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Title

REACH Summer: A Case Study For Covid-19 Literacy and Vaccine Hesitancy

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ABSTRACT

REACH (Reimagining Education to Advance central California Health) was established in 2018 and is a continuation of the former SJV Prime program (established in 2011). This Prime program was created to matriculate students with ties to the Central Valley who will train and return to underserved and underrepresented communities in the Valley. Our cohort is made up of seven natives from the Central Valley, ranging from Stockton to Bakersfield. Although we share the same preclinical curriculum with our class, our clinical training will be based in the Central Valley. Of note, we spent 4 weeks in the Central Valley getting hands-on experience.

After finishing our first year, our cohort embarked on clinical, outreach, research, and mentoring efforts in the Modesto and Visalia areas of the Central Valley. This was a student-led effort to create meaningful experiences for us and the communities we met. We want to share our experience in Visalia as we teamed with an Emergency Medicine doctor, Dr. Guzman, and Humana Inc. (a health insurance company) to provide Covid-19 vaccines to a community with a high unvaccinated rate. These efforts are especially noteworthy since we broke down the traveling and language barriers while we provided vaccinations in a Visalia flea market. Our understanding of the needs of the community and our bilingual Spanish skill allowed us to provide community-centered care.

OBJECTIVES

1. To shed light on the impact that Covid-19 has had in the Central Valley and the health disparity it presents.
2. Share a specific REACH cohort experience related to Covid-19 vaccinations in a flea market in Visalia, CA.
3. Discuss the lower Covid-19 vaccination rates and the impact it has on Central Valley health.
4. Highlight the importance of pre-health professionals, medical students, community-based organizations, and health professionals, in understanding the needs of a community to best meet its needs.

Covid-19 Impact in the Central Valley and Tulare County, CA

Covid-19 has hit the Central Valley incredibly hard because of the sensitive population that already exists there. The Social Vulnerability Index (SVI) uses US Census Data to determine relative vulnerability for a given geographic location. Vulnerability is defined by 14 social factors within four themes which include socioeconomic status, household composition and disability, minority status/language, and housing/transportation. The purpose of the SVI is to help emergency response planners identify communities that are most likely to need support during and after a hazardous event such as a pandemic. The Central Valley ranks among California for the highest SVI with Tulare County and Stanislaus County rating .8675 .9417, respectively as shown in Figure 1.

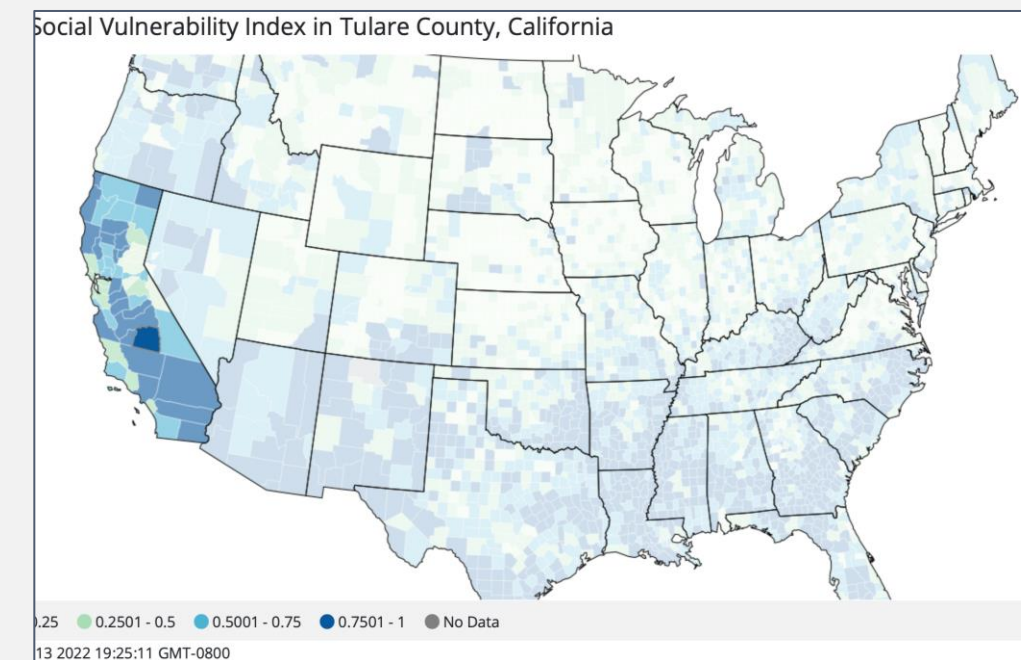


Figure 1. Social Vulnerability Index in Tulare County.

The SVI foreshadowed the Central Valley's vaccine deserts defined as areas of low vaccination status due to lack of access to resources or misinformation within communities. Tulare County ranks the second highest Latino County in California. Tipton a small agricultural city in Tulare County has a 93% Latino percentage and in August of 2021 had just a 38% vaccination rate. The makeup of Tipton's city is almost entirely of Latino immigrants and farmworkers. Tulare County continues to have lower than the national average vaccination rate as seen in Figure 2.

Vaccinations in Tulare County, California		
People Vaccinated	At Least One Dose	Fully Vaccinated
Total	276,635	243,244
% of Total Population	59.3%	52.2%
Population ≥ 5 Years of Age	276,533	243,231
% of Population ≥ 5 Years of Age	64.3%	56.6%
Population ≥ 12 Years of Age	266,104	236,064
% of Population ≥ 12 Years of Age	71.5%	63.4%
Population ≥ 18 Years of Age	240,687	213,706
% of Population ≥ 18 Years of Age	74.3%	65.9%
Population ≥ 65 Years of Age	48,735	43,916
% of Population ≥ 65 Years of Age	89.8%	80.9%

Figure 2. Vaccination rate in Tulare County as of February 2022. Tulare County has a population of 466,195, a 9.8% uninsured rate, and 25.5% poverty rate.

Community Outreach

As part of our outreach efforts in the Central Valley, the REACH Cohort had several opportunities to interact with the public to educate, discuss, and administer the COVID vaccine. One of our main goals was to clarify misinformation within the Latino community and promote the administration of the Johnson & Johnson vaccine. The REACH cohort collaborated with Kaweah Health and Humana Inc. to increase access to the COVID vaccine at the Visalia Flea Market.

As medical students we asked individuals and families if they had been vaccinated against the Coronavirus while at the Flea Market. Our strategy was to spark a conversation amongst those who admitted that they had not and to find out why they had hesitancy. Commonly reported reasons for vaccine hesitancy during these conversations relate to:

- Speed of vaccine development
- Efficacy of the vaccine
- Fear of potential side-effects
- Unknown long-term health effects
- Lack of governmental trust

With further probing, it was discovered that much of the information people were receiving came from the news or directly from family members. Individuals noted that their hesitancy was not related to political beliefs but did acknowledge that their source of media might be driven by political motives.



Class of 2024 REACH cohort and Humana Inc. representatives at a Visalia flea market.

DISCUSSION AND CONCLUSION

The COVID-19 has heightened the public health need to continuously address health disparities among minority populations. Early community engagement amongst the public regarding vaccinations using local community-based organizations and/or grassroots organizations would be of utmost importance, especially socioeconomically impacted communities. In addition, culturally appropriate messaging by trusted partners without government interface would promote trust among communities without worrying if there are political motives.

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