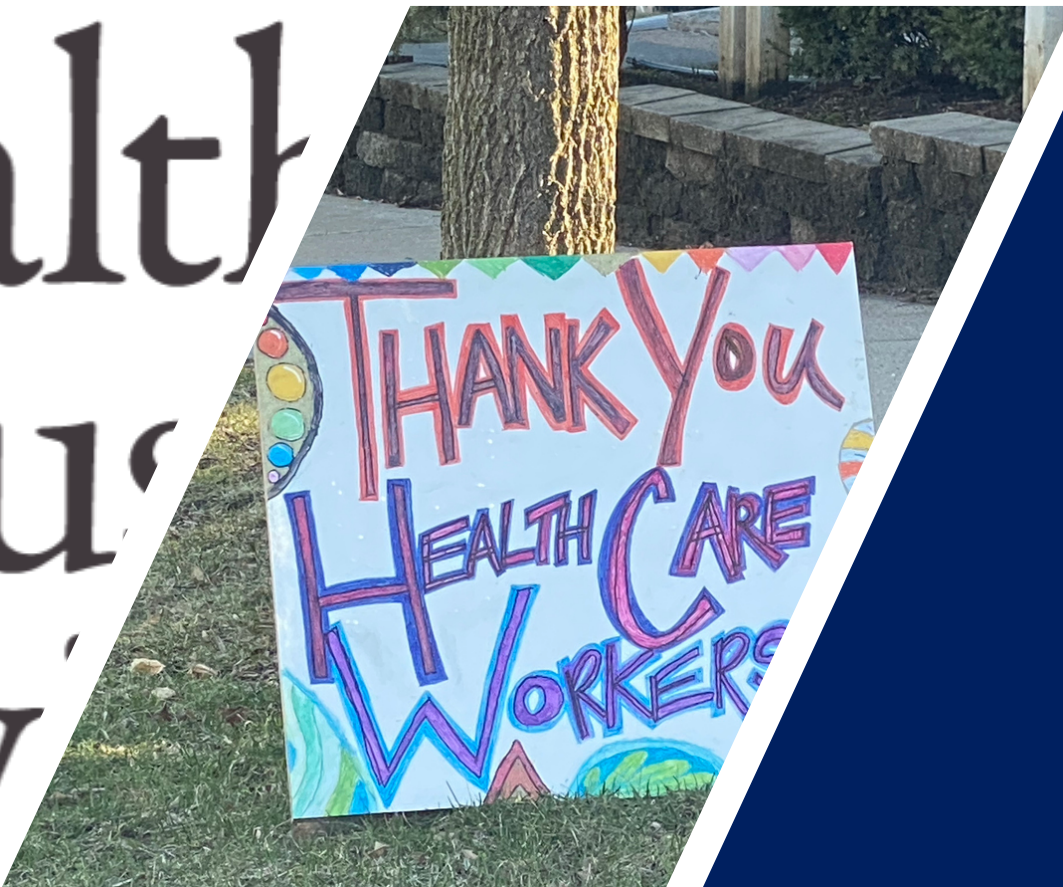




Health
Industry
Adv



Issue # 187
Thursday, October 15, 2020
COVID-19
Report

Highlights

- **Newly detected cases continue to rise in the U.S.**
 - There were more new cases reported yesterday than on any other Wednesday since July 29
 - **On a week-over-week basis, newly detected cases increased 15.8%**
 - Of note, this rate has risen and fallen throughout the pandemic, often pre-signaling when the new daily infection rate per capita would begin to rise or fall
 - This rate has been flat for three days – is it simply a pause in the rate of growth or, the beginning of a downward turn?
 - **The 7-day average new daily infections per capita rose for the ninth consecutive day. This rate is now at its highest level since August 15**
- Considering each of the measures noted above, **Montana, North Dakota, South Dakota and Wisconsin are experiencing the greatest current challenges with the virus. Vermont and Maine continue to “set the standard” for achieving strong results**
 - **New daily infection rates in Montana, North Dakota and South Dakota are higher than any other state has experienced at any time during the pandemic**
 - Mississippi, Montana, New Mexico and South Dakota experienced the largest week-over-week increase (%) in newly detected cases
- **Arkansas, Iowa, Kentucky, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, West Virginia and Wisconsin are experiencing the most (or, near-most) Covid-19 inpatients that they have seen during the pandemic**
- **Internationally, cases continue to increase rapidly, particularly in Europe**
 - 7-day new cases set a new high yesterday, with nearly 336k new cases per day
 - **Russia and the Netherlands have experienced a prolonged period of increasing rates of new cases per capita (7-day moving average).** In Russia, this rate has increased forty-seven consecutive days; In the Netherlands, its increased forty-four consecutive days; and, in Italy, it has increased twenty-seven consecutive days
 - **New daily infection rates are both high and increasing rapidly in: Belgium, the Netherlands, France, Iceland, the United Kingdom and Switzerland (listed in descending order of infections per capita)**
 - These rates and their rate of increase are higher than what has been experienced lately in the U.S.
 - Sweden, in the face of the controversy regarding their limited formal mitigation efforts, has experienced an infection rate per capita and a rate of increase in this measure significantly lower than these other European countries

State-By-State Comparisons (page 1 of 3):

With the recent rise in infections and hospitalizations, we have added two new columns to this table: 7-day average hospital Covid-19 census v. peak census and week-over-week change in newly detected cases

The value of assessing a state's status on multiple measures can be seen by contrasting Arkansas and Idaho. Both have high new infection rates. Arkansas is at its highest Covid-19 hospital census, while Idaho is at 65% of its peak

Illinois provides another useful illustration: it has a high new infection rate and high week-over-week change in new cases. Its hospital rate, however, is only 33% of its peak

State-By-State Comparisons

As of October 14

State	Cases per 1M Population	Deaths per 1 Million Population	Tests per 1M Population Past 7 days	Test-Positive % (7-Day Moving Average)	New Daily Cases Per 1M Population (7-Day M.A.)	Tests / New Case	7-Day M.A. Hospital Census % of Peak	Week-Over-Week Change in New Cases
Alabama	33,721	552	1,355	14.1%	191	7	48%	-5%
Alaska	13,240	87	5,293	4.9%	252	21	82%	25%
Arizona	30,991	793	1,389	7.2%	100	14	19%	36%
Arkansas	30,762	541	4,073	7.4%	301	14	100%	20%
California	21,649	424	3,141	2.7%	85	37	36%	4%
Colorado	13,625	375	1,672	8.7%	145	12	32%	41%
Connecticut	16,840	1,273	6,679	1.5%	100	67	7%	31%
Delaware	22,726	678	2,589	5.2%	134	19	23%	-2%
District Of Columbia	22,648	904	7,207	1.2%	88	82	26%	24%
Florida	34,198	726	1,035	12.2%	126	8	22%	22%
Georgia	31,214	704	1,966	5.8%	114	17	55%	1%
Hawaii	9,515	129	65		63		39%	-3%
Idaho	26,822	288	1,568	21.2%	330	5	62%	14%
Illinois	25,426	735	4,858	4.7%	228	21	33%	42%
Indiana	20,050	570	1,488	15.7%	234	6	69%	40%
Iowa	31,597	475	1,503	19.6%	359	4	100%	34%
Kansas	23,019	288	1,492	17.1%	258	6	90%	28%

State-By-State Comparisons (page 2 of 3):

Montana may pos the biggest concern of the states on this table: high new infection, high week-over-week increase in cases and at its highest level of Covid-19 inpatients. Nebraska is in a similar situation

Missouri has a high infection rate and is at its highest Covid-19 inpatient census; their good news is that new cases have declined week-over-week

Maine is performing well on each of the key trending measures

State-By-State Comparisons

As of October 14

State	Cases per 1M Population	Deaths per 1 Million Population	Tests per 1M Population Past 7 days	Test-Positive % (7-Day Moving Average)	New Daily Cases Per 1M Population (7-Day M.A.)	Tests / New Case	7-Day M.A. Hospital Census % of Peak	Week-Over-Week Change in New Cases
Kentucky	17,972	286	3,903	5.3%	205	19	94%	1%
Louisiana	37,012	1,225	2,821	3.9%	93	30	26%	-12%
Maine	4,258	106	4,746	0.5%	23	211	15%	-7%
Maryland	21,727	665	1,814	5.5%	101	18	23%	9%
Massachusetts	19,987	1,388	2,270	4.1%	93	25	13%	3%
Michigan	14,966	728	3,573	3.7%	134	27	17%	33%
Minnesota	19,907	396	2,591	9.1%	235	11	61%	27%
Mississippi	35,258	1,055	220		220		46%	49%
Missouri	24,379	413	-532		235		100%	-15%
Montana	17,498	211	5,133	10.8%	554	9	100%	58%
Nebraska	27,079	274	2,468	14.3%	374	7	97%	37%
Nevada	27,849	549	1,248	14.7%	184	7	43%	20%
New Hampshire	6,724	337	1,337	3.8%	58	23	14%	10%
New Jersey	24,494	1,838	4,102	2.4%	103	40	7%	34%
New Mexico	15,730	439	3,433	5.5%	199	17	49%	63%
New York	26,189	1,718	6,173	1.2%	75	83	4%	4%
North Carolina	22,070	368	3,160	5.8%	183	17	80%	11%

State-By-State Comparisons (page 3 of 3):

North Dakota, Oklahoma, South Dakota, Wisconsin and Wyoming pose the highest concern among these states; Utah would be next

Vermont continues to deliver superior results

State-By-State Comparisons

As of October 14

State	Cases per 1M Population	Deaths per 1 Million Population	Tests per 1M Population Past 7 days	Test-Positive % (7-Day Moving Average)	New Daily Cases Per 1M Population (7-Day M.A.)	Tests / New Case	7-Day M.A. Hospital Census % of Peak	Week-Over-Week Change in New Cases
North Dakota	35,778	479	2,167	35.4%	767	3	100%	38%
Ohio	14,438	431	3,273	4.1%	134	24	71%	32%
Oklahoma	25,117	286	3,431	8.7%	298	12	100%	16%
Oregon	8,835	144	1,456	5.9%	86	17	61%	23%
Pennsylvania	13,812	663	1,301	8.0%	105	12	24%	34%
Rhode Island	24,821	1,083	3,467	5.4%	187	19	30%	34%
South Carolina	30,572	698	3,218	5.3%	169	19	41%	14%
South Dakota	32,288	329	2,187	31.8%	696	3	100%	50%
Tennessee	31,423	414	3,790	7.2%	274	14	77%	22%
Texas	28,826	597	1,987	6.8%	151	13	32%	26%
Utah	26,776	164	2,640	14.4%	380	7	79%	17%
Vermont	2,994	93	1,656	0.9%	14	117	1%	-14%
Virginia	18,595	396	2,266	5.8%	133	17	62%	40%
Washington	12,630	292	3,055	2.5%	84	36	39%	18%
West Virginia	10,144	219	3,687	3.6%	134	27	95%	35%
Wisconsin	25,803	264	2,355	21.8%	488	5	100%	21%
Wyoming	13,151	98	785	40.2%	315	2	100%	35%

Table: Health Industry Advisor LLC • Created with Datawrapper

There were more newly detected cases reported yesterday than on any Wednesday since July 29

On a same-day, prior-week basis, newly detected cases have increased on eight consecutive days and eleven of the past twelve days

Newly Detected Cases

Through October 14

Wednesdays Highlighted

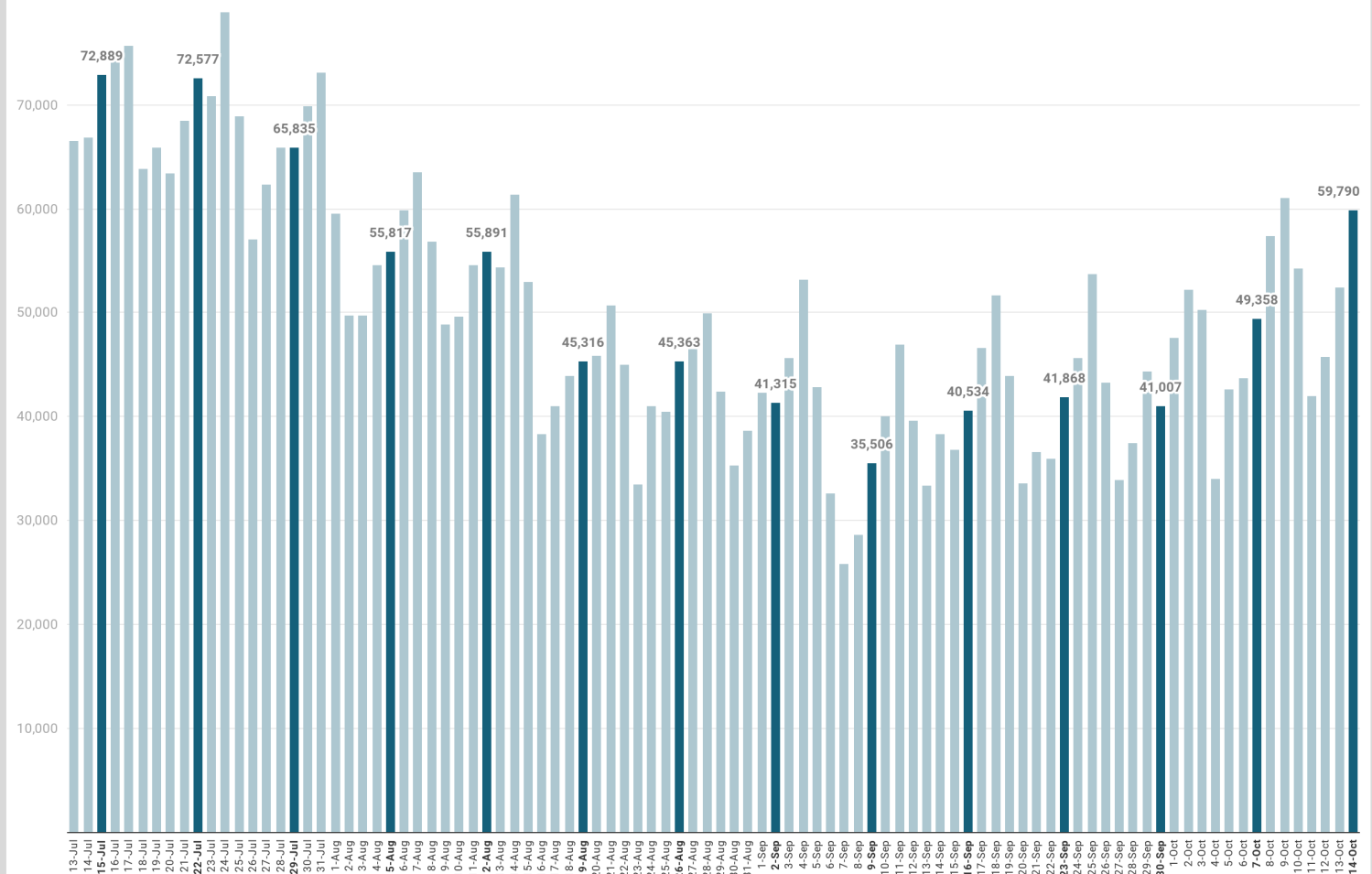


Chart: Health Industry Advisor LLC • Source: eorlometers.info • Created with Datawrapper

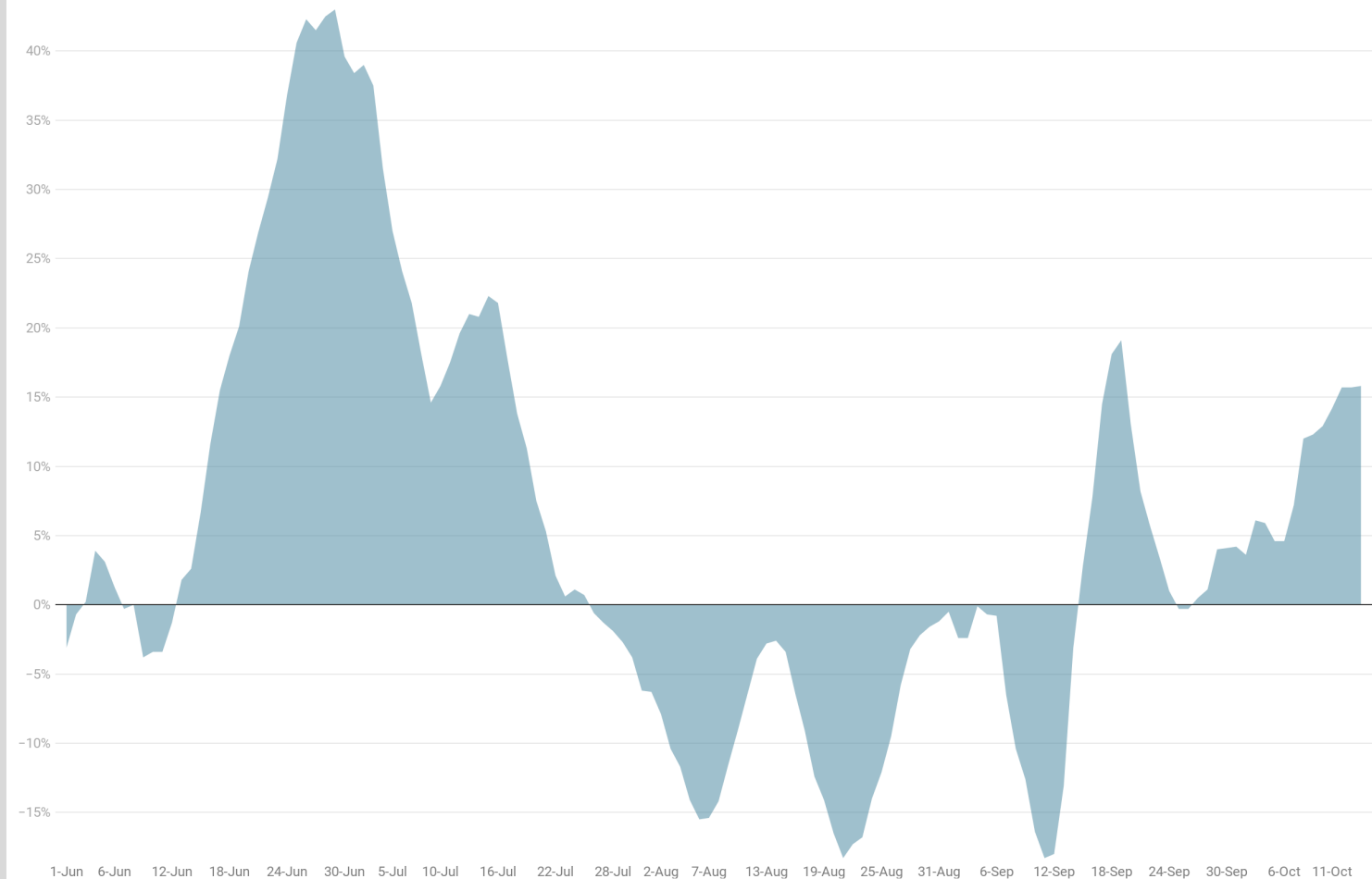
Following a seven-week period of decline, new cases began increasing on a week-over-week basis on September 15

A pause or will the rate of cases growth begun to decline: Yesterday, this rate was up 15.8% on a week-over-week basis (~same rate as past two days)

This rate had previously peaked at 19.1% on September 19 and 43% on June 29

Week-Over-Week Change In New Cases

Through October 14



Health Industry Advisor LLC analysis

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

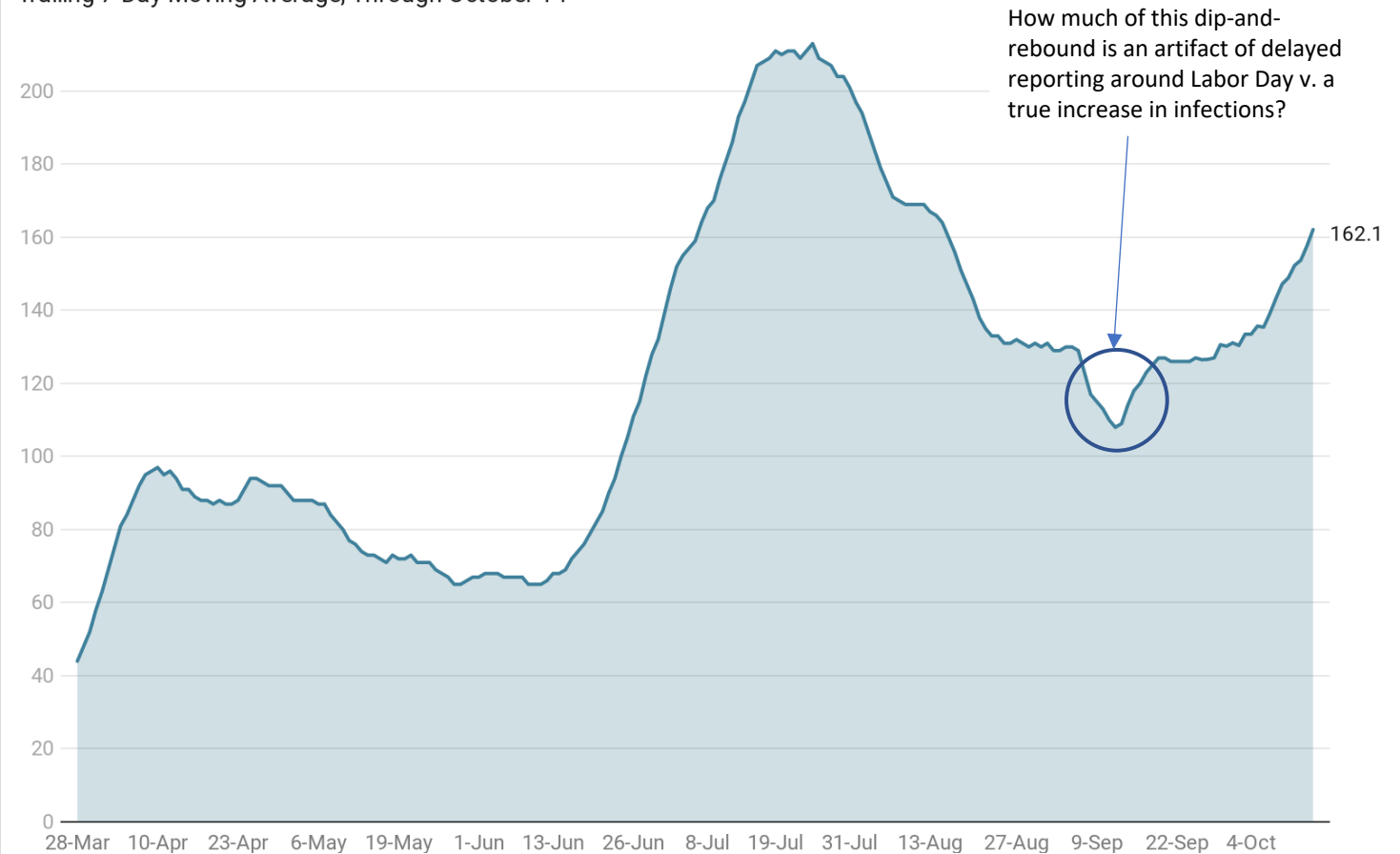
The rate of new infections per capita* in the U.S. rose for the ninth consecutive day

This rate is the highest it has been since August 15

* - 7-day moving average basis

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through October 14



Health Industry Advisor LLC analysis

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

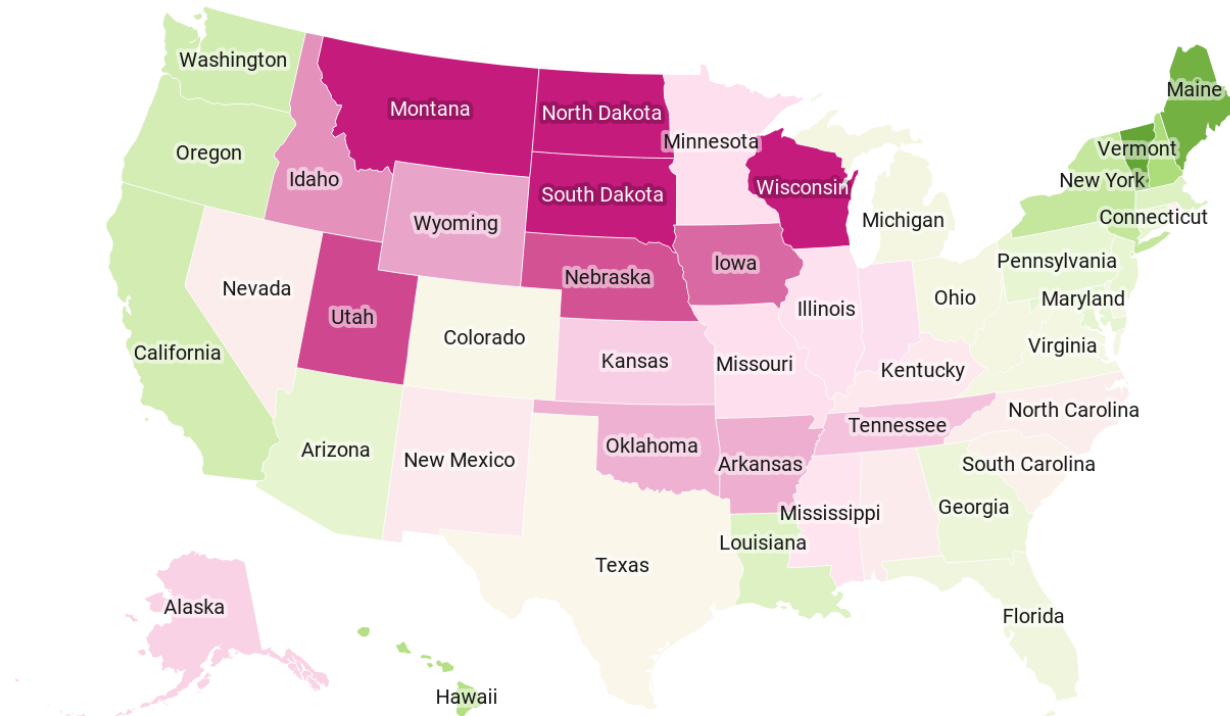
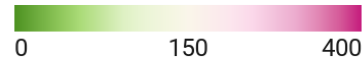
New daily infections rates are Montana, North Dakota and South Dakota are the highest experienced by any state since the pandemic began

Wisconsin's current rate is near New York's peak, which occurred in early April

Other states with high rates are concentrated in the Plains, the Upper Midwest and Mountain States

New Infections / Million

7-Day Moving Average, As of October 14



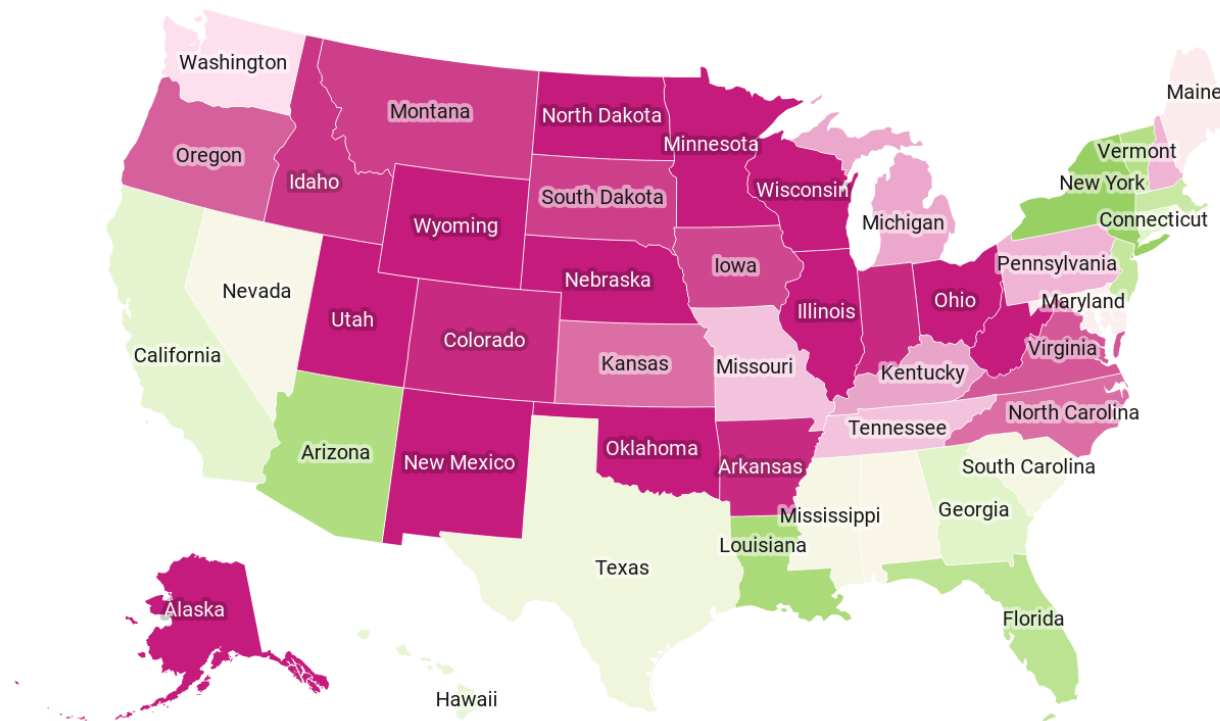
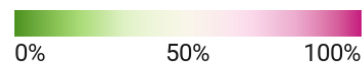
Map: Health Industry Advisor LLC • Created with Datawrapper

This may be the most concerning slide in today's report: many states are at or near their highest rates experienced since the pandemic began of new infections per capita

* - 7-day moving average basis

How Close Is Each State's New Infection Rate to Its Peak Rate?

7-Day Moving Average, As of October 14

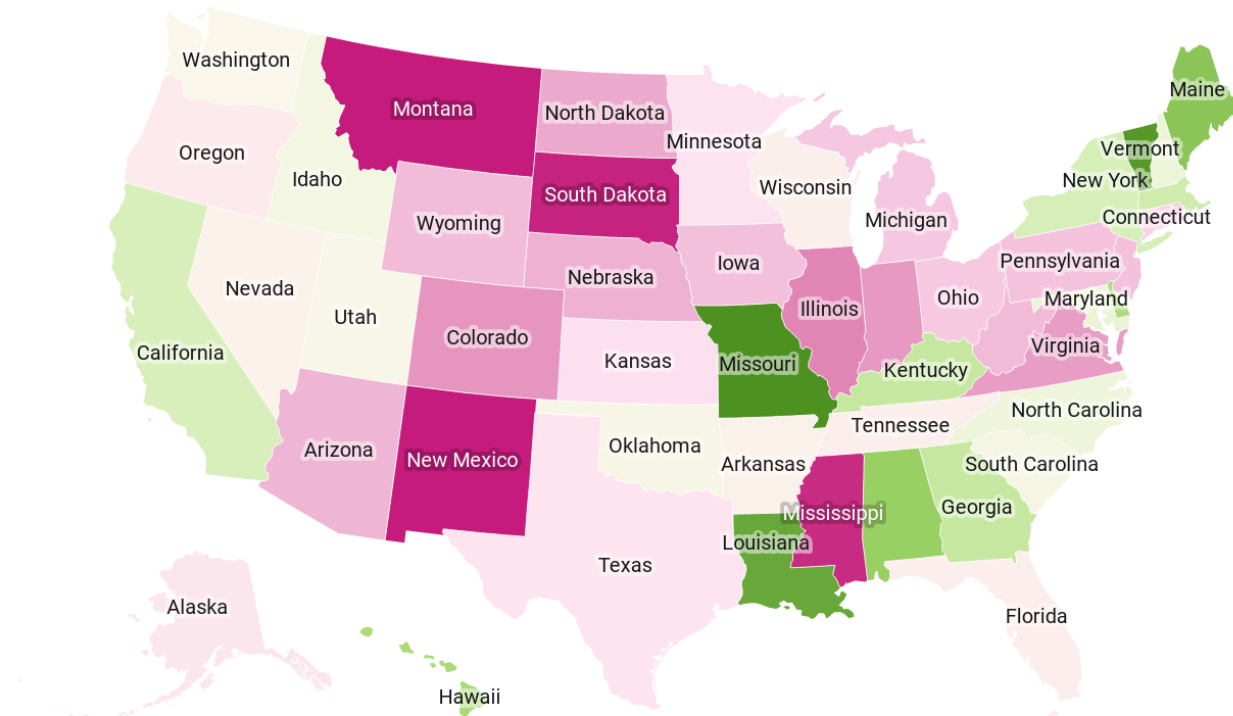
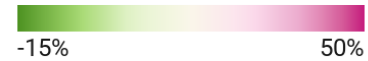


Map: Health Industry Advisor LLC • Created with Datawrapper

Mississippi, Montana, New Mexico and South Dakota experienced the largest increases (%) in newly-detected cases over the past week

Week-Over-Week Change (%) in Newly Detected Cases

October 8-14 v. October 1-7

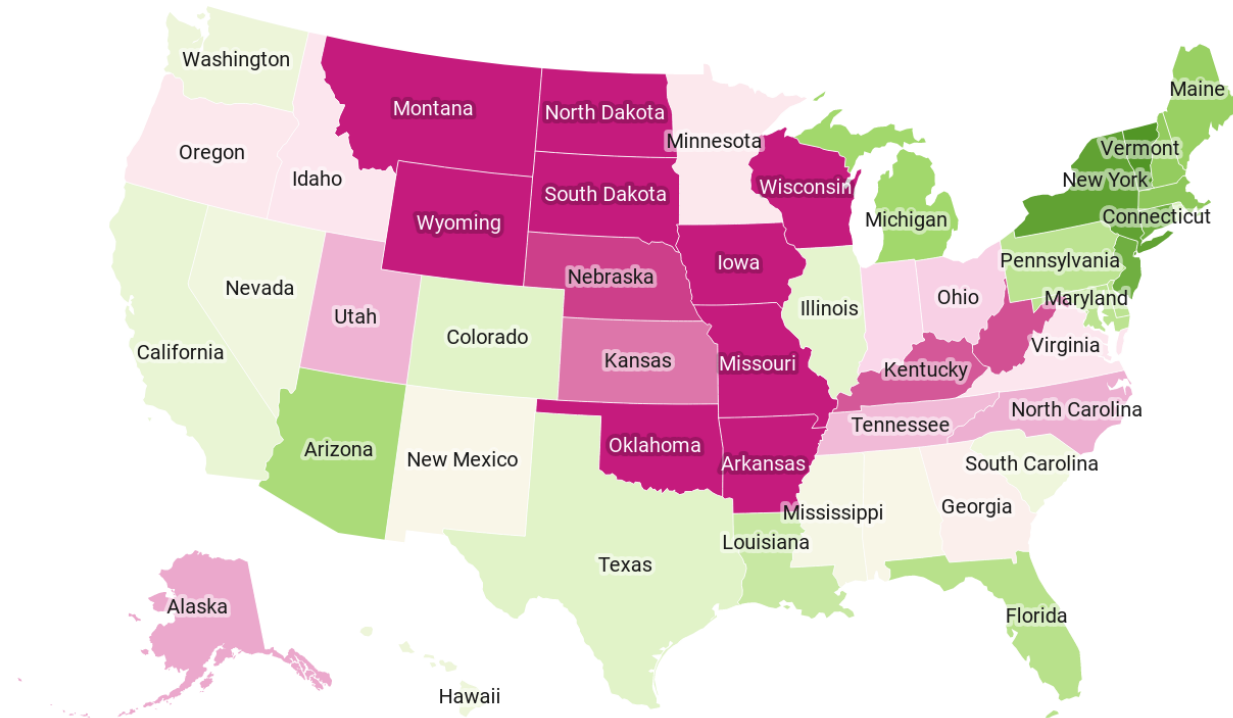
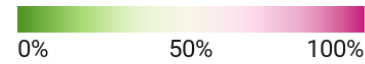


Map: Health Industry Advisor LLC • Created with Datawrapper

Several states across the middle of the country are at or near their highest levels of Covid-19 inpatients

How Close Is Each State to Its Peak Level of Covid-19 Inpatients?

7-Day Moving Average, As of October 14



Map: Health Industry Advisor LLC • Created with Datawrapper

After leveling in late-August through early-September, new daily cases worldwide* have been increasing at a significant rate

New daily cases are now averaging ~336k each day

* - 7-day moving average basis

New Daily Cases Worldwide

7-Day Moving Average

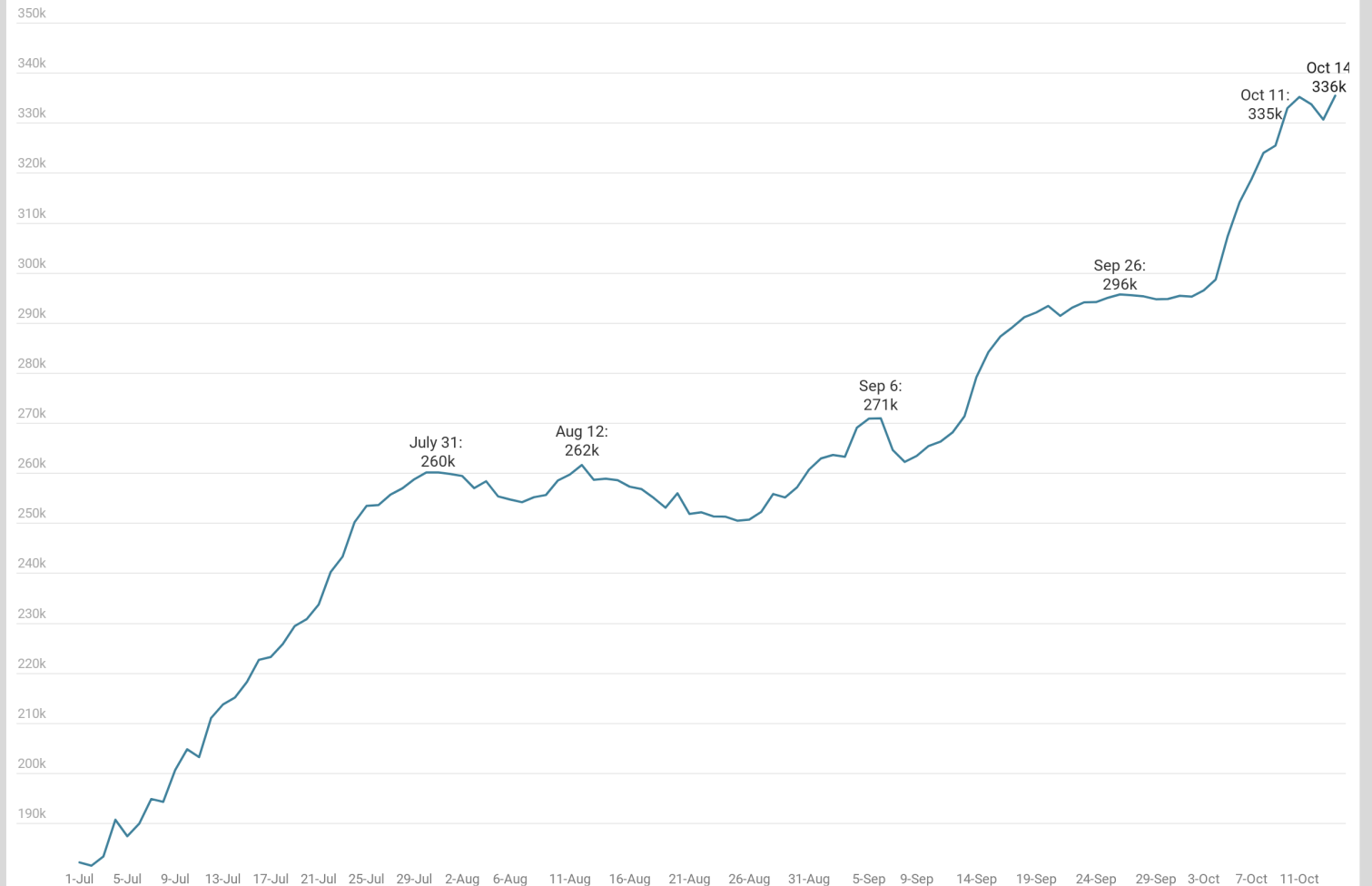


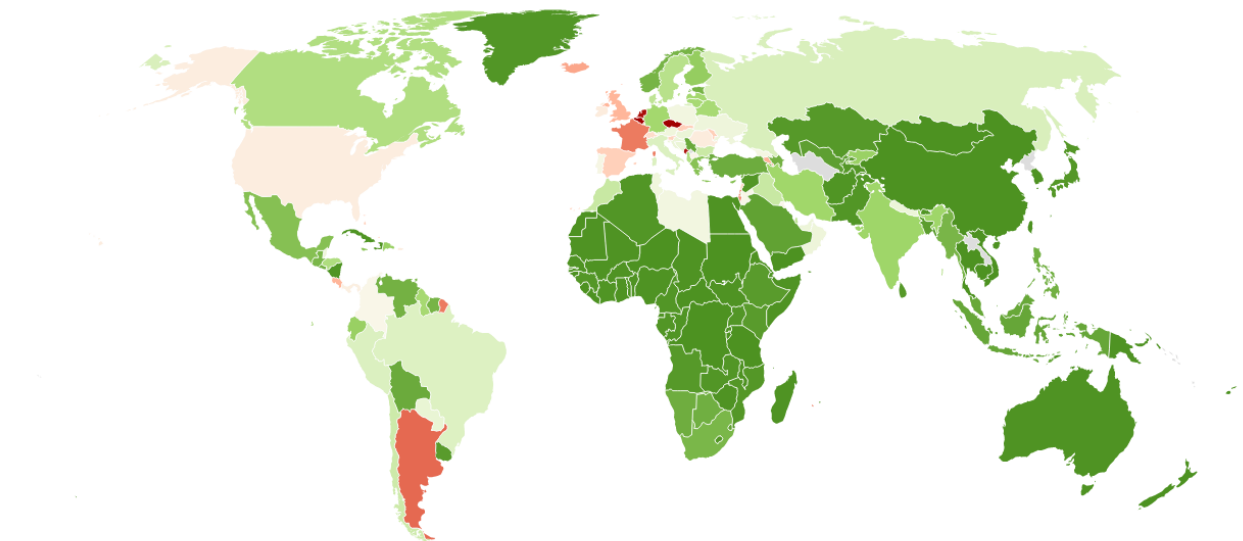
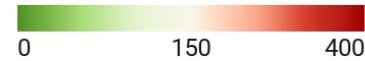
Chart: Health Industry Advisor LLC • Created with Datawrapper

While many countries are experiencing relatively low infection rates*, Israel, Bahrain, Argentina, and many parts of Europe experienced high rates during the past week

* - 7-day moving average basis

New Infections / Million

7-Day Moving Average, As of October 14



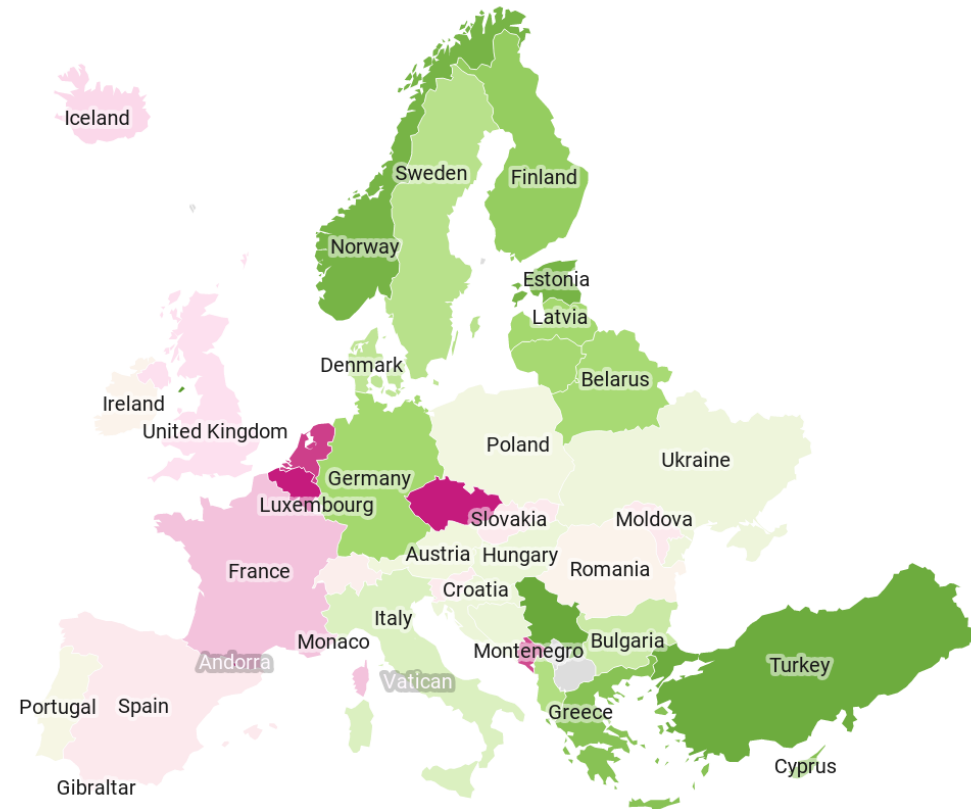
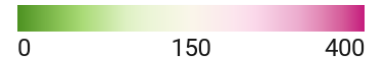
Map: Health Industry advisor LLC • Created with Datawrapper

The Czech Republic,
Luxembourg,
Montenegro and the
Netherlands experienced
the highest rates of new
infections per capita
during the past week

France, Iceland, Spain
and the United Kingdom
are of increasing concern

New Daily Infections / Million - Europe

7-Day Moving Average, As of October 14



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

The Netherlands and Russia have experienced extended periods of rising infections rates per capita*, followed by Italy and Germany

This rate has risen for eight consecutive days in the United States

* - 7-day moving average basis

Consecutive Days of Increases in Newly Detected Cases Per Capita

7-Day Moving Average, As of October 14

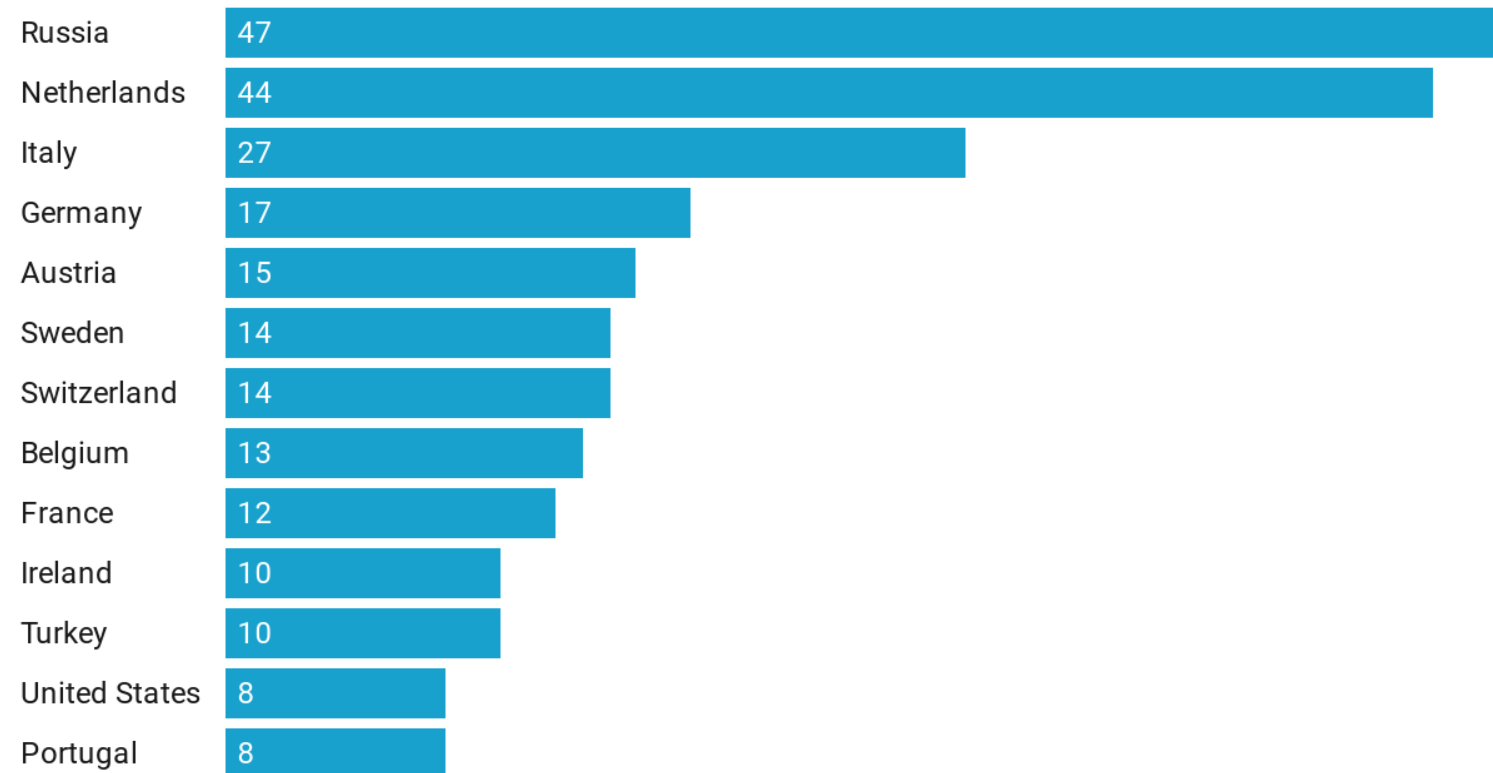


Chart: Health Industry Advisor LLC • Source: Worldometers.info • Created with Datawrapper

Infections have spread rapidly across Europe over the past several weeks – most notably in Belgium, France, Iceland, the Netherlands, Switzerland and the United Kingdom

Rates in the countries are higher and increasing more sharply than in the United States

Swede, with its controversy about how it has handled the pandemic, Remains a relatively low rate

New Daily Infections / Million - U.S. and Selected European Countries

7-Day Moving Average, As of September 13 - October 14

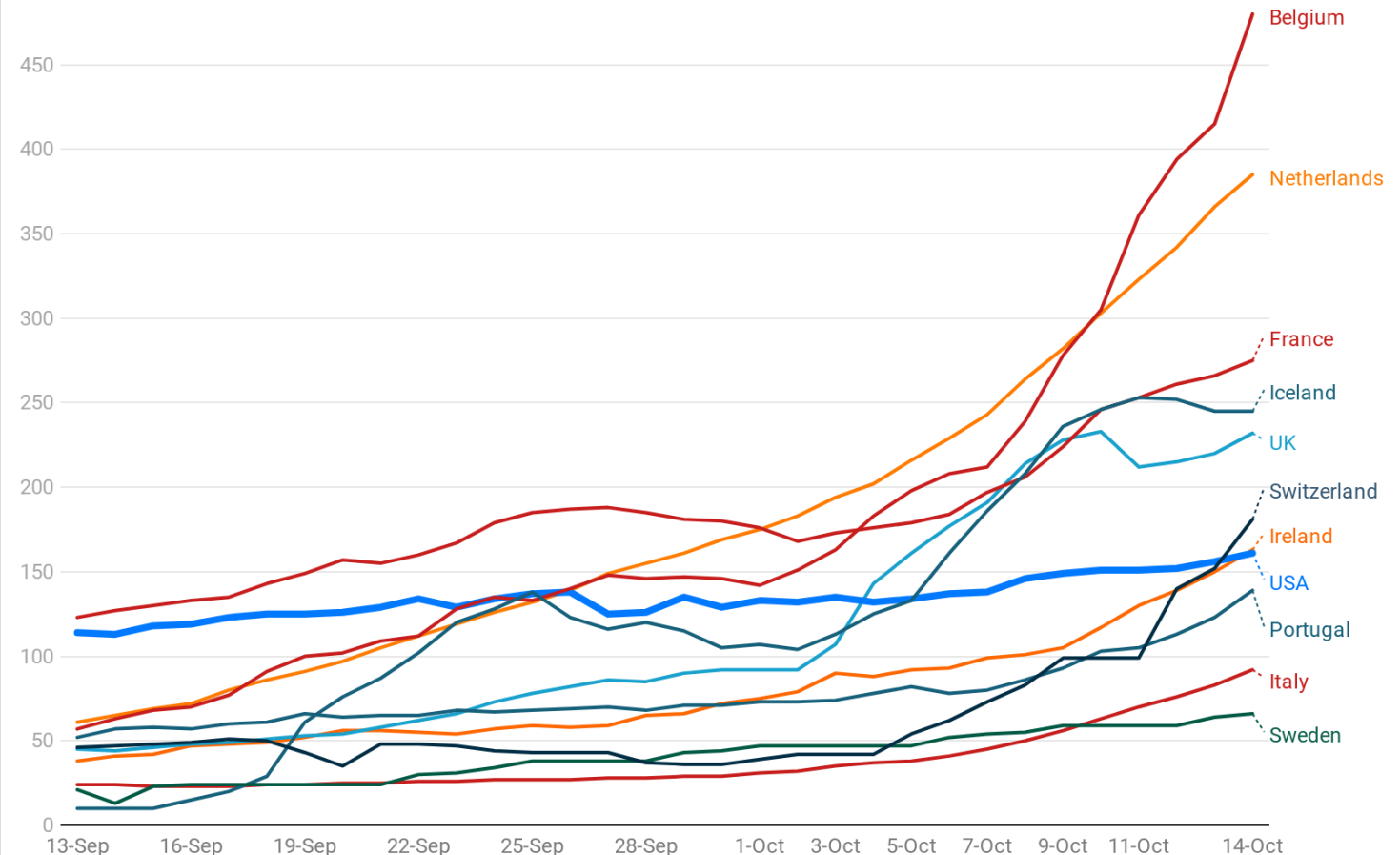


Chart: Health Industry Advisor LLC • Created with Datawrapper

Where does the
United States rank in
the world?

Most cases and deaths
of any country

11th on cases per
capita

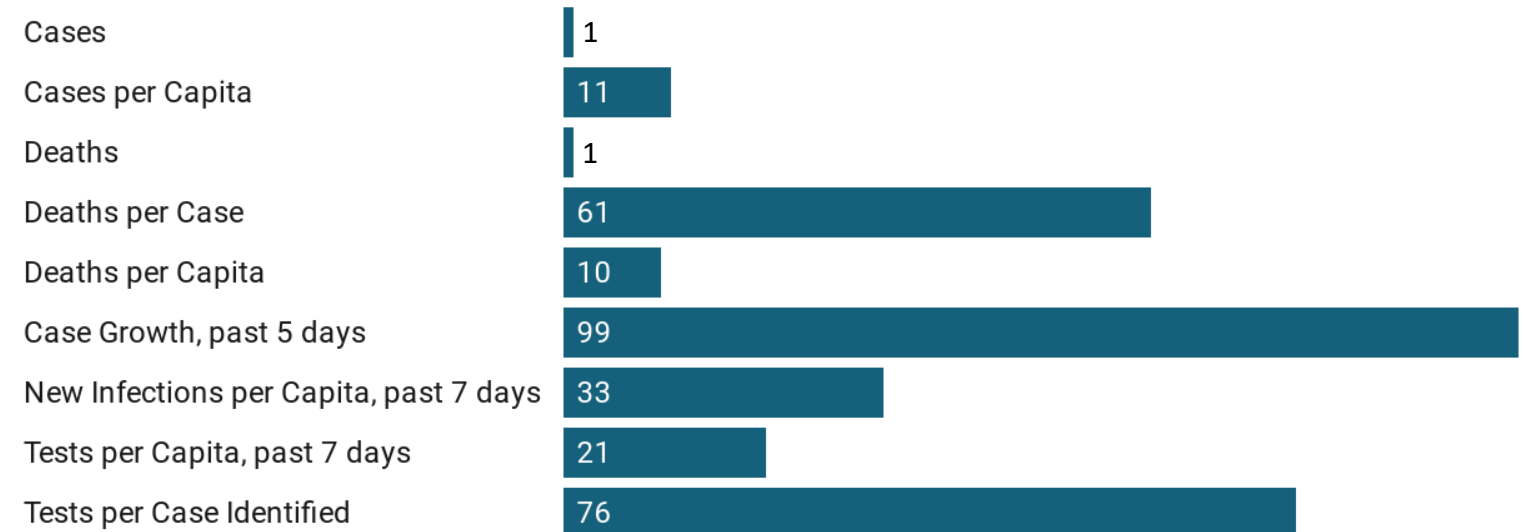
10th on deaths per
capita

33rd in new infections
per capita past week

21st on tests per capita

United States Ranking

As of October 14



215 countries with at least 1 case

Chart: Health Industry Advisor LLC • Created with Datawrapper

Data Sources

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>
- COVID-19 Projections Using Machine Learning, <https://covid19-projections.com>