**Contact Tracing and Disease Investigation Update**

Being 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 August 15 – August 28, 2021, the Carson City Health and Human Services COVID-19 Disease Investigation Team was able to attempt contact with sixty percent of school associated cases within twenty-four hours and successfully contacted seventy-one percent. Additionally, they were able to attempt contact twenty-four percent of all cases in the two-week period within twenty-four hours and successfully contacted twenty-five 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 eight 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 1196 new COVID-19 cases in the two-week period from August 15 – August 28, 2021. This is a twenty-three 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 eighty-five (Graph 1). This indicates that, on average, there have been eighty-five 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 thirty-six years old with a range of less than one years old to one hundred years old. Fifty-two percent of cases were female, and forty-eight percent were male. Of the cases that reported their race, eighty-
five percent were reported as White, nine percent of cases were reported as other, three percent reported American Indian or Alaskan Native, less than one percent reported as Native Hawaiian or other Pacific Islander, two percent reported Black or African American, less than one percent Asian. Of those who reported their ethnicity, seventy-seven percent reported as Non-Hispanic or Latino/a, twenty-three percent reported as Hispanic or Latino/a. There were five known hospitalizations across all counties during this two-week period. There was a seventeen percent decrease from the previous two-week period. According to the Nevada Hospital Association report on August 24, 2021, hospitalizations remain stable in Northern Nevada but are increasing in COVID-19 patients. Ventilator use as well as ICU occupancy continues to increase. There was no percent increase from the previous week. There were nine COVID-19 related death 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. Approximately thirty-nine 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. Thirty percent of cases had a exposure with someone that tested positive in the same household, indicating that the transmission occurred within the 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 one hundred and fourteen student case investigations completed from August 15 – August 28, 2021. Of these student cases, sixty-five percent attended school during their infectious period. There were also fourteen school faculty cases who tested positive for COVID-19. Of these faculty cases, fifty 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 four 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 NSPHL, B.1.167.2, also known as the Delta (India.) variant, is the most prevalent SARS-CoV-2 variant among all the samples sequences in Nevada followed by the newly classified variant of concern, B.1.1.7 also known as the Alpha (UK) variant. The Quad-County reported zero B.1.1.7 variant cases and eighty-three B.1.167.2 variant cases from August 15 – August 28, 2021. 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 33 and 34, the Quad Counties continue to see an increase in COVID like Illness (CLI) and Influenza like Illness (ILI) in emergency departments compared to previous weeks and is slightly higher.

Quad-County Vaccinations

According to the Nevada State COVID-19 Dashboard, approximately forty-six percent of Quad County residents are fully vaccinated as of August 24, 2021. Carson City Health and Human Services continues to work with community stakeholders on vaccination outreach to increase vaccination rates among the community.

Douglas County Surveillance Summary

From August 15 – August 28, 2021, there were 322 confirmed cases reported in Douglas County. This represents approximately twenty-seven percent of all Quad-County cases during this two-week period. There was a twenty-seven percent increase from the previous two-week period. The zip code in Douglas County that reported the highest number of cases during this two-week period was zip code 89460 (Table 1).

<table>
<thead>
<tr>
<th>Zip Codes</th>
<th>Cases Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>89410</td>
<td>77</td>
</tr>
<tr>
<td>89411</td>
<td>5</td>
</tr>
<tr>
<td>89413</td>
<td>1</td>
</tr>
<tr>
<td>89423</td>
<td>86</td>
</tr>
<tr>
<td>89444</td>
<td>3</td>
</tr>
<tr>
<td>89448</td>
<td>9</td>
</tr>
<tr>
<td>89449</td>
<td>9</td>
</tr>
<tr>
<td>89460</td>
<td>92</td>
</tr>
<tr>
<td>89705</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 1. Douglas County Cases by Zip Code
The daily cases reported, based on a seven-day average, over this two-week period was twenty-three. This indicates that, on average, there have been twenty-three new cases each day throughout Douglas County. Douglas County has seen an increase in the average number of cases reported each week (Graph 4). Forty-nine percent of cases were female, and fifty-one percent were male. The average age of Douglas County cases was forty-one years old.

**Douglas County Schools**

There were forty student case investigations completed from August 15 – August 28, 2021. Of these student cases eighty-three percent attended school while infectious. There were four school faculty members that tested positive for COVID-19 and fifty percent attended school while infectious.

**Douglas County Exposure**

Of those with known exposures, thirty percent were exposed in the community. Thirty-two percent of cases were exposed during travel. The graph shows more information on Douglas 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.

**Douglas County Vaccinations**

According to the Nevada State COVID-19 Dashboard, approximately forty-seven percent of Douglas County residents are fully vaccinated as of August 24, 2021. Carson City Health and Human Services continues to work with community stakeholders on vaccination outreach to increase vaccination rates among the community.