Virginia Department of Health Plan for Equitable Distribution of COVID-19 Vaccine – August, 2022

August 2022

Office of Health Equity in the Virginia Department of Health

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Executive Summary

This monthly report is from the Office of Health Equity in the Virginia Department of Health. It provides an overview of vaccination equity in the Commonwealth of Virginia, including key equity accomplishments, for July 2022.

This report compares Virginia's equitable vaccination progress with other states in Region 3 of the Federal Emergency Management Agency (FEMA), namely Delaware, the District of Columbia, Maryland, Pennsylvania, and West Virginia. Additionally, this report explores vaccine trends over time, vaccination hesitancy, and equity considerations for vaccine distribution. An overview of recent legislative, executive, and administrative actions is also included. Key findings include:

Impact of the Omicron Variant BA.5

- *In May, the new BA.5 subvariant of Omicron began to emerge in Virginia (Source).*
- *By the end of June, experts in the U.S. began cautioning people about the BA.5 variant, warning that it could be the worst version of Omicron yet (Source).*
- *At the end of July, the BA.5 variant was responsible for over half of all cases in Virginia, according to CDC estimates (Source).*

Trends in Average Daily Cases

- *Since the end of November 2021, Virginia saw the highest number of average daily cases in the month of January 2022 and saw a fall in cases during February and March. In the spring and summer, cases started to increase again (Source).*
- *On January 13, 2022, the average number of daily cases in Virginia peaked at 207.3 per 100,000. This is compared to 17.8 per 100,000 on November 27, 2021 and 101.2 per 100,000 on February 1, 2021. By the end of March, that number had dropped even further to 8.7 cases per 100,000 people. On April 30th, the number of daily cases had risen again to 17.6 per 100,000 people. On May 30th, it was 40.14 cases per 100,000 people and at the end of June, the average number of daily cases was 29.9 (Source).*
- *The highest number of average daily cases in Virginia in July was on July 25th at 36.7 cases per 100,000 people (Source).*

Vaccination Rates

- *At the end of July 2022, 71.9% of Virginia's population was fully vaccinated and 82.1% had received one dose of the vaccine (Source).*

Impacts on Children

- *On January 26, a child younger than ten died after contracting COVID-19. The child was the eighth Virginia child under ten to die from the virus (Source).*
- *In the Roanoke-City Alleghany Health Districts, around 11 percent of the new COVID-19 cases were in children during the month of February (Source).*
- *As of July 28th, 30 individuals younger than 20 have died from COVID-19 in Virginia (Source).*

1. Key Equity Announcements and Critical Updates

This section details equity-related announcements regarding COVID-19 in the Commonwealth of Virginia during the month. It also provides information on critical updates relevant to Virginia's responses to COVID-19. Equity announcements and critical updates from July include:

- July 1: Ahead of the July 4th weekend, more than 20% of Virginians that were tested for COVID-19 by PCR tested positive. This is the Commonwealth's highest positivity rate since February of this year.
- July 2: According to the COVID Community Levels by the CDC, universal masking is now recommended for 28 of Virginia's localities, including much of Metro Richmond. In the past week, new cases in Virginia increased by 13% (Source).
- July 5: According to the FDA, a new COVID booster that will specifically build immunity against the new subvariant of Omicron will be available this fall. Health officials hope that this will help build immunity against the newer Omicron variants. VDH recommends that people living in high COVID-19 level communities follow masking and social distancing guidelines (Source).
- July 5: The Chickahominy Health District announced that, beginning the week of July 11th, it will offer the Pfizer and Moderna COVID-19 vaccines for children ages 6 months through 4 or 5 years old, following guidance from the CDC and the FDA. The Chickahominy Health District serves the counties of Charles City, Goochland, Hanover, and New Kent (Source).
- July 6: Children 6 months and older can now get vaccinated against COVID-19. In addition to back-to-school vaccinations, the Three Rivers Health District are offering the Moderna and Pfizer vaccines to children aged 6 months and older (Source).
- July 7: Henrico County remains in the high community level designation for COVID-19, according to the CDC. Cases and virus-related hospitalizations increased slightly in the county during the past week (Source).
- July 8: According to CDC estimates, the newest BA.5 COVID-19 variant accounts for more than half of Virginia's cases and is spreading rapidly through the Commonwealth (Source).
- July 11: State data indicate that the average number of vaccines administered daily in Virginia has been steadily declining since mid-January, despite efforts to boost stagnating vaccination rates (Source).
- July 12: Cases of reinfections and new infections emerge daily in the Blue Ridge Health District (BRHD). BRHD currently offers COVID vaccine clinics through its mobile health unit, Mobi, which can be requested for events (Source).
- July 13: Amidst the rise in cases in Virginia due to the BA-4 and BA-5 variants, some experts are recommending that people wear masks in public places (Source).
- July 14: Health experts in the Hampton Roads locality are eagerly awaiting approval from the CDC for the Novavax vaccine, previously not available in the U.S. This new vaccine does not require freezer storage, making it easier for local pharmacies to store (Source).

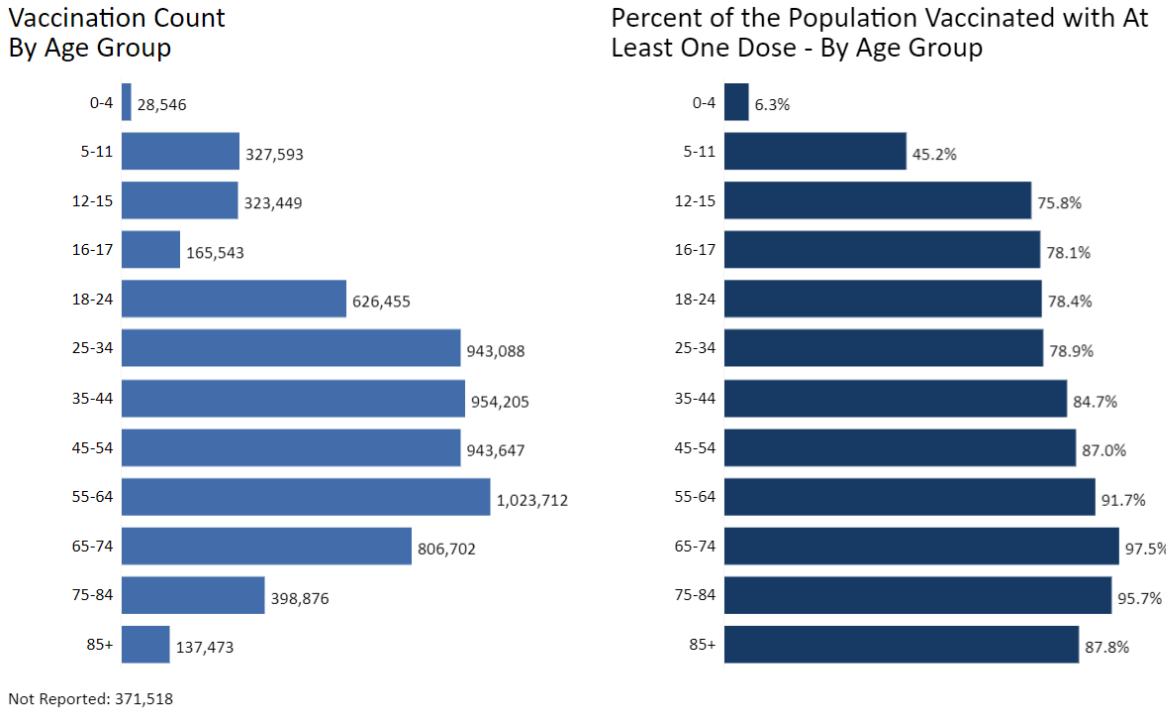
- July 15: According to the CDC, Chesterfield County and the City of Colonial Heights both remain in the high COVID-19 community levels. The CDC recommends the following for communities experiencing high levels of COVID-19: wearing a mask indoors in public, staying up to date on COVID-19 vaccines, and getting tested if one has symptoms (Source).
- July 16: According to the University of Virginia's Biocomplexity Institute, Danville and Pittsylvania County are experiencing a slow-growth trajectory of COVID-19. They are both at medium community levels of COVID-19 (Source).
- July 17: The Virginia Beach Department of Public Health announced that it will hold a free COVID-19 vaccination clinic on Wednesday, July 20, offering COVID-19 vaccines to those ages 5 and up. The clinic will offer all vaccines, including boosters. It will be held at New Light Baptist Church, located at 5549 Indian River Road, from 4:30 p.m. to 6:30 p.m. (Source)
- July 18: The Fairfax Health District reported that over 1 million of its residents have now received at least one dose of the COVID-19 vaccine. That is 84.6% of the population; the milestone comes after 19 months of its vaccination campaign (Source).
- July 18: Data from the VDH reveal that over four times as many COVID-19 prescription pills were filled in wealthier zip codes in Virginia. VDH is investigating whether this difference is due to disparities, need-based differences, or because of reporting issues (Source).
- July 19: Hospitalizations in the Roanoke City-Alleghany Health District are at the highest level since March, with 32 residents hospitalized for complications related to COVID-19 as of Monday (up from 21 the week before) (Source).
- July 20: In the last three weeks, VDH data shows that the BA.5 Omicron variant accounts for over 40% of Virginia's current infections. "This is the new wave, the new surge," said Dr. Gonzalo Bearman, chief of infectious disease at VCU Health. "It's troubling on a couple of fronts. Obviously, we're getting more individuals in the community infected, which results in more hospitalizations. We have not seen a significant increase in deaths, which is a good thing." (Source)
- July 21: Data from the VDH shows that vaccination rates by race and ethnicity are the highest amongst Asians and Latinos in Alexandria Health District and in Virginia overall (Source).
- July 22: Governor Glenn Youngkin announced an updated policy for COVID-19 quarantine guidance for education settings. The new policy ends recommendations for individuals to quarantine following exposure to COVID-19 infected individuals in K-12 schools, at childcare, or in camp settings (Source).
- July 23: With the recent rise in cases, vaccine clinics report seeing an increase in traffic as people line up to get shots. Kingdom's Cathedral, a church in Virginia Beach that hosted a vaccine clinic recently, was unusually full this time around (Source).
- July 24: Novavax, a protein-based vaccine, has been approved by both the CDC and the FDA and will soon be available to Virginians. It is scheduled to start arriving in Virginia in mid-August (Source).

- July 25: All of southwest Virginia is currently in 'high' or 'medium' transmission levels of COVID-19 while cases are spiking in the central region as well. Hospitalizations remain low, according to data from local hospitals (Source; Source).
- July 26: Results from a recent national survey by the Kaiser Family Foundation reveal that over 40% of parents of young kids say they will not get their child a COVID-19 vaccine (Source).
- July 30: As cases and hospitalizations increase in Virginia, public health officials in the state are recommending that individuals use high quality masks, if choosing to mask. This is because a research team from the University of Maryland School of Public Health found that people infected with Omicron are more likely to shed large amounts of the virus, compared to those with earlier strains. There are currently no plans to reinstate mask mandates. (Source).

2. Vaccination Equity in Virginia

At the end of July, nearly 16.5 million COVID-19 vaccine doses have been administered in Virginia (Source). With 71.9% of the population fully vaccinated (over 7 million people), Virginia ranks 11th in the country for the percentage of the population that has been fully vaccinated against COVID-19 (Source; Source). At present, 82.1% of all Virginians have received at least one dose of a vaccine (Source), which is above the 78.7% national total vaccination rate receiving at least one dose (Source). Over 7 million Virginians have been fully vaccinated, representing 71.9% of the population, which is above the 67.2% national total fully vaccinated rate (Source). On average, Virginia is administering approximately 7,264 vaccinations per day (up from 3,048 vaccinations per day in June) (Source).

Figure 1: Vaccinations by Age (One Dose)



Source

Vaccinations for 65+

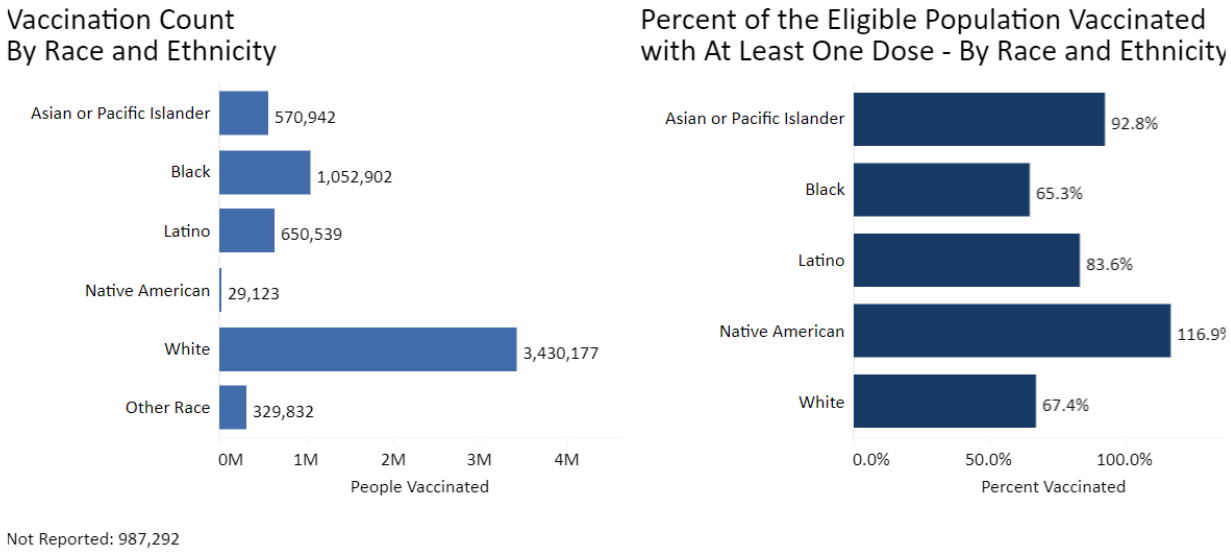
As seen in Figure 1, VDH reports the following age ranges: 65-74, 75-84, and 85+ (Source). At the end of July, 95.9% of those ages 65+ were vaccinated (Source).

Vaccinations for Under 45

The reported age ranges in Virginia are: 0-4, 5-11, 12-15, 16-17, 18-24, 25-34, and 35-44. As seen on VDH's COVID-19 dashboard, 59.9% of those younger than 18 have been vaccinated with at least one dose, up by 0.3% from last month. 86.8% of individuals older than 5, down by 0.1% since last month, have been vaccinated with at least one dose. Furthermore, 92.3% of the population over the age of 18 have been vaccinated with at least one dose, down by 0.2% from last month. Data are also reported by each age group for percentages of the population vaccinated with at least one dose: 6.3% of 0-4 year olds, 45.2% of 5-11 year olds (up from 44.7% last month), 75.8% of 12-15 year olds (up from 75.6%), 78.1% of 16-17 year olds (up from 78.0%), 78.4% of 18-24 year olds (up from 78.2%), 78.9% of 25-34 year olds (same as last month), and 84.7% of 35-44 year olds (down from 84.8%) (Source).

Race and Ethnicity

Figure 2: Vaccination Count and Percent of Population Vaccinated by Race and Ethnicity (One Dose)



Not Reported: 987,292

Source

Note: The percentage of Native Americans that are vaccinated can be above 100% for two reasons.

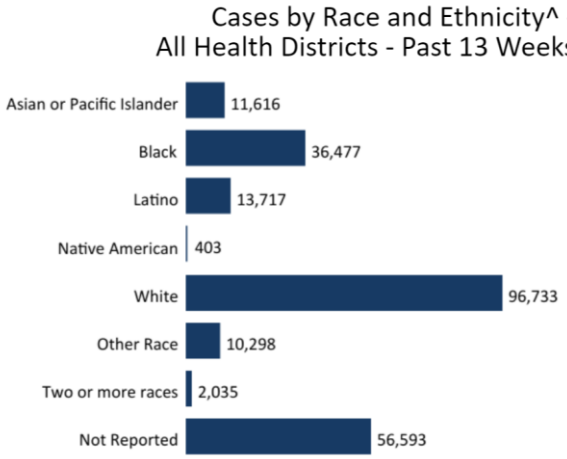
1. *There are small numbers of vaccinations and small population estimates for Native Americans at the city/county level in Virginia. VDH gets population estimates from the National Center for Health Statistics (NCHS). For example, there were 3 Native American vaccinations in a county. Population estimates say there were only 2 people who identify as Native American in that same county. This means that the data would say there were 3 vaccinations over 2 people in the population. This would equal 150%, or a percentage over 100%.*

2. *Some people may identify that they are Native American and multi-race when they are getting their vaccine. They will be categorized as Native American only in the data system. This is because population estimates from NCHS do not include multi-race as an option. If there was a multi-race option, a person who identified as Native American and multi-race would be in the multi-race population estimates.*

As shown above in Figure 2, as of July 28th, the key race and ethnicity breakdowns for those receiving at least one dose are as follows (with little change since last month):

- First, Blacks have received 17.4% of all vaccinations and 65.3% have been vaccinated with at least one dose.
- Second, Latinos have received 10.7% of all vaccinations and 83.6% have been vaccinated with at least one dose.
- Third, Asians or Pacific Islanders have received 9.4% of all vaccinations and 92.8% have been vaccinated with at least one dose.
- Fourth, Whites have received 56.6% of all vaccinations and 67.4% have been vaccinated with at least one dose (Source).

Figure 3: Cases by Race and Ethnicity



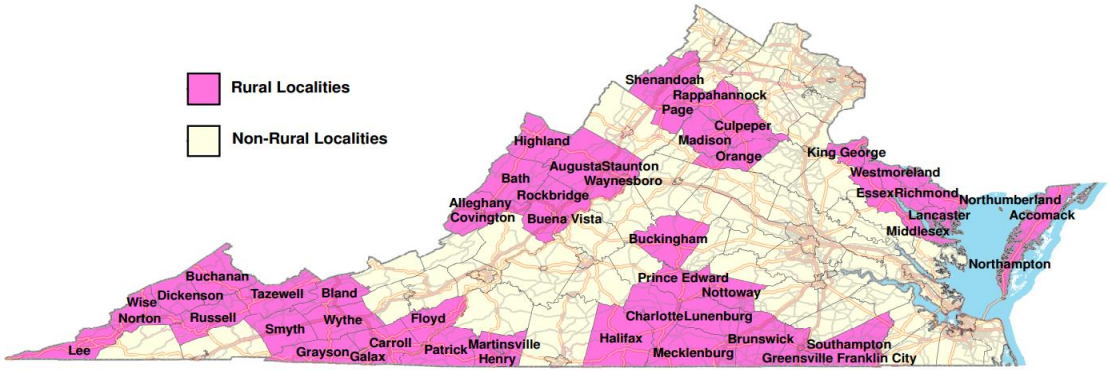
Source

As shown in Figure 3, case counts are lower now than what they were during the winter but continue to occur amongst Virginia's population, making it more important to focus efforts on vaccination. Moving forward, continuing to collect data on race and ethnicity will be crucial to making more progress on vaccine equity in Virginia. This is especially true given the known increased and disproportional risks faced by historically marginalized populations in experiencing the worst effects and outcomes of COVID-19, including death. Likely explanations for the unequal burden of disease on these populations include social vulnerability, social determinants of health, and historical disparity.

Rural Areas

Figure 4 below displays the rural (non-metropolitan) areas in Virginia as defined by the Office of Management and Budget (OMB) (Source). Areas in pink are rural localities while areas in beige are considered non-rural (as defined by the OMB).

Figure 4: Rural and Non-Rural Areas in Virginia



Source

Another way to examine rural and urban disparities is to examine rural, urban, suburban and exurban areas. The Isserman Classification system (shown in Table 1 below) uses a combination of urban area population and population density to identify counties as urban, rural, or mixed.

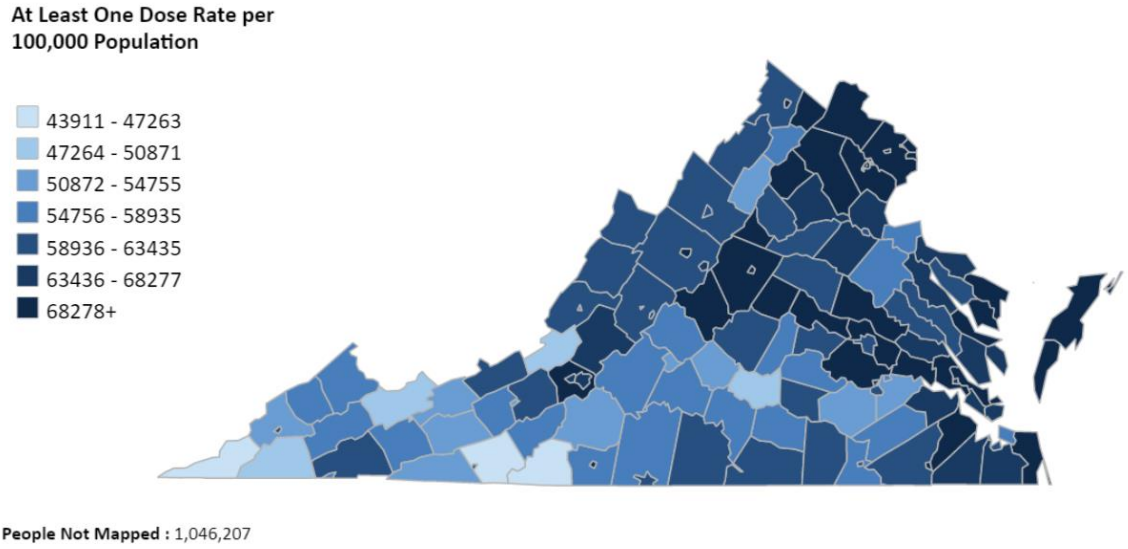
Table 1: Percent Population Vaccinated by Urban and Rural Jurisdictions (by Age Groups)

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%	69%	73%	68%	69%	81%	88%	72%
Urban	38%	69%	75%	60%	72%	82%	86%	70%
Mixed Rural	25%	49%	56%	54%	60%	73%	82%	62%
Rural	17%	41%	47%	48%	54%	69%	78%	58%
Grand Total	**34%**	**62%**	**67%**	**59%**	**67%**	**78%**	**84%**	**67%**

Source

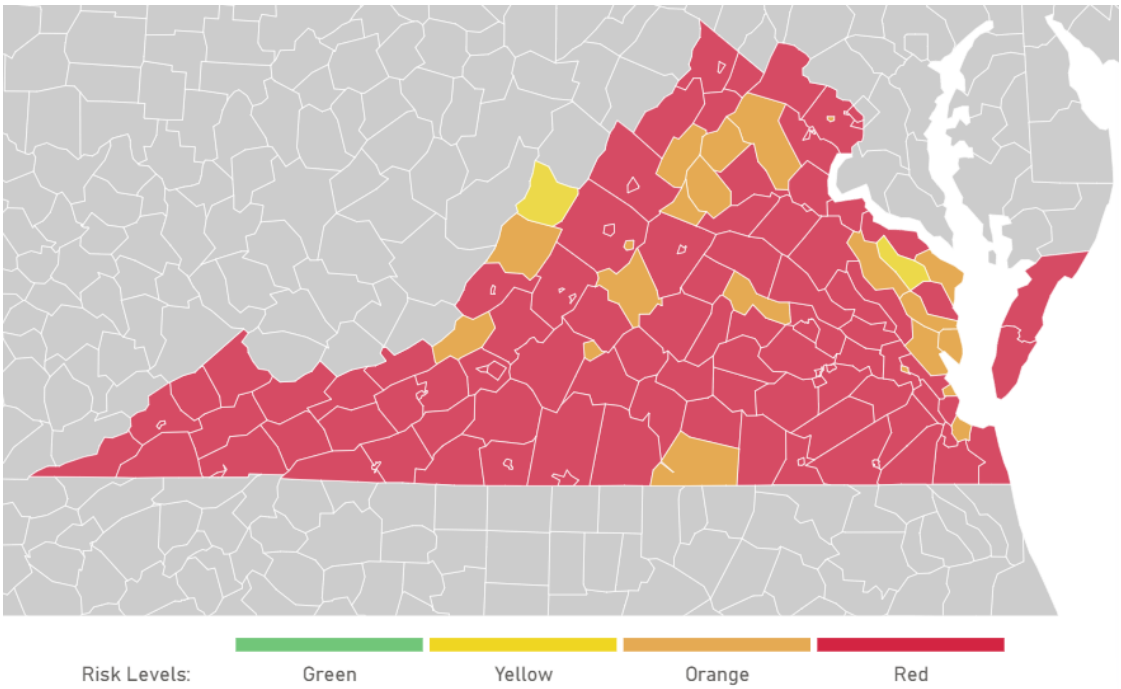
Rural areas, especially in south-central and southwest Virginia, continue to have lower vaccination rates as compared to other areas of the state, although there are have been some improvements, primarily concentrated in the north-central and northern regions (Figure 5). Vaccination hesitancy continues to be an issue throughout the Commonwealth. As seen in Figure 6, Virginia continues to experience some highly elevated risk levels across the Commonwealth. In fact, risk levels have worsened this month than what they were in June. More counties are experiencing highly elevated risk levels, with almost the entire Commonwealth in red. (Source).

Figure 5: Vaccinations by Locality – Rate per 100,000 Population



Source

Figure 6: COVID-19 Risk Levels by Locality in July

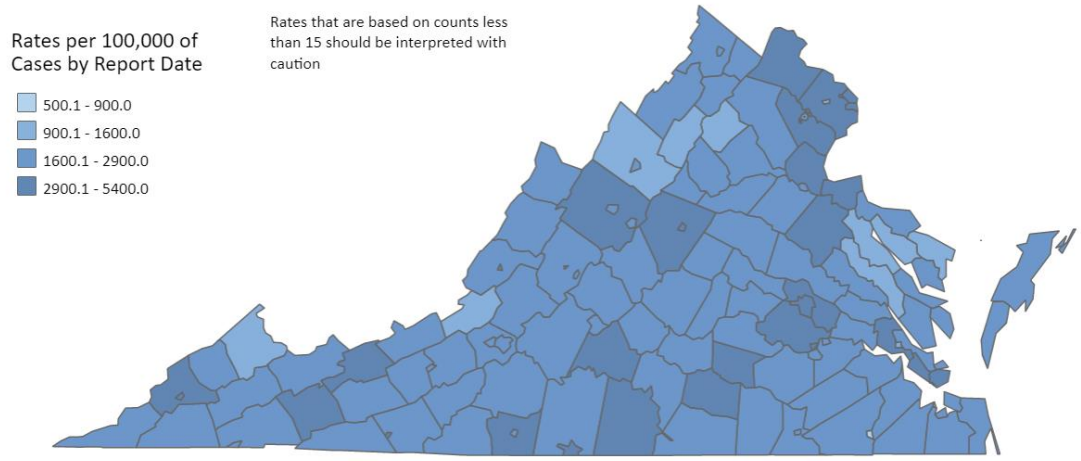


Source

Third, as shown in Figures 7 and 8, some urban and rural disparities remain in terms of cases as measured by rates per 100,000 people, which were especially exacerbated this last winter when the Omicron variant led to a massive rise in risk. Since then, some rural counties continue to show

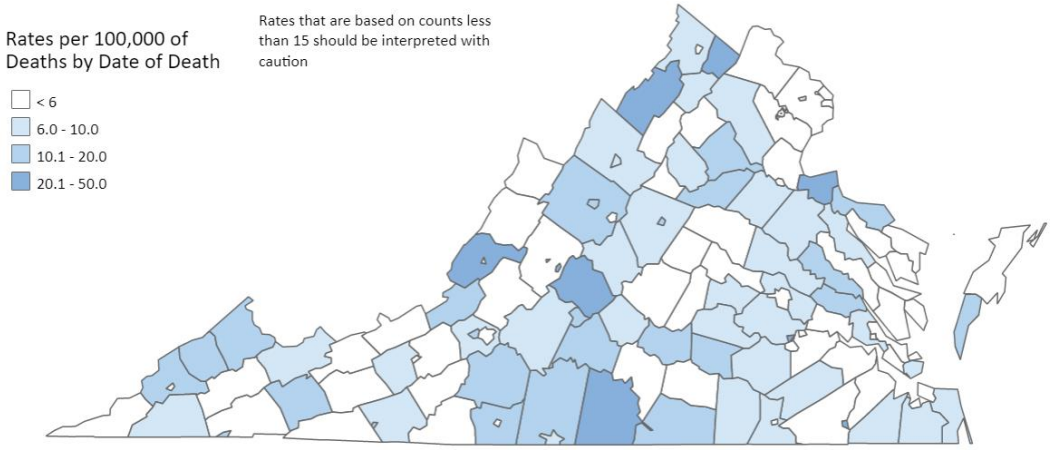
slightly higher rates of cases throughout the Commonwealth. By the end of July, death rates occurred throughout the Commonwealth but were low relative to the number of cases.

Figure 7: Cases of COVID-19 Over the Last 13 Weeks in Virginia: Urban and Rural



Source

Figure 8: Deaths from COVID-19 Over the Last 13 Weeks in Virginia: Urban and Rural



Source

Infections and Deaths Since Vaccine Availability

VDH's data reveal that vaccinations have saved lives (Source; Source). Despite some progress in recent months, disparities remain in infections and deaths since the availability of vaccines, especially concerning: 1) race; 2) age and sex; and 3) urban-rural divides. As shown in Table 2, disparities detailed in previous vaccine equity reports remain. Whites represent 61% of the population, 56% of cases, and 67% of deaths. Blacks represent only 19% of the population yet 23% of cases and 23% of deaths. Further, Hispanics make up 10% of the population yet 14% of cases and 6% of deaths. When comparing the percentages in the population, both Blacks and Hispanics still disproportionately contract COVID-19, and Blacks disproportionately die from it.

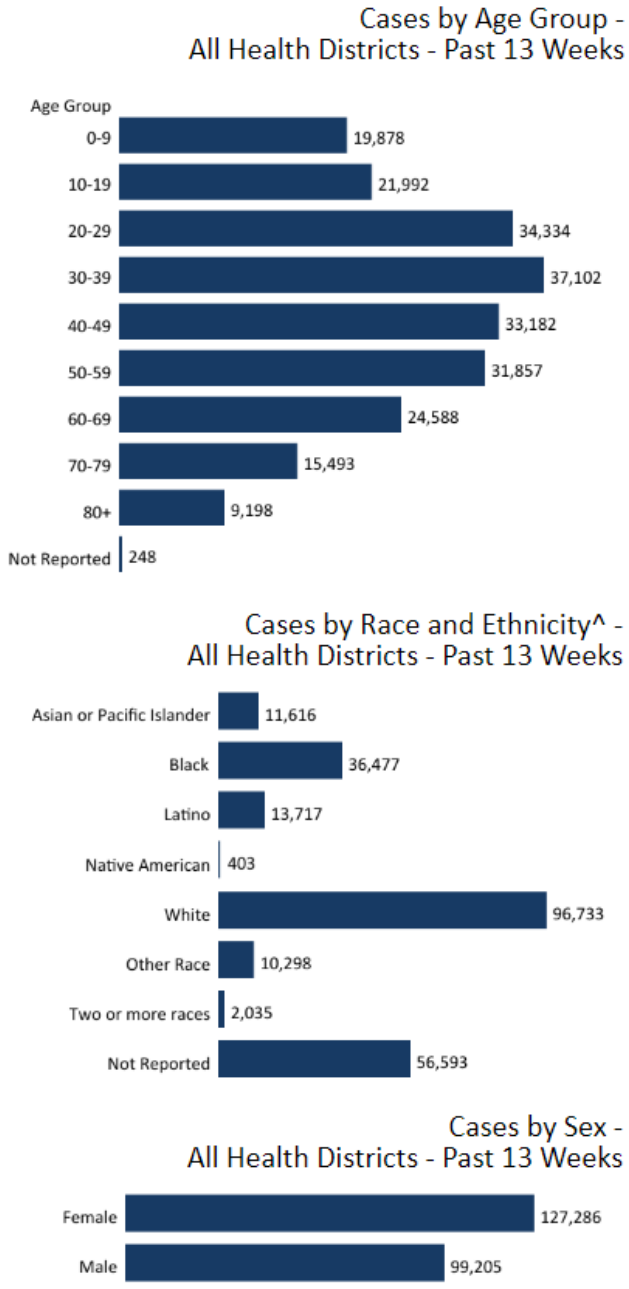
Table 2: Comparisons of COVID-19 Cases, Deaths, and Population

	% of Cases	% of Deaths	% of Total Population
White	56%	67%	61%
Black	23%	23%	19%
Hispanic	14%	6%	10%
Asian	4%	3%	7%

Source

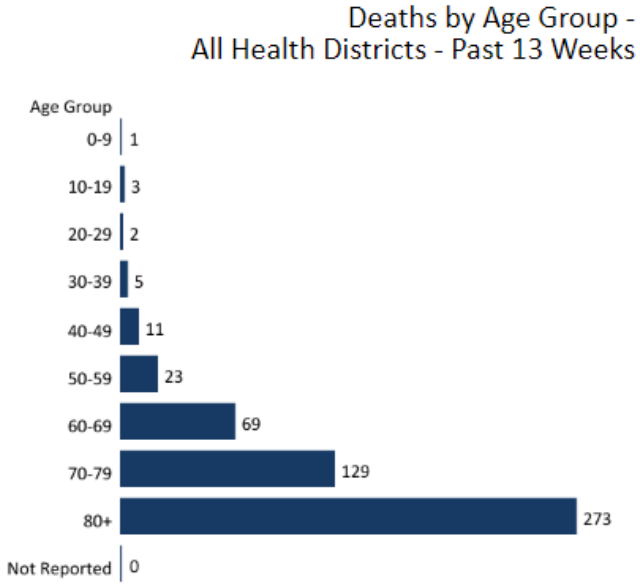
Secondly, as shown below in Figures 9 and 10, patterns concerning cases and deaths by age and sex remain similar in July as they were in previous months. Concerning cases and age, those aged between 30-39 continue to comprise the segment of the population with the single largest number of cases. Regarding cases and sex, those identifying as females tend to represent more COVID-19 cases. Concerning deaths and age, those ages 50+ comprise most of the deaths from COVID-19 with noted rises in deaths for successive age groups and with the bulk of deaths occurring in the age 80+ category. Regarding deaths and sex, those identifying as male tend to die at a slightly higher rate than those identifying as female. However, at the end of this month, Virginia saw a slightly larger number of female deaths than males, a departure from the usual trend Virginia has seen in other months.

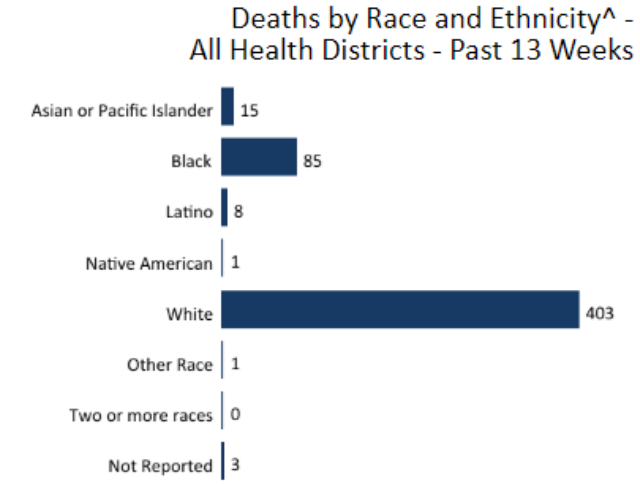
Figure 9: Cases of COVID-19 in Virginia: Demographics

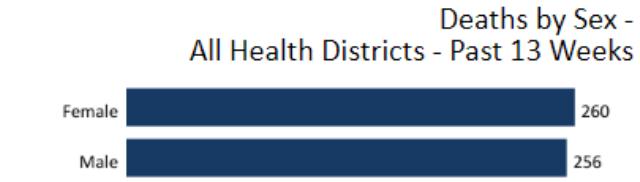


Source

Figure 10: Deaths by COVID-19 in Virginia: Demographics







Source

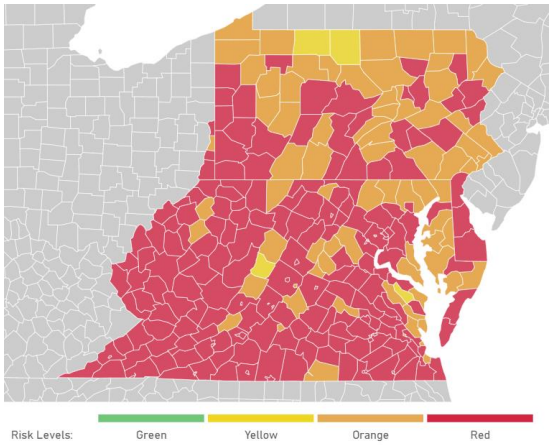
3. Vaccinations in FEMA Region 3

Virginia is a part of FEMA Region 3, which includes Delaware, the District of Columbia, Maryland, Pennsylvania, and West Virginia. In July, Virginia ranked second in the region in terms of COVID-19 vaccine doses administered per 100 people (Source).

Regarding COVID-19 risk levels in July (Figure 11), all of Region 3 continues to see elevated risk levels. The risk levels for Virginia in July were close to what they were in June. At present, West Virginia is the most at-risk in FEMA Region 3. Virginia has 3,127.6 new daily cases, a seven-day moving average of 36.6 new cases per 100,000 people (last month, Virginia saw 2,550.4 new daily cases with a seven-day moving average of 29.9 new cases per 100,000 people). These numbers place Virginia third out of sixth in FEMA Region 3 in terms of COVID-19 risk level, an improvement since last month where Virginia came in second. To compare, in the month of January, Virginia had 9,194.0 new daily cases with a seven-day moving average of 107.7 new cases per 100,000 people.

Figure 11: COVID-19 Risk Levels by County across FEMA Region 3

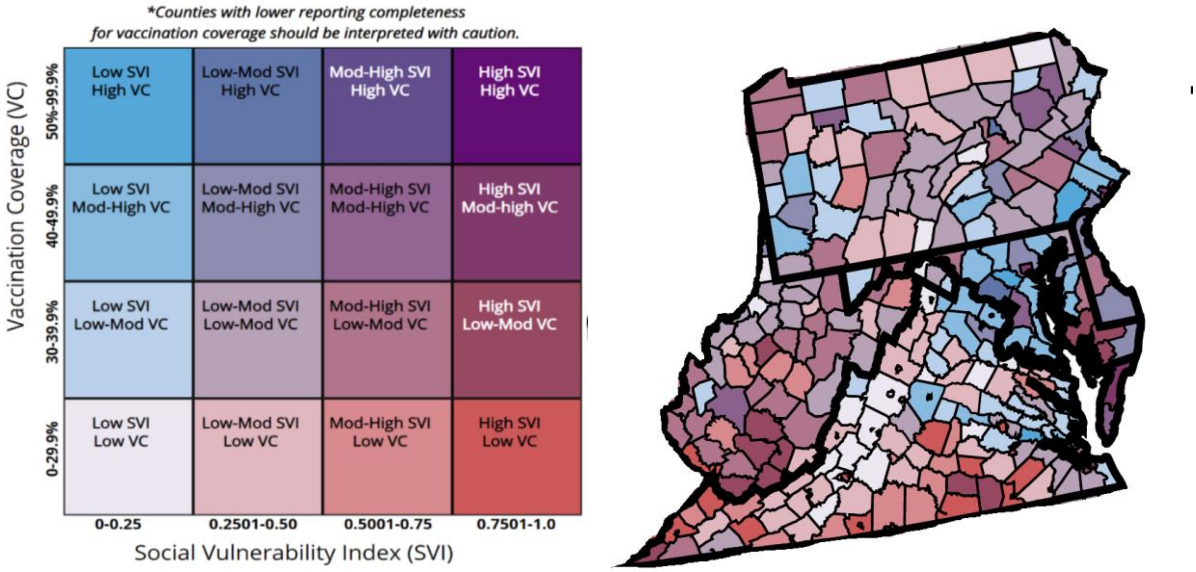
State/County	Rank	Daily new cases per 100k people (7d moving avg.)	Daily new cases (7d moving avg.)
West Virginia	1	49.8	892.4
Delaware	2	41.4	403.0
Virginia	3	36.6	3,127.6
District of Columbia	4	27.8	196.4
Maryland	5	26.9	1,626.1
Pennsylvania	6	24.0	3,068.1



Source

Further, as seen in Figure 12 below, updated FEMA data are available concerning linkages between vaccination coverage (low to high) and rankings on the social vulnerability index (SVI). As shown below, Virginia particularly faces issues of high SVI and low vaccination coverage. In Virginia, these issues especially affect the south-central and western portions of the state.

Figure 12: Percent of Population Fully Vaccinated by Social Vulnerability Index, FEMA Region 3



Source

FEMA Region 3 and Race/Ethnicity

All areas in FEMA Region 3 continue to show racial disparities in the percentages of vaccines administered. Both Blacks and Hispanics/Latinos continue to see some improvements in vaccination percentages, but Blacks are still behind in vaccinations. Virginia remains a leader in working to close gaps between the percentage of cases and the percentage of vaccinations for Blacks, Hispanics/Latinos, and Asians. Still, comparing state vaccination rates by race and ethnicity is challenging because of reporting inconsistency and missing data on race and ethnicity (Source). Kaiser Family Foundation data shown below are current as of April 4, 2022.

Figure 13: Blacks as a Share of COVID-19 Trends, FEMA Region 3

Location	Black % of Cases	Black % of Total Population
Delaware	24%	22%
District of Columbia	57%	45%
Maryland	33%	30%
Pennsylvania	8%	10%
Virginia	23%	19%
West Virginia	5%	3%

Source

Location	Black % of Vaccinations	% of Vaccinations with Known Race	% of Vaccinations with Known Ethnicity
Delaware	20%	97%	78%
District of Columbia	46%	88%	92%
Maryland	28%	97%	96%
Pennsylvania [1]	7%	91%	78%
Virginia	17%	85%	85%
West Virginia [2]	4%	97%	NR

Source

Figure 14: Hispanics as a Share of COVID-19 Trends, FEMA Region 3

Location	Hispanic % of Cases	Hispanic % of Total Population
Delaware	18%	10%
District of Columbia	14%	11%
Maryland	17%	11%
Pennsylvania	14%	8%
Virginia	14%	10%
West Virginia	3%	1%

Source

Location	Hispanic % of Vaccinations	% of Vaccinations with Known Race	% of Vaccinations with Known Ethnicity
Delaware	11%	97%	78%
District of Columbia	15%	88%	92%
Maryland	11%	97%	96%
Pennsylvania [1]	7%	91%	78%
Virginia	11%	85%	85%
West Virginia [2]	NR	97%	NR

Source

Figure 15: Asians as a Share of COVID-19 Trends, FEMA Region 3

Location	Asian % of Cases	Asian % of Total Population
Delaware	2%	4%
District of Columbia	2%	4%
Maryland	3%	6%
Pennsylvania	2%	4%
Virginia	4%	7%
West Virginia	<1%	1%

Source

Location	Asian % of Vaccinations	% of Vaccinations with Known Race	% of Vaccinations with Known Ethnicity
Delaware	6%	97%	78%
District of Columbia	6%	88%	92%
Maryland	8%	97%	96%
Pennsylvania [1]	3%	91%	78%
Virginia	9%	85%	85%
West Virginia [2]	NR	97%	NR

Source

Figure 16: Whites as a Share of COVID-19 Trends, FEMA Region 3

Location	White % of Cases	White % of Total Population
Delaware	47%	61%
District of Columbia	21%	37%
Maryland	43%	50%
Pennsylvania	74%	76%
Virginia	56%	61%
West Virginia	91%	93%

Source

Location	White % of Vaccinations	% of Vaccinations with Known Race	% of Vaccinations with Known Ethnicity
Delaware	70%	97%	78%
District of Columbia	47%	88%	92%
Maryland	53%	97%	96%
Pennsylvania [1]	74%	91%	78%
Virginia	57%	85%	85%
West Virginia [2]	92%	97%	NR

Source

4. Trends Over Time

A little over two years into the COVID-19 pandemic, there are still inequities in overall vaccination rates. However, these inequities have declined over time in Virginia. Overall, minorities have consistently had less access to vaccinations, and lower overall vaccination rates, than Whites. Recently, those gaps have begun to narrow and VDH is working to further dispel disparities. In addition, the 7-day average number of cases increased during the winter due to the Omicron variant, declined significantly during the spring, and has started to climb again since late spring. As part of its efforts to address inequities, VDH is transitioning their community testing centers to a mobile clinic model in order to be able to reach areas that have low access to testing. These items are discussed further, with a focus on racial equity, in the sections that follow.

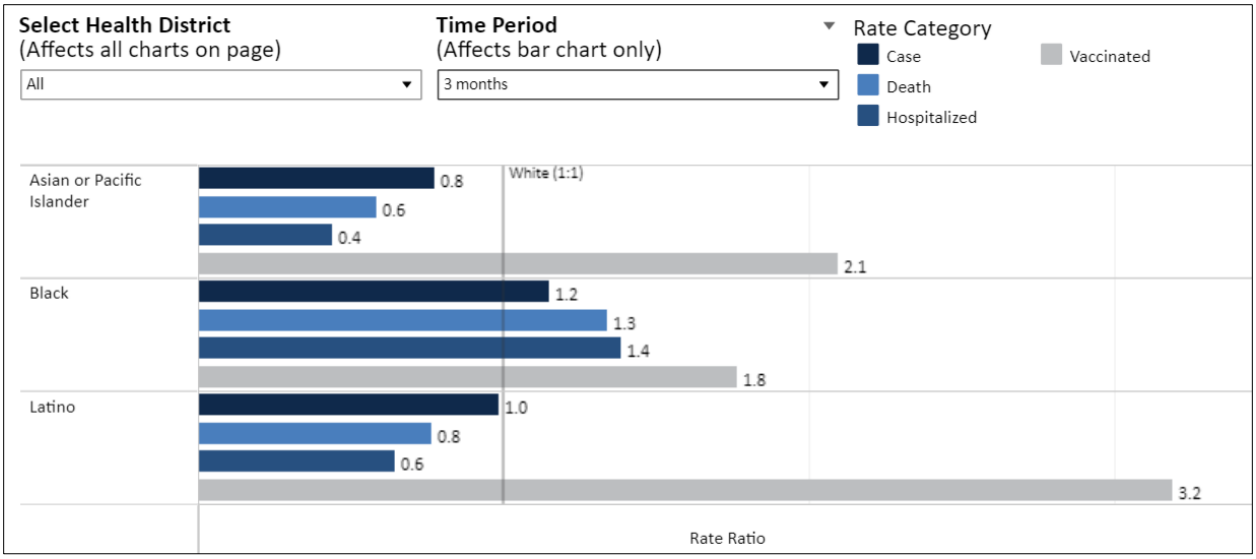
Racial Groups as a Share of Total Vaccinations in Virginia

In Virginia, Whites make up 61% of the total population and 56.6% of the population with reported race and ethnicity that have been vaccinated with at least one dose (down from 57.1% in January). Blacks make up 19% of Virginia's total population and 17.4% of the one-dose vaccinated population (an increase of 0.2% since January). 10% of Virginia's population is Hispanic and 10.7% of the vaccinated population in Virginia is reported to be Latino (an increase of 0.3% since January). Asians make up 7% of Virginia's total population while Asian and Pacific Islanders make up 9.4% of the vaccinated population in the Commonwealth (no change since January) (Source; Source). While some progress has been made in closing the disparity gap for vaccinations amongst racial groups, the Black population is notably behind other minority groups in Virginia when it comes to vaccination percentages.

Furthermore, Blacks especially carry an unequal burden of disease in Virginia when compared to Whites and Asians, as shown in Figure 17. Looking at vaccination coverage data since the start of the vaccine rollout, vaccinations occurred amongst Blacks at only 0.9 times the rate of Whites (Source). Cases and deaths occurred amongst Blacks at 1.2 and 1.5 times the rate of Whites, respectively, when looking at cumulative data across the entire pandemic. Amongst Latinos, when analyzing data from the start of the vaccine rollout, vaccinations occurred at 1.1 times the rate of Whites while cases and deaths each occurred at 1.3 times the rate of Whites. VDH has been working

throughout the pandemic to address these health disparities. Fortunately, some notable progress occurred in the last three months. As shown in Figure 17, rate ratios from the last three months reveal that, when compared to the cumulative rate ratios discussed above, the disparity gaps in vaccination status amongst Blacks has improved, and amongst Latinos has disappeared. While Blacks continued to experience a disproportionately higher burden of cases, deaths, and hospitalizations in the last three months when compared to Whites, the rate ratio gaps are still smaller than what they were cumulatively, indicating some recent progress in health equity (Source).

Figure 17: Racial and Ethnic Distribution of Burden of Disease in Virginia Over the Last Three Months (according to vaccinations, cases, deaths, and hospitalizations)

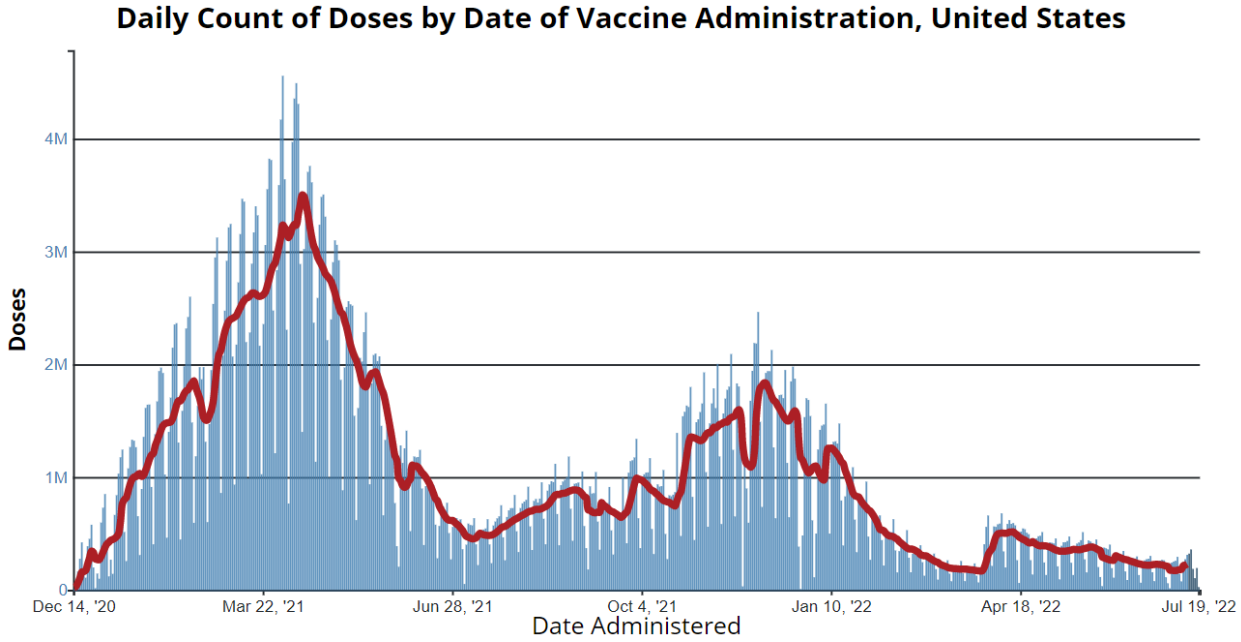


Source

Doses Administered

Between October 2021 and March 2022, Virginia saw a spike in the 7-day average of doses administered. In general, the number of vaccines administered decreased as the winter Omicron surge subsided. For each month since January 2022, the peak number of vaccines administered were: 29,857 doses on January 11th, 8,780 doses on February 1st, 2,856 doses on March 4th, 3,006 doses on April 6th, 1,807 doses on May 1st, and 1,235 doses on June 6th (Source). As of July 29th, the peak average number of vaccines administered in July occurred on July 23rd, with 3,129 doses (Source). By the end of July, the 7-day average of doses administered was 7,081. These trends in Virginia generally match that of the United States as a whole, which saw an increase in demand for vaccines during the winter months when the first Omicron variant was spreading, then a general decrease in demand from the second half of January onward, and a slight uptake in vaccinations again as the BA.5 subvariant spreads (Source; Source).

Figure 18: Daily Number of Administered COVID-19 Vaccine Doses and 7-Day Average in the United States



(Blue bars represent daily numbers and red line shows 7-day average) Source

5. Vaccine Hesitancy

With over 16 million vaccination doses administered, and a little over 7 million people (82.1%) vaccinated with at least one dose, Virginia's vaccination rates surpass the national rate of 78.8% (Source; Source). This percentage includes those who have received at least one dose as well as those who are fully vaccinated (67.2% of the U.S. population is fully vaccinated while 71.9% of Virginia's population is fully vaccinated). However, there is still nearly 30% of Virginia's population who has not been fully vaccinated (Source). Working to vaccinate a larger percentage of the population and reducing vaccine hesitancy are important factors in combating the pandemic, especially given the rise of the latest Omicron subvariant BA.5 (Source).

Looking at nationwide trends from Kaiser Family Foundation polling, there has been some change over time between December 2020 and July 2022 when it comes to individuals who say that they will "definitely not" get vaccinated. Data indicate that, while 14% said that they would not get vaccinated in January 2022, 19% said the same in the latest poll from July 2022 (Source). Throughout 2021, there were some changes in attitudes in Virginia. A May 2021 poll conducted by the Research Institute for Social Equity (RISE) at VCU's Wilder School found that 32% of those not vaccinated (n = 84/259) said that they were "not at all likely" to get vaccinated. In June 2021, the same poll found that 47% of those not vaccinated (n = 91/183) were "not at all likely" to get vaccinated (Source). Between these polls, both the percentage and the total number of those who

were not at all likely to get vaccinated increased. More recent polls by RISE regarding attitudes towards vaccination have either not been conducted yet or the results have not yet been released. To combat vaccine hesitancy, VDH is working to communicate the benefits of vaccination to the public. The VDH coronavirus dashboard used to display COVID-19 rates by vaccination status, showing that the majority of those getting infected and those getting hospitalized have not yet been vaccinated. On May 19th, the "Cases by Vaccination Status" dashboard was retired (Source).

More recent polling from the Kaiser Family Foundation indicates who remains unvaccinated. The most recent poll is from July 2022. Of those adults who have not gotten a vaccine:

- 58% are individuals between the ages of 18-49
- 28% are between the ages of 30-49
- 31% have a high school education or less
- 31% identify as Republican
- 32% have annual incomes less than $40k
- 21% reside in suburban areas and 33% reside in rural areas (Source)

Vaccination Mandates

On September 9, 2021, President Biden unveiled an action plan to mandate vaccines for employers with 100 or more personnel, federal workers, and healthcare providers (Source). In January 2022, the Biden Administration withdrew its mandate following the Supreme Court's decision to block it. On January 15, 2022, the Governor of Virginia issued Executive Director Number Two (2022), rescinding Executive Directive Number 18 (2021), and with it the vaccine mandate for state employees (Source). On January 26, 2022, Virginia's Attorney General issued an advisory opinion concluding that Virginia colleges and universities did not have the authority to require COVID-19 vaccinations as a condition of enrollment or in-person attendance, superseding a prior opinion (Source). These actions effectively ended vaccine mandates in Virginia.

On January 20, 2022, the Governor of Virginia announced the COVID-19 Action Plan with three key activities: (1) COVID-19 Vaccine Marshall Plan for Virginia, (2) Expanded Healthcare Flexibility & Support, and (3) Prioritized Testing Guidelines (Source). His plan was updated on February 21, 2022 to include Treatment in activity (2) and to replace activity (3) with Charting a Path to Normalcy. The White House released its March 2022 National COVID-19 Preparedness Plan with an outline of its four key goals: (1) Protect against and treat COVID-19, (2) Prepare for new variants, (3) Prevent economic and educational shutdowns, and (4) Continue to lead the effort to vaccinate the world and save lives (Source). These plans signaled a new phase in the pandemic response for Virginia and the nation. On July 14th, Governor Youngkin announced updated guidance on quarantine recommendations for people exposed to COVID-19 in K-12 schools, child care, and camp settings. The revised guidance states that quarantine is no longer recommended for asymptomatic individuals who were exposed to COVID-19-infected individuals in these settings (Source).

6. On the Horizon

COVID-19 cases surged in January, began to fall in February, and continued to decline in March. Hospitalizations had been steadily increasing since the end of summer 2021 and started to fall at the end of January after hitting two peaks during the winter. The number of deaths was lower in March and in February than it was in January 2022. In the months of April, May, June and July, the number of cases began to increase again. Hospitalizations remain relatively low, although they notably increased from the second half of May onwards. Risks of reinfection and experiencing more severe symptoms seem to be higher with the BA.5 variant.

Virginia's vaccination rates are better than rates in many other states. However, nearly 30% of Virginia's population has not been fully vaccinated. Recent reports show that those who were unwilling to be vaccinated in late 2020 were still unwilling to be vaccinated in the fall of 2021. Vaccinations in children under the age of 18 (including now infants) and frequent testing are essential to keeping children and staff healthy in schools, daycares, and summer camps. Continued efforts to encourage vaccination, including booster shots when eligible, and reducing vaccine hesitancy are important factors to ensure Virginia remains on the path to normalcy. Therapeutics, testing, prevention, outbreak control, and public health information are also important factors.

Despite much progress, a continued focus on vaccine equity remains important. Fears of virus spread and breakthrough infections require the need to bolster vaccination efforts across the Commonwealth and center equity in policy and procedures. Given ongoing issues of inequities concerning who gets infected, as well as who dies from COVID-19, equity remains an important factor in controlling COVID-19 and maintaining the path to normalcy. Racial and ethnic disparities, as well as disparities between urban and rural areas, remain a challenge.

Appendix

Charging Statutes

2022 Appropriation Act Item 299 I. The Department of Health shall convene a workgroup, which shall include the Commonwealth's Chief Diversity, Equity, and Inclusion Officer and representatives of the Office of Health Equity of the Department of Health, the Department of Emergency Management, and such other stakeholders as the department shall deem appropriate and which may be an existing workgroup or other entity previously convened for a related purpose, to (i) evaluate the methods by which vaccines and other medications necessary to treat or prevent the spread of COVID-19 are made available to the public; (ii) identify and develop a plan to implement specific actions necessary to ensure such vaccines and other medications are equitably distributed in the Commonwealth to ensure all residents of the Commonwealth are able to access such vaccines and other medications; (iii) make recommendations for any statutory, regulatory, or budgetary actions necessary to implement such a plan, including: a) statutes regarding plans; b) regulatory changes; c) budgetary changes; d) changes needed to the any Virginia vaccination plan.