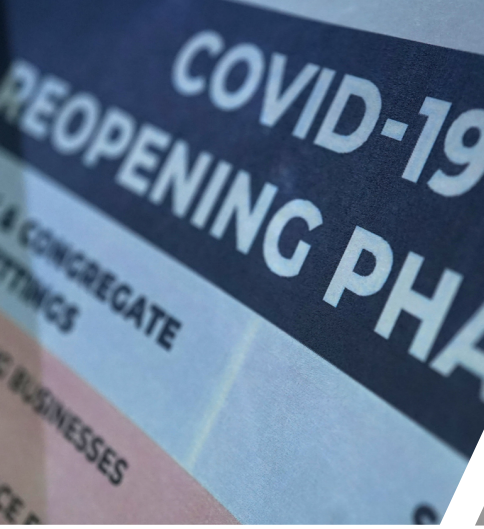

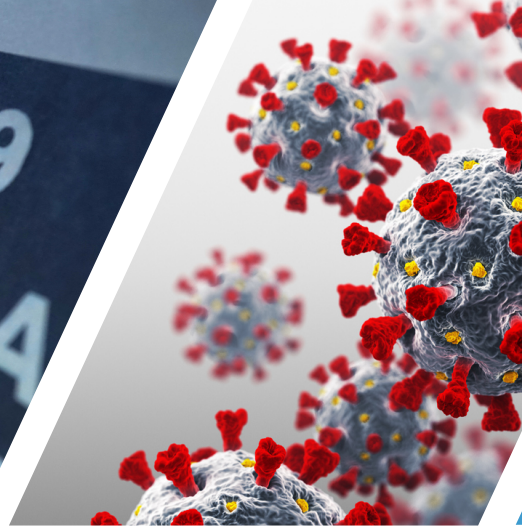

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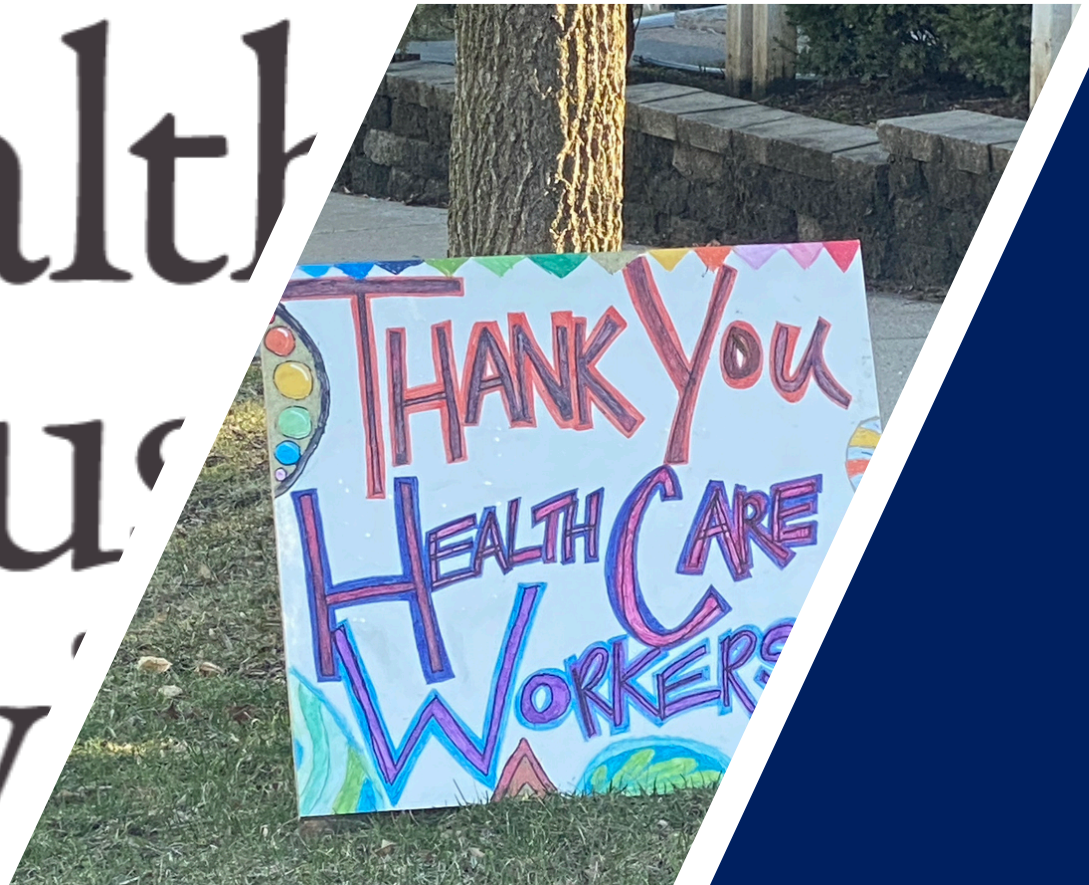


Issue # 228

Friday, December 4, 2020

COVID-19 Report

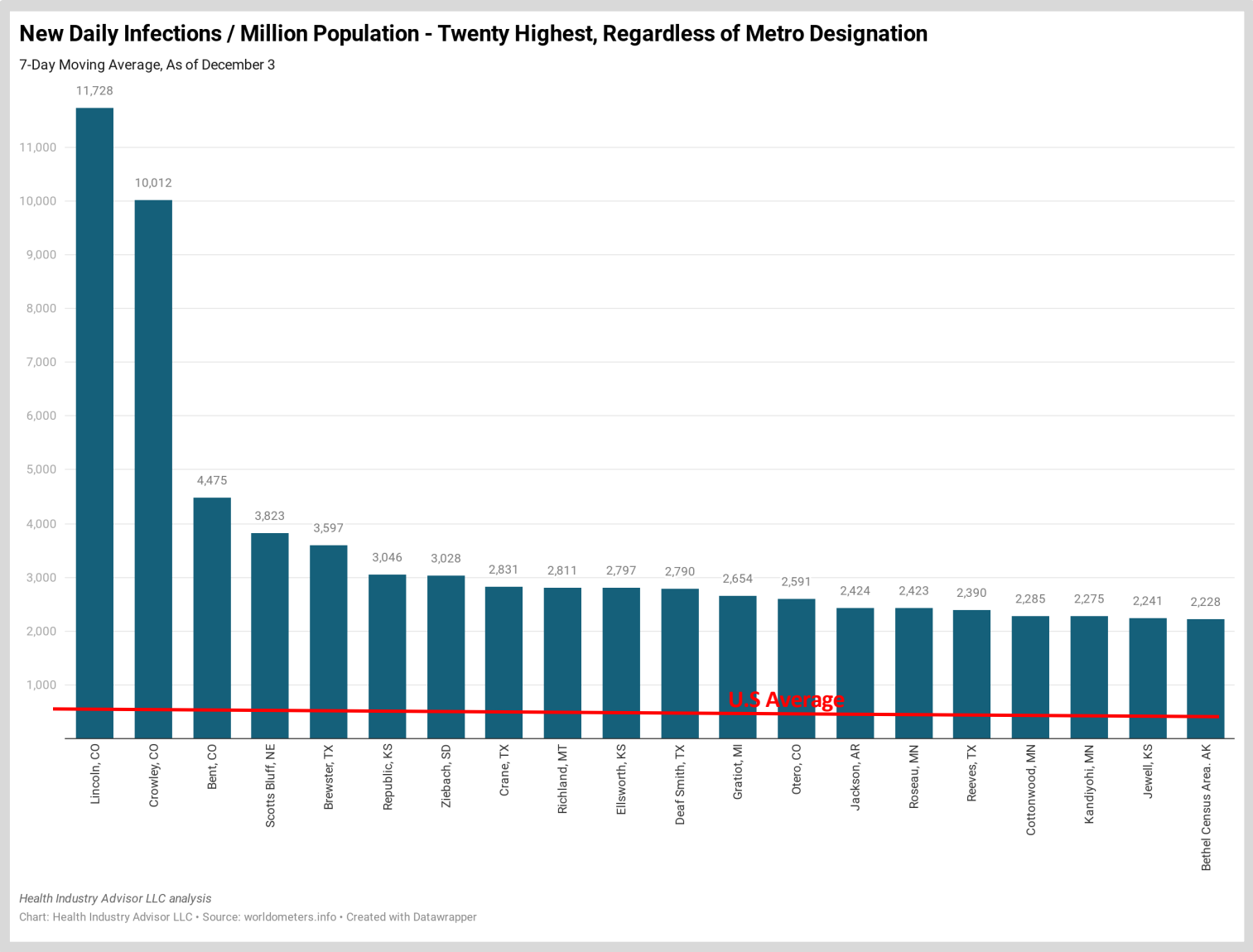
Highlights

- **Among all metro areas, regardless of metro designation, three areas in Colorado experienced the highest infection per capita rates - Lincoln, Crowley and Bent. Indeed, more than 1% of the residents of Lincoln and Crowley were infected in the last seven days alone**
- Among Large Central Metro Areas, Kent County, Michigan (Grand Rapids); Salt Lake City and Providence, Rhode Island experienced the highest new infections per capita over the past seven days
- Among the thirty-three college towns we sample, thirteen experienced infection rats per capita higher than the national average last week - down from eighteen that were above the national average a week ago
- For the eighth consecutive week, Lubbock, Texas had the highest new infection rate per capita among these thirty-three campus towns
- **Among all metro areas, regardless of metro designation, Crowley, Colorado has the highest % of its residents reporting a detected case at some time during the pandemic - 40%**

- **Among Large Central Metro areas, Miami-Dade, Florida and Milwaukee, Wisconsin have the highest % of residents reporting a detected case at some time during the pandemic - both over 8%**
- **Test volumes remain lower than pre-Thanksgiving levels; with low testing, test-positive rates have been increasing**
- **Covid-19 inpatients increased by "only" 441 yesterday - the third smallest increase since October 19**. Thus, the overall Covid-19 hospital occupancy across the U.S. remained at 32%
- **Covid-19 inpatients per new case fell for the second consecutive day - after increasing the prior fifteen consecutive days**
- The rate of Covid-19 inpatients being in the ICU or on ventilators have each been stable for at least the past five days (longer, in the case of ICU days)
- **Tragically, deaths with coronavirus continue to rise: the 7-day average rate now exceeds its pre-Thanksgiving level . . . and will likely continue increasing, at least in the short-term**
- The case fatality rate - deaths per case, lagged two weeks - has remained consistent for a month-and-a-half

New Infection Rates – Past Week

Colorado has the three metro areas, regardless of metro designation, with the highest infection rates over the past seven days – both Lincoln and Crowley, Colorado, in fact had more than 1% of their residents infected last week alone



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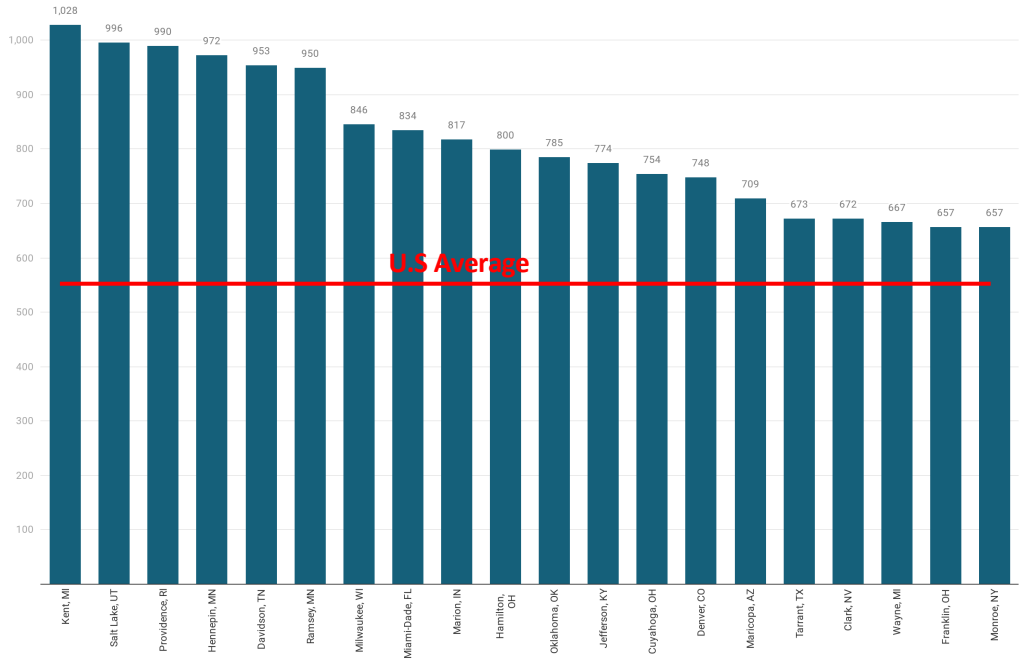
New Infection Rates – Past Week

Kent County, Michigan (Grand Rapids); Salt Lake City, Utah and Providence, Rhode Island had the highest new infection rates during the past week among Large Central Metro Areas

Wright, Minnesota; Calhoun, Illinois and Bond, Illinois had the highest rates among Large Fringe Metro Areas

New Daily Infections / Million Population - Twenty Highest, Large Central Metro Areas

7-Day Moving Average, As of December 3

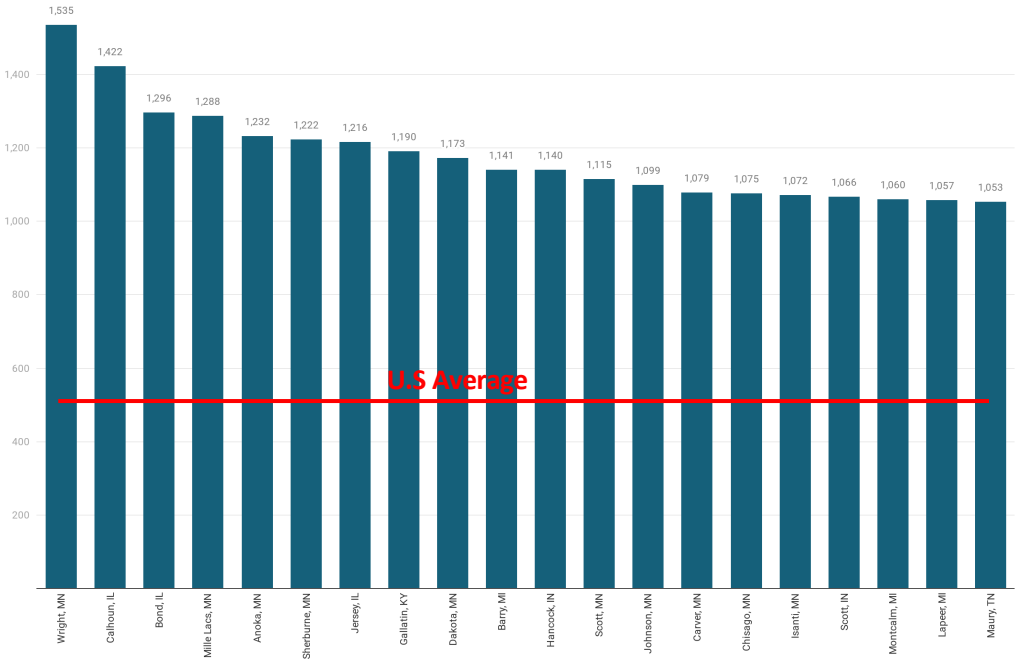


Health Industry Advisor LLC analysis

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

New Daily Infections / Million Population - Twenty Highest, Large Fringe Metro Areas

7-Day Moving Average, As of December 3



Health Industry Advisor LLC analysis

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

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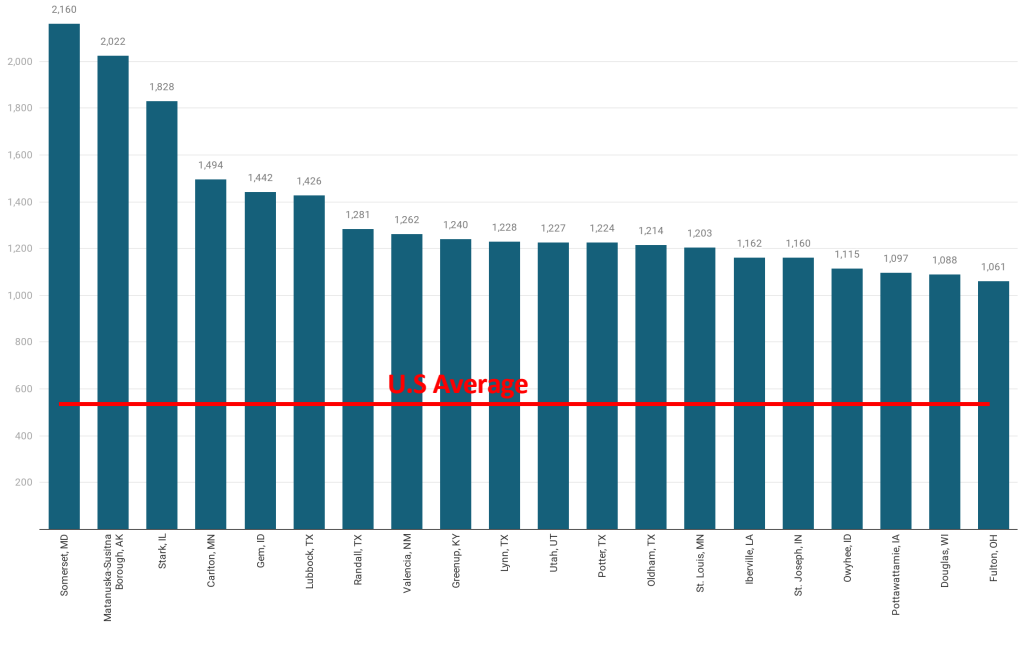
New Infection Rates – Past Week

Somerset, Maryland; Matanuska-Susitna Borough, Alaska and Stark, Illinois had the highest new infection rates during the past week among Medium Metro Areas

Staunton city, Virginia; Montour, Pennsylvania and Polk, Minnesota had the highest rates among Small Metro Areas

New Daily Infections / Million Population - Twenty Highest, Medium Metro Areas

7-Day Moving Average, As of December 3

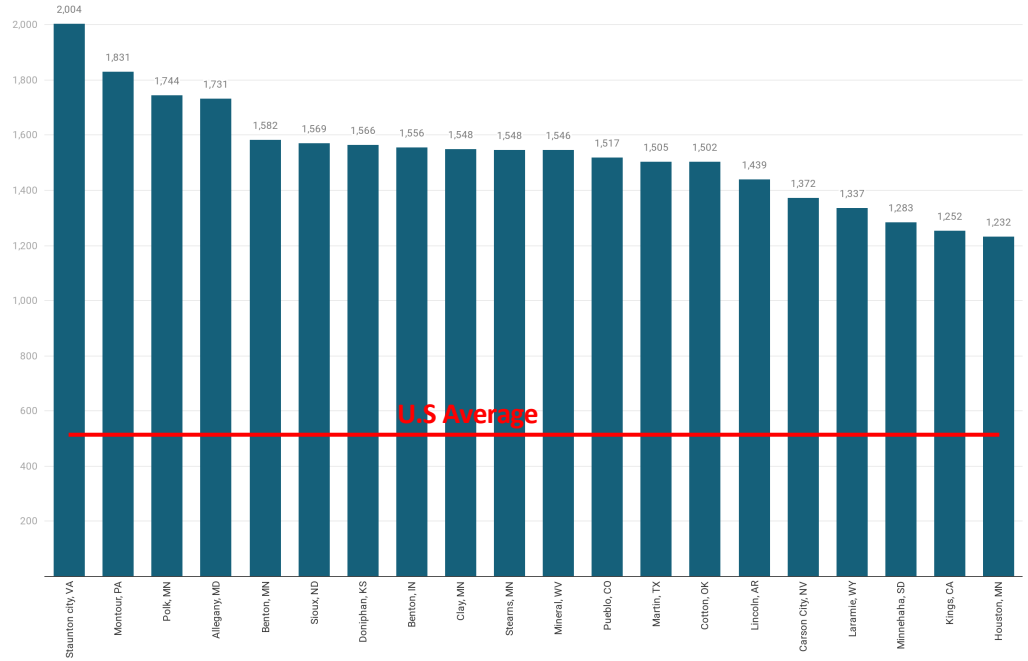


Health Industry Advisor LLC analysis

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

New Daily Infections / Million Population - Twenty Highest, Small Metro Areas

7-Day Moving Average, As of December 3



Health Industry Advisor LLC analysis

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

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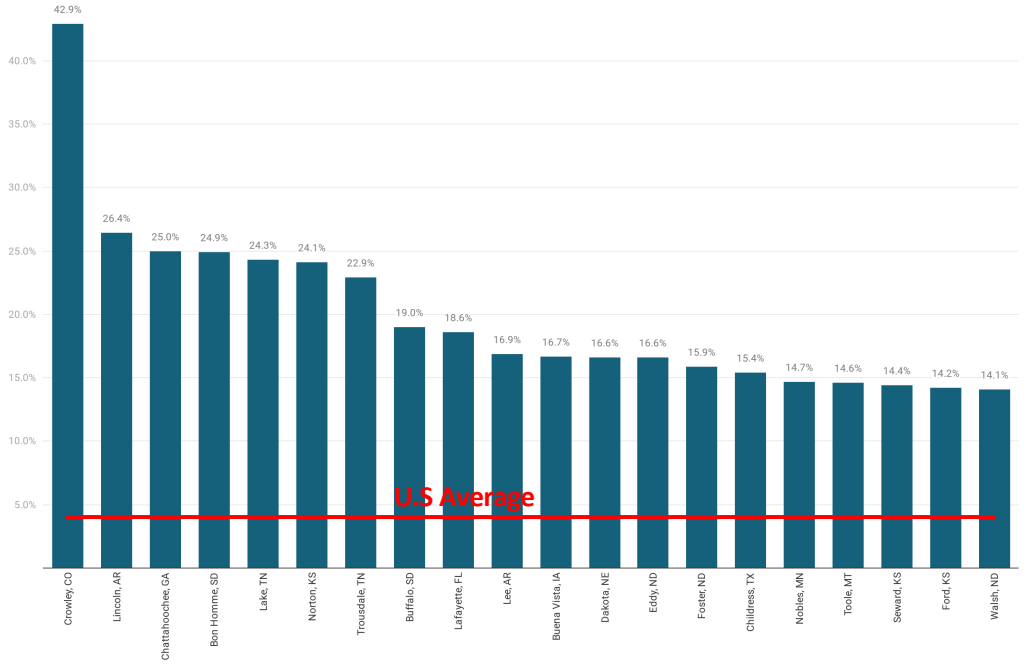
% of Population With Detected Infection

Crowley, Colorado; Lincoln, Arkansas and Chattahoochee, Georgia have the highest rates of detected infections per resident, regardless of metro designation – Crowley's is more than 40% of its population

% of Population With A Detected Case - Twenty Highest, Regardless of Metro Designation

As of December 3

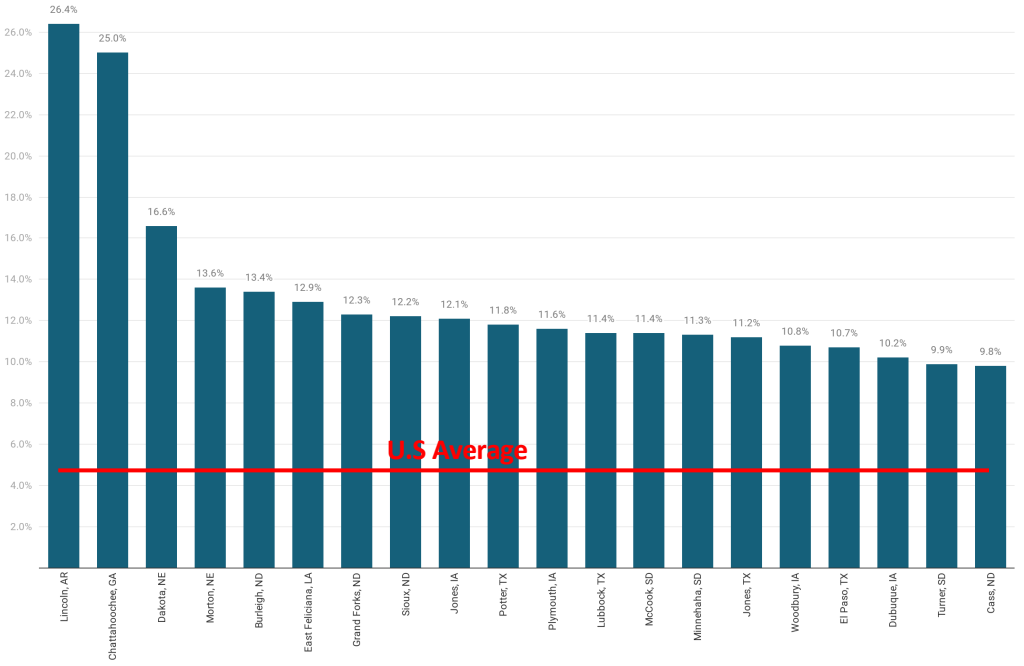


Health Industry Advisor LLC analysis

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

% of Population With A Detected Case - Twenty Highest, Small & Medium Metro Areas

As of December 3



Health Industry Advisor LLC analysis

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

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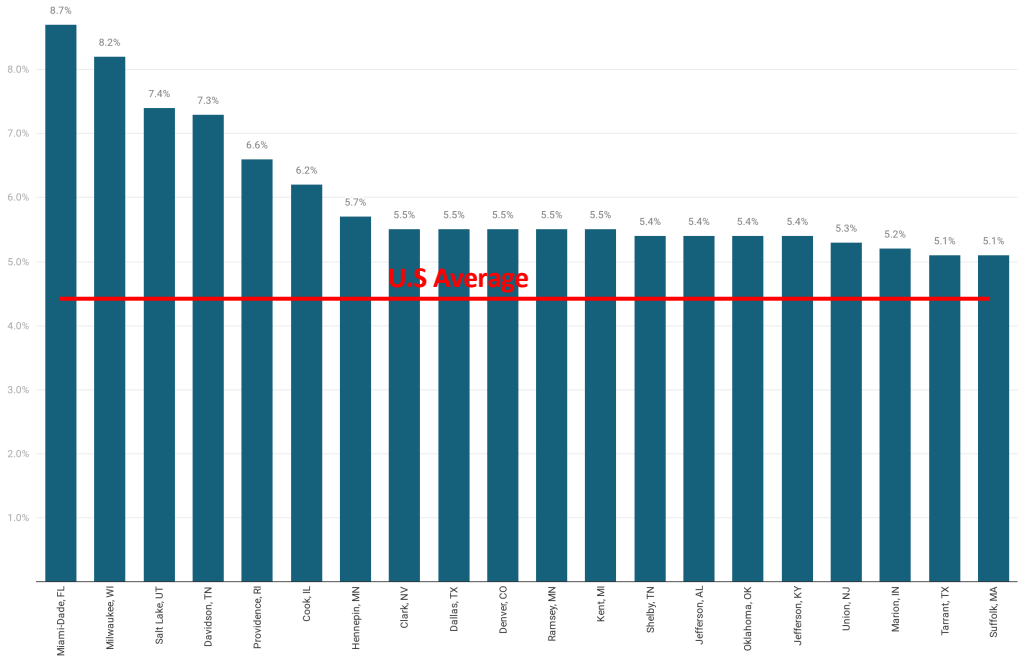
% of Population With Detected Infection

Miami-Dade, Florida; Milwaukee, Wisconsin and Salt Lake City, Utah have the highest rates of detected infections per resident, among Large Central Metro Areas

Trousdale, Tennessee; Clinton, Illinois and Pickaway, Ohio have the highest rates of detected infections per resident, among Large Fringe Metro Areas

% of Population With A Detected Case - Twenty Highest, Large Central Metro Areas

As of December 3

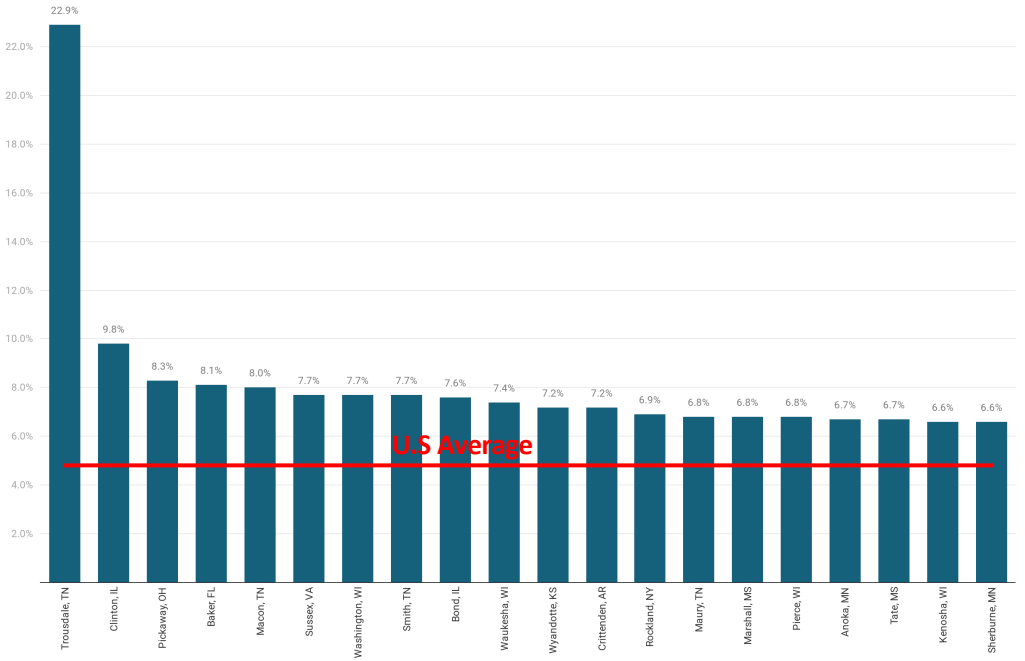


Health Industry Advisor LLC analysis

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

% of Population With A Detected Case - Twenty Highest, Large Fringe Metro Areas

As of December 3



Health Industry Advisor LLC analysis

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

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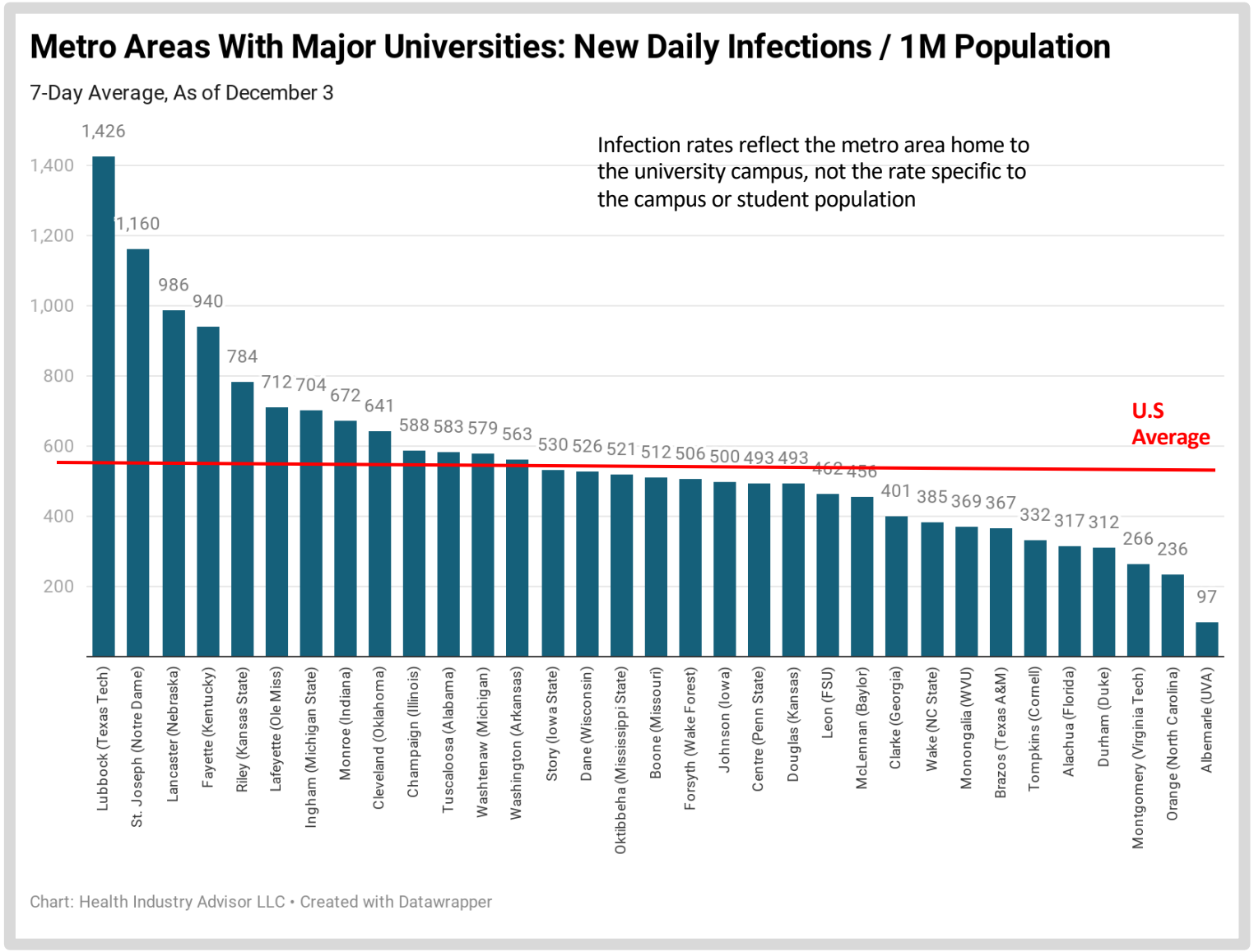
Metro Areas Home to Major Universities:

Of the 33 major areas in our sample, 13 are experiencing infection rates* higher than the national average (six fewer than last week)

For at least the eighth consecutive week, Lubbock, Texas, home to Texas Tech University had the highest infection rate last week. St. Joseph, IN (Notre Dame), Lancaster, Nebraska (University of Nebraska) and Fayette, Kentucky (University of Kentucky) were next

Albemarle, VA (University of Virginia) and Orange, NC (University of North Carolina) experienced the lowest rates

* 7-day average



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Metro Areas Home to Major Universities:

Ingham County, Michigan – home to Michigan State University experienced the largest increase in its new infection rate relative to last week, followed by Fayette, Kentucky (University of Kentucky)

Story, Iowa, home to Iowa State University experienced the most significant decline in this rate, followed by Boone, Missouri (University of Missouri)

* 7-day average

Metro Areas With Major Universities: Week-Over-Week Change In New Daily Infections / 1M Population

7-Day Average, December 3 v. November 25

Infection rates reflect the metro area home to the university campus, not the rate specific to the campus or student population

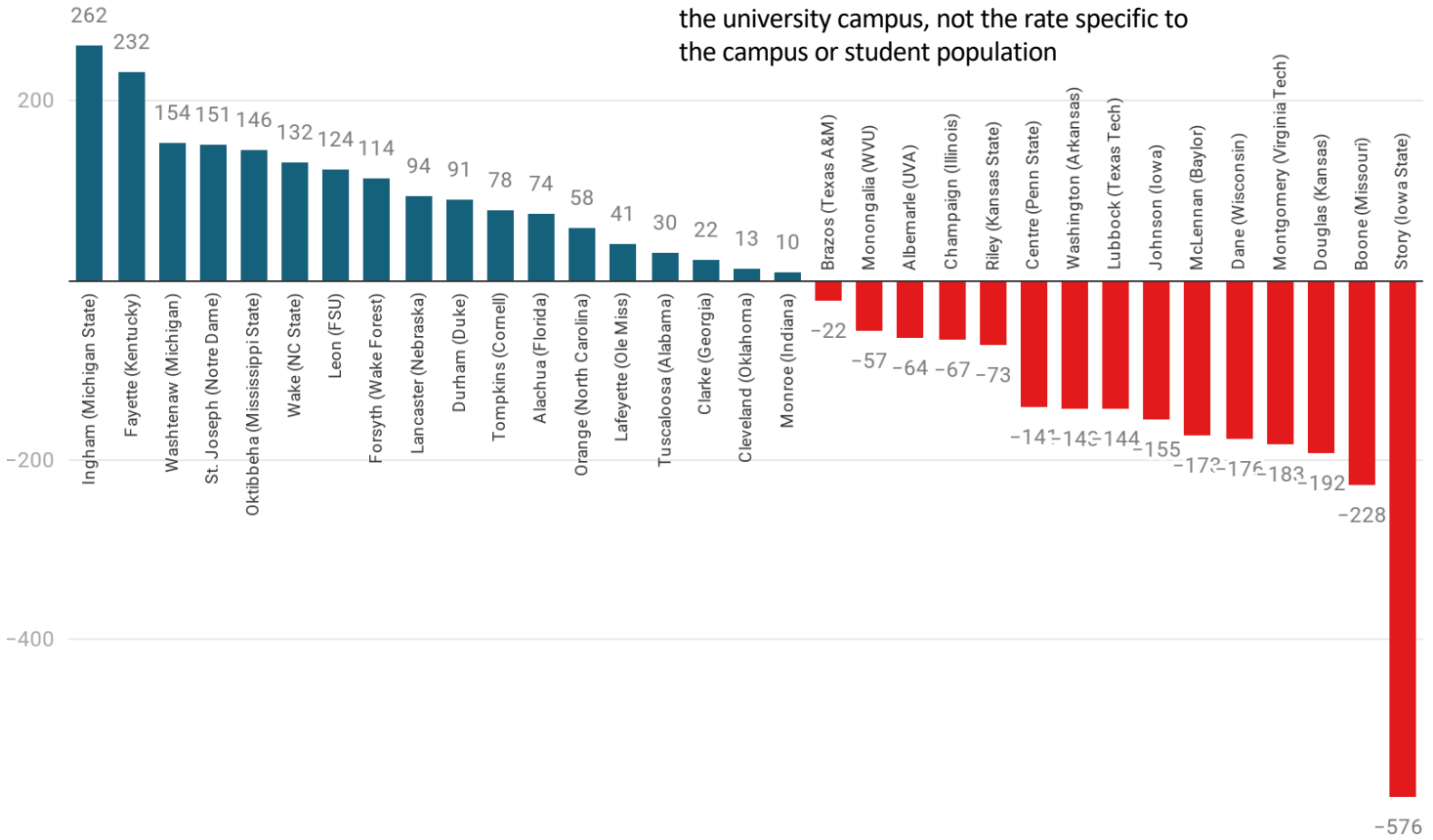

Chart: Health Industry Advisor LLC • Created with Datawrapper

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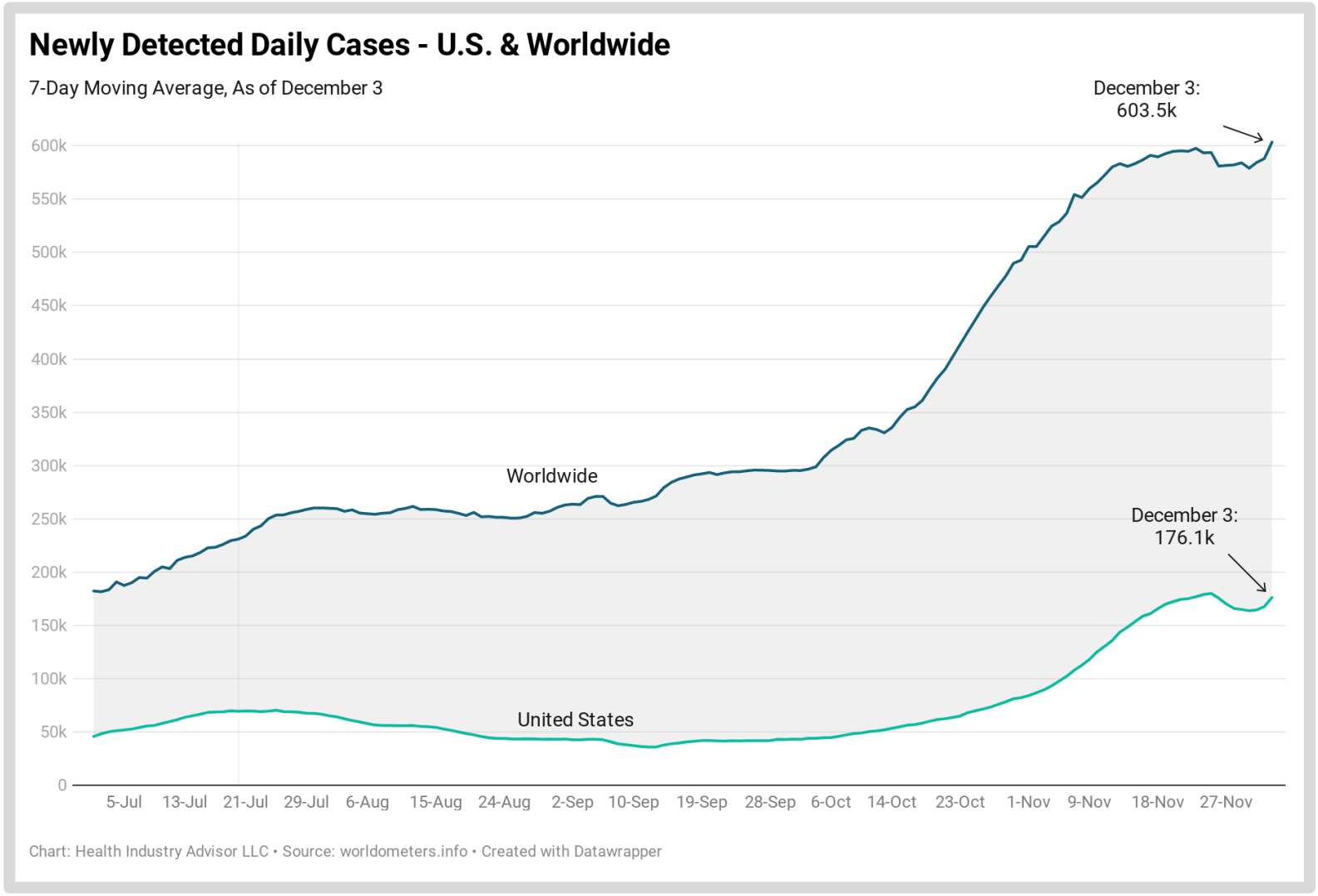
We are experiencing a “dip-and-rebound” in new infection rates, caused in significant part by report-timing issues around the Thanksgiving holiday (a similar pattern occurred around the Labor Dy holiday)

There were ~603.5k new cases worldwide each day, as of Wednesday

The United States is averaging ~176.1k new cases each day

* - 7-day moving average basis



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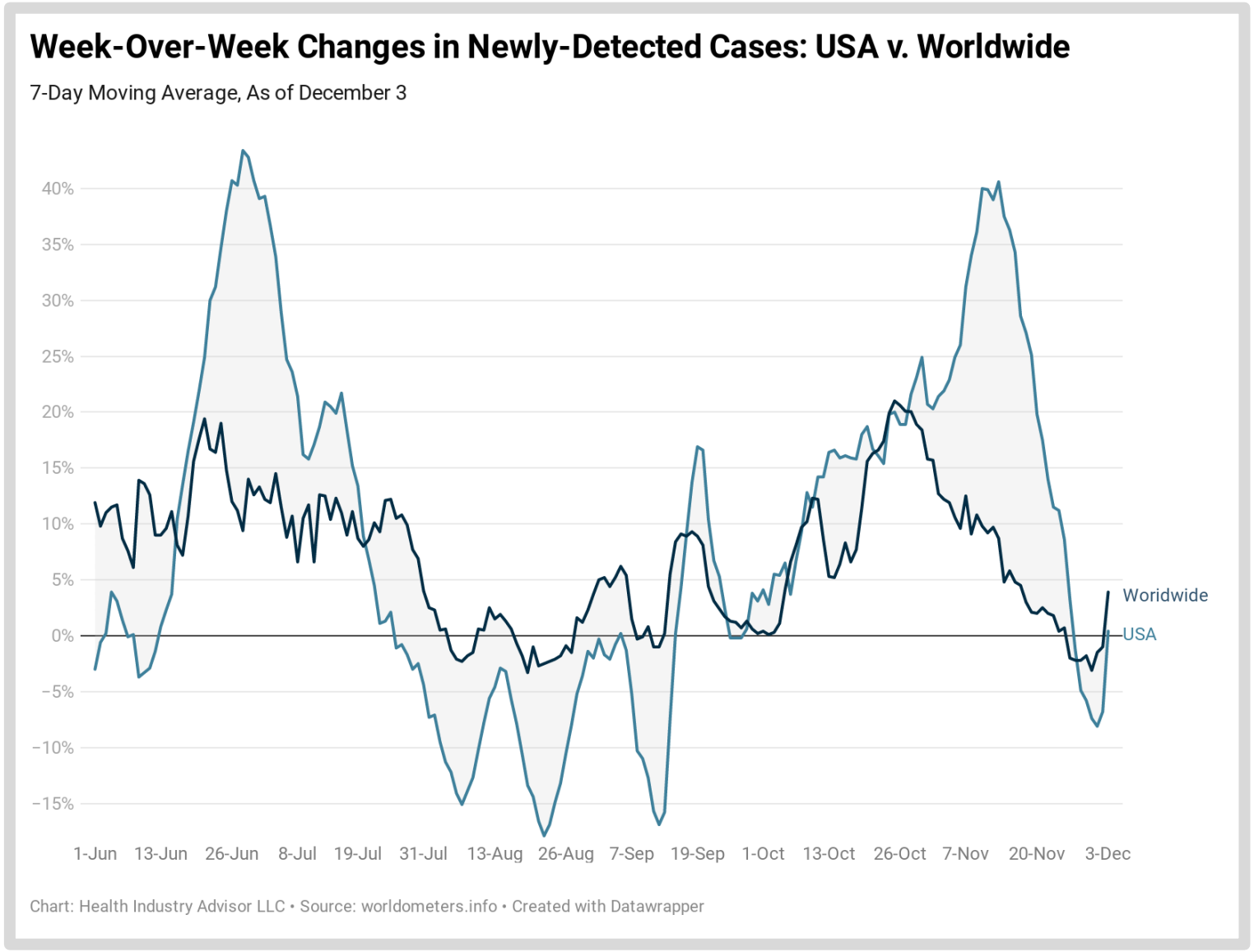
The rate of increase in new cases, both worldwide and in the United States, had been easing for an extended period

The Thanksgiving holiday caused this rate to go negative

This rate is starting to turn back up due to the impact of delayed case reporting on the Thanksgiving holiday



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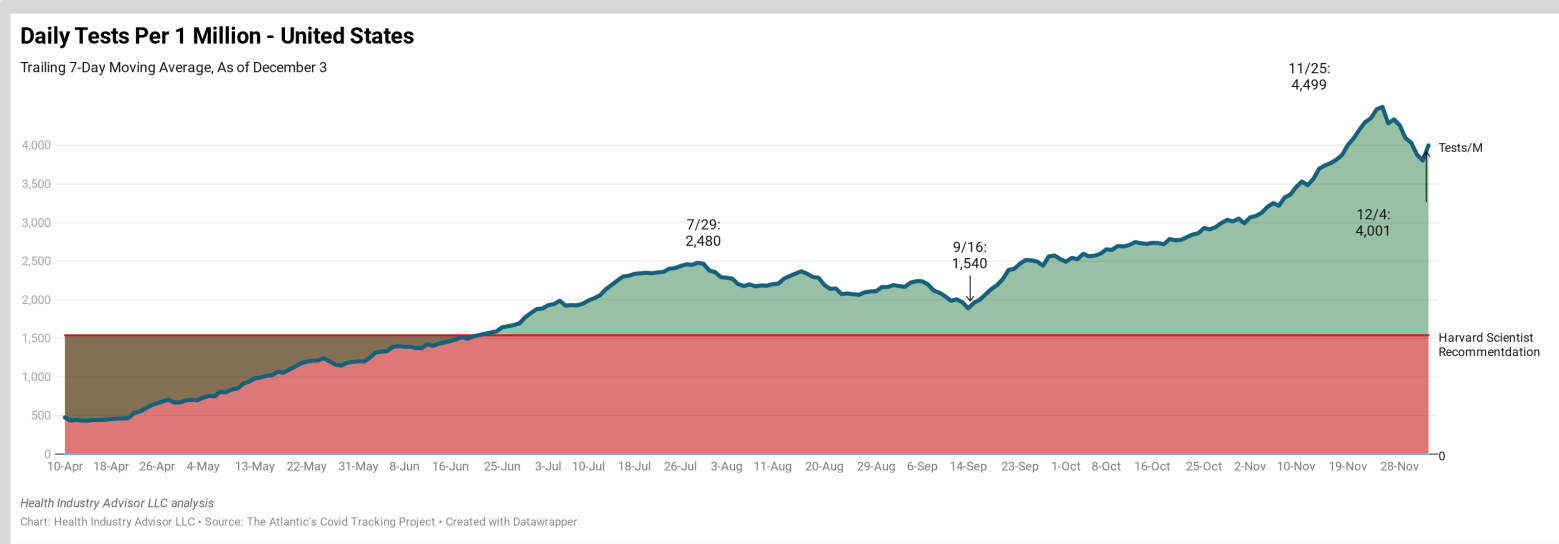
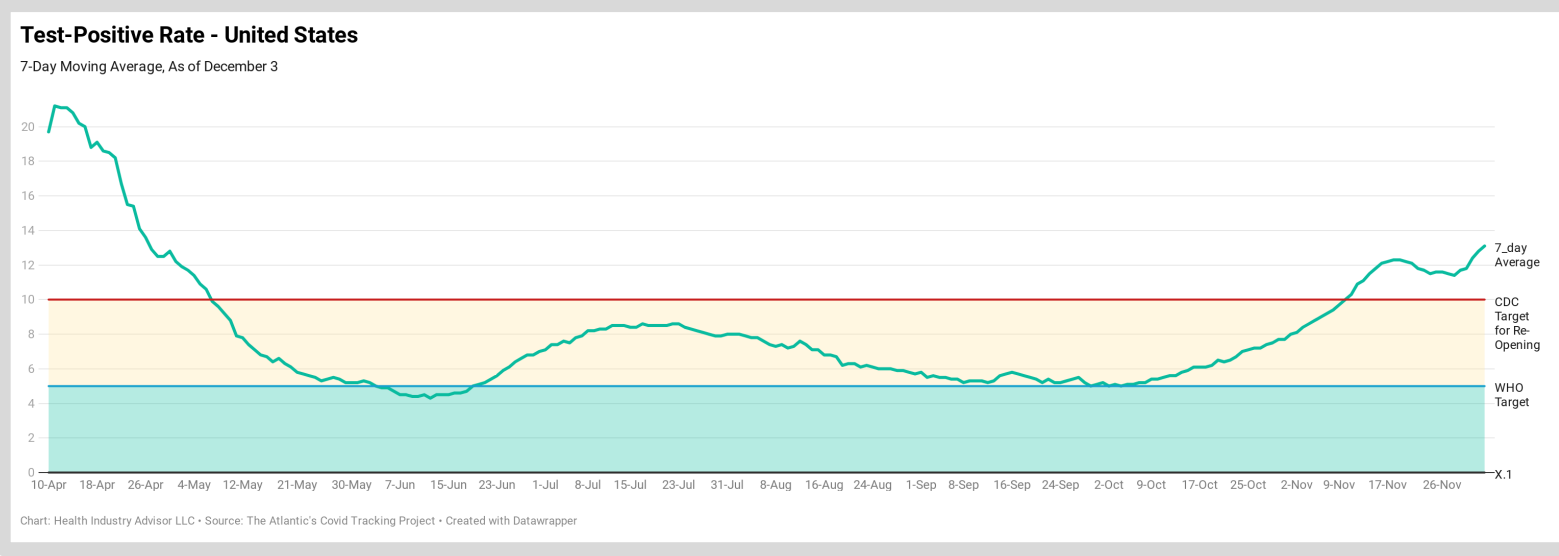
Testing volumes have yet to recover to pre-Thanksgiving levels

Coincident with reduced testing, the test-positive rate has been increasing recently

Does this suggest that only people with more severe symptoms are seeking testing?





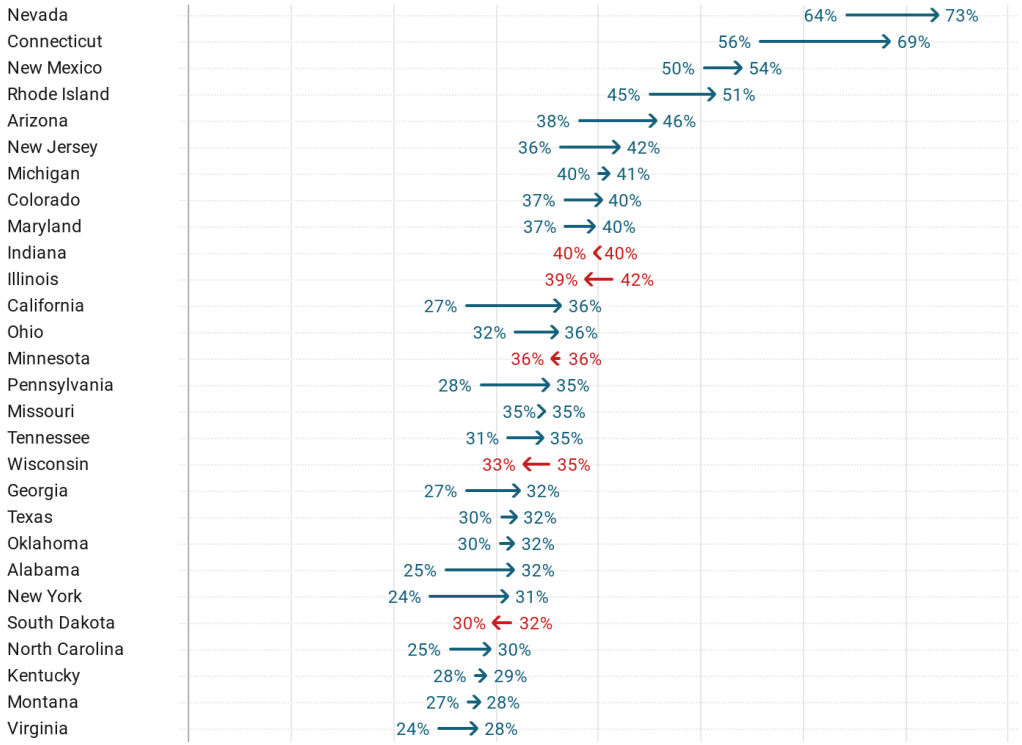
Covid-19 census remained at 32% of all inpatient beds – with "only" a net increase of 441 patients. Only twice since October 19 has this increase been this slight

Nevertheless, Covid-19 patients occupy more than ½ of all beds in Nevada, Connecticut, New Mexico and Rhode Island

Ten states experienced modest week-over-week declines in Covid-19 patients

Covid-19 Patients / Total Inpatient Beds

7-Day Moving Average, As of November 26 & December 3



Covid-19 Patients / Total Inpatient Beds

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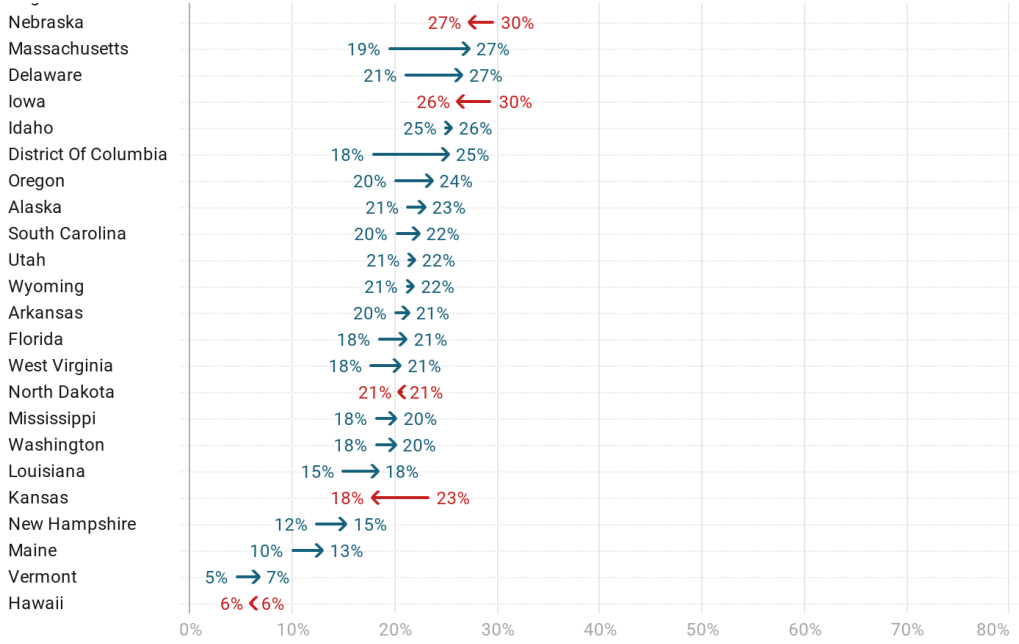
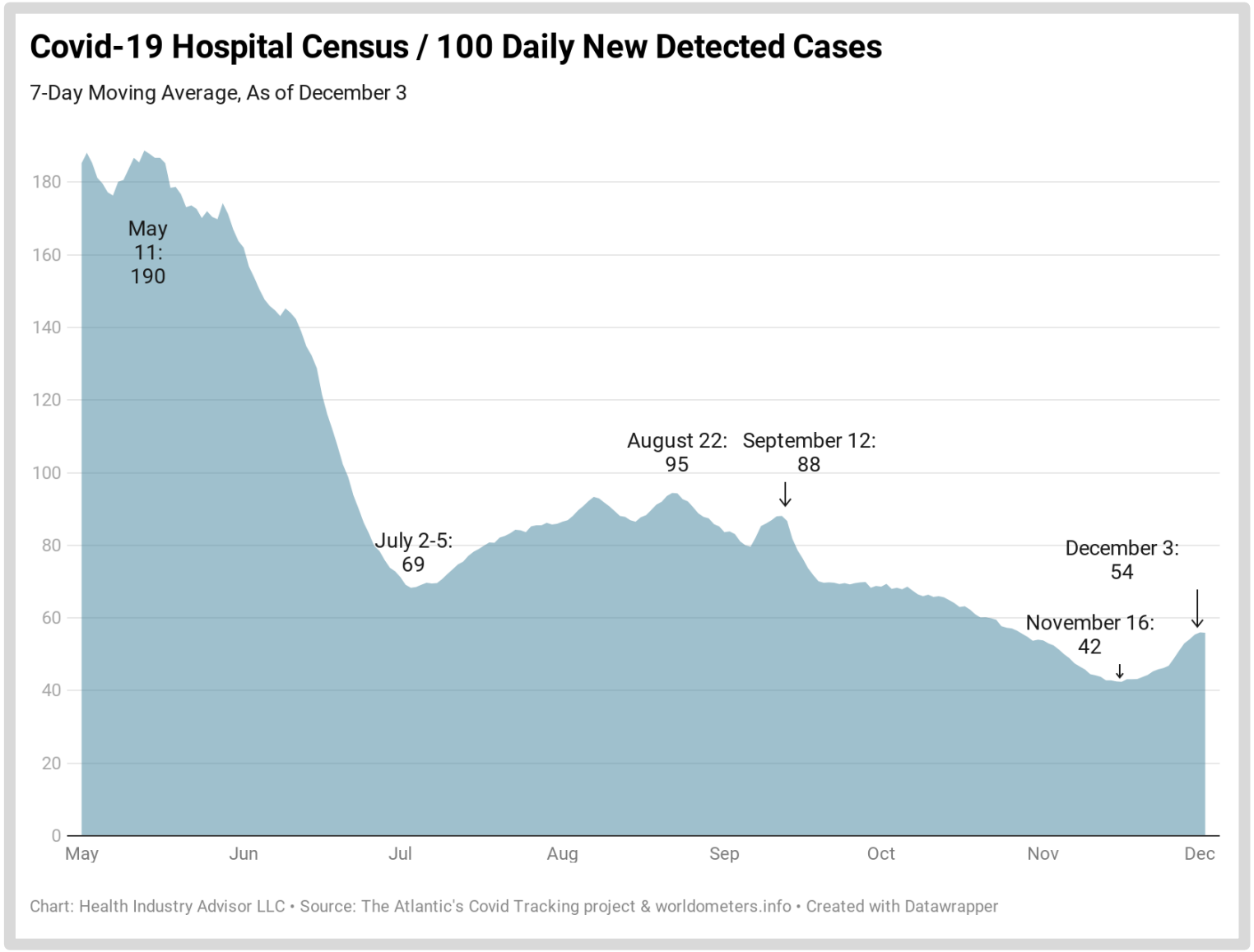


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking project & worldometers.info • Created with Datawrapper

The average Covid-19 census per 100 new-cases declined yesterday (following a marginal decline on Wednesday). These declines broke a string of fifteen consecutive increases



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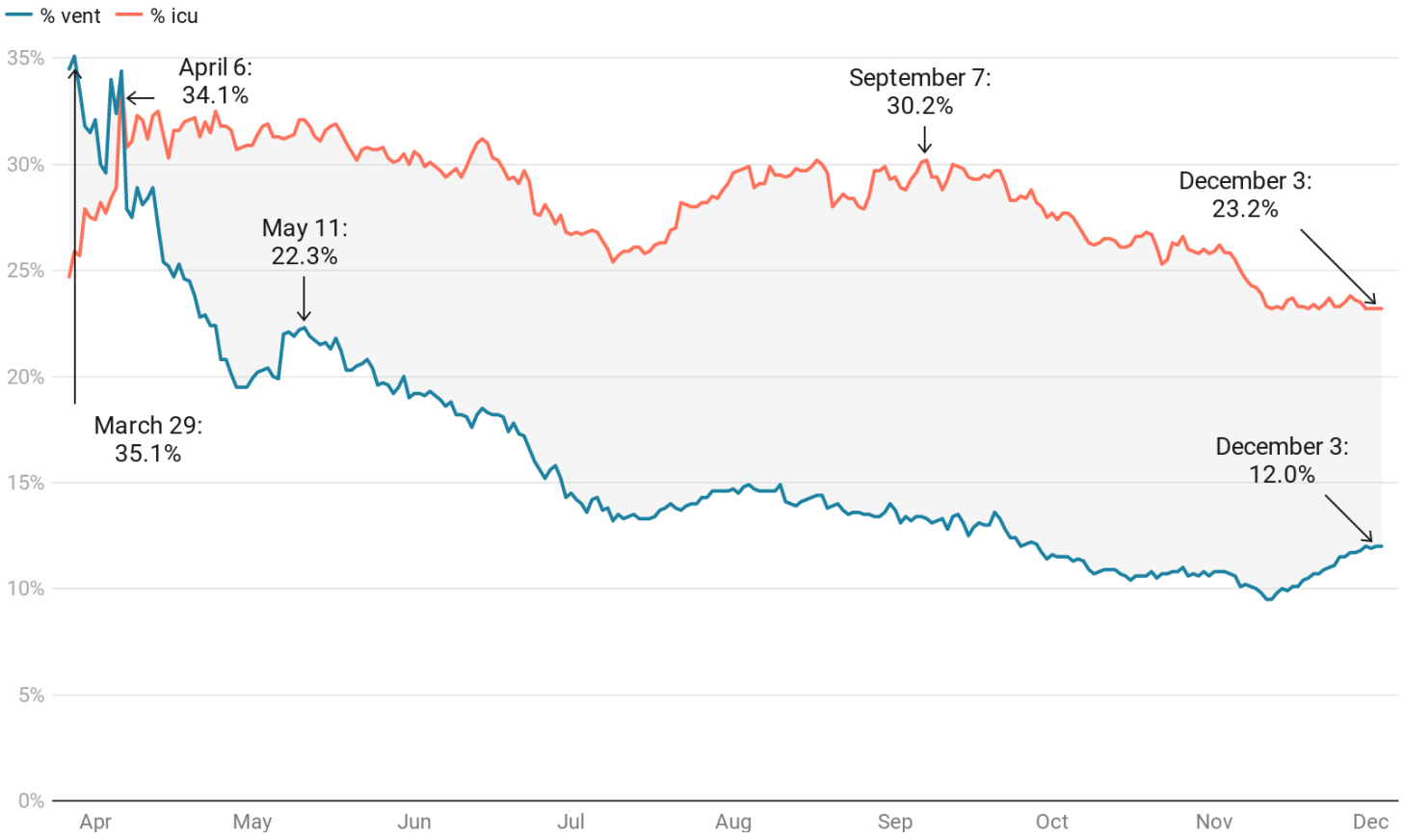
The likelihood of a hospitalized Covid-19 patient would require ICU care has been lower throughout November than at any time during the pandemic

The likelihood of a hospitalized Covid-19 patients would be on a ventilator, after increasing for two weeks, has now been stable for the past five days

Severity of Hospitalized Patients

% of patients on ventilators and in the ICU, As of December 3



Health Industry Advisor LLC analysis

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

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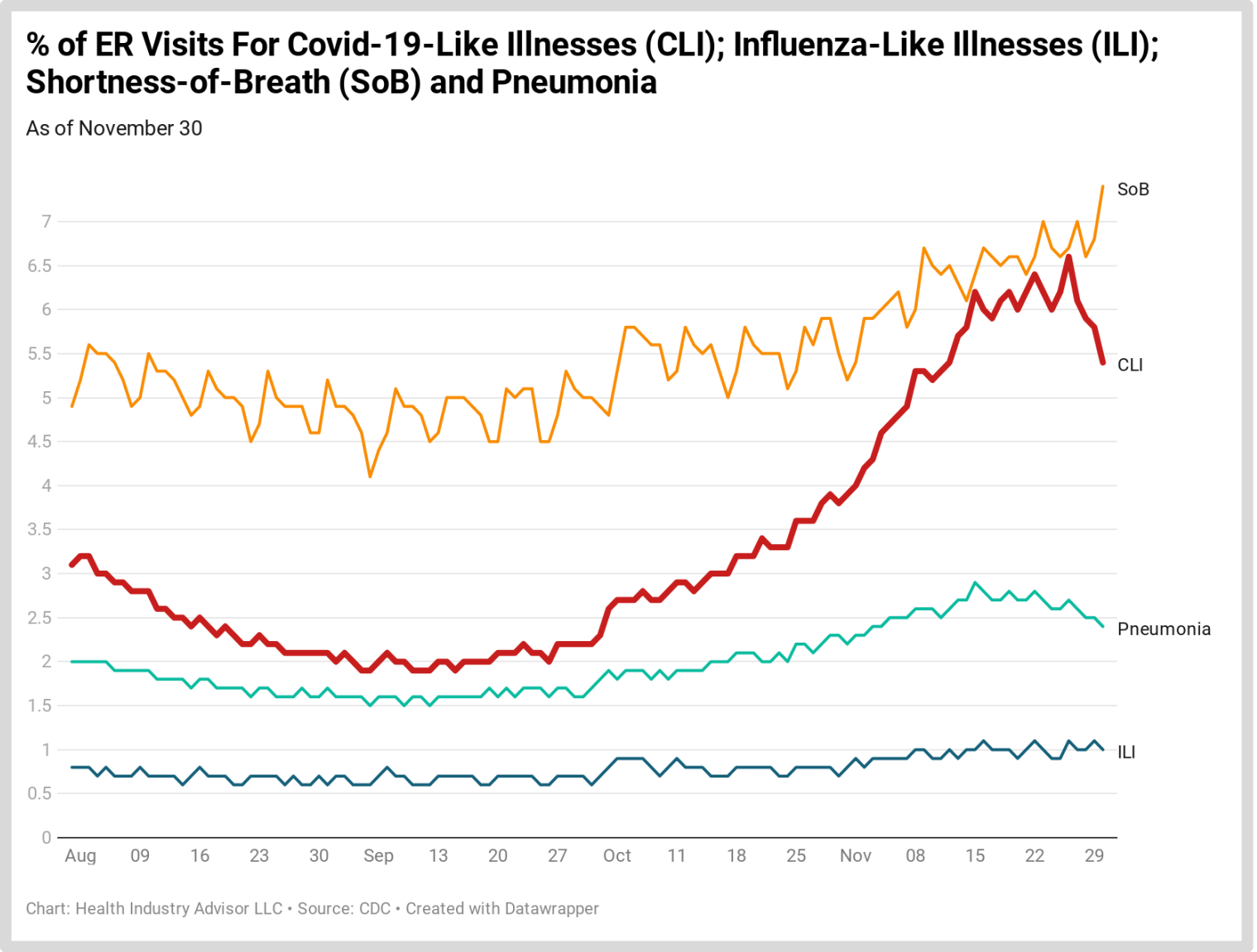
The % of ER visits for COVID-19-like illnesses (CLI) seems to have waned since the week before Thanksgiving

The rate of influenza visits remains low given where we are in the flu season



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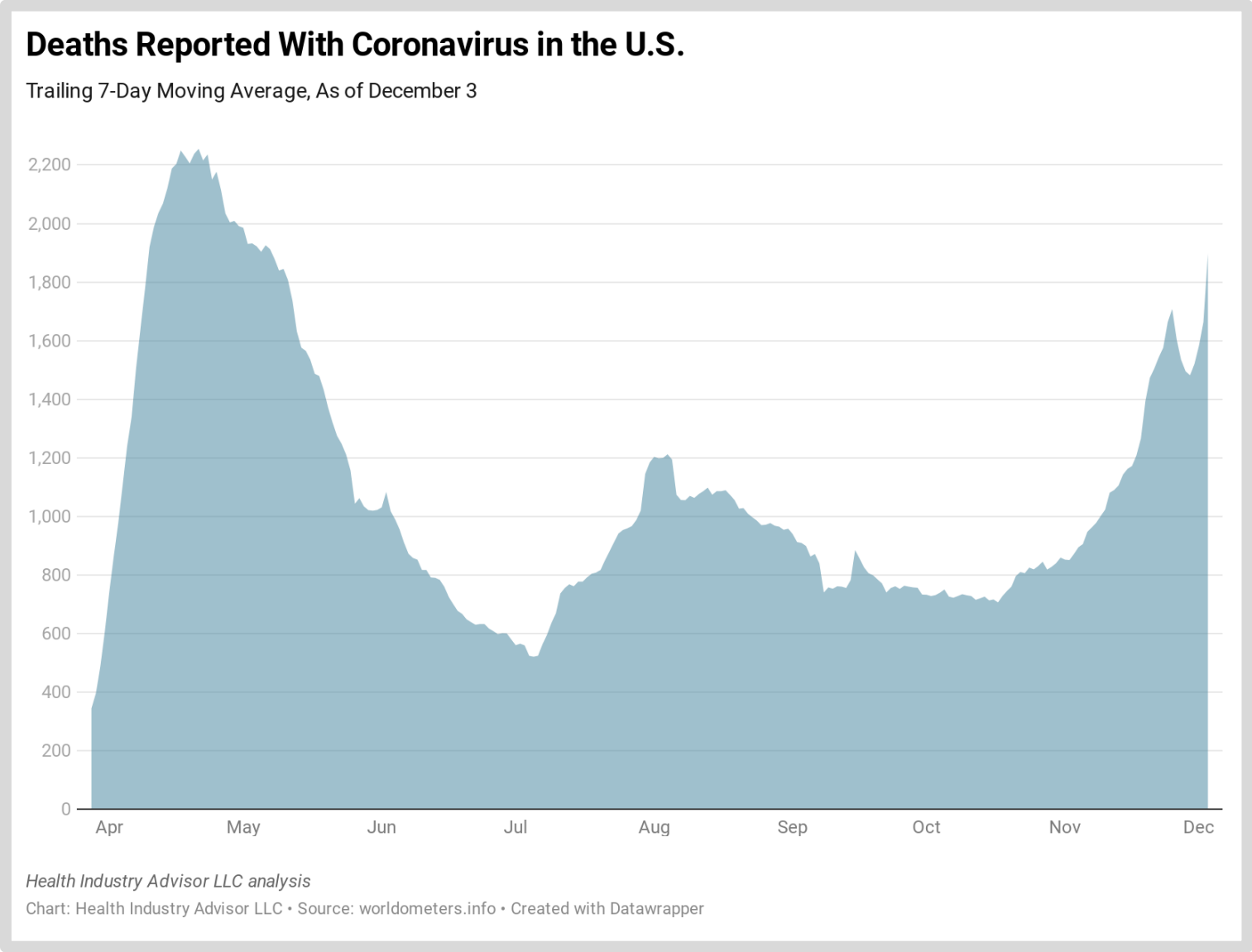
After a relative respite in the 7-day average deaths since Thanksgiving Day, these increased each day this week

This rate now exceeds the pre-Thanksgiving peak . . . And will likely continue rising for at least the next few weeks



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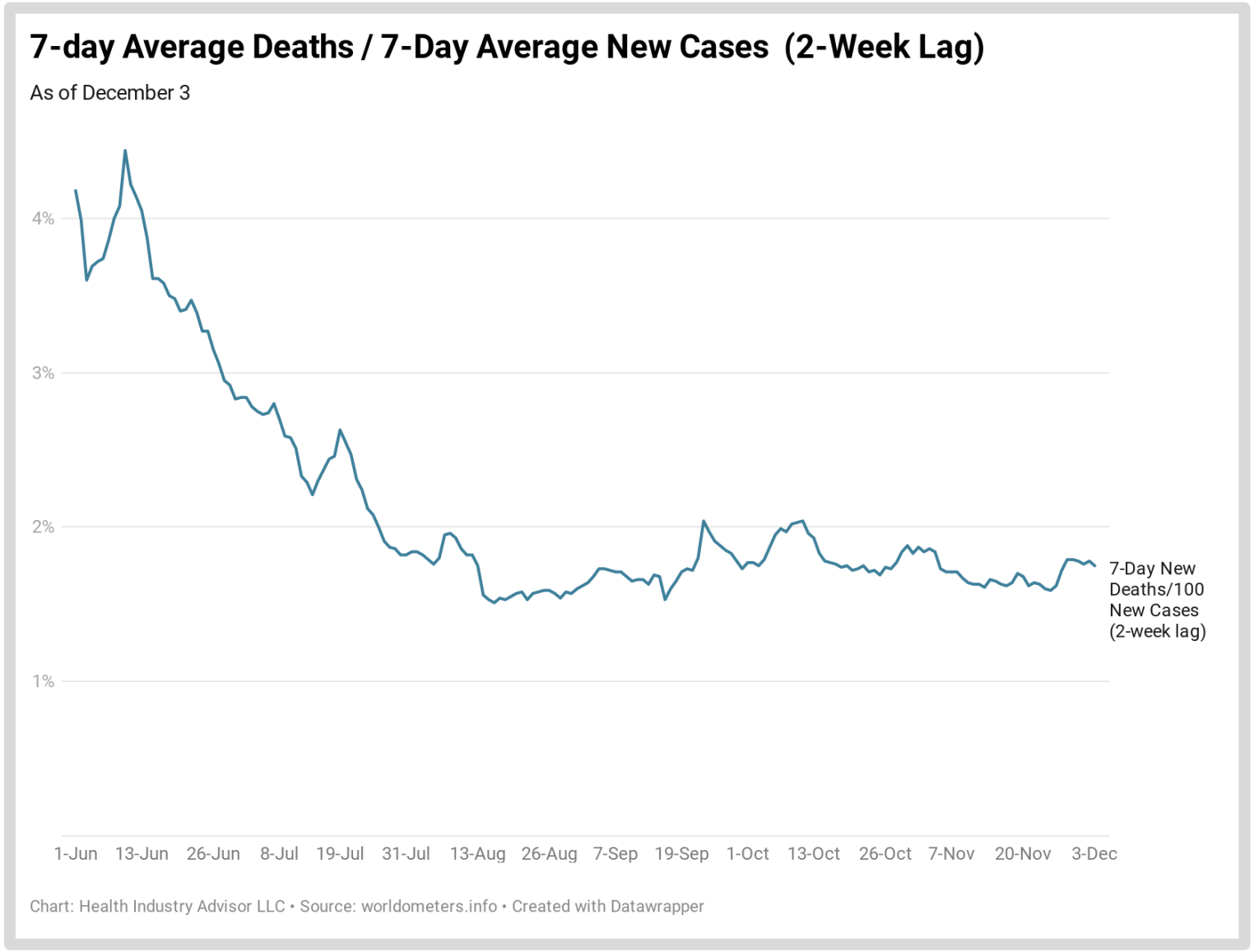
Deaths with coronavirus, relative to new detected cases (lagged 2 weeks) have remained in a narrow range (1.6-1.9%) since October 13



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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
- Oliver Wyman Pandemic Navigator, https://pandemicnavigator.oliverwyman.com/forecast?mode=country&region=United%20States&panel=mortality