

Measure	Desired Change	Yesterday in the U.S.
No. of Tests	Increase	Up 3.4% (Cumulative)
Test-Positivity Rate	Decline	Down to 17.0% (v. 17.1%)
No. of Cases	Plateau	Up 2.9% (active cases up 2.8%)
% of Deaths Per Case	Decline	Steady at 5.8%
No. of Deaths / 1M Population	Plateau	Up to 192.9
Recoveries : Deaths	Increase (>1:1)	Steady at 2.4

We continue to track the 29 countries with the most cases, plus South Korea. These 30 countries represent 91.2% of all cases in the world.

Highlights from Thursday include:

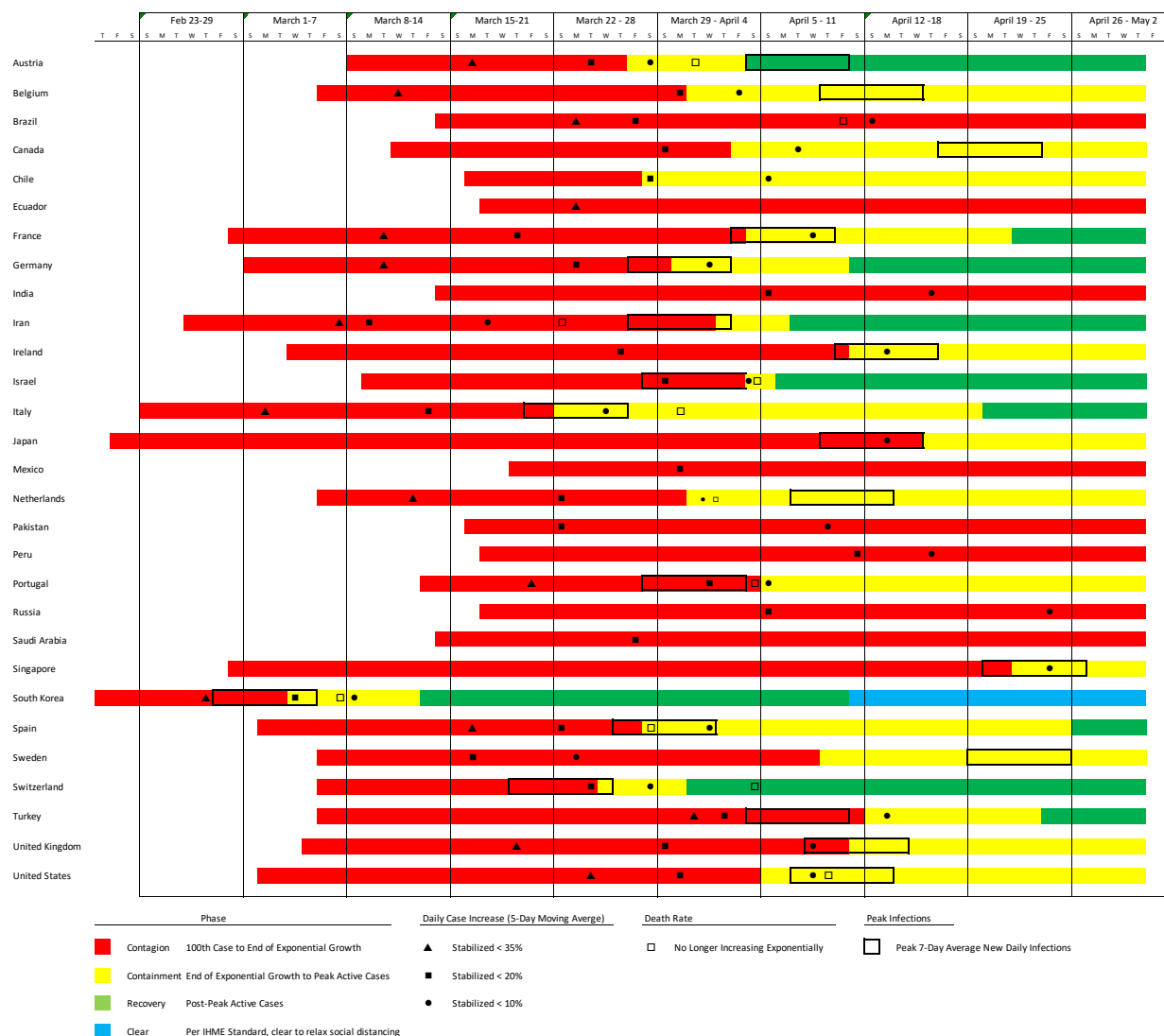
- Testing volume for the past 7 days was off slightly from the 7 days prior, 1.37 million v 1.45 million. Test-positivity rate is up to 14.6% for these 7 days v. 13.5% the prior 7 days. Still, the YTD rate is down to 17.0%.
- Testing adequacy can be viewed from several perspectives, in comparison to deaths, test-positivity and new daily infection rates. If test rates are low relative to any of any of these measures, it is unlikely that testing is providing any clear indication of the true prevalence of the virus. Michigan, Connecticut and New York score poorly on the basis of test: deaths; New Jersey and Delaware score poorly on the basis of both tests: test-positivity rates and tests: new daily infections. South Dakota and Utah score well on the tests: death basis; Florida scores well on the basis of both tests: test-positivity rates and tests: new daily infections.
- Oregon has now joined fifteen other states in moving beyond a peak in Active cases. Nebraska is the lone holdout in breaking from the trend of exponential case growth; though it did finally fall below 10% daily case growth. This benchmark is often closely tied to a break from exponential case growth.
- Montana, Hawaii and Alaska are approaching new daily infection rates per capita as low as any country in the world - and, nearly as low as the Institute for Health Metrics and Evaluation (IHME) proposes as the benchmark for relaxing social distancing. On the other hand, the rates in Massachusetts, Rhode Island, New York and New Jersey remain very high (300 per 1 million or greater).
- Yesterday, we produced several graphics that shed light on the demographics of persons whom died from (or, with) coronavirus) and comparisons of the death rate per capita from coronavirus with other leading cause of death. One highlight that we overlooked – nearly 50% of the deaths in New York City were persons 75 years old and older (New York City represents about 20% of all deaths in the U.S.). Conversely, only 4% of the deaths were persons 44 years old or younger; 80% of these had a known underlying health condition.
- We highlight 10 or 11 states each weekday in this report. Today, we are at the end of the alphabet (South Carolina – Wyoming). Of these states, Tennessee, Utah, Vermont, Washington, West Virginia and Wyoming are demonstrating encouraging signs across the board. Virginia (especially), South Dakota and Texas show indication that increased testing is needed.

Virus Progression: Hardest Hit Countries

Japan Breaks from Exponential Case Growth; Spain Moves Beyond Peak Active Cases

Eight countries are still experiencing exponential case growth – Brazil, Ecuador, India, Mexico, Pakistan, Peru, Russia and Saudi Arabia. Note that, except for Russia, these countries are in the bottom ½ of the tracked countries in terms of total cases. The exponential growth in these countries suggests that the virus is beginning to spread now in Asia and South America.

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.



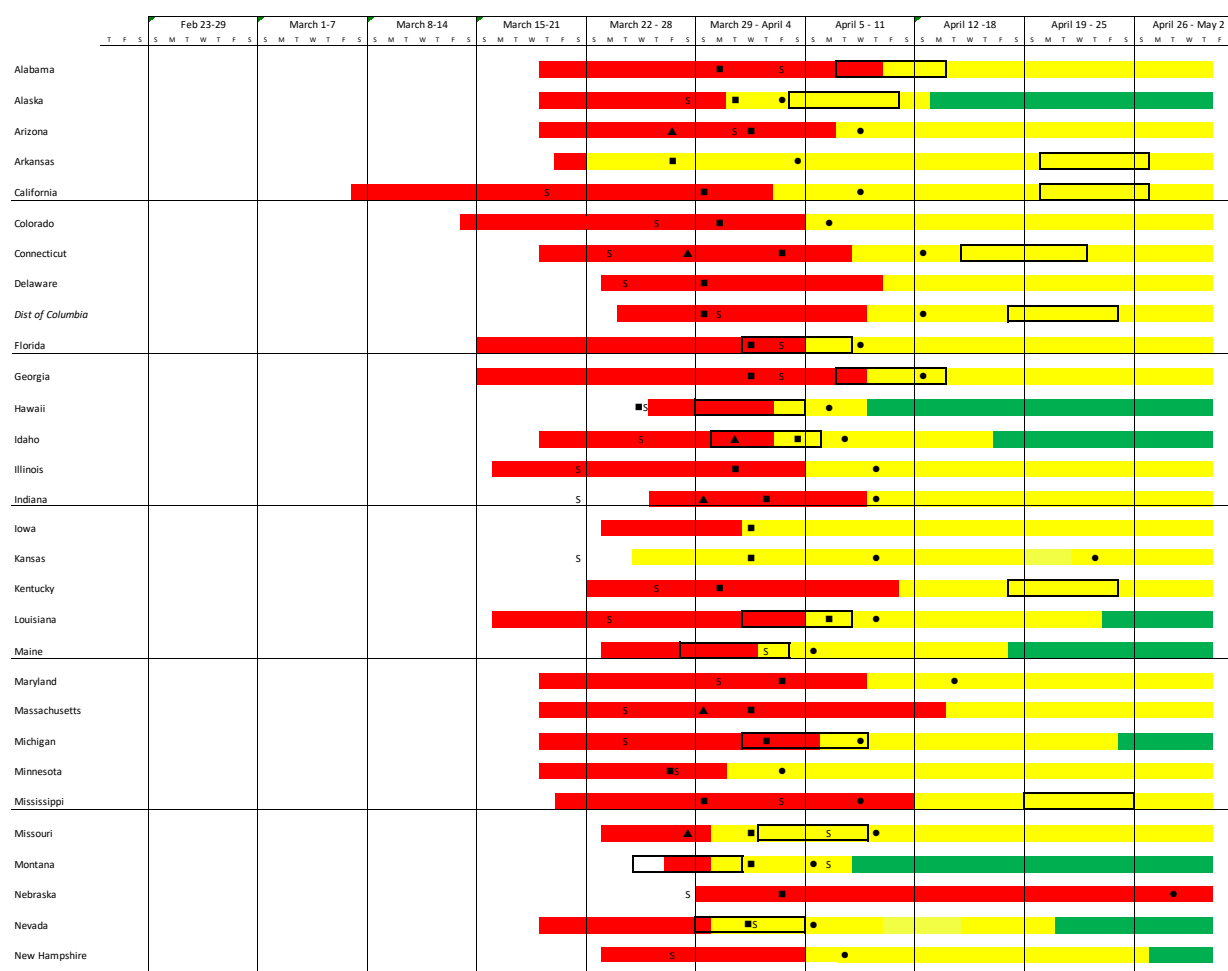
Information throughout the Dashboard is provided as a courtesy, based on data from the above-named sources. HIA has no responsibility for the accuracy and updating of any data. Sources: worldometers.info; covidtracking.com; <https://covid19.healthdata.org/united-states-of-america>, and nyc.gov. Graphics depict data as of the date in the header.

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

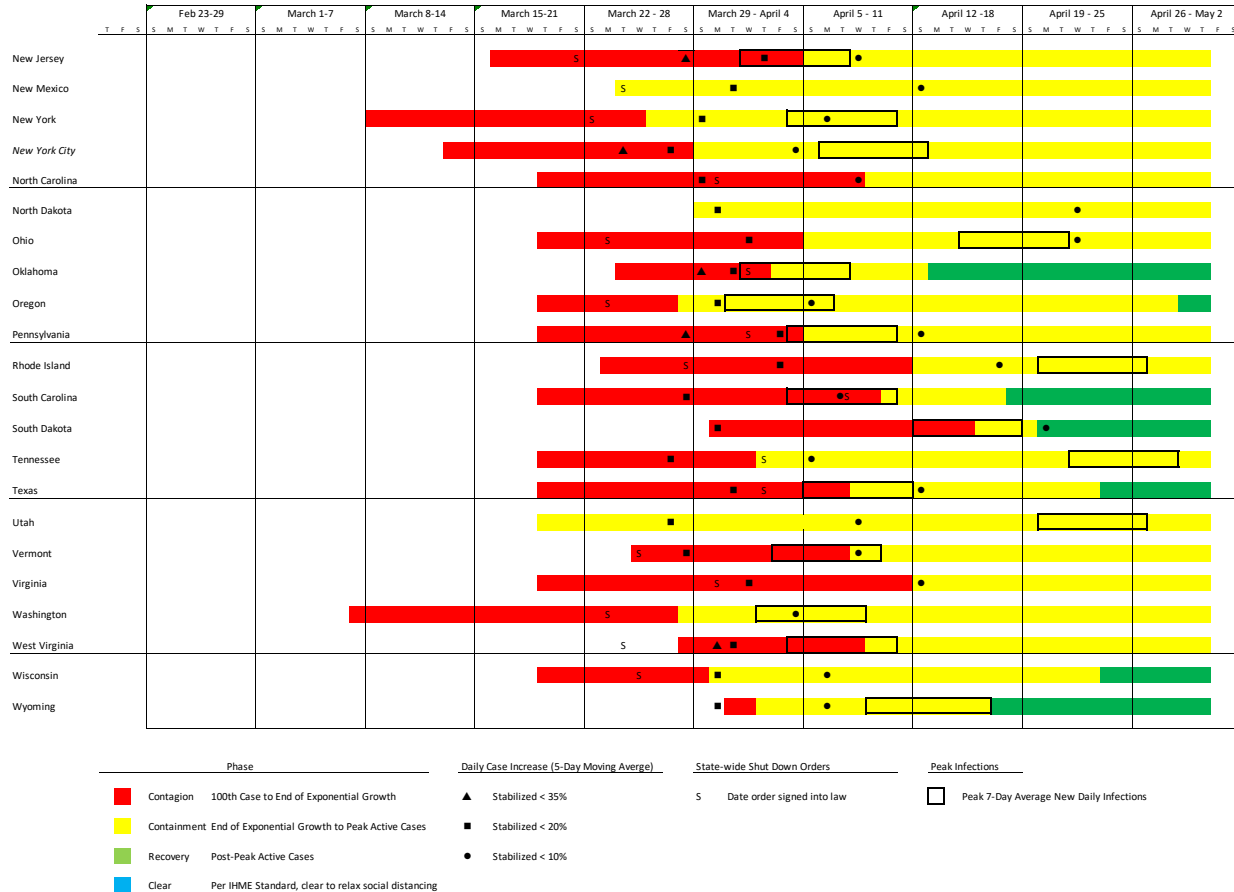
The Majority of U.S. States Are in Containment and Well on Their Way Toward Recovery

Oregon has now moved past a peak in Active Cases. We now show sixteen states – Alaska, Hawaii, Idaho, Louisiana, Maine, Michigan, Montana, Nevada, New Hampshire, Oklahoma, Oregon, South Carolina, South Dakota, Texas, Wisconsin and Wyoming - that are past their peak in Active cases.

Nebraska is now experiencing a case growth rate of <10%. Hopefully, this signals that it may soon end the exponential growth in cases; it would be the last state to do so.



(continued on next page)



Country-By-Country Statistics and Rankings

The U.S. Leads the World in Cases and Deaths; Is Now 3rd in New Daily Infections per Capita and 6th in Cases per Capita; But, is 10th in Deaths Per Capita

This table provided statistics and ranking of each of the countries we are tracking.

As of April 30

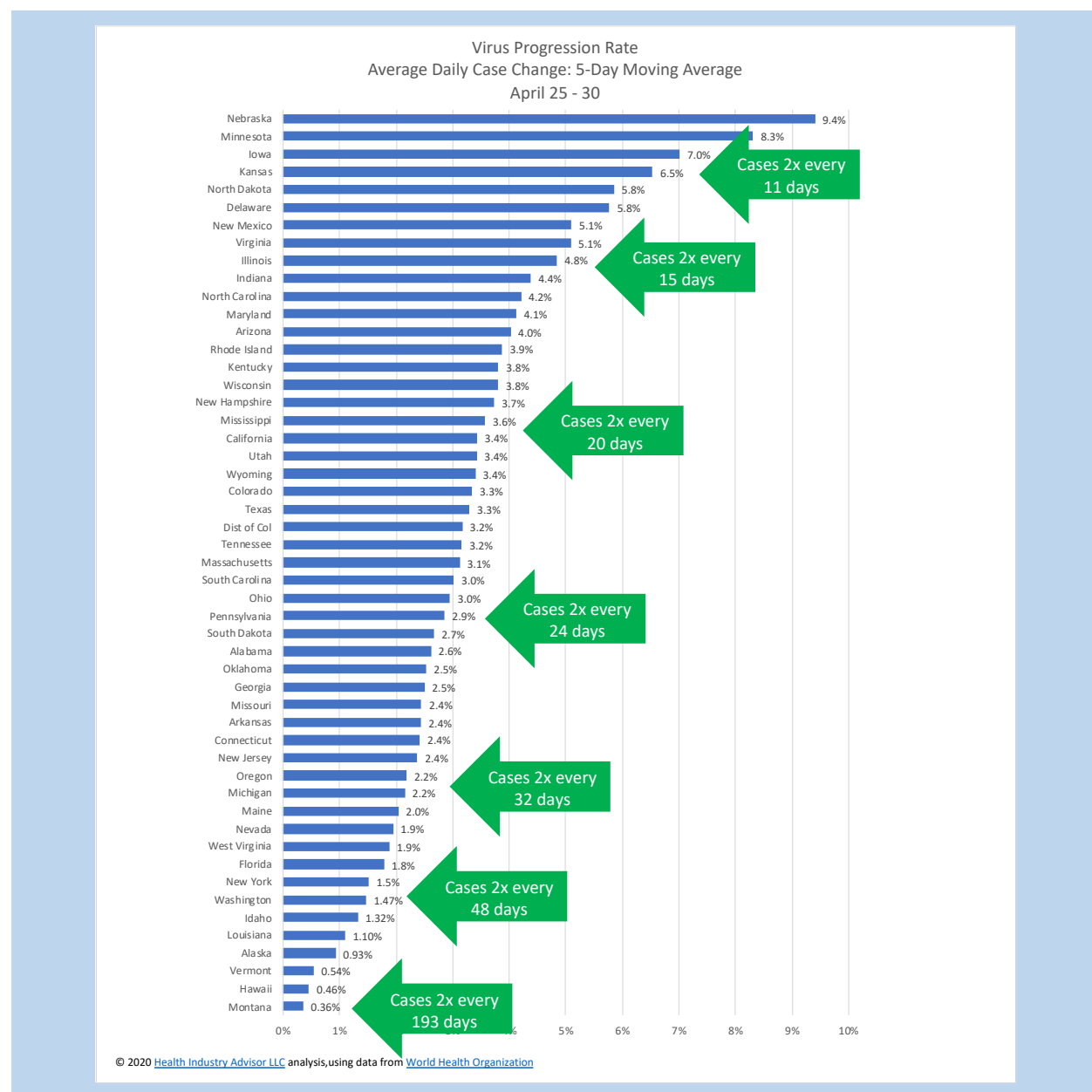
Country	Total Cases	Rank	Cases per 1M Population	Rank	Deaths	Rank	Death Rate	Rank	Deaths per 1 Million Population	Rank	5-day Moving Average Case Growth Rate	Rank	Tests per 1M Population	Rank	New Daily Infections Per 1M Population (5-Day M.A.)	Rank
USA	1,095,023	(1)	3,308	(6)	63,856	(1)	5.8%	(13)	192.9	(10)	2.7%	(13)	19,311	(13)	90.0	(3)
Austria	15,452	(28)	1,716	(15)	584	(22)	3.8%	(17)	64.8	(14)	0.4%	(28)	28,469	(8)	7.1	(25)
Belgium	48,519	(13)	4,186	(2)	7,594	(6)	15.7%	(1)	655.2	(1)	1.4%	(19)	20,532	(12)	70.5	(6)
Brazil	85,380	(10)	402	(24)	5,901	(8)	6.9%	(9)	27.8	(18)	7.6%	(2)	1,597	(25)	24.1	(18)
Canada	53,236	(12)	1,411	(18)	3,184	(11)	6.0%	(10)	84.4	(12)	3.3%	(10)	21,367	(11)	42.1	(10)
Chile	16,023	(26)	838	(21)	227	(26)	1.4%	(25)	11.9	(21)	5.1%	(8)	9,443	(21)	31.5	(15)
China	82,862	(11)	58	(29)	4,633	(10)	5.6%	(14)	3.2	(26)	0.0%	(30)	0	(30)	0.0	(30)
Ecuador	24,934	(19)	1,413	(17)	900	(21)	3.6%	(18)	51.0	(15)	2.4%	(14)	3,914	(24)	111.3	(2)
France	167,178	(5)	2,561	(8)	24,376	(5)	14.6%	(3)	373.4	(5)	0.7%	(26)	11,101	(19)	19.7	(19)
Germany	163,009	(6)	1,946	(13)	6,623	(7)	4.1%	(15)	79.0	(13)	0.8%	(25)	30,400	(7)	16.8	(22)
India	34,863	(16)	25	(30)	1,154	(17)	3.3%	(19)	0.8	(29)	5.8%	(7)	602	(29)	1.2	(28)
Iran	94,640	(9)	1,127	(19)	28	(29)	0.0%	(30)	0.3	(30)	1.2%	(20)	5,516	(23)	13.0	(23)
Ireland	20,612	(22)	4,174	(3)	1,232	(16)	6.0%	(11)	249.5	(8)	1.6%	(16)	31,179	(4)	86.9	(4)
Israel	15,946	(27)	1,842	(14)	222	(27)	1.4%	(26)	25.6	(19)	0.8%	(24)	42,108	(1)	18.9	(20)
Italy	205,463	(3)	3,398	(5)	27,967	(2)	13.6%	(4)	462.6	(3)	1.0%	(23)	32,735	(3)	36.6	(13)
Japan	14,088	(29)	111	(27)	430	(23)	3.1%	(20)	3.4	(25)	1.1%	(21)	1,309	(26)	1.9	(27)
Mexico	17,799	(23)	138	(26)	1,732	(15)	9.7%	(8)	13.4	(20)	6.6%	(4)	635	(28)	8.0	(24)
Netherlands	39,316	(14)	2,295	(11)	4,795	(9)	12.2%	(6)	279.8	(6)	1.1%	(22)	12,824	(15)	29.9	(17)
Pakistan	16,473	(24)	75	(28)	361	(24)	2.2%	(24)	1.6	(28)	5.8%	(6)	788	(27)	3.5	(26)
Peru	36,976	(15)	1,121	(20)	1,051	(19)	2.8%	(21)	31.9	(17)	8.9%	(1)	9,652	(20)	69.6	(7)
Portugal	25,045	(18)	2,456	(10)	989	(20)	3.9%	(16)	97.0	(11)	1.4%	(18)	38,814	(2)	37.7	(12)
Russia	106,498	(8)	710	(22)	1,073	(18)	1.0%	(27)	7.2	(22)	7.4%	(3)	23,915	(10)	41.7	(11)
Saudi Arabia	22,753	(20)	654	(23)	162	(28)	0.7%	(28)	4.7	(24)	6.5%	(5)	5,745	(22)	36.2	(14)
Singapore	16,169	(25)	2,764	(7)	15	(30)	0.1%	(29)	2.6	(27)	3.9%	(9)	24,600	(9)	121.9	(1)
South Korea	10,765	(30)	210	(25)	247	(25)	2.3%	(23)	4.8	(23)	0.1%	(29)	12,091	(17)	0.2	(29)
Spain	239,639	(2)	5,125	(1)	24,543	(4)	10.2%	(7)	524.9	(2)	1.4%	(17)	31,126	(5)	81.3	(5)
Sweden	21,092	(21)	2,088	(12)	2,586	(13)	12.3%	(5)	256.1	(7)	3.0%	(11)	11,833	(18)	61.1	(9)
Switzerland	29,586	(17)	3,455	(4)	1,737	(14)	5.9%	(12)	202.8	(9)	0.5%	(27)	30,758	(6)	18.2	(21)
Turkey	120,204	(7)	1,425	(16)	3,174	(12)	2.6%	(22)	37.6	(16)	2.2%	(15)	12,255	(16)	31.2	(16)
UK	171,253	(4)	2,523	(9)	26,771	(3)	15.6%	(2)	394.4	(4)	2.9%	(12)	13,286	(14)	67.7	(8)

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Daily Case Growth Rates by State

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

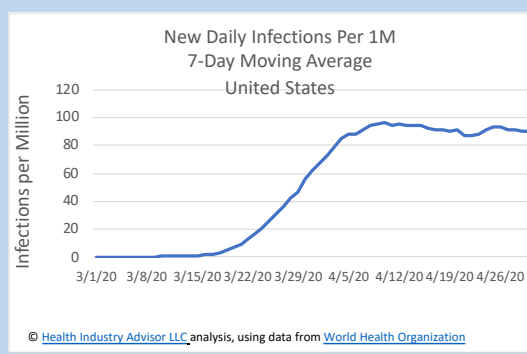
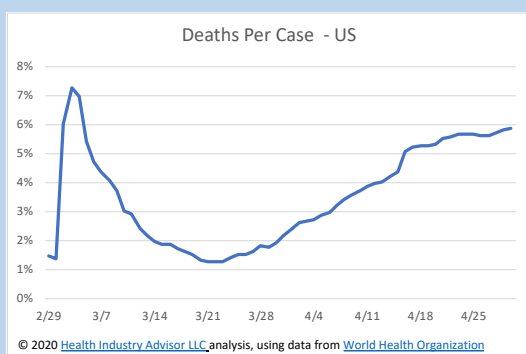
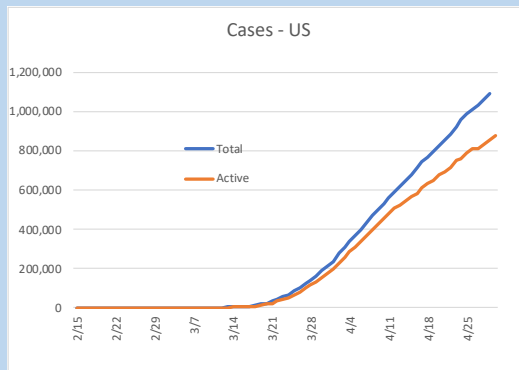
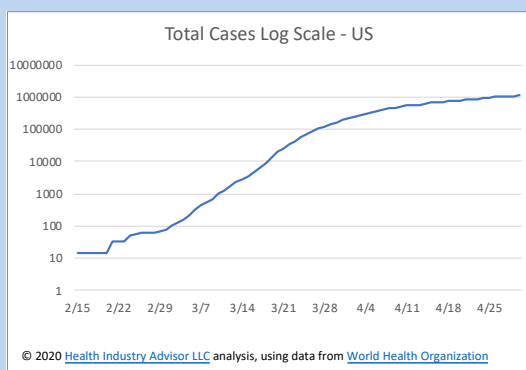
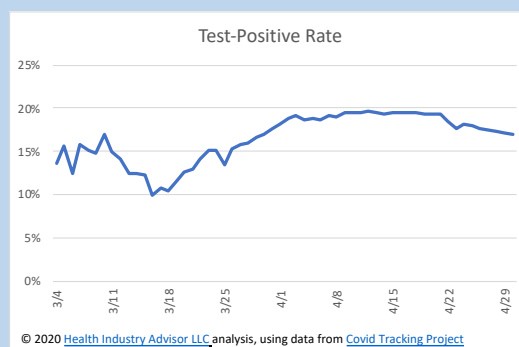
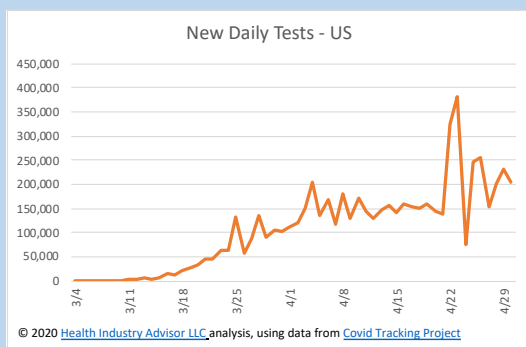
The case growth rate is so low in Montana that it would now take 193 days for cases to double; in Hawaii, 151 days; in Vermont, 129; and in Alaska, 75 days. In Louisiana and New York – two of the hardest-hit states – it would take 64 and 48 days, respectively. For the U.S. overall, it would take about 26 days.



Cases and Death Rates in the U.S.

Increased Testing Volume Over the Past Week Is Improving Our Visibility to the Virus; New Infection Rates Have Stabilized and Appear to be Starting Downward

Although testing volumes are "lumpy" - several states only report positive tests on many days; others report in batches - the trend over the past week is clearly toward increased testing. With increased testing, test-positive rates have declined. This suggests that we are moving beyond simply testing the more severe cases, and getting closer to an idea of true infection rates.



Hardest-Hit States

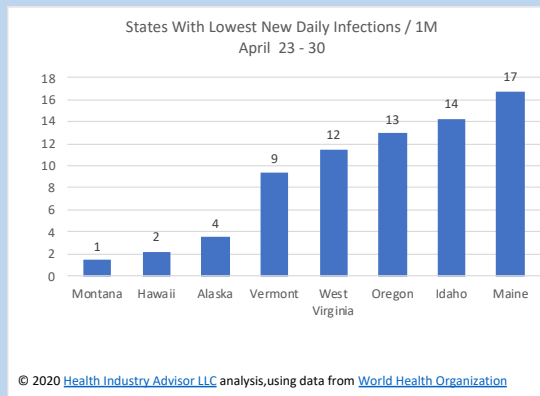
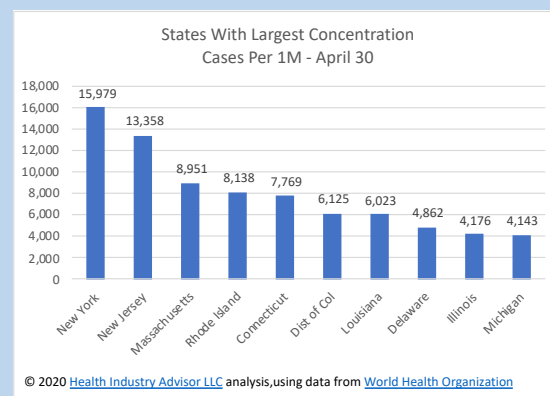
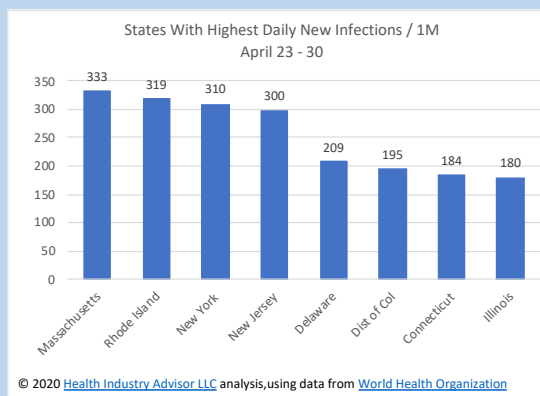
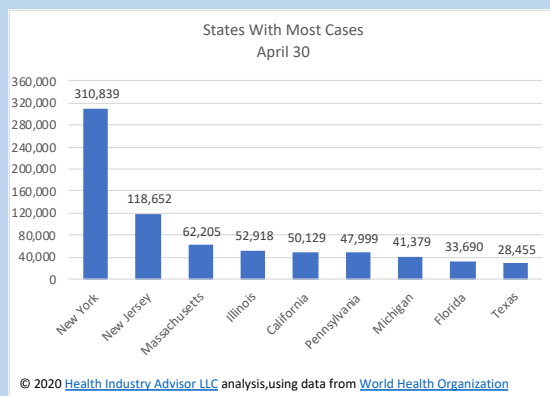
New York Has Experienced Far More Coronavirus Cases, and More Cases Per Capita Than Any State

New York now has more than 310,000 cases, representing 28.4% of all coronavirus cases in the U.S. (down from a peak of 48% on March 25). The top ten states account 70.7% of all cases and 77.1% of all deaths. New York by itself accounts for 37.2% of the deaths in the U.S.; New York and New Jersey combined, 48.6%. New York City alone accounts for 15.2% of total cases in the U.S., although this is down from a peak of 33.5% on March 21.

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

Michigan has the highest death rate (9.1%), followed by Connecticut (8.1%) and New York (7.7%). Measured in terms of deaths per million in population, New York is the highest (1,222.4), followed by New Jersey (813.8).

From April 24-30, Massachusetts had the highest rate of new daily infections, at 332.6; Rhode Island was 2nd, with 318.9. New York was 3rd, at 310.3 which is significantly below its peak of 505.8 experienced April 4 – 10.



State-By State Statistics and Rankings

New York Continues to Experience the Most Cases, Cases Per Capita and Deaths; Massachusetts Now Has the Highest New Infection Rate

This table provided statistics and ranking of each of the 50 states and the District of Columbia.

As of April 30

State	Total Cases	Rank	Cases per 1M Population	Rank	Deaths	Rank	Death Rate	Rank	Deaths per 1 Million Population	Rank	5-day Moving Average Case Growth Rate	Rank	Tests per 1M Population	Rank	New Daily Cases Per 1M Population (5-Day M.A.)	Rank
Alabama	7,068	(25)	1,441.5	(30)	272	(24)	3.8%	(29)	55.5	(27)	2.6%	(31)	18,085	(23)	36.0	(35)
Alaska	355	(51)	485.3	(49)	9	(50)	2.5%	(43)	12.3	(49)	0.9%	(48)	26,488	(12)	3.5	(49)
Arizona	7,648	(23)	1,050.7	(40)	320	(21)	4.2%	(24)	44.0	(35)	4.0%	(13)	10,334	(50)	36.9	(33)
Arkansas	3,281	(39)	1,087.2	(38)	61	(41)	1.9%	(45)	20.2	(45)	2.4%	(35)	16,177	(29)	32.3	(37)
California	50,129	(5)	1,268.7	(33)	2,029	(8)	4.0%	(26)	51.4	(31)	3.4%	(19)	15,973	(31)	39.2	(32)
Colorado	15,284	(16)	2,654.1	(14)	777	(17)	5.1%	(17)	134.9	(14)	3.3%	(22)	12,556	(43)	99.8	(14)
Connecticut	27,700	(11)	7,769.4	(5)	2,257	(7)	8.1%	(2)	633.0	(3)	2.4%	(36)	27,121	(10)	184.3	(7)
Delaware	4,734	(30)	4,861.5	(8)	152	(34)	3.2%	(37)	156.1	(13)	5.8%	(6)	22,981	(16)	209.2	(5)
District Of Columbia	4,323	(34)	6,125.4	(6)	224	(30)	5.2%	(15)	317.4	(7)	3.2%	(24)	29,334	(8)	194.7	(6)
Florida	33,690	(8)	1,568.6	(26)	1,268	(10)	3.8%	(32)	59.0	(22)	1.8%	(43)	18,650	(22)	26.9	(41)
Georgia	26,264	(12)	2,473.7	(16)	1,132	(12)	4.3%	(23)	106.6	(15)	2.5%	(33)	15,971	(32)	58.9	(23)
Hawaii	618	(48)	436.5	(50)	16	(49)	2.6%	(42)	11.3	(51)	0.5%	(50)	22,177	(17)	2.2	(50)
Idaho	2,015	(43)	1,124.4	(37)	63	(40)	3.1%	(38)	35.2	(39)	1.3%	(46)	16,732	(27)	14.3	(45)
Illinois	52,918	(4)	4,176.0	(9)	2,355	(6)	4.5%	(21)	185.8	(11)	4.8%	(9)	21,048	(19)	180.2	(8)
Indiana	17,835	(15)	2,649.2	(15)	1,114	(13)	6.2%	(6)	165.5	(12)	4.4%	(10)	14,312	(36)	101.8	(13)
Iowa	7,145	(24)	2,264.6	(18)	162	(33)	2.3%	(44)	51.3	(32)	7.0%	(3)	13,621	(43)	145.8	(10)
Kansas	4,302	(35)	1,476.7	(28)	134	(35)	3.1%	(39)	46.0	(34)	6.5%	(4)	10,873	(49)	89.2	(16)
Kentucky	4,708	(31)	1,053.8	(39)	240	(29)	5.1%	(16)	53.7	(29)	3.8%	(15)	12,750	(41)	39.2	(31)
Louisiana	28,001	(10)	6,023.3	(7)	1,905	(9)	6.8%	(5)	409.8	(5)	1.1%	(47)	33,572	(6)	69.5	(21)
Maine	1,095	(45)	814.6	(46)	53	(42)	4.8%	(19)	39.4	(36)	2.0%	(39)	15,487	(34)	16.8	(44)
Maryland	21,742	(13)	3,596.3	(12)	1,140	(11)	5.2%	(14)	188.6	(10)	4.1%	(12)	19,049	(21)	141.9	(11)
Massachusetts	62,205	(3)	8,951.0	(3)	3,562	(4)	5.7%	(9)	512.6	(4)	3.1%	(26)	40,357	(3)	332.6	(1)
Michigan	40,399	(7)	4,045.2	(10)	3,670	(3)	9.1%	(1)	367.5	(6)	2.0%	(40)	17,798	(24)	92.0	(15)
Minnesota	4,644	(33)	823.5	(45)	319	(22)	6.9%	(4)	56.6	(24)	7.8%	(2)	12,075	(44)	48.7	(26)
Mississippi	6,815	(27)	2,289.9	(17)	261	(26)	3.8%	(30)	87.7	(17)	3.6%	(18)	22,114	(18)	79.8	(17)
Missouri	7,766	(22)	1,265.4	(34)	343	(20)	4.4%	(22)	55.9	(26)	2.4%	(34)	12,069	(45)	32.2	(38)
Montana	453	(50)	423.8	(51)	16	(49)	3.5%	(34)	15.0	(47)	0.4%	(51)	13,357	(39)	1.5	(51)
Nebraska	4,281	(36)	2,213.1	(19)	70	(39)	1.6%	(48)	36.2	(38)	9.4%	(1)	14,478	(35)	159.3	(9)
Nevada	4,998	(29)	1,622.6	(23)	243	(28)	4.9%	(19)	78.9	(19)	1.9%	(41)	17,709	(25)	36.6	(34)
New Hampshire	2,146	(42)	1,578.3	(24)	72	(38)	3.4%	(36)	53.0	(30)	3.7%	(17)	16,410	(28)	50.0	(25)
New Jersey	118,652	(2)	13,358.4	(2)	7,228	(2)	6.1%	(8)	813.8	(2)	2.4%	(37)	27,802	(9)	299.6	(4)
New Mexico	3,411	(38)	1,626.7	(22)	123	(36)	3.6%	(33)	58.7	(23)	5.1%	(8)	32,435	(7)	70.3	(20)
New York	310,839	(1)	15,978.5	(1)	23,780	(1)	7.7%	(3)	1,222.4	(1)	1.5%	(44)	45,908	(2)	310.3	(3)
North Carolina	10,755	(19)	1,025.4	(41)	406	(19)	3.8%	(31)	38.7	(37)	4.2%	(11)	12,655	(42)	39.5	(30)
North Dakota	1,067	(46)	1,400.1	(31)	19	(46)	1.8%	(47)	24.9	(42)	5.8%	(5)	36,506	(4)	67.1	(22)
Ohio	18,027	(14)	1,542.2	(27)	975	(14)	5.4%	(12)	83.4	(18)	3.0%	(28)	11,437	(47)	40.7	(29)
Oklahoma	3,618	(37)	914.3	(44)	222	(31)	6.1%	(7)	56.1	(25)	2.5%	(32)	15,727	(33)	21.7	(43)
Oregon	2,510	(40)	595.1	(48)	103	(37)	4.1%	(25)	24.4	(44)	2.2%	(38)	13,727	(37)	13.0	(46)
Pennsylvania	47,999	(6)	3,749.3	(11)	2,541	(5)	5.3%	(13)	198.5	(9)	2.9%	(29)	17,306	(26)	122.1	(12)
Rhode Island	8,621	(21)	8,137.9	(4)	266	(25)	3.1%	(40)	251.1	(8)	3.9%	(14)	60,297	(1)	318.9	(2)
South Carolina	6,095	(28)	1,183.8	(35)	244	(27)	4.0%	(27)	47.4	(33)	3.0%	(27)	11,403	(48)	32.7	(36)
South Dakota	2,449	(41)	2,768.3	(13)	17	(47)	0.7%	(51)	19.2	(46)	2.7%	(30)	19,910	(20)	79.6	(18)
Tennessee	10,735	(20)	1,571.0	(25)	199	(32)	1.9%	(46)	29.1	(40)	3.2%	(25)	26,706	(11)	51.6	(24)
Texas	28,455	(9)	981.3	(42)	802	(15)	2.8%	(41)	27.7	(41)	3.3%	(23)	11,845	(46)	29.9	(39)
Utah	4,672	(32)	1,457.3	(29)	46	(44)	1.0%	(50)	14.3	(48)	3.4%	(20)	35,628	(5)	47.2	(27)
Vermont	866	(47)	1,387.8	(32)	49	(43)	5.7%	(11)	78.5	(20)	0.5%	(49)	25,044	(14)	9.4	(48)
Virginia	14,961	(17)	1,752.8	(21)	522	(18)	3.5%	(35)	61.2	(21)	5.2%	(7)	10,139	(51)	78.6	(19)
Washington	14,070	(18)	1,847.7	(20)	801	(16)	5.7%	(10)	105.2	(16)	1.3%	(45)	25,746	(13)	29.6	(40)
West Virginia	1,125	(44)	629.5	(47)	44	(45)	3.9%	(28)	24.6	(43)	1.9%	(42)	24,439	(15)	11.5	(47)
Wisconsin	6,854	(26)	1,177.2	(36)	316	(23)	4.6%	(20)	54.3	(28)	3.8%	(16)	13,195	(40)	44.2	(28)
Wyoming	559	(49)	965.9	(43)	7	(51)	1.3%	(49)	12.1	(50)	3.4%	(21)	15,594	(30)	26.2	(42)
United States	1,095,019		3,308.2		63,856		5.8%		192.9		2.7%		19,311		90.0	

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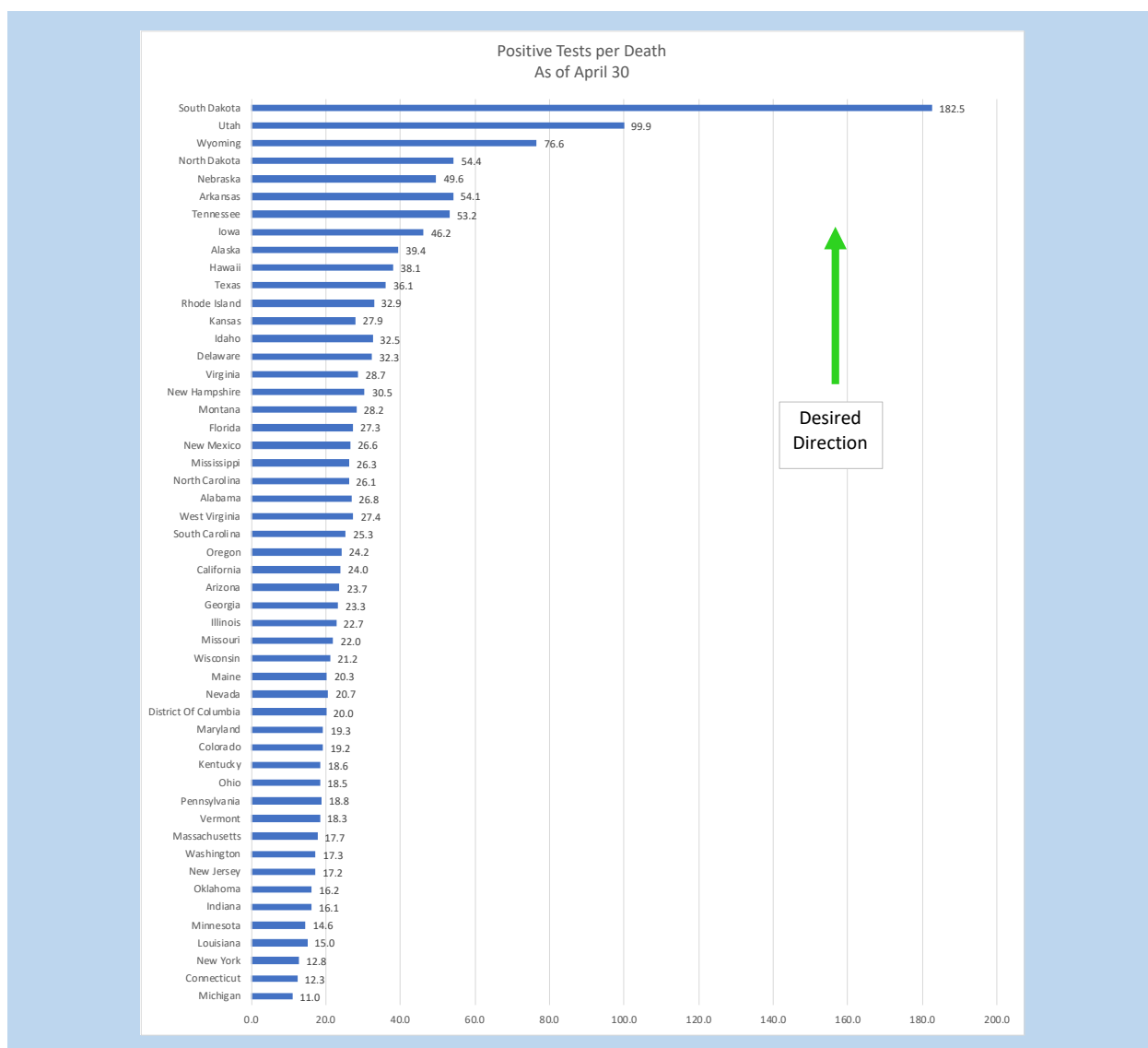
Information throughout the Dashboard is provided as a courtesy, based on data from the above-named sources. HIA has no responsibility for the accuracy and updating of any data. Sources: worldometers.info; covidtracking.com, <https://covid19.healthdata.org/united-states-of-america>, and nyc.gov. Graphics depict data as of the date in the header.

Testing Adequacy

One Measure of Testing Robustness Is the Ratio of Positive Tests to Deaths

Patrick Cain, writing recently in *Global News* ([What does doing enough coronavirus testing look like? Here's a number to watch](#)), suggested a ratio of Positive Tests to Deaths as a measure of testing robustness: *“the higher the number of tests in relation to each death, the better the surveillance is, and the better the chance that it's finding people who are asymptomatic. The lower the number, the better the chance that only a few of the most obvious cases are being found.”*

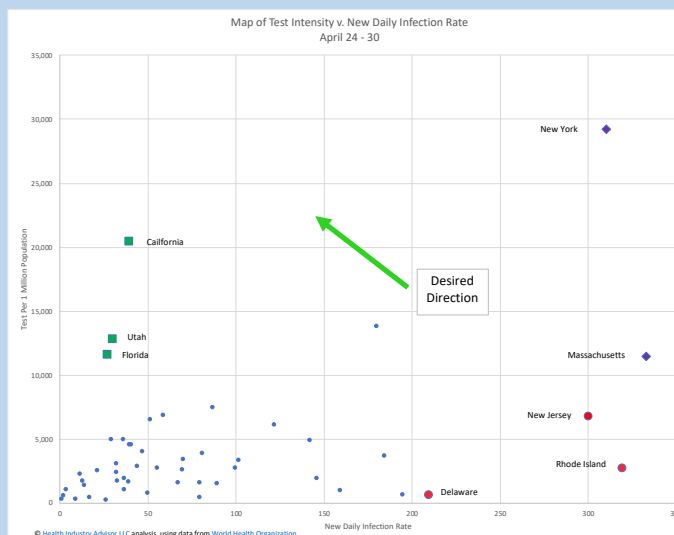
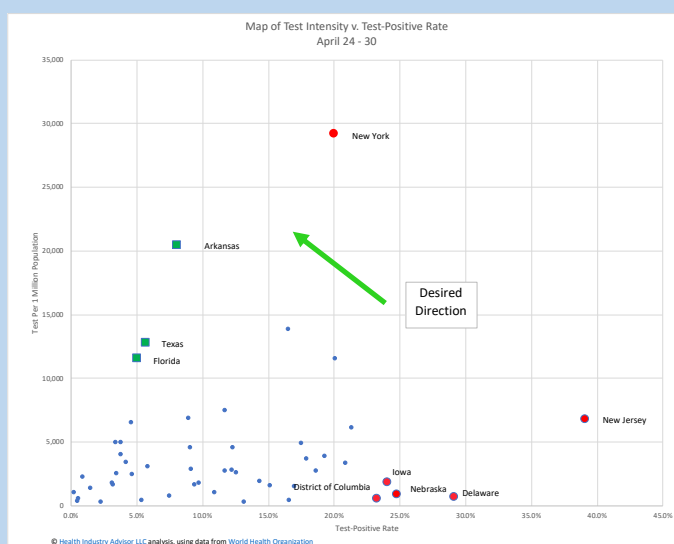
Following is a chart showing these ratios by state, as of April 30. Michigan appears to be under-testing, while Utah and South Dakota are testing rates comparable to the best in the world, as reported by Cain.



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, <https://covid19.healthdata.org/united-states-of-america>, and nyc.gov. Graphics depict data as of the date in the header.

Other ways to loom at testing adequacy is to compare the testing per capita rate to test-positivity rates and new daily infection rates. The former comparison indicates if testing is merely capturing the more severe cases (low tests per capita & high test-positivity) or is getting a stronger view toward true incidence of infection (high tests per capita & low test-positivity).

The latter comparison informs us if the new daily infection rate is getting closer to a true reflection of the rate of current virus spread (low testing rate is not terribly informative).



Death Statistics

Coronavirus Has Had a Devastating Effect on Vulnerable Parts of our Population

Yesterday, the graphic we used for New York City Deaths by Age Cohort was based on an incorrectly defined range. We have corrected this graphic (top right-hand side of the table below). We apologize for the error.

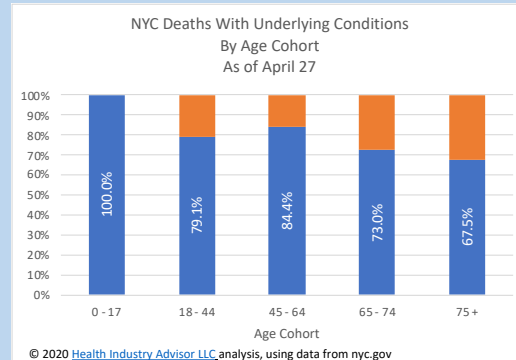
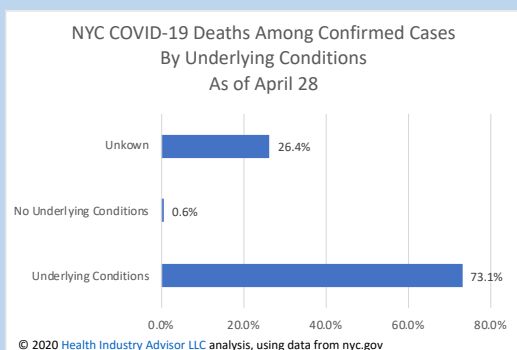
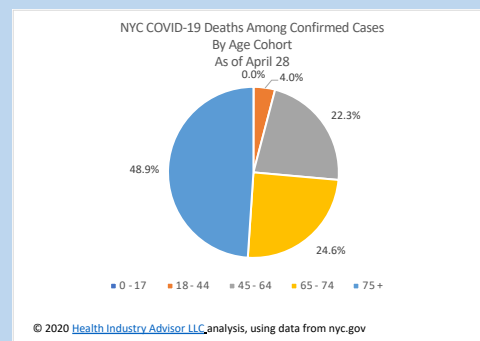
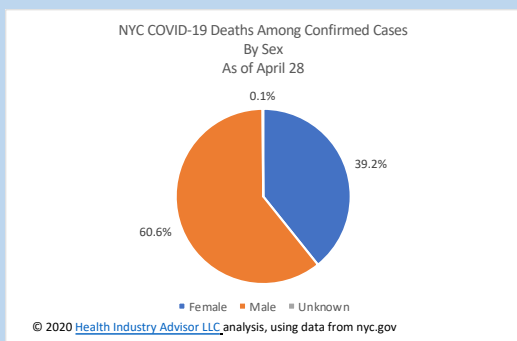
Using the updated chart, note that nearly 50% of all deaths in New York City were in the 74 years old and older age cohort. Persons under 45 years old only accounted for 4% of these deaths. In these cases, underlying health conditions were known to exist in 80% of these persons.

* * * * *

Using information reported by New York City, we also looked at certain demographics of the people who died from the coronavirus, as of April 27. Note the marked differences in death rates by sex, as well as by age.

At first glance of the top right graphic, it appears the young (0-17 years old) make up a low portion of the deaths (only 4% of deaths in NYC from the virus). Deaths are somewhat distributed among the remaining age cohorts. The graphics in the second row, however, tell a more instructive tale: overall, and at every age cohort, persons with underlying health conditions comprise the strong majority of persons that have died from the virus.

The bottom graphic depicts how the prevalence of chronic conditions by age cohort is the likely explanation for the pattern of deaths by age – and not that age by itself is the determinant of the likelihood of death.



Opening Up America Again

A Graphical Representation of a State's Positioning, Relative to the Federal Gating Criteria For Relaxing Restrictions

On Thursday, April 16, 2020, President Trump released his guidelines for three phases of [Opening Up America Again](#). Each state governor, however, retains the authority to determine how and when to open their states, based on the unique circumstances of their respective states.

The President outlined a staged approach, based on the state meeting certain "gating" criteria:

- Symptoms
 - Downward trajectory of influenza-like illness (ILI) reported within a 14-day period, and
 - Downward trajectory of COVID-19 syndromic cases reported within a 14-day period
- Cases
 - Downward trajectory of documented cases reported within a 14-day period, or
 - Downward trajectory of positive tests as a percent of total tests within a 14-day period (flat or increasing volume of tests)
- Hospitals
 - Treat all patients without crisis care, and
 - Robust testing program in place for at-risk healthcare workers, including emergency antibody testing

Whether these criteria will be applied is ultimately a state-by-state decision and will be subject to other considerations. Therefore, no certainty can be provided as to how closely these state-by state decisions will follow the guidelines suggested.

These considerations notwithstanding, the following pages are intended to paint a picture of how closely each state is tracking toward the guidelines suggested by the President and the CDC.

Monday through Friday, we are producing a one-page summary of key measures for selected states per day. Today, we look at South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming.

On these pages, we show:

- Tests per day, and a 7-day moving average (given the provision for flat or increasing test volume)
- Positive test %, daily and 7-day moving average
- New Daily Infections per 1 Million Population – this metric may be better aligned with the gating criteria; also, it is the metric proposed by IHME to determine when social distancing may be relaxed
- Active cases per day, to indicate how active infections are trending
- % of Visits for Influenza-Like Illness (ILI) from [CDC.gov](#), indicating the trajectory of these illness per the criteria above
- Projected Hospital Resource Needs from [Covid19.Health data.org](#), indicating how these needs are trending

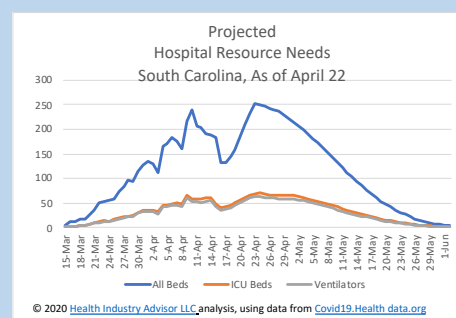
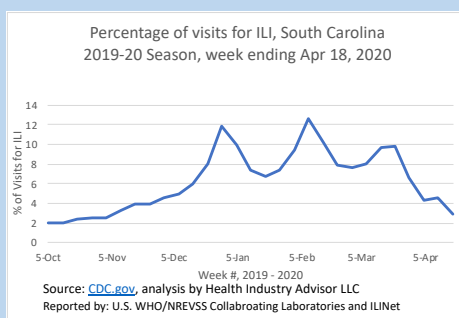
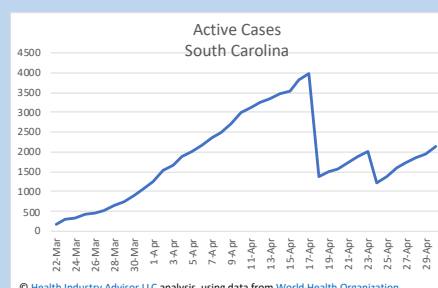
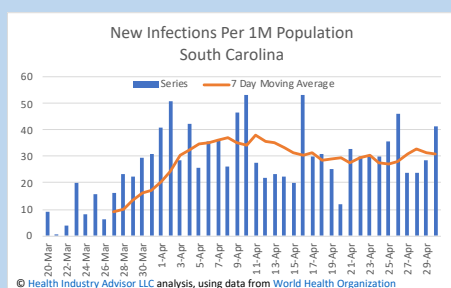
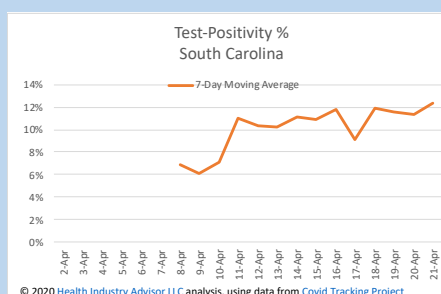
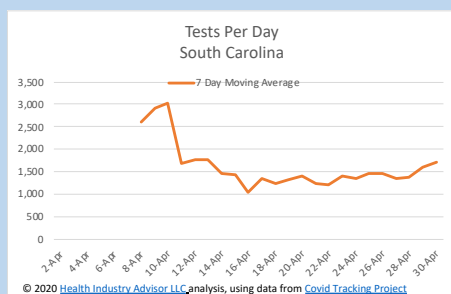
A quick commentary from the following pages:

- South Carolina – need to increase testing & await peak hospital resource needs to pass
- South Dakota – revert to earlier testing levels & expect test-positivity rates to fall back
- Tennessee – shaping up nicely; need to see drop in active cases
- Texas – more testing would provide greater confidence
- Utah – shaping up nicely; await peak hospital resource needs to pass
- Vermont – shaping up nicely
- Virginia – where are the tests?
- Washington – shaping up nicely
- West Virginia – shaping up nicely
- Wisconsin – need to see the test-positivity rate drop
- Wyoming - shaping up nicely

South Carolina

Analysis:

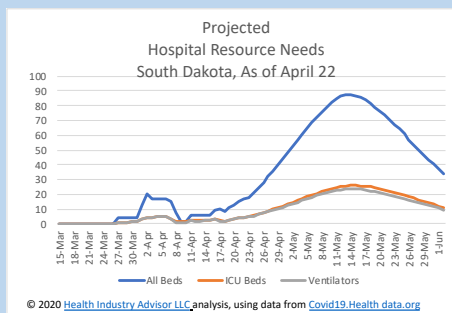
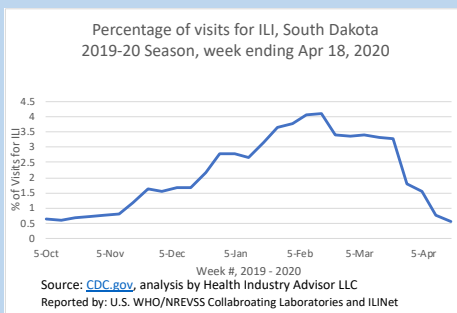
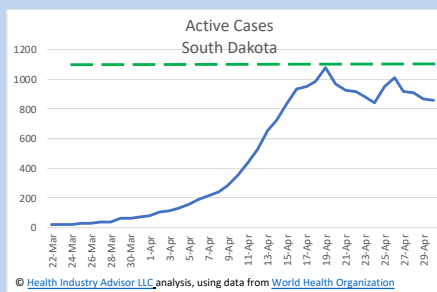
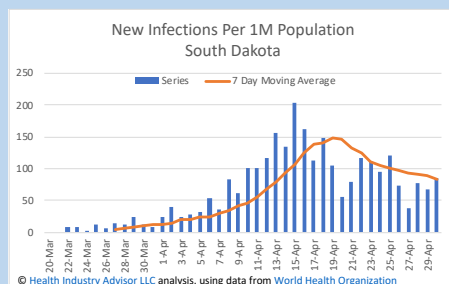
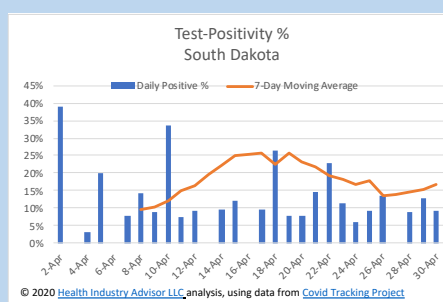
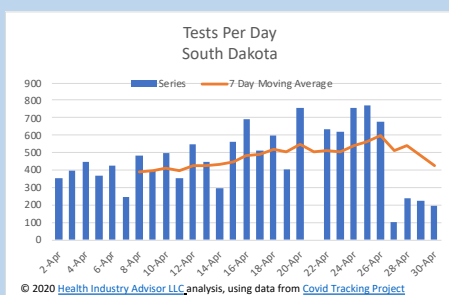
- ▼ Testing levels starting to increase; still low per capita
- ▼ Test-Positivity rate increasing, to too high a high level
- ▲ New infection rate stable, at a low level
- ▼ Active cases may have peaked, although trend isn't encouraging
- ▲ Influenza cases declining
- ▼ Hospital resource needs just past peak



South Dakota

Analysis:

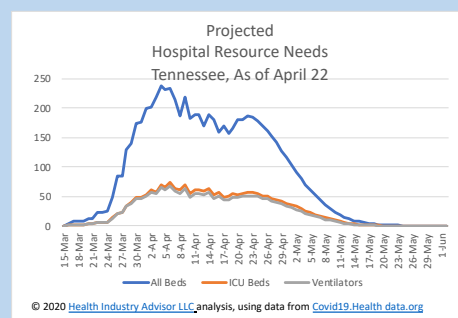
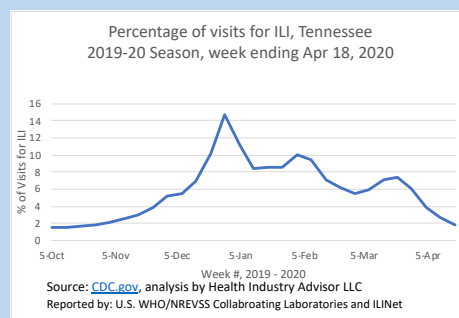
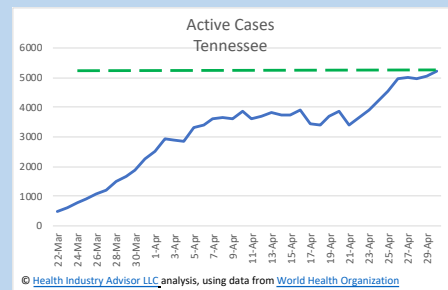
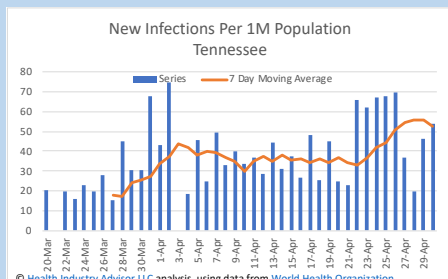
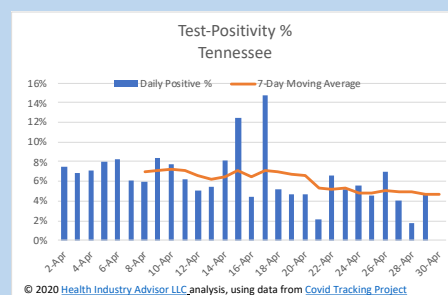
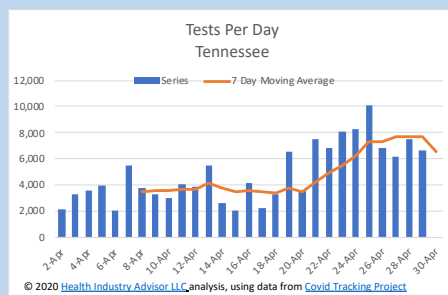
- ▶ Testing levels starting to decline; still at a reasonable level
- ▼ Test-Positivity rate increasing and too high
- ▲ New infections trending down and at a low level
- ▲ Active cases seeming beyond peak
- ▼ Hospital resource needs have yet to peak



Tennessee

Analysis:

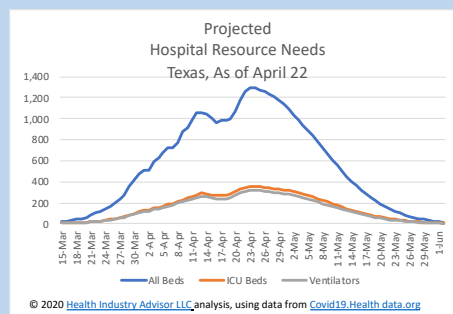
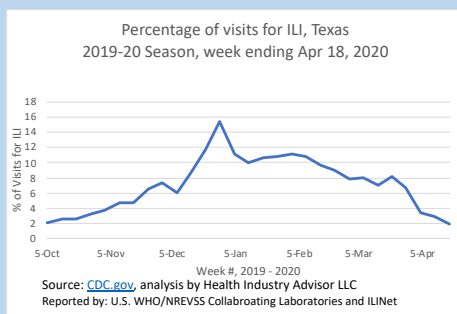
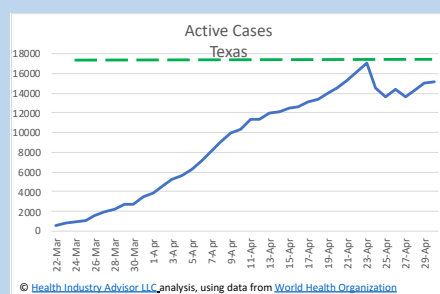
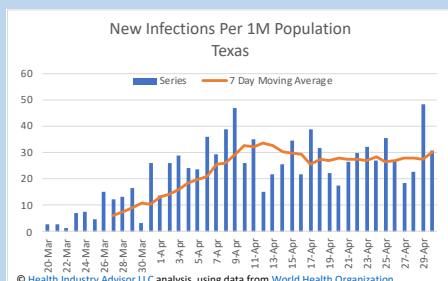
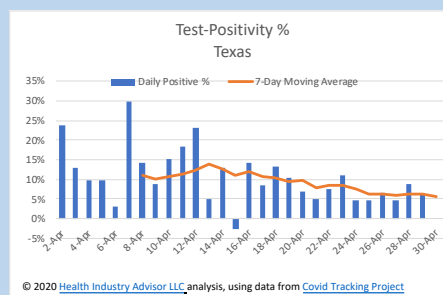
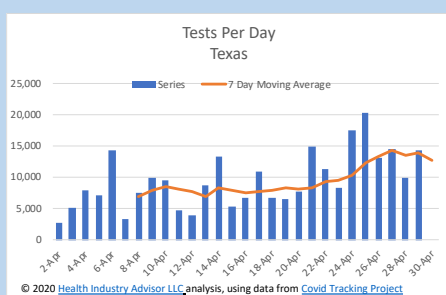
- ▲ Testing levels at a high per capita
- ▲ Test-Positivity rate low and declining
- ▲ New infections starting to trend down; at a low level
- ▲ Active cases may be near peak
- ▲ Influenza cases declining
- ▲ Hospital resource needs past peak



Texas

Analysis:

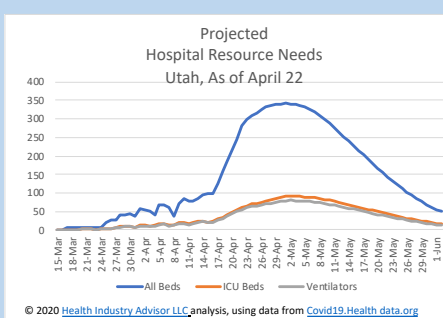
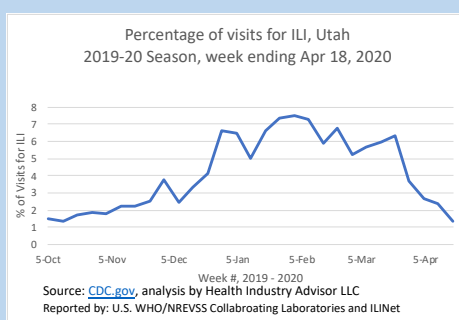
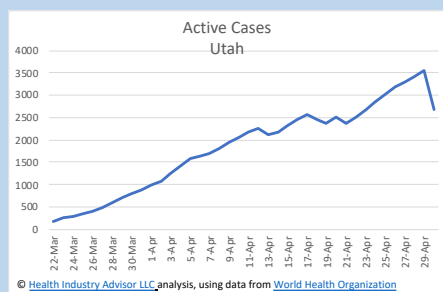
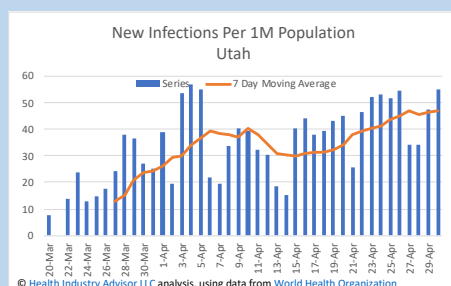
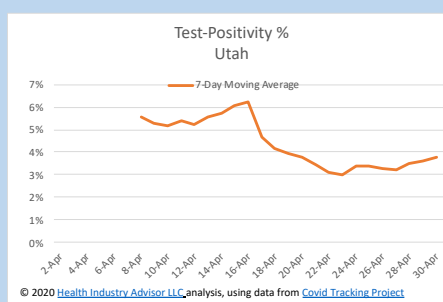
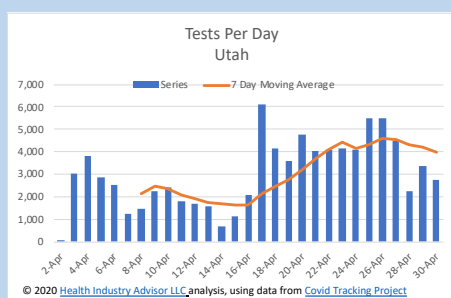
- ▼ Testing levels increasing; very low per capita
- ▲ Test-Positivity rate low and declining
- ▼ New infections trending up but, at a low level
- ▼ Active cases may not have yet truly peaked
- ▲ Influenza cases declining
- ▼ Hospital resource needs just past peak



Utah

Analysis:

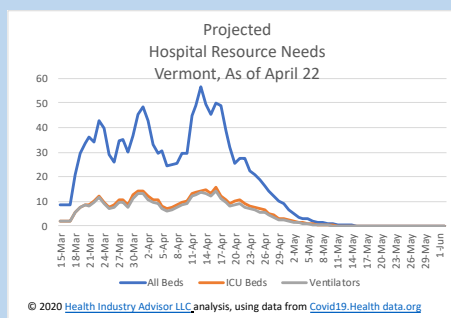
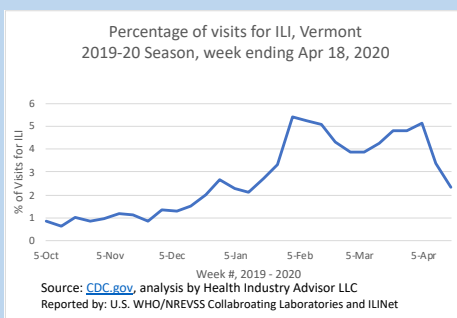
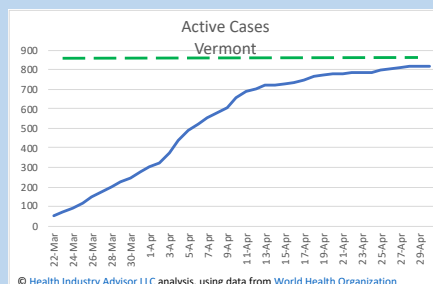
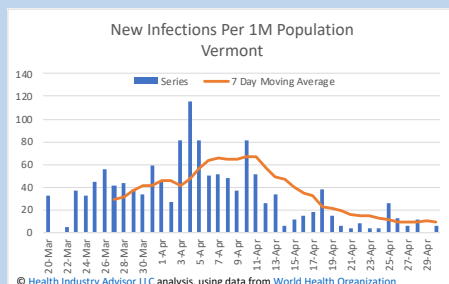
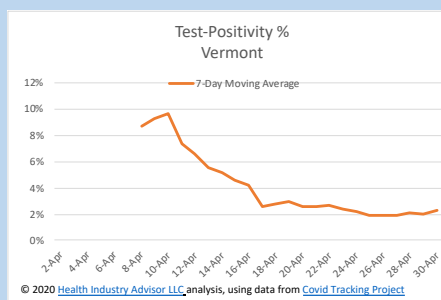
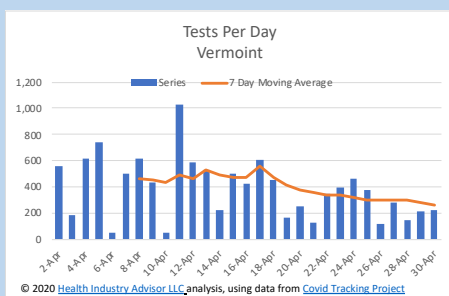
- ▲ Testing levels increasing; already at a high level
- ▲ Test-positive rate trending down, at a low level
- ▲ New infections trending up but, at a low level
- ▲ Active cases may not have truly yet peaked
- ▲ Influenza cases declining
- ▼ Hospital resource needs are near peak



Vermont

Analysis:

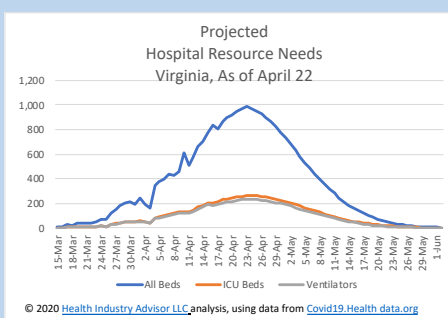
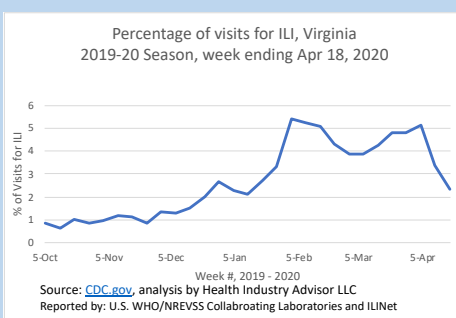
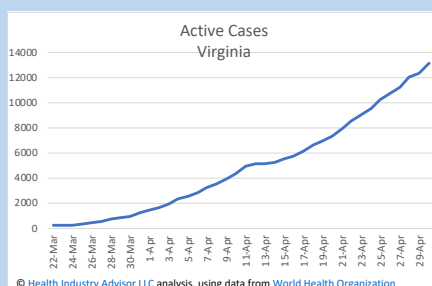
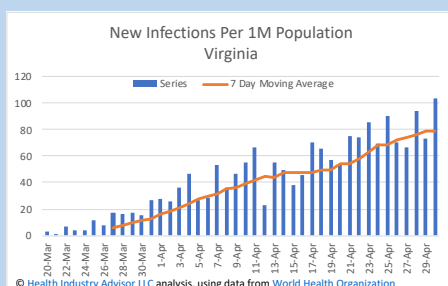
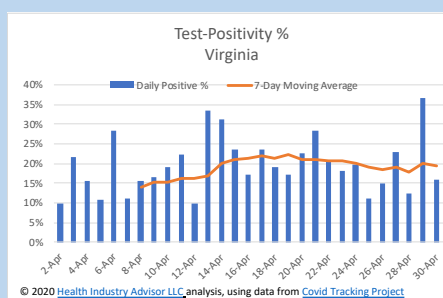
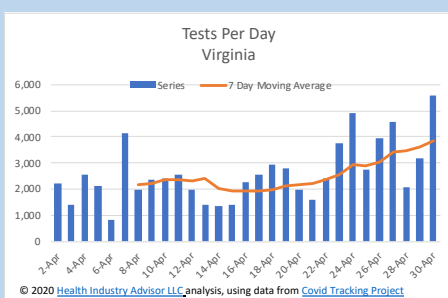
- ▶ Testing levels decreasing but, at a high rate
- ▶ Test-Positivity rate declining; at a low level
- ▶ New infections trending down, at low level
- ▶ Active cases seem to be at peak
- ▶ Influenza cases declining
- ▶ Hospital resource needs past peak



Virginia

Analysis:

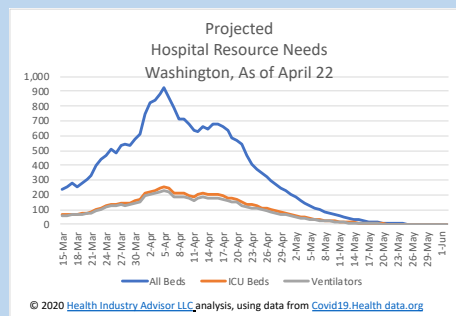
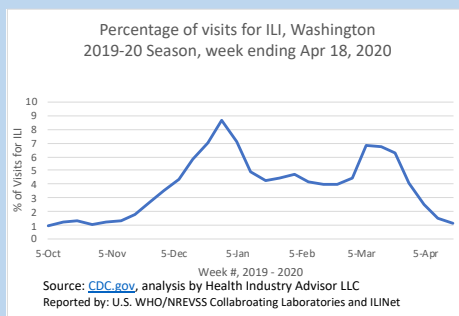
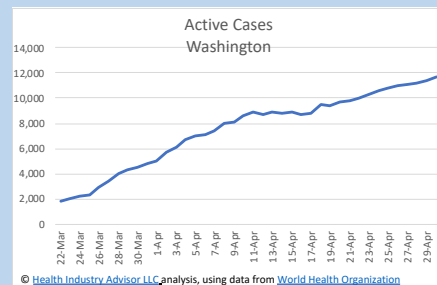
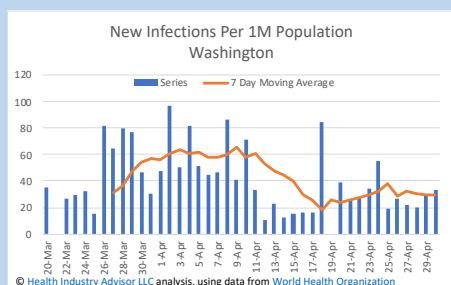
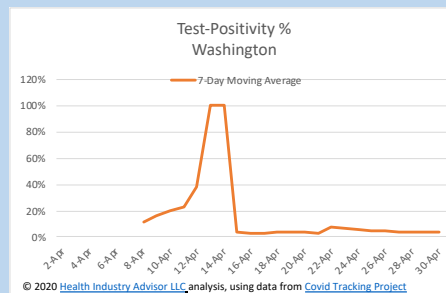
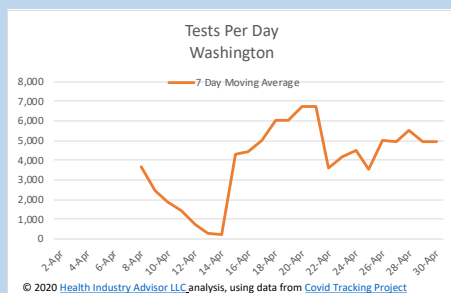
- ▼ Testing levels increasing but, near worst in the country
- ▼ Test-Positivity rate at a high level
- ▲ New infections trending up, at a very low level
- ▼ Active cases have yet to peak
- ▲ Influenza cases declining
- ▲ Hospital resource needs just past peak



Washington

Analysis:

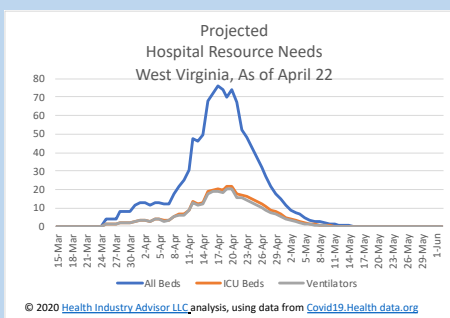
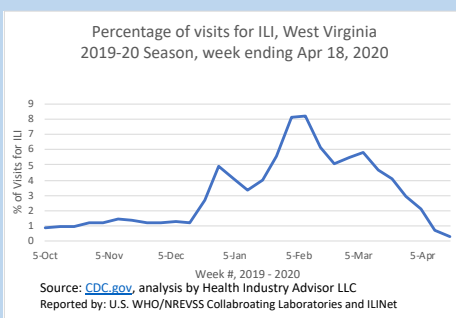
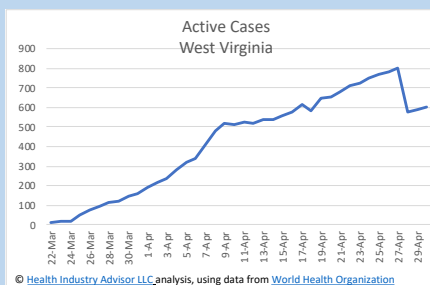
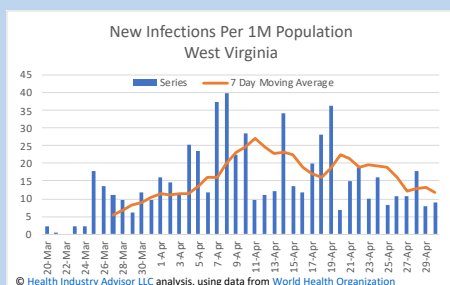
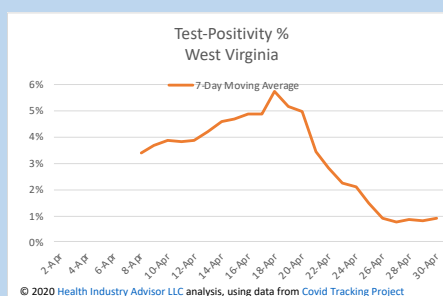
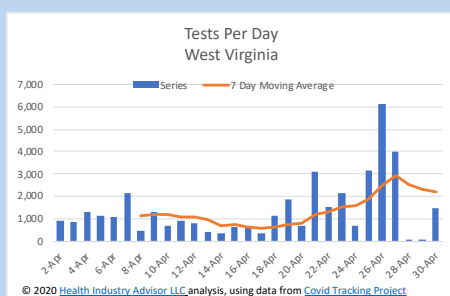
- ▲ Testing levels increasing slightly; at a high level
- ▲ Test-Positivity rate at a very low level
- ▲ New infections at low level
- ▲ Active cases have not peaked
- ▲ Influenza cases declining
- ▲ Hospital resource needs past peak



West Virginia

Analysis:

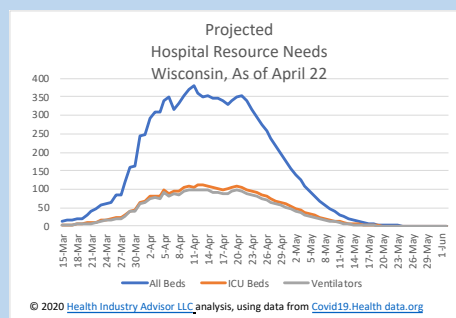
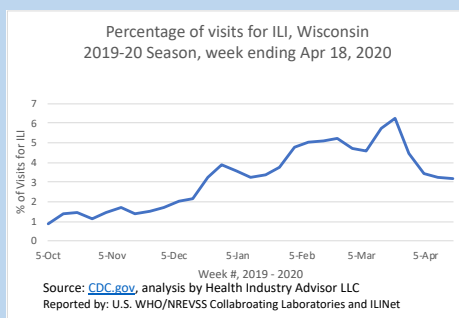
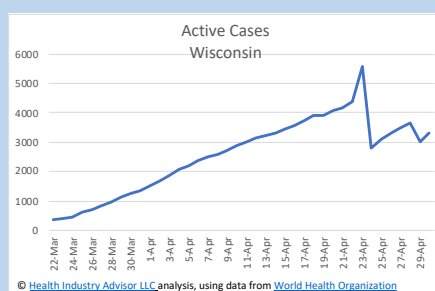
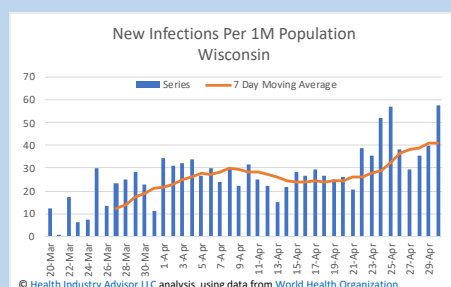
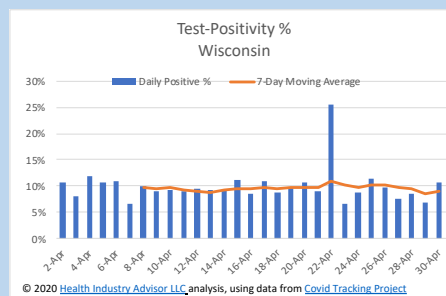
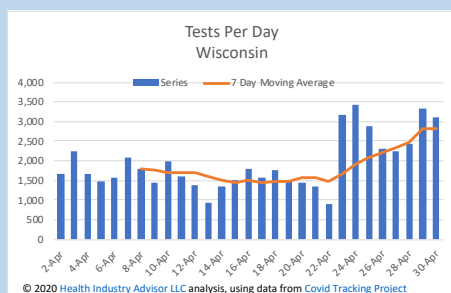
- ▲ Testing levels increasing; at a high level
- ▲ Test-Positivity rate declining and at a low level
- ▲ New infections declining; at a low level
- ▲ Active cases not yet have truly peaked
- ▲ Influenza cases declining
- ▲ Hospital resource needs past peak



Wisconsin

Analysis:

- ▼ Testing levels increasing; at a very low level
- ▼ Test-Positivity rate stable; at moderate level
- ▼ New infections trending up; at low level
- ▲ Active cases may have peaked
- ▲ Influenza cases declining
- ▲ Hospital resource needs pst peak



Wyoming

Analysis:

- ▶ Testing levels increasing; only at a moderate level
- ▶ Test-Positivity rate declining; at moderate level
- ▶ New infections at a low level
- ▶ Active cases may have peaked
- ▶ Influenza cases declining
- ▼ Hospital resource needs at peak

