatically Across the U.S.

Only South Dakota and Rhode Island continue to show daily case increases (5-day moving average) of > 10%. The rate is slow low in Montana, Vermont and Wyoming that it would take a month now for cases to double, in Alaska, Hawaii, Idaho, Louisiana, South Carolina and Wyoming, it would take about 3 weeks.

The rate for the U.S. overall is down to 5.1%.

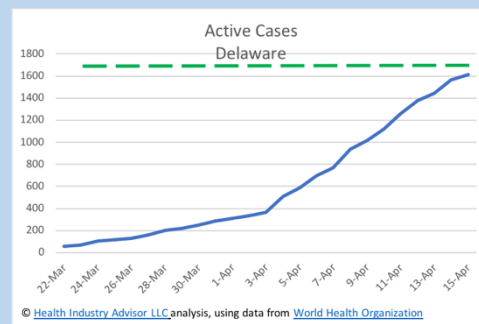
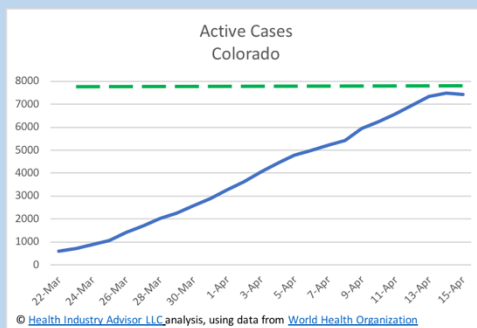
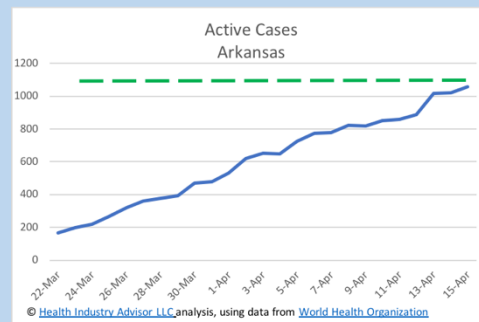
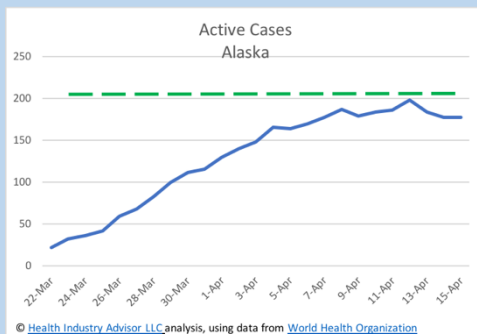


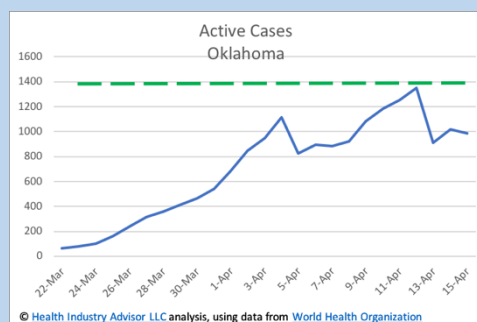
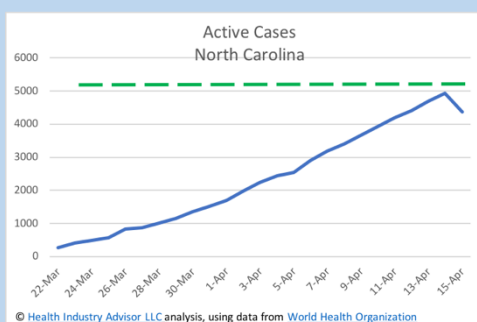
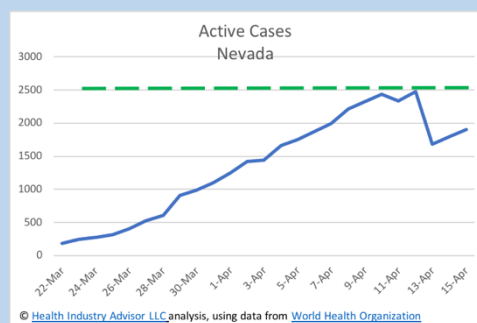
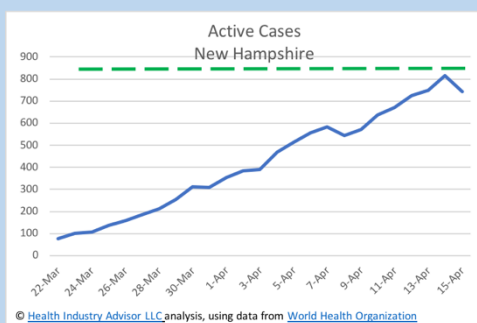
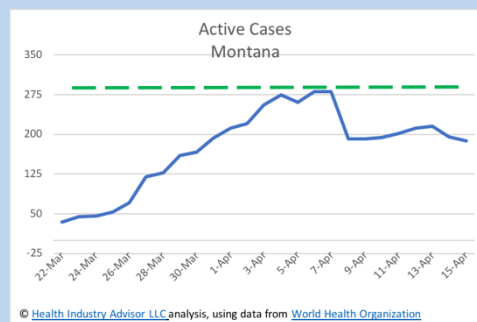
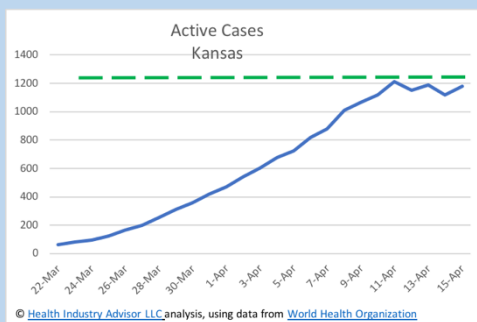
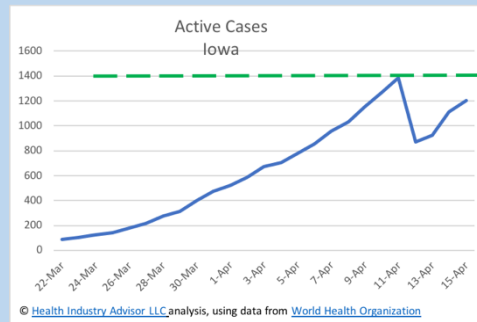
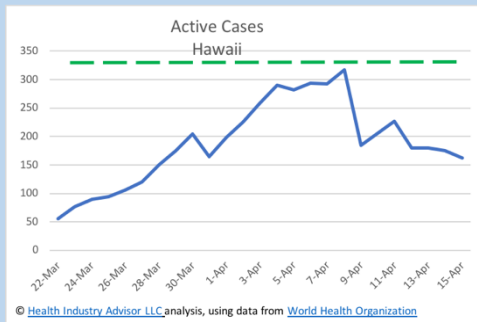
Active Coronavirus Cases in the U.S.

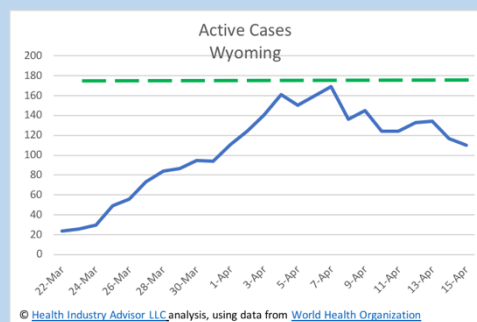
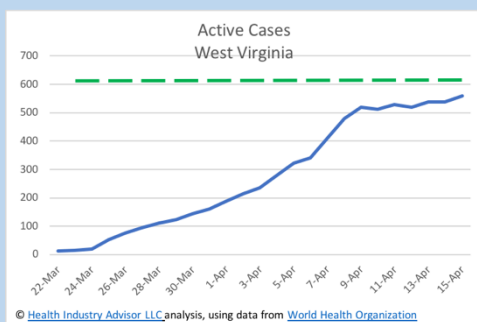
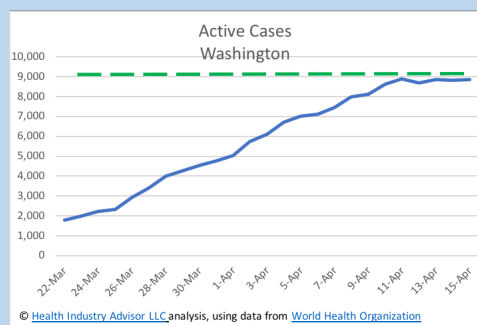
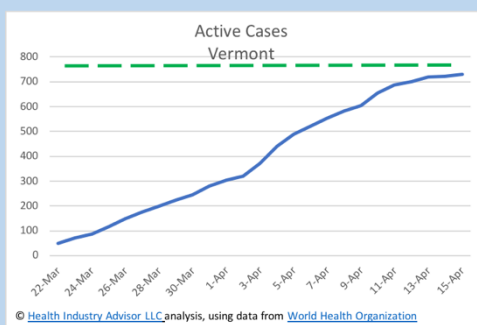
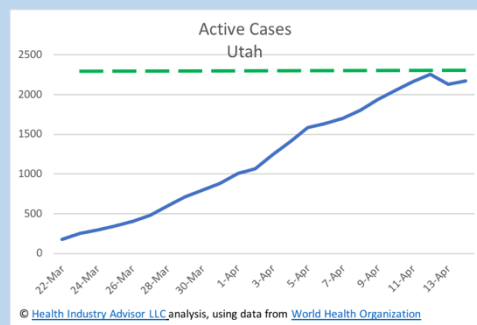
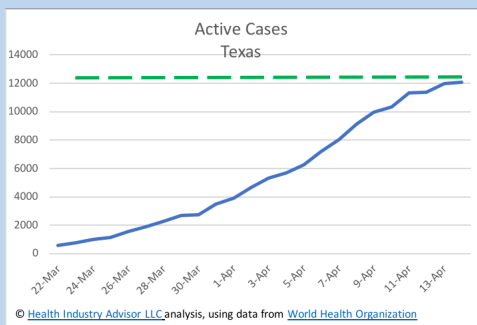
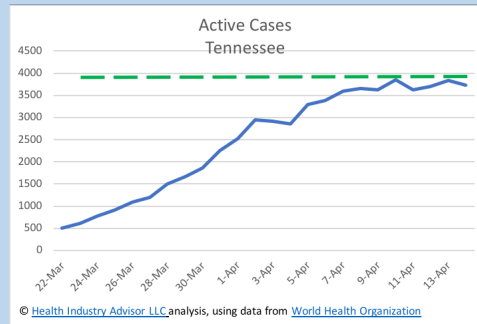
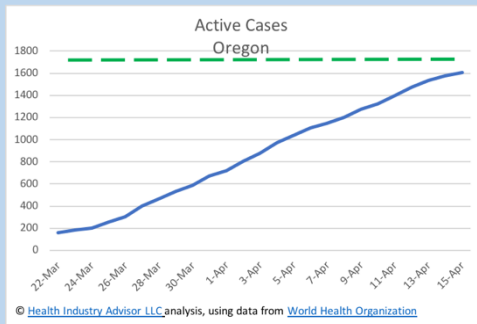
Active Cases are Beginning to Peak in Many States

Active cases still seemed to have peaked in ten states: Alaska, Hawaii, Iowa, Kansas, Montana, Oklahoma, Tennessee, Vermont, Washington and Wyoming (Utah yesterday surpassed their previous peak). They may be at or near peak in 12 states (bold indicates new since yesterday): Arkansas, **Colorado**, **Delaware**, Louisiana, **New Hampshire**, New Mexico, **North Carolina**, **Oregon**, **Texas**, Utah, Vermont and West Virginia.

(Yesterday, we had suggested that a peak may be near in Florida, Idaho, Maine, Michigan, Minnesota, Missouri, Virginia, and Wisconsin. Active cases yesterday increased in each of these, creating some uncertainty as to whether these states were close to peak.)







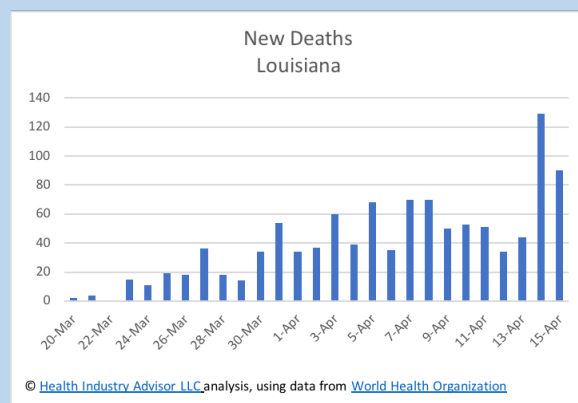
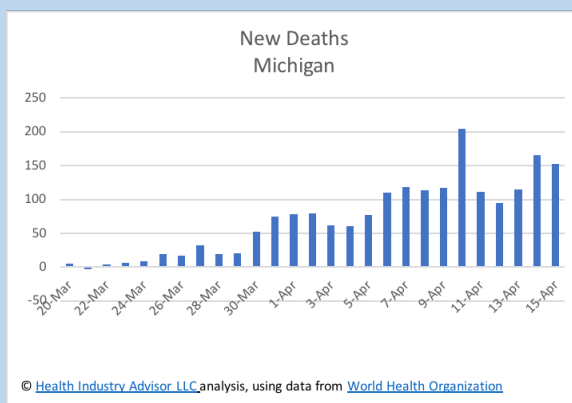
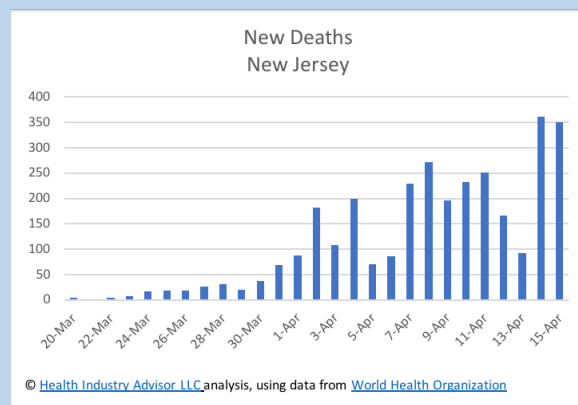
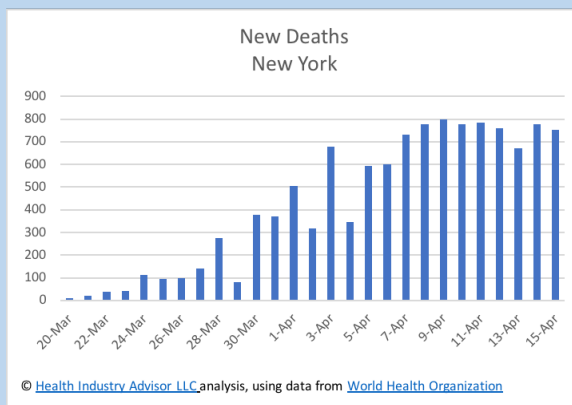
Deaths Associated With Coronavirus in the Hardest-Hit States

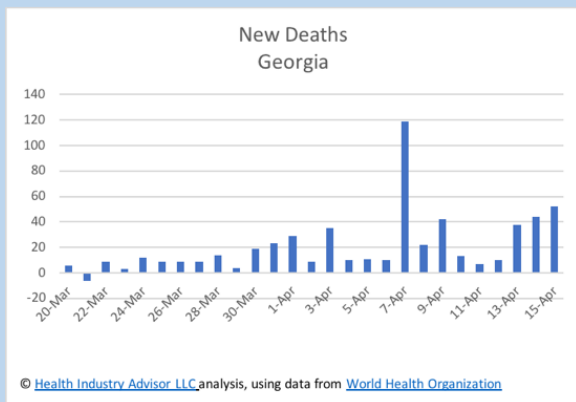
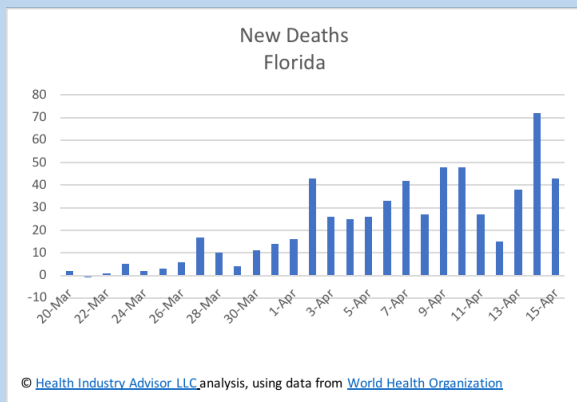
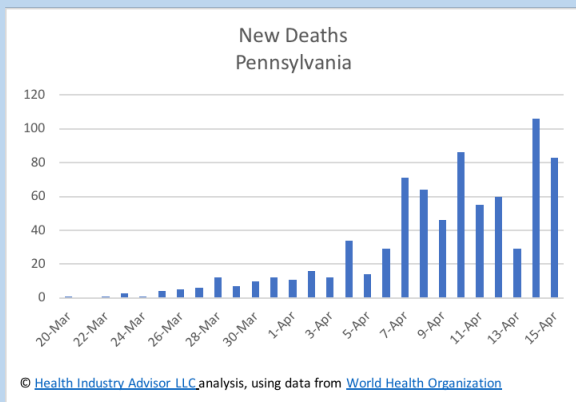
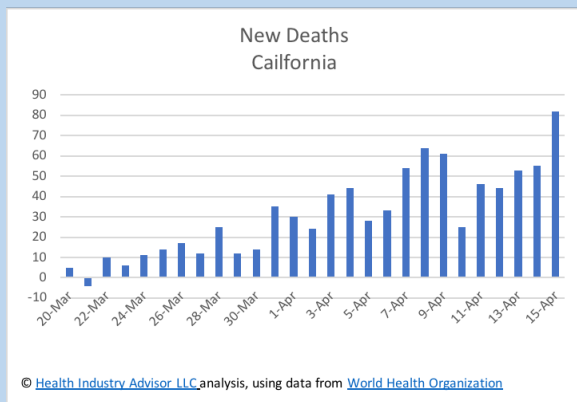
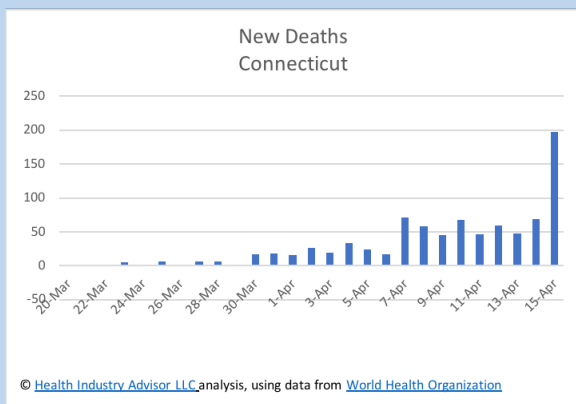
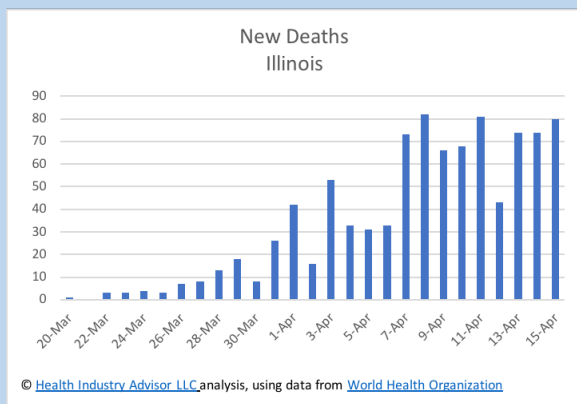
Death Rates, Which Were Declining in Each of the Ten Hardest-Hit States, Had Several Spikes on Tuesday

Ten states account for 82.5% of these deaths in the U.S.

Note that several states reported significant greater numbers of new deaths on Tuesday and Wednesday. Several states with significant death counts, however, announced in the past two days that either: 1) they had added thousands of people to the death count, who were now presumed to have died from the virus weeks ago, but had not had a positive test and were previously not counted in the totals; 2) should have been included in total from the past weekend but were not due to a lag in reporting; or, both.

The following graphs depict the new cases per day for these ten states, displayed in descending order of number of deaths.





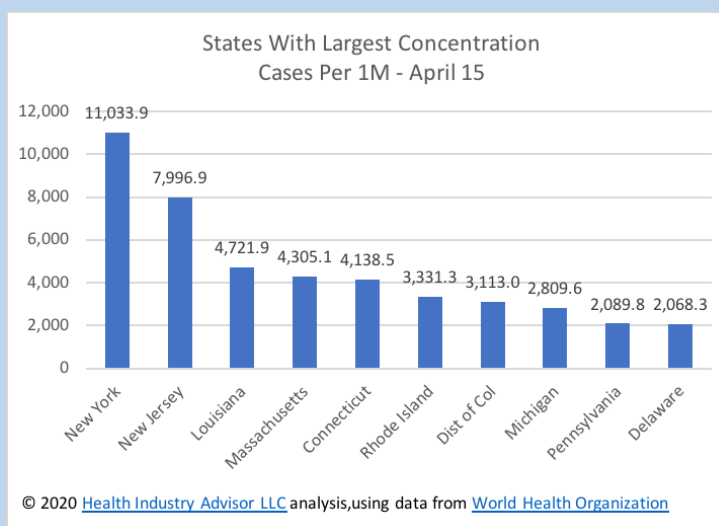
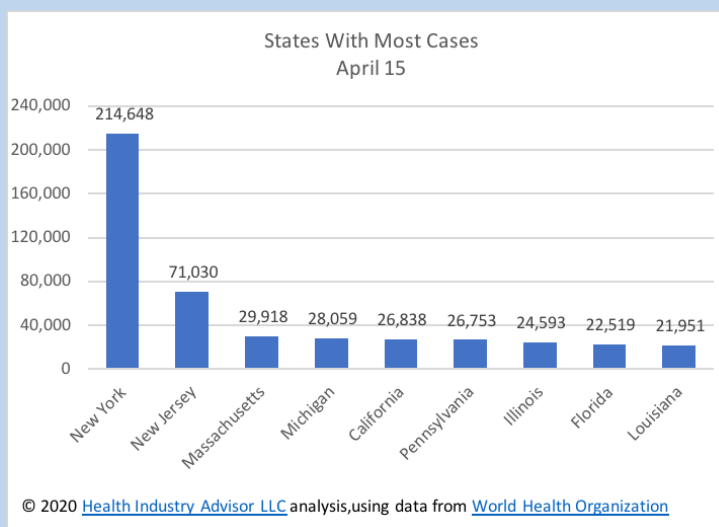
Hardest-Hit States

New York Has Experienced Far More Coronavirus Cases, and More Cases Per Capita Than Any State

New York, which recorded its 200,000 confirmed case on Tuesday, continues to represent 33.3% of all coronavirus cases in the U.S.; the top ten states account 72.4% of all cases.

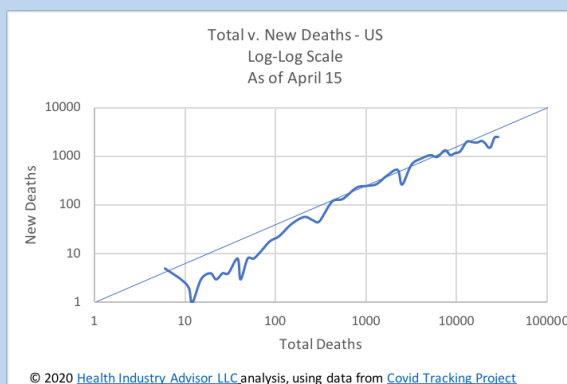
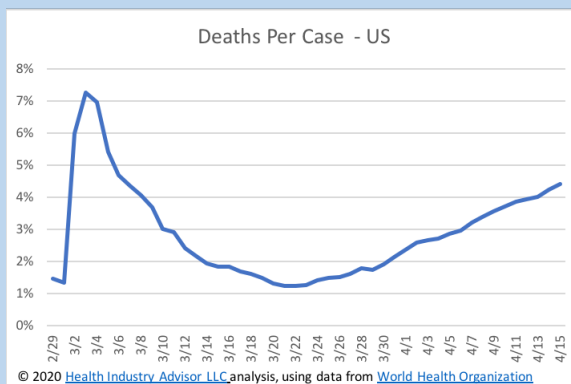
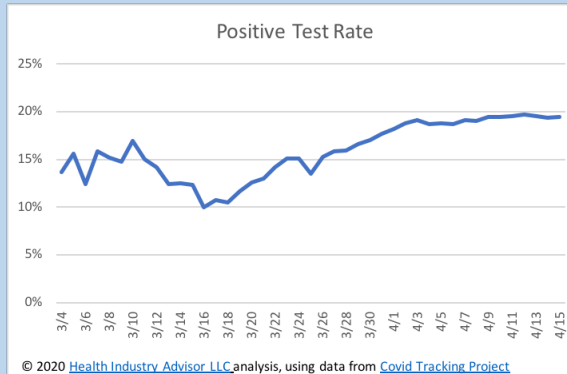
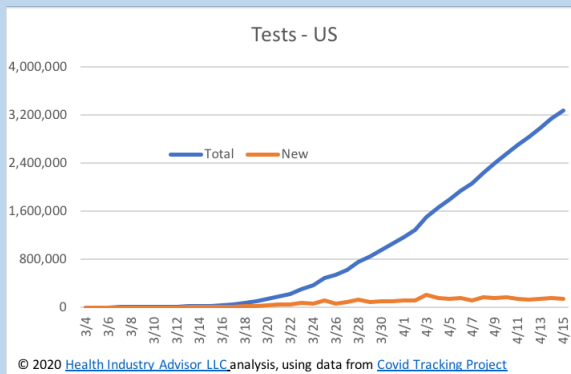
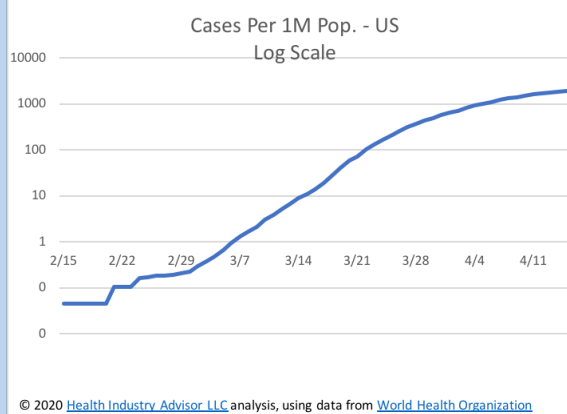
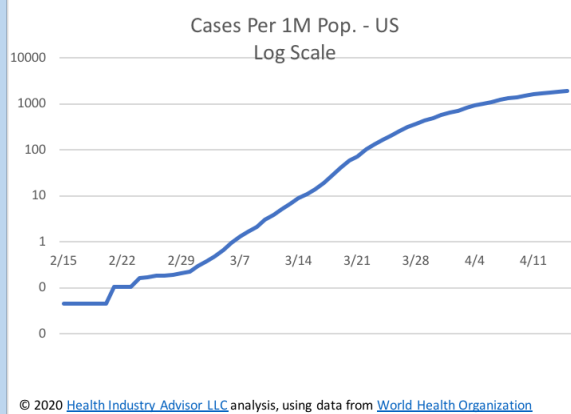
Cases per capita in New York, New Jersey, Louisiana Massachusetts and Connecticut are greater than any of the hardest-hit countries in the world.

Michigan has the highest death rate (6.8%), followed by Connecticut (5.9%), Oklahoma and New York (both 5.4%.) (Errata: the death rate for Connecticut reported on this page yesterday for not correct. We regret theis error.)



U.S. Statistics

Case Growth is Plateauing in the U.S., as Are Positive Test Rates; Deaths Are No Longer Growing Exponentially

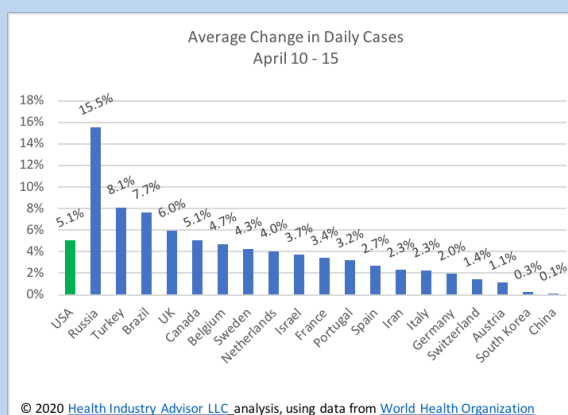
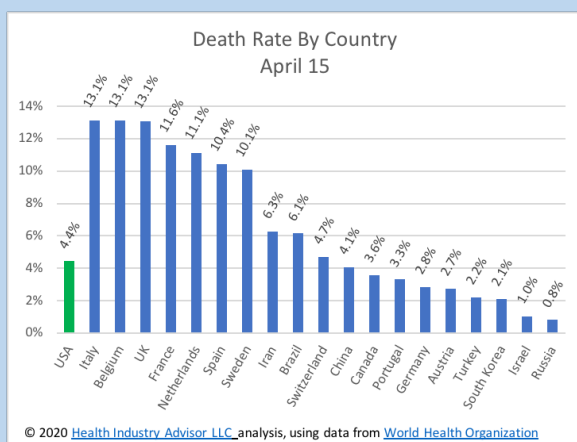
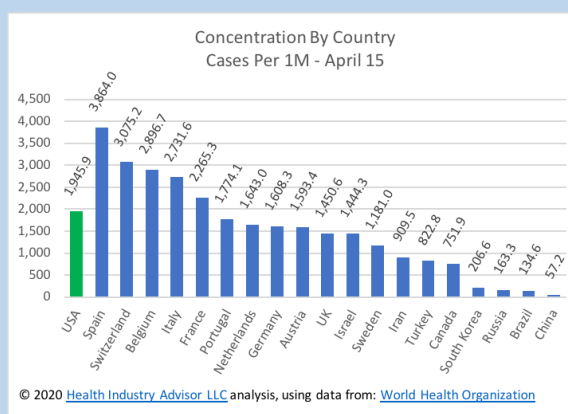
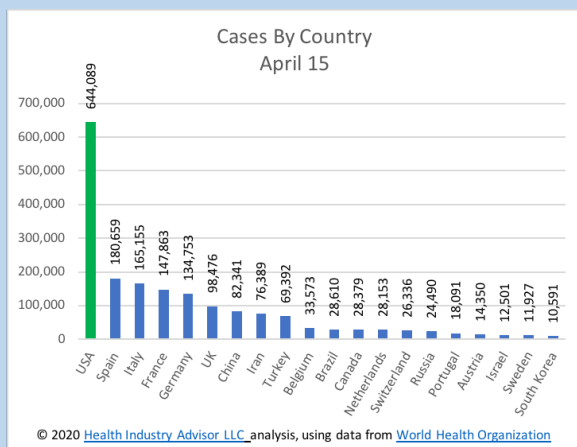


Global Statistics

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](#), and [nyc.gov](#). Graphics depict data as of the date in the header.

The U.S Far Outpaces the World In Total Cases, is 6th in Cases Per Capita and 11th in Death Rate. Case Growth is Falling In All of the Hardest-Hit Countries, Except Russia

India has moved up to 18th in most confirmed cases, Ireland, 20th and Peru, 22nd (these have not yet been included in our dataset; Israel has dropped to 17th, Sweden, 21st and South Korea, 23rd.



We are introducing a new table here, showing statistics and ranking of each of the 50 states and the District of Columbia.

As of April 15

State	Confirmed Cases	Rank	Cases per 1M Population	Rank	Deaths	Rank	Death Rate	Rank	5-day Moving Average Case Growth Rate	Rank	Tests per 1M Population	Rank
Alabama	4,241	(22)	864.9	(24)	123	(26)	2.9%	(32)	7.1%	(9)	7,005	(40)
Alaska	293	(50)	400.5	(47)	9	(47)	3.1%	(28)	3.6%	(44)	11,487	(17)
Arizona	3,962	(23)	544.3	(38)	142	(21)	3.6%	(21)	4.9%	(31)	6,523	(42)
Arkansas	1,599	(37)	529.9	(39)	34	(39)	2.1%	(45)	5.9%	(16)	7,453	(33)
California	26,838	(5)	679.2	(31)	864	(8)	3.2%	(26)	5.0%	(30)	5,502	(48)
Colorado	8,280	(16)	1,437.8	(13)	357	(16)	4.3%	(14)	4.9%	(32)	7,328	(36)
Connecticut	14,755	(12)	4,138.5	(5)	868	(7)	5.9%	(2)	7.0%	(10)	14,001	(13)
Delaware	2,014	(33)	2,068.3	(10)	46	(36)	2.3%	(42)	8.7%	(3)	13,799	(14)
District Of Columbia	2,197	(32)	3,113.0	(7)	72	(33)	3.3%	(24)	5.8%	(18)	16,837	(7)
Florida	22,519	(8)	1,048.5	(20)	614	(10)	2.7%	(34)	4.6%	(34)	10,446	(23)
Georgia	15,260	(11)	1,437.3	(14)	576	(11)	3.8%	(18)	5.2%	(28)	6,225	(46)
Hawaii	530	(47)	374.3	(50)	9	(47)	1.7%	(47)	2.7%	(46)	14,635	(12)
Idaho	1,587	(38)	885.6	(23)	41	(37)	2.6%	(36)	2.6%	(48)	9,123	(28)
Illinois	24,593	(7)	1,940.8	(11)	948	(6)	3.9%	(17)	6.6%	(11)	9,120	(29)
Indiana	8,955	(15)	1,330.2	(16)	436	(13)	4.9%	(10)	5.3%	(25)	7,291	(37)
Iowa	1,995	(34)	632.3	(34)	53	(35)	2.7%	(35)	7.5%	(7)	6,343	(45)
Kansas	1,494	(39)	512.8	(41)	76	(32)	5.1%	(7)	5.1%	(29)	5,043	(51)
Kentucky	2,291	(30)	512.8	(42)	122	(28)	5.3%	(5)	6.2%	(15)	6,379	(44)
Louisiana	21,951	(9)	4,721.9	(3)	1,103	(5)	5.0%	(8)	2.7%	(45)	26,145	(2)
Maine	770	(44)	572.8	(35)	24	(42)	3.1%	(27)	5.6%	(21)	11,139	(20)
Maryland	10,032	(14)	1,659.4	(12)	349	(17)	3.5%	(23)	7.6%	(6)	9,289	(25)
Massachusetts	29,918	(3)	4,305.1	(4)	1,108	(4)	3.7%	(19)	7.4%	(8)	19,329	(4)
Michigan	28,059	(4)	2,809.6	(8)	1,921	(3)	6.8%	(1)	4.3%	(39)	9,288	(26)
Minnesota	1,809	(35)	320.8	(51)	87	(31)	4.8%	(11)	6.2%	(14)	7,281	(38)
Mississippi	3,360	(27)	1,129.0	(19)	122	(28)	3.6%	(20)	6.4%	(12)	12,638	(15)
Missouri	4,895	(21)	797.6	(26)	159	(20)	3.2%	(25)	5.2%	(26)	8,014	(32)
Montana	404	(48)	378.0	(49)	7	(49)	1.7%	(46)	2.1%	(50)	9,199	(27)
Nebraska	952	(43)	492.1	(44)	21	(43)	2.2%	(44)	8.0%	(4)	6,470	(43)
Nevada	3,211	(28)	1,042.5	(21)	136	(22)	4.2%	(15)	4.4%	(38)	11,440	(18)
New Hampshire	1,139	(42)	837.7	(25)	32	(40)	2.8%	(33)	5.2%	(27)	9,055	(30)
New Jersey	71,030	(2)	7,996.9	(2)	3,156	(2)	4.4%	(13)	5.4%	(24)	16,510	(8)
New Mexico	1,484	(40)	707.7	(30)	36	(38)	2.4%	(40)	6.3%	(13)	15,959	(9)
New York	214,648	(1)	11,033.9	(1)	11,586	(1)	5.4%	(4)	4.5%	(37)	26,812	(1)
North Carolina	5,381	(20)	513.1	(40)	132	(24)	2.5%	(39)	5.7%	(19)	6,679	(41)
North Dakota	365	(49)	479.0	(45)	9	(47)	2.5%	(37)	5.6%	(23)	15,045	(11)
Ohio	7,791	(17)	666.5	(32)	361	(15)	4.6%	(12)	5.8%	(17)	6,146	(47)
Oklahoma	2,263	(31)	571.9	(36)	123	(26)	5.4%	(3)	4.8%	(33)	7,426	(35)
Oregon	1,663	(36)	394.3	(48)	58	(34)	3.5%	(22)	3.9%	(40)	8,170	(31)
Pennsylvania	26,753	(6)	2,089.8	(9)	779	(9)	2.9%	(31)	5.6%	(20)	10,756	(21)
Rhode Island	3,529	(26)	3,331.3	(6)	87	(31)	2.5%	(38)	11.9%	(2)	24,509	(3)
South Carolina	3,656	(25)	710.1	(29)	107	(29)	2.9%	(30)	3.6%	(43)	7,008	(39)
South Dakota	1,168	(41)	1,320.3	(17)	6	(50)	0.5%	(51)	16.9%	(1)	11,407	(19)
Tennessee	6,079	(19)	889.6	(22)	135	(23)	2.2%	(43)	4.6%	(36)	12,163	(16)
Texas	16,009	(10)	552.1	(37)	375	(14)	2.3%	(41)	5.6%	(22)	5,444	(49)
Utah	2,542	(29)	792.9	(27)	20	(44)	0.8%	(49)	3.9%	(42)	15,635	(10)
Vermont	759	(45)	1,216.4	(18)	30	(41)	4.0%	(16)	2.3%	(49)	17,730	(5)
Virginia	6,500	(18)	761.5	(28)	195	(18)	3.0%	(29)	7.6%	(5)	5,250	(50)
Washington	10,910	(13)	1,432.7	(15)	567	(12)	5.2%	(6)	1.4%	(51)	16,842	(6)
West Virginia	718	(46)	401.8	(46)	12	(45)	1.7%	(48)	4.6%	(35)	9,743	(24)
Wisconsin	3,721	(24)	639.1	(33)	182	(19)	4.9%	(9)	3.9%	(41)	7,450	(34)
Wyoming	288	(51)	497.6	(43)	2	(51)	0.7%	(50)	2.6%	(47)	10,534	(22)
United States	644,089		1,961.9		28,529		4.4%		5.1%		9845	

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, and nyc.gov. Graphics depict data as of the date in the header.