



"Strategic Advice in an Era of Unprecedented Change"

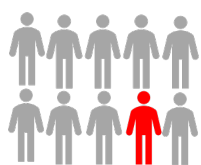
COVID19 VITAL SIGNS

ISSUE #364

MONDAY, JANUARY 10, 2022

How Many People Were Infected Last Week? In the Last Two Weeks?

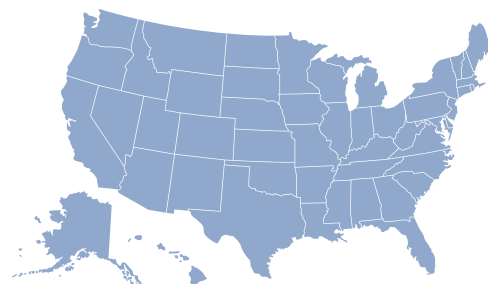
In the past 7 days alone¹, Covid infected an estimated 1 of every 12 people in the U.S.². In the past two weeks, the virus infected an estimated 1 of every 8 Americans.



Last Week



Last 2 Weeks



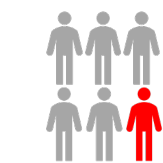
Last Week



Last 2 Weeks



Last Week



Last 2 Weeks



Last Week



Last 2 Weeks



Last Week



Last 2 Weeks

1- January 1-7, 2022

2 - Source: Calculated from <https://covidestim.org> model, accessed January 8, 2020

Estimated Infections Are Spiking Faster Than Reported Cases

Estimated Daily Infections v. Detected Cases

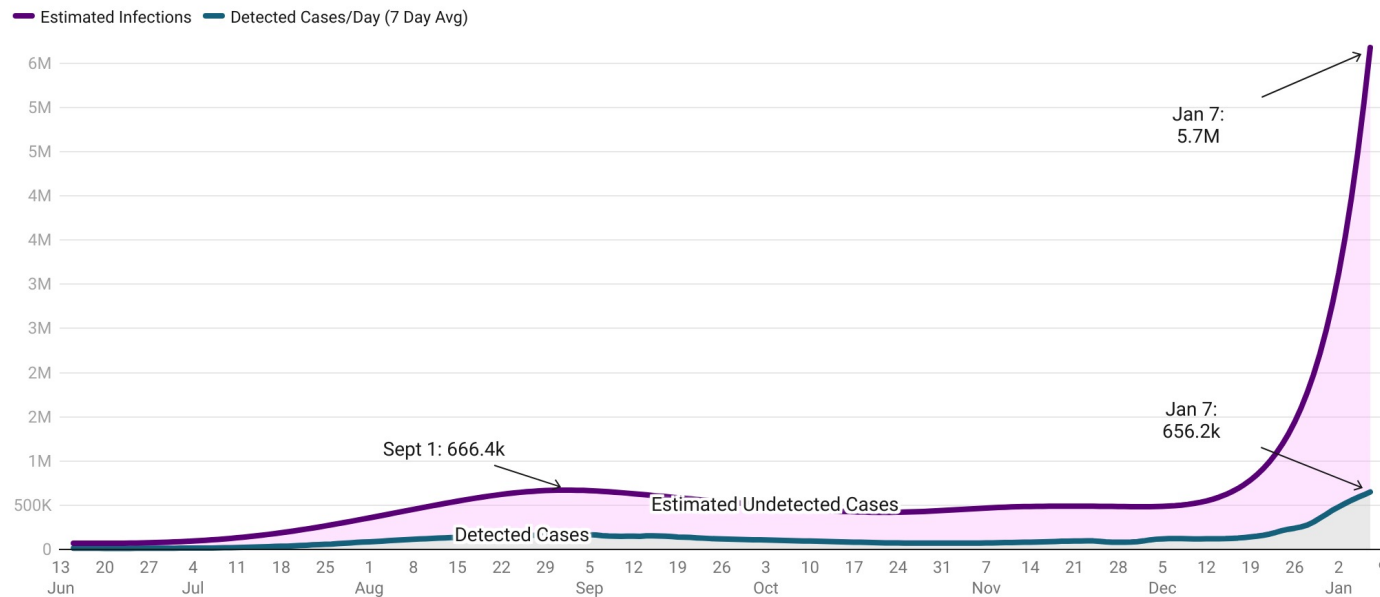


Chart: Health Industry Advisor LLC • Source: Harvard, Stanford & Yale Schools of Public Health • Created with Datawrapper

- ✓ **1.7%** of the U.S. population may have been infected on Friday alone (Harvard/Stanford/Yale Schools of Public Health estimate <https://covidestim.org>)
- ✓ **12.5%** of the population may have been infected since Christmas
- ✓ Estimated infections Friday were nearly **9x** higher than reported cases

Omicron and A Lack of Test Supplies Are Driving Up Test-Positive Rates

Test-Positivity Rate

7-Day Average, Through January 4

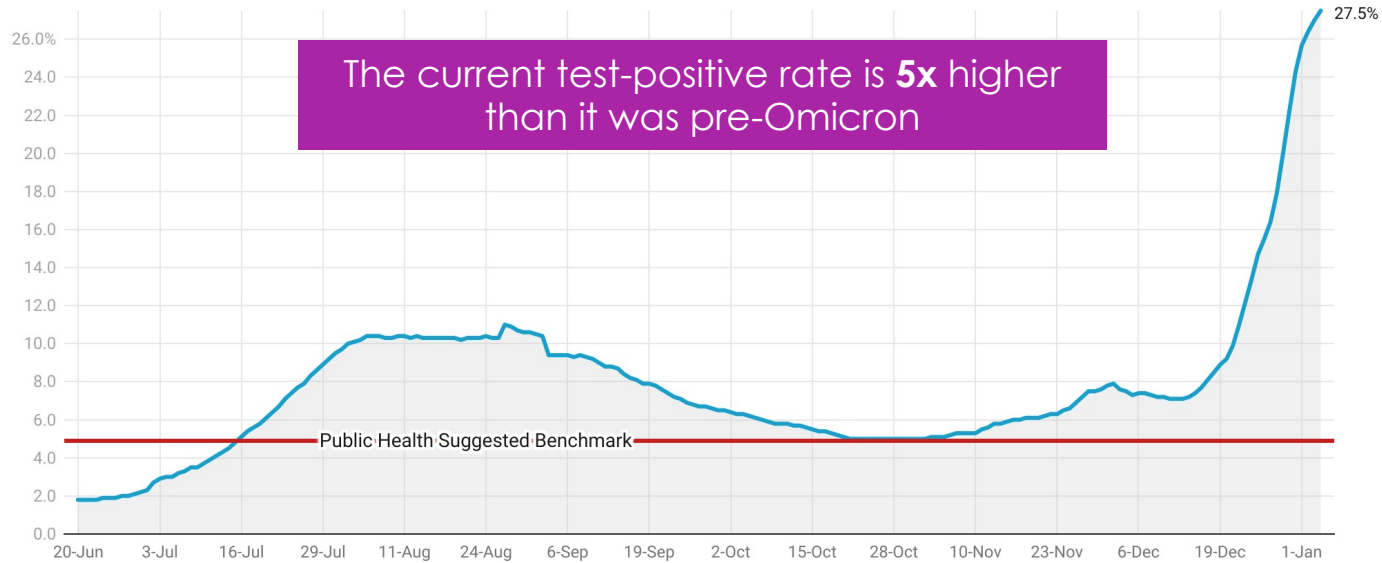
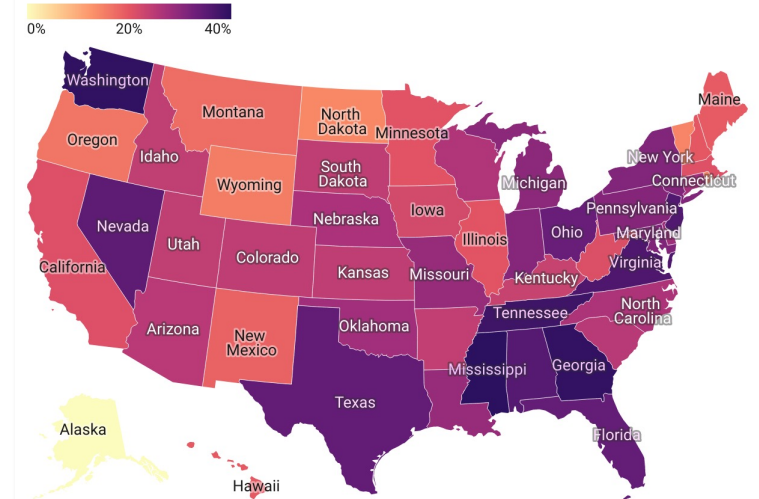


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Test Positivity %

7-Day Average, As of January 4



Map: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Cases Were Nearly Doubling Each Week – Are We Now Seeing This Growth Taper?

Week-Over-Week Change in Newly Reported Cases

7-Dy Average



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

Who is Vaccinated? Who Isn't?

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

Vaccination Status By Age

As of January 8

Unvaccinated Partially Vaccinated Double Vaccinated Boosted

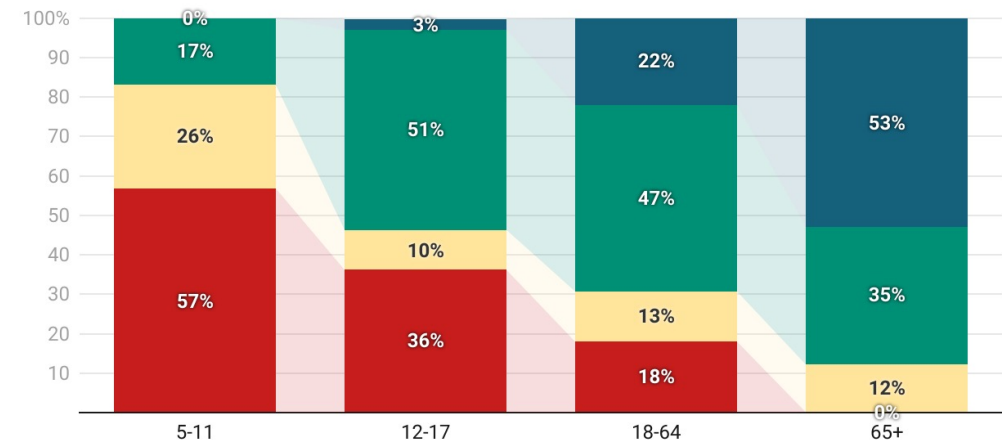


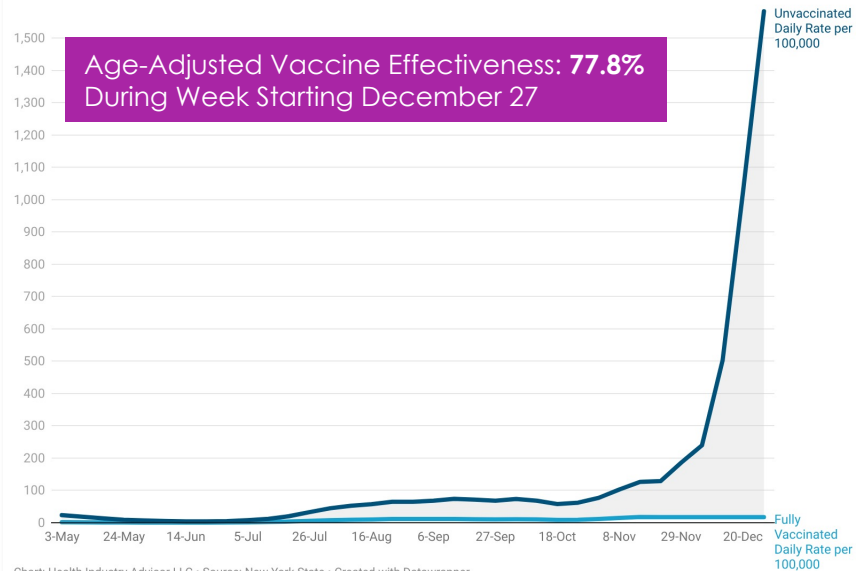
Chart: Health Industry Advisor LLC • Source: CDC • Created with Datawrapper

Despite Breakthrough Cases, Vaccines Prevent Many Infections and Most Hospital Stays

Cases

Daily Cases Per 100,000: Fully Vaccinated v. Unvaccinated

New York State

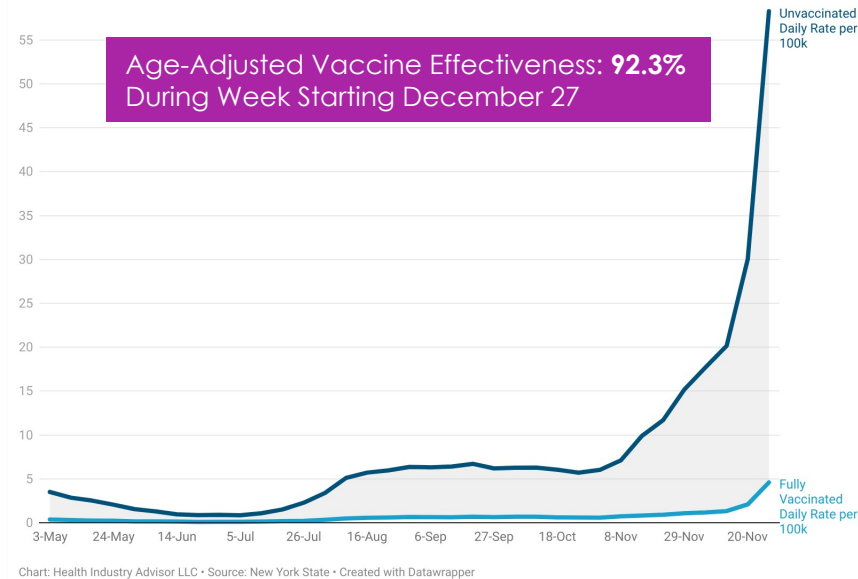


Week Starting

Hospitalizations

Daily Hospitalizations Per 100,000: Fully Vaccinated v. Unvaccinated

New York State



Week Starting

For the most recently reported week:

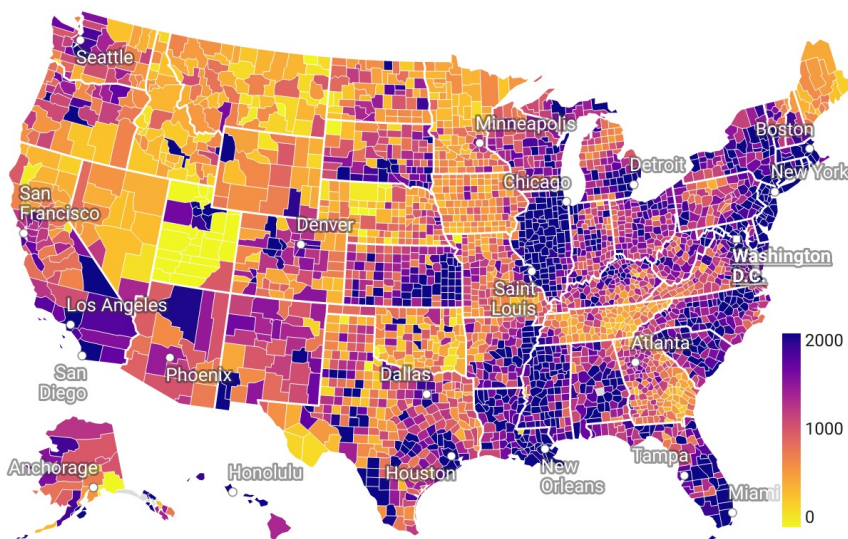
- ✓ **1-in-4,480** vaccinated persons reported a new breakthrough case
- ✓ **1-in-63** unvaccinated persons reported a new case
- ✓ **1-in-21,786** vaccinated persons were hospitalized
- ✓ **1-in-1,716** unvaccinated persons were hospitalized

Omicron Spread Quickly Across the Country, Especially in Heavily-Populated Areas

7

New Daily Infections / Million

7-Day Average, As of January 7



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

Timeline: Large Metro Areas with Higher Current Rates

New Daily Cases / Million, 7-Day Average

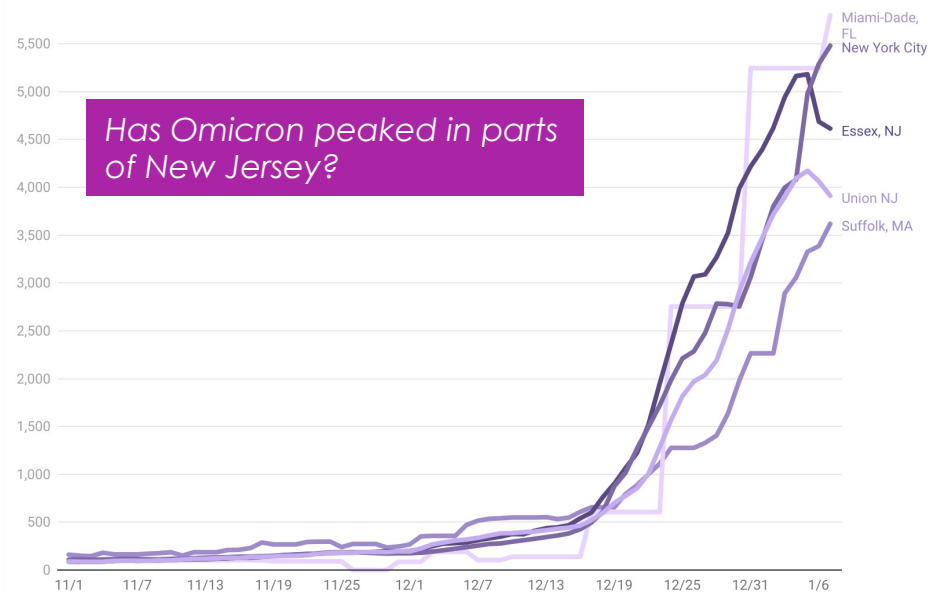


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Timeline: How Many Covid Patients Are in the Hospital?

The average daily census last week nearly matched its January 2021 peak

Covid-19 Admissions & Census

7-Day Average, As of January 7

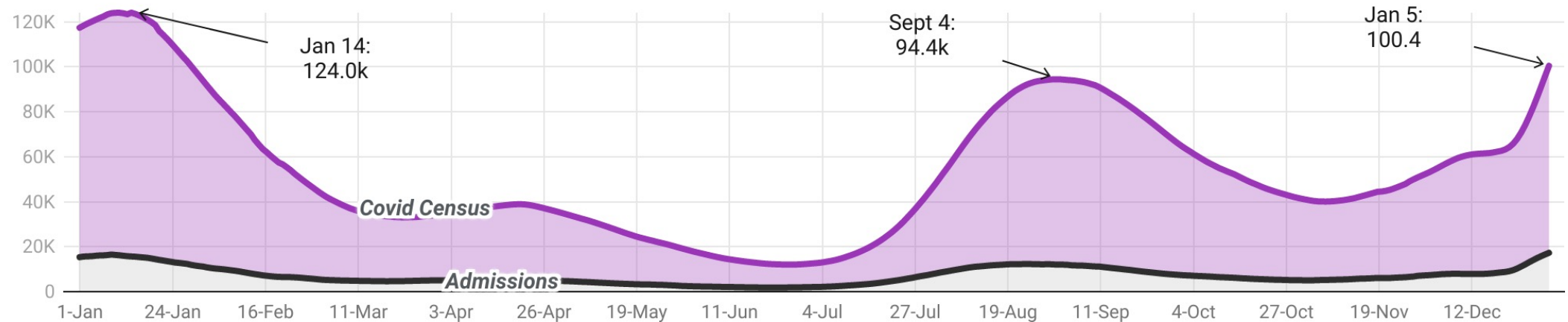
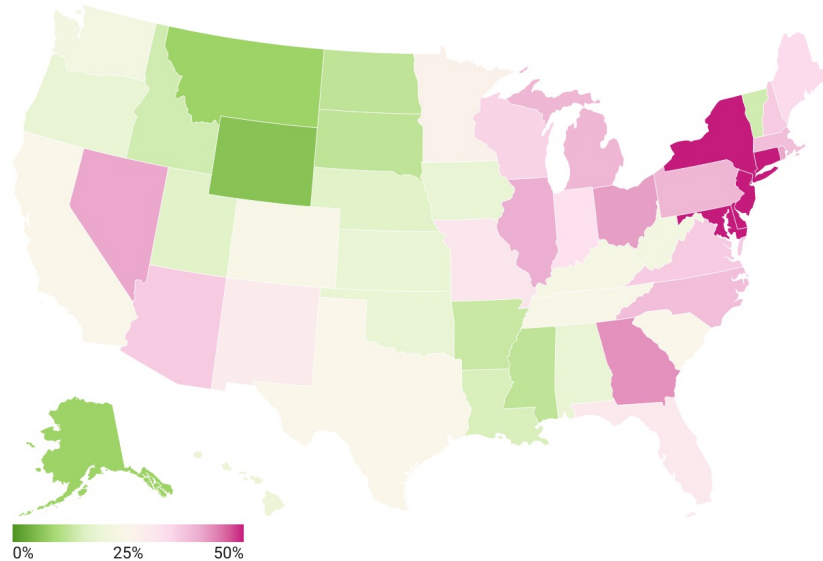


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Where Are Caregivers and Hospitals Straining With Covid Patients?

Covid-19 Patients As % of All Inpatient Beds

As of January 5

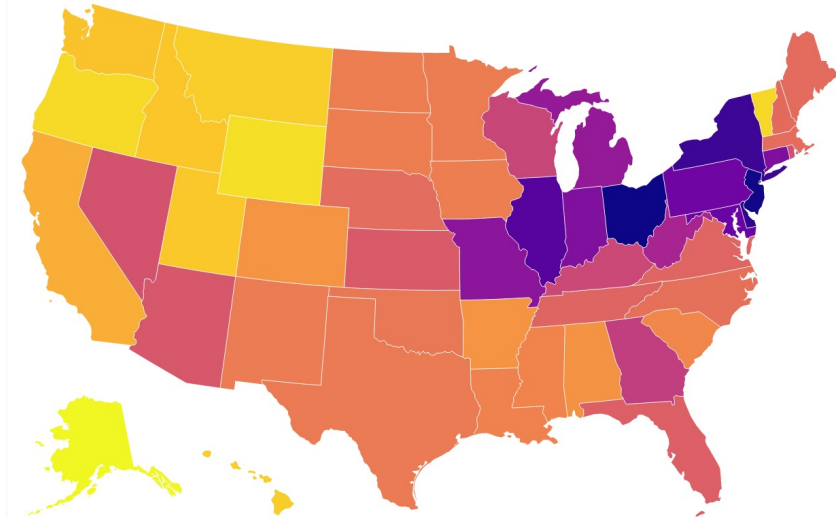


Map: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Per
Available
Bed

Average Daily Census / M

7-Day Average, As of January 4



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

Per
Capita

Hospital Census Skyrocketed Since Christmas with New Covid Patients

Change In Average Covid Census Since Christmas Day

7-day Average: January 5 v. December 25

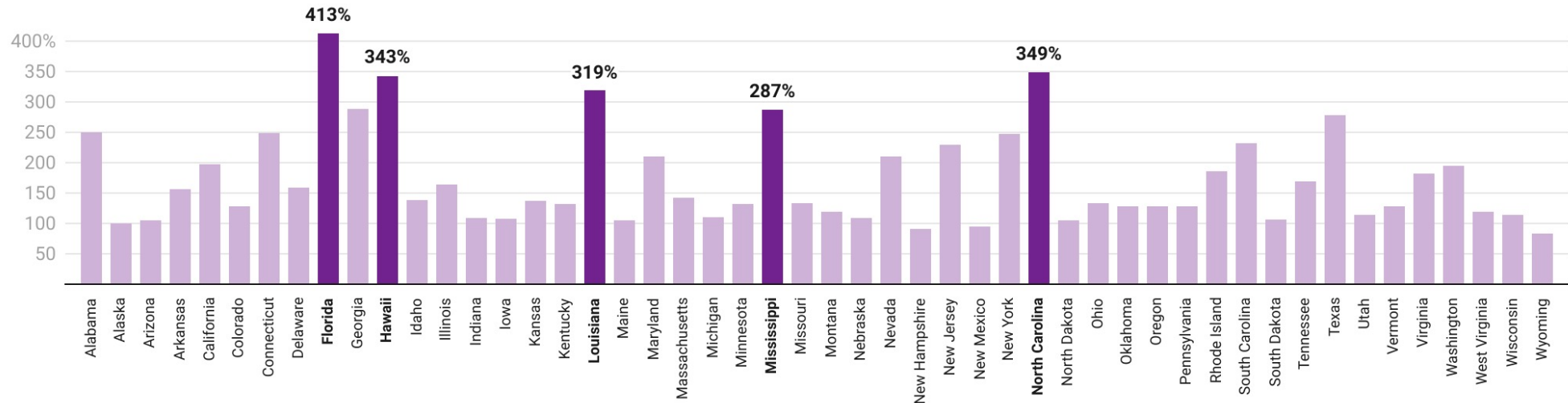
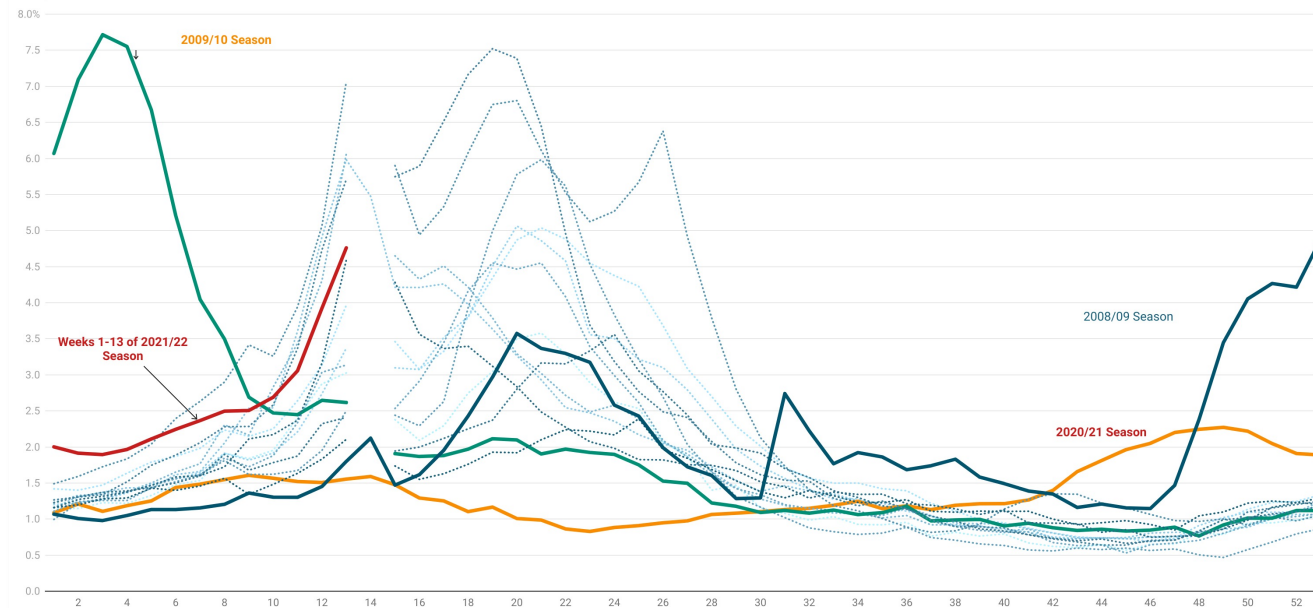


Chart: Health Industry Advisor LLC • Source: Center for Disease Control and Prevention • Created with Datawrapper

Flu Visits Are Spiking, Following the Pattern of Most Flu Seasons

Percentage Visits for Influenza-Like Illness, National Summary

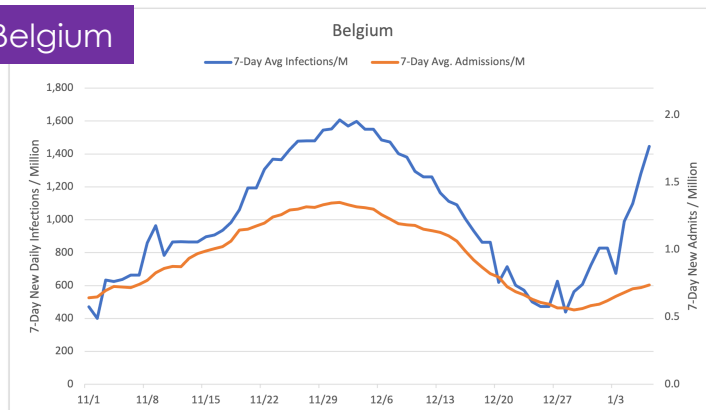
Comparison of Last Fifteen Seasons



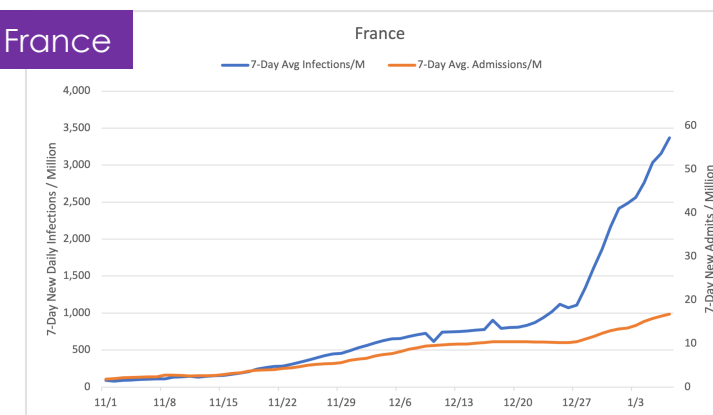
Reported by: U.S. WHO/NREVSS Collaborating Laboratories and ILINet
Chart: Health Industry Advisor LLC • Source: Centers For Disease Control and Prevention • Created with Datawrapper

The Surge in Omicron Cases Is Driving Hospital Admissions; However, Omicron's Mildness Is Tempering Its Impact

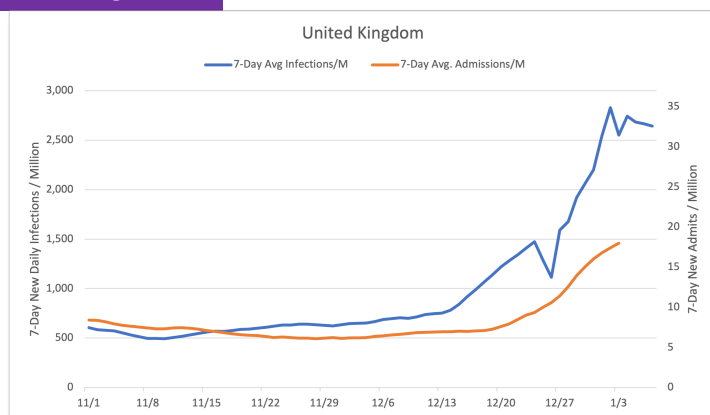
Belgium



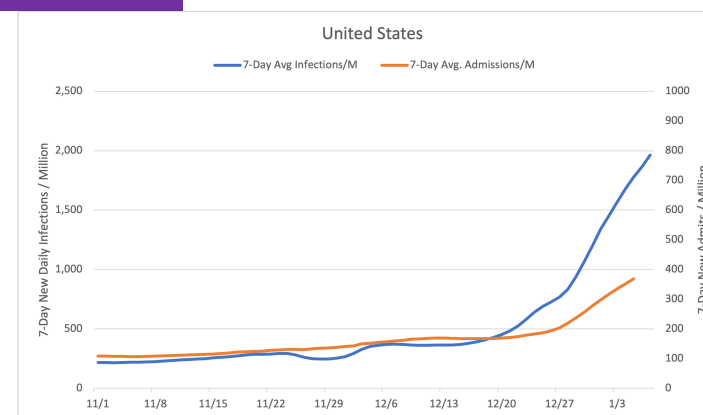
France



United Kingdom



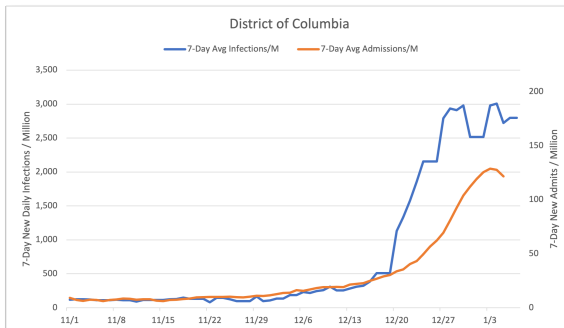
United States



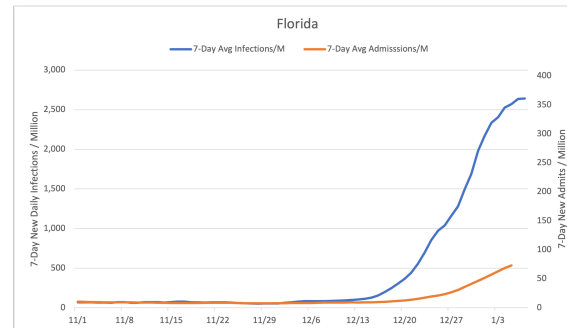
Hard-Hit States Witnessed A Similar Tempering of Omicron's Impact on Admissions

13

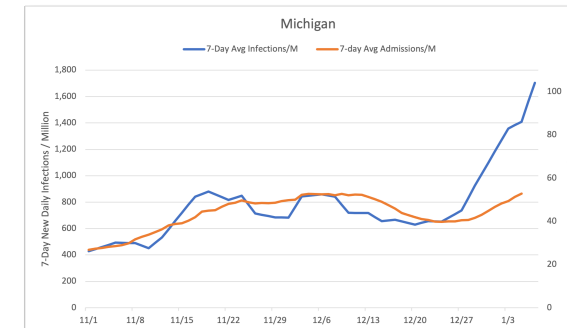
District of Columbia



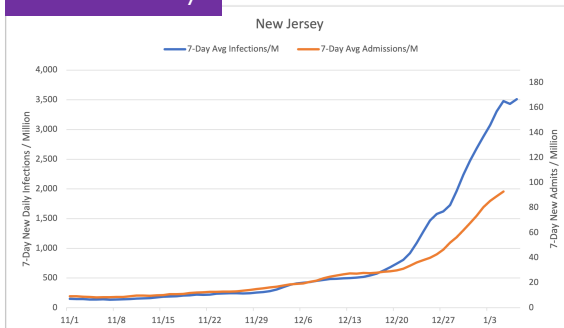
Florida



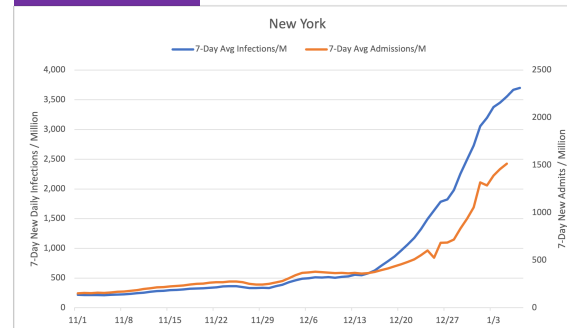
Michigan



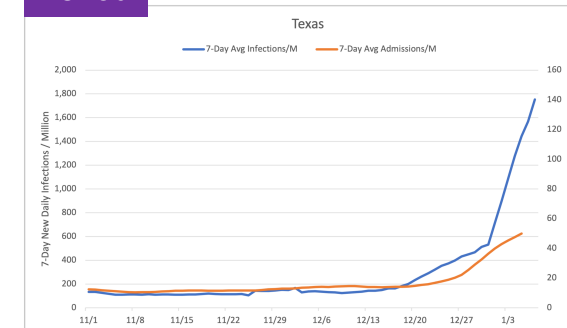
New Jersey



New York



Texas



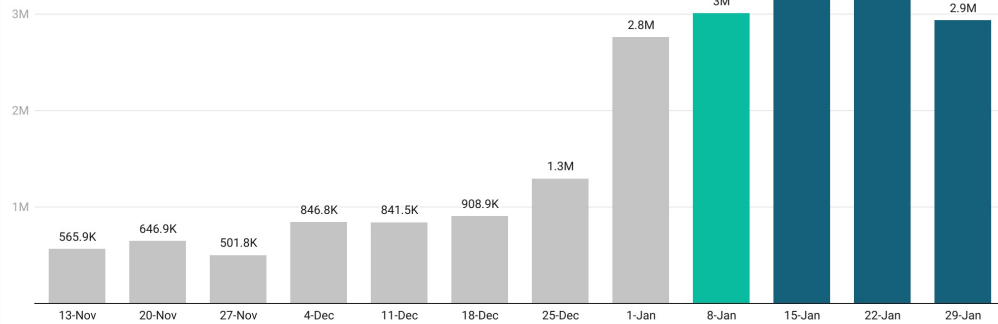
What is the Consensus for Cases and Deaths in the Next Few Weeks?

New cases could peak this week or next . . .

yet, deaths might rise for several weeks.

Newly-Reported Cases Per Week

Covid-19 Forecast Hub, Composite Forecast As of January 1



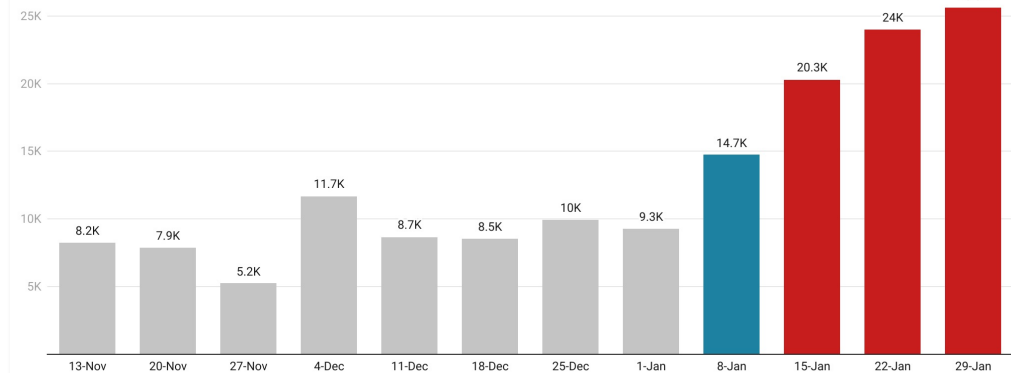
For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Actual
 Projection – Last Week
 Projection – Next 3 Weeks

Newly-Reported Deaths Per Week

Covid-19 Forecast Hub, Composite Forecast As of January 1



For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

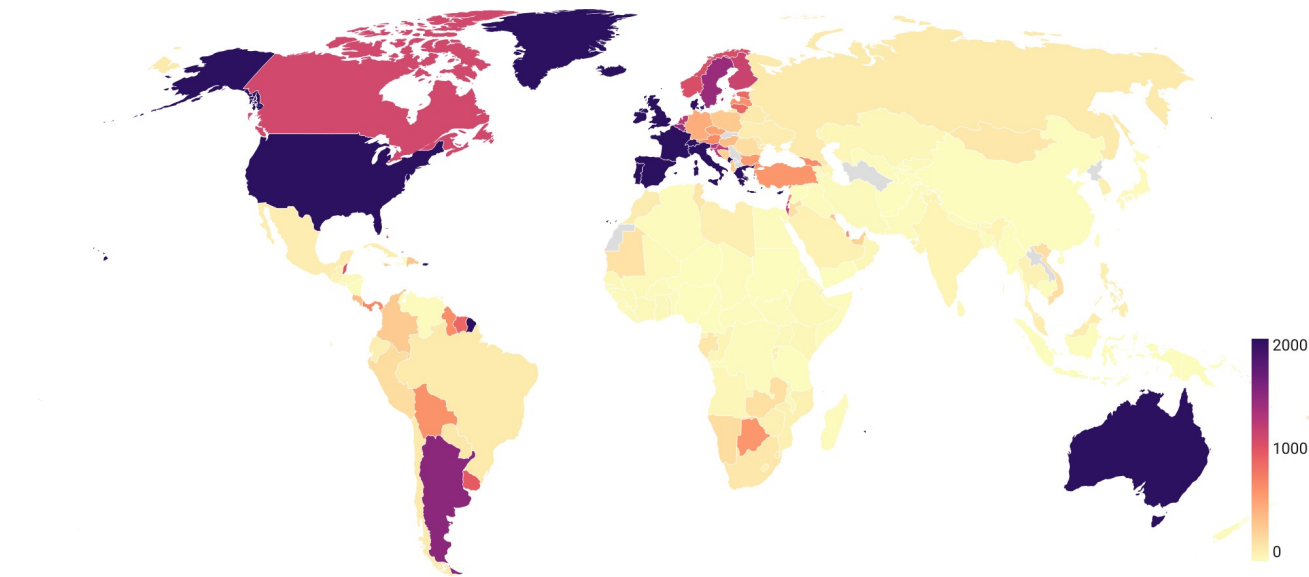
Actual
 Projection – Last Week
 Projection – Next 3 Weeks

Source: Covid-19 Forecast Hub

New Case Rates Per Capita Exploded Across Western Europe and Australia

New Daily Cases / Million

7-Day Average, As of January 3



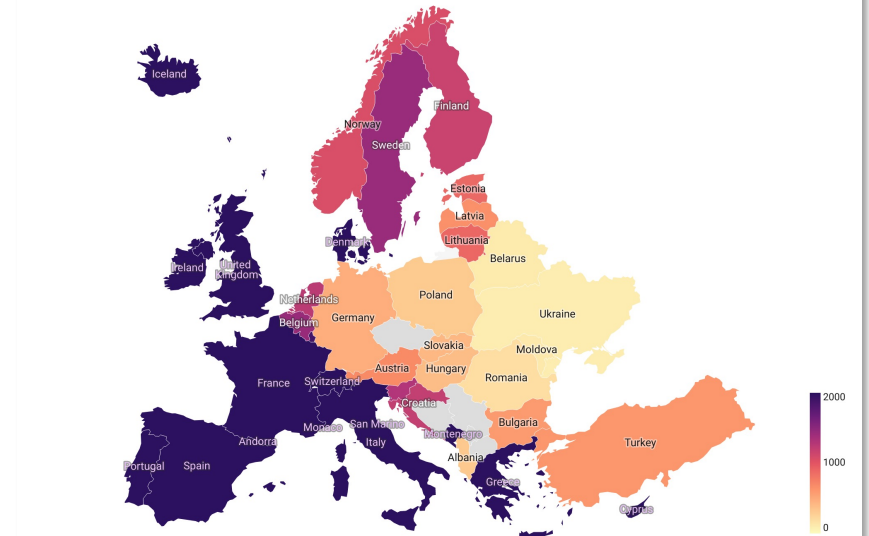
Map: Health Industry Advisor LLC • Source: worldometer.info • Created with Datawrapper

Global View

European View

New Daily Cases / Million

7-Day Average, As of January 7



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

Omicron Spread Rapidly Across the Globe Last Week

Timeline: Select Large Countries

New Daily Cases / Million, 7-Day Average

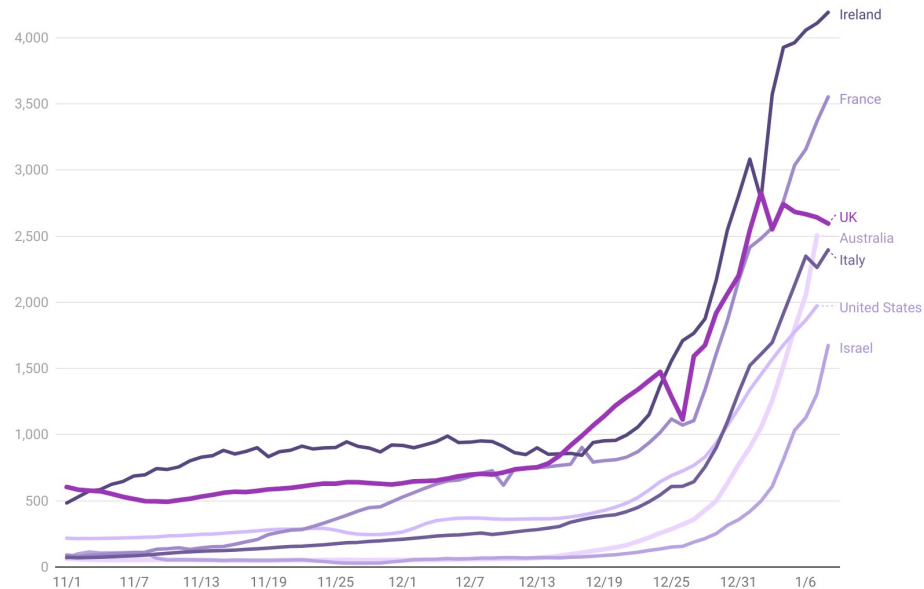


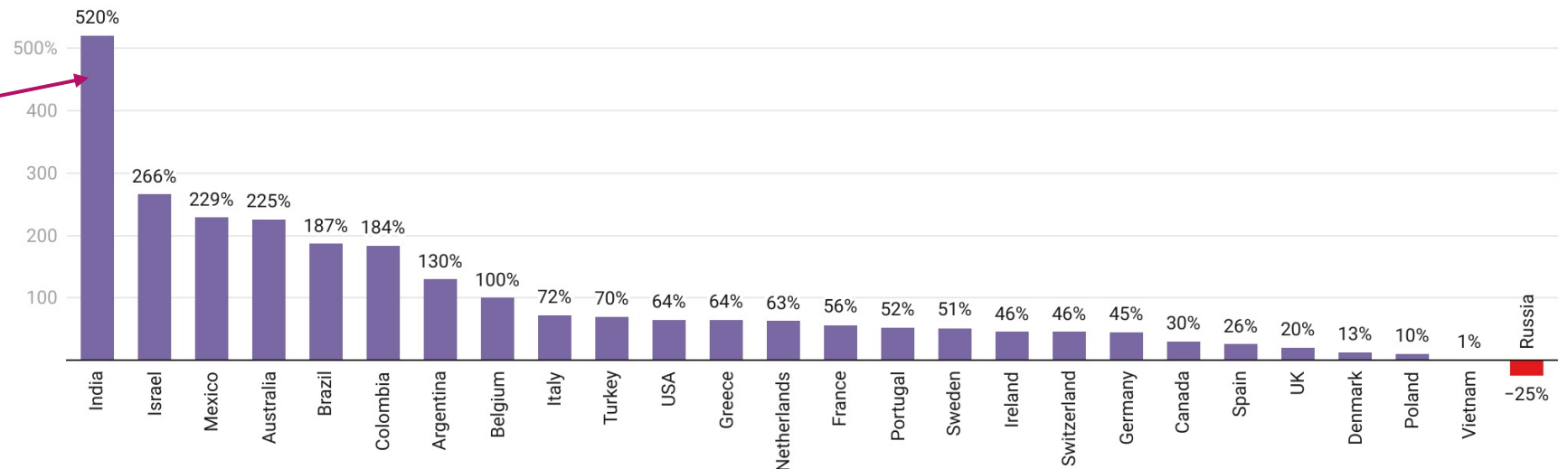
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

- ▶ New cases in the United Kingdom may have peaked early last week
- ▶ Cases exploded in Australia, France, and Israel (among others)
- ▶ Is case growth slowing in Ireland and the United States?

Omicron Infections Swelled Last Week in India, Israel, Mexico, and Australia

Weekly Increase% in New Cases

Twenty-six Countries With Most Cases During Pandemic



India posted **5x** as many cases last week as the prior week

Chart: Healt Industry Advisor LLC • Source: worldometer.info • Created with Datawrapper

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