



COVID-19 Surveillance Summary

Lyon County

December 26, 2021 – January 8, 2022

Contact Tracing and Disease Investigation Update

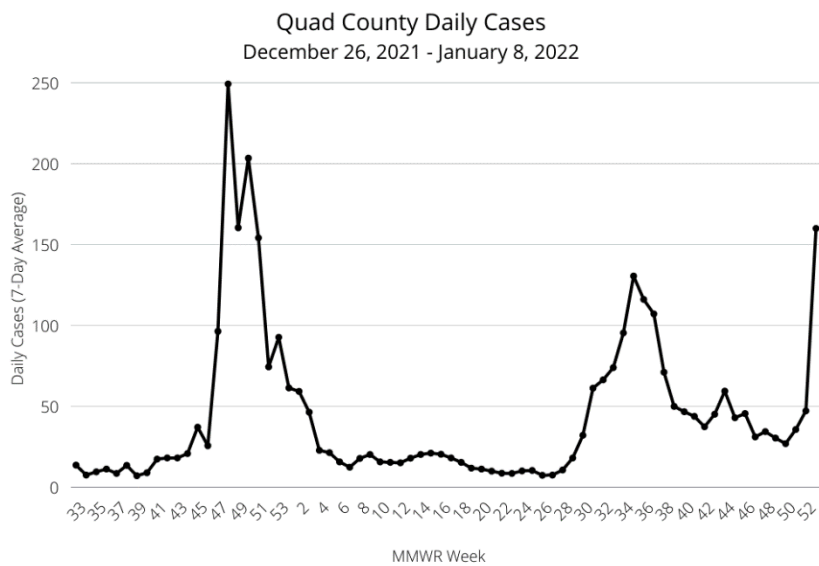
Beginning on August 8, 2021 Carson City Health and Human Services COVID-19 Disease Investigation Team began prioritizing pediatric and school staff associated cases to assist schools in their role in providing safe environment for students and staff. From December 26, 2021 – January 8, 2022, the Carson City Health and Human Services COVID-19 Disease Investigation Team was able to attempt contact with sixty-three percent of school associated cases within twenty-four hours. Additionally, they were able to attempt contact with fifty-four percent of all cases in the two-week period within twenty-four hours and successfully contacted forty-nine 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 eleven 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 1,422 new COVID-19 cases in the two-week period from December 26, 2021 – January 8, 2022. This is a 145% increase from the previously reported two-week period. The daily cases reported, based on a seven-day average, over this two-week period was 101 (Graph 1). This indicates that, on average, there have been 101 new cases each day throughout the Quad-County area.

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-one 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, sixty

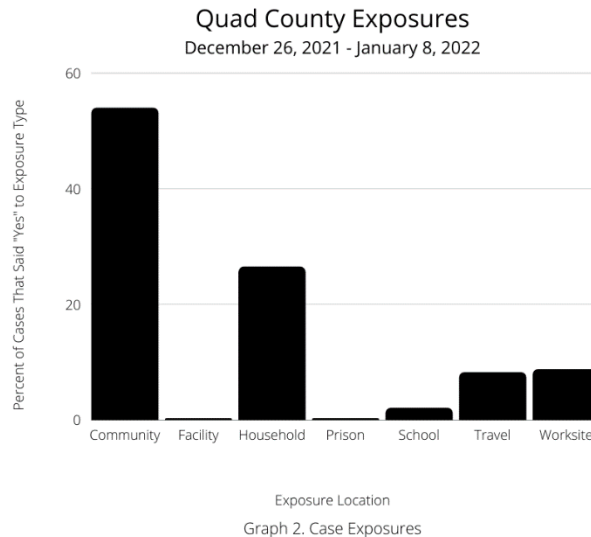


Graph 4: 7-Day Average per Week

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 one percent reported Asian. Of those who reported their ethnicity, sixty-two percent reported as Non-Hispanic or Latino/a, fourteen percent reported as Hispanic or Latino/a, and less than one percent preferred not to answer. There were twenty-one known hospitalization across all counties during this two-week period. This is a seventy-five percent increase from the previous two-week period. According to the Nevada Hospital Association report on January 12, 2022, hospitalizations are increasing in Northern Nevada. There were three 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. Fifty-four 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-six percent of cases had an exposure with someone that tested positive within their household.



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 70 student case investigations completed from December 26, 2021 – January 8, 2022. Of these student cases, twenty-three percent attended school during their infectious period. There were also 17 school faculty cases who tested positive for COVID-19. Of these faculty cases, forty-seven 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

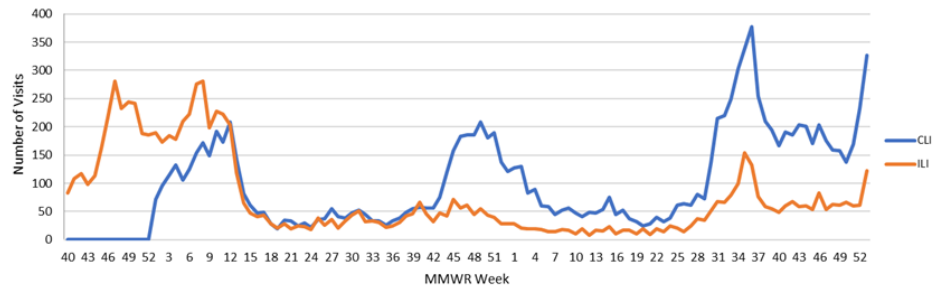
The Nevada State Public Health Laboratory (NSPHL) conducts genome sequencing from a sample of confirmed COVID-19 cases as part of disease surveillance which helps identify new and emerging variants. The emergence of new variants is a natural occurrence in infectious diseases. According to the CDC, there 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 eight Omicron variant cases from December 26, 2021 – January 8, 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

COVID Like Illnes (CLI) vs. Influenza Like Illness (ILI) Visits
Carson, Douglas, Lyon and Storey Counties
2019 -2021



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 52 and 1, the Quad Counties are seeing an increase in both COVID like Illness (CLI) and 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-three percent of Quad County residents are fully vaccinated as of January 3, 2022. 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 nineteen 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 25 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 140 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.

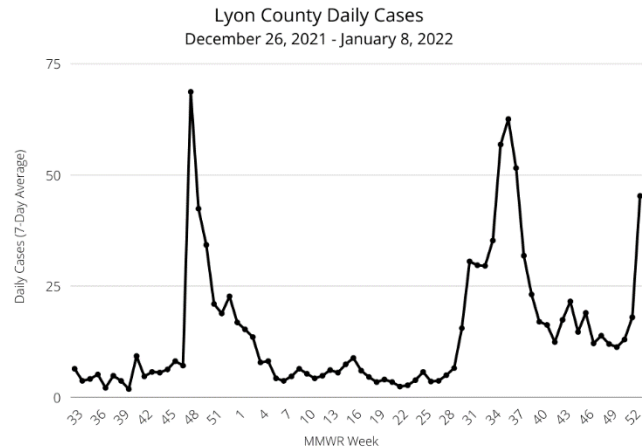
Lyon County Surveillance Summary

From December 26, 2021 – January 8, 2022, there were 430 confirmed cases reported in Lyon County. This represents approximately thirty percent of all Quad-County cases during this two-week period. This is a ninety-eight percent increase from the previous two-week period. The zip code in Lyon County that reported the highest number of cases during this two-week period was zip code 89408 (Table 1).

Zip Code	Case Count
89403	124
89406	2
89408	192
89428	3
89429	35
89430	2
89444	8
89447	55
89706	9

Lyon County Cases by Zip Code

The daily cases reported, based on a seven-day average, over this two-week period was 42. This indicates that, on average, there have been 42 new cases each day throughout Lyon County. Lyon County is seeing an increase in the average number of cases reported each week (Graph 4). Fifty-six of cases were female, and forty-three percent were male. The average age of Lyon County cases was forty-one years old.



Graph 4: 7-Day Average per Week

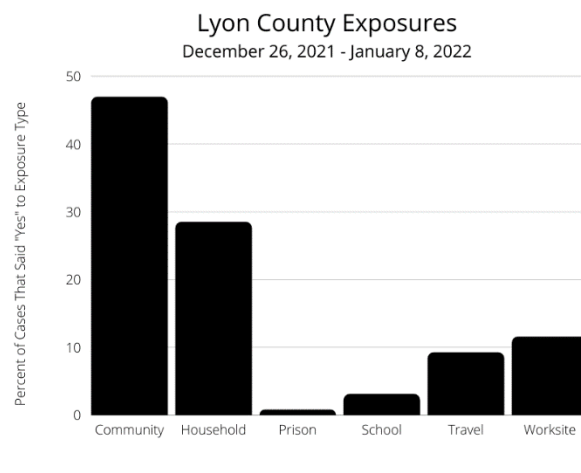
Lyon County Schools

There were 25 student case investigations completed from December 26, 2021 – January 8, 2022. Of these student cases, twenty percent attended school while infectious. Additionally, there were 5 school faculty members that tested positive for COVID-19 and sixty percent attended school while infectious.

Lyon County Exposure

Of those with known exposures, forty-seven percent were exposed in the community and twenty-eight percent of cases were exposed to someone in their household who tested positive. The graph shows more information on Lyon County exposures (Graph 5). Just as above, exposure questions are independent, meaning an individual can answer “yes” to more than one exposure type.

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.



Graph 2: Case Exposures

Lyon County Vaccinations

According to the Nevada State COVID-19 Dashboard, approximately forty-eight percent of Lyon County residents are fully vaccinated as of January 8, 2022. Carson City Health and Human Services continues to work with community stakeholders on vaccination outreach to increase vaccination rates among the community.

Lyon County Breakthrough Cases

Lyon County represents thirty 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 Lyon County is 24 per 1k population compared to the overall unvaccinated case rate for ages 5 years and older of 152 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.