

COVID-19 Race/Ethnicity Data Analysis January – October 5, 2020

Snohomish County COVID-19 Data Analysis by Race/Ethnicity: January 19, 2020 through October 5, 2020

The race and ethnicity profile of Snohomish County shows that the county is predominantly white, non-Hispanic (69%) (table 1). Asians are the second most prevalent race seen in the county (11%) followed closely by all-race Hispanics. Race/ethnicity data comparisons are limited as only 54% of COVID-19 cases have race/ethnicity data available. This results in underestimates of race- and/or ethnicity-specific rate calculations. Furthermore, if racial and ethnic minorities are disproportionately represented among cases for whom such data is missing, their relative risk estimate will be biased downward relative to non-Hispanic whites. Complex attribution methodology exists to adjust for such bias, but it is beyond the scope and capacity of this report.

Non-Whites and Hispanics are disproportionately affected by COVID-19. All non-White races and Hispanics have a significantly higher risk of COVID-19 infection compared to non-Hispanic whites (table 1). The highest case rate per 100,000 is seen in the Native Hawaiian/Pacific Islander population with a relative-risk 11 times higher than non-Hispanic Whites. All-race Hispanics were the second highest rate of infection in Snohomish County (RR=4), followed by African American (RR=3), American Indians/Alaska Native (RR=2). Asians had a lower relative risk than other non-White races and was only slightly higher than non-Hispanic Whites. These differences are statistically significant ($p < 0.05$).

Native Hawaiian/Pacific Islanders were at a much higher rate of needing hospitalization than other races/ethnicities (table 2). Native Hawaiian/Pacific Islanders were 7 times more likely to be hospitalized than non-Hispanic Whites. All race Hispanics, and American Indian/Alaska Natives also had higher rates of hospitalizations compared to Whites. These differences (versus non-Hispanic whites) are all statistically significant. Asians had the lowest rate per 100,000 (45) of hospitalization for COVID-19 illness, but the difference (versus non-Hispanic whites, RR 0.9) is not statistically significant.

COVID-19 related deaths are difficult to compare due to small numbers (table 3) and wide confidence intervals (CI). Currently non-Hispanic Whites are the most impacted race in terms of the *number* of COVID-related deaths. Asians have a slightly lower *rate* of death compared to non-Hispanic Whites, and the difference is statistically significant. Native Hawaiian/Pacific Islanders' death rate shows a statistically significant elevation compared to non-Hispanic whites. American Indian/Alaska Natives have a *non-significant* increase in death rate compared to non-Hispanic whites, whereas African Americans and Hispanics have a *non-significant* decrease in death rate compared to whites. These non-significant findings may be due to chance.

Differences between groups in hospitalization and death rates are likely due to risk of exposure and infection given that 95% confidence intervals for case-hospitalization and case-fatality rates show overlap (Table 4).

Table 1: COVID-19 cases by race and ethnicity (January – October 5, 2020), Snohomish County

| Race non-Hispanic | Case count | Population | Rate per 100,000 | Relative Risk | 95% CI Lower | CI Upper |
|--|------------|------------|------------------|---------------|--------------|----------|
| African American | 236 | 24195 | 975.4 | 2.7 | 2.4 | 3.0 |
| American Indian/Alaska Native | 73 | 9083 | 803.7 | 2.2 | 1.8 | 2.8 |
| Asian | 413 | 92570 | 446.1 | 1.2 | 1.1 | 1.3 |
| Native Hawaiian or Pacific Islander | 179 | 4562 | 3923.7 | 10.8 | 9.3 | 12.5 |
| White | 2055 | 563862 | 364.5 | 1.0 | | |
| Other, not Hispanic | 111 | --- | --- | --- | --- | --- |
| Ethnicity | | | | | | |
| Hispanic | 1380 | 88072 | 1566.9 | 4.3 | 4.1 | 4.5 |
| Total confirmed cases with race/ethnicity data | 4447 | --- | --- | --- | --- | --- |
| Total confirmed cases in data set | 7280 | --- | --- | --- | --- | --- |
| % of confirmed cases with race/ethnicity data | 61.1% | --- | --- | --- | --- | --- |

Data source: Washington Disease Reporting System (WDRS). Population data from Washington State Office of Financial Management. Race/ethnicity population estimates from 2019, total population 2020 estimate.

Figure 1: COVID-19 case rates per 100,000 by Race and Ethnicity, Snohomish County

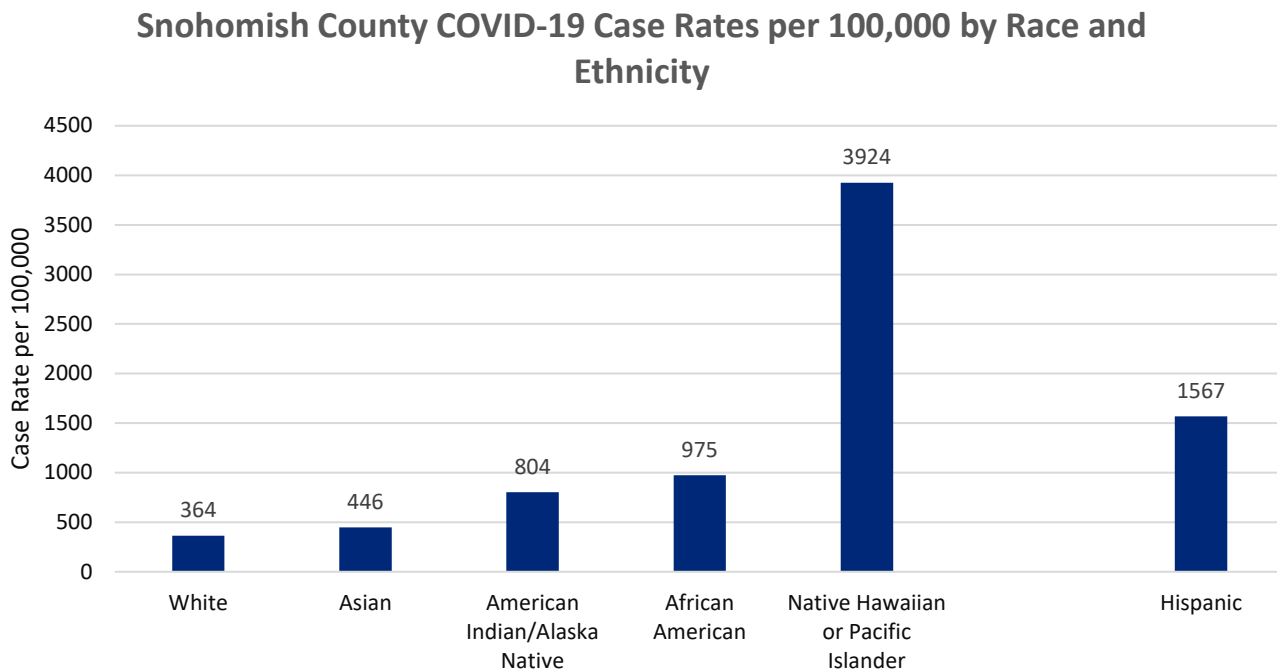


Table 2: COVID-19 hospitalizations by race and ethnicity (January – October 5, 2020), Snohomish County

| Race non-Hispanic | Case count | Population | Rate per 100,000 | Relative Risk | 95% CI Lower | CI Upper |
|-------------------------------------|------------|------------|------------------|---------------|--------------|----------|
| African American | 19 | 24195 | 78.5 | 1.6 | 1.0 | 2.5 |
| American Indian/Alaska Native | 10 | 9083 | 110.1 | 2.2 | 1.2 | 4.1 |
| Asian | 42 | 92570 | 45.4 | 0.9 | 0.7 | 1.2 |
| Native Hawaiian or Pacific Islander | 16 | 4562 | 350.7 | 7.1 | 4.4 | 11.6 |
| White | 277 | 563862 | 49.1 | 1 | | |
| Other, not Hispanic | 40 | --- | --- | --- | --- | --- |
| Ethnicity | | | | | | |
| Hispanic | 106 | 88072 | 120.4 | 2.4 | 2.0 | 2.9 |

Table 3: COVID-19 related deaths by race and ethnicity (January – October 5, 2020), Snohomish County

| Race non-Hispanic | Case count | Population | Rate per 100,000 | Relative Risk | 95% CI Lower | 95% CI Upper |
|-------------------------------------|------------|------------|------------------|---------------|--------------|--------------|
| African American | --- | 24195 | --- | --- | --- | --- |
| American Indian/Alaska Native | 5 | 9083 | 55.0 | 2.0 | 0.8 | 4.7 |
| Asian | 13 | 92570 | 14.0 | 0.5 | 0.3 | 0.9 |
| Native Hawaiian or Pacific Islander | 6 | 4562 | 131.5 | 4.7 | 2.1 | 10.4 |
| White | 157 | 563862 | 27.8 | 1.0 | | |
| Ethnicity | | | | | | |
| Hispanic | 14 | 88072 | 15.9 | 0.6 | 0.3 | 1.0 |
| Total* | 211 | 830500 | 25.4 | | | |

Table 4. COVID-19 case-hospitalization and case-death proportions, Snohomish County

| Race non-Hispanic | Cases | Hospitalizations | | Deaths | | |
|-------------------------------------|-------|------------------|---------------|--------|--------------------|-------------------|
| | | N | % (95% CI) | N | % of cases (95%CI) | % of hospitalized |
| African American | 236 | 19 | 8 (4.6,11.5) | --- | --- | --- |
| American Indian/Alaska Native | 73 | 10 | 14 (5.8,21.6) | 5 | 7 (1.1,12.6) | 62.5 |
| Asian | 413 | 42 | 10 (7.3,13.1) | 13 | 3 (1.5,4.8) | 32.4 |
| Native Hawaiian or Pacific Islander | 179 | 16 | 9 (4.8,13.1) | 6 | 3 (0.7,6.0) | 37.5 |
| White | 2055 | 277 | 13 (12,15) | 157 | 8 (6.5,8.8) | 58.0 |
| Ethnicity | | | | | | |
| Hispanic | 1380 | 106 | 7.3 (5.9,8.7) | 14 | 1 (0.5,1.5) | 10.5 |