Virginia
COVID-19 Surveillance Data Update

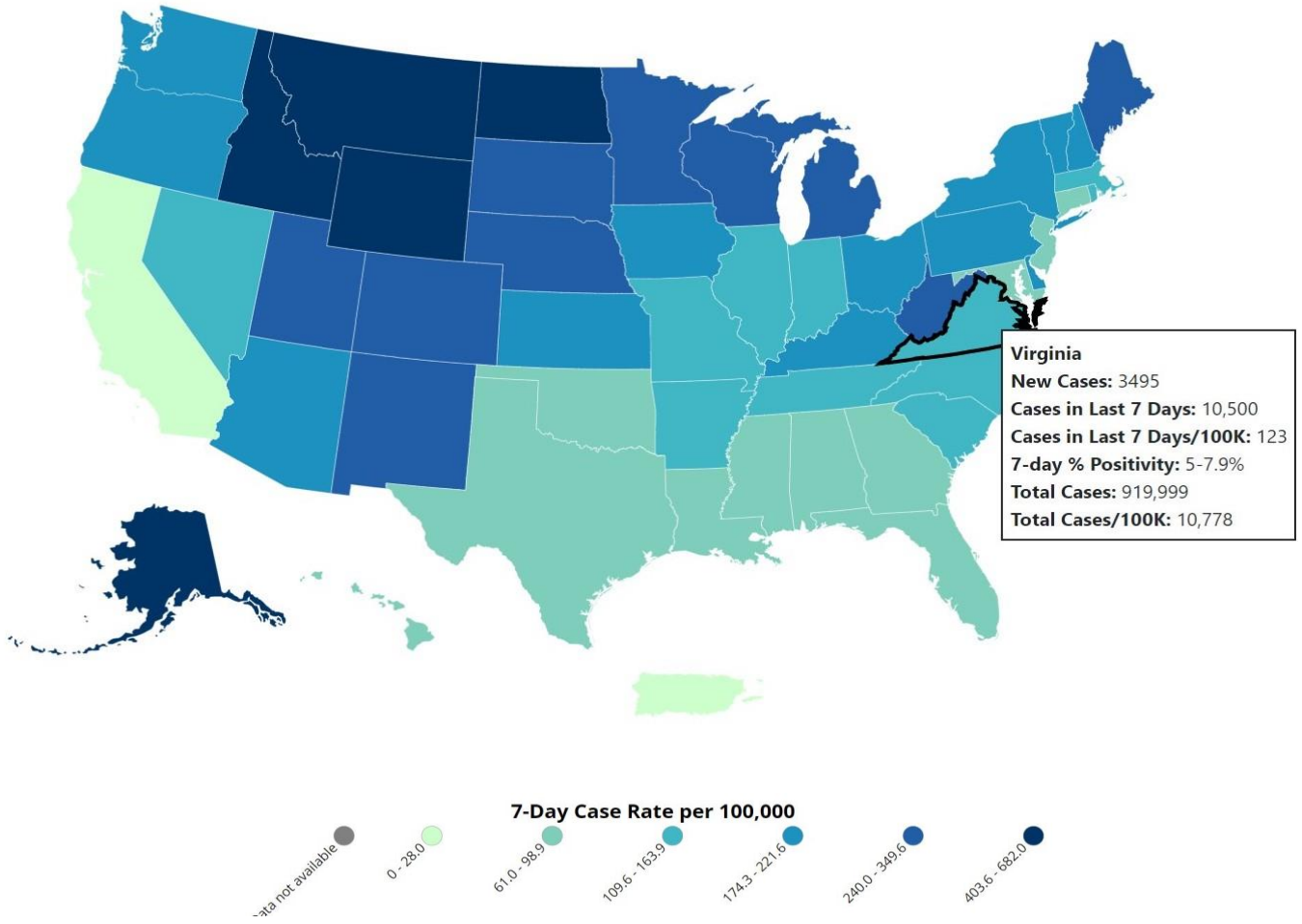
October 28, 2021

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

National: Weekly COVID-19 Case Rate

Updated 10/27

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



	Cases in the Last 7 Days Per 100k Population
Virginia	123 (-24.4%)
U.S.	139.1 (-12.6%)
Alaska	682 (+39.5%)
Montana	565.1 (+7.9%)
Wyoming	504.2 (-3.6%)

Our Neighbors

Rates Higher than Virginia

West Virginia, **349.6** (-13.4%)
Kentucky, **214.9** (-4.4%)
North Carolina, **146.3** (-20.4%)
Tennessee, **132.5** (+1.3%)

Rates Lower than Virginia:

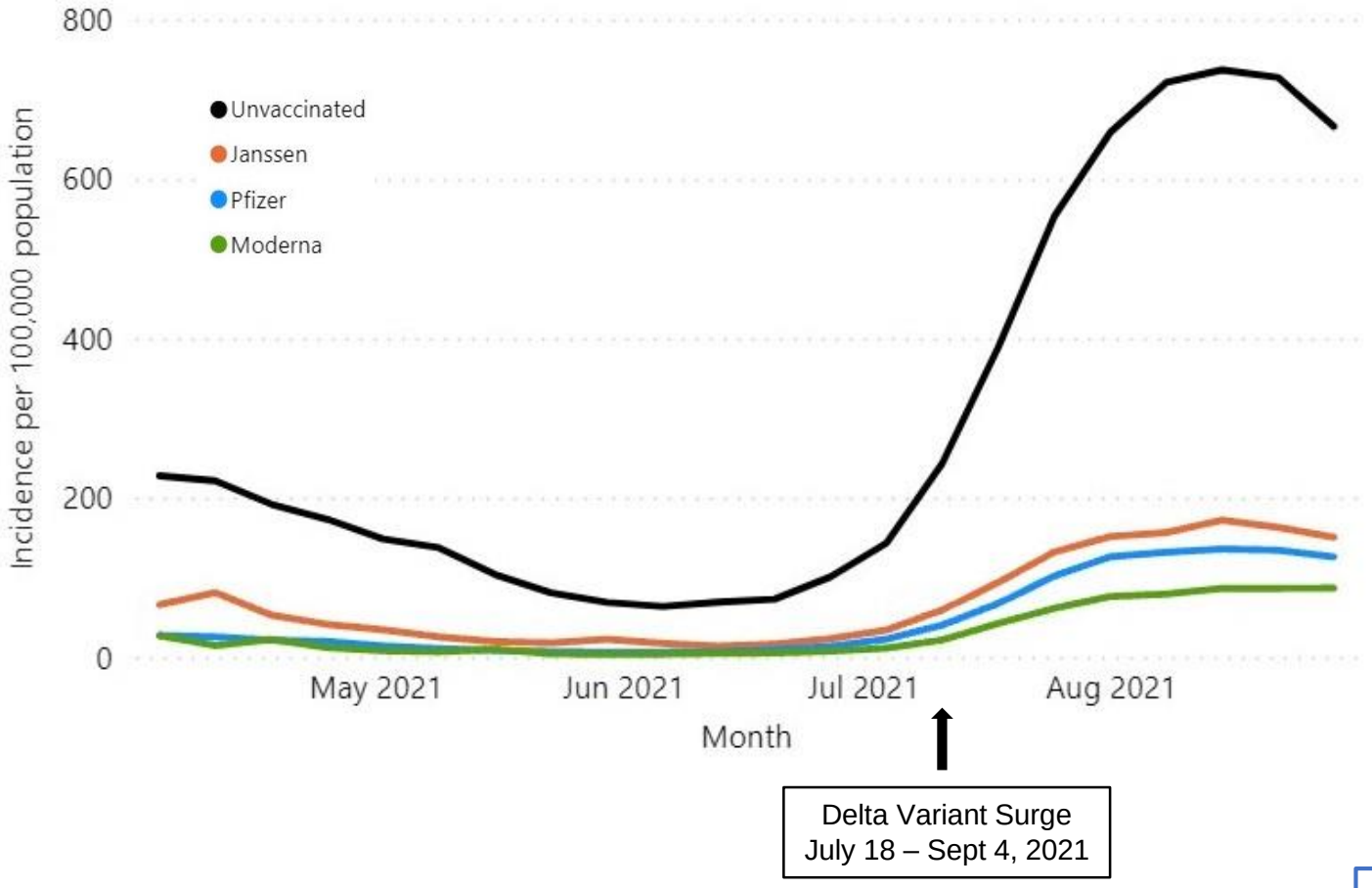
Maryland, **89.1** (-15.4%)
District of Columbia, **81.3** (-19.4%)

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

National: United States COVID-19 Cases by Vaccine Type – Statistical Significance

Updated 10/25

US Cases by Vaccine Type



Comparison of All Data 4/4-9/4/21

Vaccine Types	Statistical Significance (p value ≤ .05)
J&J vs Moderna	**0.0049***
J&J vs Pfizer	0.1339
Pfizer vs Moderna	0.1738

Comparison Data Post-Delta 7/18-9/4/21

Vaccine Types	Statistical Significance (p value ≤ .05)
J&J vs Moderna	**2.5805×10^{-5}***
J&J vs Pfizer	**0.0179***
Pfizer vs Moderna	**0.0033***

*Statistical significance is indicated when the p-value is ≤ .05. Significance was calculated by performing a 2 tailed, 2 sample equal variance t-test of the weekly incidence rate ratios per disease week by vaccine type.

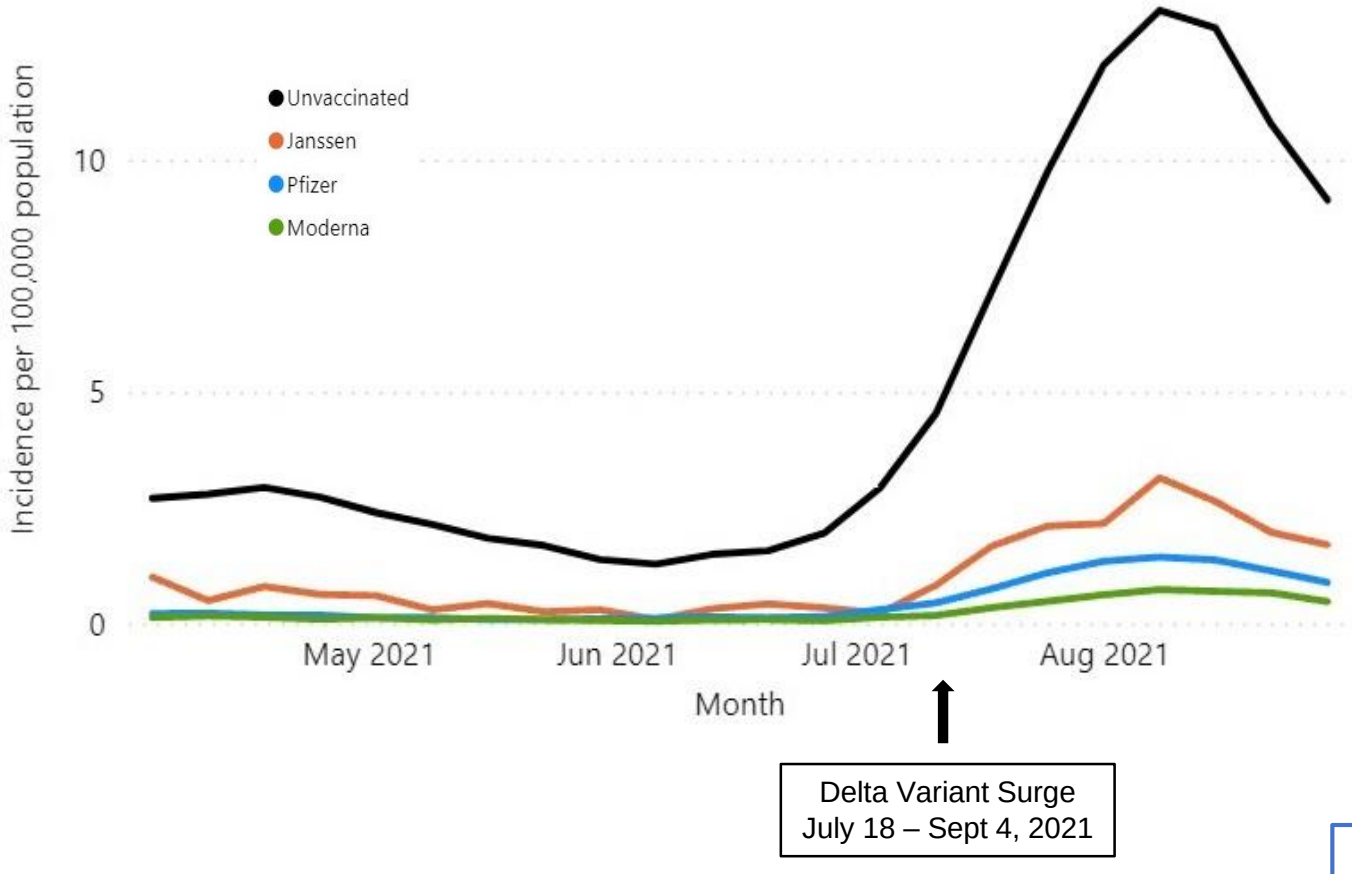
Source: CDC COVID Data Tracker

Data Collected from 16 U.S. Jurisdictions from April 4, 2021 – September 4, 2021

National: United States COVID-19 Deaths by Vaccine Type – Statistical Significance

Updated 10/25

US Deaths by Vaccine Type



Comparison of All Data 4/4-9/4/21

Vaccine Types	Statistical Significance (p value ≤ .05)
J&J vs Moderna	**0.0075***
J&J vs Pfizer	0.1222
Pfizer vs Moderna	0.1692

Comparison Data Post-Delta 7/18-9/4/21

Vaccine Types	Statistical Significance (p value ≤ .05)
J&J vs Moderna	**0.0005***
J&J vs Pfizer	**0.0236***
Pfizer vs Moderna	**0.0123***

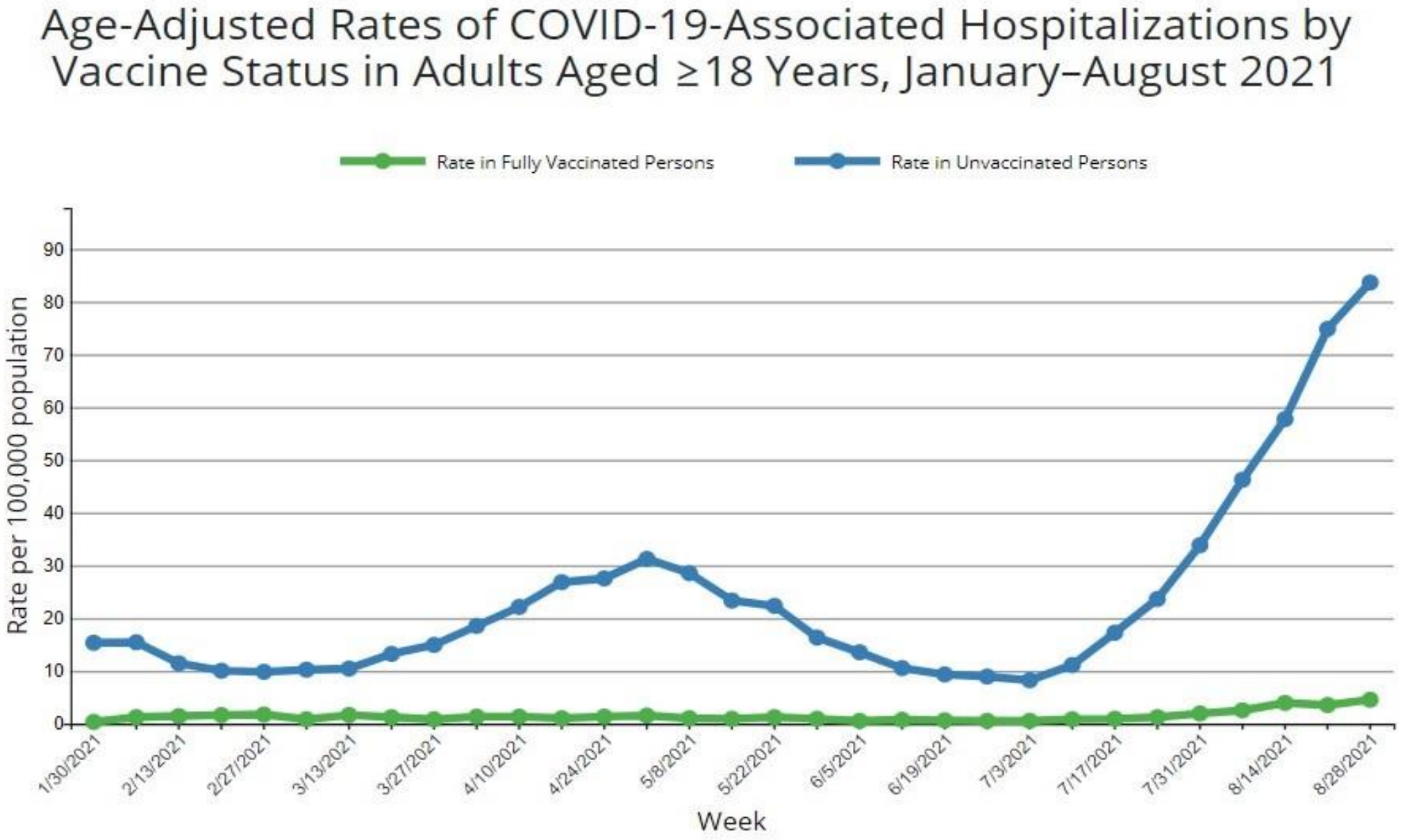
*Statistical significance is indicated when the p-value is ≤ .05. Significance was calculated by performing a 2 tailed, 2 sample equal variance t-test of the weekly incidence rate ratios per disease week by vaccine type.

Source: CDC COVID Data Tracker

Data Collected from 16 U.S. Jurisdictions from April 4, 2021 – September 4, 2021

National: Hospitalizations by Vaccination Status

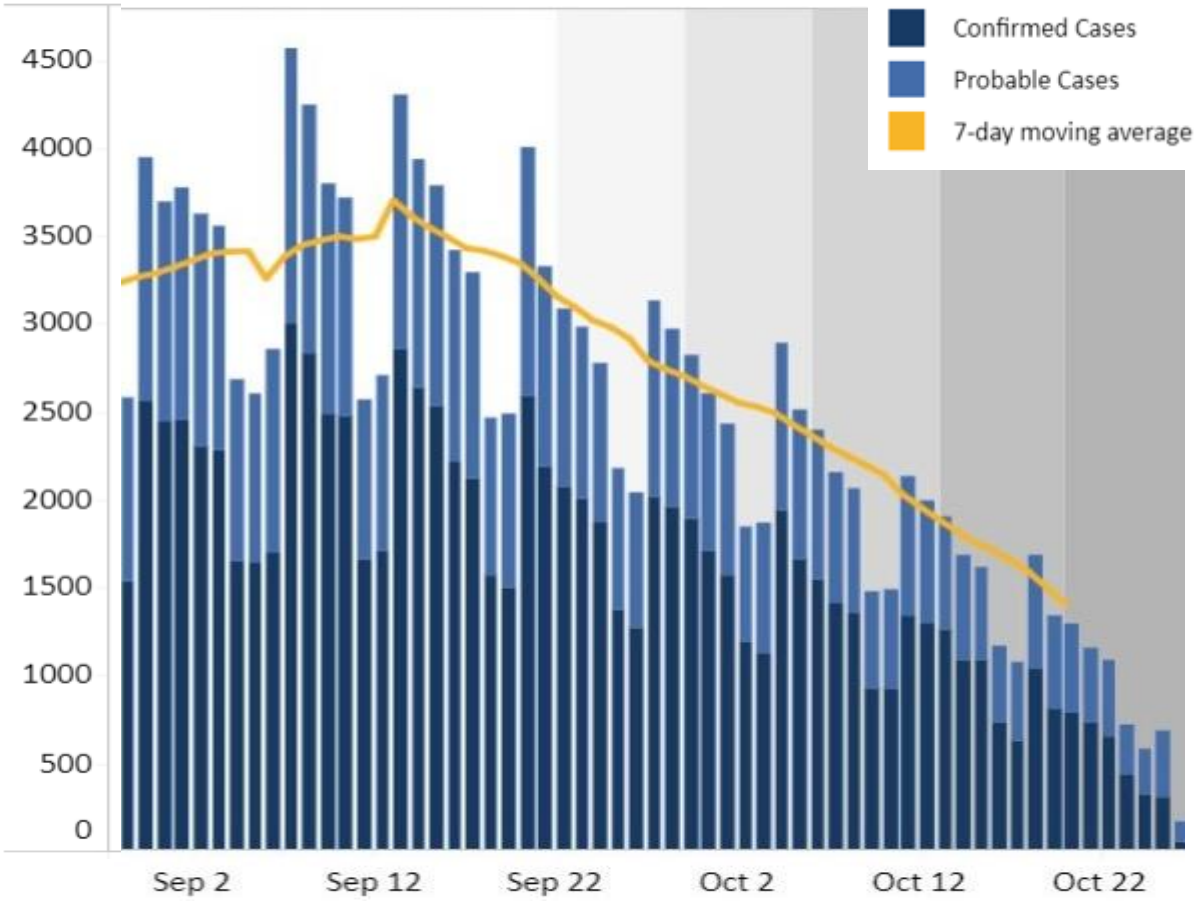
Updated 10/25



Virginia: Cases, Hospitalizations, and Deaths

Updated 10/27

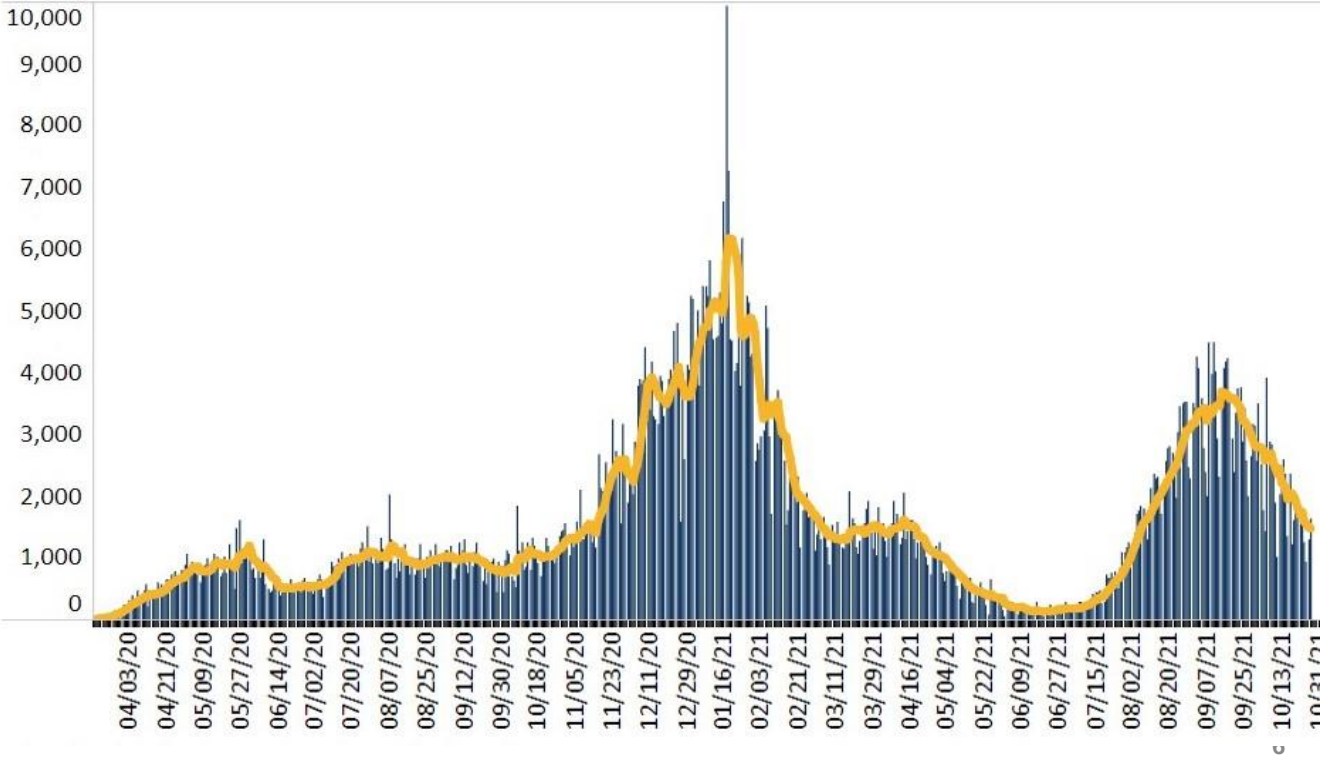
Cases by Date of Symptom Onset, last 60 days



Gray shaded area illness may not have been reported yet

- Compared to last week, **cases** decreased to 1,473 (7-day MA) per day (-22.7%)
  - 76% lower than the January peak of 2021
  - 15% higher than the March low of 2021
  - 1041% higher than the June low of 2021
- **Hospitalizations** decreased to 1,233 per day (-13.0%)
- **Deaths** decreased to 34.6 per day (-19.3%)

Cases, All Reporting Timeline

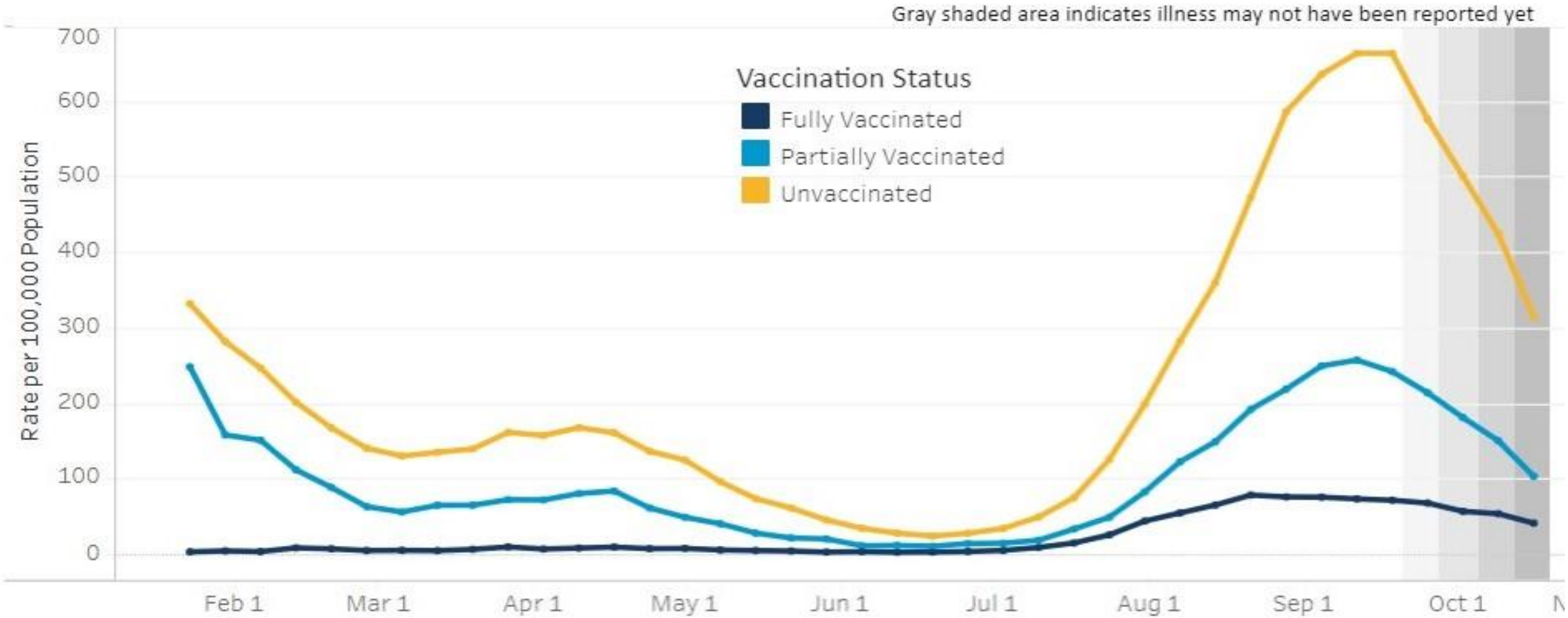


Source: Cases – Coronavirus (virginia.gov), Cases and Deaths - Coronavirus (virginia.gov), VHH Hospitalizations – Coronavirus (virginia.gov), Data represent a 7-day moving average

Virginia: Cases by Vaccination Status

Updated 10/27

Between 1/17/2021 and 10/16/2021, unvaccinated people developed COVID-19 at a rate **5.6 times** that of fully vaccinated people and **2.3 times** that of partially vaccinated people.‡



Source: [VDH Cases by Vaccination Status]

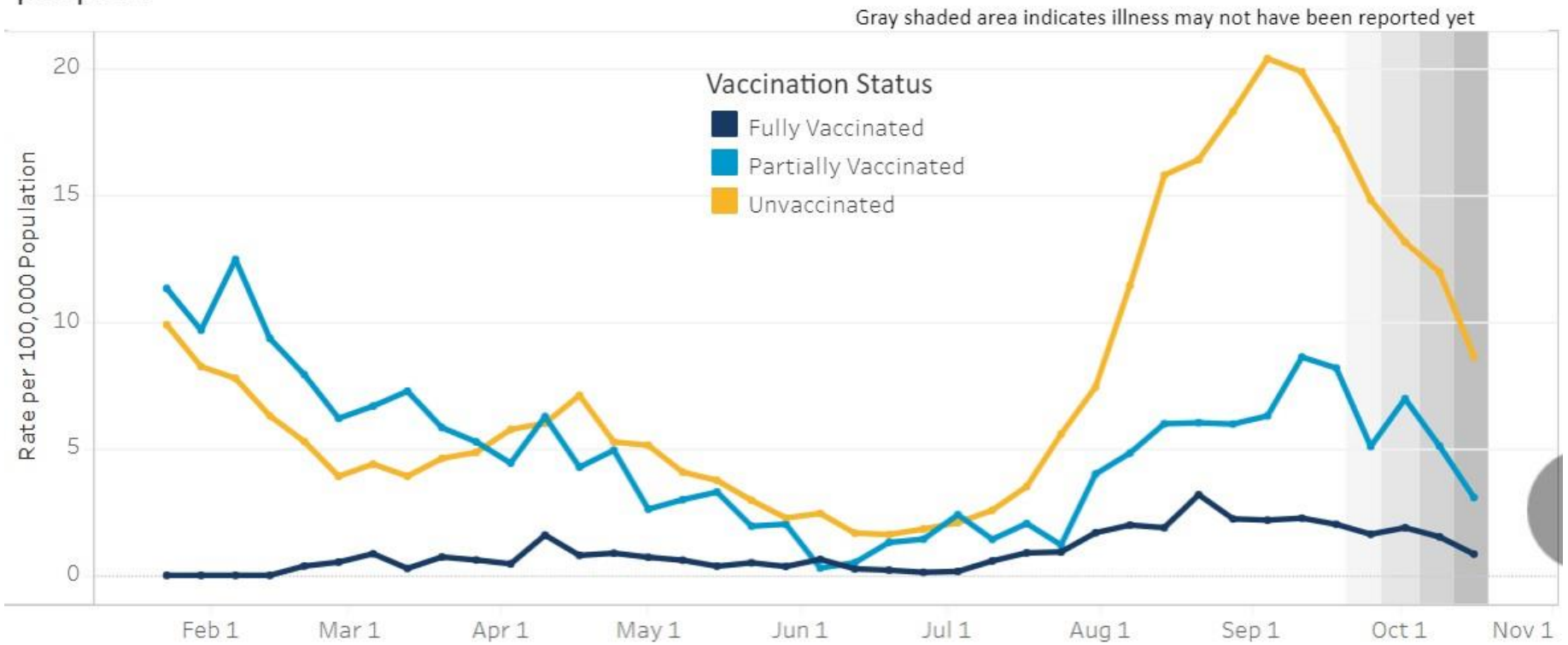
Virginia: Hospitalization Rate by Vaccination Status

Updated 10/21

Rate of Hospitalizations^ per 100,000*, 1/17/2021 - 10/16/2021

Fully Vaccinated** People	Partially Vaccinated† People	Unvaccinated People
29	106.8	152.9

Between 1/17/2021 and 10/16/2021, unvaccinated people were hospitalized for COVID-19 at a rate **5.3 times** that of fully vaccinated people and **1.4 times** that of partially vaccinated people.‡



Source: VDH Hospitalizations by Vaccination Status

Virginia: Regional Metric Summary

Updated 10/27

Metrics date: 10/27/2021

	Central	Eastern	Far Southwest	Near Southwest	Northern	Northwest
New cases per 100k within the last 7 days	125.2 ↓	100.3 ↓	258.4 ↓	176.3 ↓	70.0 ↓	162.5 ↓
% Positivity 7-day moving average	6.1% ↑	6.8% ↓	10.4% ↓	8.4% ↓	3.4% ○	8.4% ↓
COVID-like ED visits rate per 100k	14.0 ↓	9.7 ↓	16.6 ↓	13.7 ↓	5.4 ↓	9.5 ↓

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

Source: Region Metrics – Coronavirus
Data represents a 7-day moving average, trends compared to 1 week ago

COVID-19 Burden in Virginia LTCFs

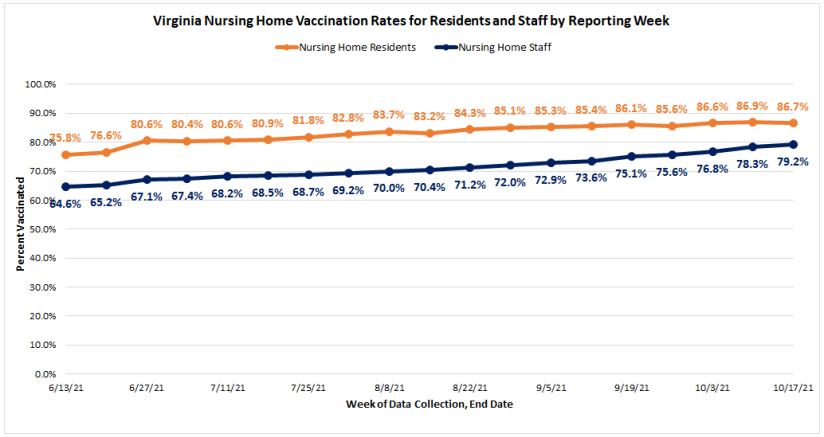
Questions can be directed to: hai@vdh.virginia.gov

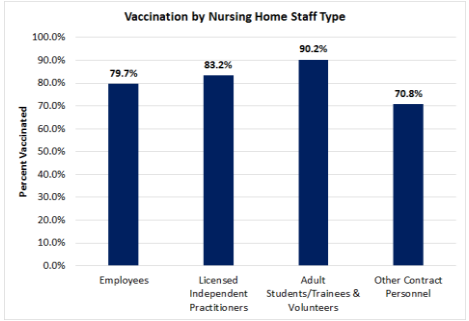
Updated 10/26/2021

Key Trends

- **Outbreaks in LTCFs have accounted for 25% of total COVID-19 outbreaks in Virginia.**
  - There were **61 LTCF COVID-19 outbreaks reported in the past 30 days**: 20 in Northwest, 12 in Eastern, 11 in Central, 9 in Southwest, and 9 in Northern *(see figure top right)*.
- The number of reported resident and staff cases have been declining since mid-September, although there has been a **slight increase in reported resident cases in the last few weeks** *(see figure bottom right)*.
  - For the reporting week ending October 17, 2021, **121 resident and 81 staff cases were reported to NHSN.**
- For reporting week ending October 17, 2021, data reported from 280 nursing homes showed **87% of residents were fully vaccinated**; data reported from 278 nursing homes showed **79% of staff were fully vaccinated** (*see figure bottom left*).
  - From week ending June 13 to October 17, 2021, vaccination in nursing home staff increased from 65% to 79%; vaccination in nursing home residents increased from 76% to 87%.
  - For the week ending October 17, 2021, 80% of nursing home employees (staff on facility payroll) were fully vaccinated; only 71% of other contract personnel were fully vaccinated.

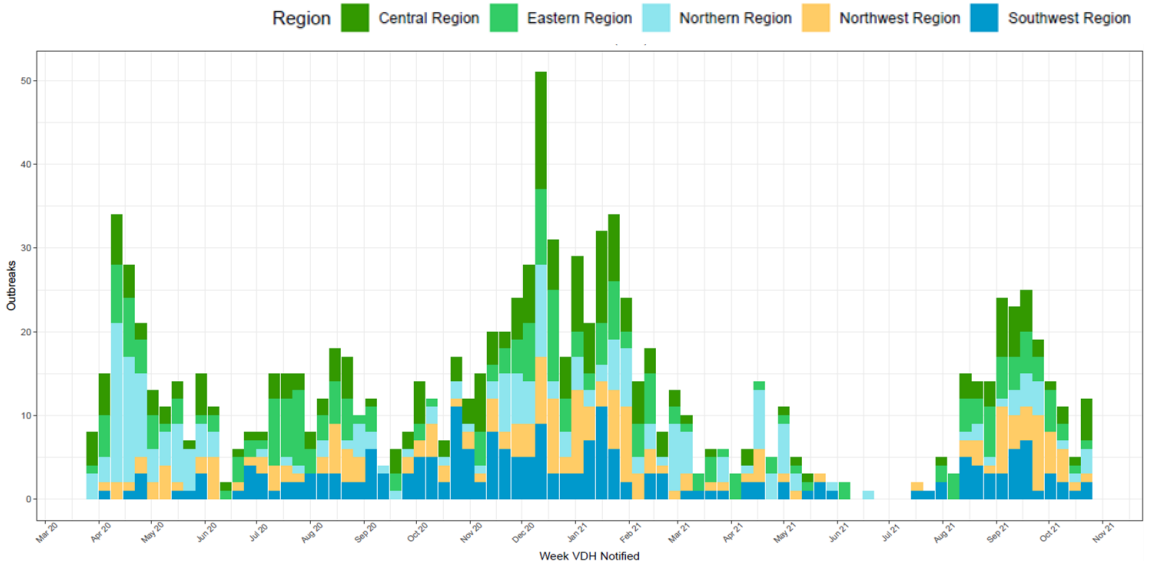
Current COVID-19 Vaccination in Virginia Nursing Homes (n=286)





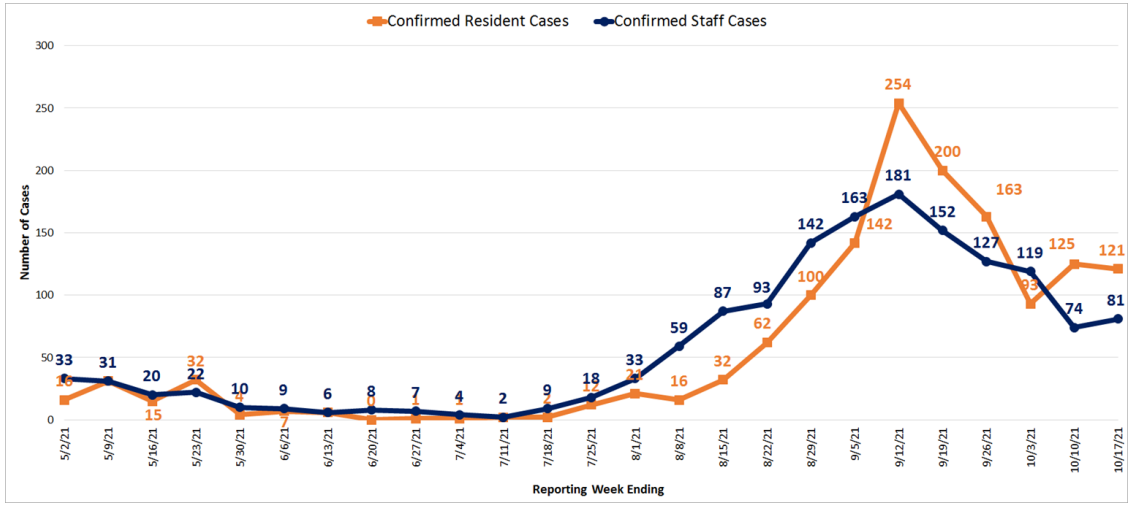
Data are from the National Healthcare Safety Network (NHSN) as of 10/26/2021 and are subject to change.
In Virginia, 280 nursing homes reported resident vaccination data for the reporting week ending 10/17/2021; 278 nursing homes reported staff vaccination data for the reporting week ending 10/17/2021. For staff type definitions, please refer to the NHSN Table of Instructions.

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



Includes outbreaks reported from nursing homes, assisted living facilities, and multicare facilities to VDH with a confirmed or suspected etiologic agent of SARS-CoV-2; updated 10/25/2021.

Nursing Home Resident and Staff COVID-19 Cases



Data are from NHSN as of 10/26/2021 and are subject to change. For the reporting week ending 10/17/2021, a reporting error was identified and removed from the total resident case count.
For reporting information, please refer to the NHSN data collection forms: residents, staff.

Vaccines and Related Biological Products Advisory Committee October 26, 2021, Meeting Document: October 2021

•In an FDA briefing document about the emergency use authorization of the Pfizer vaccine in ages 5-11

- The Pfizer clinical study found 90.7% vaccine efficacy against COVID-19 infection in ages 5-11
- The dosage given of the Pfizer vaccine was 10 micrograms 3 weeks apart to attain a safe but robust immune response
- Reactogenicity at this dose was mild to moderate but there were no adverse events related to vaccine administration
- The emergency authorization is acting on the rate of COVID-19 cases (1.8 million), hospitalization (8622), and deaths (143) in 5–11-year old's
- Pfizer is stating the benefits outweigh the risks in vaccinating 5–11-year old's against COVID-19

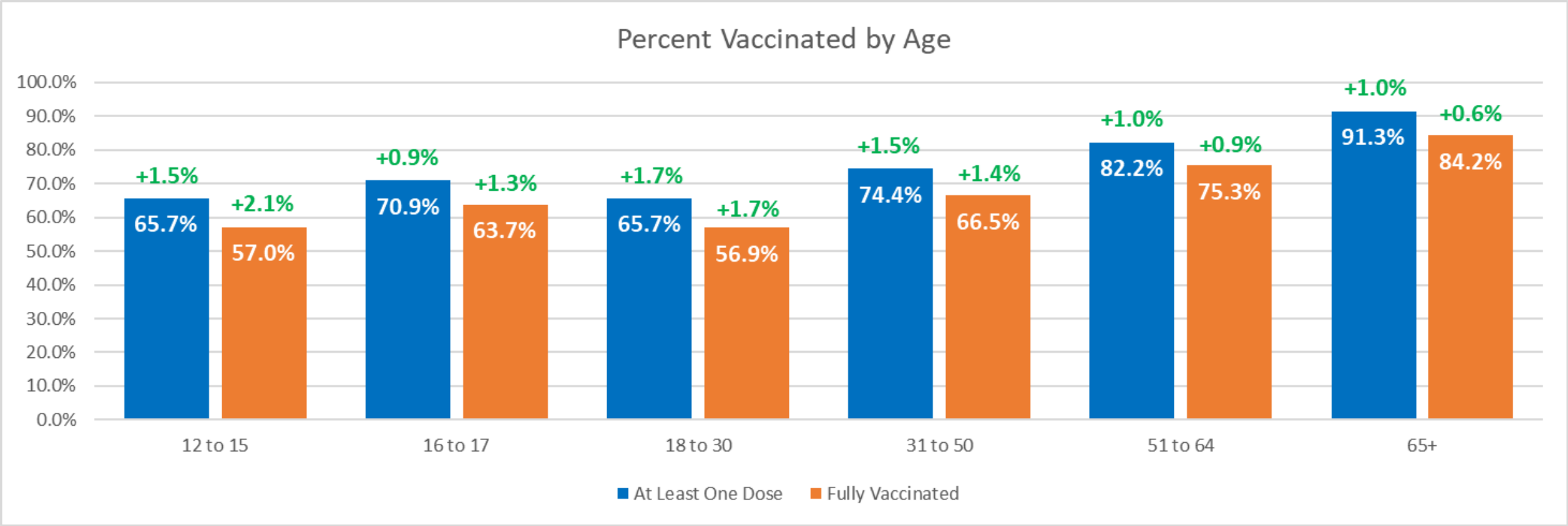
Moderna Announces Positive Top Line Data from Phase 2/3 Study of COVID-19 Vaccine in Children 6 to 11 Years of Age: October 25, 2021

Moderna in a press release shared interim data on their KidCOVE Study currently being conducted

- The interim analysis showed a robust neutralizing antibody response in kids 6-12 with administration of the Moderna COVID-19 Vaccine
- Children 6-12 are receiving 2 50 mg doses of Moderna 28 days apart which is generally well tolerated with a favorable safety profile, adverse events remained only mild to moderate severity with the most common being fatigue, headache, fever, and injection site pain
- Moderna plans to submit results to the U.S. FDA, EMA and regulatory agencies around the world soon

Virginia: Vaccination by Age Groups

Updated 10/27



Virginia Vaccination by Age

- ✓ **82.6%** **(+1.7%)** of the Adult (18+) Population Vaccinated with at Least One Dose
- ✓ **73.1%** **(+2.5%)** of the Eligible (12+) Population Fully Vaccinated
- ✓ **91.3%** **(+1.0%)** of Virginians 65+ and **67.4%** **(+1.7%)** of 12 to 17 year olds have received at least one dose
- ✓ **62.6%** **(+2.4%)** of the Total Population has been Fully Vaccinated

Green percent represents percent increase from two weeks prior

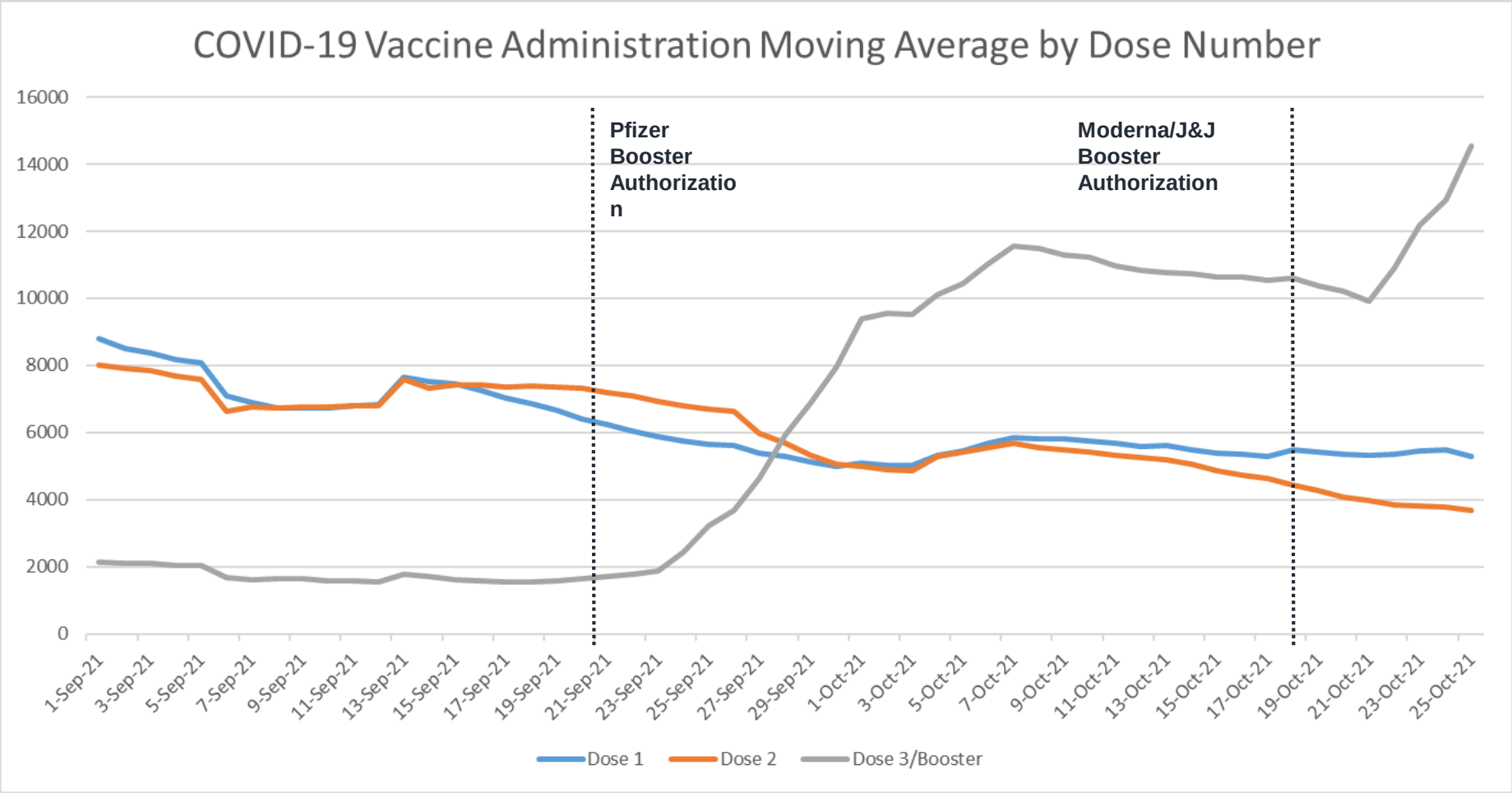
Source: COVID-19 in Virginia: Vaccine Summary, Keep Virginia Safe Tournament | Metaculus

Virginia: Increasing Third Dose/Booster Demand

Updated 10/27

Third Dose/Booster shot administrations are increasing

- Third Dose/Booster administrations are seeing a sharp increase following Moderna/J&J Booster Authorization
- First Dose administrations are plateauing and Second Dose administrations are steadily declining after an increase in Early October



Federal doses not included in this number

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

Third Dose/Booster Metrics

Population	Eligible	Doses	Uptake
65+	968,242	259,660	26.8%
Total	2,760,847	438,619	15.9%

Administered Location Type	3rd Doses	Proportion
Pharmacy – chain	296,916	68%
Public health provider – public health clinic	36,881	8%
Medical practice – family medicine	34,117	8%
Hospital	30,476	7%
Other	17,839	4%
Medical practice – other specialty	8,000	2%
Medical practice – internal medicine	5,248	1%
Health center – community (non-Federally Qualified Health Center/non-Rural Health Clinic)	3,654	1%
Medical practice – pediatrics	2,207	1%
Long-term care – nursing home, skilled nursing facility, federally certified	2,001	0%
Health center – student	553	0%
Medical practice – OB/GYN	397	0%
Corrections/detention health services	180	0%
Unclassified	150	0%
Grand Total	**438,619**	**100%**

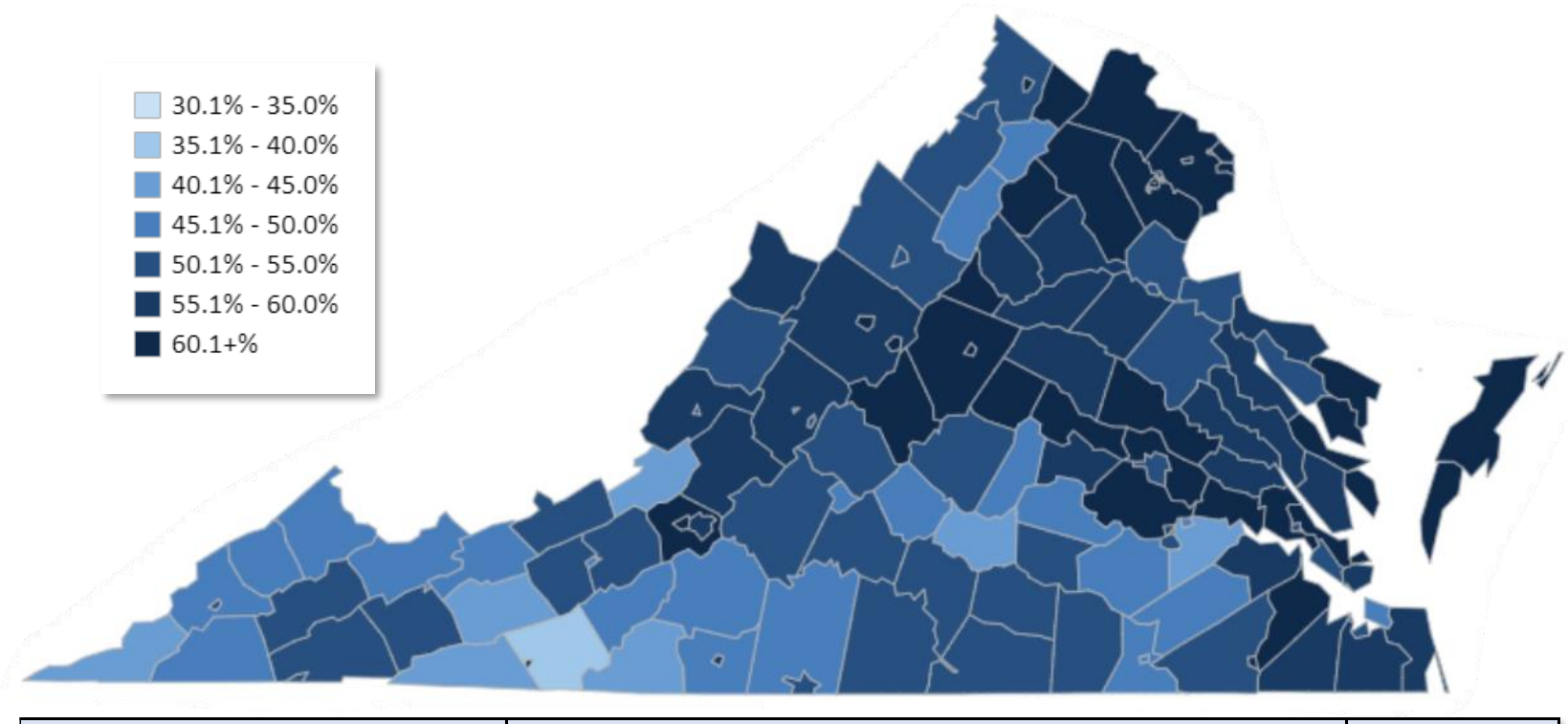
Federal doses not included in this number

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

Virginia: Vaccination across the Commonwealth by Geography

Updated 10/27

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



2013 SRHP Isserman Classification	12 to 15	16 to 17	18 to 30	31 to 50	51 to 64	65+	Grand Total
Mixed Urban	66%	74%	68%	69%	80%	92%	**65%**
Urban	68%	76%	60%	71%	80%	88%	**75%**
Mixed Rural	48%	56%	52%	59%	70%	84%	**61%**
Rural	39%	46%	47%	53%	66%	80%	**73%**
Grand Total	**61%**	**68%**	**58%**	**67%**	**76%**	**86%**	**70%**

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	% Change 2 Weeks
Central	59.5%	+1.1%
Eastern	56.7%	+1.8%
Northern	68.9%	+1%
Northwest	57.6%	+1.1%
Southwest	51.5%	+1%

- 1 (-1 over 2 weeks) out of 133 Localities have a first dose vaccination rate below 40%
- 37 (+1 over 2 weeks) out of 133 Localities have a first dose vaccination rate above 60%
- There is a disparity across Urban and Rural areas by Age Groups, with Rural Adolescents the Lowest Vaccinated group

Virginia: Vaccination by Race/Ethnicity

Updated 10/27

First Dose Vaccination Rates by Race/Ethnicity and Age Group

Race/Ethnicity	12 to 15	16 to 17	18 to 30	31 to 50	51 to 64	65+
Asian or Pacific Islander	90%	98%	86%	81%	92%	88%
Black	50%	55%	43%	58%	74%	82%
Latino	77%	86%	78%	77%	85%	87%
Native American	120%	134%	85%	114%	107%	115%
White	48%	55%	53%	59%	68%	81%

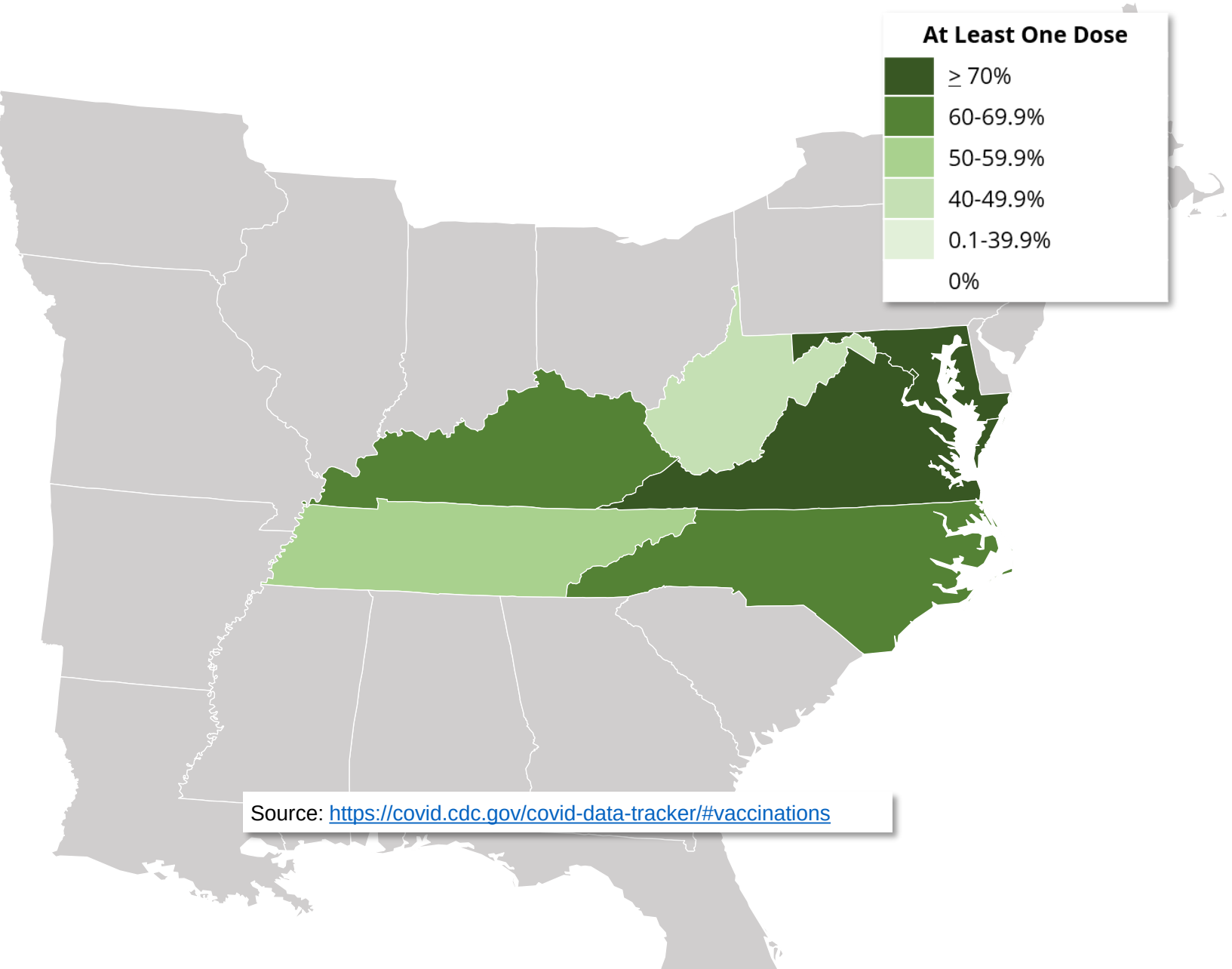
First Dose Vaccination Rates by Race/Ethnicity and Isserman Geographic Classification

2013 SRHP Isserman Classification	Asian	Black	Latino	Native American	White
Mixed Urban	86%	60%	72%	134%	64%
Urban	78%	56%	75%	107%	62%
Mixed Rural	76%	58%	68%	85%	56%
Rural	70%	56%	63%	62%	53%

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

Virginia and Neighbors: Vaccination Rates

Updated 10/27



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

	At Least One Dose*	Fully Vaccinated*
Nationwide	**66.5% (+1.5%)**	**57.5% (+1.8%)**
D.C.	73.7% (+2.2%)	62.1% (+1.8%)
Kentucky	62.6% (+1.5%)	54.5% (+1.9%)
Maryland	72.6% (+1.5%)	65.9% (+1.5%)
North Carolina	63.3% (+2.9%)	52.3% (+1.9%)
Tennessee	54.3% (+1.5%)	47.4% (+1.9%)
Virginia**	**70.6% (+1.7%)**	**62.7% (+1.8%)**
West Virginia	48.8% (+0.6%)	41.0% (+0.7%)

*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 two weeks prior