

Issue #38: April 28

"Strategic Guidance in an Era of Unprecedented Change"

Measure	Desired Change	Yesterday in the U.S.
No. of Tests	Increase	Up 2.8% (Cumulative)
Test-Positivity Rate	Decline	Down to 17.5% (v. 17.6%)
No. of Cases	Plateau	Up only 2.3%
% of Deaths Per Case	Decline	Steady @ 5.6%
No. of Deaths / 1M Population	Plateau	Up to 171.6
Recoveries : Deaths	Increase (>1:1)	Up to 2.45 (v. 2.14)

We continue to track the 29 countries with the most cases, plus South Korea. These 30 countries represent 91.4% of all cases in the world.

Highlights from Monday include:

- Reported tests were much lower on Monday, as a few states did not update their reports, while others only reported positive results.
- Three unfortunate milestones were reached on Monday: total cases worldwide exceeded 3 million; cases in the U.S. exceeded 1 million; and, deaths in the U.S. exceed 50,000.
- New daily infection rates have yet to peak in 13 states Arizona, Colorado, Illinois, Indiana, Iowa, Maryland, Minnesota, Nebraska, New Hampshire, North Carolina, Tennessee, Virginia and Wisconsin. Of these, however, these infection rates are relatively low (less than ½ the U.S. average) in Arizona, Minnesota, North Carolina and Wisconsin.
- Still, there were encouraging signs: new cases in the U.S. declined for the third consecutive day and were the lowest of any day since March 29. For the second consecutive day, deaths in the U.S. were lower than any day since April 6. Further, the number of cases considered serious or critical declined for the third consecutive day.
- The death rate continues to be stable at 5.6% of cases where it has been now for a week.
- There were a slew of new recoveries reported by the states more than 20,000 reported on Monday bringing total recoveries to nearly 140,000. Given the 4-week time frame from infection onset-to-recovery used by many states, and the surge in cases at this time last month, we anticipate that these reported recoveries will continue to increase this week (barring reporting lags).
- The U.S. experienced its smallest increase in active cases yesterday 1,603 since March 16. Perhaps, a peak is in the offing.
- Other parts of the world to watch: several Eastern European and Middle Eastern countries have now surpassed South Korea in total cases. These countries, their rank by total cases, and their cases per million in populations:

30. Poland	314
31. Romania	589
32. Belarus	1,195
33. Qatar	3,903
34. UAE	1.096

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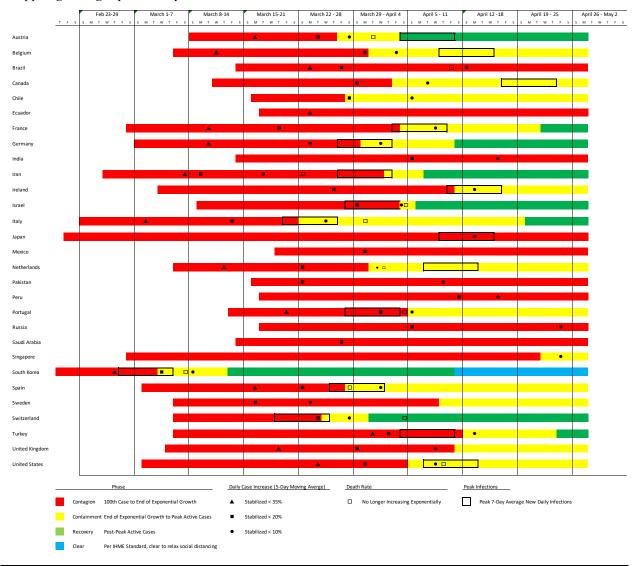
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Virus Progression: Hardest Hit Countries

Nine of the Ten Countries Added to Our Coverage Are Still Experiencing Exponential Case Growth

Ten countries as still experiencing exponential case growth – Brazil, Ecuador, India, Japan, Mexico, Pakistan, Peru, Russia, Saudi Arabia and Singapore. 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.



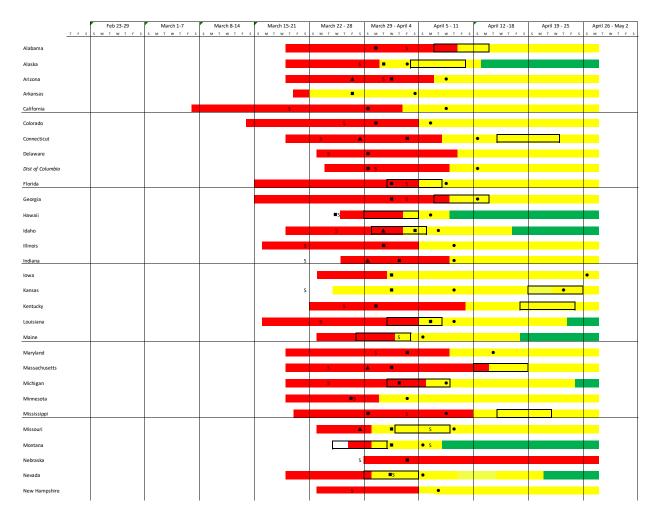
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Virus Progression: US States, District of Columbia and New York City

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

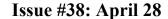
We now show fourteen states – Alaska, Hawaii, Idaho, Louisiana, Maine, Michigan, Montana, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Wisconsin and Wyoming - that may be past their peak in Active cases. Caution should be advised when viewing these numbers, as states tend to report recoveries in batches. Thus, it is possible that active cases will rise again, until the states again report recoveries.

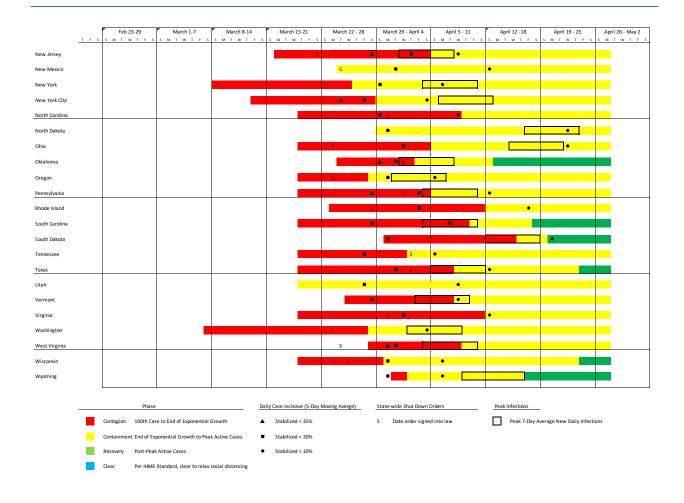


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Country-By-Country Statistics and Rankings

The U.S. Leads the World in Cases and Deaths; Is 4th in New Daily Infections per Capita and 6th in Cases per Capita

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

As of April 27

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	1,010,356	(1)	3,052	(6)	56,797	(1)	5.6%	(12)	171.6	(10)	3.4%	(12)	17,211	(13)	91.6	(4)
Austria	15,274	(24)	1,696	(15)	549	(23)	3.6%	(18)	61.0	(15)	0.5%	(28)	25,819	(6)	7.6	(24)
Belgium	46,687	(13)	4,028	(2)	7,207	(6)	15.4%	(1)	621.8	(1)	2.2%	(17)	18,468	(12)	82.6	(6)
Brazil	66,501	(11)	313	(24)	4,543	(10)	6.8%	(9)	21.4	(20)	7.8%	(4)	1,373	(25)	17.3	(22)
Canada	48,500	(12)	1,285	(18)	2,707	(13)	5.6%	(15)	71.7	(13)	3.8%	(10)	19,009	(11)	44.2	(11)
Chile	13,813	(28)	723	(21)	198	(28)	1.4%	(26)	10.4	(22)	3.9%	(9)	8,434	(19)	24.7	(18)
China	82,830	(10)	58	(29)	4,632	(9)	5.6%	(14)	3.2	(26)	0.0%	(30)	0	(30)	0.0	(30)
Ecuador	23,240	(19)	1,317	(17)	663	(22)	2.9%	(20)	37.6	(16)	0.8%	(25)	3,487	(24)	106.2	(3)
France	165,842	(4)	2,541	(7)	23,293	(4)	14.0%	(2)	356.9	(4)	0.7%	(26)	7,103	(21)	22.9	(19)
Germany	158,758	(5)	1,895	(12)	6,126	(7)	3.9%	(17)	73.1	(12)	1.1%	(24)	24,738	(8)	19.9	(20)
India	29,451	(15)	21	(30)	939	(18)	3.2%	(19)	0.7	(30)	6.4%	(6)	482	(29)	1.1	(28)
Iran	91,472	(8)	1,089	(19)	5,806	(8)	6.3%	(10)	69.1	(14)	1.2%	(23)	5,147	(23)	13.6	(23)
Ireland	19,648	(20)	3,979	(3)	1,102	(17)	5.6%	(13)	223.2	(8)	2.6%	(14)	25,785	(7)	115.6	(2)
Israel	15,555	(23)	1,797	(14)	204	(27)	1.3%	(27)	23.6	(19)	1.4%	(21)	34,971	(2)	30.4	(17)
Italy	199,414	(3)	3,298	(5)	26,977	(2)	13.5%	(3)	446.2	(3)	1.3%	(22)	29,600	(3)	43.0	(12)
Japan	13,614	(29)	108	(27)	385	(24)	2.8%	(21)	3.0	(27)	2.3%	(16)	1,191	(26)	2.8	(27)
Mexico	14,677	(25)	114	(26)	1,351	(16)	9.2%	(8)	10.5	(21)	8.1%	(3)	525	(28)	7.1	(25)
Netherlands	38,245	(14)	2,232	(11)	4,518	(11)	11.8%	(6)	263.7	(6)	1.9%	(19)	11,319	(15)	40.4	(13)
Pakistan	13,915	(27)	63	(28)	292	(25)	2.1%	(25)	1.3	(29)	5.2%	(8)	682	(27)	3.2	(26)
Peru	28,669	(17)	870	(20)	782	(21)	2.7%	(22)	23.7	(18)	9.8%	(1)	7,266	(20)	53.5	(9)
Portugal	24,027	(18)	2,356	(9)	928	(19)	3.9%	(16)	91.0	(11)	1.8%	(20)	35,321	(1)	44.3	(10)
Russia	87,147	(9)	581	(22)	794	(20)	0.9%	(28)	5.3	(23)	8.5%	(2)	20,690	(10)	38.1	(14)
Saudi Arabia	18,811	(22)	540	(23)	144	(29)	0.8%	(29)	4.1	(25)	7.6%	(5)	5,745	(22)	34.2	(16)
Singapore	14,423	(26)	2,465	(8)	14	(30)	0.1%	(30)	2.4	(28)	6.1%	(7)	20,815	(9)	156.5	(1)
South Korea	10,738	(30)	209	(25)	243	(26)	2.3%	(24)	4.7	(24)	0.1%	(29)	11,735	(14)	0.2	(29)
Spain	229,422	(2)	4,907	(1)	23,521	(3)	10.3%	(7)	503.1	(2)	1.9%	(18)	28,779	(4)	89.3	(5)
Sweden	18,926	(21)	1,874	(13)	2,274	(14)	12.0%	(5)	225.2	(7)	3.4%	(11)	9,357	(18)	58.7	(8)
Switzerland	29,164	(16)	3,405	(4)	1,665	(15)	5.7%	(11)	194.4	(9)	0.6%	(27)	28,343	(5)	19.5	(21)
Turkey	112,261	(7)	1,331	(16)	2,900	(12)	2.6%	(23)	34.4	(17)	2.6%	(15)	10,895	(16)	36.0	(15)
UK	157,149	(6)	2,315	(10)	21,092	(5)	13.4%	(4)	310.7	(5)	3.3%	(13)	10,605	(17)	68.2	(7)

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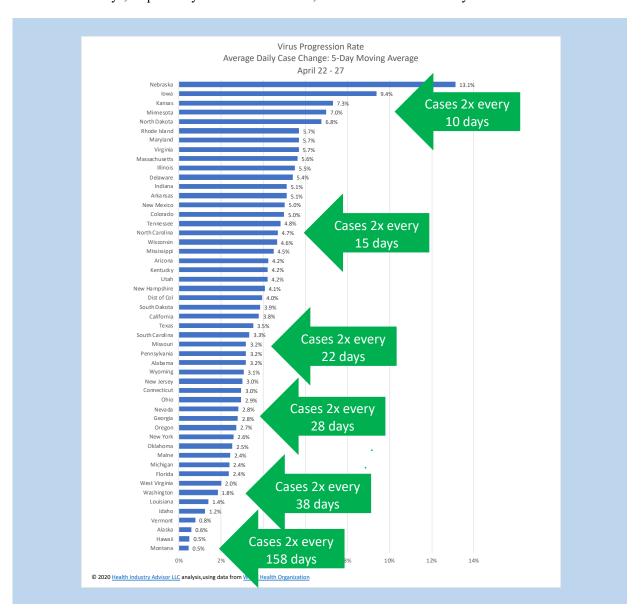
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Daily Case Growth Rates By State

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

Nebraska remains the only state experiencing daily case growth > 10%. It also is the only state still experiencing exponential case growth.

The case growth rate is so low in Montana that it would now take 158 days for cases to double; in Hawaii, 139; in Alaska, 118; and in Vermont, 90 days. In Louisiana and New York – two of the hardest-hit states – it would take 50 and 27 days, respectively. For the U.S overall, it would take about 20 days.





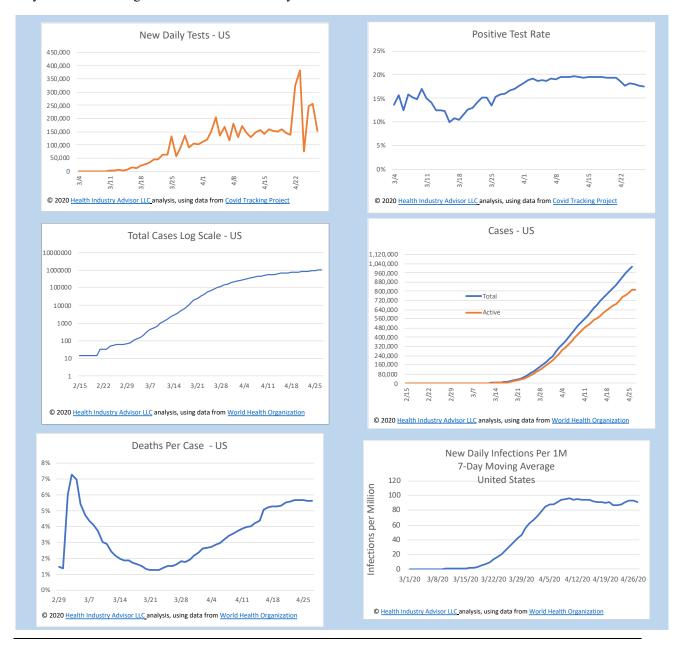
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Cases and Death Rates in the U.S.

Increased Testing Volume Over the Past Week Is Improving Our Visibility To the Virus

Altough testing volumes are "lumpy" - several states only report positive tests on many days; other report in batched – 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. Recent studies, however, like the one in new York, suggests that we may be undercounting the actual infection rate by 10x.





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Hardest-Hit States

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

New York, which now has just under 300,000 cases, represents 29.5% of all coronavirus cases in the U.S - down from a peak of 48% on March 25. The top ten states account 80.2% of all cases as well as 81.4% of all deaths. New York by itself accounts for 39.8% of the deaths in the U.S.; New York and New Jersey combined, 50.5%.

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 (8.9%), followed by Connecticut (7.7%), New York (7.6%), and Minnesota (7.5%.). Minnesota, however, ranks 46th in cases per capita. Measured in terms of deaths per million in population, New York is the highest (1,162.9) followed by New Jersey (660.5).

From April 20-26, New Jersey has the highest rate of new daily infections, at 360.0; Rhode Island is 2^{nd} , with 353.3. New York is 4^{th} , at 337.1 which is significantly below its peak of 505.8 experienced April 4-10.



State-By State Statistics and Rankings



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New York Continues To Experience the Most Cases, Cases Per Capita and Deaths; New Jersey is 2^{nd} in Most Categories but, 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 27

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	6,539	(24)	1,333.6	(29)	228	(26)	3.5%	(31)	46.5	(29)	3.2%	(31)	15,245	(26)	42.6	(28)
Alaska	345	(51)	471.6	(49)	9	(50)	2.6%	(43)	12.3	(49)	0.6%	(49)	22,012	(15)	4.7	(49)
Arizona	6,716	(23)	922.7	(40)	275	(23)	4.1%	(24)	37.8	(35)	4.2%	(20)	9,579	(49)	32.4	(39)
Arkansas	3,069	(38)	1,017.0	(38)	51	(42)	1.7%	(48)	16.9	(45)	5.1%	(13)	13,585	(29)	52.0	(25)
California	45,006	(5)	1,139.0	(33)	1,776	(8)	3.9%	(25)	44.9	(30)	3.8%	(26)	13,438	(31)	40.9	(30)
Colorado	13,879	(16)	2,410.1	(14)	706	(16)	5.1%	(13)	122.6	(14)	5.0%	(15)	11,994	(39)	93.6	(13)
Connecticut	25,997	(10)	7,291.7	(4)	2,012	(5)	7.7%	(2)	564.3	(3)	3.0%	(34)	25,337	(10)	247.7	(5)
Delaware	4,162	(31)	4,274.1	(8)	125	(34)	3.0%	(40)	128.4	(13)	5.4%	(11)	20,659	(17)	207.9	(6)
District Of Columbia	3,892	(33)	5,514.7	(7)	185	(30)	4.8%	(16)	262.1	(7)	4.0%	(24)	26,904	(8)	195.3	(7)
Florida	32,138	(8)	1,496.3	(23)	1,088	(10)	3.4%	(33)	50.7	(23)	2.4%	(43)	17,386	(22)	33.8	(36)
Georgia	24,225	(12)	2,281.6	(16)	994	(11)	4.1%	(23)	93.6	(16)	2.8%	(37)	12,350	(37)	64.9	(20)
Hawaii	607	(48)	428.7	(50)	16	(47)	2.6%	(41)	11.3	(51)	0.5%	(50)	20,567	(18)	2.3	(50)
Idaho	1,917	(43)	1,069.7	(36)	58	(39)	3.0%	(38)	32.4	(37)	1.2%	(47)	11,787	(40)	14.4	(45)
Illinois	45,883	(4)	3,620.9	(10)	1,983	(6)	4.3%	(20)	156.5	(9)	5.5%	(10)	17,754	(20)	162.1	(8)
Indiana	15,961	(15)	2,370.8	(15)	932	(13)	5.8%	(7)	138.4	(12)	5.1%	(12)	12,727	(33)	90.7	(14)
Iowa	5,868	(27)	1,859.9	(18)	127	(33)	2.2%	(44)	40.3	(33)	9.4%	(2)	12,179	(38)	122.7	(11)
Kansas	3,296	(36)	1,131.4	(34)	122	(35)	3.7%	(28)	41.9	(32)	7.3%	(3)	8,663	(51)	64.2	(21)
Kentucky	4,146	(32)	928.0	(39)	213	(28)	5.1%	(12)	47.7	(28)	4.2%	(21)	10,990	(44)	35.0	(33)
Louisiana	27,068	(9)	5,822.6	(6)	1,740	(9)	6.4%	(5)	374.3	(5)	1.4%	(46)	31,518	(5)	78.2	(17)
Maine	1,023	(45)	761.0	(45)	51	(42)	5.0%	(14)	37.9	(34)	2.4%	(41)	13,360	(32)	15.7	(44)
Maryland	19,487	(13)	3,223.3	(12)	945	(12)	4.8%	(15)	156.3	(10)	5.7%	(7)	17,486	(21)	137.1	(9)
Massachusetts	56,462	(3)	8,124.6	(3)	3,003	(4)	5.3%	(11)	432.1	(4)	5.6%	(9)	35,854	(3)	345.7	(3)
Michigan	38,210	(7)	3,826.0	(9)	3,407	(3)	8.9%	(1)	341.1	(6)	2.4%	(42)	16,391	(23)	88.8	(16)
Minnesota	3,816	(34)	676.6	(46)	286	(21)	7.5%	(4)	50.7	(22)	7.0%	(4)	11,085	(43)	34.1	(35)
Mississippi	6,094	(25)	2,047.6	(17)	229	(25)	3.8%	(27)	76.9	(17)	4.5%	(19)	21,234	(16)	75.9	(19)
Missouri	7,239	(22)	1,179.5	(32)	300	(20)	4.1%	(22)	48.9	(26)	3.2%	(29)	11,647	(42)	32.8	(37)
Montana	449	(50)	420.1	(51)	14	(48)	3.1%	(36)	13.1	(46)	0.5%	(51)	12,511	(35)	2.1	(51)
Nebraska	3,358	(35)	1,735.9	(20)	56	(40)	1.7%	(47)	28.9	(39)	13.1%	(1)	12,480	(36)	126.3	(10)
Nevada	4,690	(29)	1,522.7	(22)	219	(27)	4.7%	(17)	71.1	(19)	2.8%	(36)	16,361	(24)	39.9	(31)
New Hampshire	1,938	(42)	1,425.3	(25)	60	(38)	3.1%	(37)	44.1	(31)	4.1%	(23)	14,680	(27)	51.6	(26)
New Jersey	111,188	(2)	12,518.1	(2)	6,044	(2)	5.4%	(10)	680.5	(2)	3.0%	(33)	25,602	(9)	360.0	(1)
New Mexico	2,823	(39)	1,346.3	(28)	104	(36)	3.7%	(29)	49.6	(25)	5.0%	(14)	28,103	(7)	58.0	(23)
New York	298,004	(1)	15,318.7	(1)	22,623	(1)	7.6%	(3)	1,162.9	(1)	2.6%	(39)	42,108	(2)	337.1	(4)
North Carolina	9,415	(20)	897.7	(42)	336	(19)	3.6%	(30)	32.0	(38)	4.7%	(17)	10,824	(45)	34.7	(34)
North Dakota	942	(46)	1,236.1	(31)	19	(46)	2.0%	(45)	24.9	(41)	6.8%	(5)	29,824	(6)	59.1	(22)
Ohio	16,325	(14)	1,396.6	(26)	753	(15)	4.6%	(19)	64.4	(20)	2.9%	(35)	10,255	(48)	41.6	(29)
Oklahoma	3,280	(37)	828.9	(44)	197	(29)	6.0%	(6)	49.8	(24)	2.5%	(40)	13,530	(30)	21.7	(43)
Oregon	2,354	(40)	558.1	(48)	92	(37)	3.9%	(26)	21.8	(43)	2.7%	(38)	12,543	(34)	13.5	(46)
Pennsylvania	43,155	(6)	3,371.0	(11)	1,860	(7)	4.3%	(21)	145.3	(11)	3.2%	(30)	15,903	(25)	103.1	(12)
Rhode Island	7,708	(21)	7,276.1	(5)	233	(24)	3.0%	(39)	219.9	(8)	5.7%	(6)	52,891	(1)	353.0	(2)
South Carolina	5,613	(28)	1,090.2	(35)	177	(32)	3.2%	(35)	34.4	(36)	3.3%	(28)	10,522	(46)	32.6	(38)
South Dakota	2,245	(41)	2,537.7	(13)	11	(49)	0.5%	(51)	12.4	(48)	3.9%	(25)	18,045	(19)	90.4	(15)
Tennessee	9,918	(19)	1,451.4	(24)	184	(31)	1.9%	(46)	26.9	(40)	4.8%	(16)	23,215	(14)	56.0	(24)
Texas	25,516	(11)	880.0	(43)	672	(17)	2.6%	(42)	23.2	(42)	3.5%	(27)	10,418	(47)	28.1	(41)
Utah	4,233	(30)	1,320.4	(30)	41	(44)	1.0%	(50)	12.8	(47)	4.2%	(22)	32,901	(4)	45.5	(27)
Vermont	855	(47)	1,370.2	(27)	47	(43)	5.5%	(9)	75.3	(18)	0.8%	(48)	24,118	(12)	8.9	(48)
Virginia	13,535	(18)	1,585.7	(21)	458	(18)	3.4%	(34)	53.7	(21)	5.7%	(8)	9,530	(50)	76.1	(18)
Washington	13,686	(17)	1,797.3	(19)	765	(14)	5.6%	(8)	100.5	(15)	1.8%	(45)	24,633	(11)	30.0	(40)
West Virginia	1,063	(44)	594.8	(47)	36	(45)	3.4%	(32)	20.1	(44)	2.0%	(44)	23,531	(13)	12.9	(47)
Wisconsin	6,081	(26)	1,044.4	(37)	281	(22)	4.6%	(18)	48.3	(27)	4.6%	(18)	11,663	(41)	38.8	(32)
Wyoming	520	(49)	898.5	(41)	7	(51)	1.3%	(49)	12.1	(50)	3.1%	(32)	14,037	(28)	22.7	(42)
United States	987,160		3,006.9		55,413		5.6%				3.8%		16,527		94.4	

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"Strategic Guidance in an Era of Unprecedented Change"

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State-By-State Readiness For Relaxing Restrictions

Update To Correct For Single Data Discrepancy Regarding Alabama's New Infection Rate Scoring

On Sunday, we introduced a scorecard to provide a snapshot of each state's readiness for relaxing restrictions on businesses and individuals. We discovered a single coding discrepancy that impacted the rating assigned to the state of Alabama for its new infection rate. The corrected slide is provided on the following page. We regret any inconvenience this error may have caused.

* * * * * * * * * * * * *

The following measures into to a readiness scorecard, (along with the rationale for the scoring within each measure):

- Tests/Capita indicates testing robustness; grading quintiles based on comparison to: the top 5, top 1/3, top 1/2 and top 2/3 among the countries we track, then all others
 - o Direction whether test volume increased/stayed level, or decreased least week v. prior week
- Test-Positive Rate indicates whether testing is identifying sufficient numbers of non-infected persons; grading based on: comparison to best reported in the world (South Korea, Australia, New Zealand), next group of countries (Canada, Germany, Denmark), then, next 3 levels set to differentiate among states
 - o Direction whether test positive rate increased/stayed level, or decreased least week v. prior week
- New Infections / 1 Million indicates how quickly the virus is spreading; grading based on: rate proposed by IHME for ending social distancing, top ten, top 20, top 25 among the countries we track, then all others
 - Direction whether new infection per capita rate increased/stayed level, or decreased least week
 v. prior week
- Influenza-Like Illness Using CDC-reported data, indicates whether the state's visits for influenza the past week were above or below CDC baseline for the state's region
 - O Direction whether the % visits for influenza the last 3 weeks increased or decreased the past 3 weeks v. the prior 3 weeks
- Hospital Resources using IHME projections, whether the state is pre- or post- peak projected hospital resource needs due to the virus; and the 5 of peak resources projected to be needed today. Grading based on: current need at <45% of peak, 45-60%, 60-75%, 75-85%, and all others.

The scorecard, as of Sunday is presented on the next page.

These scorecards are for informational purposes only. The measures and grading used are not based on any scientific standard and should not be considered a substitute for public health considerations or other clinical or economic judgement. States may elect to move faster or slower than the scorecard might otherwise indicate.



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State-By-State Relative "Readiness" For Relaxing Restrictions (DRAFT)
As of: 4/26/2020

This table compares each state, based on measures similar to the gating criteria included in the federal government's *Opening Up America Plan*. This chart is for informational purposes only, and should not be construed as as a substitute for public health considerations, clinical judgement or as a recommendation for taking any specific action.

State	Tests / Capita		Test-Posi	tive Rate	New Infection	ns / 1 Million	Influenza-	Hospital	
	#	Direction	#	Direction	#	Direction	Baseline	Direction	Resources
Alabama		Ø		0		0	Ø	Ø	
Alaska		Ø		Ø		②	Ø	8	
Arizona		Ø		8		8	②		
Arkansas		Ø		Ø		8	Ø	②	
California		Ø		Ø		8	Ø	②	
Colorado		Ø		Ø		0	Ø	Ø	
Connecticut		Ø		②		8	8		
Delaware		Ø		8		1	Ø	Ø	
District Of Columbia		Ø		Ø		8	8		
Florida		Ø		Ø		1	1	8	
Georgia		Ø		0		(1)	8	Ø	
Hawaii		Ø		Ø			Ø	0	
Idaho		Ø		Ø		Ø	8	Ø	
Illinois		Ø		Ø		0	8	Ø	
Indiana		0		0		0	Ø	0	
Iowa		0		8		0	0	0	
Kansas		0		8		8	8	0	
Kentucky		0		0		8	Ø	0	
Louisiana	29.900.7	Ø		8		Ø	8	Ø	
Maine		0		8		0	Ø	0	
Maryland		0		0		0	8	0	
Massachusetts	32,641.9	Ø		Ø		8	8	Ø	
Michigan	,	0		0		0	0	0	
Minnesota		0		8		0	0	0	
Mississippi		0		8		8	0	0	
Missouri		0		0		0	0	0	
Montana		0		0		0	0	0	
Nebraska		0		8		0	8	0	
Nevada		0		8		0	0	0	
New Hampshire		0		0		0	0	0	
New Jersey		0		0		8	8	0	
New Mexico		0		0		8	0	0	
New York	39 970 5	0		0		0	8	0	
North Carolina	33,370.3	0		0		0	0	0	
North Dakota	25,391.6	0		0		8	0	0	
Ohio	22,232.0	0		0		8	0	0	
Oklahoma		0		0		0	0	0	
Oregon		0		0		0	8	0	
Pennsylvania		0		0		0	8	0	
Rhode Island	48.039.3	0		0		Ø	0	0	
South Carolina	,0.5.5	0		0		0	8	0	
South Dakota		0		0		0	0	0	
Tennessee		0		0		0	0	0	
Texas		0		0		0	0	0	
Utah	28 137.0	0		0		8	0	0	
Vermont	20,237.10	0		0		0	8	0	
Virginia		0		0		8	8	0	
Washington		0		8		Ø	Ø	0	
West Virginia		0		0		0	0	0	
Wisconsin		0		8		0	8	0	
Wyoming		0		8		Ø	⊗	0	
wyoning				a					

Legend and notes are on the second following page.



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Legend:

	Tests per Capita	Direction	Test-Positive Rate	Direction	New Daliy Infection Rate	Direction	Baseline	Direction	Hospital Resources
	pe	per 1M		last 7 days v		1M	CDC Baseline by	last 3 weeks v	
Time perio	d last 7 days	last 7 days v prior week	last 7 days	prior week	last 7 days	last 7 days v prior week	region	prior 3 weeks	As of 4/26
	> 25,000		<=2%		<10				<45% of Peak
	18-25,000		2-10%		10-50				45-60% of Peak
	12-18,000		10-14%		50-100				60-75% of Peak
	9-12,000		14-18%		100-150				75-85% of peak
	<9,000		>18%		>15				>85% of Peak or Pre-Peak
		Up		Down		Down by 40%	Below Baseline	Down	
						Down by 10%		N/A	
8		Down		Up		Down <10% or Up	Above Baseline	Up	

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Sources:

Influenza guidelines and data from Centers fo Disease Control (https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html), accessed April 25, 2020

 $Test\ data\ from\ Covid\ Tracking\ Project\ (\underline{https://covidtracking.com/}),\ accessed\ March\ 21-April\ 25,\ 2020$

 $Hospital\ resource\ Need\ projections\ from\ Institute\ for\ Health\ Metrics\ and\ Evaluation\ (),\ accessed\ April\ 25,\ 2020$

Infection rate data from World Health Organization (worldometer.info), accessed March 21-April 25, 2020

$Articles\, of interest:$

"What does doing enough coronavirus testing look like? Here's a number to watch", Patrick Cain, msn.com, (https://www.msn.com/en-ca/news/canada/what-does-doing-enough-coronavirus-testing-look-like-heres-a-number-to-watch/ar-BB138Hf4?li=AAggXBV), accessed April 24, 2020

"A New Statistic Reveals Why America's COVID-19 Numbers Are Flat", Robinson Meyer and Alexis C. Madrigal, April 16, 2020, The Atlantic, accessed April 24, 2020



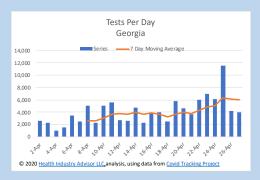
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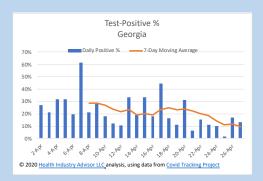
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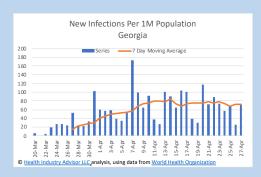
Georgia

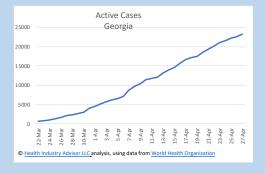
Analysis:

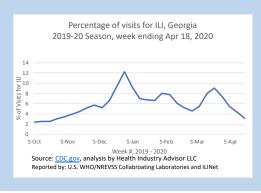
- Testing levels increasing
- Test Positivity rate declining, however still >10%
- New infection rate level
- Active cases yet to peak
- ▲ Influenza cases declining
- ▼ Hospital resource at peak

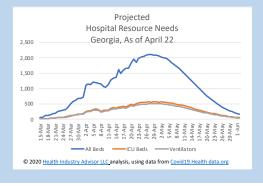












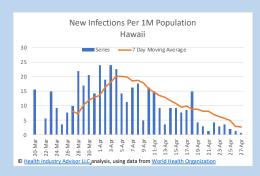


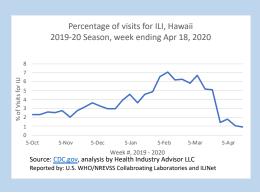
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Hawaii

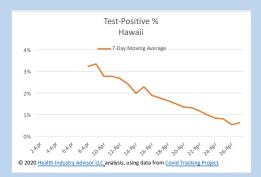
Tests Per Day Hawaii 2,000 Series 7. Day Moving Average 1,600 1,600 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 800 1,000 1,000 800 1,000 1,000 800 1,000 1,000 800 1,000 1,000 1,000 1,000 800 1,000 1

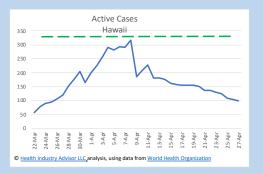




Analysis:

- ▲ Testing levels declining yet, at high rate per capita
- Test Positivity rate declining and at a low level
- New infections trending down
- ▲ Active cases past-peak, very low
- Influenza cases declining
- A Hospital resource needs past peak; declining rapidly





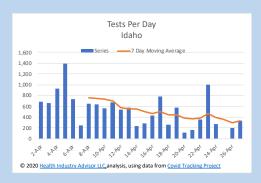


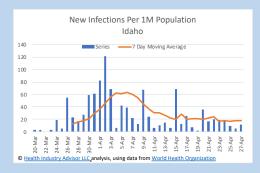


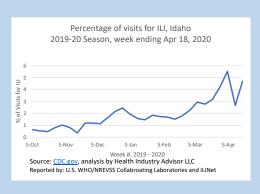
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Idaho



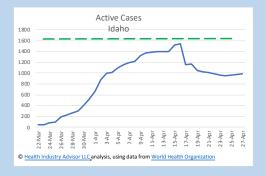




Analysis:

- Testing levels decreasing
- Test Positivity stable yet, above 10%
- New infections down and at low rate
- Active cases yet to peak
- ▼ Influenza cases increasing
- ▲ Hospital resource needs well past peak







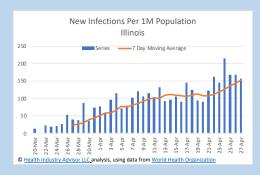


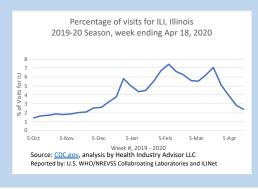
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Illinois

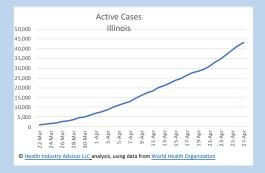
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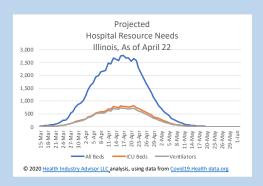




- Testing levels increasing
- Test-Positivity rate declining yet, still high
- V New infections trending up
- ▼ Active cases yet to peak
- Influenza cases declining
- A Hospital resource needs past peak; declining rapidly





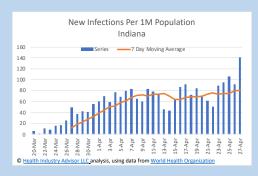


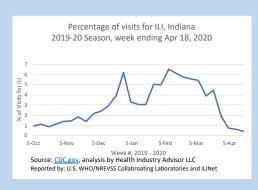


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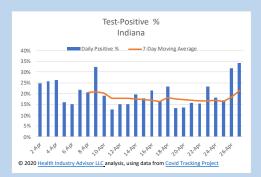
Indiana

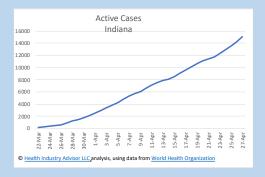




Analysis:

- Testing levels increasing
- ▼ Test-Positivity rate increasing; at a high level
- ▼ New infections trending up
- Active cases yet to peak
- ▲ Influenza cases declining
- ▼ Hospital resource needs at peak





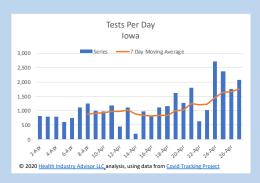


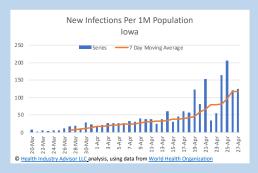


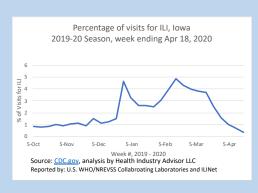
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Iowa

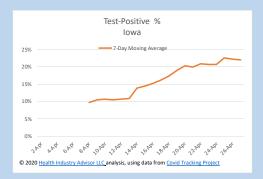


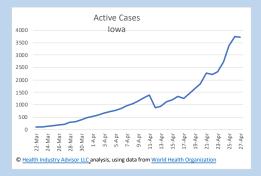




Analysis:

- Testing levels increasing
- Test-Positivity rate is high and increasing
- ▼ New infections trending up
- Active cases nearing a peak?
- Influenza cases declining
- ▼ Hospital resource needs yet to peak







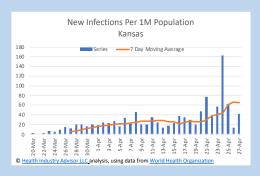


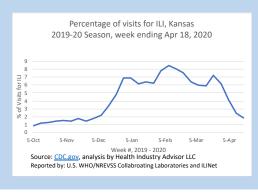
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Kansas

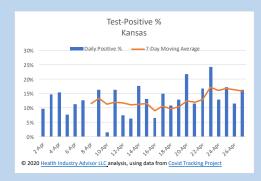
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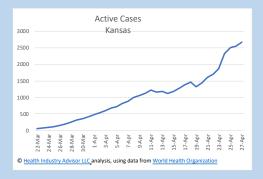


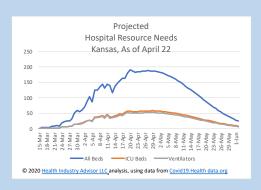


Analysis:

- Testing levels increasing
- Test-Positivity rate high and trending up
- New infections trending up yet, at a relatively low level
- ▼ Active cases yet to peak
- ▲ Influenza cases declining
- ▼ Hospital resource at or near peak





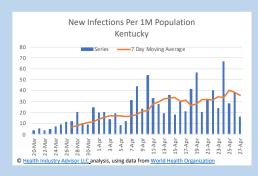


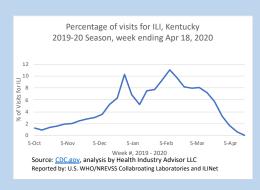


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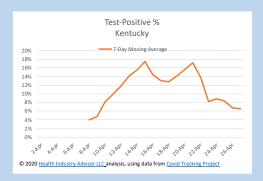
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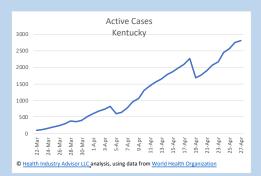
Kentucky

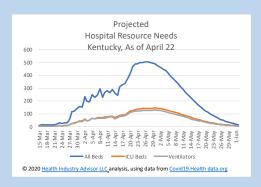




- Testing levels increasing
- Test-Positivity rate declining
- New infections trending up
- Active cases yet to peak
- Influenza cases declining
- ▼ Hospital resource needs at or near peak







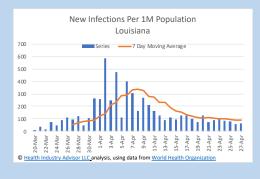


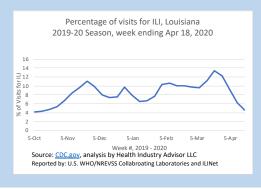
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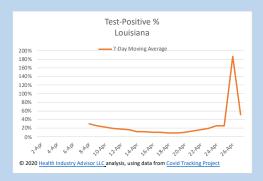
Louisiana

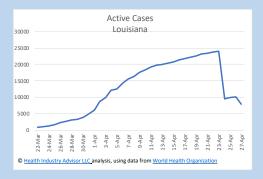
Tests Per Day Louisiana 12,000 Tests 7-Day Moving Average 10,000 8,000 4,000 2,000 4,000 -4,000 -6,000 © 2020 Health Industry Advisor ILC analysis, using data from Covid Tracking Project

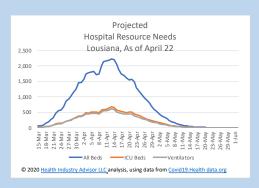




- Testing has been inconsistent the past week
- Testing has been inconsistent the past week
- New infections trending down, still relatively high
- Active cases appear to be past peak
- ▲ Influenza cases decreasing
- ▲ Hospital resource needs well past peak





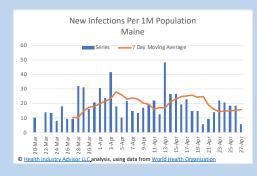


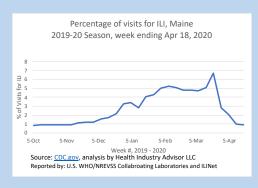


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Maine





- ▲ Testing levels declining; relatively low per capita
- ▲ Test-Positivity rate declining and at a low level
- New infections trending down, at low level
- Active cases appear to have peaked
- ▲ Influenza cases declining
- ▲ Hospital resource needs past peak

