

# Vaccine Equity Report

## September 30, 2021

### Report overview

Equity remains at the center of our COVID-19 vaccine strategy. This weekly report highlights our progress to make sure all Minnesotans have access to COVID-19 vaccines, particularly those who have already been most impacted by the COVID-19 pandemic.

#### Highlights from this week's report

- Overall, 72.3% of people age 12 and older have been vaccinated with at least one dose and 68.6% with a complete series as of September 28.
- Public health risk scores show increases – cases continue to go increase well past the “high risk” threshold for all SVI quartiles and statewide. Hospitalizations have also increased and remain in the “high risk” threshold for all SVI quartiles. All SVI quartiles except quartiles 2 and 4 are in the “high risk” threshold for ICU admissions, with SVI quartile 1 (most vulnerable) having the highest ICU admissions per 100,000.
- Pfizer announced it is planning on submitting data to the FDA to request emergency use authorization for a COVID-19 vaccine for 5-11 year olds.

#### Vaccine coverage by race/ethnicity:

- Vaccine coverage (12+) is highest among Asian/Pacific Islander Minnesotans, with 81.0% having had at least one dose and 76.5% having had their complete series. Vaccine coverage (12+) for Black/African American Minnesotans is 60.7% for first dose and 54.0% for completed series. Vaccine coverage (12+) for American Indians in Minnesota is 58.7% for first dose and 52.5% for completed series. Vaccine coverage (12+) for Hispanic/Latinx Minnesotans is 66.8% for first dose and 60.8% for completed series. Vaccine coverage (12+) for White Minnesotans is 68.2% for first dose and 65.3% for completed series.

#### Vaccine coverage by Social Vulnerability Index (SVI) quartile:

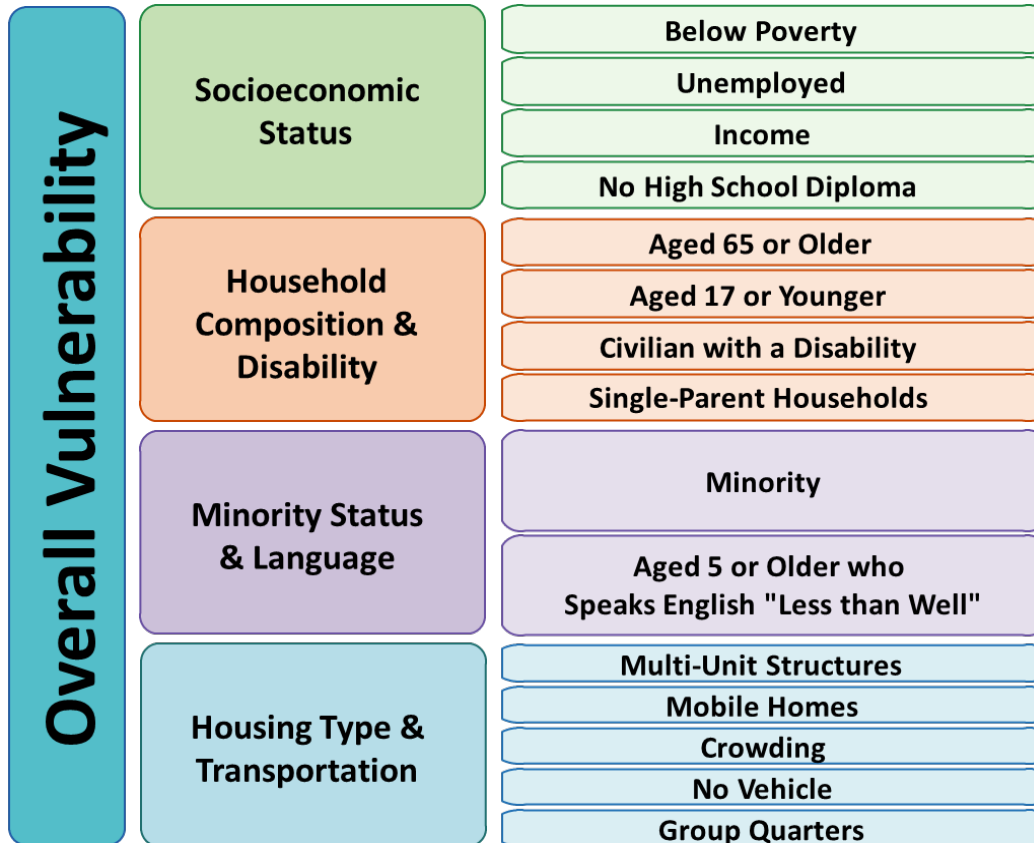
- Current vaccine coverage (12+) is lowest among Minnesotans living in quartile 1 SVI ZIP codes (most vulnerable).
- 69.6% of Minnesotans living in Q1 SVI ZIP codes have had at least one dose (0.6% increase), 70.3% of Minnesotans living in Q2 SVI ZIP codes have had at least one dose (0.5% increase), 71.5% of Minnesotans living in Q3 SVI ZIP codes have had at least one dose (0.5% increase), and 76.8% of Minnesotans living in Q4 SVI ZIP codes have had at least one dose (0.5% increase). 65.4% of Minnesotans living in Q1 SVI ZIP codes have had their complete series (most vulnerable; 0.8% increase) compared to 66.7% in Q2 SVI ZIP codes (0.7% increase), 68.2% of Minnesotans living in Q3 ZIP codes (0.7% increase) and 73.5% of Minnesotans living in Q4 SVI ZIP codes (least vulnerable; 0.6% increase).

#### Public health risk scores:

- Consistently, measures of COVID-19 burden have increased statewide over the past six weeks. Case rates remain past the “high risk” threshold of 10 cases per 100,000 population or greater for all SVI quartiles and statewide. Similarly, hospitalizations have passed the “caution” threshold of 8 per 100,000 population for all SVI quartiles. All SVI quartiles except quartiles 2 and 4 are in the “high risk” threshold for ICU admissions, with SVI quartile 1 (most vulnerable) having the highest ICU admissions per 100,000. Hospitalizations are a lagging indicator relative to cases (i.e., there is a delay between changes in cases and changes in hospitalizations).

# Social Vulnerability Index

The Social Vulnerability Index (SVI) ranks areas on 15 social factors composed into four sub-themes (socioeconomic status, household composition and disability, minority status and language, and housing type and transportation).



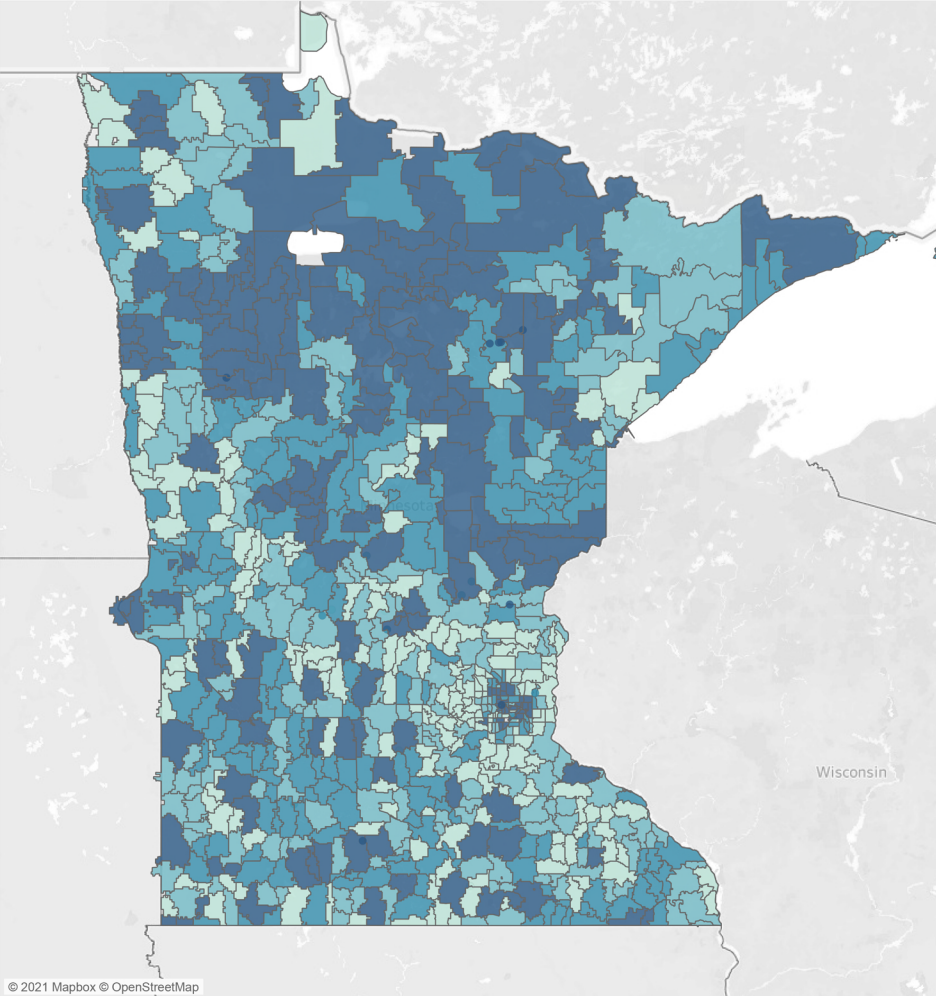
*Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program. CDC/ATSDR Social Vulnerability Index 2018 Database, Minnesota [https://www.atsdr.cdc.gov/placeandhealth/svi/data\\_documentation\\_download.html](https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html). Accessed on May 5, 2021.*

- More resources can be found on CDC's website at: [CDC/ATSDR Social Vulnerability Index \(https://www.atsdr.cdc.gov/placeandhealth/svi/index.html\)](https://www.atsdr.cdc.gov/placeandhealth/svi/index.html).
- Information from MDH about the burden of COVID-19 by SVI quartile and how the SVI is being used as an equity metric is available at: [COVID-19 Vaccine Equity in Minnesota \(https://www.health.state.mn.us/diseases/coronavirus/vaccine/mnsvi.html\)](https://www.health.state.mn.us/diseases/coronavirus/vaccine/mnsvi.html).

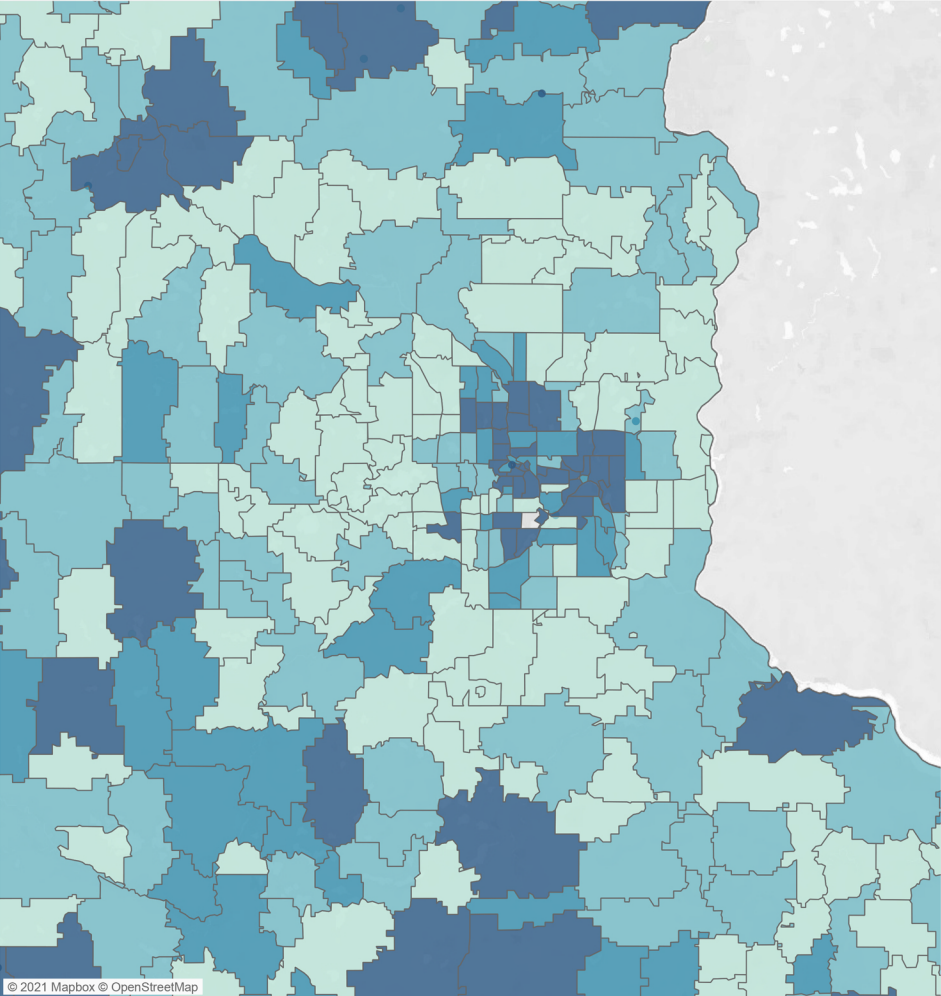
# Social vulnerability across Minnesota

This map ranks ZIP codes into quartiles based upon SVI. The entire state of Minnesota is presented on the left and the seven-county Twin Cities metro area is presented on the right. Darker shades indicate higher levels of disadvantage (areas that are most vulnerable), lighter shades indicate lower levels of disadvantage (areas that are least vulnerable).

Social Vulnerability Index  
By Zip Codes



Social Vulnerability Index in Metro Area  
By Zip Codes



The CDC offers a tool to search for SVI data specific to your address at: [CDC's Social Vulnerability Index \(SVI\) Interactive Map](https://svi.cdc.gov/map.html) (<https://svi.cdc.gov/map.html>.)

## Demographics of SVI quartiles

This table shows the percentage of certain groups in each SVI quartile (e.g., 59% of Minnesotans with limited English proficiency live in quartile 1 [Q1] SVI ZIP codes). All data is based on census tracts.

Using this table, we can identify if a group is overrepresented in a specific quartile by comparing the proportion of that group to the proportion of the total population. For example, 29% of Minnesotans live in Q1 SVI ZIP codes (most vulnerable), but 59% of Minnesotans with limited English proficiency live in Q1 SVI ZIP codes. Totals may not add up to 100% due to some census tracts missing a SVI quartile value.

Race/Ethnicity	Q1 SVI (High/most vulnerable)	Q2 SVI	Q3 SVI	Q4 SVI (Low/least vulnerable)
American Indian or Alaska Native	54%	17%	8%	7%
Asian or Pacific Islander	24%	22%	22%	26%
Black or African American	53%	20%	11%	9%
Hispanic or Latinx	47%	22%	17%	14%
White	24%	22%	22%	26%
Multiple Races	35%	23%	16%	20%
Other	39%	24%	14%	20%

Other characteristics	Q1 SVI (High/most vulnerable)	Q2 SVI	Q3 SVI	Q4 SVI (Low/least vulnerable)
Limited english proficiency	59%	17%	9%	9%
Living with disabilities	34%	23%	19%	18%
MN Medicaid/MNCare enrollees	43%	23%	17%	17%
Total % of MN population	29%	22%	22%	26%

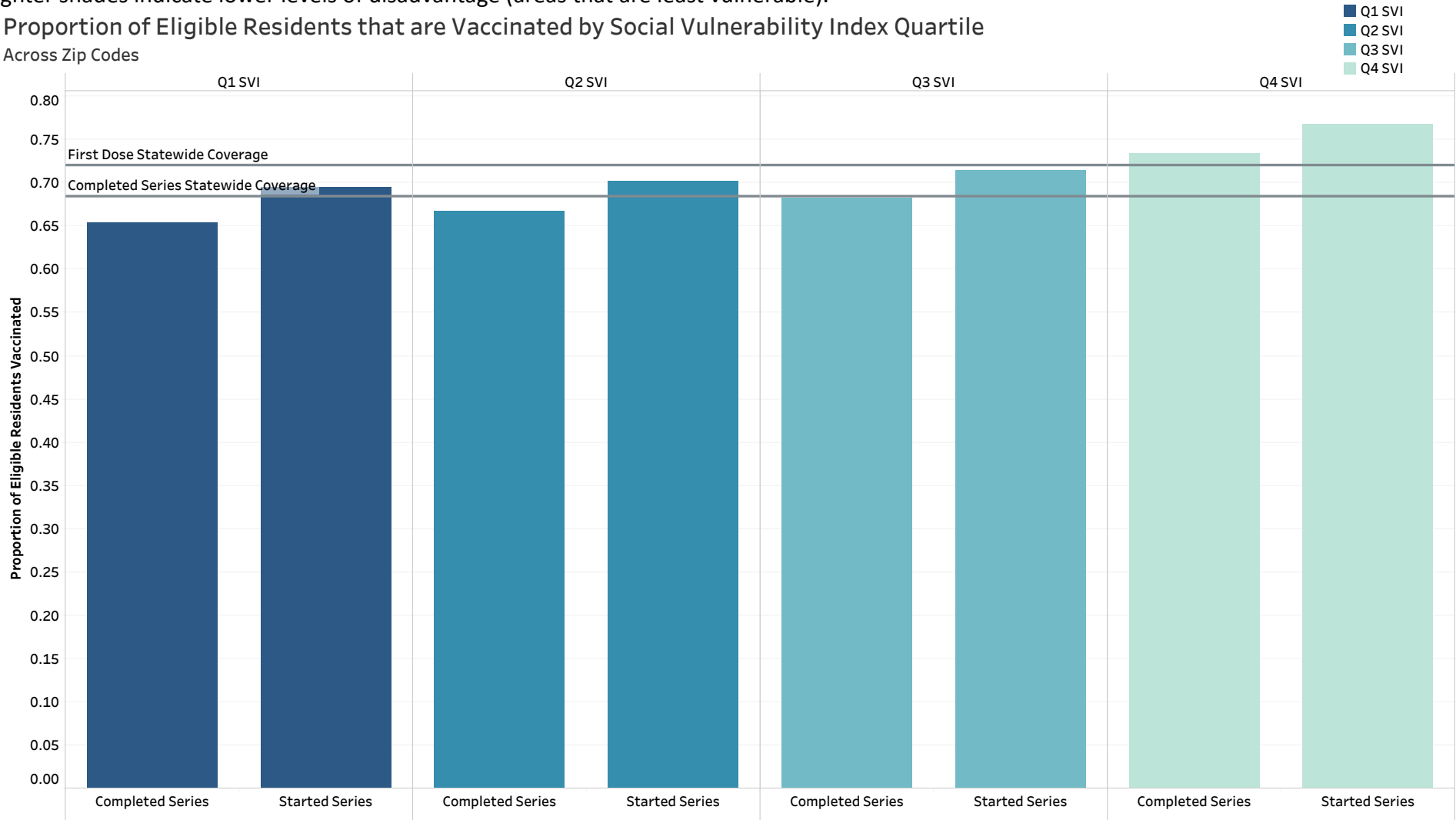
Data Source: 2015-2019 ACS Estimate.

# Cumulative vaccine coverage by SVI quartile

This figure shows the cumulative vaccine coverage for eligible residents age 12 and over by SVI quartiles. Two horizontal reference lines indicate statewide vaccine coverage for completed and started series. Darker shades indicate higher levels of disadvantage (areas that are most vulnerable), lighter shades indicate lower levels of disadvantage (areas that are least vulnerable).

Proportion of Eligible Residents that are Vaccinated by Social Vulnerability Index Quartile

Across Zip Codes



Quartile 1 (Q1) and quartile 2 (Q2) have vaccine coverage that is lower than the statewide average for first doses and completed series. Quartile 3 (Q3) has vaccine coverage similar to the statewide coverage, and quartile 4 (Q4) has vaccine coverage higher than the statewide coverage.

More details are included in the Vaccine coverage by demographic characteristic and SVI quartile table on page 5.

Vaccine administration data is from the [Minnesota Immunization Information Connection \(MIIC\)](https://www.health.state.mn.us/miic) (<https://www.health.state.mn.us/miic>).

## Vaccine coverage by demographic characteristic and SVI quartile

This table presents vaccine coverage (percent of Minnesotans age 12 and older who have been vaccinated) for the most recent two weeks. Vaccine coverage is presented in percentage, and “increase” is the percent change in vaccine coverage between weeks.

Characteristic	At least one dose			Complete series		
	Week of 9/14/21	Week of 9/7/21	Increase*	Week of 9/14/21	Week of 9/7/21	Increase*
Race/ethnicity**	Week of 9/14/21	Week of 9/7/21	Increase*	Week of 9/14/21	Week of 9/7/21	Increase*
American Indian or AK Native	58.7%	57.9%	1.4%	52.5%	51.6%	1.7%
Asian or Pacific Islander	81.0%	80.6%	0.5%	76.5%	75.7%	1.1%
Black or African American	60.7%	59.9%	1.3%	54.0%	52.5%	2.9%
Hispanic or Latinx	66.8%	66.2%	0.9%	60.8%	59.1%	2.9%
Multiple races**	20.5%	20.4%	0.5%	19.0%	18.6%	2.2%
White	68.2%	67.9%	0.4%	65.3%	65.3%	0.0%
Gender***	Week of 9/28/21	Week of 9/21/21	Increase*	Week of 9/28/21	Week of 9/21/21	Increase*
Female	64.0%	63.7%	0.5%	61.0%	60.6%	0.7%
Male	56.9%	56.6%	0.5%	53.9%	53.5%	0.7%
SVI quartile	Week of 9/28/21	Week of 9/21/21	Increase*	Week of 9/28/21	Week of 9/21/21	Increase*
Q1 (High/most vulnerable)	69.6%	69.1%	0.6%	65.4%	64.9%	0.8%
Q2	70.3%	69.9%	0.5%	66.7%	66.3%	0.7%
Q3	71.5%	71.1%	0.5%	68.2%	67.7%	0.7%
Q4 (Low/least vulnerable)	76.8%	76.4%	0.5%	73.5%	73.0%	0.6%

Data for race/ethnicity are updated every Friday. Race/ethnicity data are assembled via a secure match of Minnesota Immunization Information Connection (MIIC) data with data from the Minnesota EHR Consortium; aggregate percentages for each group are shared the following Friday after vaccine administration data are provided on Tuesdays. Due to this process, race/ethnicity data lags by one week relative to other categories in this table. Case and hospitalization data are compiled every Tuesday using data from the Minnesota Electronic Disease Surveillance System (MEDSS).

Percentages reflect cumulative vaccinations.

\* Change reflects the percent change in vaccine coverage between current week and previous week. As vaccine coverage increases, a greater number of doses are needed for a similar percent change.

\*\* Multiple races: Ethnicity indicated as non-Hispanic, two or more race categories indicated. Due to differences in tabulation, we believe vaccination rates are underestimated for this group.

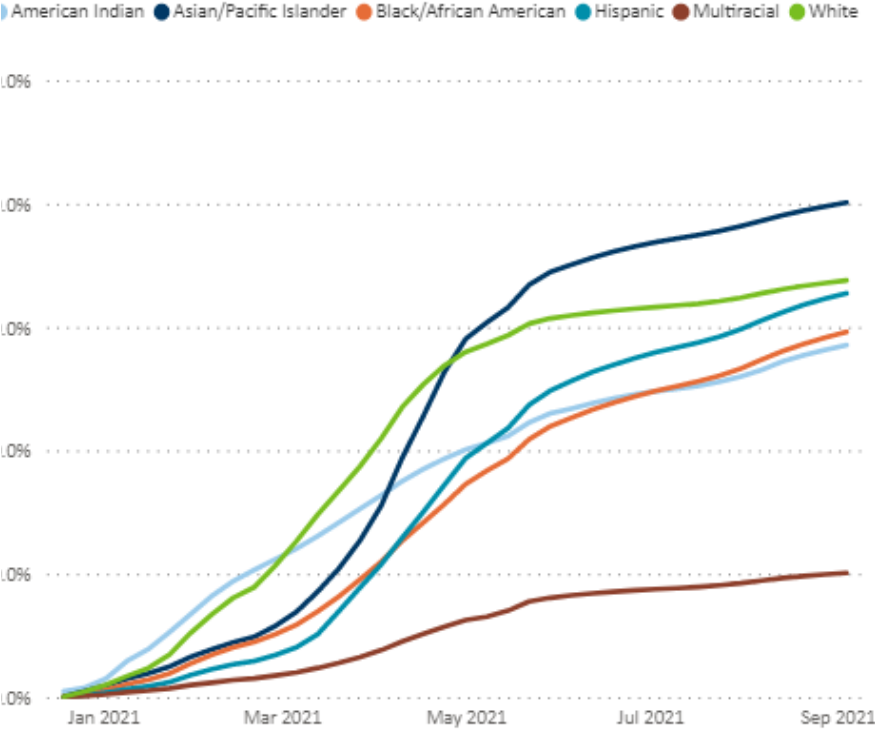
\*\*\* Due to low numbers, non-binary and other genders are not reported.



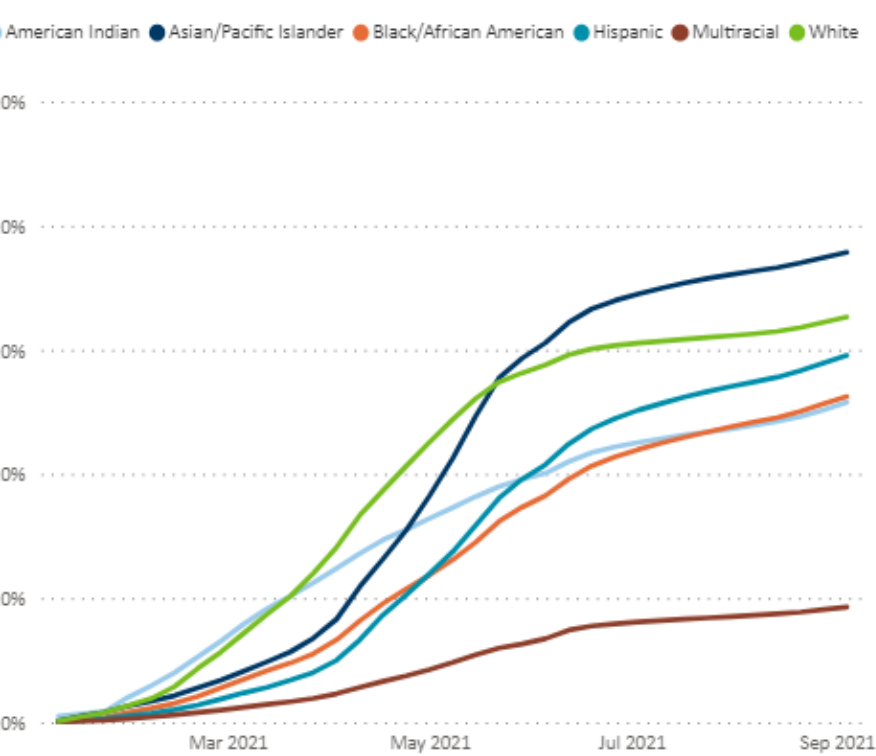
# Vaccine coverage by race and ethnicity over time

These graphs show the trajectory of vaccine coverage over time by race and ethnicity throughout the duration of Minnesota’s COVID-19 vaccine campaign. The left graph shows coverage by at least one dose, the right graph shows coverage by complete series. Because of the delay between first and second doses, first dose coverage is higher than complete series coverage.

Progress with vaccination by race and ethnicity, age 12+, at least one dose



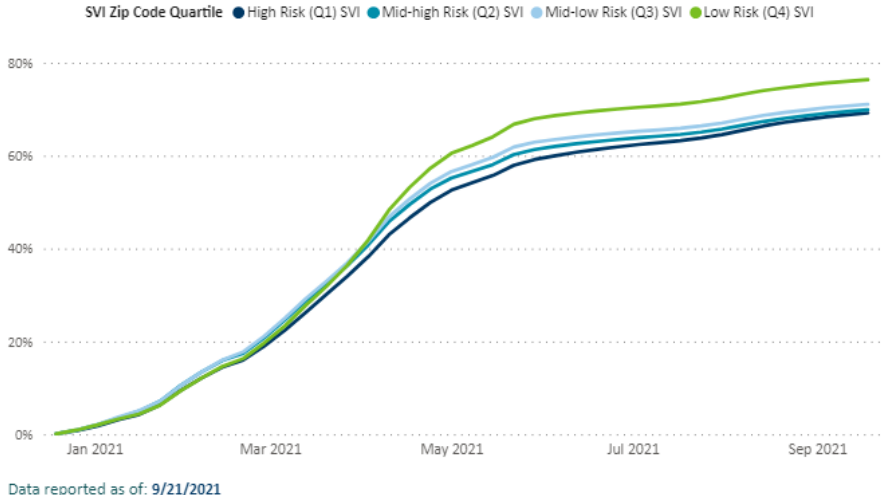
Progress with vaccination by race and ethnicity, age 12+, complete series



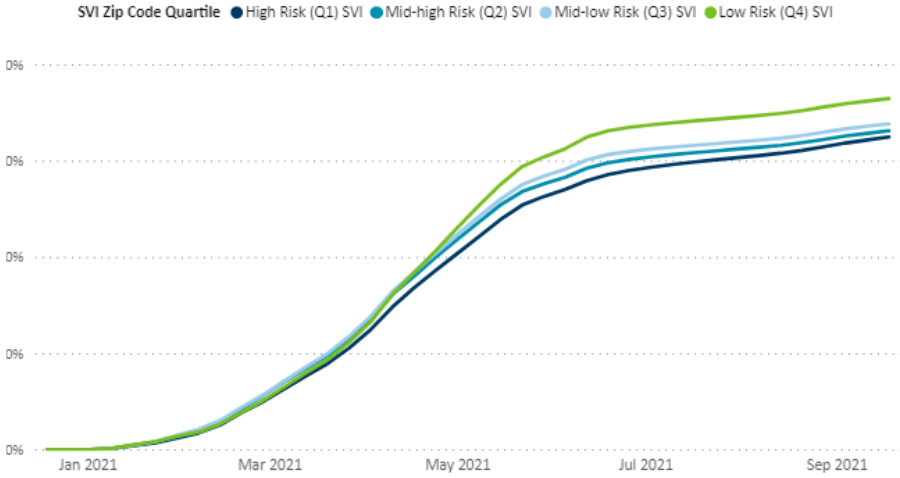
# Vaccine coverage by SVI quartiles over time

These graphs show the trajectory of vaccine coverage (for Minnesotans age 12 and older) over time by SVI quartile (ZIP code level) throughout the duration of Minnesota’s COVID-19 vaccine campaign. The left graph shows coverage by at least one dose, the right graph shows coverage by complete series. Because of the delay between first and second doses, first dose coverage is higher than complete series.

People vaccinated by SVI risk groups, at least one dose



People vaccinated by SVI risk groups, complete series



Currently, Minnesotans who live in quartile 4 (Q4) ZIP codes (least vulnerable) have highest vaccine coverage of any group, and Minnesotans who live in quartile 1 (Q1) ZIP codes (most vulnerable) have the lowest vaccine coverage.



## Public health risk scores by SVI quartile

This table shows three indicators of the risk of the pandemic: daily new COVID-19 cases per 100,000 population, weekly COVID-19 hospitalizations per 100,000 population, and weekly ICU admissions related to COVID-19 per 100,000 population.

Public health risk scores have three categories:

- below the “caution” threshold (lowest risk)
- above the “caution” threshold (moderate risk)
- “high risk” (high risk)

Threshold	New Cases (per 100,000)	Hospitalizations (per 100,000)
Caution	≥5	≥4
High risk	≥10	≥8

All metrics reflect a seven-day average (that is, for the seven days including and prior to this date). The most recent date that we report on may look “old” because it accounts for a seven-day lag period. The lag period is a time when data are considered incomplete since data are still being received or collected.

These are statewide calculations for each quartile. Local and regional public health authorities may present more specific and nuanced information for specific geographies.

More information on this data: [Public Health Risk Measures Dashboard \(https://mn.gov/covid19/data/response-prep/public-health-risk-measures.jsp\)](https://mn.gov/covid19/data/response-prep/public-health-risk-measures.jsp)

Measure	New Cases (per 100,000)		Hospitalizations (per 100,000)	
	Week of 9/21/21	Week of 9/14/21	Week of 9/21/21	Week of 9/14/21
SVI Quartile				
Q1 (High/most vulnerable)	42.5	36.6	15.9	13.9
Q2	39.5	38.1	12.2	11.5
Q3	40.9	38.2	11.4	11.0
Q4 (Low/least vulnerable)	37.2	35.3	10.0	10.4
Statewide	40.2	37.1	12.6	11.9

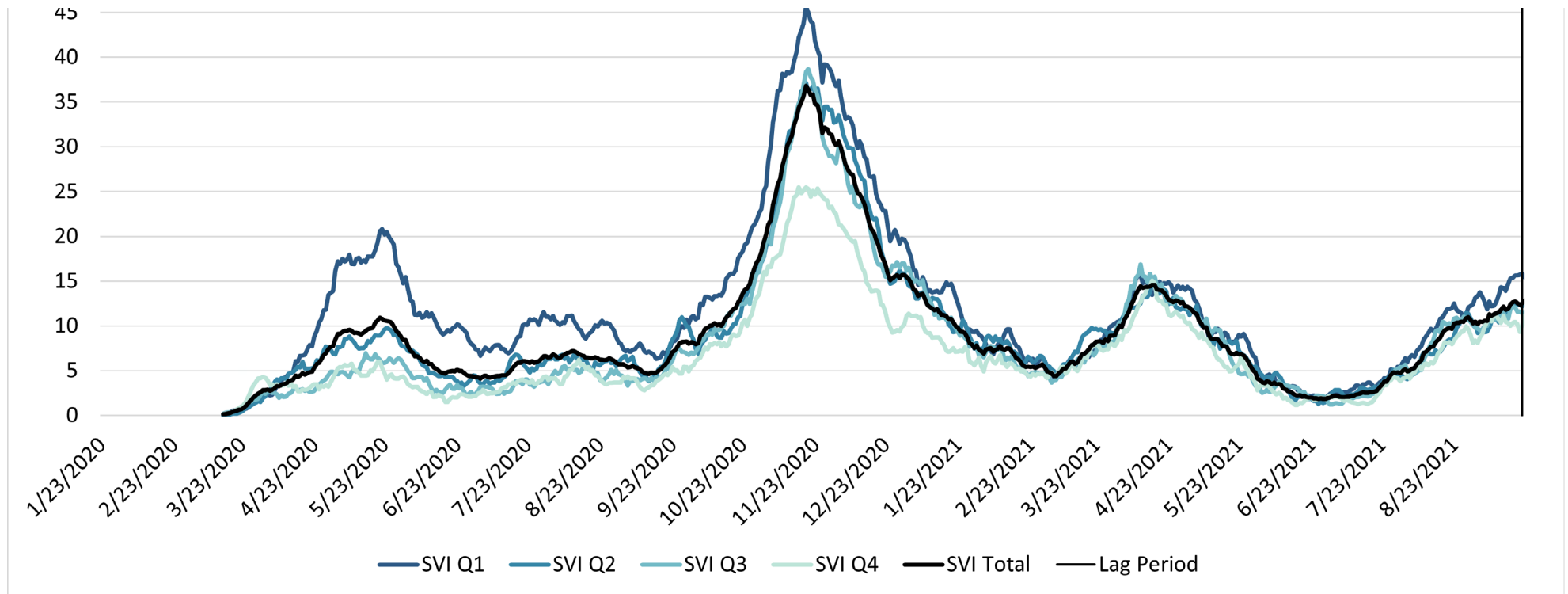
Currently, all public health risk score measures are below the “caution” threshold, indicating that regardless of SVI quartile, Minnesotans as a group are at lower risk for exposure to COVID-19.

The State of Minnesota has followed the guidance of public health experts and data to make informed decisions during the pandemic. These public health risk measures continue to ensure a data-driven response to COVID-19.

# Hospitalizations by SVI quartile

This graph shows the rolling seven-day average of weekly hospitalizations (per 100,000 population) due to COVID-19 throughout the pandemic, from March 2020 to the present. Darker shades indicate higher levels of disadvantage (areas that are most vulnerable), lighter shades indicate lower levels of disadvantage (areas that are least vulnerable). The vertical line corresponds to the lag period. The lag period is a time when data are considered incomplete since data are still being received or collected.

7-day rolling weekly hospital admissions (per 100,000 population)



Hospitalizations have been disproportionately higher among people living in quartile 1 (Q1) SVI ZIP codes (most vulnerable).

Of note, during the first three waves of the COVID-19 pandemic (spring 2020, summer 2020, and winter 2020-2021), there is a significant disparity between the rate of hospitalizations due to COVID-19 experienced by Minnesotans who live in Q1 SVI areas and those in quartile 4 (Q4) SVI areas. Since Minnesota's vaccination campaign began in December 2020, you can see the disparity has significantly decreased. During the spring 2021 surge there was little if any disparity along SVI quartiles.