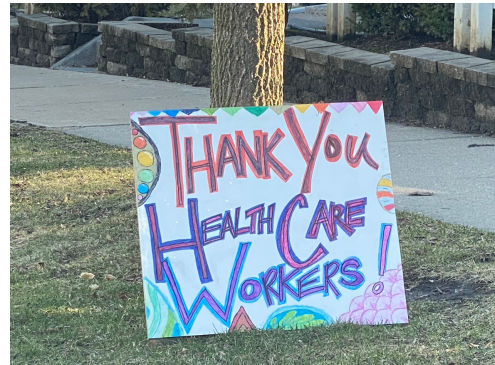
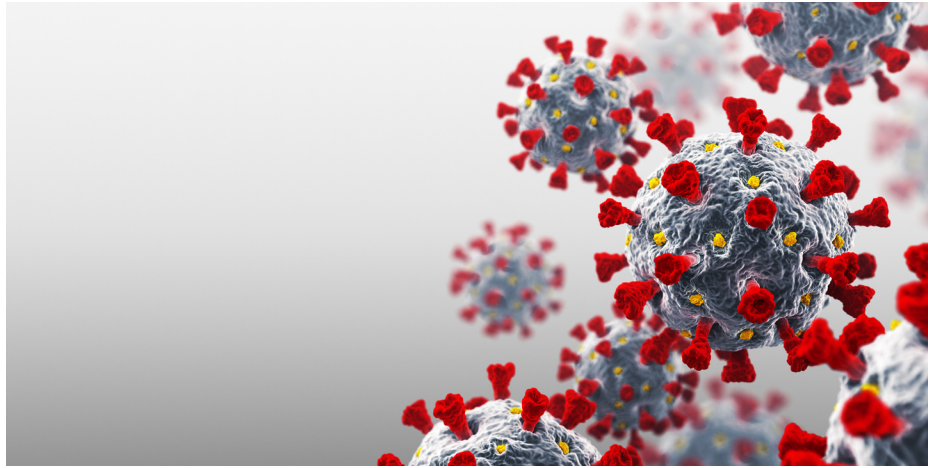
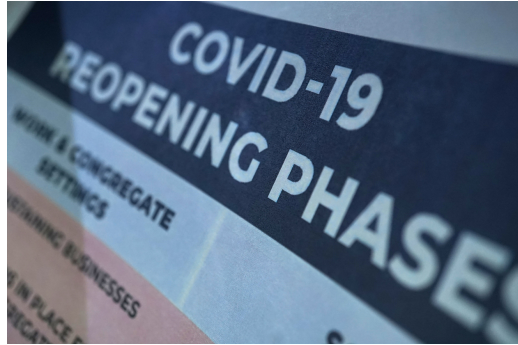




COVID-19 Report

Issue # 115

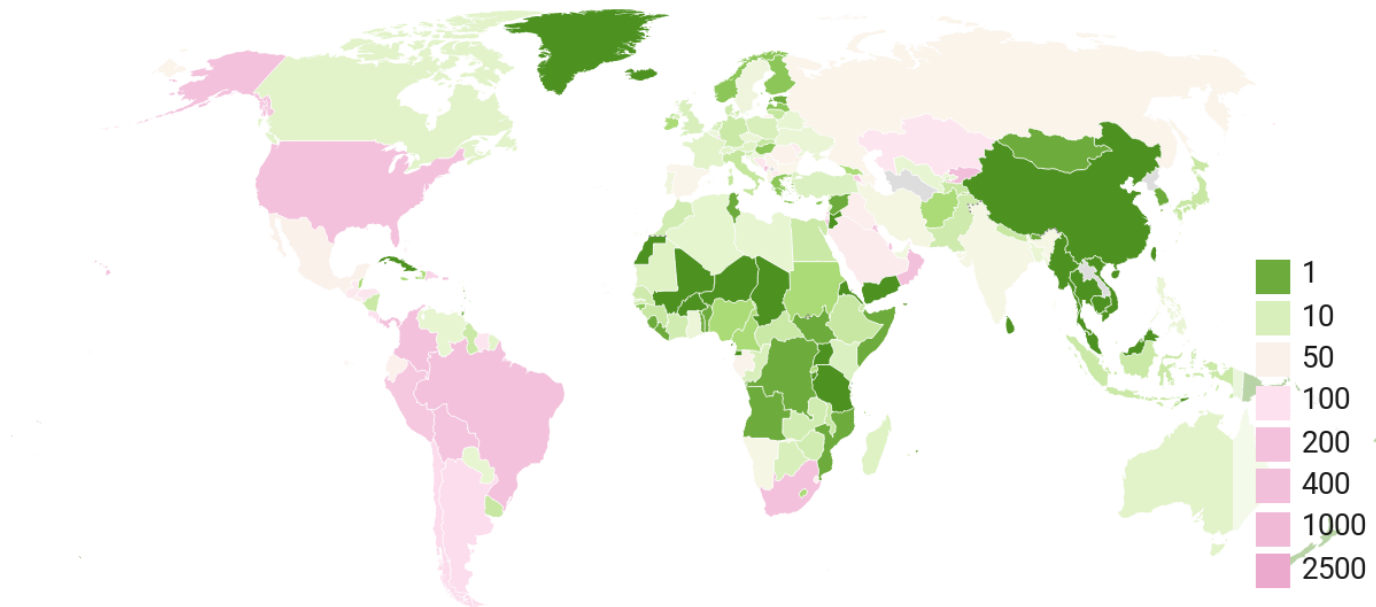
Friday, July 25, 2020

-
- The headline will be the record number of new cases reported in the United States yesterday - more than 78,000. The story, however, is more nuanced
 - A new record also was set for testing - more than 1M. This is 18% higher than the previous record. So, to what degree is the spike in new cases due to infection spread? And, to what degree is it due to the number of tests performed? Let's drill deeper:
 - The test-positive rate was 7.2% - only the 3rd time this month it has been below 7.5%
 - New cases were essentially been flat for the 2nd consecutive day (measured on a trailing 7-day moving average basis)
 - New daily infections per capita (training 7-day moving average) peaked 5 days ago; yesterday it was at the same rate as it was 8 days ago. This rate increased by 3x during the prior 4 weeks
 - Hospitalized COVID-19 patients declined yesterday, and have slowed significantly in the past week
 - ER visits with COVID-like illnesses continued a two-week long decline
 - Tragically, more than 1,000 deaths with coronavirus were recorded yesterday - the 4th consecutive day these exceeded 1,000. We should not expect to see a decline in this rate until 1-2 weeks after new cases exhibit a sustained decline. The death rate, however, fell below 3.5%
 - Thirteen states have new daily infection rates > 200 per million (trailing 7-day moving average). Of these, four - Arkansas, California, Georgia and Mississippi - experienced their highest rate yesterday. Conversely, 7 of the thirteen have gone at least 4 days since their peak
 - On Friday, White House Task Force Coordinator, Dr. Deborah Birx identified 11 cities at risk of a virus breakout, based on test-positive trends. In today's report, we reviewed the new infection rates for these metro areas. Curiously, these did not represent the areas with the highest rate of new infections:
 - Baltimore (29th in new infections per million among large central areas)
 - Cleveland (35th)
 - Columbus (28th)
 - Indianapolis (38th)
 - Las Vegas (5th)
 - Miami (1st)
 - Minneapolis (33rd)
 - Nashville (2nd)
 - New Orleans (25th)
 - Pittsburgh (40th)
 - St. Louis (20th)
 - Counties with the highest new infection rates continue to be concentrated in states in the Southeast, in southeast Texas, in Arizona and in Southern California
 - There does not appear to be significant differences in the new infection rate experience, based on size/type of metro area:
 - The plurality of counties in each size/type have between 100-249 new daily cases per million (trailing 7-day moving average)
 - Small metro areas had the highest % with less than 50 new new daily infections per million
 - Large fringe areas had the lowest % with more than 500 new daily infections per million
-

New Infection Rates over the past 4 weeks are highest in the United States, South Africa and in South American countries closest to the equator

New Infections / 1 Million Population

Trailing 7-Day Moving Average, As of July 24

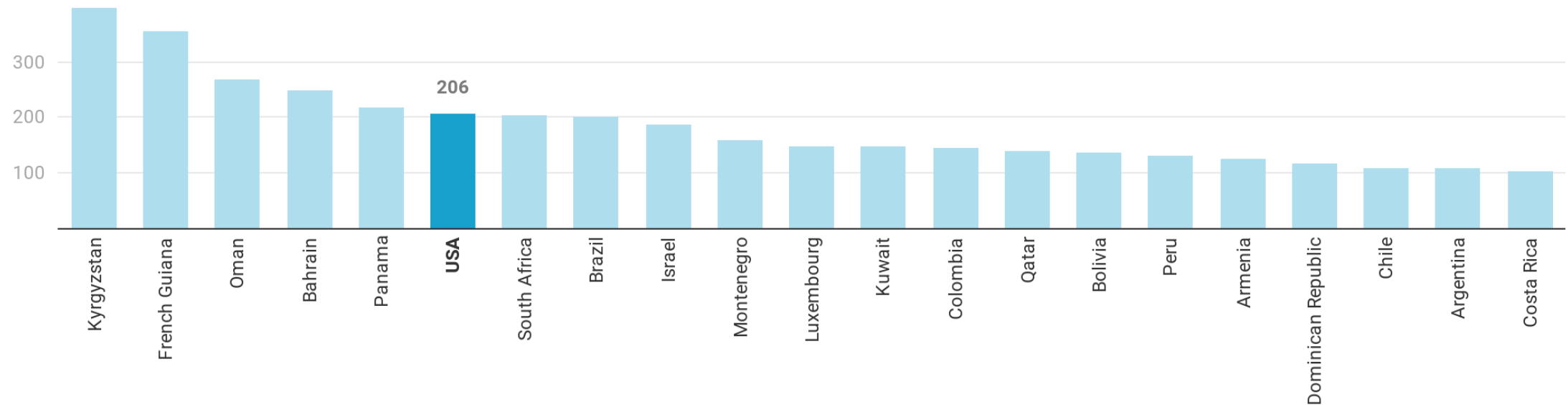


Health Industry Advisor LLC analysis

Map: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

New Daily Infections / Million Population

Trailing 7-Day Moving Average, As of July 24



Health Industry Advisor LLC analysis

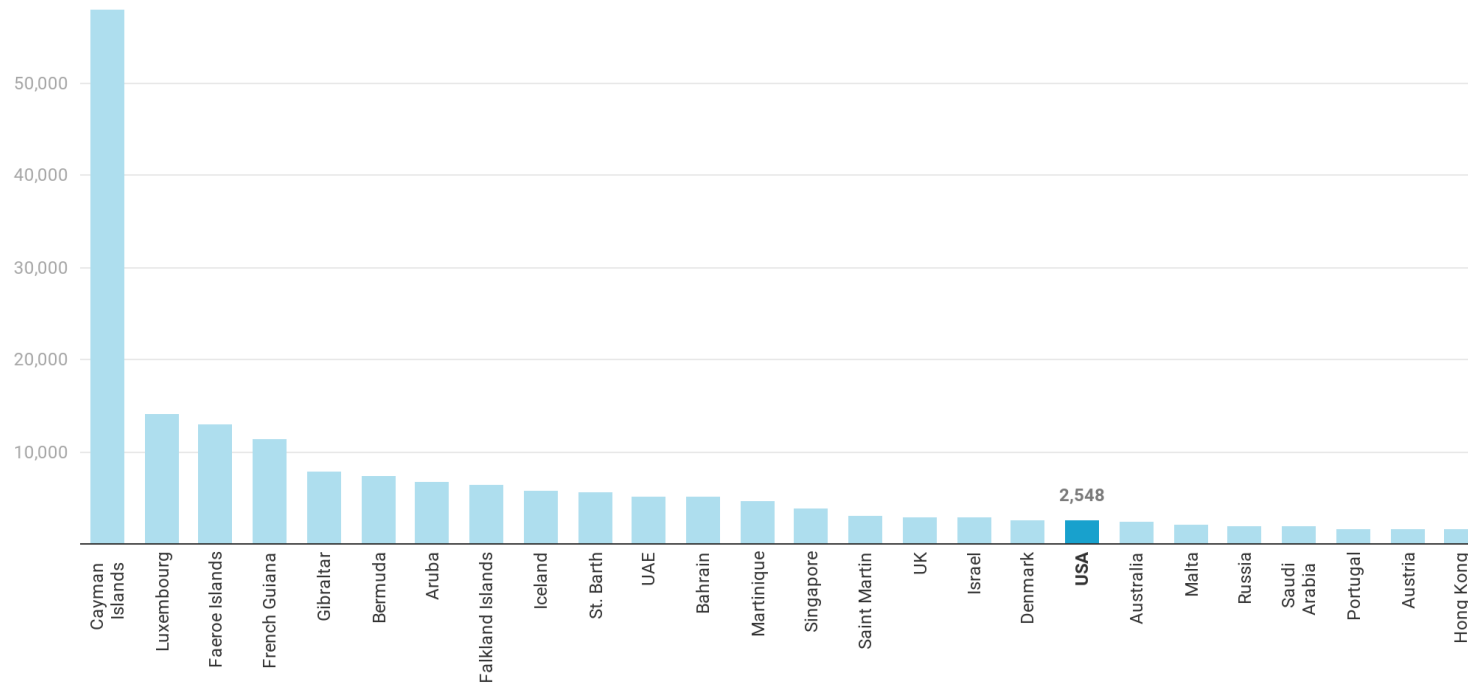
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Worldwide

United States ranks 19th in daily tests per capita; one of 26 countries testing above minimum level suggested by Harvard scientists

Daily Tests / Million Population

Trailing 7-Day Moving Average, As of July 24



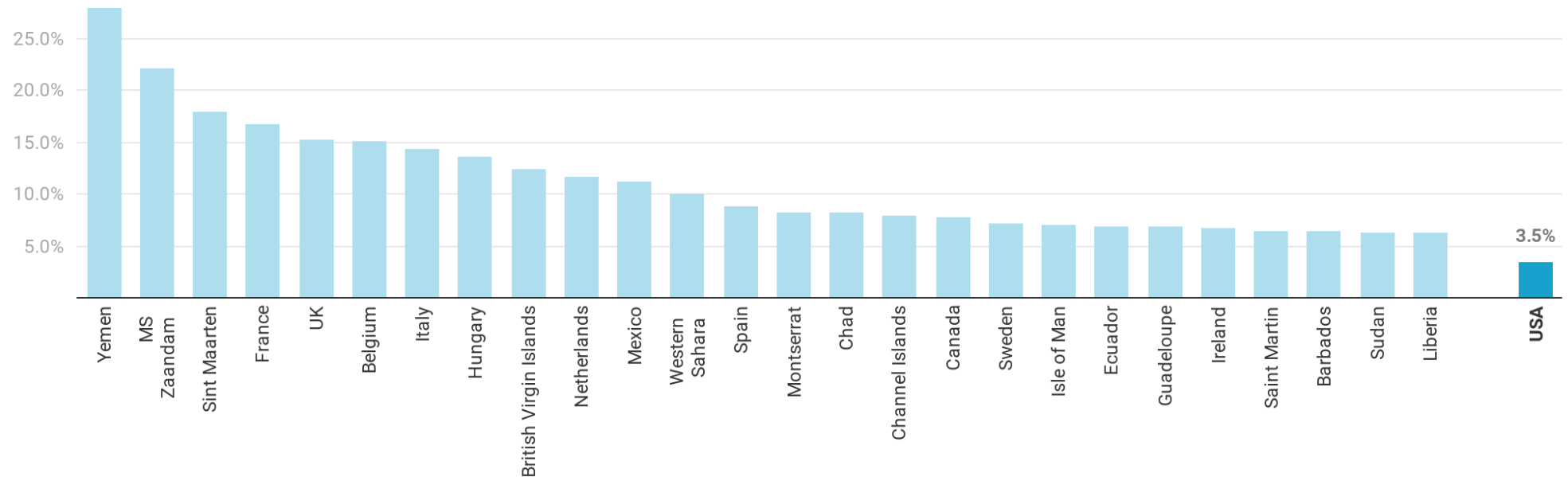
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Worldwide
United States ranks 69th of 213 countries in deaths per case

Deaths Per Case

As of July 24

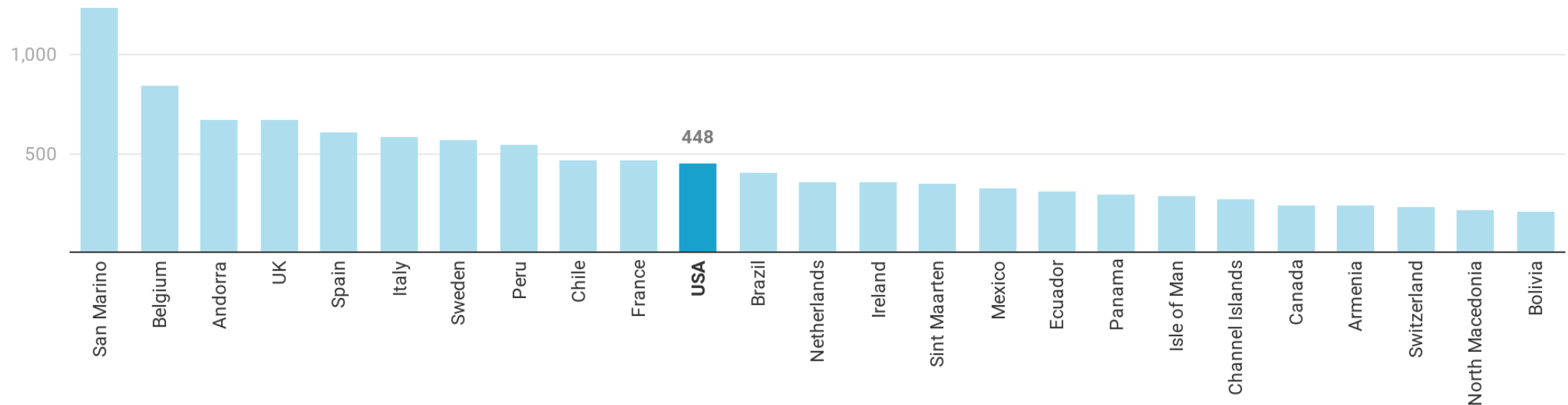


Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Deaths/ Million Population

As of July 23



Health Industry Advisor LLC analysis

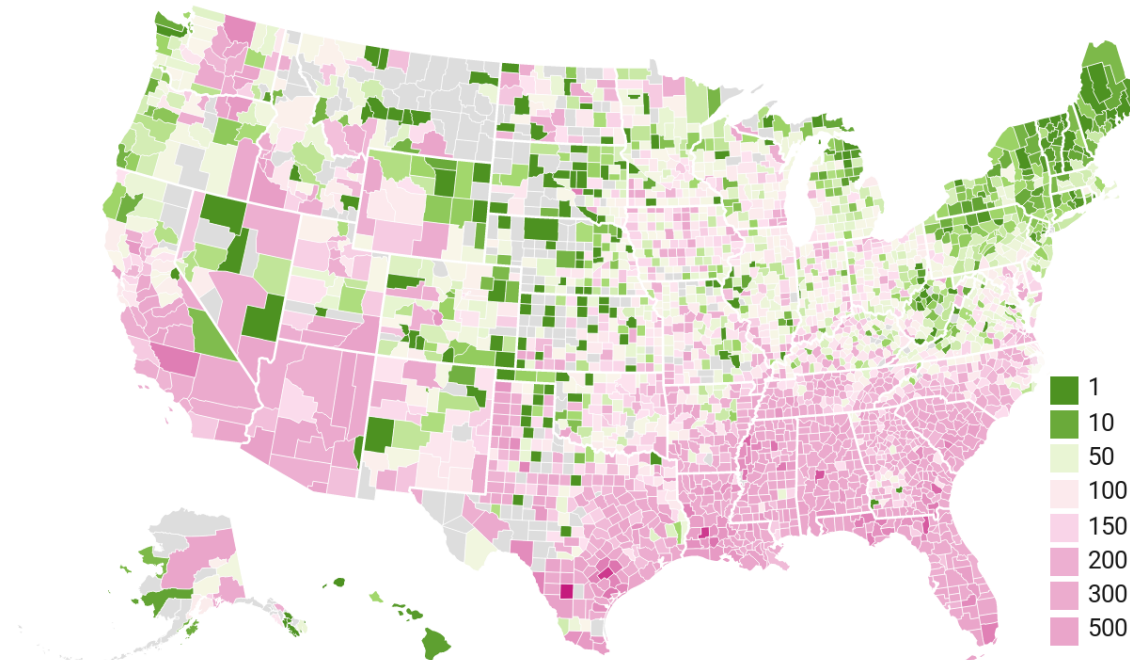
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

County-By-County

New Infections rates are highest in the Southeast, southeastern Texas, Southern California and Arizona

New Daily Infections Per Million Population

Trailing 7-Day Moving Average, As of July 23



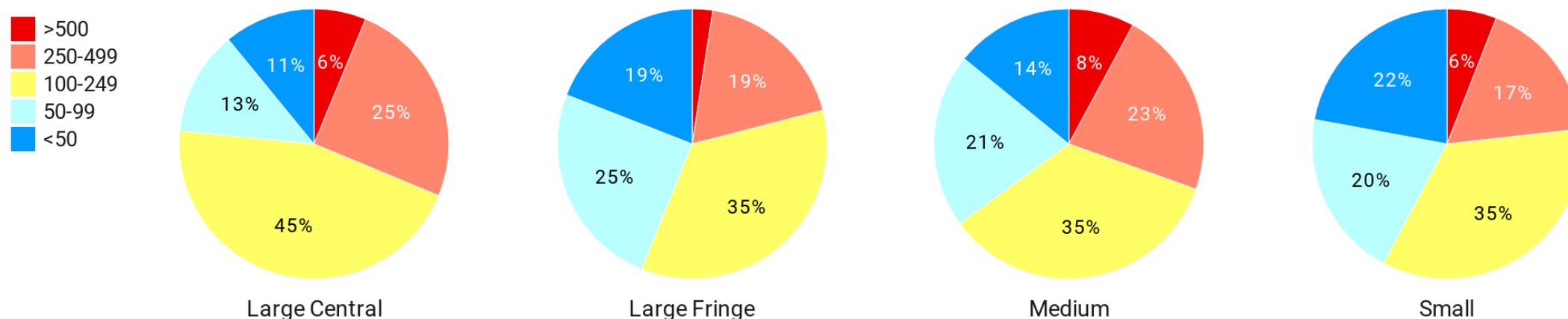
Health Industry Advisor LLC analysis

Map: Health Industry Advisor LLC • Source: New York Times • Created with Datawrapper

For each grouping of metro areas, the plurality have between 100-249 new daily infections per million; relatively few have >500; medium metros have the highest % with >500 new daily infections per million

New Daily Infection Rates By Metro Area Type

Trailing 7-Day Moving Average, As of July 23



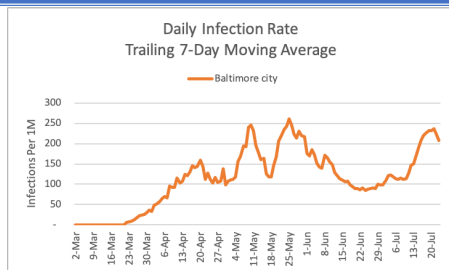
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: various • Created with Datawrapper

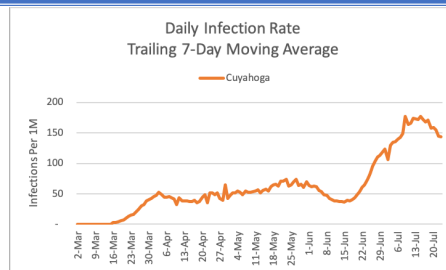
- Large central - metro counties in MSA of 1 million population that: 1) contain the entire population of the largest principal city of the MSA, or 2) are completely contained within the largest principal city of the MSA, or 3) contain at least 250,000 residents of any principal city in the MSA
- Large fringe - metro counties in MSA of 1 million or more population
- Medium - metro counties in MSA of 250,000-999,999 population
- Small - metro counties are counties in MSAs of less than 250,000 population

Dr. Birx: Eleven major cities need to take aggressive steps to mitigate outbreaks

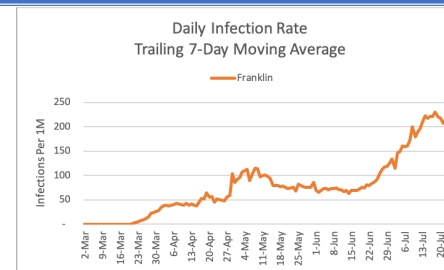
Citing rising test-positive rates, White House Task Force Coordinator, Dr Deborah Birx warned Friday that 11 cities were not doing enough to combat the virus



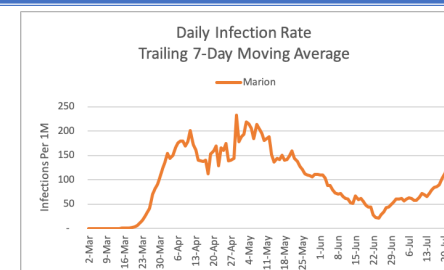
Baltimore



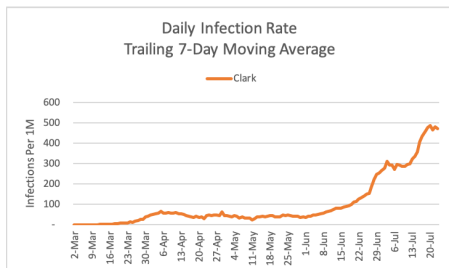
Cleveland



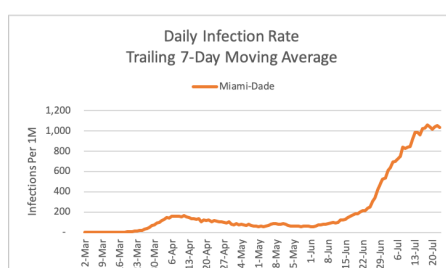
Columbus, OH



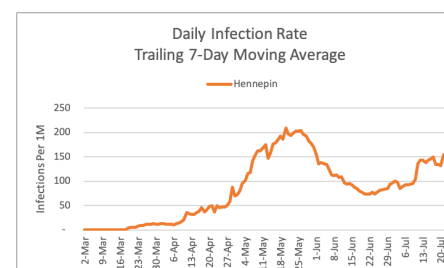
Indianapolis



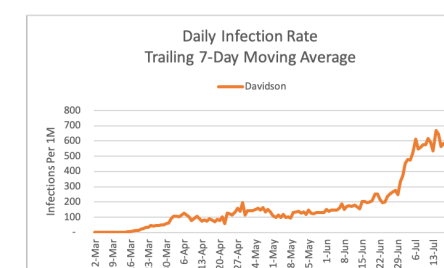
Las Vegas



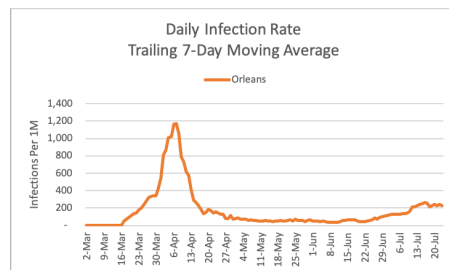
Miami



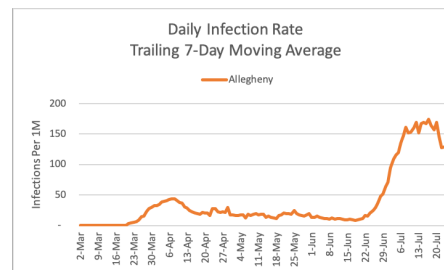
Minneapolis



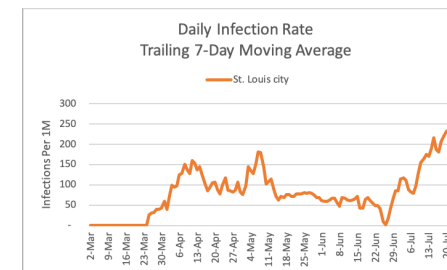
Nashville



New Orleans



Pittsburgh

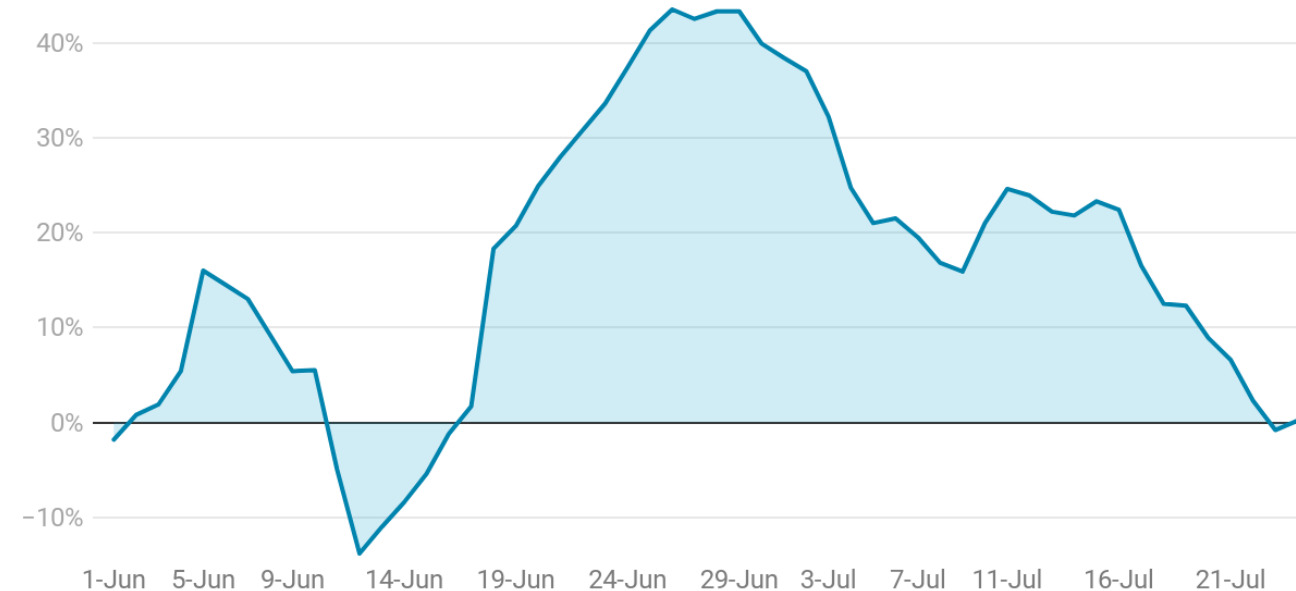


St Louis

Leading Indicator: The rate of growth in new cases has slowed dramatically in the past 4 weeks

Week-Over-Week Change In New Cases

United States, As of July 24



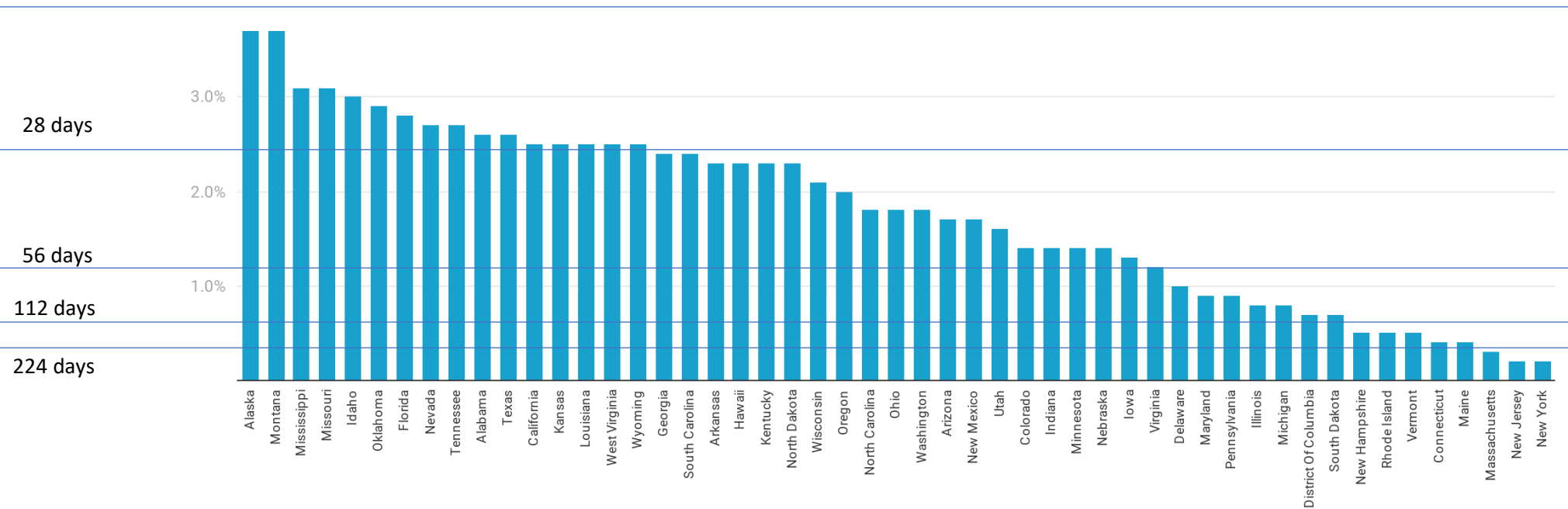
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Growth Rate in Total Cases

Trailing 5-Day Moving Average, As of July 24

14 days to double

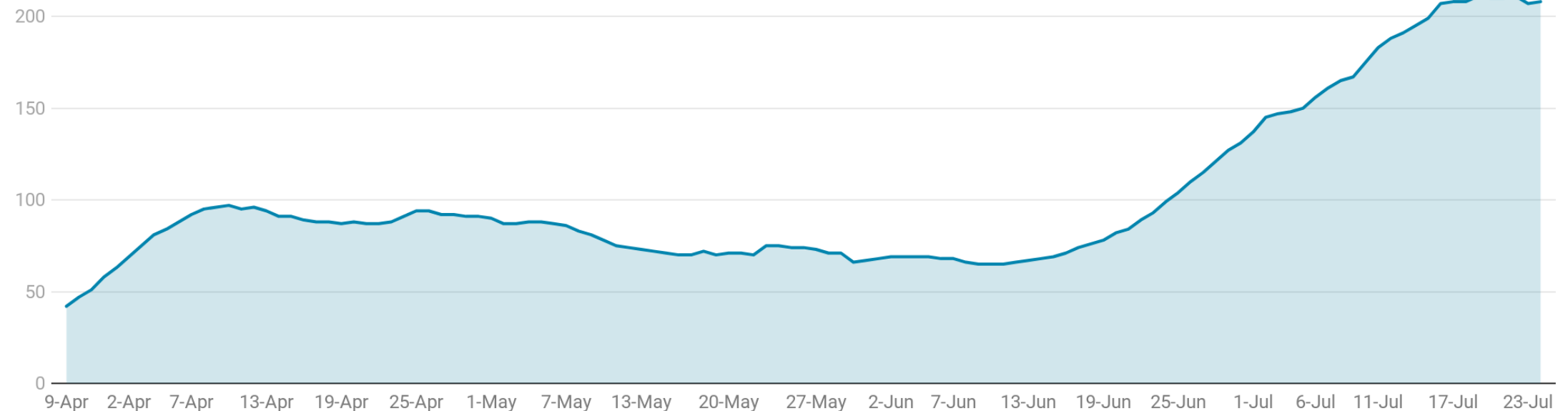


Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, As of July 24



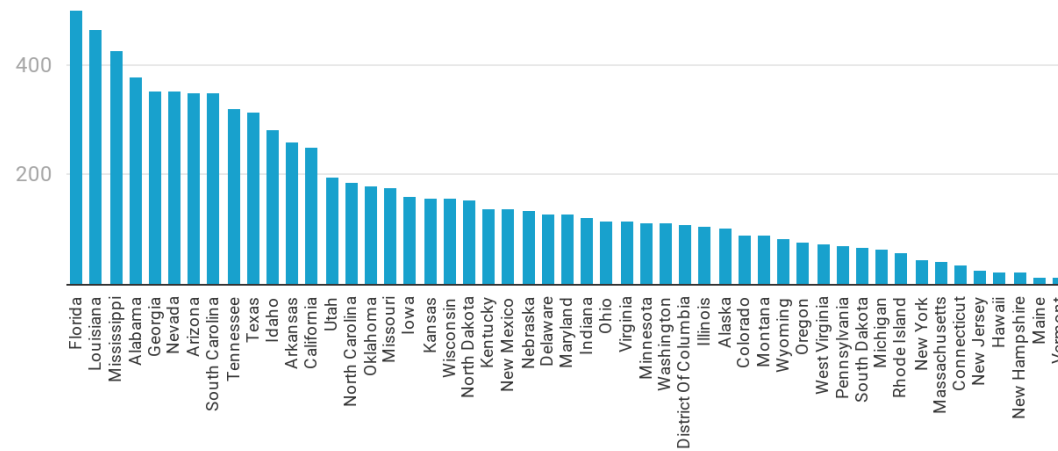
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

The new daily infection rate remains high in several states; 6 of 13 states with highest rates are at least 5 days past peak; 4 are still at peak

New Daily Infections / Million Population

Trailing 7-Day Moving Average, As of July 24

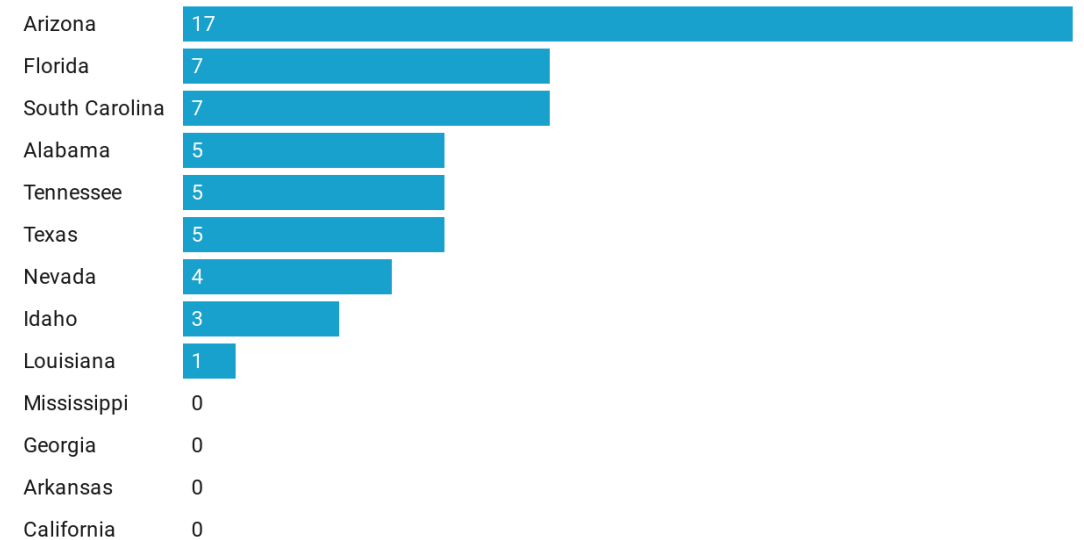


Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Days Since Peak in New Daily Infection Rate

Trailing 7-Day Moving Average, As of July 24



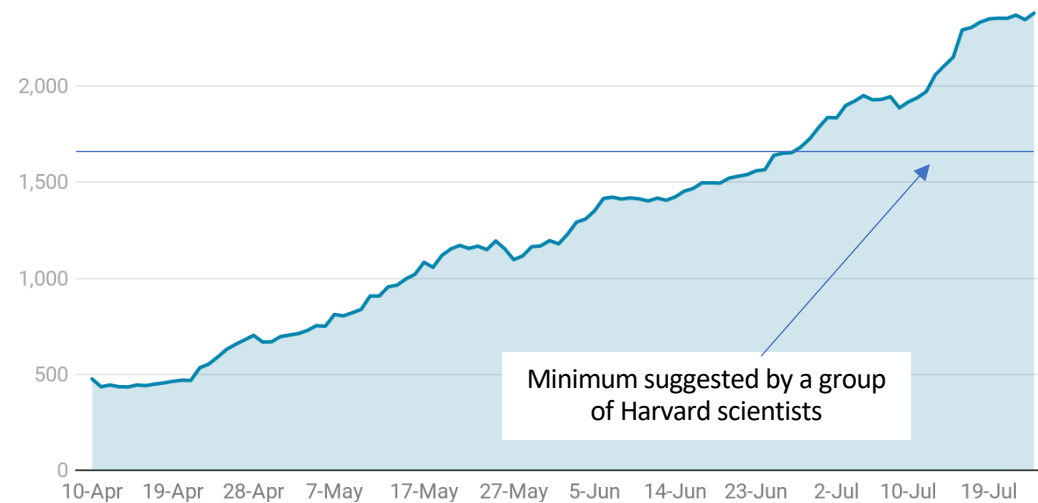
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

1M tests reported on Friday, 18% more than previous daily record; test-positive rate was lowest since July 2

Daily Tests Per 1 Million - United States

Trailing 7-Day Moving Average, As of July 24

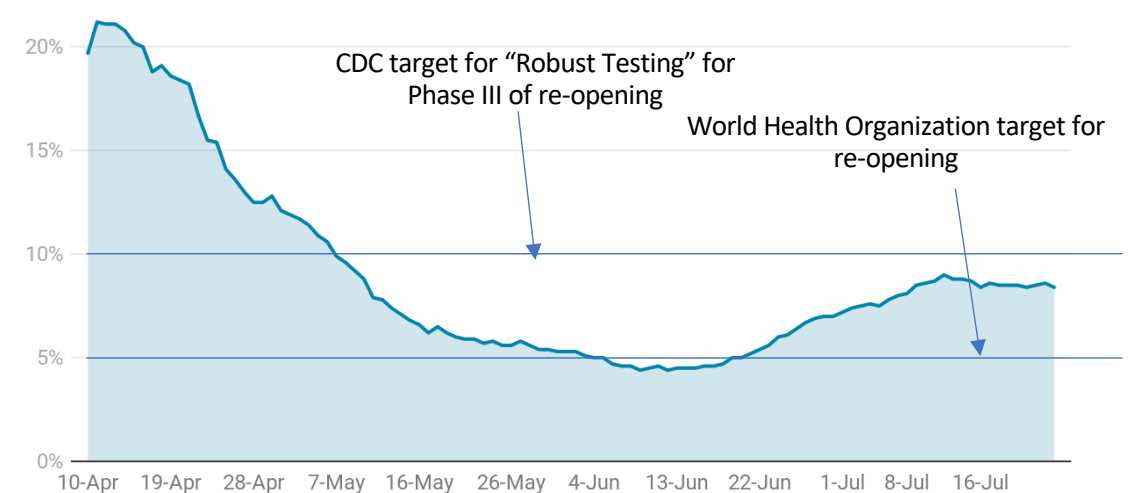


Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Test-Positive Rate - United States

Trailing 7-Day Moving Average, As of July 24



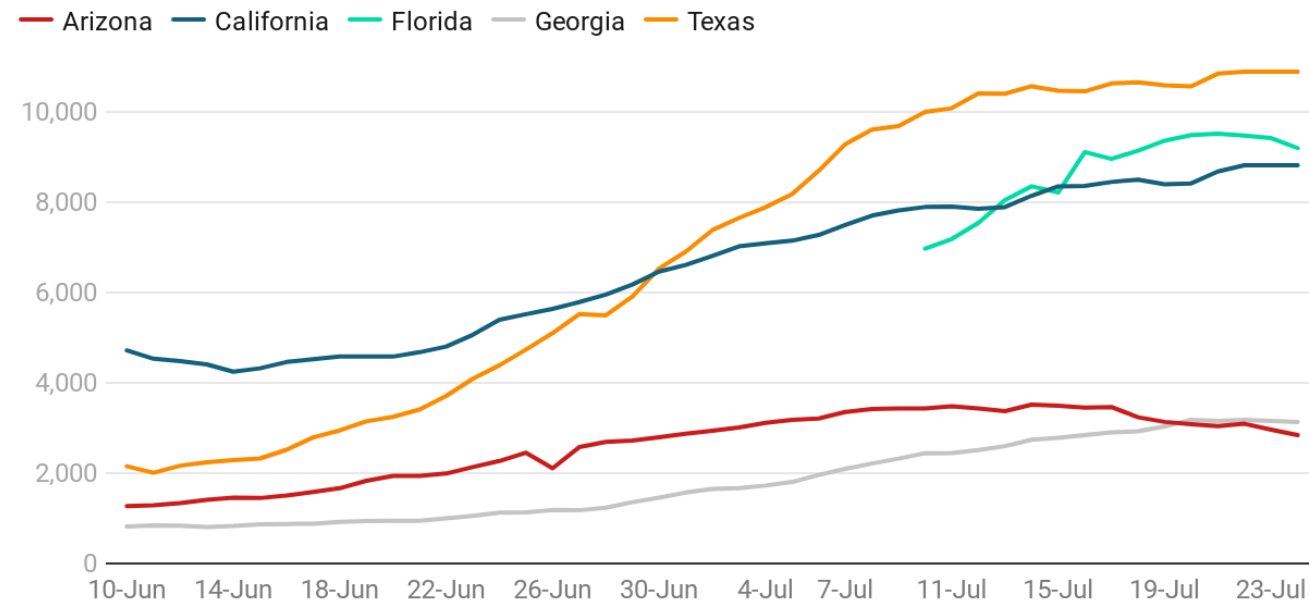
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Hospitalizations: Declining in Arizona; Stabilizing in Georgia, Florida and Texas

Hospitalized COVID-19 Patients

As of July 24



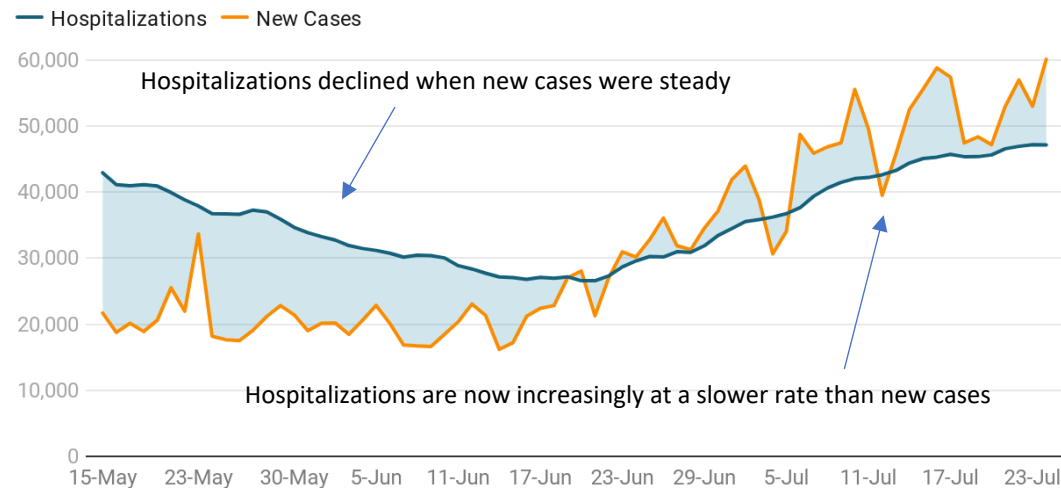
Health Industry Advisor LLC analysis,

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Hospitalizations starting to level, not keeping pace with new cases; Higher % of patients, however, are in the ICU

Hospitalizations v. New Cases

As of July 24



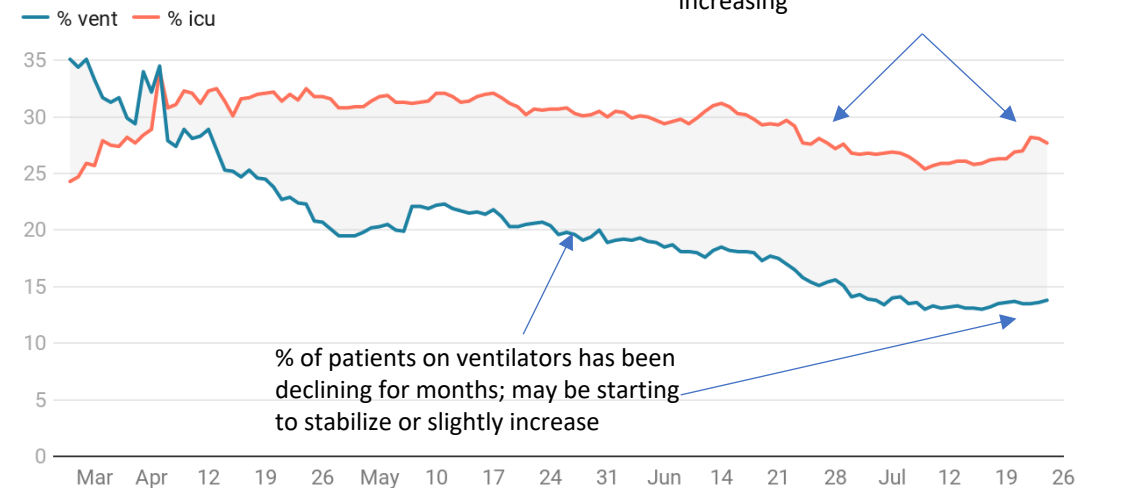
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Data excludes: Alabama, Alaska, Florida, Hawaii, Idaho, Kansas, Nebraska and Tennessee – data either not reported or not consistently reported

Severity of Hospitalized Patients

% of patients on ventilators and in the ICU, As of July 24

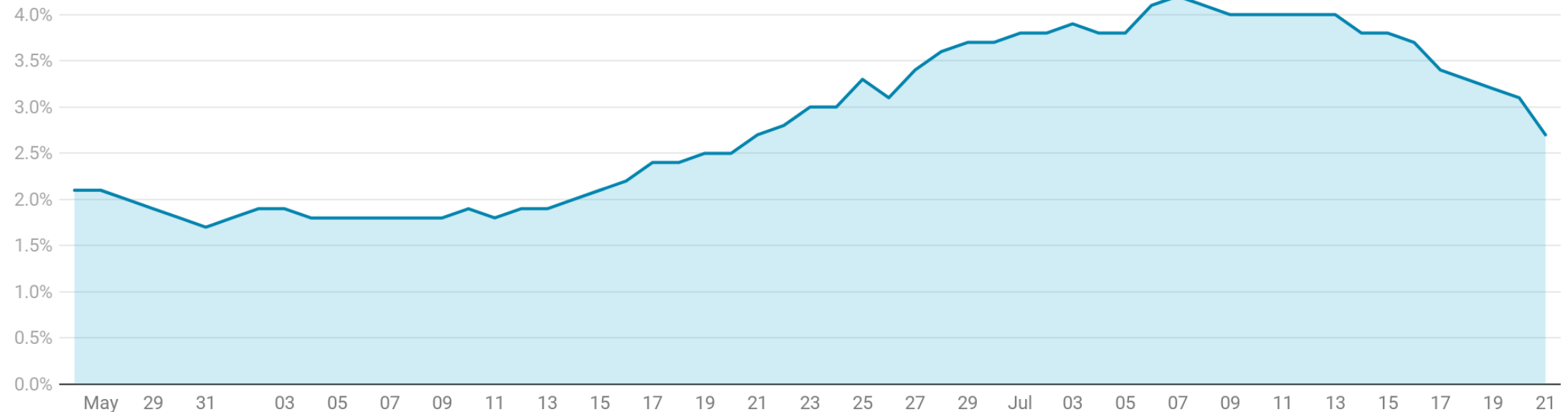


Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

% of Emergency Department Visits for COVID-Like Illness

As of July 21



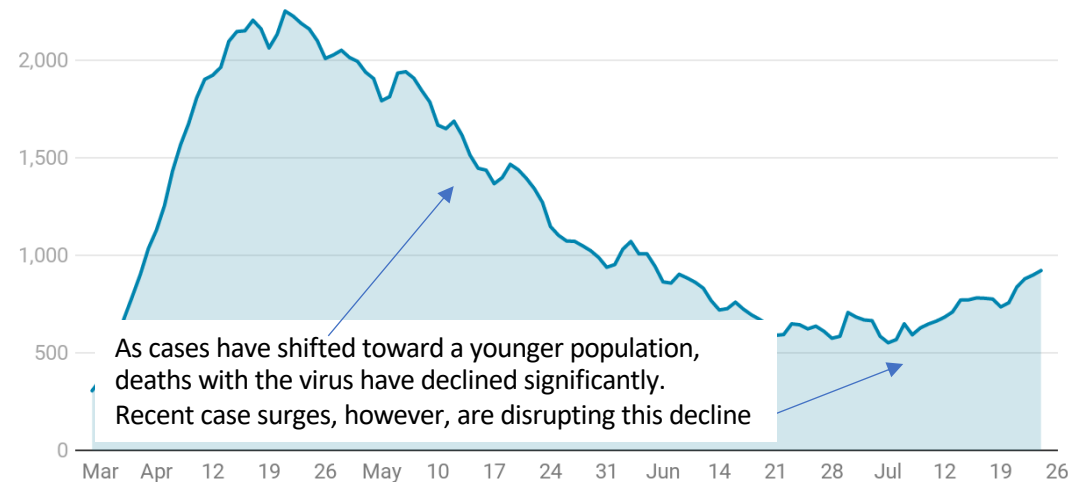
Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: Centers for Disease Control • Created with Datawrapper

Deaths turning back up again; Recoveries outnumber deaths by nearly 14:1

Deaths Recorded With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of July 24

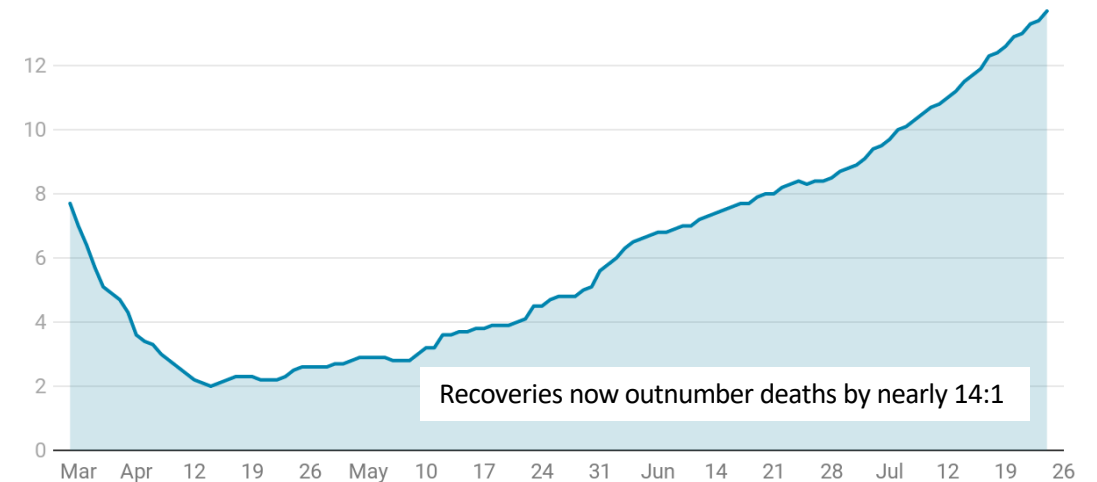


Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Recoveries: Deaths - United States

As of July 24



Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Worldwide Statistical Summary

Top 30 Countries By Total Cases
As of July 24

Country	Total Cases	Rank	Cases per 1M Population	Rank2	Deaths	Rank3	Death Rate	Rank4	Deaths per 1 Million Population	Rank5	5-day Moving Average Case Growth Rate	Rank6	Tests per 1M Population - Past 7 Days	Rank7	New Daily Infections Per 1M Population (7-Day M.A.)	Rank9
USA	4,248,327	(1)	12,830	(10)	148,490	(1)	3.5%	(68)	448.4	(21)	1.7%	(65)	2,548	(19)	206.4	(6)
Brazil	2,348,200	(2)	11,042	(14)	85,385	(2)	3.6%	(62)	401.5	(23)	2.3%	(50)	(0)	(201)	201.2	(8)
India	1,337,022	(3)	968	(101)	31,406	(6)	2.3%	(99)	22.7	(197)	3.6%	(21)	243	(111)	30.7	(52)
Russia	800,849	(4)	5,488	(29)	13,046	(11)	1.6%	(128)	89.4	(91)	0.7%	(117)	1,895	(22)	40.8	(46)
South Africa	421,996	(5)	7,110	(20)	6,343	(17)	1.5%	(134)	106.9	(75)	3.0%	(35)	748	(55)	203.1	(7)
Peru	375,961	(6)	11,393	(13)	17,843	(9)	4.7%	(45)	540.7	(15)	1.2%	(90)	689	(61)	131.7	(16)
Mexico	370,712	(7)	2,873	(61)	41,908	(4)	11.3%	(11)	324.8	(31)	1.8%	(60)	108	(127)	51.7	(40)
Chile	341,304	(8)	17,844	(5)	8,914	(14)	2.6%	(89)	466.1	(17)	0.6%	(127)	858	(48)	110.3	(19)
Spain	319,501	(9)	6,833	(22)	28,432	(8)	8.9%	(13)	608.1	(9)	0.8%	(115)	899	(46)	37.2	(48)
UK	297,914	(10)	4,387	(40)	45,677	(3)	15.3%	(5)	672.6	(7)	0.2%	(167)	2,941	(16)	9.8	(89)
Iran	286,523	(11)	3,409	(51)	15,289	(10)	5.3%	(38)	181.9	(55)	0.9%	(104)	347	(95)	29.0	(54)
Pakistan	270,400	(12)	1,223	(92)	5,763	(19)	2.1%	(108)	26.1	(187)	0.5%	(137)	93	(129)	6.7	(102)
Saudi Arabia	262,772	(13)	7,541	(19)	2,672	(29)	1.0%	(152)	76.7	(101)	0.9%	(103)	1,850	(23)	69.4	(30)
Italy	245,590	(14)	4,062	(43)	35,097	(5)	14.3%	(7)	580.5	(11)	0.1%	(176)	743	(56)	3.8	(124)
Colombia	233,541	(15)	4,587	(38)	7,975	(16)	3.4%	(73)	156.6	(63)	3.4%	(24)	532	(74)	144.2	(13)
Turkey	224,252	(16)	2,657	(64)	5,580	(21)	2.5%	(95)	66.1	(107)	0.4%	(146)	503	(77)	10.9	(85)
Bangladesh	218,658	(17)	1,327	(90)	2,836	(27)	1.3%	(146)	17.2	(205)	1.3%	(83)	73	(135)	16.7	(67)
Germany	205,960	(18)	2,458	(67)	9,201	(13)	4.5%	(48)	109.8	(73)	0.3%	(158)	910	(44)	6.2	(108)
France	180,528	(19)	2,765	(62)	30,192	(7)	16.7%	(4)	462.5	(19)	0.7%	(123)	795	(52)	12.8	(78)
Argentina	153,520	(20)	3,395	(52)	2,807	(28)	1.8%	(117)	62.1	(111)	3.9%	(18)	284	(103)	108.1	(20)
Canada	113,206	(21)	2,998	(57)	8,881	(15)	7.8%	(17)	235.2	(41)	0.5%	(138)	1,055	(36)	13.4	(76)
Qatar	108,638	(22)	38,691	(1)	164	(77)	0.2%	(185)	58.4	(123)	0.4%	(150)	1,480	(27)	139.4	(14)
Iraq	104,711	(23)	2,600	(66)	4,212	(26)	4.0%	(54)	104.6	(79)	2.5%	(45)	476	(82)	58.7	(36)
Indonesia	95,418	(24)	349	(142)	4,665	(23)	4.9%	(43)	17.0	(211)	2.0%	(58)	71	(137)	6.4	(104)
Egypt	91,072	(25)	889	(104)	4,518	(25)	5.0%	(40)	44.1	(141)	0.7%	(118)	-	(162)	6.4	(105)
China	83,750	(26)	58	(193)	4,634	(24)	5.5%	(37)	3.2	(313)	0.0%	(184)	-	(162)	0.0	(188)
Ecuador	79,049	(27)	4,476	(39)	5,468	(22)	6.9%	(20)	309.6	(33)	1.3%	(84)	178	(118)	53.4	(39)
Sweden	78,997	(28)	7,819	(18)	5,697	(20)	7.2%	(18)	563.9	(13)	0.4%	(143)	980	(40)	24.3	(57)
Kazakhstan	78,486	(29)	4,177	(42)	585	(53)	0.7%	(161)	31.1	(171)	2.2%	(53)	988	(39)	88.1	(22)
Philippines	76,444	(30)	697	(112)	1,879	(33)	2.5%	(96)	17.1	(207)	2.6%	(41)	238	(113)	17.6	(65)

State-By-State Statistical Summary (page 1 of 2)

As of July 24

State	Total Cases	Rank	Cases per 1M Population	Rank2	Deaths	Rank3	Death Rate	Rank4	Deaths per 1 Million Population	Rank5	5-day Moving Average Case Growth Rate	Rank6	Tests per 1M Population Past 7 days	Rank7	New Daily Cases Per 1M Population (5-Day M.A.)	Rank8
Alabama	74,212	(19)	15,501	(10)	1,438	(23)	1.9%	(29)	293	(19)	2.6%	(11)	1,919	(29)	376.3	(4)
Alaska	2,192	(49)	3,074	(47)	19	(51)	0.9%	(49)	26	(50)	3.7%	(1)	6,866	(1)	100.8	(34)
Arizona	152,944	(8)	21,474	(3)	3,142	(15)	2.1%	(27)	432	(14)	1.7%	(29)	1,410	(44)	348.9	(7)
Arkansas	36,259	(30)	12,343	(22)	394	(37)	1.1%	(46)	131	(38)	2.3%	(20)	2,555	(14)	259.7	(12)
California	432,345	(2)	11,210	(24)	8,337	(4)	1.9%	(30)	211	(28)	2.5%	(13)	3,152	(8)	248.7	(13)
Colorado	42,314	(26)	7,463	(36)	1,790	(18)	4.2%	(13)	311	(17)	1.4%	(33)	1,154	(48)	90.2	(35)
Connecticut	48,232	(23)	13,681	(14)	4,413	(10)	9.1%	(1)	1,238	(3)	0.4%	(48)	3,330	(6)	35.4	(46)
Delaware	13,924	(40)	14,585	(13)	578	(34)	4.2%	(14)	594	(10)	1.0%	(37)	2,306	(19)	126.9	(26)
District Of Columbia	11,571	(41)	16,506	(9)	581	(33)	5.0%	(9)	823	(6)	0.7%	(43)	4,788	(2)	108.1	(32)
Florida	389,868	(3)	18,732	(5)	5,653	(8)	1.4%	(42)	263	(24)	2.8%	(7)	2,633	(12)	499.3	(1)
Georgia	156,588	(7)	15,202	(12)	3,442	(12)	2.2%	(26)	324	(16)	2.4%	(17)	2,473	(17)	352.8	(5)
Hawaii	1,490	(50)	1,094	(51)	26	(49)	1.7%	(37)	18	(51)	2.3%	(19)	1,018	(50)	21.7	(49)
Idaho	16,736	(38)	9,634	(27)	144	(42)	0.9%	(50)	80	(45)	3.0%	(5)	1,584	(39)	280.0	(11)
Illinois	168,100	(6)	13,392	(16)	7,577	(5)	4.5%	(11)	598	(9)	0.8%	(40)	3,002	(9)	103.6	(33)
Indiana	59,602	(20)	9,001	(29)	2,884	(16)	4.8%	(10)	428	(15)	1.4%	(31)	1,573	(40)	122.8	(27)
Iowa	40,653	(27)	13,085	(19)	824	(29)	2.0%	(28)	261	(25)	1.3%	(35)	1,785	(35)	158.7	(18)
Kansas	24,408	(34)	8,701	(32)	328	(38)	1.3%	(43)	113	(41)	2.5%	(12)	1,403	(45)	158.5	(19)
Kentucky	25,147	(33)	5,804	(42)	691	(31)	2.7%	(24)	155	(34)	2.3%	(21)	1,612	(38)	138.3	(22)
Louisiana	101,650	(12)	22,314	(2)	3,720	(11)	3.7%	(17)	800	(7)	2.5%	(15)	4,787	(3)	465.4	(2)
Maine	3,737	(46)	2,795	(49)	118	(44)	3.2%	(20)	88	(43)	0.4%	(47)	1,825	(34)	12.9	(50)
Maryland	80,836	(16)	13,525	(15)	3,422	(13)	4.2%	(12)	566	(11)	0.9%	(39)	2,272	(21)	127.5	(25)
Massachusetts	114,320	(9)	16,546	(8)	8,498	(3)	7.4%	(5)	1,223	(4)	0.3%	(49)	1,473	(41)	43.3	(45)
Michigan	84,431	(14)	8,518	(34)	6,400	(7)	7.6%	(3)	641	(8)	0.8%	(41)	2,706	(11)	64.1	(42)
Minnesota	48,721	(22)	8,775	(31)	1,606	(20)	3.3%	(19)	285	(21)	1.4%	(32)	2,618	(13)	113.4	(30)
Mississippi	48,053	(24)	16,687	(7)	1,463	(22)	3.0%	(22)	492	(13)	3.1%	(4)	1,921	(28)	424.0	(3)

State-By-State Statistical Summary (page 2 of 2)

As of July 24

State	Total Cases	Rank	Cases per 1M Population	Rank2	Deaths	Rank3	Death Rate	Rank4	Deaths per 1 Million Population	Rank5	5-day Moving Average Case Growth Rate	Rank6	Tests per 1M Population Past 7 days	Rank7	New Daily Cases Per 1M Population (5-Day M.A.)	Rank8
Missouri	39,673	(29)	6,697	(41)	1,224	(25)	3.1%	(21)	199	(29)	3.1%	(3)	1,739	(36)	175.0	(17)
Montana	2,910	(47)	2,843	(48)	46	(48)	1.6%	(40)	43	(49)	3.7%	(2)	2,512	(15)	90.0	(36)
Nebraska	23,818	(35)	12,497	(21)	316	(39)	1.3%	(44)	163	(33)	1.4%	(34)	1,690	(37)	133.9	(24)
Nevada	39,919	(28)	13,274	(18)	722	(30)	1.8%	(33)	234	(27)	2.7%	(8)	2,081	(26)	352.0	(6)
New Hampshire	6,318	(43)	4,688	(43)	407	(36)	6.4%	(7)	299	(18)	0.5%	(44)	841	(51)	22.1	(48)
New Jersey	184,029	(5)	20,760	(4)	15,841	(2)	8.6%	(2)	1,783	(1)	0.2%	(51)	1,909	(30)	25.6	(47)
New Mexico	18,163	(36)	8,811	(30)	601	(32)	3.3%	(18)	287	(20)	1.7%	(28)	3,653	(4)	137.6	(23)
New York	437,529	(1)	22,538	(1)	32,665	(1)	7.5%	(4)	1,679	(2)	0.2%	(50)	3,271	(7)	44.2	(44)
North Carolina	106,918	(11)	10,419	(25)	1,778	(19)	1.7%	(39)	170	(32)	1.8%	(25)	2,810	(10)	186.6	(15)
North Dakota	5,493	(45)	7,367	(37)	99	(46)	1.8%	(35)	130	(39)	2.3%	(22)	2,481	(16)	154.1	(21)
Ohio	80,229	(17)	6,997	(39)	3,306	(14)	4.1%	(15)	283	(22)	1.8%	(26)	1,852	(33)	115.7	(29)
Oklahoma	28,802	(32)	7,358	(38)	484	(35)	1.7%	(38)	122	(40)	2.9%	(6)	2,094	(25)	179.6	(16)
Oregon	15,713	(39)	3,818	(45)	282	(40)	1.8%	(36)	67	(46)	2.0%	(24)	1,435	(43)	78.0	(38)
Pennsylvania	109,153	(10)	8,619	(33)	7,183	(6)	6.6%	(6)	561	(12)	0.9%	(38)	1,178	(47)	68.9	(40)
Rhode Island	18,148	(37)	17,203	(6)	1,002	(26)	5.5%	(8)	946	(5)	0.5%	(46)	1,460	(42)	58.1	(43)
South Carolina	76,606	(18)	15,267	(11)	1,385	(24)	1.8%	(34)	269	(23)	2.4%	(18)	2,109	(24)	348.1	(8)
South Dakota	8,143	(42)	9,269	(28)	122	(43)	1.5%	(41)	138	(36)	0.7%	(42)	1,214	(46)	66.4	(41)
Tennessee	86,987	(13)	13,036	(20)	938	(27)	1.1%	(47)	137	(37)	2.7%	(9)	3,595	(5)	319.0	(9)
Texas	377,396	(4)	13,310	(17)	4,932	(9)	1.3%	(45)	170	(31)	2.6%	(10)	2,289	(20)	312.3	(10)
Utah	36,099	(31)	11,529	(23)	273	(41)	0.8%	(51)	85	(44)	1.6%	(30)	2,062	(27)	195.6	(14)
Vermont	1,377	(51)	2,220	(50)	56	(47)	4.1%	(16)	90	(42)	0.5%	(45)	1,906	(31)	11.7	(51)
Virginia	81,237	(15)	9,650	(26)	2,067	(17)	2.5%	(25)	242	(26)	1.2%	(36)	1,901	(32)	116.0	(28)
Washington	51,530	(21)	6,895	(40)	1,504	(21)	2.9%	(23)	198	(30)	1.8%	(27)	2,206	(22)	112.6	(31)
West Virginia	5,550	(44)	3,187	(46)	103	(45)	1.9%	(32)	58	(47)	2.5%	(16)	2,448	(18)	72.9	(39)
Wisconsin	45,899	(25)	8,058	(35)	878	(28)	1.9%	(31)	151	(35)	2.1%	(23)	2,202	(23)	157.3	(20)
Wyoming	2,346	(48)	4,155	(44)	25	(50)	1.1%	(48)	43	(48)	2.5%	(14)	1,045	(49)	82.9	(37)
United States	4,248,327		12,835		148,490		3.5%		448		1.7%		2,380		206.4	

The following data sources are accessed on a daily or weekly basis:

- The Atlantic's Covid Tracking Project: <https://covidtracking.com>
- Worldometers.info: <https://www.worldometers.info/coronavirus/>
- Centers for Disease Control, National, Regional, and State Level Outpatient Illness and Viral Surveillance
<https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>
- Centers for Disease Control, COVID-19 Laboratory-Confirmed Hospitalizations
https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html
- Centers for Disease Control, COVID Data Tracker <https://www.cdc.gov/covid-data-tracker/index.html#mobility>
- Institute for Health Metrics and Evaluation, COVID-19 estimate downloads <http://www.healthdata.org/covid/data-downloads>
- New York Times, Covid-19 data <https://github.com/nytimes/covid-19-data>
- COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University
<https://github.com/CSSEGISandData/COVID-19>