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### 2021 COVID-19 Data Review

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#### Background

The 2021 COVID-19 Annual Data Report serves as a year-in-review summary of trends and key takeaways from the second calendar year of the COVID-19 pandemic in Oregon. For comparison, see the 2020 COVID-19 Annual Data Report: <u>https://www.oregon.gov/oha/covid19/Documents/DataReports/2020-Annual-Data-Report.pdf</u>. For up-to-date information, visit the OHA COVID-19 web page: <u>https://govstatus.egov.com/OR-OHA-COVID-19</u>.

In 2021, there were 321,620 cases of COVID-19 reported to Oregon Health Authority (OHA), 2.6 times the 121,440 cases reported in 2020. Of these cases, 15,795 (4.9%) were hospitalized and 4,164 (1.3%) died. The proportion of reported cases who were hospitalized or died decreased from 2020, when 6.9% were hospitalized, and 1.7% died. Of reported cases, 10,986 (3.4%) were "presumptive"—i.e., people with COVID-19-like symptoms and close contact with a confirmed case, but who did not have a confirmatory laboratory test.

This report describes case counts and rates, along with hospitalization and death data from the second calendar year of the pandemic, with comparisons across geography, race, ethnicity, sex, and age. Note that not all cases were successfully contacted, leading to an incomplete assessment of COVID-19 risk factors and clinical and demographic characteristics of cases.

The data in this report are intended to highlight key trends and statistics during the second year of the COVID-19 pandemic in Oregon. At the time this report is published, nearly two and a half years have passed since February 28, 2020, when COVID-19 was first confirmed in the state. This is an opportunity to reflect on the burden of COVID-19 to inform the ways we respond to COVID-19 and similar public health threats in the future.

#### 2021 Summary

During 2021, OHA recorded 321,620 cases of COVID-19; of those, 15,795 (4.9%) were hospitalized, and 4,164 (1.3%) died. The proportion of reported cases who were hospitalized or died decreased from 2020, when 6.9% were hospitalized, and 1.7% died. Since a peak in cases at the conclusion of 2020, reported cases in 2021 came primarily in three waves: a springtime wave during April-May peaking April 19 with 948 case onsets, a larger Delta wave during August-September peaking August 16 with 2,625 case onsets; and the largest wave to date, the Omicron wave, beginning in

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December and reaching 4,439 case onsets on December 28 while continuing to rise into the beginning of 2022. The springtime wave of 2021 was held in check by increasing vaccination coverage, as nearly 50% of Oregon residents had received at least one dose of an approved vaccine during the peak of the surge. The peak case rate during the springtime 2021 wave was 41% lower than the case rate during the preceding fall wave of 2020. Vaccination changed the landscape for fighting COVID-19 by preventing hospitalizations and deaths. We encourage you to explore the positive effect of vaccination against COVID-19 in Oregon by exploring the Oregon COVID-19 Case and Vaccination Stories dashboard available at:

https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVI D-19CaseandVaccinationStories/Statewide.

The 321,620 cases in 2021 gave Oregon an overall case rate for the year of 7,538 cases per 100,000 people. Rates varied significantly by county of residence—from about 5,363 for Washington County residents to about 14,860 for Harney County (Figure 10).

Overall, 50.1% of cases identified as female, and 47.2% identified as male. Male cases were more likely than female cases to be hospitalized (5.4% versus 4.6%) and were more likely to die in association with COVID-19 (1.5% versus 1.1%). For the year, persons 20–29 years of age were at highest risk (10.8%) of contracting COVID-19; persons 70-79 years of age were at lowest risk (4.4%). Among those with COVID-19 in 2021, persons ≥80 years of age were most likely to be hospitalized (27.8%) and to die (16.9%) in association with it. This marks a slight decrease from the proportion of reported cases ≥80 years of age that were hospitalized (33.1%) or died (23.6%) in 2020 in association with COVID-19. Of 65,471 cases <20 years of age in 2021, 497 (0.8%) were hospitalized, and 5 (0.008%) died.

#### Equity impact

COVID-19 has highlighted and intensified many of the inequities that already existed within Oregon, shown by its devastating impact on communities of color and Tribal communities. Lack of access to health care, language barriers, crowded working conditions, lower-income jobs, and distrust in government due to historical racism all exacerbated the impact of COVID-19 for these communities.

Throughout the year, COVID-19 disproportionately affected communities of color. Data on race were available for 73% of all reported cases. Outbreaks among Black, African and African American persons accounted for over 4% of cases with known race during March–June despite under 2% of Oregon's population identifying as Black, African and

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African American. Though American Indian or Alaska Native persons make up roughly 1% of the state population, persons in this community accounted for 2% of cases with known race throughout 2021, with the highest proportions occurring during the springtime wave. Cumulative 2021 case rates were 10.0% among American Indian or Alaska Native persons, 8.9% among Black, African and African American persons, 7.1% among Native Hawaiian or Pacific Islander persons, 5.2% among White persons, and 3.3% among Asian or Asian American persons. Among cases, Native Hawaiian or Pacific Islander persons were most likely to be hospitalized (7.2%), followed by Black, African and African American persons (6.8%), American Indian or Alaska Native persons (5.9%) and White persons (5.9%). Ethnicity was reported for 201,804 (63%) of all cases. The cumulative case rate during 2021 was 6.0% for Hispanic or Latino/a/x persons, compared to 4.5% for non-Hispanic or Latino/a/x persons (Table 4). About 13% of Oregonians are of Hispanic or Latino/a/x ethnicity, but 17% of COVID-19 cases of known ethnicity during 2021 were Hispanic or Latino/a/x persons. This marks a substantial decrease from 2020, when 37% of COVID-19 cases of known ethnicity were Hispanic or Latino/a/x persons.

People who are White had a relatively high case-fatality rate (CFR) – 1.5% (Table 3). However, communities of color in Oregon are generally younger overall, which lowers the crude CFRs in these communities; for example, the median age of cases among White persons was 38 years, while for Asian or Asian American persons it was 33 years, for American Indian or Alaska Native persons 32.5 years, for Native Hawaiian or Pacific Islander persons 30 years, and for Black, African and African American persons 30 years. The median age of cases among non-Hispanic or Latino/a/x persons was 37 years, compared to 29 years for Hispanic or Latino/a/x persons. Age adjustment displays how rates would compare if the age distribution of each racial and ethnic group resembled that of the population of the United States in the year 2000. After adjusting for age, communities of color had hospitalization rates 0.6-2.7 times and CFRs 0.5-2.2 times those of White persons (Table 5). After adjusting for their relatively younger age, the hospitalization rate among persons of Hispanic or Latino/a/x ethnicity was 1.5 times that of non-Hispanic or Latino/a/x persons, and the CFR was 1.3 times that among non-Hispanic or Latino/a/x persons (Table 6). Overall, age-adjusted rate ratios for hospitalizations and deaths declined across race and ethnicity relative to 2020, when communities of color had hospitalization rates 1.1-11 times those of White persons and CFRs 1.1–10.5 times those of White persons, while Hispanic or Latino/a/x persons had a hospitalization rate 4.4 times that of non-Hispanic or Latino/a/x persons and a CFR 3.1 times that of non-Hispanic or Latino/a/x persons.

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Looking at the data by race and ethnicity helps public health identify and respond to health inequities in Oregon. These inequities are rooted in systemic racism and social injustice.<sup>1</sup> Current data on COVID-19 in Oregon are available at <u>https://govstatus.egov.com/OR-OHA-COVID-19</u>.

Data on mortality in Oregon, including deaths associated with COVID-19, are available at <u>https://public.tableau.com/profile/oha.center.for.health.statistics</u>.

#### **Clinical characteristics and risk factors**

This section of the report describes the epidemiology of Oregon's COVID-19 cases in 2021, including indicators of COVID-19 transmission, common symptoms experienced by COVID-19 cases, and demographic breakdowns for sex, age, race, and ethnicity. Indicators of disease severity, specifically hospitalizations and deaths, are included in the tables in the following section.

#### **Epidemiologic links**

The figures below show the epidemiologic link of COVID-19 cases. Public health classifies all cases as part of a household, part of an outbreak, part of a cluster, a close contact of another case, or sporadic. "Sporadic" indicates that a case was not linked to a known source of COVID-19. Lower numbers and proportions of sporadic cases suggest lower community spread of COVID-19. Figure 1 focuses on monthly cases of COVID-19 in 2021 and allows for the comparison of different types of epidemiologic link. Figure 2 includes all COVID-19 cases, showing the pattern of epidemiologic links since the first cases were identified in Oregon. Figures 3 and 4 show sporadic cases by race, and figures 5 and 6 show sporadic cases by ethnicity.

#### **Epidemiologic link designations:**

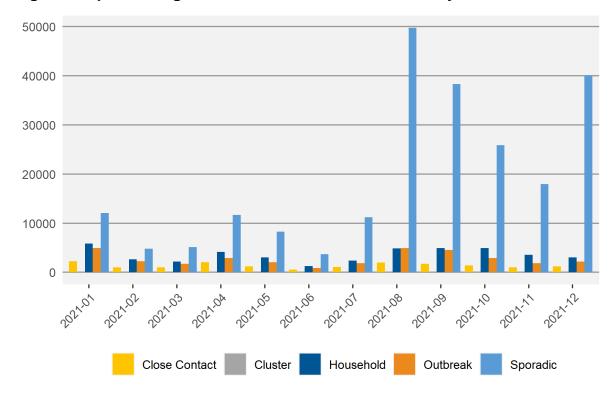
• Sporadic: Cases who do not have known exposure to another case or outbreak. Cases are reported as sporadic if public health was not able to contact them.

<sup>&</sup>lt;sup>1</sup> <u>https://www.cdc.gov/healthequity/racism-disparities/index.html</u>

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- Outbreak: Cases who have a shared, defined, non-household exposure with at least one other case. For example, a defined exposure could be an event, a workplace, a congregate facility, etc.
- Cluster: Cases who had contact with another case, but the exposure is not well defined. For example, cases from two households who interacted many times prior to illness onset.
- Household: Cases who were exposed to another case in their household.
- Close contact: Cases who were exposed to another case, not in their household. This designation was added on 7/15/2020.



#### Figure 1. Epidemiologic link of COVID-19 cases in 2021 by month of onset

In this side-by-side bar graph, cases are displayed by their epidemiologic link type during each month in 2021. Overall case counts were relatively stable early in the year, before rising in a late summer peak, and then again peaking during the very end of the

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year. The proportion of cases with sporadic exposures increased during the late summer 2021 surge and remained high through the end of the year. This is likely attributed to cases not being interviewed as they outpaced public health staff and resources during the surge.

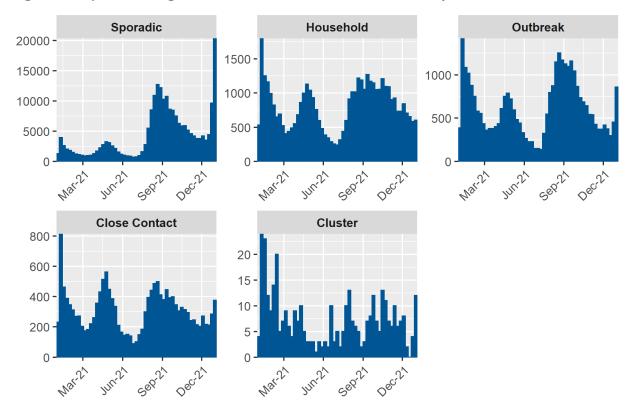


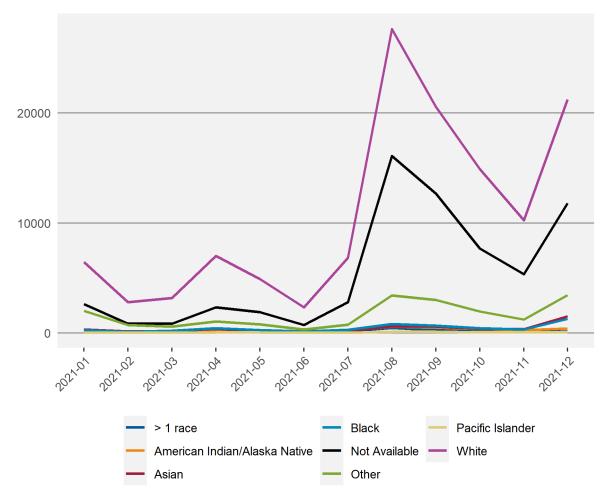
Figure 2. Epidemiologic link of COVID-19 cases in 2021 by week of onset

In this paneled bar graph, cases are displayed by their epidemiologic link type, with each bar representing one week in 2021. While most epidemiologic link types displayed relatively similar trends throughout the year, cases with sporadic exposures increased sharply during the late summer 2021 surge and again at the end of the year. During surges, public health was unable to contact many cases, which were then classified as having sporadic exposures. Please note that the y-axis scales for case counts differ to account for the differences in frequency of each epidemiologic link type.

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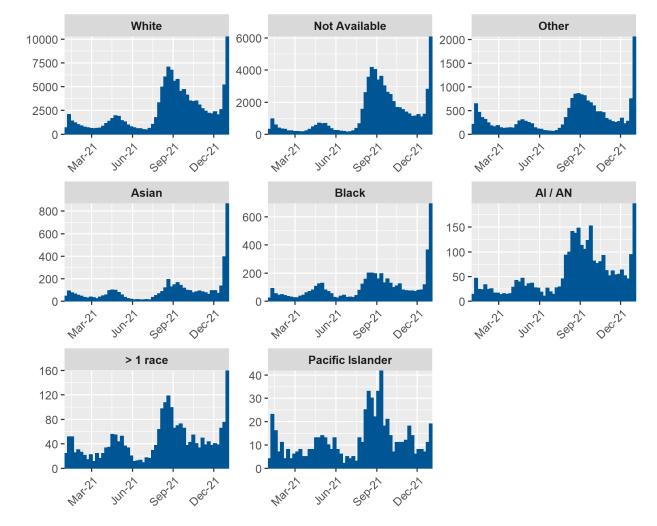




In this line graph, sporadic case counts by race are displayed at each month in 2021. Peaks and dips in case counts generally align across race throughout the year. Please see Table 5 for a comparison of risk by race, accounting for population size and age.

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#### Figure 4. Sporadic COVID-19 cases in 2021 by race and week of onset

In this paneled bar graph, sporadic case counts by race are displayed during each week in 2021. Each panel corresponds with a different racial group in Oregon. There are peaks and dips in case counts across race that generally align throughout the year. Please note that the individual panels use different y-axis scales to account for different population sizes across race.



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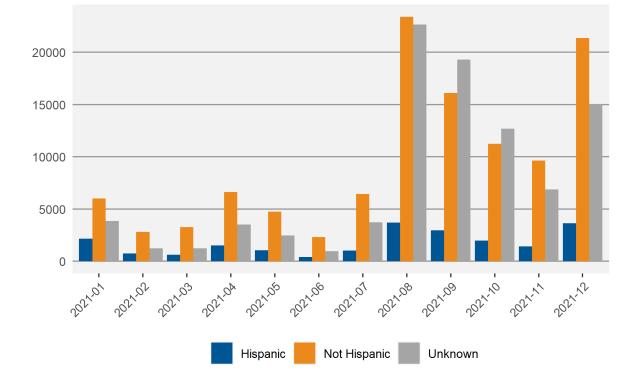


Figure 5. Sporadic COVID-19 cases in 2021 by ethnicity and month of onset

In this side-by-side bar graph, sporadic case counts by ethnicity are displayed at each month in 2021. Peaks and dips in case counts across ethnicity generally align throughout the year.

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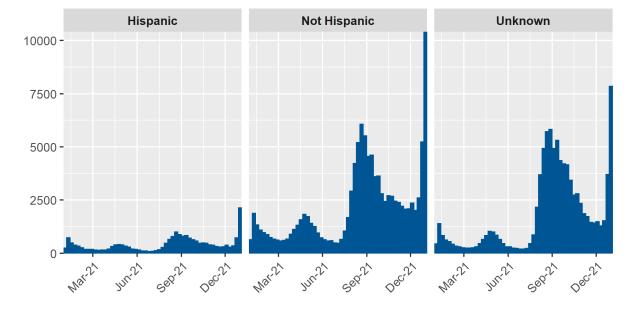


Figure 6. Sporadic COVID-19 cases in 2021 by ethnicity and week of onset

In this paneled bar graph, sporadic case counts by ethnicity are displayed during each week in 2021. Each panel corresponds with a different ethnic group. The peaks and dips in case counts across ethnicity generally align throughout the year. Please note that each panel uses the same y-axis scale in this figure to allow for comparisons of both case counts and trends.

#### **Clinical symptoms and reported risk factors**

The following figures display information on symptoms and risk factors for all COVID-19 cases in 2021. Figure 7 provides information on signs and symptoms from all COVID-19 cases in 2021. Figure 8 provides information on the percentage of COVID-19 cases that report symptoms over time. Figure 9 provides information on risk factors from all COVID-19 cases. Note that a person may report more than one sign, symptom or risk factor. Where displayed by week in this report, case data are categorized by week of reported symptom onset, not by date of case report.

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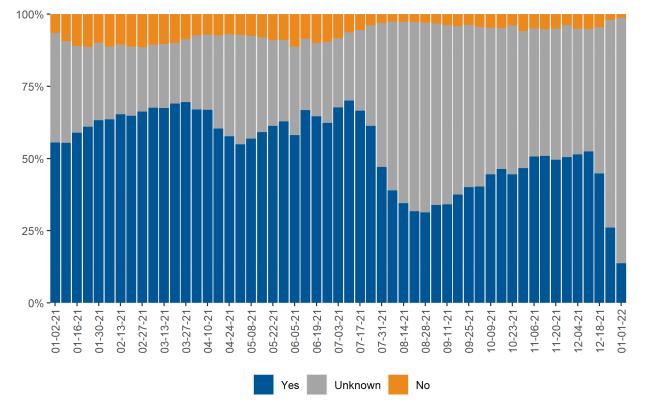
#### 44.5 Any symptoms -23 8.4 Cough -8.3 Headache -17.2 9.6 Aches-16 14.5 Runny nose -13.1 14.8 Loss of smell -12.9 15.8 Fever-Sore throat -11.5 75.5 Chills -10.8 12.1 Shortness of Breath - 8.1 Nausea - 6 16.4 Diarrhea - 5.6 77.6 16.7 Abdominal Pain -2.8 78.7 18.5 78.2 Vomiting -2.4 Pneumonia -...3 76.4 22.3 Abnormal X-Ray -1 83.1 ARDS-5 83.3 16.2 83.4 Ventilator -3 16.3 50.000 100.000 150,000 250,000 200.000 300,000 0 Unknown Yes No

#### Figure 7. Reported signs and symptoms for COVID-19 cases in 2021

In this stacked horizontal bar graph in Figure 7, each bar represents a different sign or symptom of COVID-19, providing the proportion of all cases during 2021 that reported experiencing that specific sign or symptom. This graph allows us to evaluate the most common symptoms that cases reported in the first year of the pandemic in Oregon, where the blue portion of the bar represents those who responded "Yes" to experiencing the sign or symptom. Of 321,624 cases, 143,077 (44.5%) reported having signs and symptoms of COVID-19. The most commonly reported symptoms were cough (n=74,092,23%) and headache (n=55,307,17.2%).

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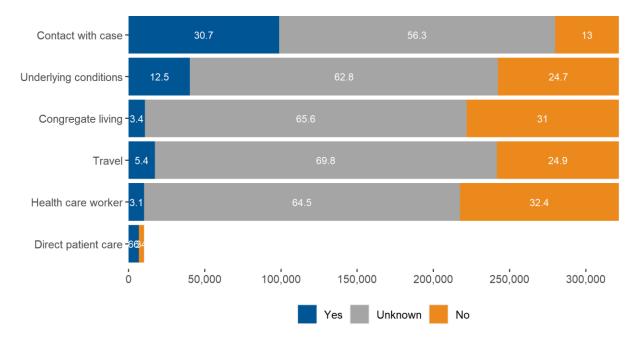




#### Figure 8. Reported symptoms among COVID-19 cases in 2021 by week of onset

This stacked bar graph displays the proportion of cases reporting any signs or symptoms of COVID-19 throughout 2021. Each bar displays the proportion of cases reporting symptoms (blue), no symptoms (orange), or those for whom the information was not available and were categorized as unknown (grey). During the surges in late summer and again in December, the proportion of cases with a symptom status of "unknown" increased, likely due to strain on public health departments completing case investigations at these times.

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#### Figure 9. Reported risk factors among COVID-19 cases in 2021

This stacked horizontal bar graph displays the proportion of cases with reported risk factors in 2021. Each bar represents a different risk factor and displays the proportion of all cases with that given risk factor, sorted from most commonly reported (top of figure) to least commonly reported. Notice that reported contact with a case (n=98,792, 30.7%) and the presence of underlying conditions (n=40,302, 12.5%) were the two most prevalent risk factors amongst cases. Please see below for expanded definitions of risk factors.

#### **Risk factor definitions:**

- Congregate living situations include, but are not limited to, long-term care facilities, group homes, prisons, and shelters. Data include people with confirmed cases who live or work in congregate living situations.
- Direct patient care is asked only if a case is a healthcare worker or volunteer. The denominator is the number of healthcare workers or volunteers.
- Underlying medical conditions include cardiovascular disease, chronic liver disease, chronic lung disease, chronic renal disease, current or former smoker,

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diabetes mellitus, immunocompromised condition, neurologic and neurodevelopmental conditions, obesity, or other chronic diseases.

• Travel includes cases determined to have flown or to have traveled to another state during their transmissible period.

### **Demographics**

The following tables and figures show the demographic characteristics for all COVID-19 cases in 2021. Each table in this section shows case counts, case rates, and indicators of severity. The figures show cases over time, and by week or month of onset; and the tables breakdown trends by sex, age, race, and ethnicity. Cases are displayed using the date on which the case became known to public health.

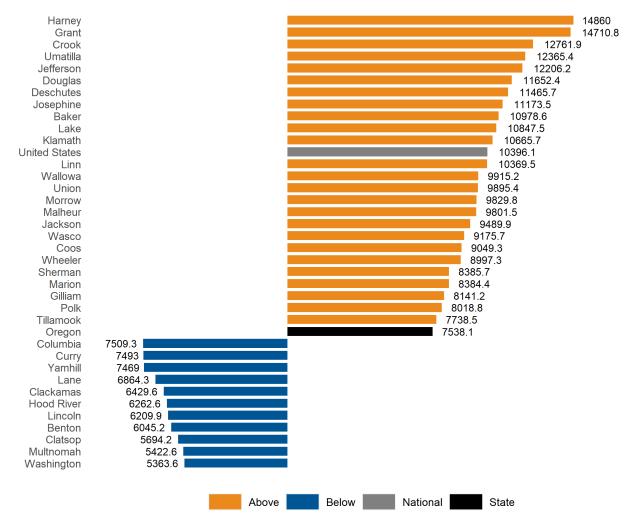
#### Geography

The following figures show case rates by county in 2021. Figure 10 displays case rates by county of residence, in comparison to the case rate for all of Oregon, while Figure 11 maps these case rates by county across Oregon.

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#### Figure 10. COVID-19 case rates (cases per 100,000) in 2021, by county



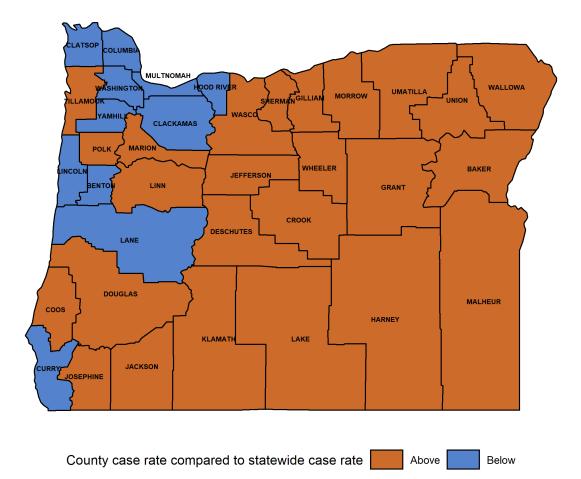
This horizontal bar graph displays case rates (per 100,000 population) by county in Oregon during 2021. Counties that had case rates above the case rate for the state are displayed in orange. Counties that had case rates below the case rate for the state are displayed in blue. Harney and Grant counties had the highest case rates of counties in the state in 2021, while Clatsop, Multnomah and Washington counties had the lowest case rates in 2021. The state average was 7,538 cases per 100,000 during the year, while the national average was 10,396 cases per 100,000 during the year.

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This map serves as an alternative representation of the data in Figure 10 and visualizes case rates by county in relation to the statewide case rate (7,538 cases per 100,000 population) in 2021. Counties that had case rates above that of the state are displayed in orange, while counties below the statewide case rate are displayed in blue. In general, counties in Eastern and Southern Oregon were more likely to have had 2021 case rates above the statewide case rate, while some of the most populated counties in Oregon (including Multnomah, Lane, Washington) had case rates below the statewide case rate.



#### Sex

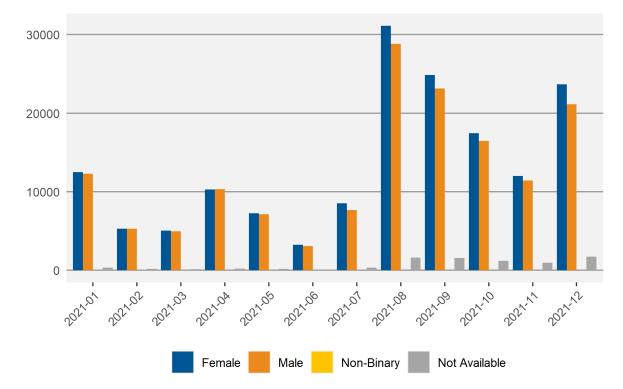
#### Table 1. Severity and rates of COVID-19 in 2021, by sex

Sex	Cases	% of total cases	Cases per 100,000	Hospitalized	% Hospitalized	Deaths	Case fatality
Female	161,289	50.1	7,496.4	7,434	4.6	1,797	1.1
Male	151,744	47.2	7,174.4	8,236	5.4	2,338	1.5
Non-Binary	39	0.0		0	0.0	0	0.0
Not Available	8,548	2.7		125	1.5	29	0.3
Total	321,620	100.0	7,538.1	15,795	4.9	4,164	1.3

Rates are calculated using population estimates from the 2021 Annual Population Report from Portland State University's College of Urban & Public Affairs Population Research Center and 2020 housing and demographic data from the U.S. Census Bureau's American Community Survey (ACS).

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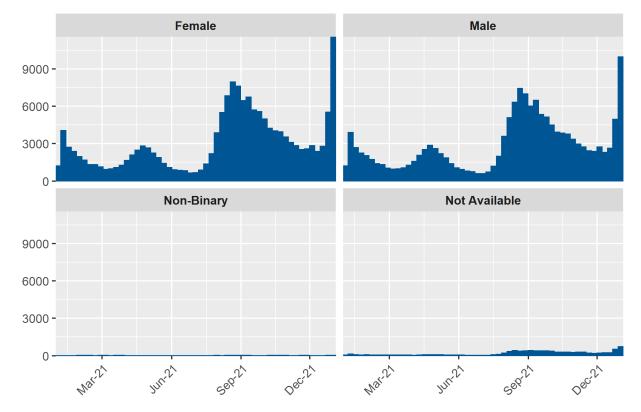


#### Figure 12. COVID-19 cases in 2021, by sex and month of onset

In this side-by-side bar graph, case counts by sex are displayed at each month in 2021. The peaks and dips in case counts generally align across sex throughout the year.

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#### Figure 13. COVID-19 cases in 2021, by sex and week of onset

In this paneled bar graph, COVID-19 case counts by sex are displayed over time in 2021. Each panel corresponds with a different sex. The peaks and dips in case counts across sex generally align throughout the year. More detailed information on case counts and rates by sex are available at:

https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVI D-19CaseDemographicsandDiseaseSeverityStatewide/DemographicDataHosp.

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#### Age

#### Table 2. Severity and rates of COVID-19 in 2021, by age

Age group	Cases	% of total cases	Cases per 100,000	Hospitalized	% Hospitalized	Deaths	Case fatality
0-9	24,092	7.5	5,168.9	207	0.9	3	0.0
10-19	41,379	12.9	8,404.8	290	0.7	2	0.0
20-29	60,474	18.8	10,757.4	921	1.5	28	0.0
30-39	57,044	17.7	9,365.5	1,334	2.3	83	0.1
40-49	46,564	14.5	8,514.6	1,739	3.7	226	0.5
50-59	38,308	11.9	7,454.0	2,534	6.6	469	1.2
60-69	28,430	8.8	5,408.0	3,386	11.9	890	3.1
70-79	16,178	5.0	4,368.5	3,015	18.6	1,024	6.3
80+	8,491	2.6	4,714.0	2,364	27.8	1,439	16.9
Not Available	660	0.2		5	0.8	0	0.0
Total	321,620	100.0	7,538.1	15,795	4.9	4,164	1.3

Rates are calculated using population estimates from the 2021 Annual Population Report from Portland State University's College of Urban & Public Affairs Population Research Center and 2020 housing and demographic data from the U.S. Census Bureau's American Community Survey (ACS).

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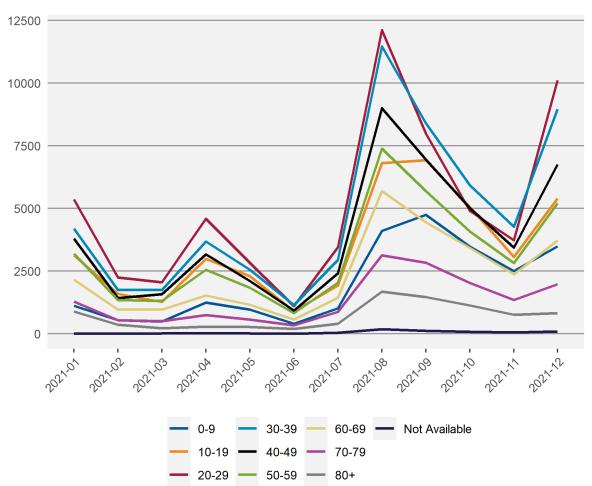
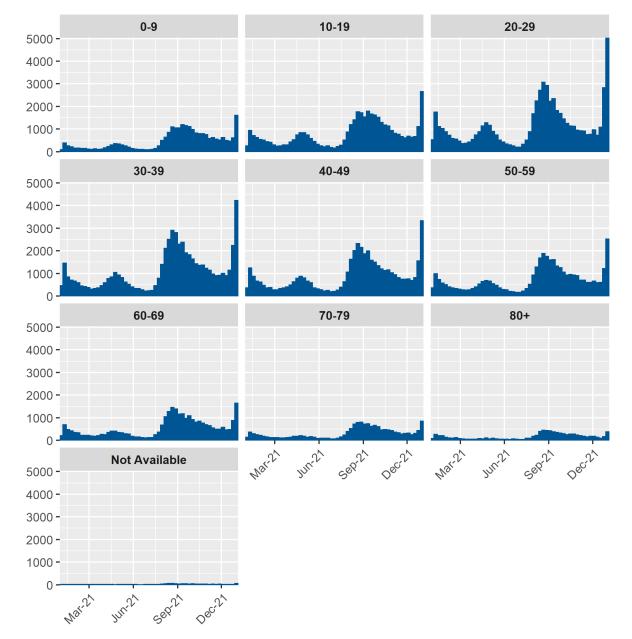


Figure 14. COVID-19 cases in 2021, by age and month of onset

In this line graph, case counts by age group are displayed over time in 2021. The peaks and dips in case counts for each age group generally align throughout the year.

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#### Figure 15. COVID-19 cases (counts) in 2021, by age and week of onset

In this paneled bar graph, COVID-19 case counts by age group are displayed over time in 2021. Each panel corresponds with a different age group. The peaks and dips in case

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counts across age group generally align throughout the year, while cumulative case counts were highest in ages 20-29 and 30-39.

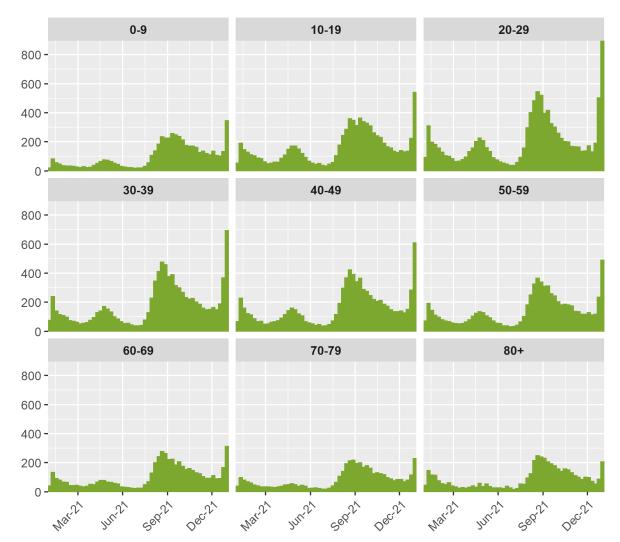


Figure 16. COVID-19 case rates (cases per 100,000) in 2021, by age and week of onset

In this paneled bar graph, COVID-19 case rates per 100,000 by age group are displayed over time in 2021. Each panel corresponds with a different age group. The peaks and dips in case rates across age group generally align throughout the year, while 20-29 year old individuals had the highest case rate of any age group throughout

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the year. More detailed information on case counts and rates by age are available at: <u>https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVI</u>D-19CaseDemographicsandDiseaseSeverityStatewide/DemographicDataHosp.

#### Race

#### % of total **Cases per** Case Hospitalized % Hospitalized Race Cases Deaths 100.000 cases fatality > 1 race 4.210 1.3 1,597.4 211 5.0 50 1.2 American Indian/Alaska 4,646 1.4 9,954.9 272 5.9 58 1.2 Native 3,303.4 Asian 2.0 274 4.3 53 6,338 0.8 Black 7,185 2.2 8,889.3 490 6.8 72 1.0 Not Available 26.92.5 86,588 2.194 877 1.0 Other 29,387 9.1 1,446 4.9 253 0.9 Pacific Islander 7,106.9 7.2 1,194 0.4 86 10 0.8 White 5.9 182,072 56.6 5,167.2 10,822 2,791 1.5 4,164 Total 321,620 100.0 7,538.1 15,795 4.9 1.3

#### Table 3. Severity and rates of COVID-19 in 2021, by race

During the case investigation, people are asked to self-report their race, ethnicity, Tribal affiliation, country of origin, or ancestry. Rates are calculated using population estimates from the 2021 Annual Population Report from Portland State University's College of Urban & Public Affairs Population Research Center and 2020 housing and demographic data from the U.S. Census Bureau's American Community Survey (ACS).

Persons for whom race information was not available were not included in these estimates. The number of persons with race data unavailable can be found in Table 3. 18,226 (62%) of the 29,387 persons who identify as "Other" race also self-identify as Hispanic or Latino/a/x.

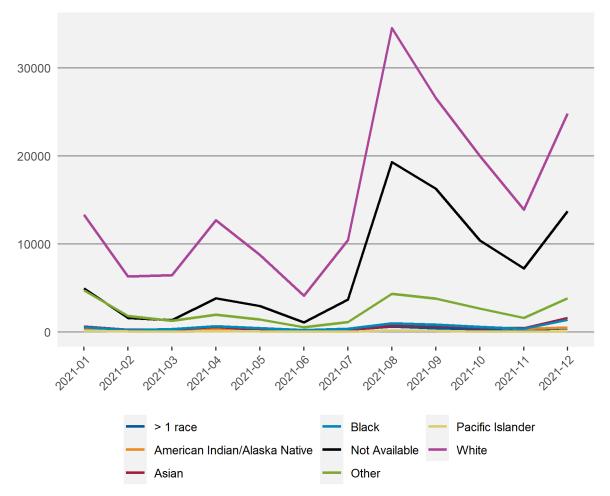
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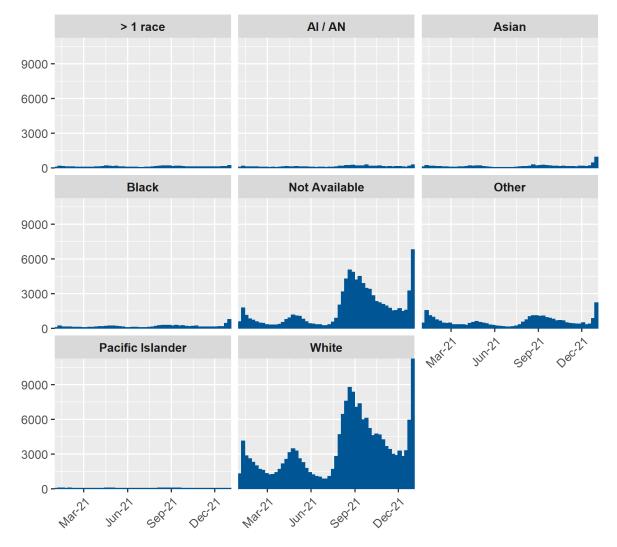




This line graph displays case counts by race during each month in 2021. The peaks and dips in case counts generally align across race throughout the year.

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#### Figure 18. COVID-19 cases (counts) in 2021, by race and week of onset

In this paneled bar graph, COVID-19 case counts by race are displayed over time in 2021. Each panel corresponds with a different race. The peaks and dips in case counts across race generally align at specific time points throughout the year.

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Health

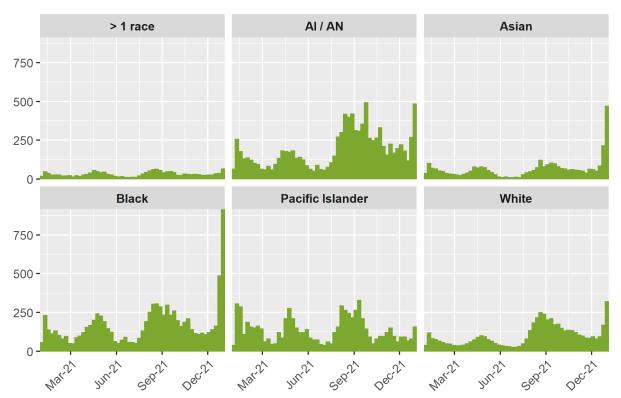


Figure 19. COVID-19 case rates (cases per 100,000) in 2021, by race and week of onset

In this paneled bar graph, COVID-19 case rates per 100,000 by race are displayed over time in 2021. Each panel corresponds with a different race. The peaks and dips in case rates across race generally align throughout the year. Native Hawaiian or Pacific Islander persons, Black, African and African American persons, and American Indian or Alaska Native persons experienced higher case rates of COVID-19 than did White persons and Asian or Asian American persons throughout most of 2021. These health disparities by race can be linked to systemic and structural racism in Oregon. More detailed information on case counts and rates by race are available at: <a href="https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVID-19CaseDemographicSandDiseaseSeverityStatewide/DemographicDataHosp">https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVID-19</a>

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#### Ethnicity

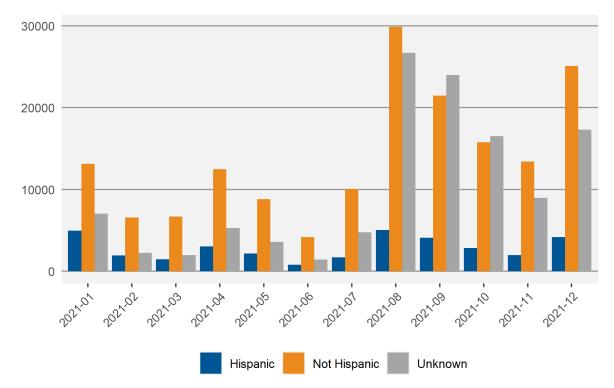
#### Table 4. Severity and rates of COVID-19 in 2021, by ethnicity

Ethnicity	Cases	% of total cases	Cases per 100,000	Hospitalized	% Hospitalized	Deaths	Case fatality rate
Hispanic	34,247	10.6	6,069.8	1,370	4.0	181	0.5
Not Hispanic	167,557	52.1	4,525.6	9,932	5.9	2,490	1.5
Unknown	119,816	37.3		4,493	3.7	1,493	1.2
Total	321,620	100.0	7,538.1	15,795	4.9	4,164	1.3

Rates are calculated using population estimates from the 2021 Annual Population Report from Portland State University's College of Urban & Public Affairs Population Research Center and 2020 housing and demographic data from the U.S. Census Bureau's American Community Survey (ACS).

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#### Figure 20. COVID-19 cases in 2021, by ethnicity and month of onset

In this side-by-side bar graph, case counts by ethnicity are displayed for each month of 2021. The peaks and dips in case counts generally align across ethnicity throughout the year. Beginning in late summer 2021, the proportion of cases with unknown ethnicity status increased, likely due to strain on public health departments completing case investigations during the surge in cases. Please see Figure 22 for a comparison of case rates by ethnicity, and Table 6 for age-adjusted rate ratios by ethnicity.

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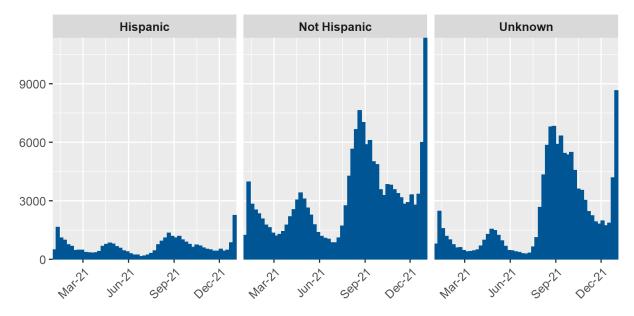


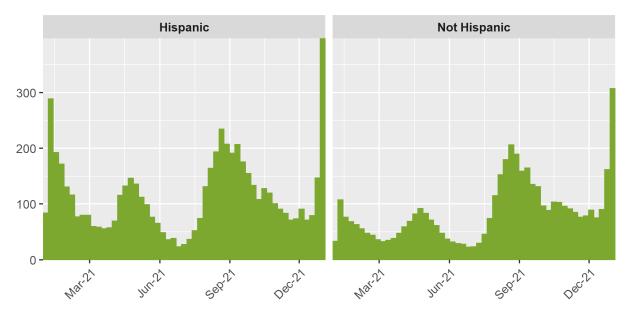
Figure 21. COVID-19 cases (counts) in 2021, by ethnicity and week of onset

In this paneled bar graph, COVID-19 case counts by ethnicity are displayed over time in 2021. Each panel corresponds with a different ethnicity. The peaks and dips in case counts across ethnicity generally align throughout the year. Please see Figure 22 for case rates by ethnicity status, and Table 6 for a comparison of risk by ethnicity.

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Figure 22. COVID-19 case rates (cases per 100,000) in 2021, by ethnicity and week of onset



In this paneled bar graph, COVID-19 case rates per 100,000 by ethnicity are displayed over time in 2021. Each panel corresponds with a different ethnicity. Hispanic or Latino/a/x persons experienced higher case rates of COVID-19 than did non-Hispanic or Latino/a/x persons throughout the year, which reflects health inequities linked to systemic racism. These disparities are further reflected in Table 6, which reports age-adjusted rate ratios by ethnicity. More detailed information on case counts and rates by ethnicity are available at:

https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVI D-19CaseDemographicsandDiseaseSeverityStatewide/DemographicDataHosp.

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#### Age adjustment

Tables 5 and 6 show the ratio of age-adjusted rates of COVID-19 cases, hospitalizations, and deaths by race and ethnicity in 2021. Each table shows the rates of cases, hospitalizations, and deaths by each group relative to a reference group and accounts for differences in age distributions in each group.

Age-adjusted rate ratios in Table 5 show that American Indian or Alaska native persons were nearly two times as likely to become a COVID-19 case compared to White persons, while being more than two times as likely to be hospitalized or die with COVID-19. Black, African and African American persons were nearly twice as likely to become a COVID-19 case relative to White persons, while being nearly three times as likely to be hospitalized with COVID-19, and twice as likely to die with COVID-19. Native Hawaiian or Pacific Islander Persons also experienced disproportionately high rate ratios of cases (1.3), hospitalizations (2.6), and deaths (1.6) in comparison with White persons.

In Table 6, age-adjusted rate ratios show that Hispanic persons were more likely to become a COVID-19 case relative to non-Hispanic persons. Of all cases, Hispanic persons were more than 1.5 times as likely to be hospitalized than White persons, and 1.3 times more likely to die with COVID-19. Collectively, Table 5 and Table 6 illustrate health inequities attributed to systemic and institutional racism.

### Table 5. Ratio of age-adjusted rates for cases, hospitalizations, and deaths in 2021 by race

Race	Cases	Hospitalizations	Deaths
> 1 race	0.4	0.7	0.9
American Indian/Alaska Native	1.8	2.2	2.2
Asian	0.6	0.6	0.5
Black	1.6	2.7	2.0

Age-adjusted rate ratios of cases, hospitalizations, and deaths, compared to White persons.

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Race	Cases	Hospitalizations	Deaths
Pacific Islander	1.3	2.6	1.6
White	1.0	1.0	1.0

During the case investigation, people are asked to self-report their race, ethnicity, tribal affiliation, country of origin, or ancestry. Population denominators are from the U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates. Persons for whom race information was not available were not included in these estimates. The number of persons with race data unavailable can be found in Table 3.

### Table 6. Ratio of age-adjusted rates for cases, hospitalizations, and deaths in 2021 by ethnicity

Age-adjusted rate ratios of cases, hospitalizations, and deaths among Hispanic persons, relative to those among non-Hispanic persons.

Ethnicity	Cases	Hospitalizations	Deaths
Hispanic	1.2	1.5	1.3
Non-Hispanic	1.0	1.0	1.0

During the case investigation, people are asked to self-report their race, ethnicity, tribal affiliation, country of origin, or ancestry. Population denominators are from the U.S. Census Bureau's 2020 American Community Survey 5-Year Estimates. Persons for whom ethnicity information was not available were not included in these estimates. The number of persons with ethnicity data unavailable can be found in Table 4.

#### **People with Intellectual and Developmental Disabilities**

OHA is aware of 1,612 COVID-19 cases reported among people with intellectual or developmental disabilities in 2021. This includes individuals who lived in congregate settings and in family or individual homes. In 2021, there were 29 COVID-19-associated deaths reported among people with intellectual or developmental disabilities. These deaths were identified through matching the Oregon Department of Human Services (ODHS) Office of Developmental Disabilities Services (ODDS) client list and the Oregon COVID-19 case database.

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Additional information about the ODDS program and COVID-19 can be found here: https://www.oregon.gov/dhs/SENIORS-DISABILITIES/DD/ODDS%20Resource%20Library/ODDS-Residential-COVID-19-Report.pdf.

ODDS data is based on self-reports from providers and case management entities and therefore may differ from testing data received from the Oregon Health Authority.

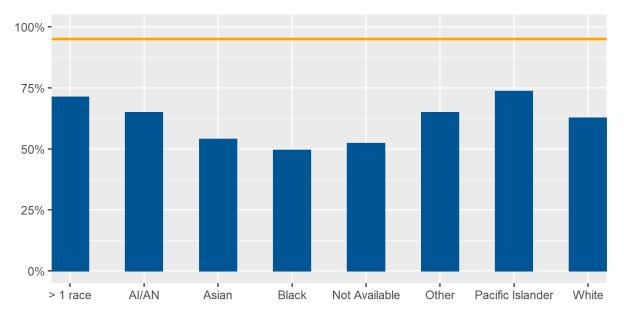
#### **Follow-up**

Figure 23 shows the percentage of cases that were called (followed up) within 24 hours of being reported to public health by race. Figure 24 shows the percentage of cases that were called within 24 hours of being reported to public health by ethnicity. Figure 25 shows the percentage of cases that were interviewed, by race. Figure 26 shows the percentage of cases that were interviewed, by ethnicity. Race and ethnicity data are collected when cases are interviewed. Race and ethnicity data for cases that were not interviewed are abstracted from laboratory reports and medical records if they are available. The orange line in Figures 23 and 24 represents the state metric for timely follow-up for all cases: 95%.

The percentage of cases in which timely follow-up was made along with the percentage of all cases interviewed declined from 2020. This can likely be attributed to the Delta surge putting immense strain on state and local public health resources starting in August 2021. At this time, case investigators prioritized cases in high-risk facilities and a large proportion of overall cases were not interviewed.

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#### Figure 23. Follow up attempted within 24 hours in 2021, % by race

This bar graph displays the percentage of cases which local public health attempted to call within 24 hours of being reported, by race. The orange line represents the state metric for timely follow-up for all cases: 95%. The state metric was not achieved for any racial group within the state of Oregon in 2021, and follow-up percentage decreased for all racial groups relative to 2020 – likely due to the Delta surge placing strain on public health resources.

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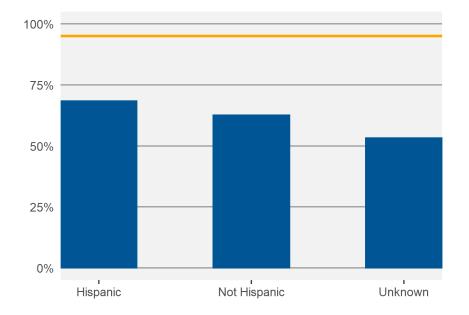


Figure 24. Follow up attempted within 24 hours in 2021, % by ethnicity

This bar graph displays the percentage of cases which local public health attempted to call within 24 hours of being reported, by ethnicity. The orange line represents the state metric for timely follow-up for all cases: 95%. The state metric was not achieved for any ethnic group within the state of Oregon, though follow-up was similar for Hispanic and non-Hispanic populations. Follow-up percentage declined from 2020, likely due to the Delta surge placing strain on public health resources.

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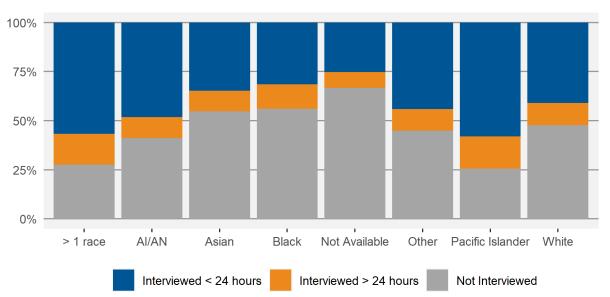


Figure 25. Cases interviewed in 2021, by race

This stacked bar graph displays the percentage of cases that were interviewed within 24 hours of being reported to public health, by race. The percentage of cases that were interviewed within 24 hours of reporting to public health was relatively consistent across race in 2021, though the overall percentage of cases declined from 2020.

Data are provisional and subject to change.

Pregon

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Health

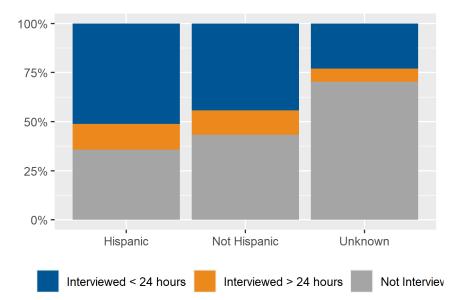


Figure 26. Cases interviewed in 2021, by ethnicity

This stacked bar graph displays the percentage of cases that were interviewed within 24 hours of being reported to public health, by ethnicity. The percentage of cases that were interviewed within 24 hours of reporting to public health was slightly higher in Hispanic populations relative to non-Hispanic populations in 2021, though the overall percentage of cases interviewed declined from 2020.

**Document accessibility:** For individuals with disabilities or individuals who speak a language other than English, OHA can provide information in alternate formats such as translations, large print, or braille. Contact the Health Information Center at 1-971-673-2411, 711 TTY or COVID19.LanguageAccess@dhsoha.state.or.us.