COVID-19 Surveillance Summary

Carson City

December 19, 2021 – January 1, 2022

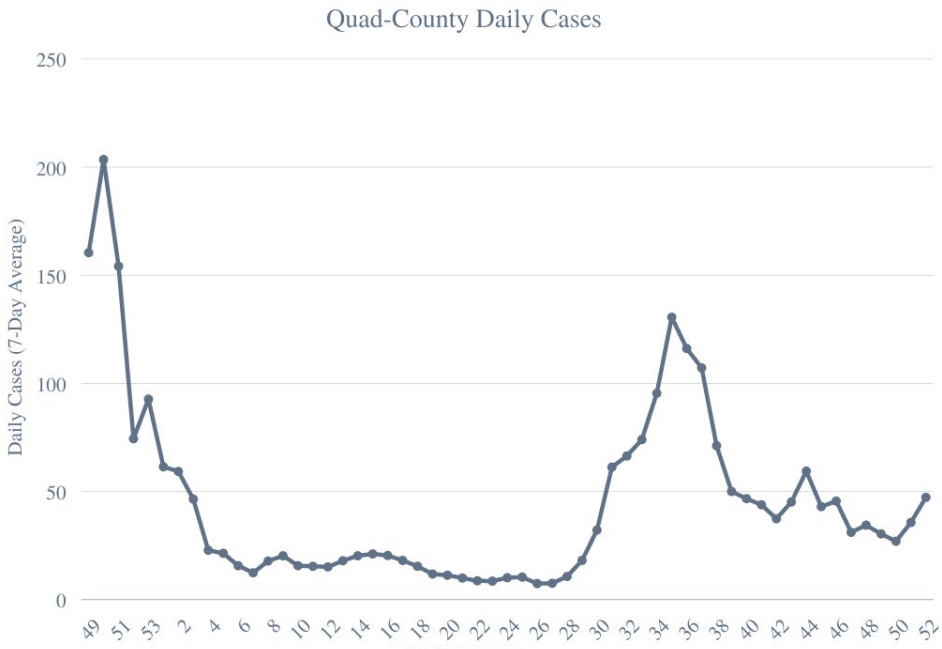
Contact Tracing and Disease Investigation Update

Beginning on August 8, 2021 Carson City Health and Human Services COVID-19 Disease Investigation Team began prioritizing pediatric and school staff associated cases to assist schools in their role in providing safe environment for students and staff. From December 19, 2021 – January 1, 2022, the Carson City Health and Human Services COVID-19 Disease Investigation Team was able to attempt contact with sixty-five percent of school associated cases within twenty-four hours. Additionally, they were able to attempt contact with sixty-five percent of all cases in the two-week period within twenty-four hours and successfully contacted forty-four percent. The Investigation Team continues to utilize the more expanded investigation to collect information such as symptomology, medical history, and refocused exposure questions. As always, the information reported here is based on preliminary laboratory findings and completed survey investigations and does not necessarily represent all cases during this two-week period.

CCHHS continues to partner with the Nevada Resilience Project, who reaches out to cases, close contacts, and other members of the community impacted by COVID-19 that were identified as having challenges associated with the pandemic including, but not limited to, managing work or school, social isolation, mental health, and resource navigation. During this two-week period, the Resilience Ambassadors identified thirteen individuals, families, or organizational groups that could benefit from their services and have done several community events.

Quad-County Area Demographics

Across the Quad-County area (Carson City, Douglas, Lyon, and Storey Counties), there were 581 new COVID-19 cases in the two-week period from December 19, 2021 – January 1, 2022. This is a thirty-two percent increase from the previously reported two-week period. The daily cases reported, based on a seven-day average, over this two-week period was forty-one (Graph 1). This indicates that, on average, there have been forty-one new cases each day throughout the Quad-County area.



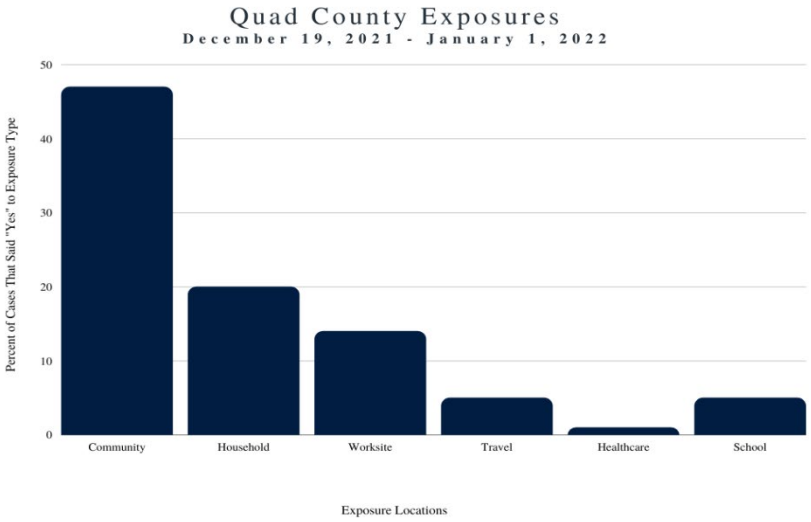
Graph 1: 7-day Average per Week

Oftentimes, lab reports are received with incomplete data and our survey data is on a delay. As such, the following demographic data has a significant percentage of unknown or missing information. The average age across all counties was forty-three years old with a range of less than one years old to ninety-six

years old. Of the cases that reported their gender, fifty-five percent of cases were female, forty-five percent were male. Of the cases that reported their race, eighty-three percent were reported as White, eight percent of cases reported as other, two percent reported American Indian or Alaskan Native, less than one percent reported as Native Hawaiian or other Pacific Islander, one percent reported Black or African American, and two percent reported Asian. Of those who reported their ethnicity, eighty-five percent reported as Non-Hispanic or Latino/a, fourteen percent reported as Hispanic or Latino/a, and one percent preferred not to answer. There were twelve known hospitalization across all counties during this two-week period. This is a thirty-three percent decrease from the previous two-week period. According to the Nevada Hospital Association report on December 21, 2021, hospitalizations have plateaued in Northern Nevada. There were two COVID-19 related deaths across the four counties. Morbidity data is often delayed, so this number only represents the data that has been made available for this two-week period.

Quad-County Area Exposure

Among cases with complete information, the most common, known COVID-19 exposures were community and household (Graph 2). Cases can have more than one exposure. The information on the graph and below indicates the percentage of cases that said "yes" to each question, independently. Forty-seven percent of cases had related community exposure. This can be family gatherings, weddings, funerals, birthday parties, political events, or any other similar activity. Community exposure, as defined by the state, also refers to individuals that did not know where they were exposed. Twenty percent of cases had an exposure with someone that tested positive within their household.



Graph 2: Case Exposures

Quad-County Area Schools

Carson City, Douglas County, and Lyon County school districts are using the Abbott BinaxNOW, a rapid antigen test that detects a specific viral antigen for the virus that causes COVID-19. In alignment with the CDC guidance, schools are utilizing the BinaxNOW for faculty and students to quickly isolate positive individuals and end quarantine for close contacts after seven days. School cases represented in this report are PCR, molecular positive cases, the Abbott BinaxNOW test, and other FDA approved antigen tests.

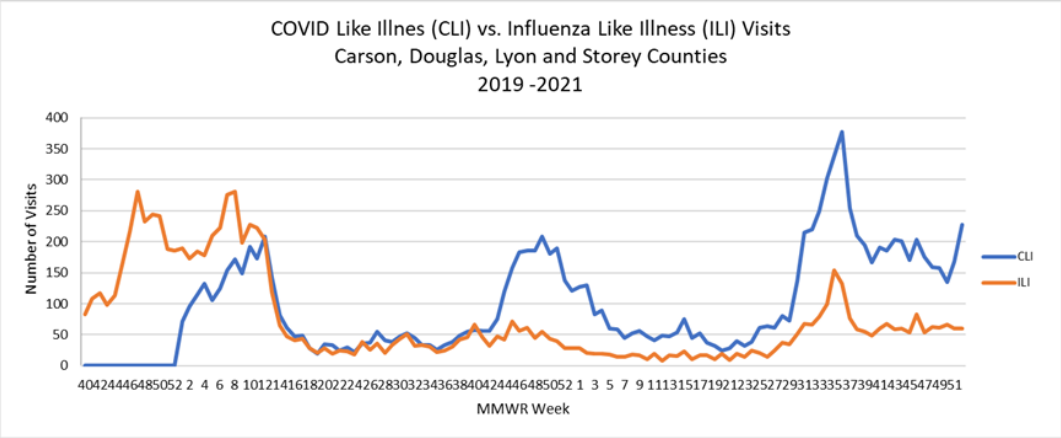
There were 26 student case investigations completed from December 19, 2021 – January 1, 2022. Of these student cases, thirty-seven percent attended school during their infectious period. There were also eight school faculty cases who tested positive for COVID-19. Of these faculty cases, thirty-eight percent attended school while infectious. Our school biostatistician works closely with schools to help with contact tracing, case surveillance, and the implementation of mitigation strategies.

COVID-19 Variants of Concern

The Nevada State Public Health Laboratory (NSPHL) conducts genome sequencing from a sample of confirmed COVID-19 cases as part of disease surveillance which helps identify new and emerging variants. The emergence of new variants is a natural occurrence in infectious diseases. According to the CDC, there are currently two COVID-19 variants of concern across the United States. Knowledge of emerging SARS-CoV-2 variants is quickly evolving, however there is evidence indicating that these variants are more transmissible. According to the Nevada State Public Health Lab, 73.9% of all the samples sequences in Nevada are variants of

concern with the most prevalent SARS-CoV-2 variant being the Delta variant also known as B.1.617.2. The World Health Organization declared the Omicron (B.1.1.529) a variant of concern on November 26, 2021. The Quad-County reported two Omicron variant cases from December 19, 2021 – January 1, 2022. Data is often delayed due to the sequencing processes. Additionally, sequencing is conducted using only samples submitted to the NSPHL, which may not always include commercial laboratory samples and does not include Abbott BinaxNOW tests or other rapid antigen tests.

Quad-County COVID-19 Syndromic Surveillance



CCHHS utilizes the Nevada ESSENCE system for syndromic surveillance. Syndromic surveillance provides public health officials with a timely system for detecting, understanding, and monitoring health events. By tracking symptoms of patients in emergency departments and urgent cares—before a diagnosis is confirmed—public health can detect unusual levels of illness to determine whether a response is warranted. Syndromic data can serve as an early warning system for public health concerns such as flu outbreaks and other infectious disease such as COVID-19. The following CDC syndromic surveillance definitions (CLI CC with CLI DD and Coronavirus DD v1 and ILI) were plotted (Graph 3). For MMWR weeks 51 and 52, the Quad Counties are seeing an increase in COVID like Illness (CLI) and a plateau in Influenza like Illness (ILI) in emergency departments compared to previous weeks.

Quad-County Vaccinations

According to the Nevada State COVID-19 Dashboard, approximately fifty-two percent of Quad County residents are fully vaccinated as of December 29, 2021. Carson City Health and Human Services continues to work with community stakeholders on vaccination outreach to increase vaccination rates among the community.

Quad-County Breakthrough Cases

Vaccine breakthrough cases are U.S. residents with a SARS-CoV2 RNA or antigen detected in a respiratory specimen collected greater than or equal 14 to days after they have completed all recommended doses of an FDA authorized COVID-19 vaccine. A complete vaccination is two doses of the Pfizer or Moderna vaccine or one dose of the Johnson and Johnson (Janssen) vaccine. As of December 7, 2021, Quad County residents between the ages of 5-11 are eligible to be counted as a breakthrough case. This age group has been included in the breakthrough numbers as of December 7, 2021. Breakthrough cases make up of seventeen percent of all reported cases since February 1. Since February 1, 2021, the overall vaccinated case rate for the Quad County region ages 5 years and older is 20 per 1k population. Since February 1, 2021, the overall unvaccinated case rate for the Quad County region, for ages 5 years and older, is approximately 127 out of 1k. This means that in the Quad-County region, the rate for unvaccinated people among those 5 years and older is 6 times that of fully vaccinated people 5 years and older. It is important to note that no vaccine is 100 percent effective at preventing illness but proves to be highly effective at protecting people against severe illness and death. As the number of fully vaccinated people increases and community transmission increase, breakthrough cases are expected rise. Getting vaccinated is the best way to protect yourself and slow the spread of COVID-19.

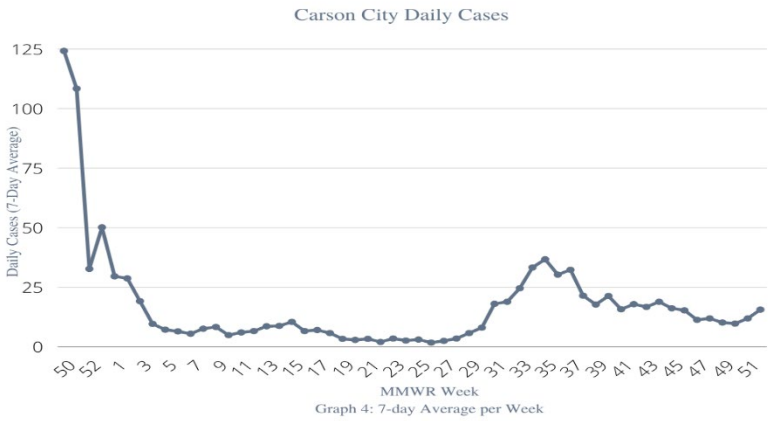
Carson City Surveillance Summary

From December 19, 2021 – January 1, 2022, there were 192 confirmed cases reported in Carson City. This represents approximately thirty-three percent of all Quad-County cases during this two-week period and is a twenty-seven percent increase from the previous two-week period. The zip code in Carson City that reported the highest number of cases during this two-week period was zip code 89701 (Table 1).

Zip Code	Cases Reported
89701	86
89702	4
89703	39
89705	2
89706	61

Table 1. Carson City cases by zip code

The daily cases reported, based on a seven-day average, over this two-week period was thirteen. This indicates that, on average, there have been thirteen new cases each day throughout Carson City. Carson City is beginning to see a slight increase in the average number of cases reported each week (Graph 4). Fifty-five percent of cases were female, and forty-five percent were male. The average age of Carson City cases was forty-one years old.



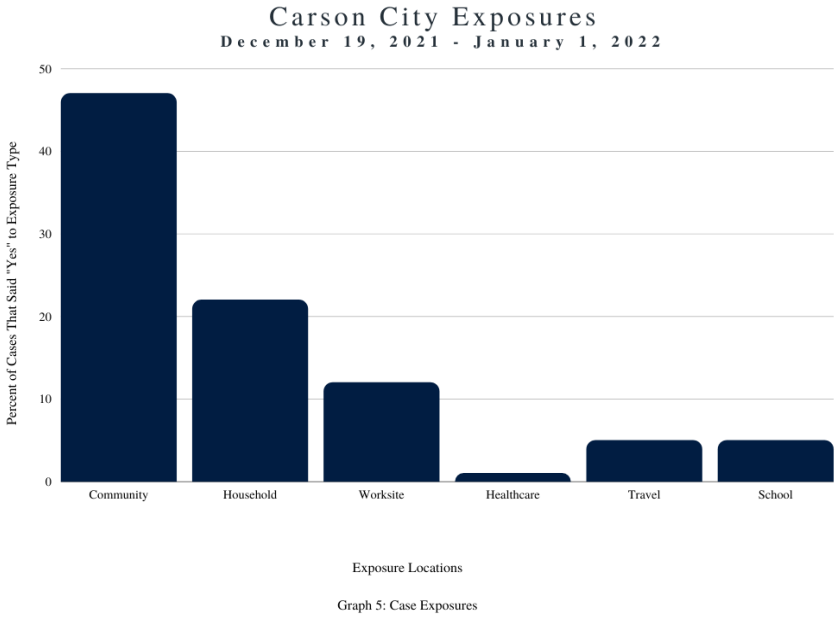
Graph 4: 7-day Average per Week

Carson City Schools

There were ten student case investigations completed from December 19, 2021 – January 1, 2022. Of these student cases, forty percent attended school while infectious. Additionally, there were three school faculty members that tested positive for COVID-19 and sixty-seven percent attended while infectious.

Carson City Exposure

Of those with known exposures, forty-seven percent were exposed in the community and twenty-two percent were exposed to someone in their household that had tested positive for COVID-19. The graph shows more information on Carson City exposures (Graph 5). Just as above, exposure questions are independent, meaning an individual can answer "yes" to more than one exposure type.



Graph 5: Case Exposures

CCHHS's COVID-19 Epidemiologist is working closely with the state and the facilities to track the transmission and ensure mitigation efforts are in place. Transmission trends are challenging to track or predict.

Carson City Vaccinations

According to the Nevada State COVID-19 Dashboard, approximately fifty-nine percent of Carson City residents are fully vaccinated as of December 29, 2021. Carson City Health and Human Services continues to work with community stakeholders on vaccination outreach to increase vaccination rates among the community.

Carson City Breakthrough Cases

Carson City represents forty-two percent of the total known breakthrough cases from the Quad County region reported since February 1, 2021. This includes breakthrough cases ages 5-11 since December 7, 2021. The overall vaccinated case rate for ages 5 years and older for Carson City is 22 per 1k population compared to the overall unvaccinated case rate for ages 5 years and older of 146 per 1k. COVID-19 vaccines continue to be highly effective at protecting people against severe illness and death. Getting vaccinated is still the best way to slow the spread of COVID-19.