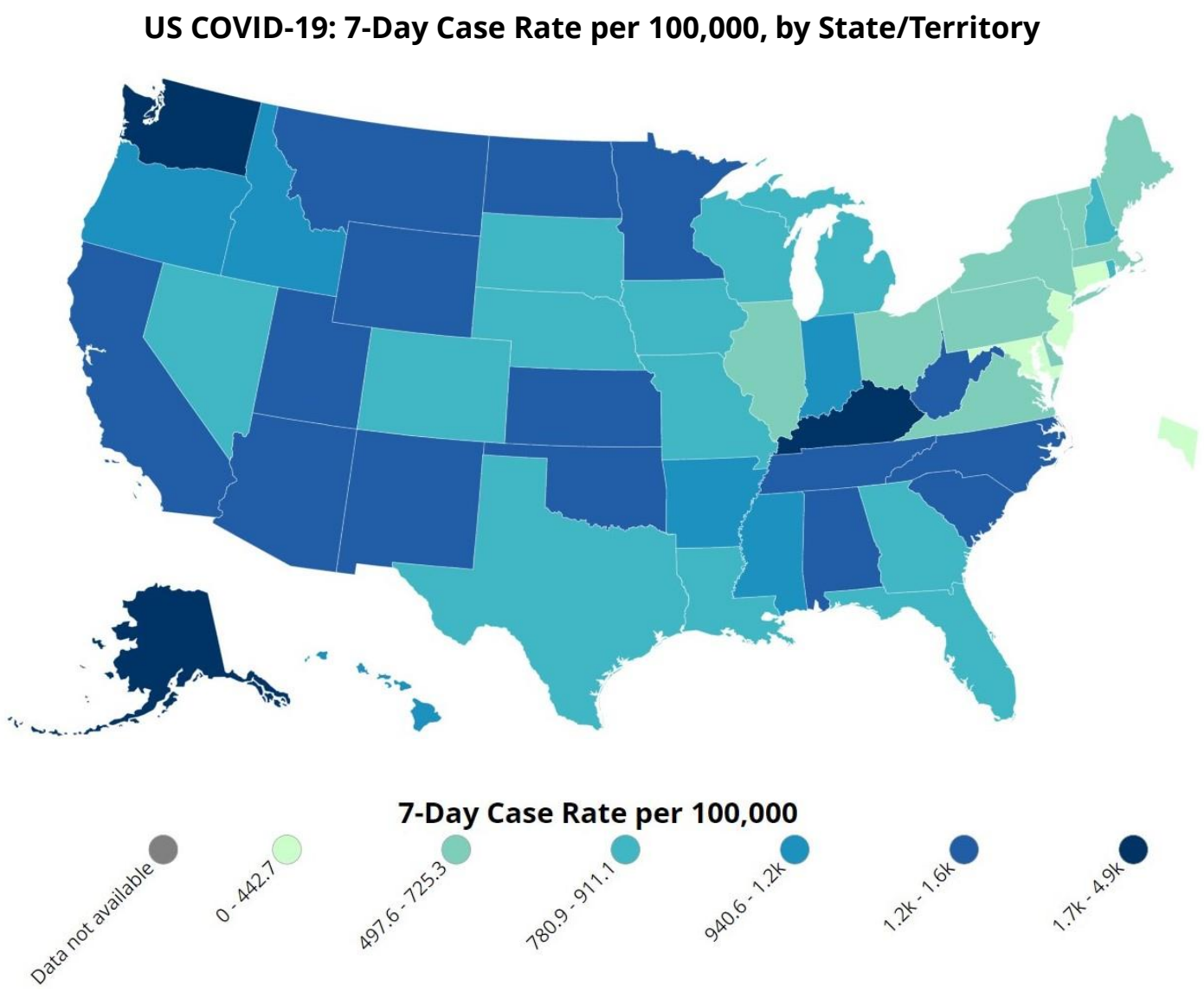
Virginia COVID-19 Surveillance Data Update

February 3, 2022

VIRGINIA'S HEALTH IS IN OUR HANDS.
Do your part, stop the spread.

National: Weekly COVID-19 Case Rate

Updated 2/2/22



	Cases in the Last 7 Days Per 100k Population
Virginia	699.6 (-28.2%)
U.S.	941.1 (-29.9%)
Alaska	2,103.5 (-29.6%)
Washington	1,791.7 (-23.0%)
Kentucky	1,690.1 (-11.6%)

Our Neighbors

Rates Higher than Virginia

North Carolina, **1,174.5** (-20.9%)
West Virginia, **1,367.4** (-24.1%)
Tennessee **1,361.7** (-22.8%)
Kentucky, **1,690.1** (-11.6%)

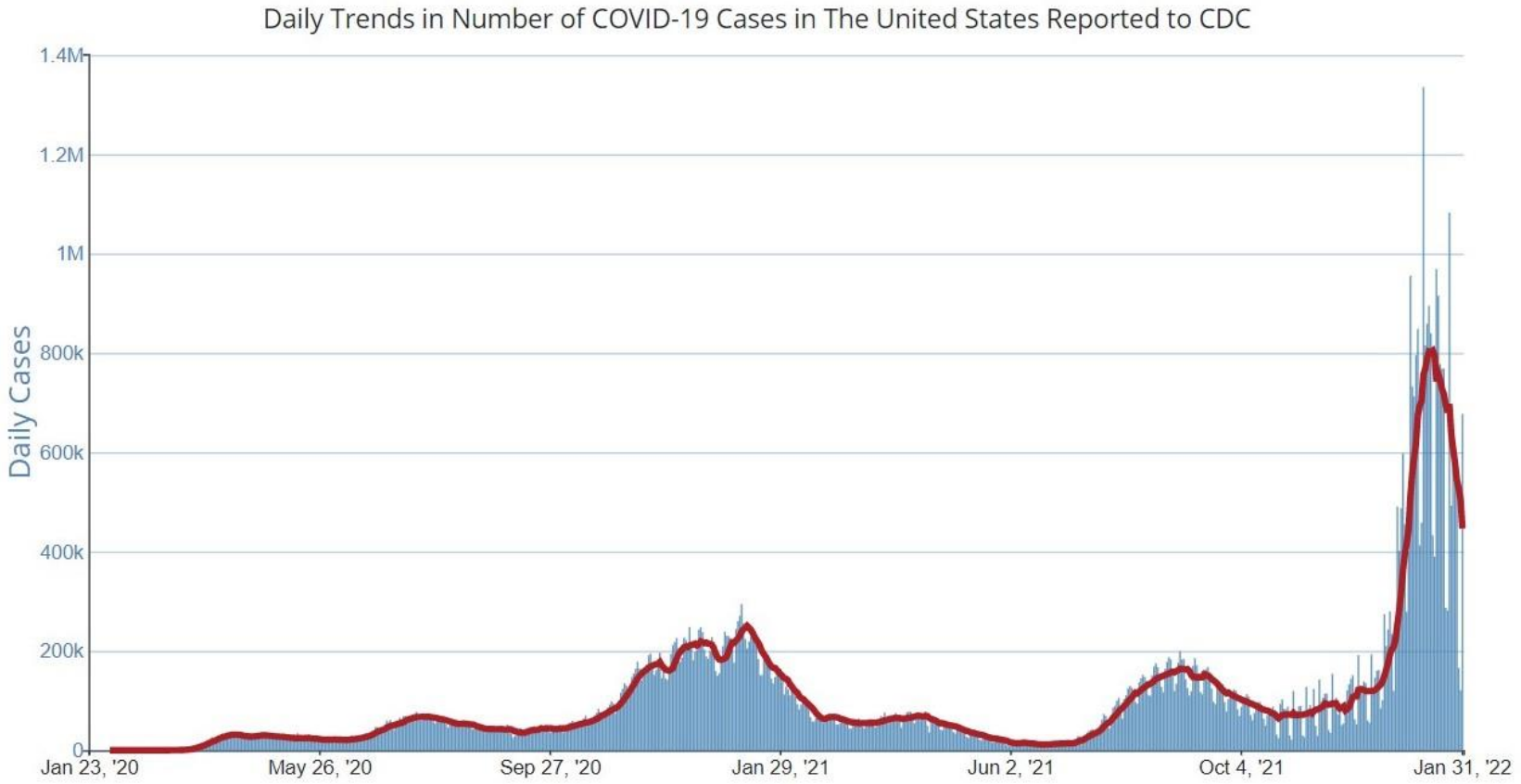
Rates Lower than Virginia:

District of Columbia, **331.3** (-23.0%)
Maryland, **280.6** (-45.8%)

Source CDC COVID Data Tracker Please note rate change comparisons are from the previous week's data.

National: Cases, Hospitalizations, and Deaths

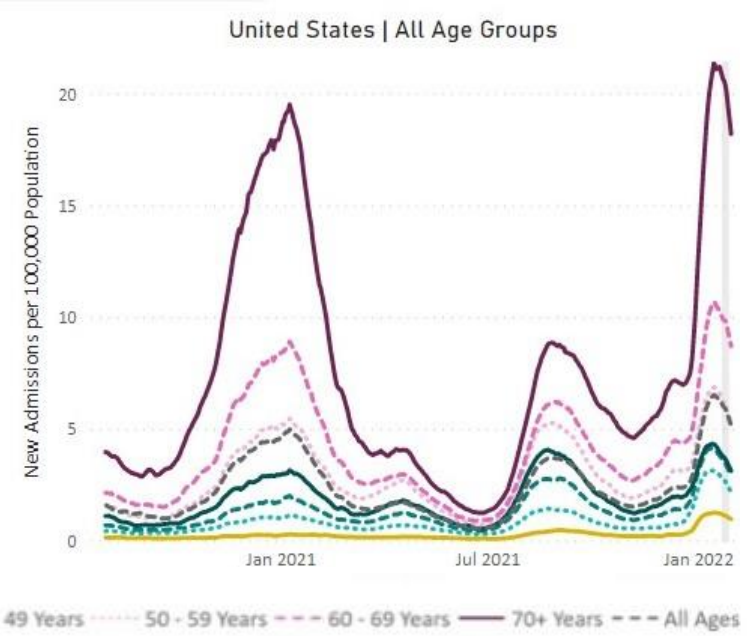
Updated 2/2/22



Compared to last week, **cases** decreased to 446,355 (7-day MA) per day (-35.9%)

Hospitalizations decreased to 17,133 (7-day MA) per day (-14.2%)

Deaths increased to 2,287 (7-day MA) per day (+4.6%)



Source: CDC COVID Data Tracker

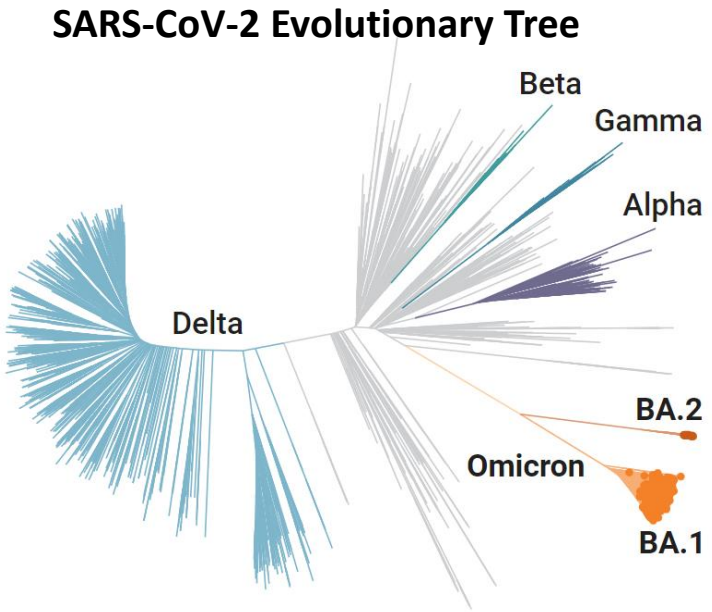
Early U.K. Data Show Similar Vaccine Effectiveness Against Omicron Variant BA.1 and BA.2 Boosters Make A Substantial Difference

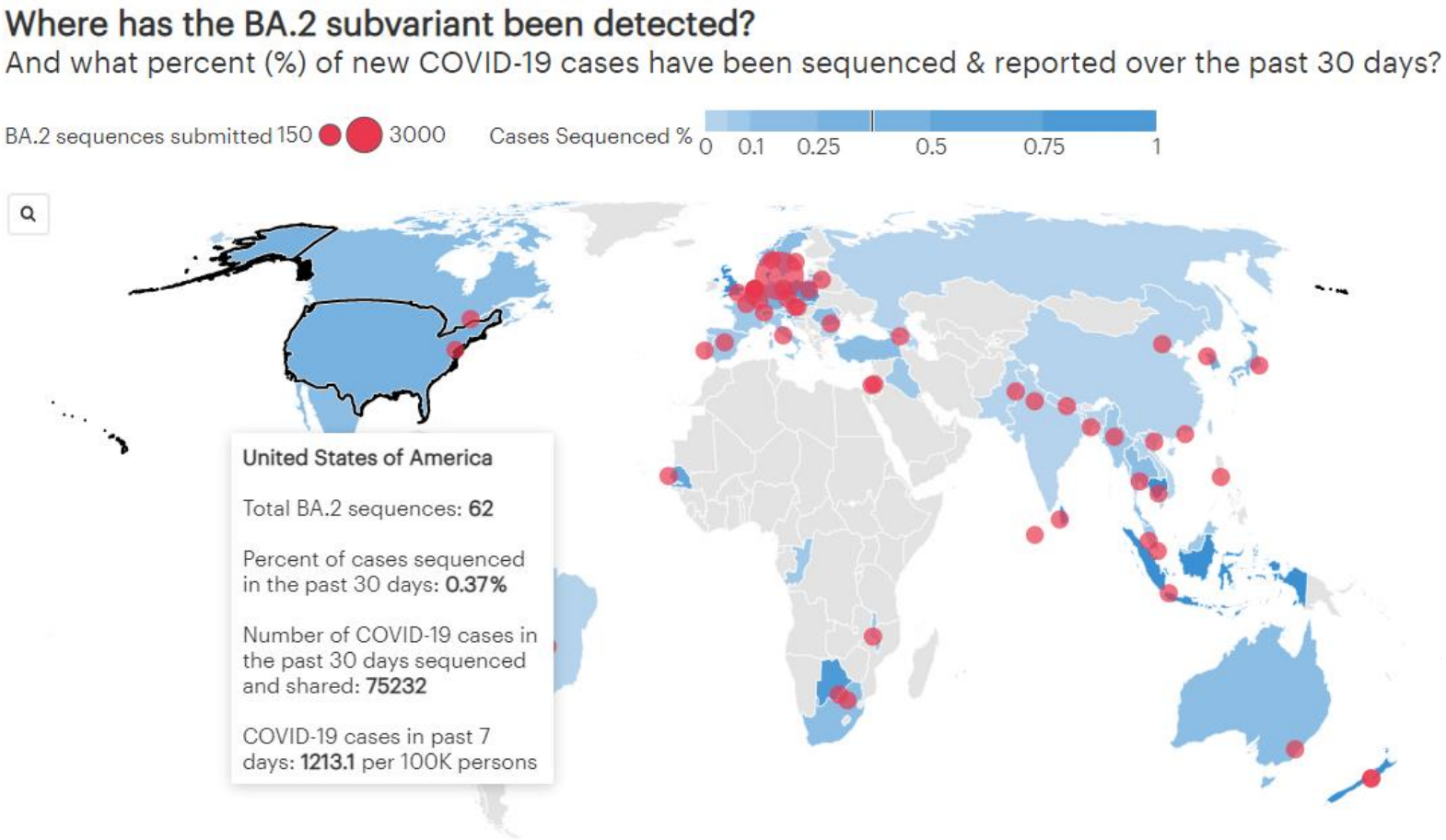
Updated 1/31/22

- U.K. Health Security Agency measured vaccine effectiveness against symptomatic disease following BA.2 infection in a test-negative case control design, as compared to the Omicron BA.1 sub-lineage
- **Key Takeaway**: Vaccine effectiveness against symptomatic disease was similar for BA.1 and BA.2 of Omicron.
- After 2 doses, **effectiveness was 9% (7-10%) and 13% (26-40%) respectively for BA.1 and BA.2, after 25+ weeks**. This **increased to 63% (63-64%) for BA.1 and 70% (58-79%) for BA.2 at 2 weeks following a booster**

Table 3. Vaccine effectiveness against symptomatic disease (all vaccine brands combined) for BA.1 and BA.2. OR = odds ratio, VE = vaccine effectiveness.

Dose	Interval after dose	BA.1 (VE (95% CI))	BA.2 (VE (95% CI))
2	25+ weeks	9% (7-10)	13% (-26-40)
3	2+ weeks	63% (63-64)	70% (58-79)



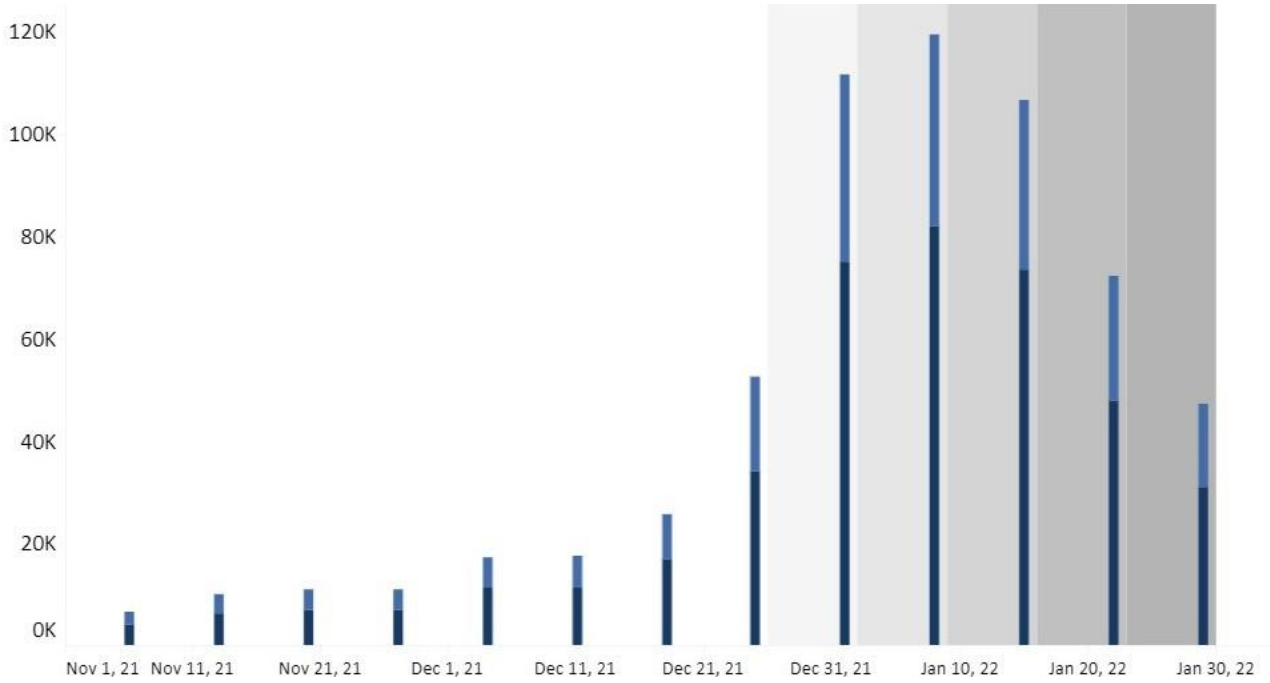


Source: COVID-19 vaccine surveillance report - week 4 (publishing.service.gov.uk); Sudden rise of more transmissible form of Omicron catches scientists by surprise | Science | AAAS

Virginia: Cases, Hospitalizations, and Deaths

Updated 2/2/22

Cases by Date of Symptom Onset, Past 13 weeks



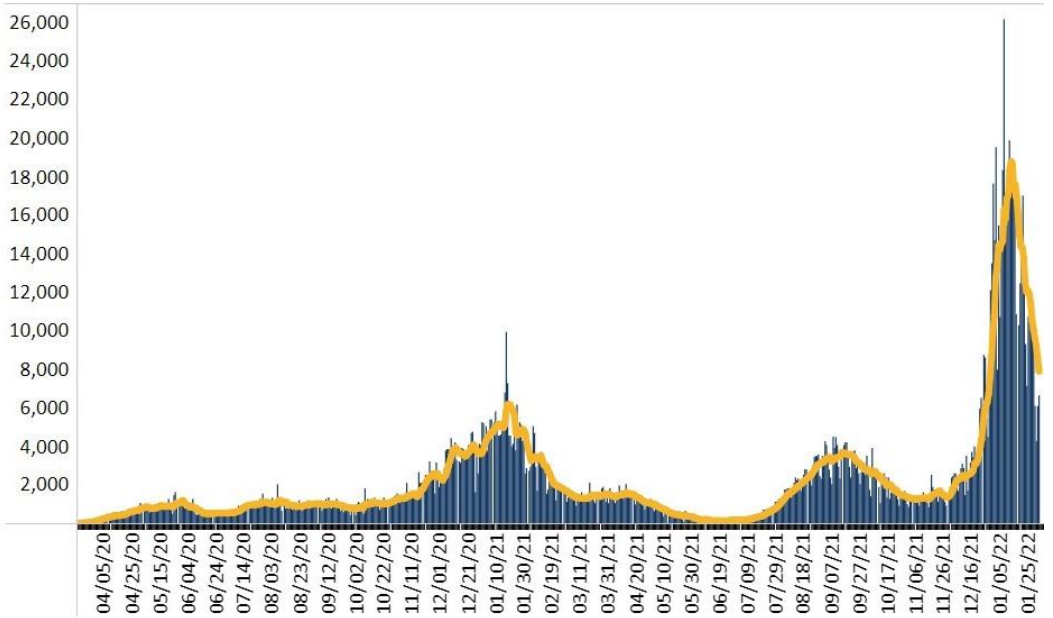
Gray shaded area illness may not have been reported yet

Compared to last week, **cases decreased** to 7,895 (7-day MA) from 11,891 per day (-33.6%)

Hospitalizations decreased to 3,046 per day (-17.6%)

Deaths decreased to 43 per day (-48%)

Cases by Date Reported, All Reporting Timeline



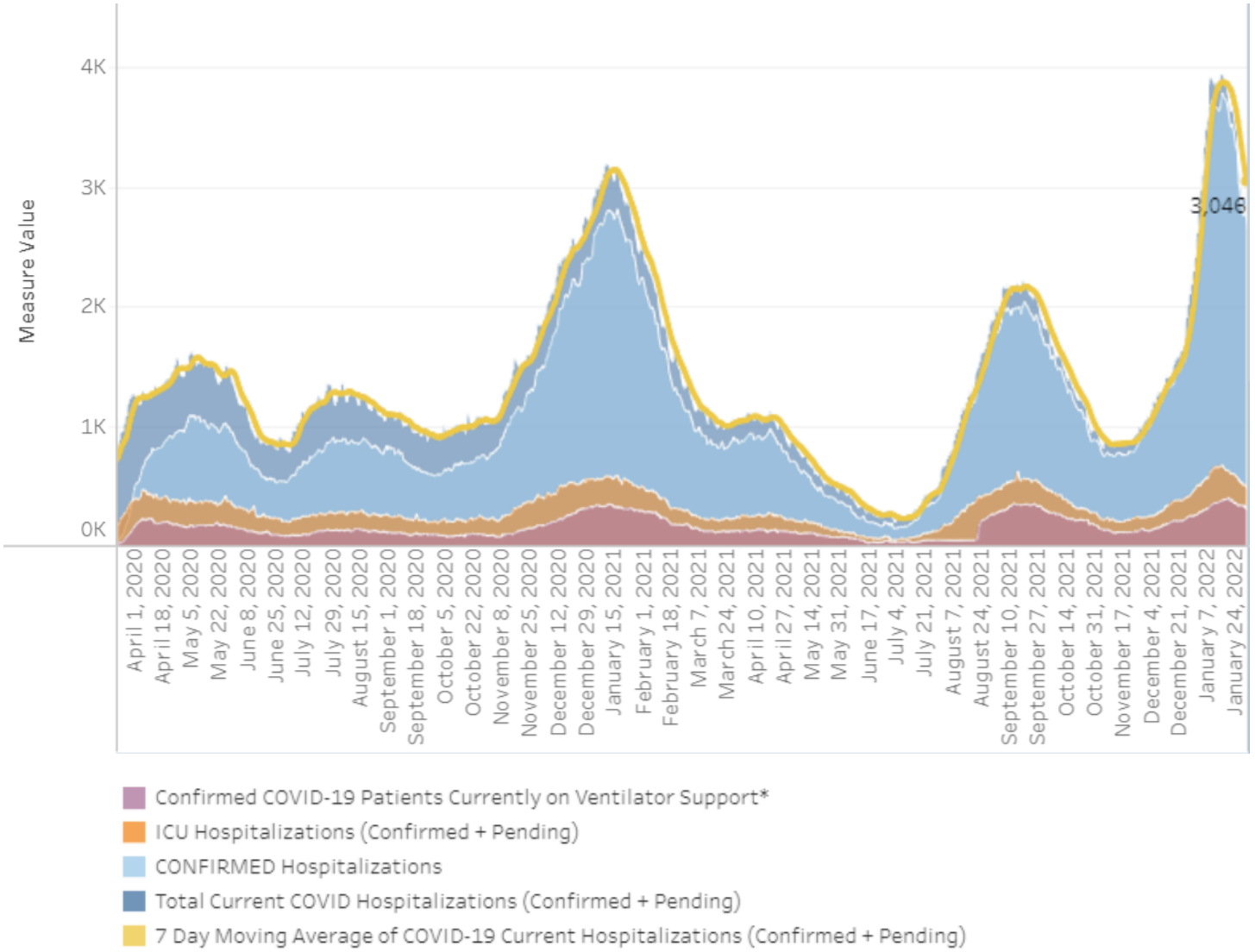
VDH Death's trend is based upon Date of Death (as of 1/29)

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

Updated 2/2/22

COVID-19 in Virginia Hospitals



- Compared to last week hospitalizations **decreased to 3,046** (7-day MA) from 3,639 (-16%)
- Compared to last week. ICU hospitalizations have **decreased to 506** from 588 (-14%)
- 321 patients are currently on ventilator support (-11%)

Source: VHHA Hospitalizations - Coronavirus (virginia.gov)

COVID-19 Burden in Virginia LTCFs

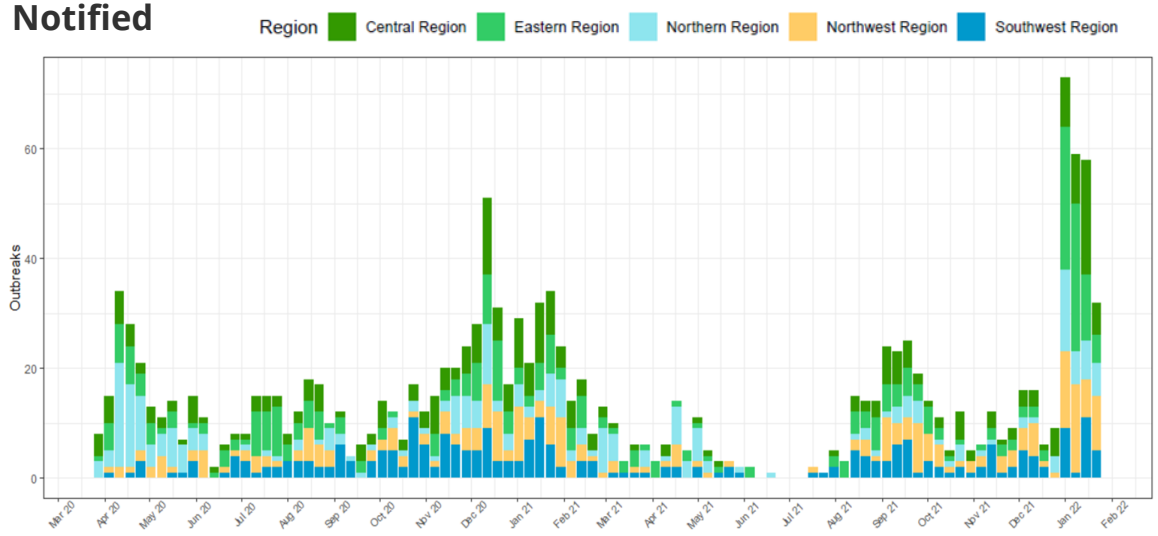
Questions can be directed to: hai@vdh.virginia.gov

Updated 2/1/2022

Key Trends

- There were **220 LTCF COVID-19 outbreaks reported in the past 30 days**: 70 in Eastern, 46 in Central, 45 in Northwest, 33 in Northern, and 26 in Southwest *(see figure top right)*.
- The number of reported staff cases has declined in the past couple of weeks. The number of reported resident cases has continued to decline from the previous reporting week *(see figure bottom right)*.
  - For the reporting week ending January 30, 2022, 926 resident and 815 staff cases were reported to NHSN. Data for this reporting week are preliminary.
- For reporting week ending January 23, 2022, data reported by 283 nursing homes showed **89% of residents were fully vaccinated**; data reported by 283 nursing homes showed **91% of staff were fully vaccinated** *(see figures bottom left)*.
  - Of the nursing home residents eligible to receive an additional dose or booster, 74% 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, 42% have received an additional dose or booster of COVID-19 vaccine.

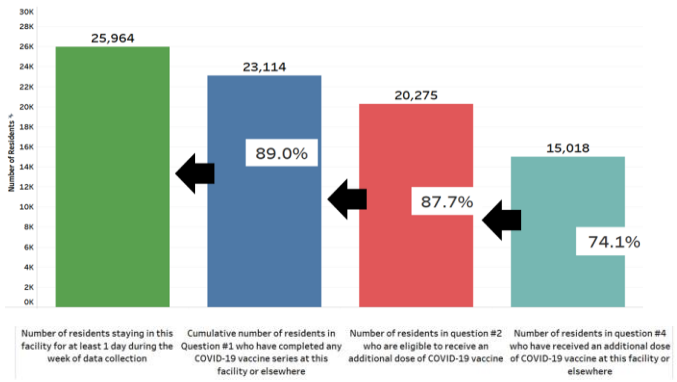
Number and Region of LTCF COVID-19 Outbreaks by Date VDH Notified



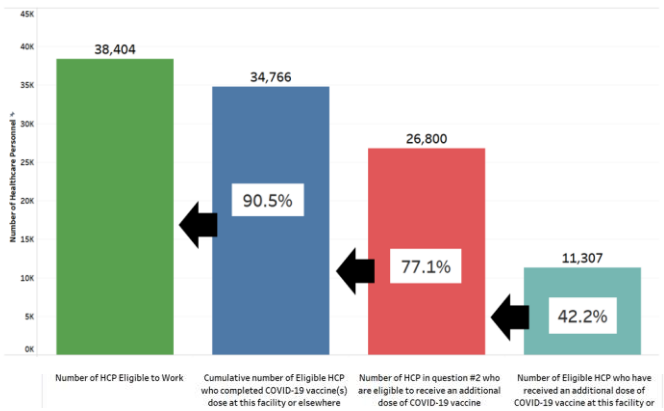
Outbreaks reported from nursing homes, assisted living facilities, and multicare facilities to VDH with a confirmed or suspected etiologic agent of SARS-CoV-2. Data are from the Virginia Outbreak Surveillance System as of 01/31/2022 and are subject to change.

COVID-19 Booster Vaccination in Virginia Nursing Homes

Nursing Home Residents

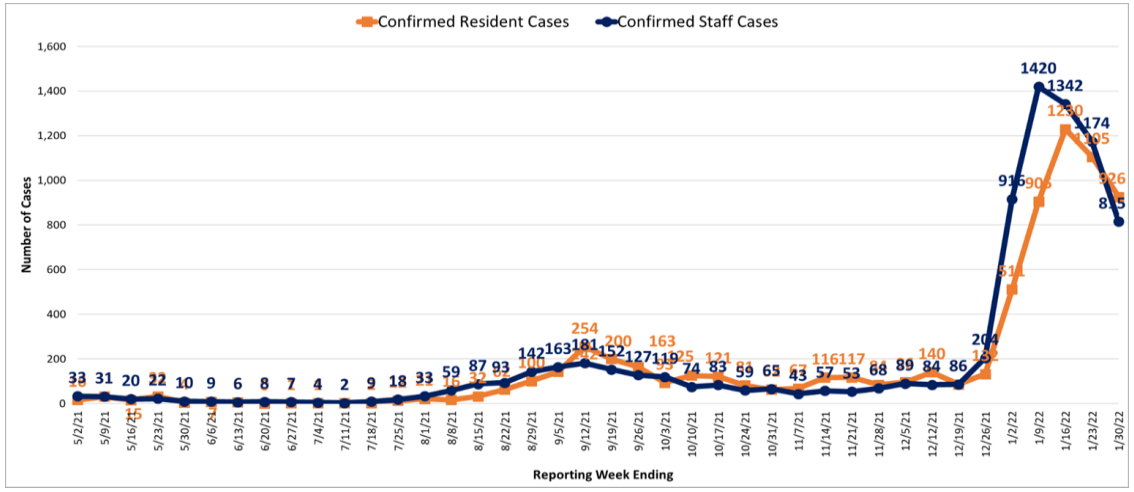


Nursing Home Staff



Data were reported by 286 Virginia nursing homes into the National Healthcare Safety Network (NHSN) as of 2/01/2022 and are subject to change, including booster eligibility per updated vaccine guidance. In Virginia, 283 nursing homes reported resident vaccination data for reporting week ending 1/23/2022; 283 nursing homes reported staff vaccination data for reporting week ending 1/23/2022. For staff type definitions, refer to NHSN Table of Instructions.

Nursing Home Resident and Staff COVID-19 Cases



Data are from NHSN as of 2/01/2022 and are subject to change. For reporting information, please refer to the NHSN data collection forms: residents, staff.

Virginia: Regional Metric Summary

Updated 2/1/22

Metrics date: 1/30/2022

	Central	Eastern	Far Southwest	Near Southwest	Northern	Northwest
New cases per 100k within the last 7 days	1,049.8 ↓	713.4 ↓	1,489.6 ↑	945.6 ↓	513.0 ↓	824.0 ↓
% Positivity 7-day moving average	25.9% ↓	32.3% ↓	39.5% ○	32.1% ↓	15.5% ↓	27.7% ↓
COVID-like ED visits rate per 100k	24.0 ↓	18.5 ↓	35.0 ○	28.4 ↓	7.8 ↓	18.2 ↓

Burden	Level 0	Level 1	Level 2	Level 3	Level 4
New Cases	<10	10-49		50-100	>100
% Positivity	<3	3-5	5-8	8-10	>10
CLI ED Visits	<4		4-5.9		≥6

Symbol	Trend
↑	Increasing
↓	Decreasing
○	Fluctuating

Please note: the methods used this week have changed slightly; data is now compared from Sunday to Sunday instead of Wednesday to Wednesday

Source: Region Metrics – Coronavirus

*Data represents a 7-day moving average, trends compared to 1 week ago comparing end of week totals from Sunday to Sunday

Literature Review: Comparing Omicron and Delta Time Periods

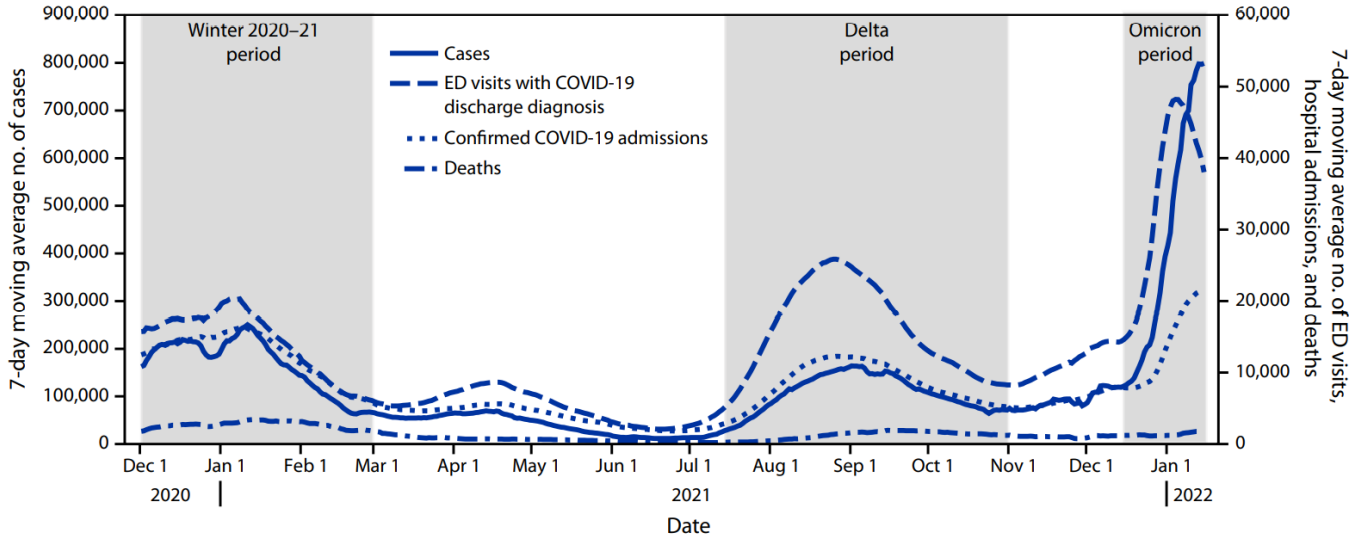
Updated 1/31/22

Trends in Disease Severity and Health Care Utilization During the Early Omicron Variant Period Compared with Previous SARS-CoV-2 High Transmission Periods - United States, December 2020–January 2022| CDC: January 28, 2022

Summary: A study analyzing disease severity of Omicron compared to other high transmission periods by evaluating severity indicators: length of stay, ICU admissions, and death.

Key Findings: COVID-19 **disease severity appears to be lower during the Omicron period than during previous periods of high transmission; deaths, ICU bed use, and ventilation were lower during Omicron than previous periods**. However, there was a **significantly higher volume of ED visits and hospitalizations (3.4x – 7.2x higher) during Omicron**, which caused a strain on the US health care system.

FIGURE. Seven-day moving average number of COVID-19 cases, emergency department visits, hospital admissions, and deaths — United States,* December 1, 2020–January 15, 2022



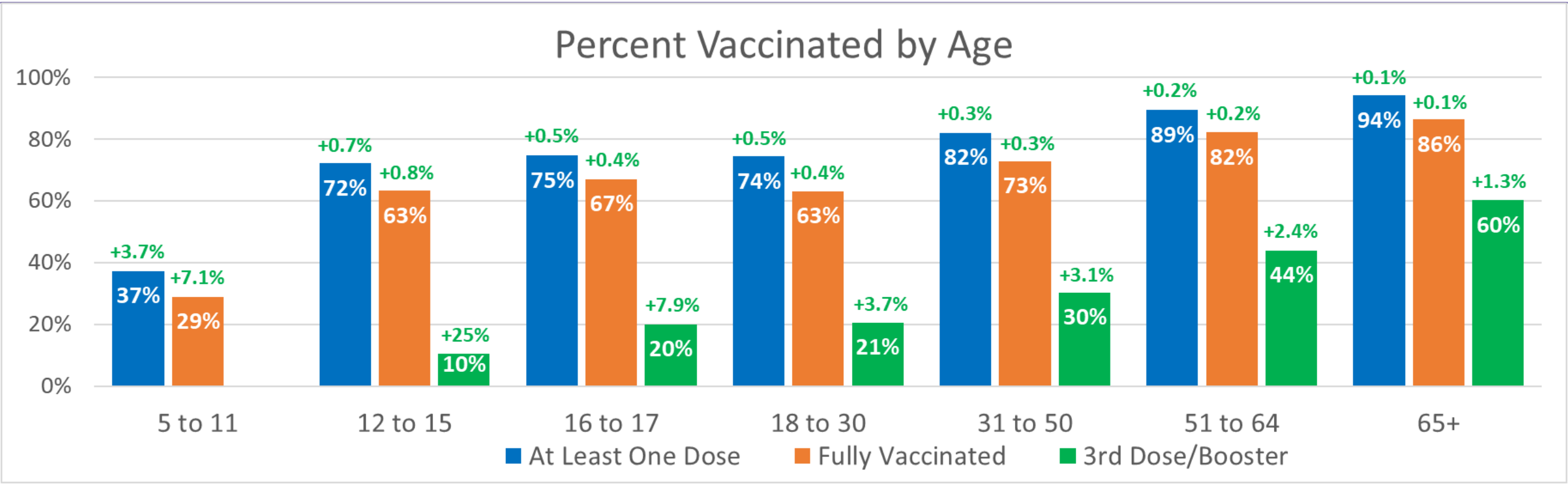
Effectiveness of a Third Dose of mRNA Vaccines Against COVID-19–Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults During Periods of Delta and Omicron Variant Predominance August 2021–January 2022 | CDC: January 28, 2022

Summary: A study evaluating effectiveness of a booster dose of mRNA against ED visits and hospitalizations among adults during the Delta and Omicron waves.

Key Findings: During both Delta- and Omicron-predominant periods, receipt of a **third vaccine dose was highly effective at preventing COVID-19–associated emergency department and urgent care encounters by 94% for Delta and 82% for Omicron** as well as **preventing COVID-19–associated hospitalizations by 94% for Delta and 90% for Omicron** respectively.

Virginia: Vaccination by Age Groups

Updated 2/2/22



Virginia Vaccination by Age

- ✓ **74.3%** **(+0.5%)** of the Eligible (5+) Population and **70.0%** **(+2.8%)** of the Total Population are Fully Vaccinated
- ✓ **54.4%** of the Eligible Population and **30.3%** **(+2.3%)** of Total Population Vaccinated with 3rd Dose/Booster
- ✓ **39.2%** **(+11%)** of the Total Population is "Up-to-Date" with their Vaccinations
- ✓ **89.7%** **(+0.3%)** of the Adult (18+) Population and **54.0%** **(+1.7%)** of 5 to 17 year olds Vaccinated with at Least One Dose

- Green percent represents percent increase from two weeks prior

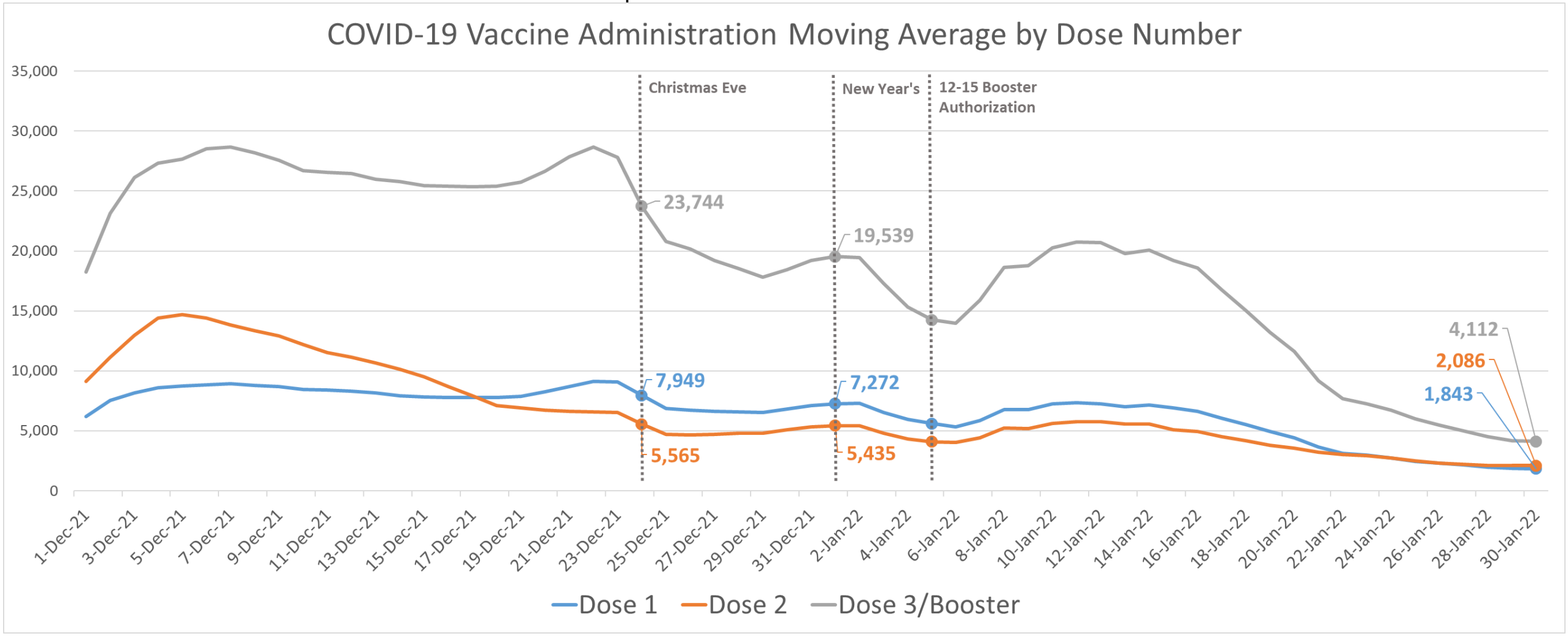
Source: COVID-19 in Virginia: Vaccine Summary, Keep Virginia Safe Tournament | Metaculus

Virginia: Vaccine Demand by Dose Number

Updated 2/2/22

First Dose, Second Dose, and Booster Administrations Have Decreased

- Over the past 2 weeks, Third Dose/Booster Administrations have decreased by nearly 80%
- First and Second Dose Administrations have plateaued at an all-time-low

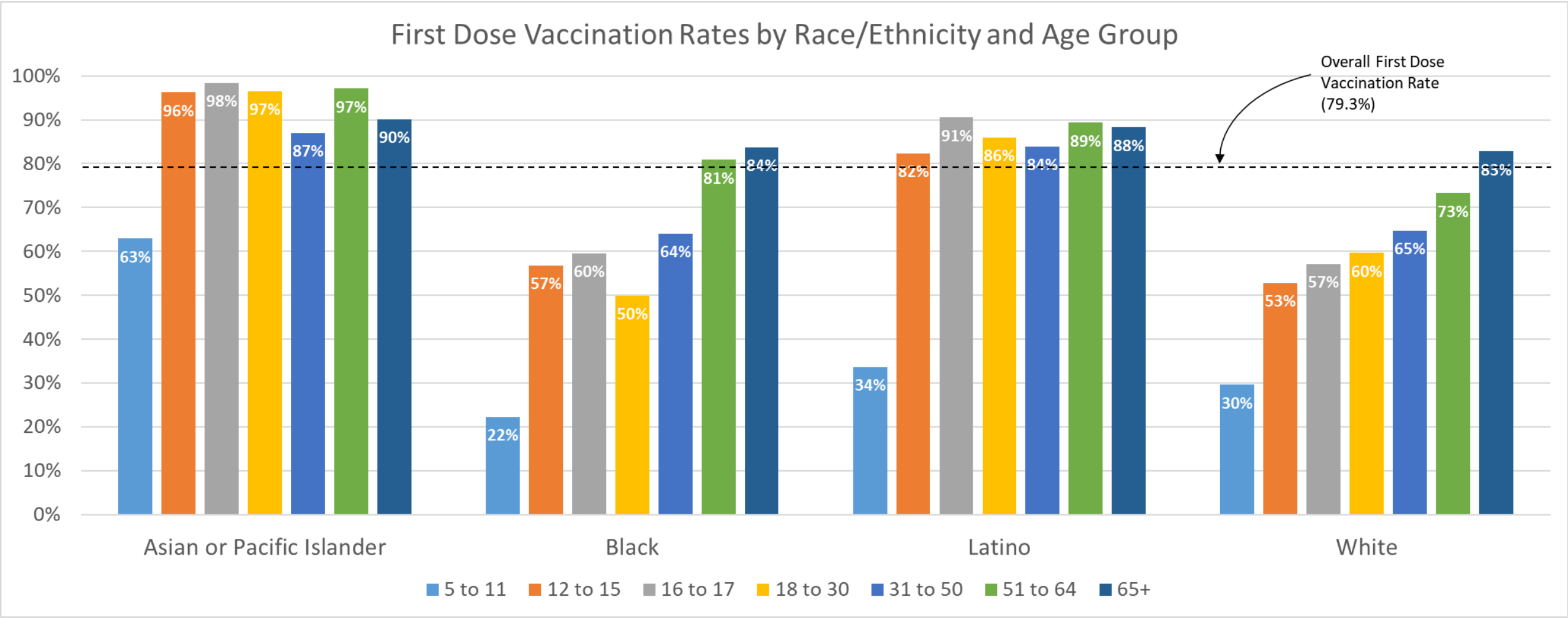


Federal doses not included in this number

Source: [COVID-19 Vaccine Summary – Coronavirus (virginia.gov)]

Virginia: Vaccination by Race/Ethnicity and Age

Updated 2/2/22

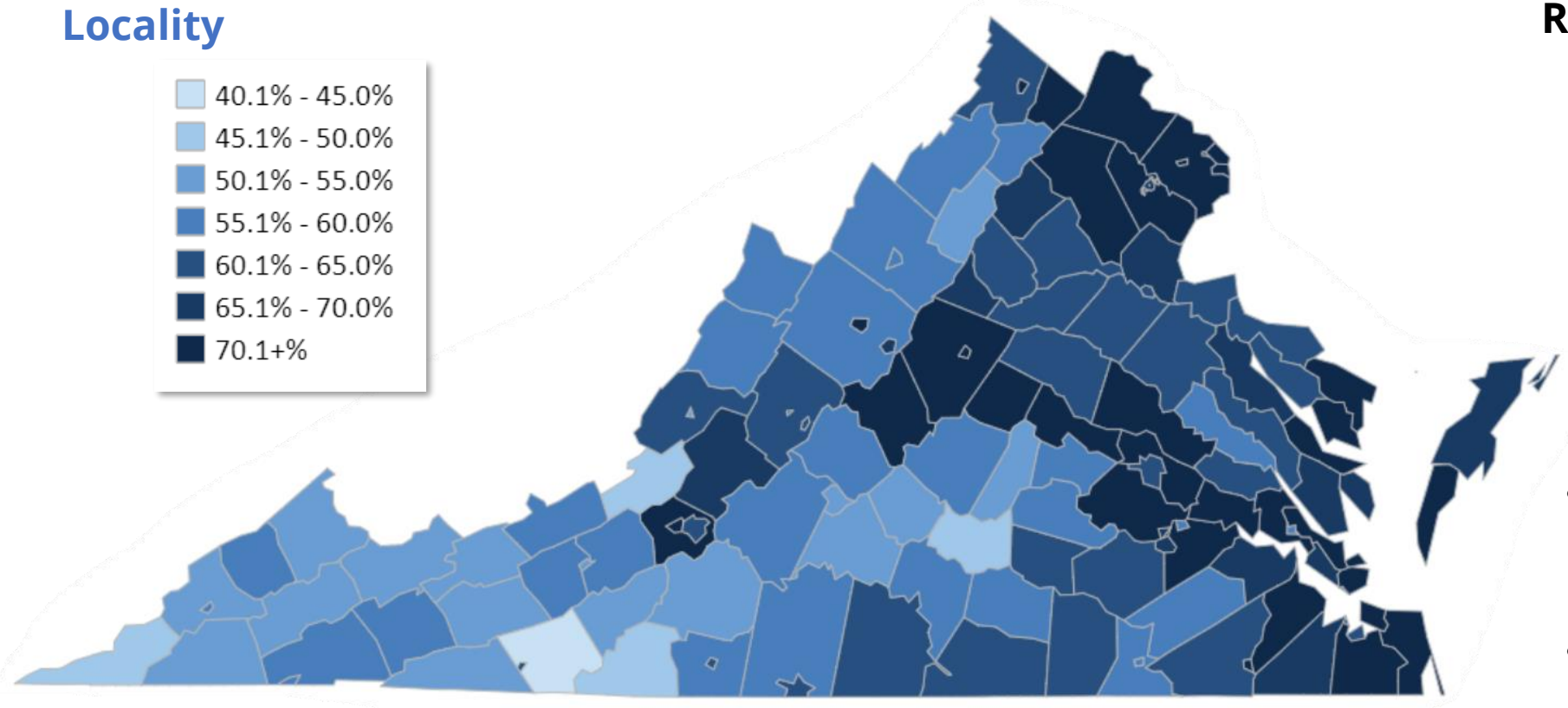


Source: [COVID-19 Vaccine Summary – Coronavirus (virginia.gov)]

Virginia: Vaccination across the Commonwealth by Geography

Updated 2/2/22

Percent of the Total Population with at Least One Dose by Locality



2013 SRHP Isserman Classification	5 to 11	12 to 17	16 to 17	18 to 30	31 to 50	51 to 64	65+	Grand Total
Mixed Urban	41%	72%	76%	74%	73%	85%	85%	65%
Urban	38%	74%	80%	67%	78%	86%	92%	75%
Mixed Rural	25%	52%	58%	58%	64%	75%	81%	61%
Rural	17%	44%	49%	52%	58%	71%	90%	75%
Grand Total	**34%**	**66%**	**71%**	**65%**	**72%**	**82%**	**88%**	**72%**

Federal doses not included in this number
Source: [COVID-19 Vaccine Summary – Coronavirus (virginia.gov)]

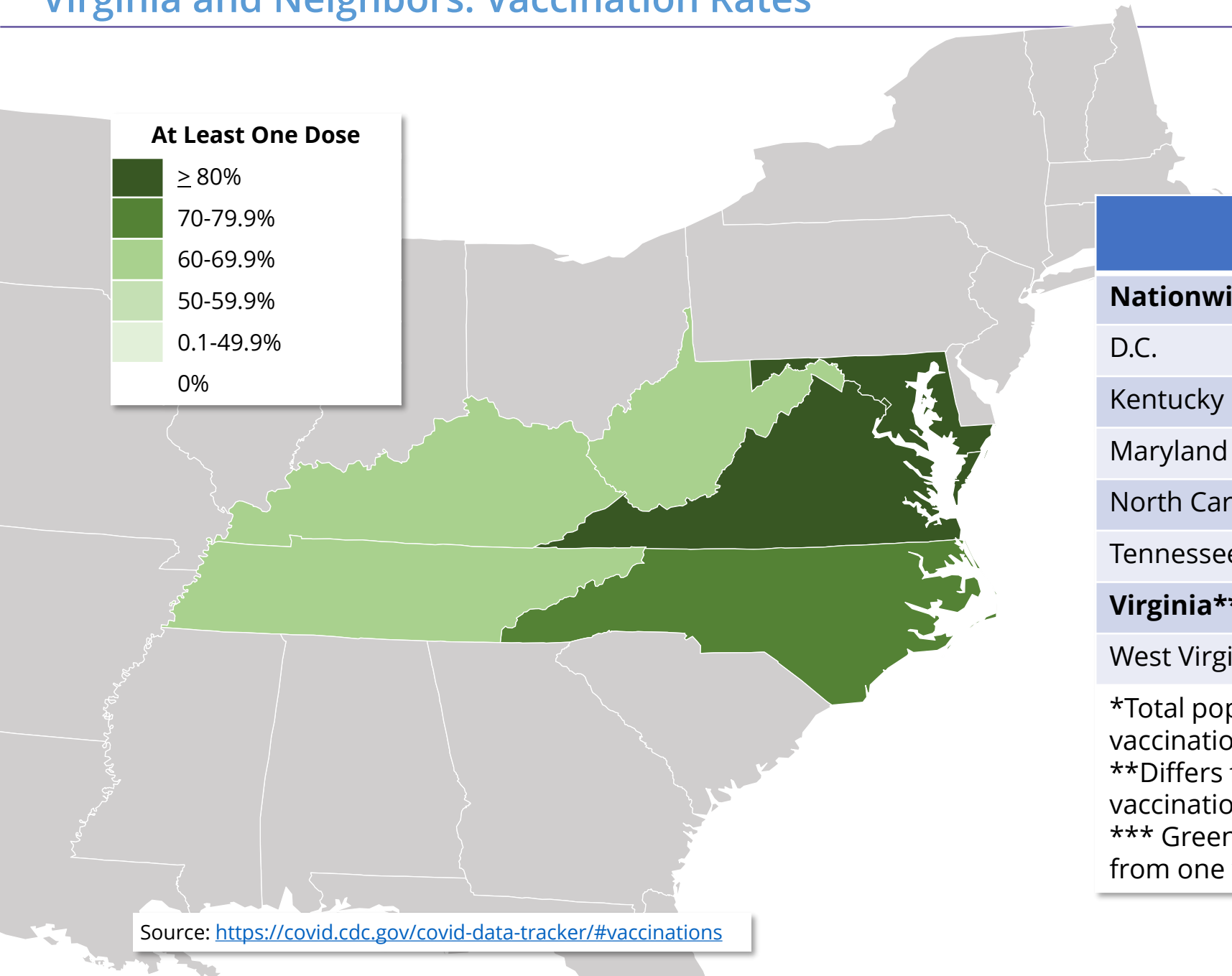
First Dose Vaccination Rate by Region for Total Population

Region Name	1st Dose Vaccination
Central	68.2%
Eastern	72.3%
Northern	82.5%
Northwest	65.3%
Southwest	57.3%

- 6 out of 133 Localities have a first dose vaccination rate below 50%
- 36 out of 133 Localities have a first dose vaccination rate above 70%
- There is a disparity across Urban and Rural areas by Age Groups, with Rural Adolescents the Lowest Vaccinated group

Virginia and Neighbors: Vaccination Rates

Updated 2/2/22



	At Least One Dose*	Fully Vaccinated*
Nationwide	**75.4% (+0.4%)**	**63.8% (+1.3%)**
D.C.	93.3% (+2.2%)	70.1% (+1.9%)
Kentucky	64.7% (+1.7%)	55.7% (+1.3%)
Maryland	83.7% (+1.6%)	72.7% (+1.4%)
North Carolina	80.9% (+2.1%)	58.5% (+1.6%)
Tennessee	60.7% (+1.7%)	52.8% (+1.5%)
Virginia**	**83.2% (+3.0%)**	**70.6% (+2.3%)**
West Virginia	63.6% (+1.3%)	56.2% (+1.1%)

*Total population, includes out-of-state vaccinations
**Differs from previous slide because all vaccination sources (e.g., federal) are included
*** Green percent represents percent increase from one weeks prior

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