

COVID-19 Annual Report 2020

Case, Hospitalization, and Death Surveillance

Washington State Department of Health

May 31, 2023



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This report provides a summary of COVID-19 cases, hospitalizations, and deaths in Washington State in 2020. Regional data, trends over time, and demographic data are included. All cases with a specimen collection date in 2020 are included in this report. Underlying case, hospitalization and death data are available in Excel spreadsheets posted with this report. Definitions are provided in the methods section at the end of the report.

2020 at a glance:

- The Centers for Disease Control and Prevention (CDC) reported the first laboratory confirmed COVID-19 case in the United States on January 20, 2020 based on samples taken on January 18, 2020 in Washington state.
- During 2020, there were 262,516 COVID-19 cases reported in Washington; 15,667 of those cases were hospitalized (6%) and 4,461 of those cases died (1.7%).
- Case counts were the highest in November and December and were three times higher in November compared to October.
- Case, hospitalization, and death rates were approximately 1.5 times higher in Eastern Washington than Western Washington.
- Case rates were highest in 18-34 year olds (5,133 cases per 100,000 population), and Non-Hispanic Native Hawaiian or Pacific Islander populations (6,595 cases per 100,000 population).

COVID-19 cases, hospitalizations, and deaths by region

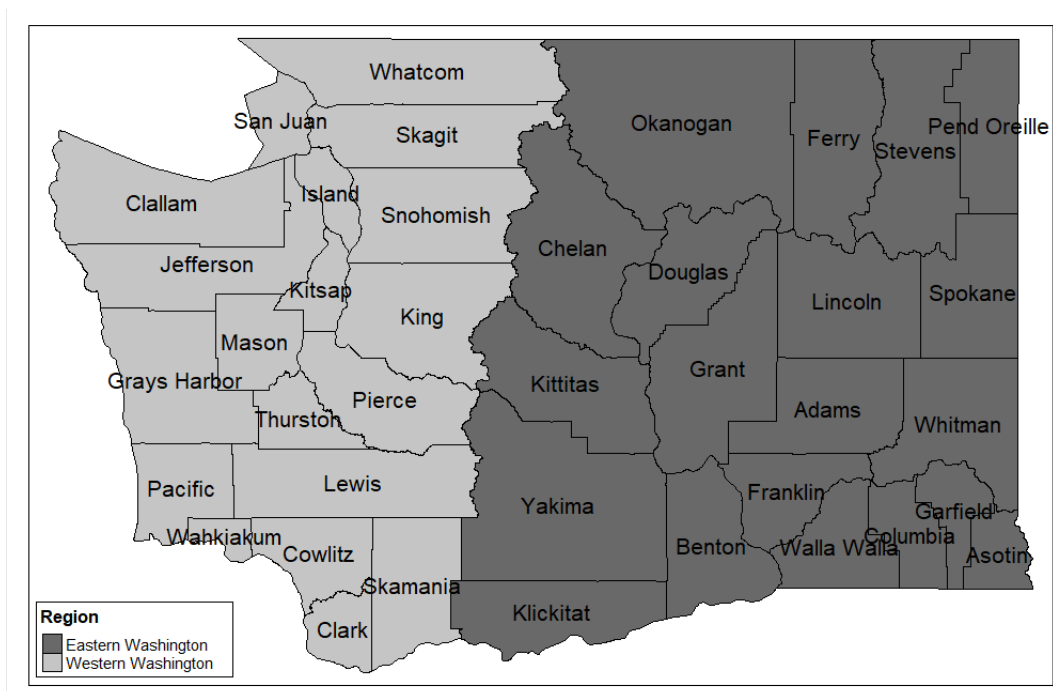
COVID-19 case, hospitalization, and death counts and rates in Eastern and Western Washington, 2020

	Statewide		Eastern Washington		Western Washington	
	Counts	Rate per 100K	Counts (%)	Rate per 100K	Counts (%)	Rate per 100K
Case	262,516	3,429	100,922 (38.4%)	6,072	160,649 (61.2%)	2,680
Hospitalization	15,667	205	5,284 (33.7%)	318	10,373 (66.2%)	173
Death	4,461	58	1,546 (34.7%)	93	2,913 (65.3%)	49

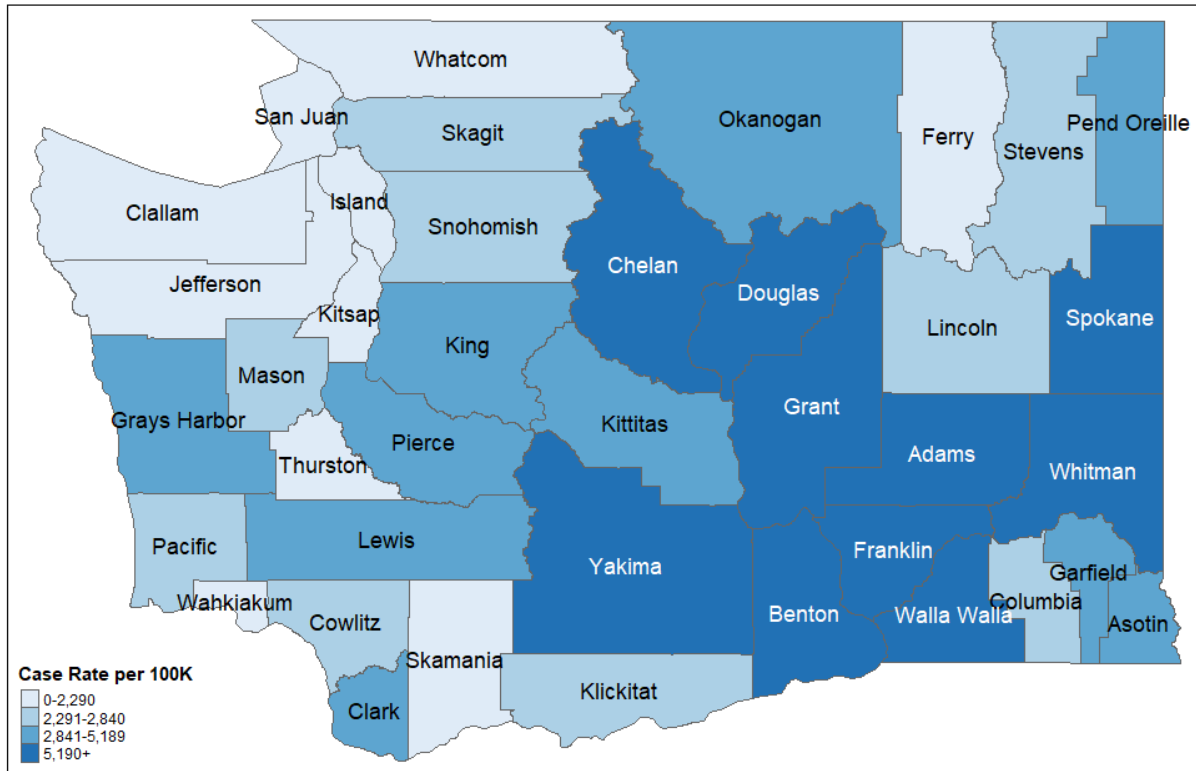
Note: 945 cases, 10 hospitalizations and 2 deaths with missing region information are not included.

- Western Washington had the highest case, hospitalization, and death counts, as the majority of the population lives in Western Washington.
- Rates allow us to compare across groups by accounting for differences in the underlying population. Eastern Washington had case rates 2.3 times higher than Western Washington, and hospitalization and death rates 1.8 times higher than Western Washington.

Map of Washington counties by region

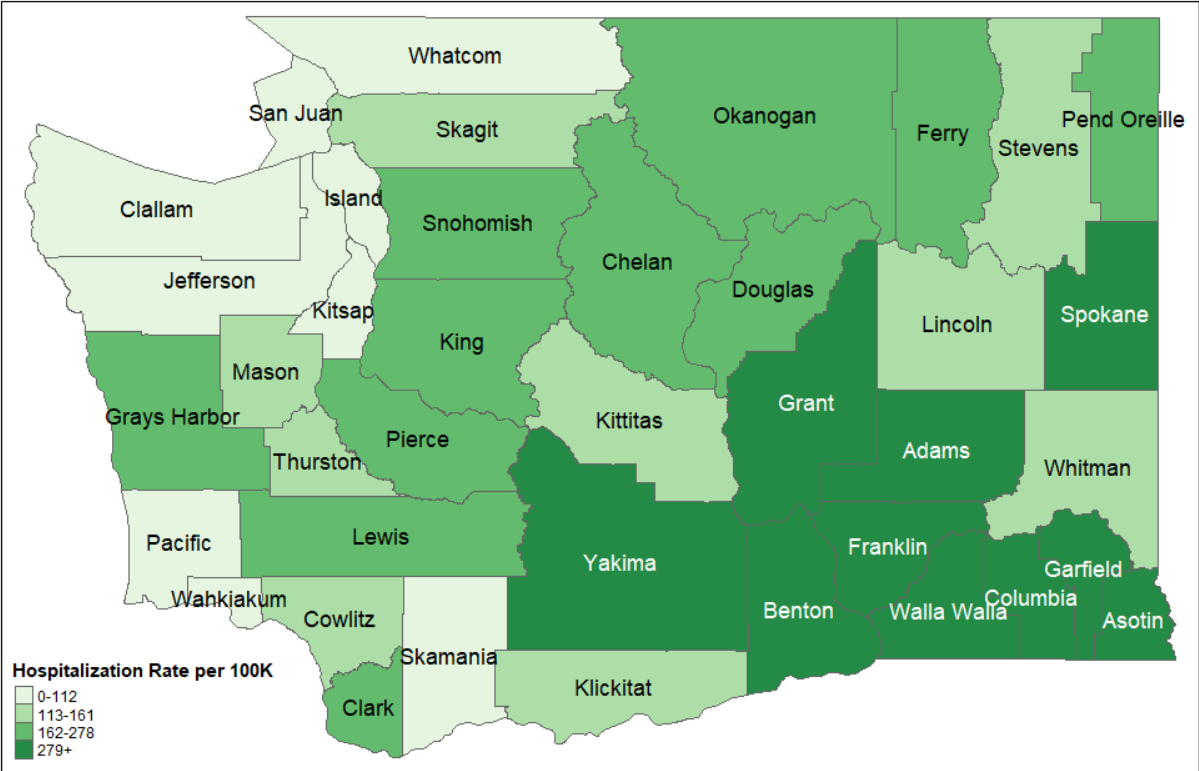


COVID-19 case rates by county, 2020



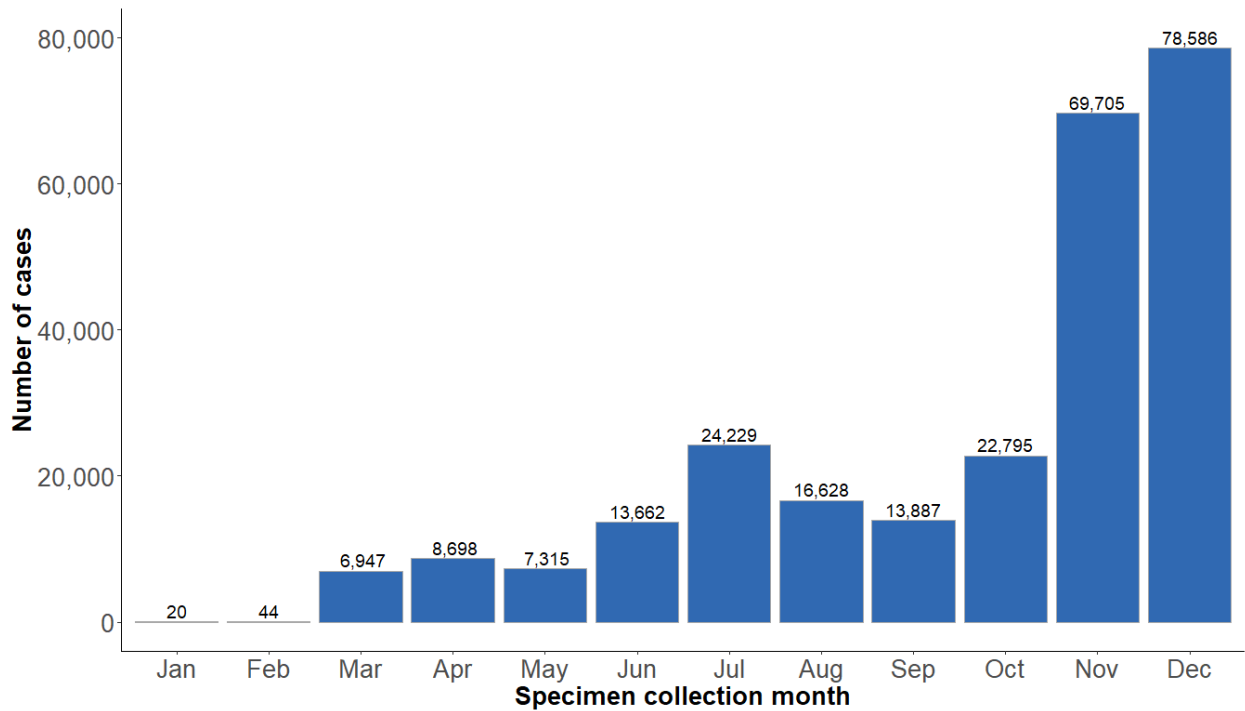
- The highest case rates were primarily in southeast and central Washington counties.
- The lowest case rates were concentrated in northwest Washington counties.

COVID-19 hospitalization rates by county, 2020



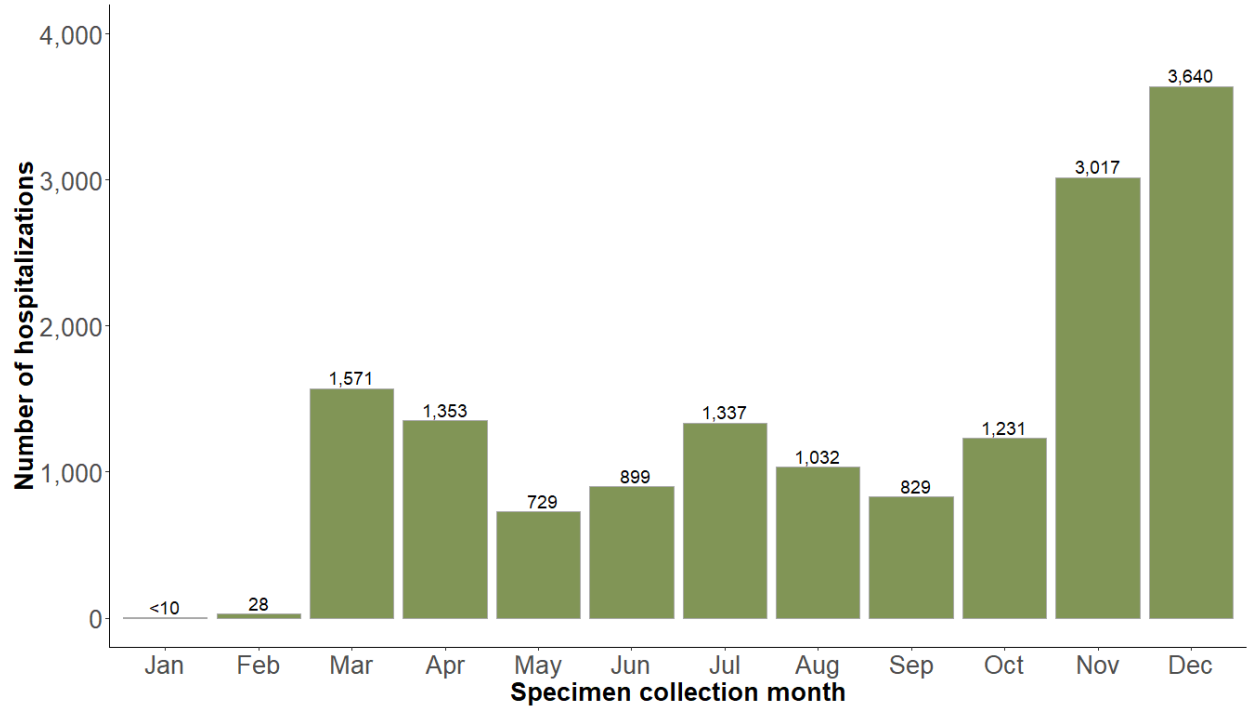
- Hospitalization rates followed a similar geographic pattern to case rates with higher rates primarily in the southeast and lower rates concentrated in the northwest.

COVID-19 case counts by month, 2020



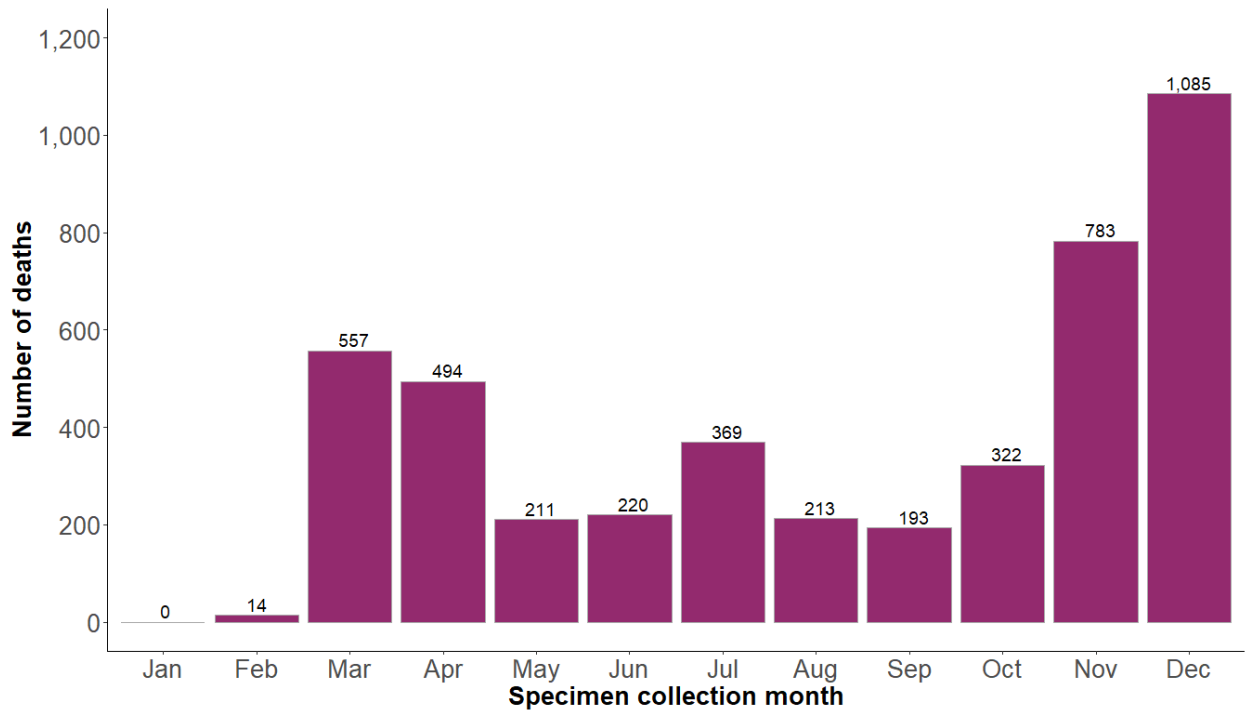
- There were 20 cases in January and 44 cases in February. Case counts increased in March and April to 8,698 cases. There was a decrease in May followed by an increase through July with 24,229 cases. Case counts steadily decreased in August and September and increased to 22,795 cases in October. Case counts tripled from October to November and continued to increase with 78,586 cases in December.
- Case counts may appear artificially low in the first months of the pandemic, when testing kits were limited and predominately used to test hospitalized symptomatic patients. Testing capacity began to increase in March when local testing became available and continued to increase into the summer of 2020.

COVID-19 number of hospitalizations by month, 2020



- There were less than 10 hospitalizations in January and 28 hospitalizations in February. The number of hospitalizations increased to 1,571 in March and decreased in April and May (729 hospitalizations). From May to December the trend in the number of hospitalizations closely mirrored the trend in number of cases counts. There was a small peak in July with 1,337 hospitalizations, which aligned with an increase in case counts. The number of hospitalizations increased from 1,231 hospitalizations in October to 3,017 hospitalizations in November. December had the highest number of hospitalizations with 3,640 hospitalizations.

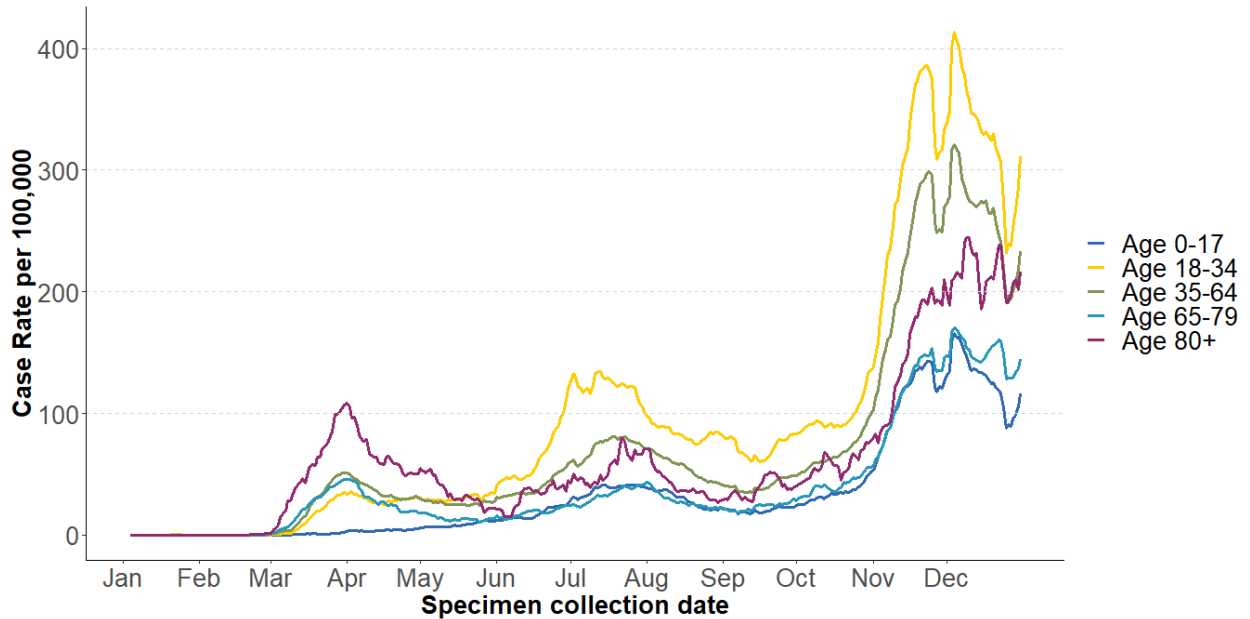
COVID-19 number of deaths by month, 2020



- There were 0 deaths in people with a positive test result in January and 14 deaths in people with a positive test result in February. The trend in number of deaths closely mirrored the trend in hospitalizations. There was a slight peak in the number of deaths in July with 369 deaths. The number of deaths increased from 322 deaths in October to 783 deaths in November. December had the highest number of deaths with 1,085 deaths.

COVID-19 cases and hospitalizations by age group

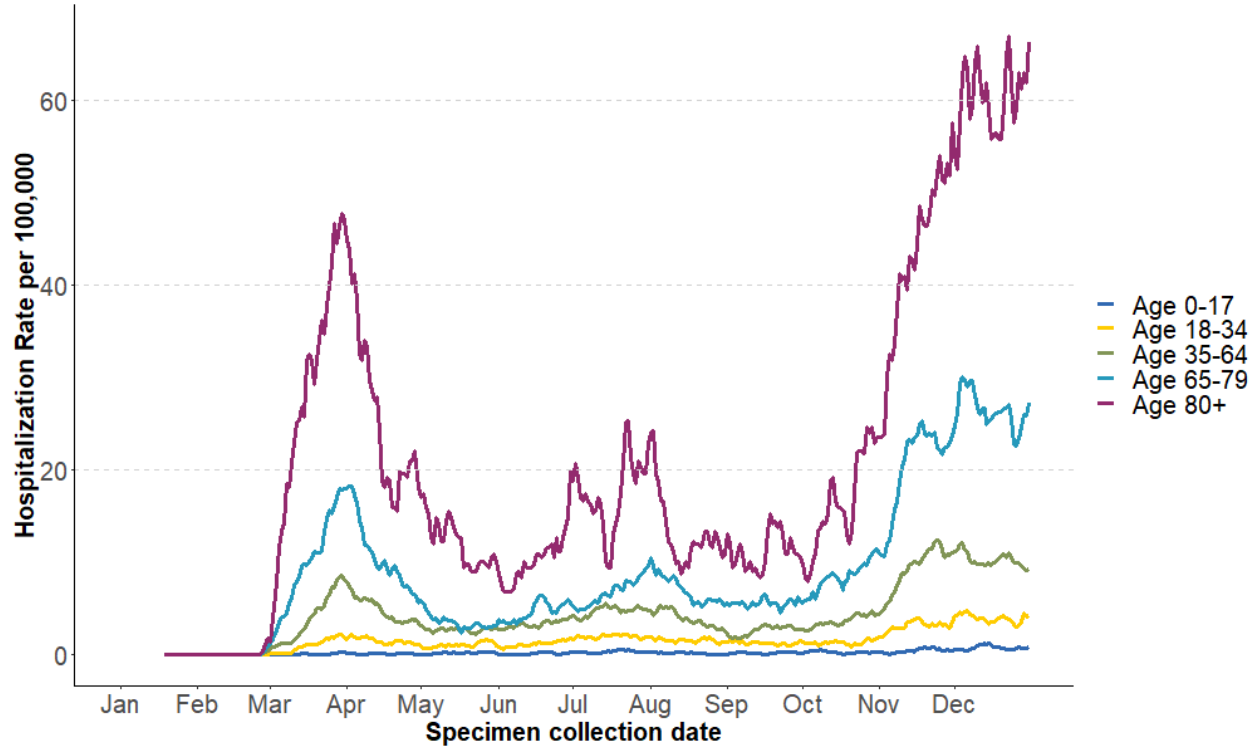
Trend in 7-day COVID-19 case rate per 100K by age group, 2020



Note: 234 cases with missing age information are not included.

- The highest case rates in 2020 were among 18-34 year olds (5,133 cases per 100,000) and the lowest case rates were among 0-17 year olds (1,772 cases per 100,000).
- Through May, 80+ year olds had the highest case rates.
- In late May, 18-34 year olds had the highest case rates followed by 35-64 year olds. 18-34 year olds and 35-64 year olds had the highest case rates for the remainder of 2020.

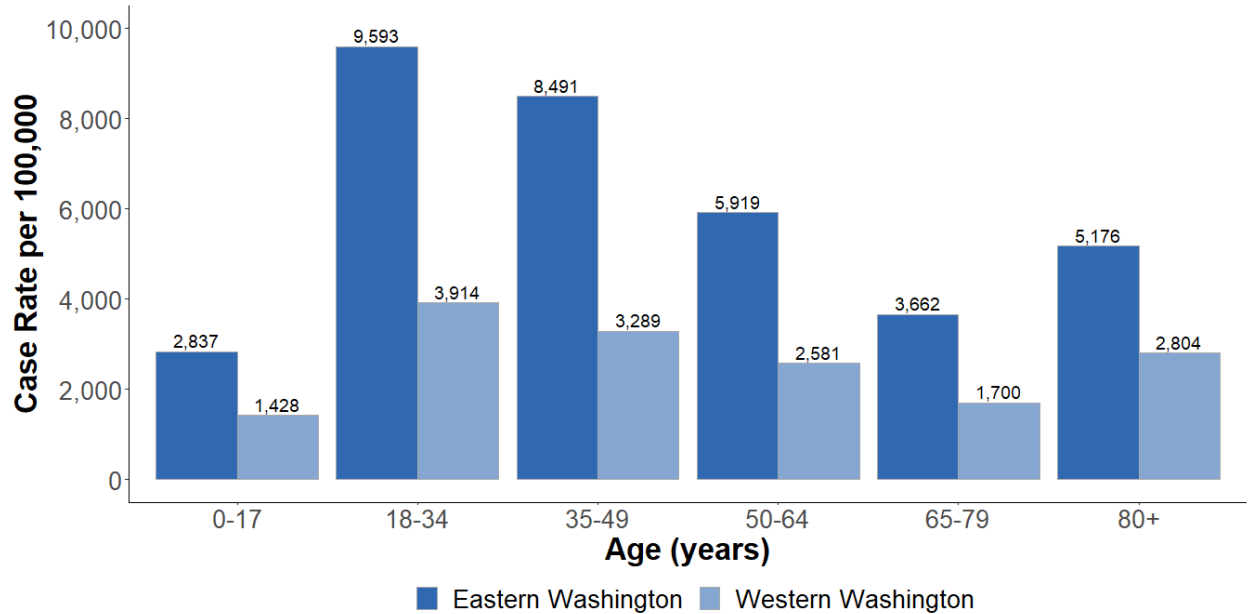
Trend in 7-day COVID-19 hospitalization rate per 100K by age group, 2020



Note: 4 hospitalizations with missing age information are not included.

- The highest hospitalization rates in 2020 were among 80+ year olds (1,072 hospitalizations per 100,000 population), which was 90 times higher than rates among 0-17 year olds, who had the lowest hospitalization rates (12 hospitalizations per 100,000 population).
- Hospitalization rates were highest among 80+ year olds and lowest among 0-17 year olds throughout 2020.

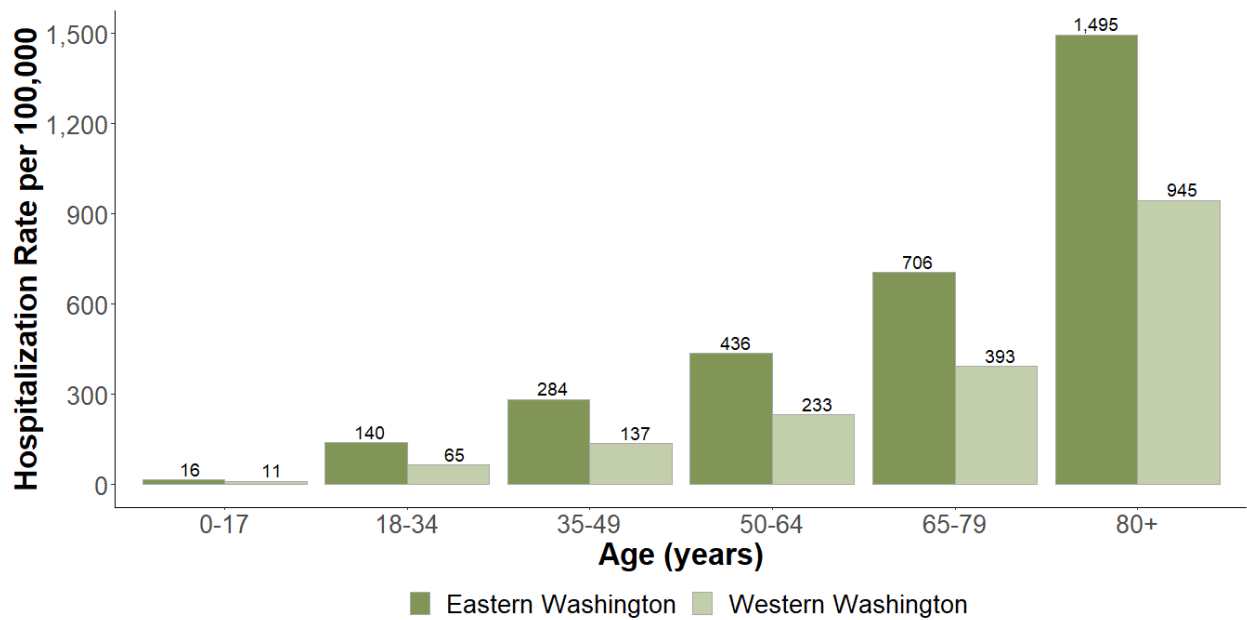
COVID-19 case rates by age group and region, 2020



Note: 199 cases with missing age information are not included.

- The highest case rates in Eastern and Western Washington were among 18-34 year olds (5,133 cases per 100,000 population statewide), and the lowest case rates were among 0-17 year olds (1,772 cases per 100,000 population statewide).
- Case rates for every age group were nearly twice as high in Eastern Washington compared with Western Washington.

COVID-19 hospitalization rates by age group and region, 2020

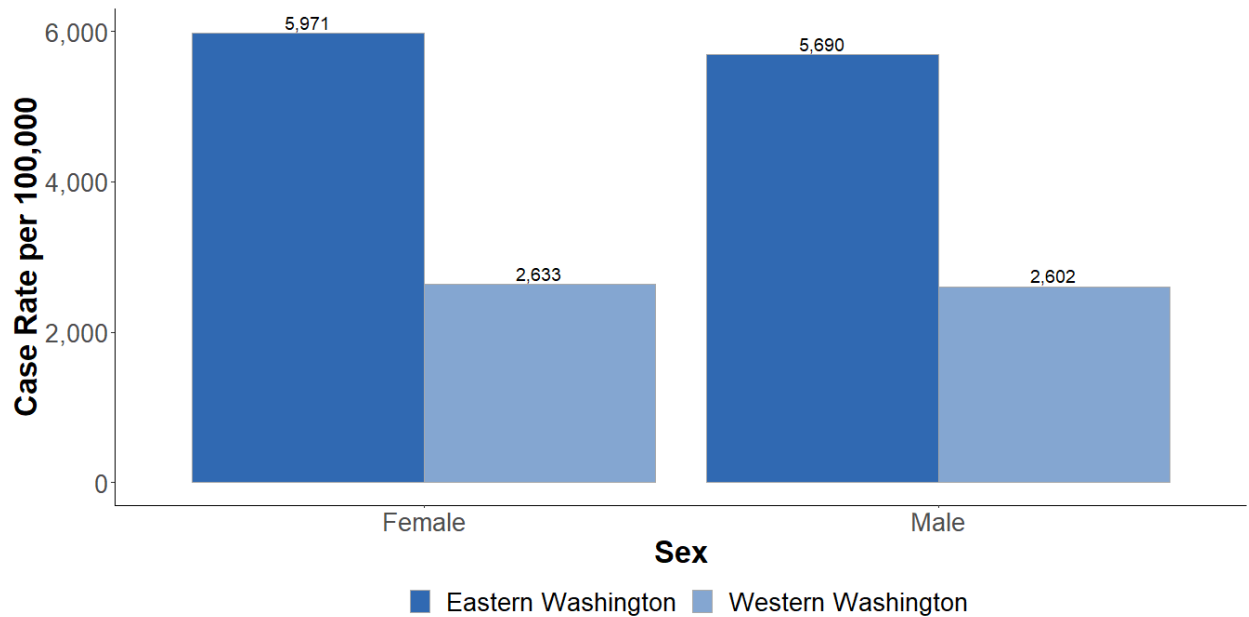


Note: 4 hospitalizations with missing age information are not included.

- Statewide hospitalization rates (not shown) were highest among 80+ year olds (1,072 hospitalizations per 100,000 population). Hospitalization rates among 80+ year olds were 2.3 times higher than rates among 65-79 year olds (465 hospitalizations per 100,000 population).
- Eastern Washington had higher hospitalization rates in every age group compared to Western Washington. Similar trends in hospitalization rates were found in Eastern and Western Washington.

COVID-19 cases and hospitalizations by sex

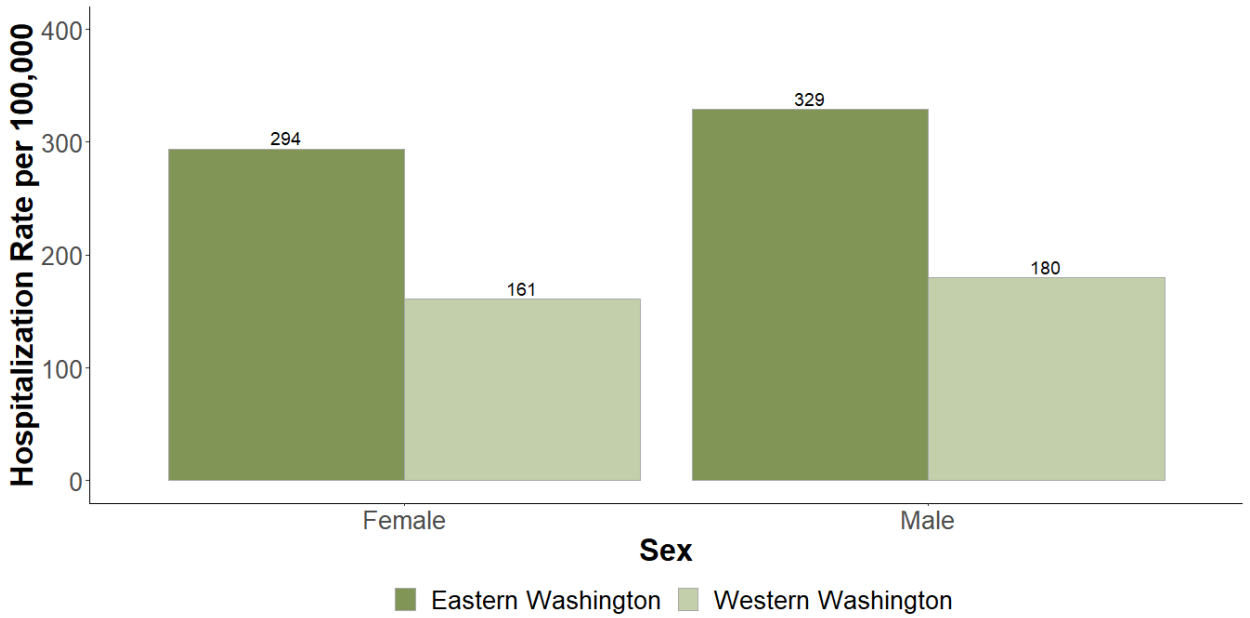
COVID-19 case rates by sex, 2020



Note: 7,668 cases with missing sex information and 219 cases who identified as “Other” are not included.

- Case rates were 2.3 times higher in females in Eastern Washington compared to Western Washington, and 2.2 times higher in males in Eastern Washington compared to Western Washington.
- Case rates were slightly higher in females compared to males in Eastern and Western Washington. The statewide rate (not shown) among females was 3,357 cases per 100,000 population and the statewide rate (now shown) among males was 3,295 cases per 100,000 population.

COVID-19 hospitalization rates by sex, 2020

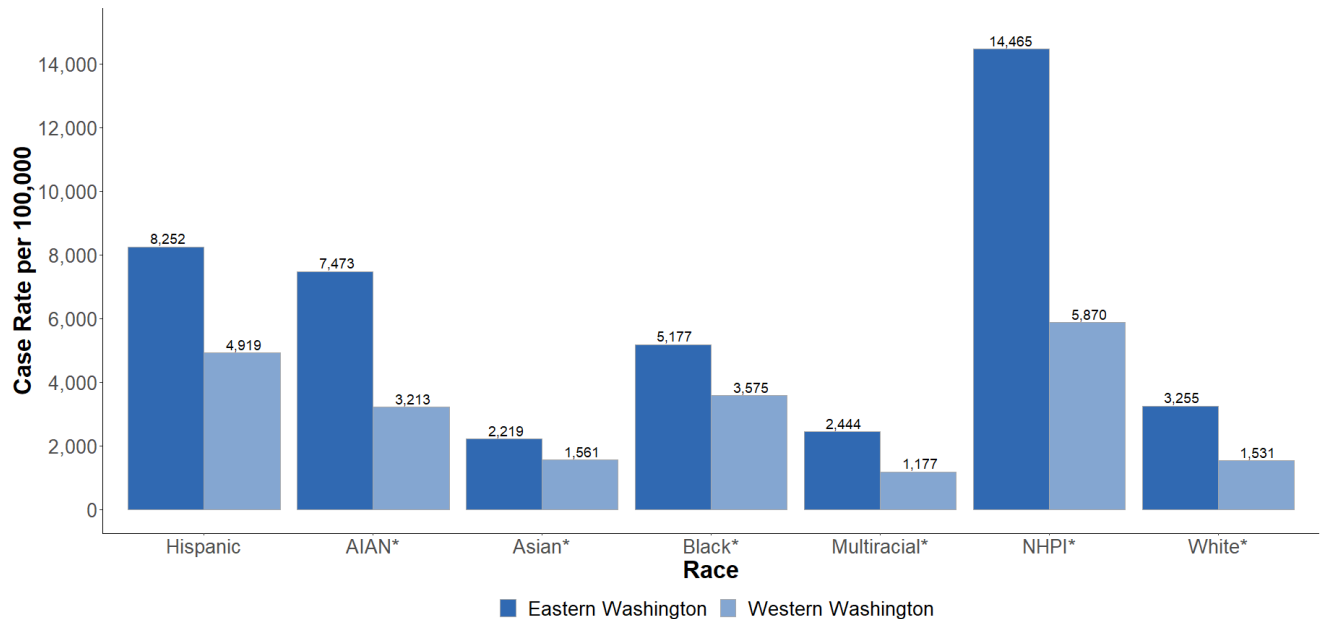


Note: 250 hospitalizations with missing sex information and 1 hospitalization who identified as “Other” are not included.

- Statewide hospitalization rates (not shown) were slightly higher in males (213 hospitalizations per 100,000 population) than females (190 hospitalizations per 100,000 population)
- Hospitalization rates were almost 2 times higher in females and males in Eastern Washington compared to Western Washington.

COVID-19 cases and hospitalizations by race / ethnicity

COVID-19 case rates by race/ethnicity, 2020



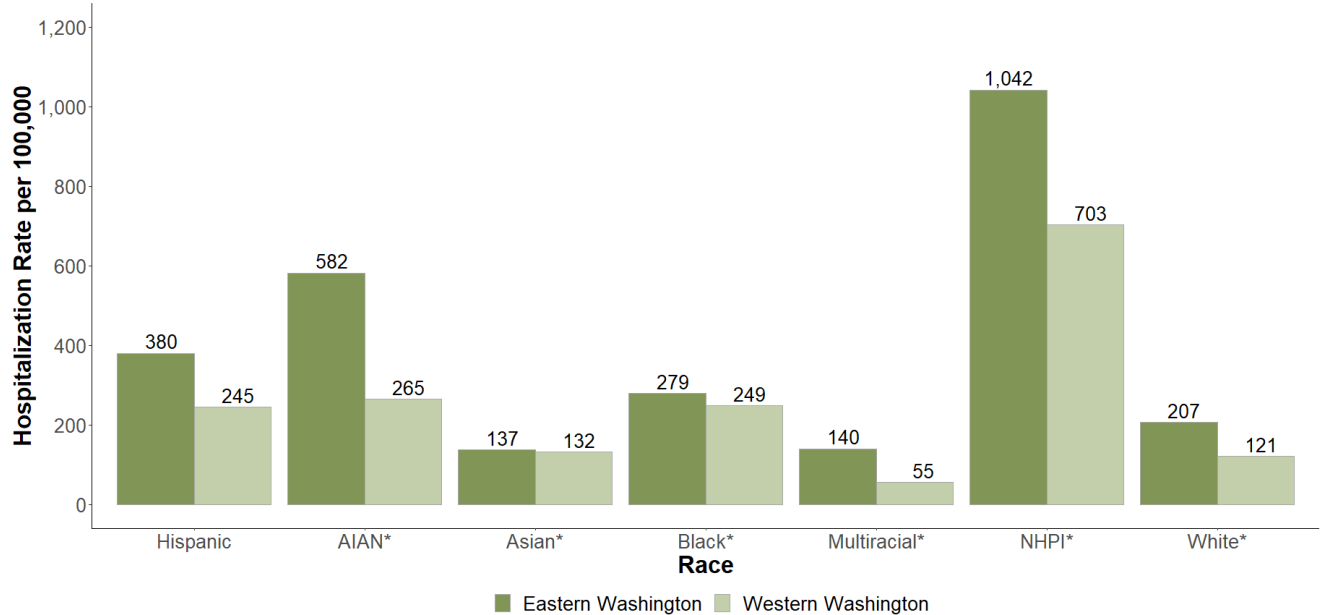
*Non-Hispanic or unknown/declined ethnicity

Abbreviations: AIAN, American Indian Alaska Native; NHPI, Native Hawaiian or Pacific Islander

Note: 62,601 cases with missing race and ethnicity information and 2,725 cases who identified as another race are not included.

- Case rates were higher in Eastern Washington for every race group compared to Western Washington.
- Statewide case rates (not shown) were highest in the NHPI population (6,595 cases per 100,000 population) followed by the Hispanic population (6,238 cases per 100,000 population). Case rates in the Hispanic population were very close to the AIAN population in Eastern Washington.
- There were differences in trends in Eastern and Western Washington. In Eastern Washington rates by race from lowest to highest were 1) Asian, 2) Multiracial, 3) White, 4) Black, 5) AIAN, 6) Hispanic, 7) NHPI. In Western Washington rates by race from lowest to highest were 1) Multiracial, 2) White, 3) Asian, 4) AIAN, 5) Black, 6) Hispanic, 7) NHPI.

COVID-19 hospitalization rates by race/ethnicity, 2020



*Non-Hispanic or unknown/declined ethnicity

Abbreviations: AIAN, American Indian Alaska Native; NHPI, Native Hawaiian or Pacific Islander

Note: 2,546 hospitalizations with missing race and ethnicity information and 206 hospitalizations who identified as another race are not included.

- Statewide hospitalization rates (not shown) were highest in the NHPI population (732 hospitalizations per 100,000 population). Hospitalization rates for the NHPI population were approximately twice as high as the AIAN population (367 hospitalizations per 100,000 population), which had the second highest hospitalization rates in the state.
- Hospitalization rates in Eastern Washington were higher for every race compared to Western Washington.
- Trends in hospitalization rates in Eastern Washington were similar to trends in case rates except rates among the AIAN population were higher than the Hispanic population.
- Trends in hospitalization rates in Western Washington were similar to trends in case rates except hospitalization rates among the Hispanic population were the fourth highest and rates among the AIAN population were the second highest.

Methods

Definitions

COVID-19 Case

COVID-19 case data in this report come from the Washington State Disease Reporting System (WDRS). A 'case' is defined as an individual who tested positive for COVID-19 by either molecular (such as PCR) or antigen test. Most antigen tests are rapid tests and provide results in approximately 15 minutes to 1 hour.

COVID-19 Hospitalization

A COVID-19 hospitalization is an individual identified as hospitalized in WDRS using either case investigation data or links with the Rapid Health Information Network (RHINO) records.

COVID-19 Death

COVID-19 deaths are reported to the state by health care providers, medical examiners or coroners, local health departments, or others to the official vital records database, Washington Health and Life Events System (WHALES). COVID-19 deaths included in this report are cases identified in WHALES where the cause of death was confirmed or suspected to have been COVID-19.

Rate calculations

Calculating cumulative rates

Cumulative case or hospitalization rates are calculated as the total number of COVID-19 cases or hospitalizations with a specimen collection date in 2020 divided by state population and multiplied by 100,000.

Calculating 7-day rates

The trend in case or hospitalization rate refers to the trend in 7-day rate of new COVID-19 cases or hospitalizations per 100,000 population. It is calculated by dividing the number of COVID-19 cases or hospitalizations with a specimen collection date during a 7-day period by state population and multiplying by 100,000.

All rates presented in this report use the Washington state population distribution based on the Office of Financial Management's (OFM) April 1, 2020 population estimates by age, sex, race and Hispanic origin.

Race category

Hispanic ethnicity was assigned first, regardless of race, and then racial groups were identified for those identifying as non-Hispanic. The following groups are included:

- Hispanic; and
- non-Hispanic race categorizations for White, Black, Native Hawaiian Pacific Islander, Asian, and American Indian/Alaska Native, and other/multiracial, which includes individuals who reported two or more races.

While this allows assessment of data by race and ethnicity groups, this categorization is incomplete and does not reflect the diversity of people and experiences across the state. Additionally, there is a significant lack of race and ethnicity reporting for confirmed or probable COVID-19 cases and hospitalizations (24% missing). The lack of complete data limits our ability to draw strong conclusions.