



STAFF REPORT

Report To: Board of Health **Meeting Date:** October 7, 2021

Staff Contact: Nicki Aaker, Health and Human Services Director

Agenda Title: For Discussion Only: Discussion and presentation on a statistical data analysis of COVID-19 cases in Carson City, Douglas, Lyon and Storey Counties, by Celeste Pierini, BSN, RN, MPH candidate. (Nicki Aaker, NAaker@carson.org)

Staff Summary: Ms. Pierini will present a statistical data analysis of COVID-19 cases in the Nevada quad counties.

Agenda Action: Other / Presentation **Time Requested:** 15 minutes

Proposed Motion

N/A

Board's Strategic Goal

Quality of Life

Previous Action

N/A

Background/Issues & Analysis

The Carson City Health and Human Services Department ("CCHHS") provides internship opportunities for both undergraduate and graduate students. This allows for students studying public health to work on a project that will enhance the skills the individual learns in the classroom. These internships are part of the school curriculum and are required for graduation. CCHHS has provided several internships and has hired a couple of interns. Mrs. Pierini is a part-time employee with CCHHS and, between April 5, 2021 and October 7, 2021, was also a CCHHS intern while working towards a master's degree in Public Health.

At the beginning of the pandemic, Mrs. Pierini worked as a disease investigator and, as she reviewed COVID-19 cases, felt that ethnic disparities were evident. This led to her desire to further explore her theory during the internship. Her statistical data analysis is for the time period of 4/8/2020 through 5/7/2021 and covers 6,214 cases. All identifying client information was deleted and not used as part of the analysis. In addition, a health care and public health qualitative survey was sent to the Carson Medical Group, the Carson City Fire Department, CCHHS, Carson Tahoe Health, the Carson Valley Medical Center Emergency Department and the Douglas County Public Health Nurse. Information from Carson Tahoe Health could not be used in this analysis due to time constraints.

Applicable Statute, Code, Policy, Rule or Regulation

N/A

Financial Information

Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted?

Explanation of Fiscal Impact:

Alternatives

N/A

Attachments:

[C. Pierini Presentation PowerPoint Slides for Board Packet.pdf](#)

Board Action Taken:

Motion: _____ 1) _____
2) _____

Aye/Nay

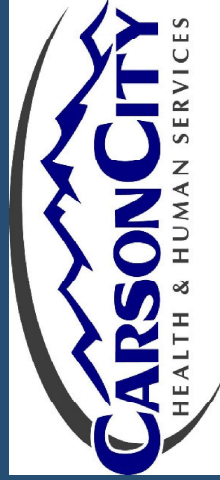
(Vote Recorded By)

COVID-19 and Ethnicity:

Does ethnicity play a role in a higher rate of illness and if so, what are the contributing factors?

A statistical data analysis of the Quad Counties

Presented by:
Celeste Pleirm, RN, BSN, MPH Candidate



Worked as an Investigator/Contact Tracer
Does ethnicity (Hispanic/Latinx) play a role?



My Why

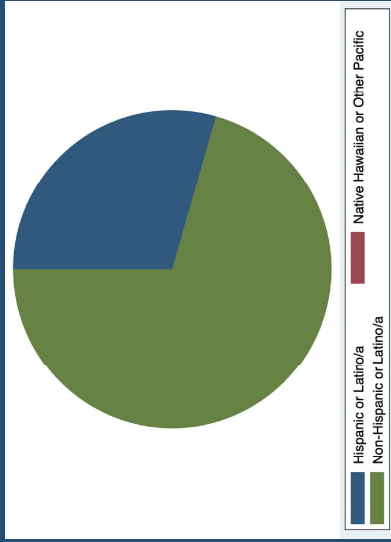
Worked in Acute Care setting
Perhaps ethnicity (Hispanic/Latinx) does play a role?

Data Set contained 6,214 cases

Ethnicity Breakdown for total cases:

- Non-Hispanic: 70.6% (n=4384)
- Hispanic/Latinx: 29.4% (n=1829)
- *Pacific Islander 0.02% (n=1)

*did not analyze further



Severity of Illness - Hospitalized Counts



Total Hospitalizations: 240

Hispanic Cases Hospitalized
56
(3% of all cases)

Non-Hispanic Cases Hospitalized
184
(4.19% of all cases)

Rate of Hospitalization per
100,000 Quad County
Population

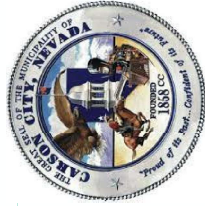
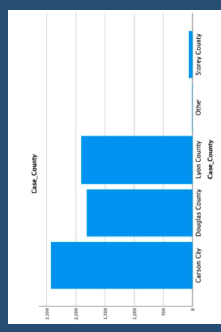
144/100,000

(pop. 166,270)

Location of Cases

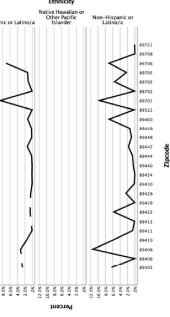
Quad County

- #1 Carson City (38.3%)
- #2 Lyon County (29.8%)
- #3 Douglas County (28.2%)
- #4 Storey County (0.48%)
- *Other* - 2500J



Carson City Findings

37.2% of all cases in NV (as of July 2021) of Hispanic ethnicity
 Hispanic population for Quad County is 30,074 (18.1%)
 Total Hispanic population in Carson City is 24.4%



Nearly 1/3 of Carson City cases of Hispanic ethnicity

Statistical analysis revealed:

- 57% Non-Hispanic
- 43% Hispanic

IMPORTANT - considering the large disparity in overall cases

Source of Infection

TOP 3 :

Community Spread: 40% of all cases

H - 39.8%; NH - 40.1%



Household Spread: 22% of all cases

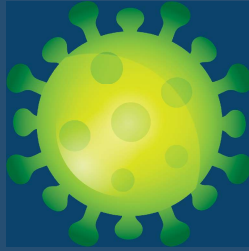
H - 31.1%; NH - 18.3%



Workplace Spread: 8% of all cases

H - 6.8%; NH - 8.5%

"Unknown" Source - 23.5% of cases



Case Location

MOST CASE COUNTS PER COUNTY

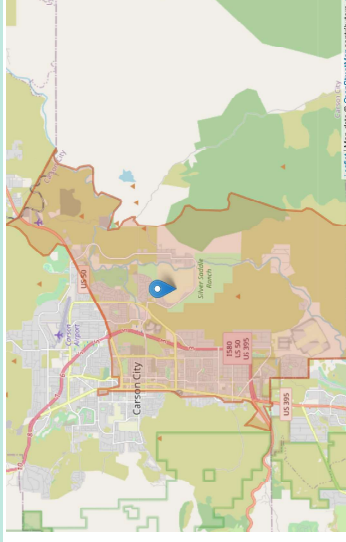
(Limitation: 166 zip codes not recorded - 2.7%)
(25 zip codes not within Quad county jurisdiction (OOJ))

Carson City : 89701
(NNCC 0.6%)

Lyon County : 89408

Douglas County : 89460

Storey County : 89440



Qualitative Survey of Healthcare & Public Health Professionals

Survey Respondents

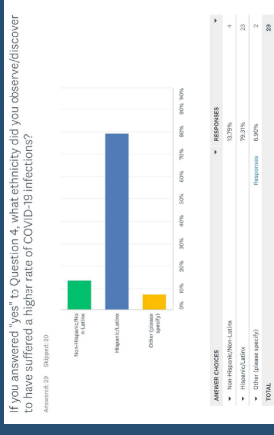
- 53.4% Bedside/Diagnosis/Treatment
- 32.5% Investigations/Quarantine
- 14.1% "Other"
Administration support, testing, appointments, Call Center, scheduling

Ethnic Disparity?

57.14% Yes!
43% No!



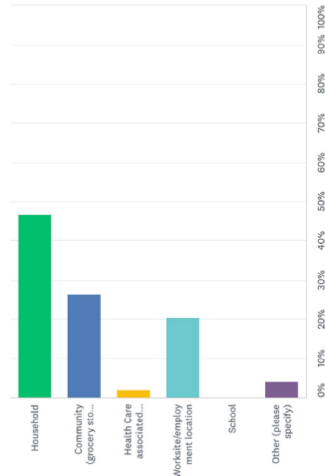
If so, what ethnicity?
79.3% respondents chose Hispanic



Different than statistical findings!
 But... Community and Household source still in Top 2

Please choose the source of infection you believe was most prominent:

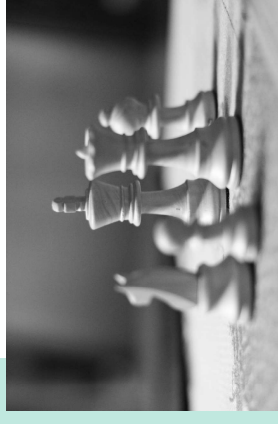
Answered: 49 Skipped: 0



Mitigation Strategies

OVERVIEW OF KEY IDEAS

- Survey Recommendations
- Stakeholder Partnerships
- Chronic Disease Program
- Rural Outreach



- Most Cases - Carson City
- Statistically, Community Spread most common; H vs NH nearly tied
- Household Spread most identified in survey
- Largest ethnic disparity for Household Spread
- No evidence in total case counts but broken down positive findings
- Ethnic disparity among survey respondents



Thank You!

Questions?

(references available upon request)