National: Weekly COVID-19 Case Rate

US COVID-19: 7-Day Case Rate per 100,000, by State/Territory

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>Cases in the Last 7 Days Per 100k Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia</td>
<td>79.4 (-8.9%)</td>
</tr>
<tr>
<td>U.S.</td>
<td>93.4 (+18.2%)</td>
</tr>
<tr>
<td>Vermont</td>
<td>284.9 (+2.1%)</td>
</tr>
<tr>
<td>New York</td>
<td>249.2 (+8.3%)</td>
</tr>
<tr>
<td>New York City</td>
<td>209.7 (+7.0%)</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>224.3 (+90.1%)</td>
</tr>
</tbody>
</table>

Our Neighbors

Rates Higher than Virginia
- District of Columbia, 223.3 (+90.1%)
- Maryland, 92.2 (+17.2%)

Rates Lower than Virginia:
- Kentucky, 65.8 (-4.5%)
- West Virginia, 50.6 (+39.4%)
- Tennessee, 37.2 (+13.1%)
- North Carolina, 28.5 (-60.3%)

Source: CDC COVID Data Tracker  Please note rate change comparisons are from the previous week's data.
BA.2 and BA.2.12.1 Update

Updated 4/25/22

Source: CDC COVID Data Tracker: Variant Proportions; Daily Hospitalization Summary | Department of Health (ny.gov); New York State Department of Health Announces Emergence of Recently Identified, Highly Contagious Omicron Subvariants in New York and Urges Continued Vigilance Against COVID-19 (ny.gov)

- Omicron BA.2 sublineages account for 93.4% of US cases, as of 4/16/22
  - BA.2.12.1, an offshoot of BA.2, now accounts for 19% of US cases
  - BA.2.12.1 has been associated with rising cases and hospitalizations in central NY state

![Graph showing the percentage of BA.2 sublineages in the US from 1/9/2022 to 4/16/2022.]

![Graph showing the hospitalization rates in Central New York State.]

Central New York State Hospitalization Rates Rising
Compared to last week, **cases increased** to **44,308** (7-day MA) per day (**+24.1%**)

**Hospitalizations** decreased to **1,642** (7-day MA) per day (**-6.6%**)

**Deaths** decreased to **311** (7-day MA) per day (**-18.2%**)

Source: [CDC COVID Data Tracker](https://covidtracking.com)
Compared to last week, **cases increased** to 1,143 (7-day MA) from 1,096 per day (+4.3%)

**Hospitalizations increased** to 162 per day (7-day MA) (+22.7%)

**Deaths decreased** to 3 (-33.3%) (Date of Death)

* Death Data is usually Delayed in Reporting

Source: Cases – Coronavirus (virginia.gov), Cases and Deaths - Coronavirus (virginia.gov), VHHA Hospitalizations – Coronavirus (virginia.gov), Data represent a 7-day moving average.
Virginia Hospitalization Trends

COVID-19 in Virginia Hospitals

- Compared to last week hospitalizations increased to 162 (7-day MA) from 152 (+6.6%)

- Compared to last week ICU hospitalizations decreased to 31 from 26 (-19.2%)

Source: VHHA Hospitalizations - Coronavirus (virginia.gov)
CDC COVID-19 Community Levels

- If you are immunocompromised or high risk for severe disease
  - Talk to your healthcare provider about whether you need to wear a mask and take other precautions (e.g., testing)
  - Have a plan for rapid testing if needed (e.g., having home tests or access to testing)
  - Talk to your healthcare provider about whether you are a candidate for treatments like oral antivirals, PrEP, and monoclonal antibodies
- If you have household or social contact with someone at high risk for severe disease
  - Consider self-testing to detect infection before contact
  - Consider wearing a mask when indoors with them
- Stay up to date with COVID-19 vaccines and boosters
- Maintain improved ventilation throughout indoor spaces when possible
- Follow CDC recommendations for isolation and quarantine, including getting tested if you are exposed to COVID-19 or have symptoms of COVID-19

Time Period: COVID-19 Community Levels were calculated on Thu Apr 21 2022. New COVID-19 cases per 100,000 population (7-day total) are calculated using data from Thu Apr 14 2022 – Wed Apr 20 2022. New COVID-19 admissions per 100,000 population (7-day total) and Percent of inpatient beds occupied by COVID-19 patients (7-day average) are calculated using data from Wed Apr 13 2022 – Tue Apr 19 2022.

Source: https://covid.cdc.gov/covid-data-tracker/#/county-view?list_select_state=Virginia&data-type=CommunityLevels&null=CommunityLevels
COVID-19 Burden in Virginia LTCFs

Key Trends

- There were 20 LTCF COVID-19 outbreaks reported in the past 30 days: 2 in Eastern, 6 in Central, 2 in Northwest, 4 in Northern, and 6 in Southwest (see figure top right).
- The number of reported staff cases slightly increased and resident cases in nursing homes slightly increased since the last reporting week (see figure bottom right).
  - For the reporting week ending April 24, 2022, 41 resident and 31 staff cases were reported to NHSN. Data for this reporting week are preliminary.
  - For reporting week ending April 17, 2022, data reported by 281 nursing homes showed 89% of residents were fully vaccinated; data reported by 281 nursing homes showed 95% of staff were fully vaccinated (see figures bottom left). Of the nursing home residents eligible to receive an additional dose or booster, 81% of residents have received an additional dose or booster of COVID-19 vaccine.
  - Of the nursing home healthcare personnel eligible to receive an additional dose or booster, 46% of staff have received an additional dose or booster of COVID-19 vaccine.

COVID-19 Booster Vaccination in Virginia Nursing Homes

Nursing Home Residents

- Number of residents living in a facility for at least 1 day during the week of data collection: 26,213
- Number of residents completing the survey: 23,419
- 89.3% of residents completed the survey.

Nursing Home Staff

- Number of staff completing the survey: 18,845
- 80.5% of staff completed the survey.

Questions can be directed to: hai@vdh.virginia.gov

Updated 4/25/2022
Virginia: Regional Metric Summary

Updated 4/25/22

Region Metrics – Coronavirus

*Data represents a 7-day moving average, trends compared to 1 week ago comparing end of week totals
Substance Use Disorder (SUD) May Exacerbate Severe COVID-19 Outcomes

Background

• Researchers observed increases in substance use and drug overdoses since the COVID-19 pandemic was declared a national emergency.
• Drug overdoses deaths accelerated during the COVID-19 pandemic. More than 93,000 drug overdose deaths were estimated in the United States in 2020, the highest number of overdose deaths ever recorded.
• People with current or previous SUD were 1.5 times more likely to have COVID-19 than those who did not.
• People with current or previous SUD were more likely to experience severe COVID-19 outcomes: hospitalization (41% versus 30%) and death (9.6% versus 6.6%).

Compounding COVID-19 Challenges for those with SUD and in Recovery

• Reduced social support, increased social isolation and increased stress
• Disruption of regular SUD treatment
• Increased rates of drug use as potential coping mechanism and use in isolation
• Decreased access to substance use treatment, harm reduction services, and emergency services

Source: Signals Report COVID-19 Special Edition - Millennium Health LLC; Substance use disorders linked to COVID-19 susceptibility | National Institutes of Health (NIH)
Sensitive Population Groups Associated with Increased COVID-19 Risks

**Opioid Users** (heroin, fentanyl, morphine)
- Mechanism of Action: Causes slow breathing and decreased oxygen in blood and brain; increases risk for life-threatening overdose and damages the brain, heart, and lungs over time.
- Users are more susceptible to COVID-19 and at higher risk for more severe infections.
- COVID-19 hospitalization is 10.2 times more likely for those with opioid use disorder.

**Stimulant Users** (methamphetamine, cocaine, amphetamine)
- Mechanism of Action: Constricts the blood vessels and increases the risk for stroke, heart attacks, abnormal heart rhythm, seizures, and other conditions.
- Users are 6.5 times more likely to have COVID-19 and at higher risk for more severe infections.
- COVID-19 hospitalization is 6.2 times more likely for those with stimulant use disorder.

**Homeless Population**
- A high percentage of individuals with SUD experience homelessness.
- People who experience homelessness and housing instability are at increased risk for COVID-19 due to higher rates of underlying health conditions and community spread in homeless shelters.

Source: [COVID-19 & Substance Use](https://www.nida.nih.gov), [Substance use during the pandemic](https://apa.org), [Substance use and abuse, COVID-19-related distress](https://nih.gov)
Hospitalization of Children Aged 5-11; Short-Term Exposure to Air Pollution and COVID-19

Summary: COVID-NET data were analyzed to describe characteristics of COVID-19–associated hospitalizations among 1,475 U.S. children aged 5–11 from March 1, 2020–February 28, 2022, but mainly focusing on the period of early Omicron predominance.

Key Findings:
During the Omicron-predominant period:
• Cumulative hospitalization rates among unvaccinated children aged 5–11 years were 2.1 times as high as those among vaccinated children.
• 87% of hospitalized children aged 5–11 years were unvaccinated (301 unvaccinated; 48 vaccinated).
• Among unvaccinated children, the largest proportion were Black (34%), followed by White (31%), and Hispanic (19%).
• There were no significant differences for severe outcomes by vaccination status (however the number of vaccinated children was very small; n = 48).

Across all variants:
• 32% of hospitalized children aged 5–11 years had severe COVID-19
• The risk for severe COVID-19 among hospitalized children was significantly higher among those with diabetes (aRR = 2.5) and obesity (aRR = 1.2). Risk for severe disease was lower among children with asthma (aRR = 0.8), and those with immunocompromising conditions (aRR = 0.7).

Association of Short-term Air Pollution Exposure With SARS-CoV-2 Infection Among Young Adults in Sweden | April 20, 2022

Summary: A case-crossover study linking 425 participants who are part of the prospective BAMSE (Children, Allergy Milieu, Stockholm, Epidemiology [in Swedish]) birth cohort to the Swedish national infectious disease registry to identify cases with positive COVID-19 results from May 5, 2020, to March 31, 2021. Daily ambient air pollution levels at the individual residential address was calculated to estimate the association between short-term ambient air pollution and a positive PCR test.

Key Findings: Exposure to the following pollutants increased the risk of a positive SARS-CoV-2 PCR test:
• Exposure to fine particulate matter (PM$_{2.5}$) two days before a test was associated with a relative increase of 6.8% (95% CI, 2.1%-11.8%)
• Exposure to particulate matter (PM$_{10}$) two days before a test was associated with a relative increase of 6.9% (95% CI, 2.0%-12.1%)
• Exposure to black carbon one day before a test was associated with a relative increase of 5.8% (95% CI, 0.3%-11.6%)
• There was no observed association for exposure to nitrogen oxides
• The authors of the study speculate that increased levels of short-term air pollution plays a role in manifesting the disease (symptoms) for those who have been infected with the virus rather than contributing to the transmission of the virus (since median incubation period is 5 days).
Virginia Vaccination by Age

- **73.2% (+0.4%)** of the Total Population is Fully Vaccinated
- **38.9% (-0.8%)** of the Total Population is “Up-to-Date” with their Vaccinations
- **56.3% (+0.2%)** of the Eligible Population and **34.9% (+1.3%)** of Total Population Vaccinated with 3\textsuperscript{rd} Dose/Booster
- **92.6% (+0.3%)** of the Adult (18+) Population Vaccinated with at Least one Dose
- **58.4% (+0.5%)** of 5 to 17 year olds Vaccinated with at Least One Dose
  - Green percent represents percent increase from two weeks prior

Source: [COVID-19 in Virginia: Vaccine Summary, Keep Virginia Safe Tournament | Metaculus](https://www.metaculus.com/ongoing/852/)
Second Booster Administrations Have Started

- Statewide, over **188,000** individuals have received their Second Booster
  - This accounts for about 6.3% of individuals with a First Booster
  - Average daily administrations of Second Boosters exceeded 6,000 last week

Source: COVID-19 Vaccine Summary – Coronavirus (virginia.gov)
Virginia: Vaccination by Race/Ethnicity and Age

Fully Vaccinated Rates by Race/Ethnicity and Age Group

Overall Fully Vaccinated Rate (73.1%)

Source: COVID-19 Vaccine Summary – Coronavirus (virginia.gov)
• The Black Population’s Vaccination Rates are currently at 0.9x relative to the White Population’s Rates

• The Parity between Latino and White Populations is much lower for Latinos when it comes to Third Dose/Booster Rates relative to First Dose (0.7x vs 1.2x)

Source: COVID-19 Vaccine Summary – Coronavirus (virginia.gov)
Virginia: Vaccination across the Commonwealth by Geography

Percent of the Total Population Fully Vaccinated by Locality

- 21 out of 133 Localities have a fully vaccinated rate below 50%
- 15 out of 133 Localities have a fully vaccinated rate above 70%
- There is a disparity across Urban and Rural areas by Age Groups, with Rural Adolescents the Lowest Vaccinated group

Vaccination Rates by Region

<table>
<thead>
<tr>
<th>Region Name</th>
<th>Fully Vaccinated</th>
<th>Up-to-Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>62.9%</td>
<td>38.3%</td>
</tr>
<tr>
<td>Eastern</td>
<td>58.9%</td>
<td>33.6%</td>
</tr>
<tr>
<td>Northern</td>
<td>73.7%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Northwest</td>
<td>60.5%</td>
<td>36.4%</td>
</tr>
<tr>
<td>Southwest</td>
<td>53.5%</td>
<td>30.2%</td>
</tr>
</tbody>
</table>

2013 SRHP Isserman Classification

<table>
<thead>
<tr>
<th>2013 SRHP Isserman Classification</th>
<th>5 to 11</th>
<th>12 to 17</th>
<th>16 to 17</th>
<th>18 to 30</th>
<th>31 to 50</th>
<th>51 to 64</th>
<th>65+</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Urban</td>
<td>41%</td>
<td>69%</td>
<td>73%</td>
<td>68%</td>
<td>69%</td>
<td>81%</td>
<td>88%</td>
<td>72%</td>
</tr>
<tr>
<td>Urban</td>
<td>38%</td>
<td>69%</td>
<td>75%</td>
<td>60%</td>
<td>72%</td>
<td>82%</td>
<td>86%</td>
<td>70%</td>
</tr>
<tr>
<td>Mixed Rural</td>
<td>25%</td>
<td>49%</td>
<td>56%</td>
<td>54%</td>
<td>60%</td>
<td>73%</td>
<td>82%</td>
<td>62%</td>
</tr>
<tr>
<td>Rural</td>
<td>17%</td>
<td>41%</td>
<td>47%</td>
<td>48%</td>
<td>54%</td>
<td>69%</td>
<td>78%</td>
<td>58%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>34%</td>
<td>62%</td>
<td>67%</td>
<td>59%</td>
<td>67%</td>
<td>78%</td>
<td>84%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Federal doses not included in this number
Source: COVID-19 Vaccine Summary – Coronavirus (virginia.gov)
Virginia and Neighbors: Vaccination Rates

<table>
<thead>
<tr>
<th>Region</th>
<th>At Least One Dose*</th>
<th>Fully Vaccinated*</th>
<th>Booster Dose**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationwide</td>
<td>77.5% (+0.4%)</td>
<td>66.1% (+0.5%)</td>
<td>45.6% (+1.3%)</td>
</tr>
<tr>
<td>D.C.</td>
<td>95.0% (+0.0%)</td>
<td>73.9% (+0.8%)</td>
<td>37.9% (+3.8%)</td>
</tr>
<tr>
<td>Kentucky</td>
<td>66.1% (+0.3%)</td>
<td>57.3% (+0.4%)</td>
<td>44.1% (+0.9%)</td>
</tr>
<tr>
<td>Maryland</td>
<td>86.3% (-0.2%)</td>
<td>75.5% (+0.4%)</td>
<td>50.6% (+1.2%)</td>
</tr>
<tr>
<td>North Carolina</td>
<td>84.0% (+0.6%)</td>
<td>60.9% (+1%)</td>
<td>26.4% (+1.1%)</td>
</tr>
<tr>
<td>Tennessee</td>
<td>62.1% (+0.3%)</td>
<td>54.4% (+0.4%)</td>
<td>43.8% (+1.4%)</td>
</tr>
<tr>
<td>Virginia**</td>
<td>85.5% (+0.4%)</td>
<td>73.1% (+0.4%)</td>
<td>47.1% (+0.9%)</td>
</tr>
<tr>
<td>West Virginia</td>
<td>64.9% (+0.3%)</td>
<td>57.5% (+0.3%)</td>
<td>45.6% (+1.3%)</td>
</tr>
</tbody>
</table>

*Total population, includes out-of-state vaccinations
**Percent of fully vaccinated people with a booster dose
***Differs from previous slide because all vaccination sources (e.g., federal) are included
****Green percent represents percent increase from three weeks prior

Source: https://covid.cdc.gov/covid-data-tracker/#vaccinations