



"Strategic Advice in an Era of Unprecedented Change"

COVID19 VITAL SIGNS

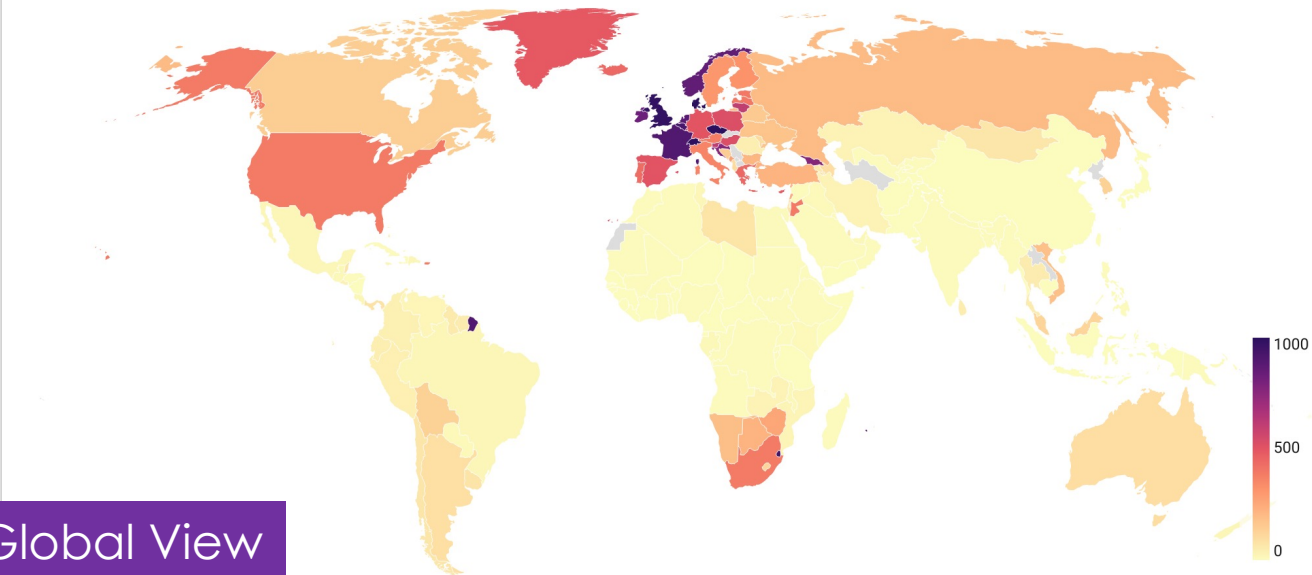
ISSUE #361

MONDAY, DECEMBER 20, 2021

New Case Rates per Capita

New Daily Cases / Million

7-Day Average, As of December 17

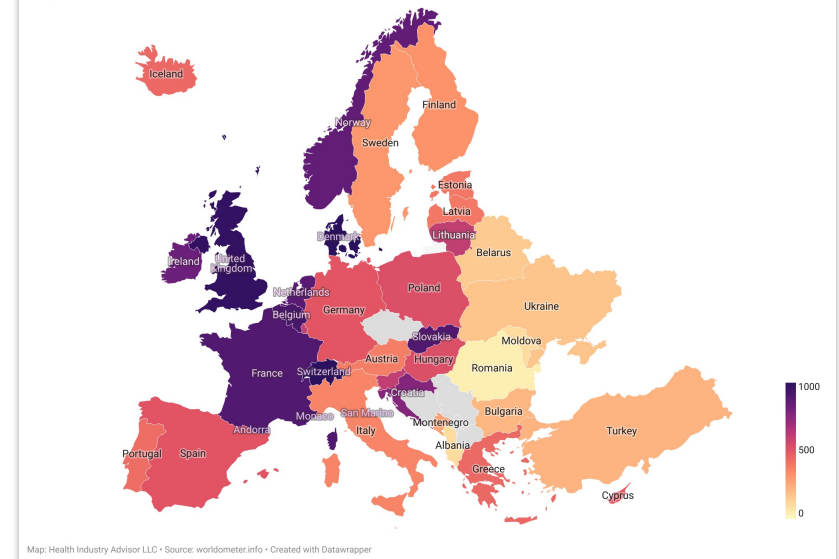


Map: Health Industry Advisor LLC • Source: worldometer.info • Created with Datawrapper

European View

New Daily Cases / Million

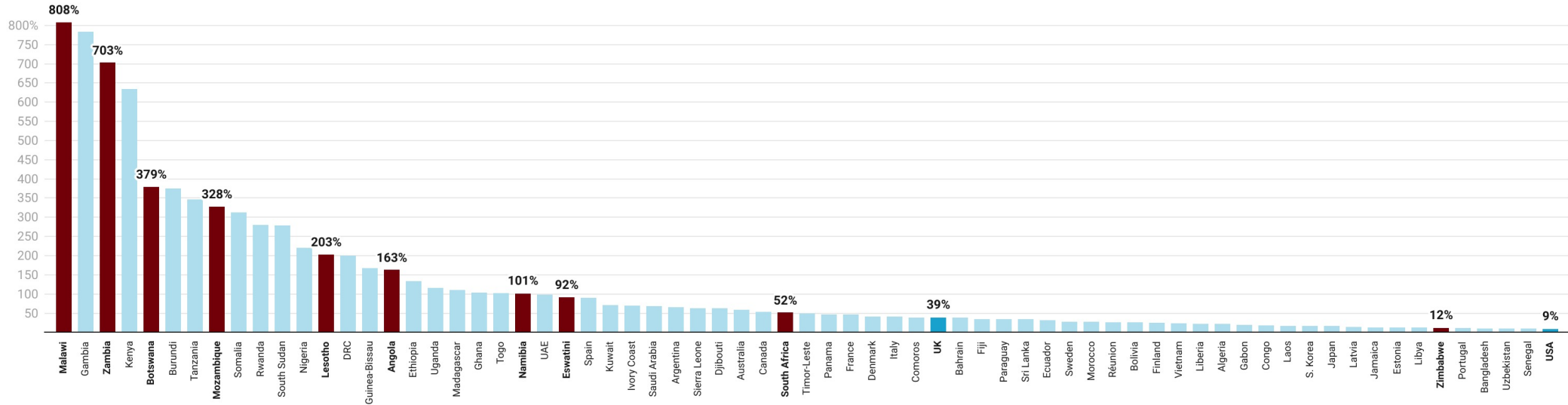
7-Day Average, As of December 17



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

Surging Cases?

Week-Over-Week Increase in New Cases - Countries with 500,000+ Population



December 11-17 v. December 4-10

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

Where in the World Are Cases Surging?

Cases are surging in several countries in southern Africa (shown here in burgundy. US and UK also highlighted.)

Timeline: Estimated Infections and Reported Cases - United States

Estimated Daily Infections v. Detected Cases

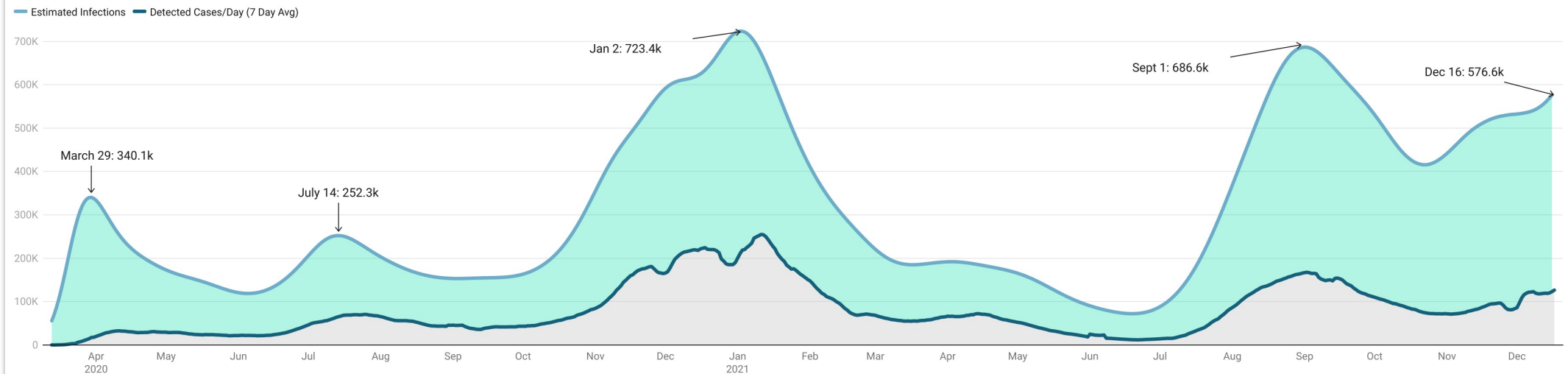
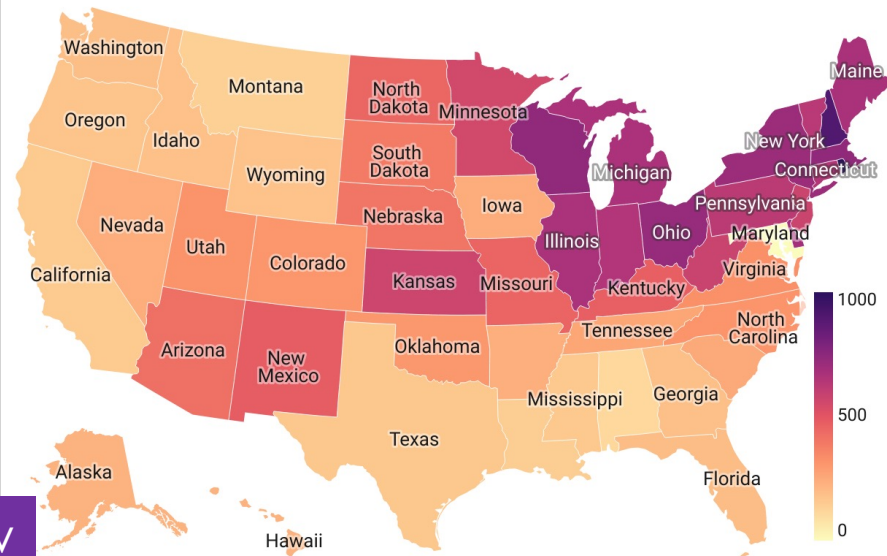


Chart: Health Industry Advisor LLC • Source: Yale School of Public Health • Created with Datawrapper

New Daily Cases Per Capita – Last Week

New Cases / Million

7-Day Average, As of December 17

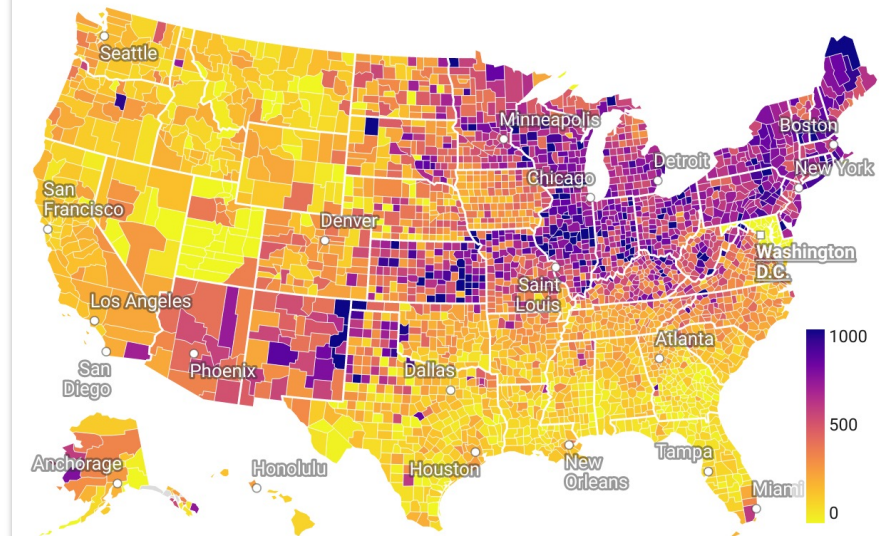


Map: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

State View

New Daily Infections / Million

7-Day Average, As of December 17



Map: Health Industry Advisor LLC • Source: Center for Systems Science and Engineering at Johns Hopkins University • Created with Datawrapper

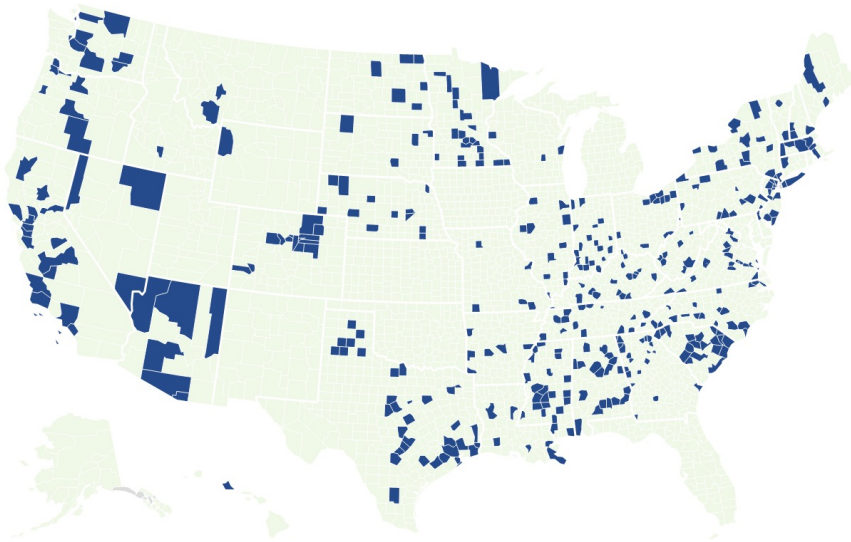
County View

Where Were Cases Surging Late Last Week?

Cases in at least 415 counties/municipalities - from New York City to tiny Green Lake, Wisconsin - doubled on Thursday and again on Friday.

Late Week Covid Surge?

Counties/Municipalities For Which Cases Doubled Both Thursday and Friday

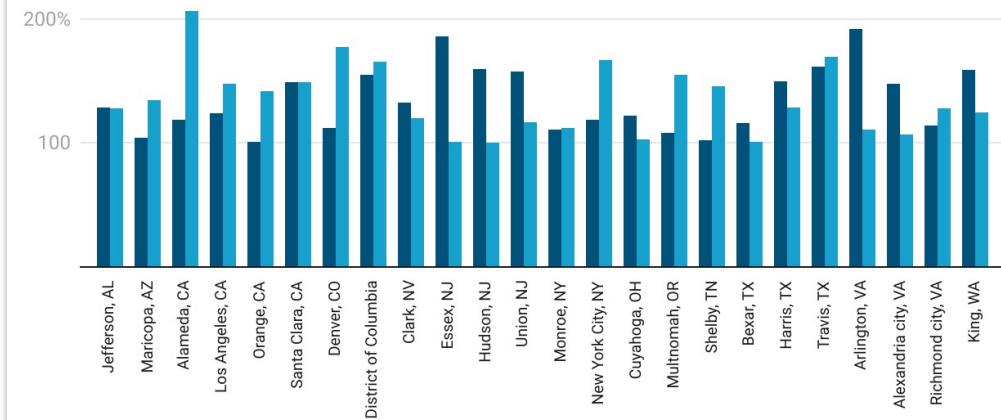


Map: Health Industry Advisor LLC • Source: Johns Hopkins Center for Systems Science and Engineering • Created with Datawrapper

Where Are Cases Surging?

Large Central Metro Areas Where Cases Doubled Both Thursday and Friday

12/16/2021 12/17/2021



Created with Datawrapper

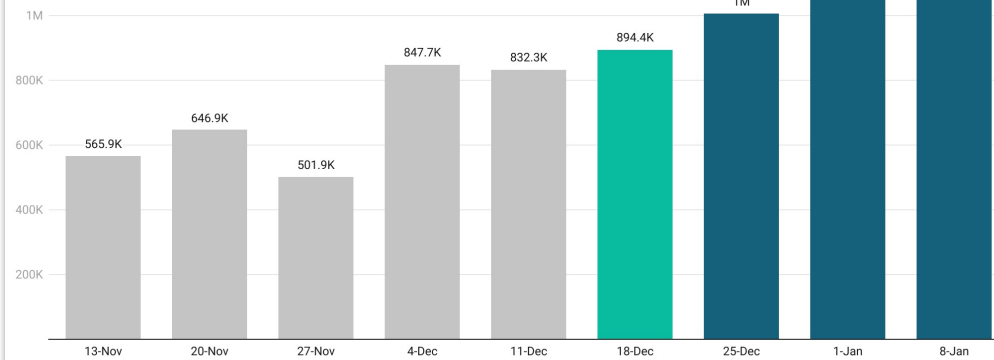
Twenty five of the sixty-four Large Central Metro areas in the U.S. saw cases double on Thursday and again on Friday.

What is the Consensus for Cases and Deaths in the Next Few Weeks?

Source: Covid-19 Forecast Hub

Newly-Reported Cases Per Week

Covid-19 Forecast Hub, Composite Forecast As of December 11

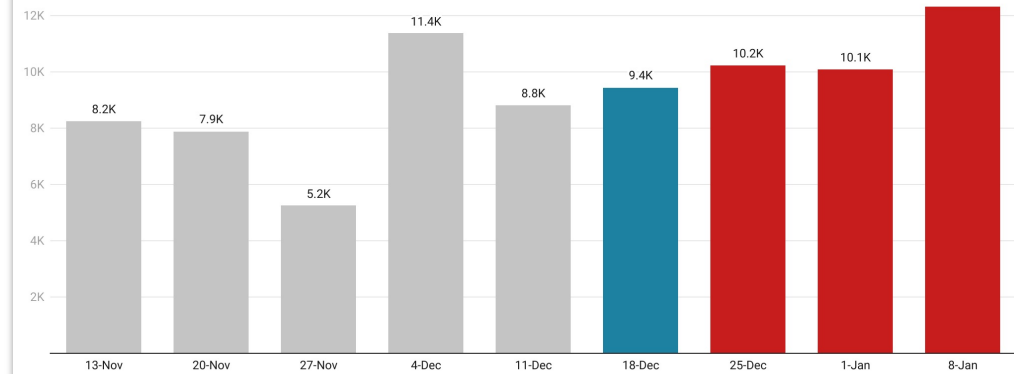


For the week ending on the date shown
Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Actual
 Projection – Current Week
 Projection – Next 3 Weeks

Newly-Reported Deaths Per Week

Covid-19 Forecast Hub, Composite Forecast As of December 11



For the week ending on the date shown
Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Actual
 Projection – Current Week
 Projection – Next 3 Weeks

Who is Vaccinated?

- ▶ Less than half of senior citizens are max protected (vaccinated + booster)
- ▶ One-in-five working age adults have no vaccine protection
- ▶ Only half of middle and high school aged persons are double vaccinated
- ▶ Only one-third of elementary age children have received a Covid vaccine

Vaccination Status By Age

As of December 17

■ Unvaccinated ■ Partially Vaccinated ■ Double Vaccinated ■ Boosted

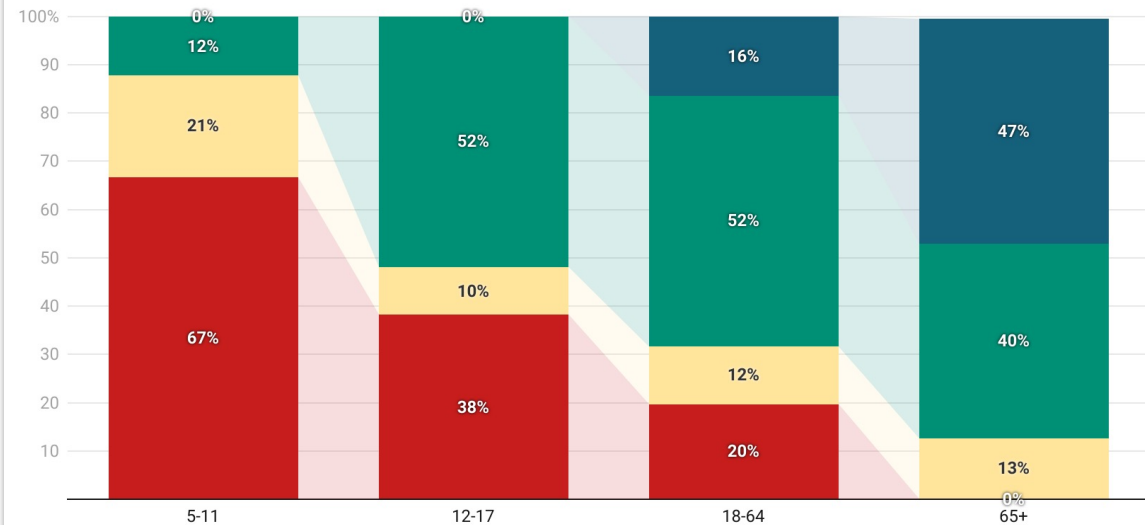


Chart: Health Industry Advisor LLC • Source: CDC • Created with Datawrapper

Timeline: How Many Covid Patients Are in the Hospital?

Covid-19 Admissions & Census

As of December 17

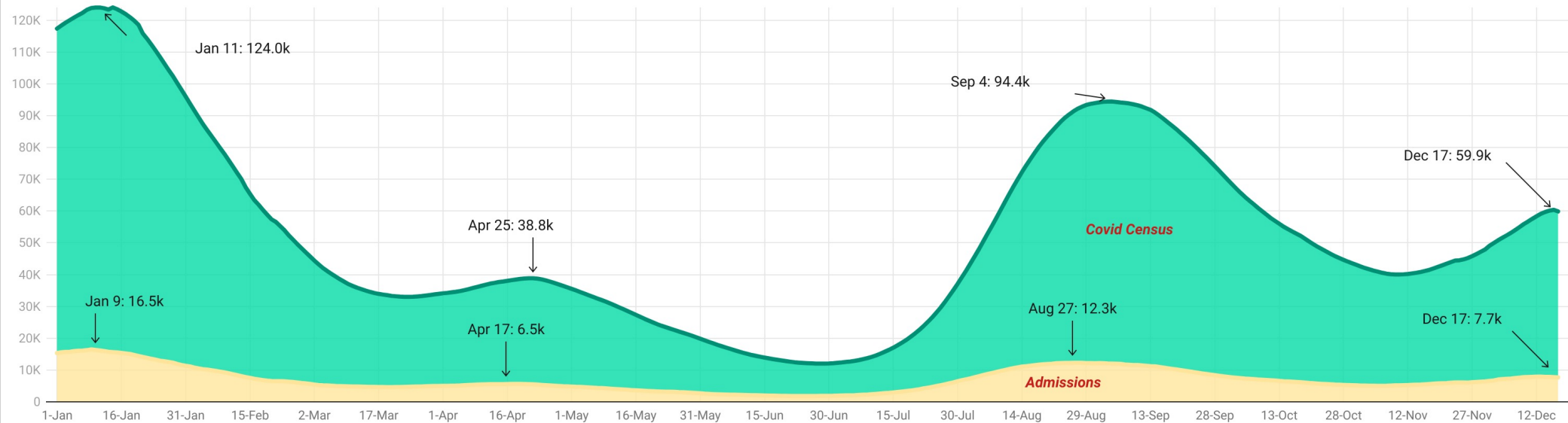
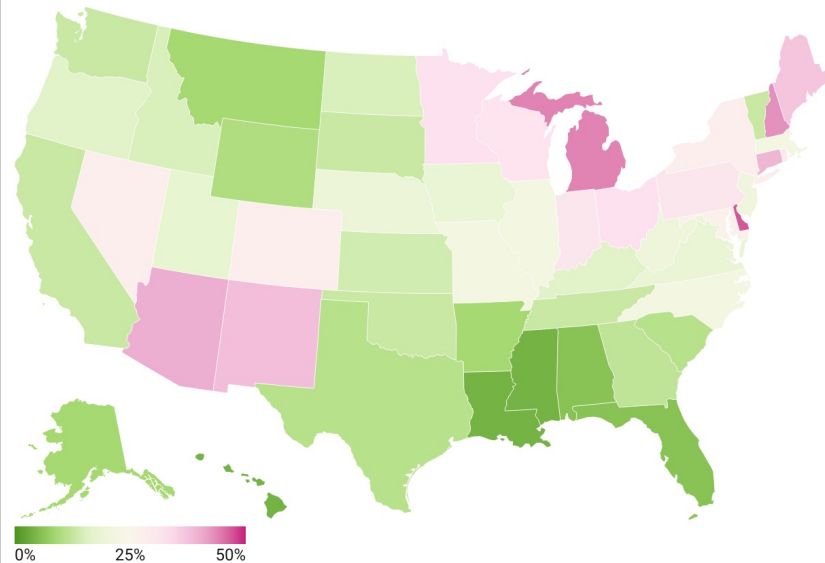


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Where Are Caregivers and Hospitals Straining With Covid Patients?

Covid-19 Patients As % of All Inpatient Beds

As of December 16



Map: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Change In Covid Census - Past Two Weeks

December 16 v. December 2

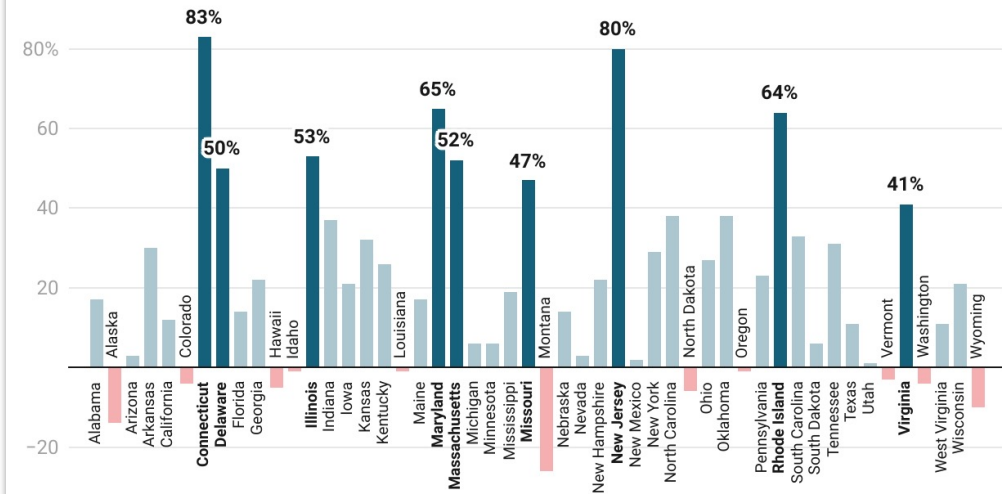


Chart: Health Industry Advisor LLC • Source: Center for Disease Control and Prevention • Created with Datawrapper

Is the Recent Case Surge Driving Hospital Admissions Yet?

Despite the rise in new cases late last week, Covid admissions have declined ten consecutive days, on a day-of-week-adjusted basis.

Comparing New Daily Cases and New Admits By Day of Week - United States

Compared to Same Day of Prior Week

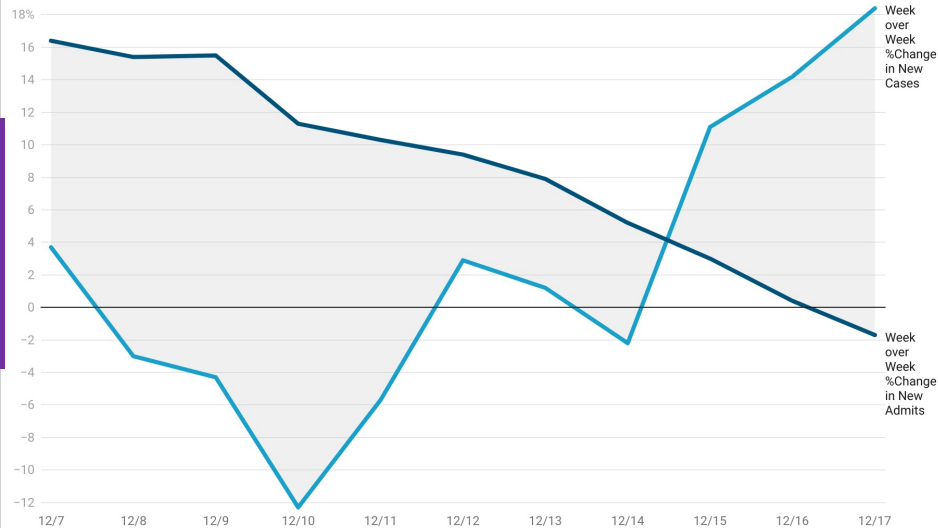


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Comparing New Daily Cases and New Admits By Day of Week - New York (excluding NYC)

Compared to Same Day of Prior Week

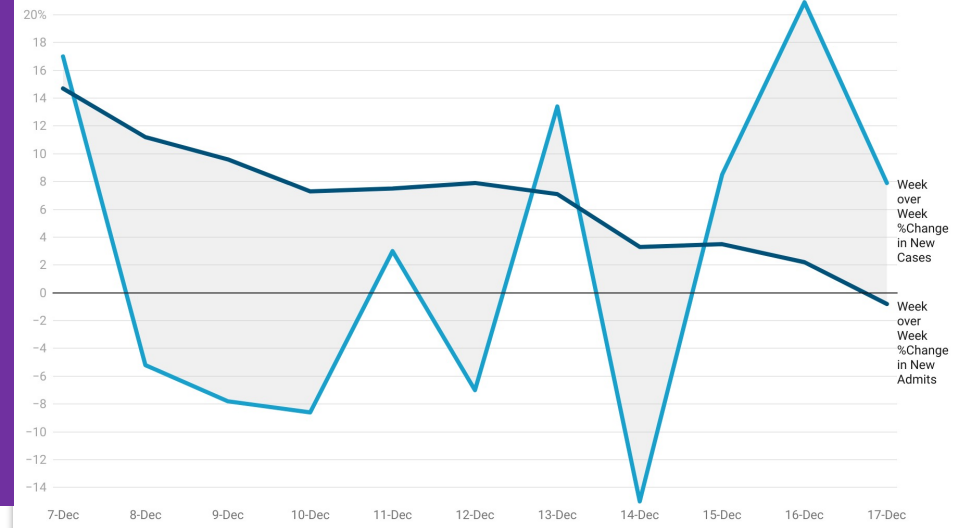


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

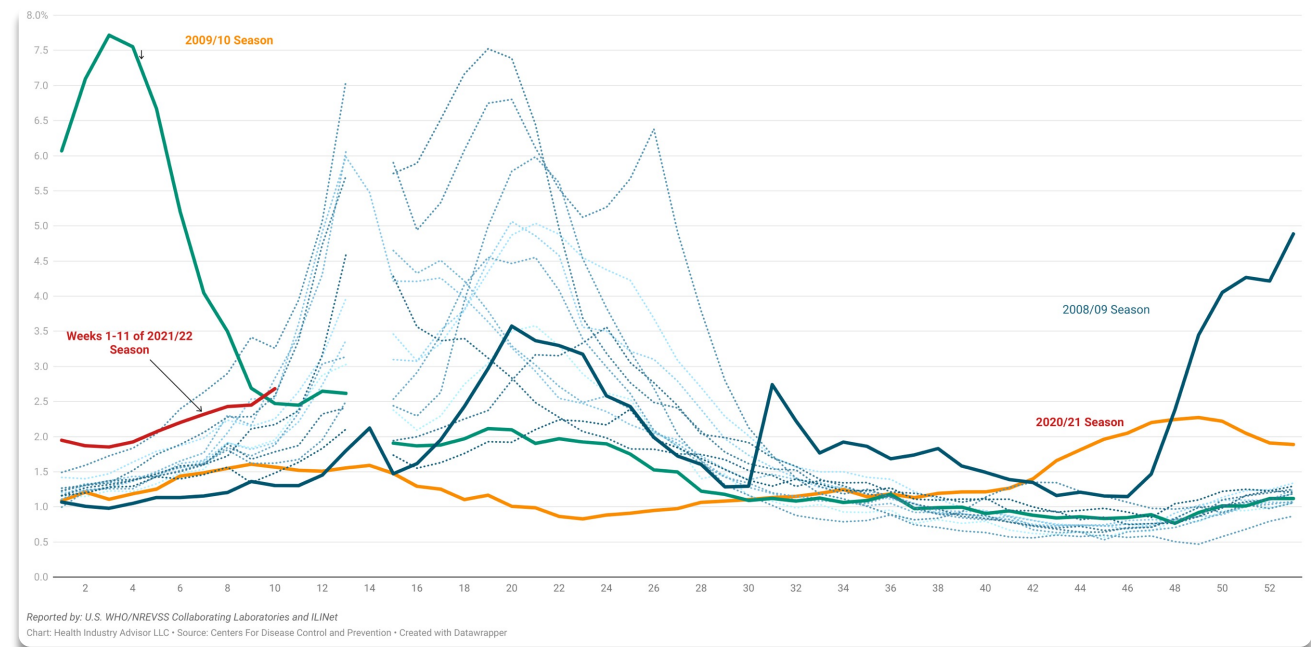
New York State View

U.S. View

Flu Visits: Comparison of the Past Fifteen Seasons

As we near the peak flu season:

- ▶ Flu visits are relatively high for this point in the season;
- ▶ However, they are trending up more slowly than most years.



Sources

- ▶ Bloomberg Vaccine Trackers, <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/?sref=ZOb6TmH>
- ▶ Centers for Disease Control and Prevention, COVID Data Tracker <https://www.cdc.gov/covid-data-tracker/index.html#mobility>
- ▶ Centers for Disease Control and Prevention, COVID-19 Laboratory-Confirmed Hospitalizations https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html
- ▶ Centers for Disease Control and Prevention, National, Regional, and State Level Outpatient Illness and Viral Surveillance <https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>
- ▶ Centers for Disease Control and Prevention, Vaccines, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>
- ▶ 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 Forecast Hub, <https://viz.covid19forecasthub.org>
- ▶ COVID-19 Projections Using Machine Learning, <https://covid19-projections.com>
- ▶ 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>
- ▶ Our World In Data, <https://ourworldindata.org/covid-vaccinations>
- ▶ U.S. Department of Health & Human Services <https://beta.healthdata.gov/dataset/COVID-19-Diagnostic-Laboratory-Testing-PCR-Testing/j8mb-icvb>
- ▶ U.S. Department of Health & Human Services: <https://healthdata.gov/dataset/covid-19-estimated-patient-impact-and-hospital-capacity-state>
- ▶ Worldometers.info: <https://www.worldometers.info/coronavirus/>
- ▶ Yale School of Public Health & Harvard TH Chan School of Public Health, <https://covidestim.org>