



A Study of COVID-19 Vaccine Equity Across Saban Community Clinic Vaccination Sites



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Background

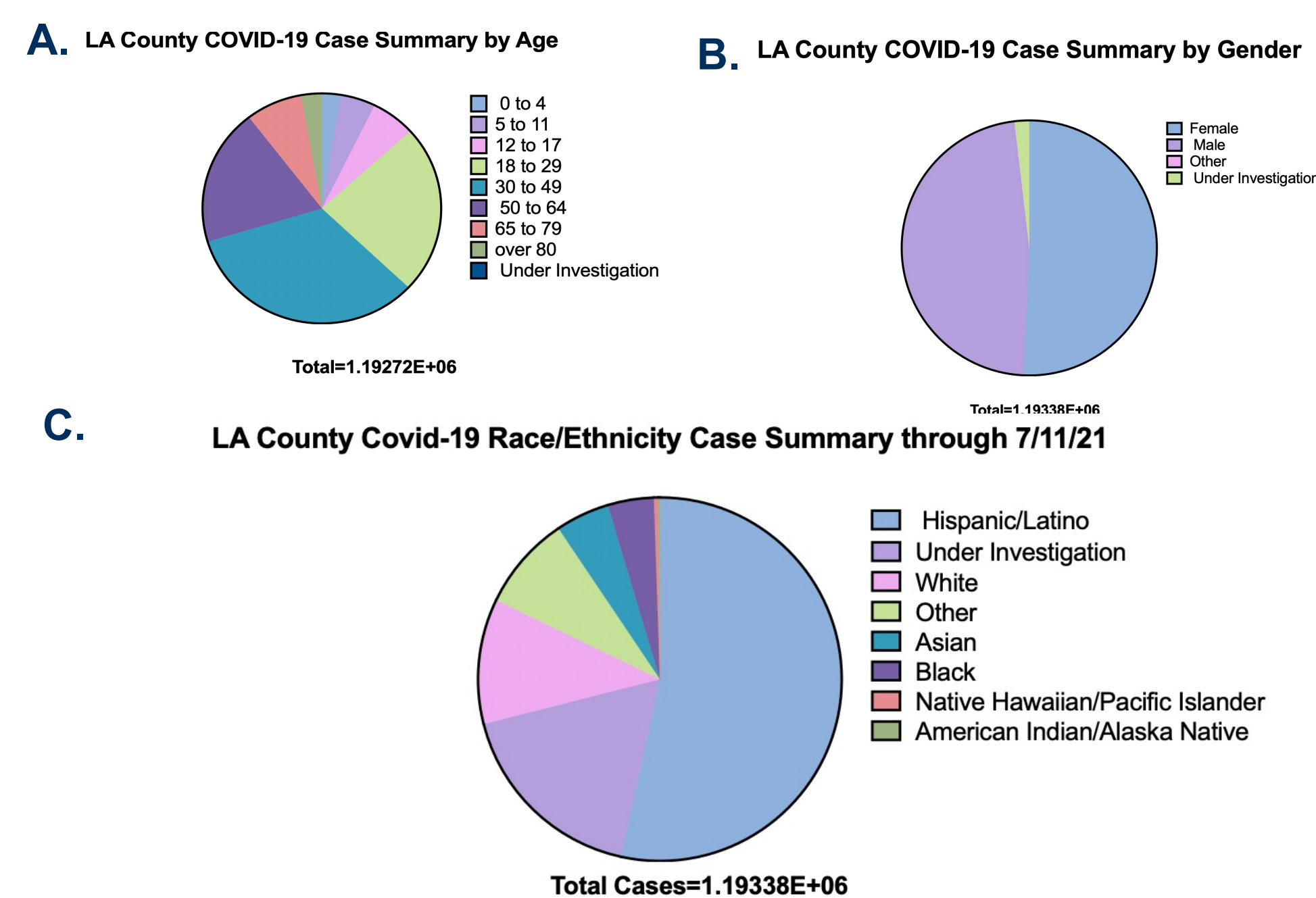
- Saban Community Clinic (SCC) is a federally qualified health center in Los Angeles (L.A.) with a mission that healthcare is a right and not a privilege.
- In 2020 SCC cared for 20,638 patients, 88% of whom are living at the poverty line and 37% who are uninsured.
- The COVID-19 pandemic that began in 2020 spread rapidly throughout the United States, with Los Angeles County having one of the highest cumulative case totals in the state.
- As of 7/11/2021 there have been 1,258,685 confirmed cases of COVID-19 in LA County and 24,543 deaths. The total L.A. County mortality rate for COVID-19 is 223 (Age- Adjusted Death rate per 100K), with the highest mortality rate being in the Hispanic/Latino population of L.A. county (365) and the lowest in the White population (124).
- In November 2020 Los Angeles experienced a devastating COVID-19 case surge and became the epicenter of the pandemic in the U.S; From October 31st through November 13th the average daily cases increased 108%.
- COVID-19 took an unequal toll on poorer communities of color in Los Angeles and highlighted many deeply rooted health inequities. In May 2020 infection rates in poorer regions of Central and South L.A. surged, exceeding 600 infections per 100,000 people, while wealthier areas like the West Side saw a slower rise (200-300 cases per 100,000 residents). Additionally, during a July peak, the mortality rate among people living in areas with the fewest resources was 6.5 deaths per 100,000 people. This is over three times that of people living in high-resourced areas.
- During the July peak in COVID-19 cases, the mortality rate among Latino/Latinx residents was 6 deaths per 100,000 people, four times that of White residents. Further breakdown of L.A.'s Covid- cases by race/ethnicity, age, gender, and zip code can be found in figure 1.
- SCC began vaccinating their patients in February at various clinic locations.
- This research project sets out to analyze SCC's vaccination reach and assess vaccine equity.

Methods

- To understand the effects of COVID-19 on various patient populations in Los Angeles County, L.A. County Public Health records were utilized to look at cumulative COVID-19 case summaries in L.A. and break them down age, race/ethnicity, gender, and Zip code. The demographic breakdown for L.A. county and SCC vaccinations was done using Microsoft Excel, while the heatmap presented in Figure 1D was curated by the New York Times using Mapbox in combination with L.A. County public health data.
- Using data reports from SCC's electronic medical record system (EPIC) and Microsoft Excel, the demographic breakdown of SCC's COVID-19 vaccine doses administered by age, race/ethnicity, gender, and Zip code was analyzed. Vaccine dose distribution per zip code (figure 3D) was created in Google Maps.

Results

Figure 1: Los Angeles County Covid-19 Case Summary



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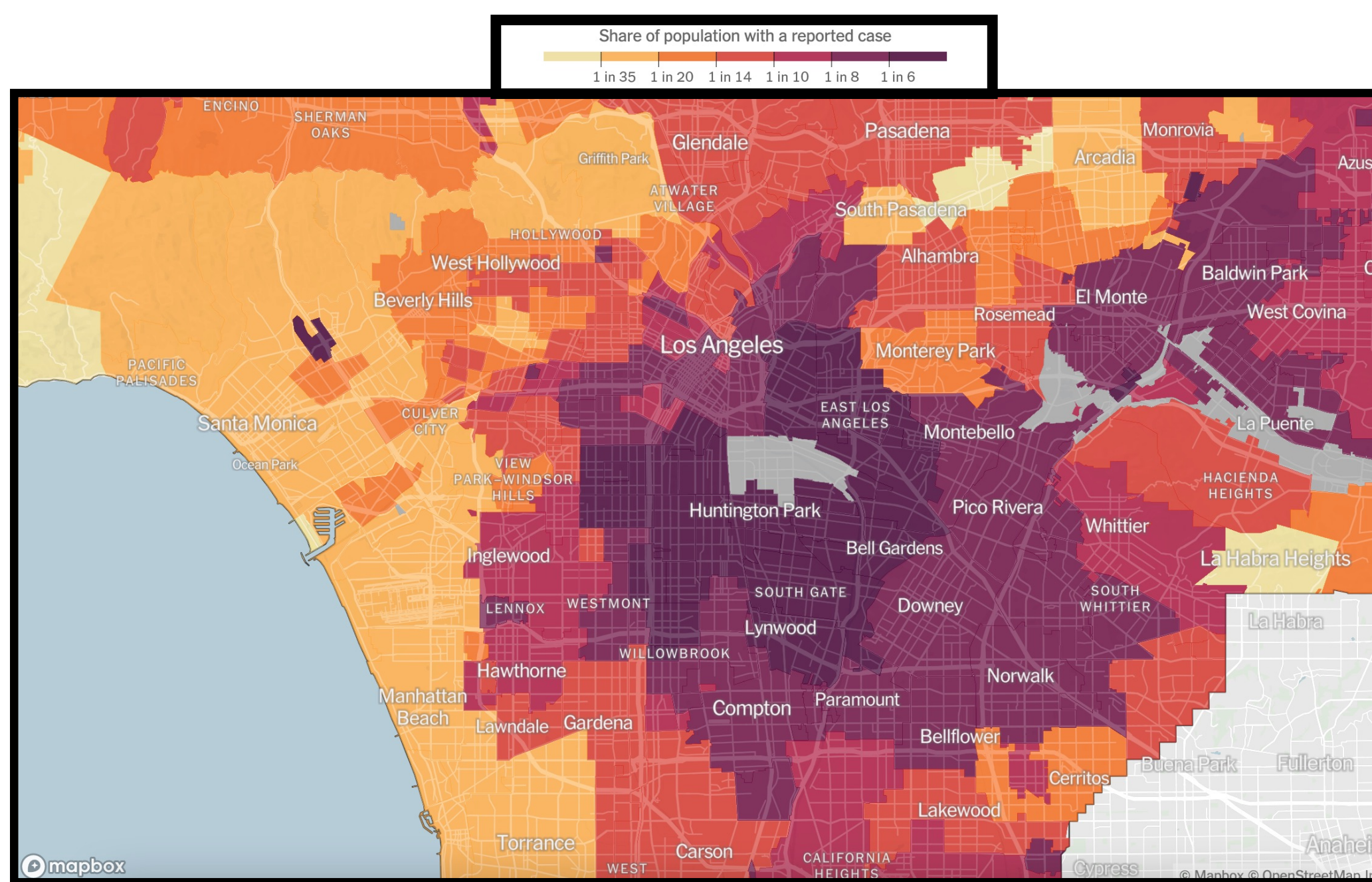


Fig. 1A: 33.28 % of the known COVID-19 cases in LA county have been between the age of 30-49. 23.78% between the ages of 18-29, 19.21% 50-64, 7.66% 65-79, 5.99% 12-17, 4.80% 5-11, 2.80% over the age of 80, 2.49% 0-4, and 5.03e-004% unknown. **Fig. 1B:** Gender breakdown of these cases is as follows: 50.70% Female, 47.41% Male, 0.05% other, and 1.84% under investigation. **Fig. 1C:** Race/Ethnicity breakdown of COVID-19 cases in LA county: 53.43% Hispanic/Latino, 11.15% White, 8.40% other, 4.80% Asian, 4.10% Black, 0.36% Native Hawaiian/Pacific Islander, and 17.59% Under investigation. **Fig. 1D:** Geographic Covid 19 case distribution in LA county as of January, 2021

Figure 2: SCC COVID-19 Vaccination Sites and Monthly Doses

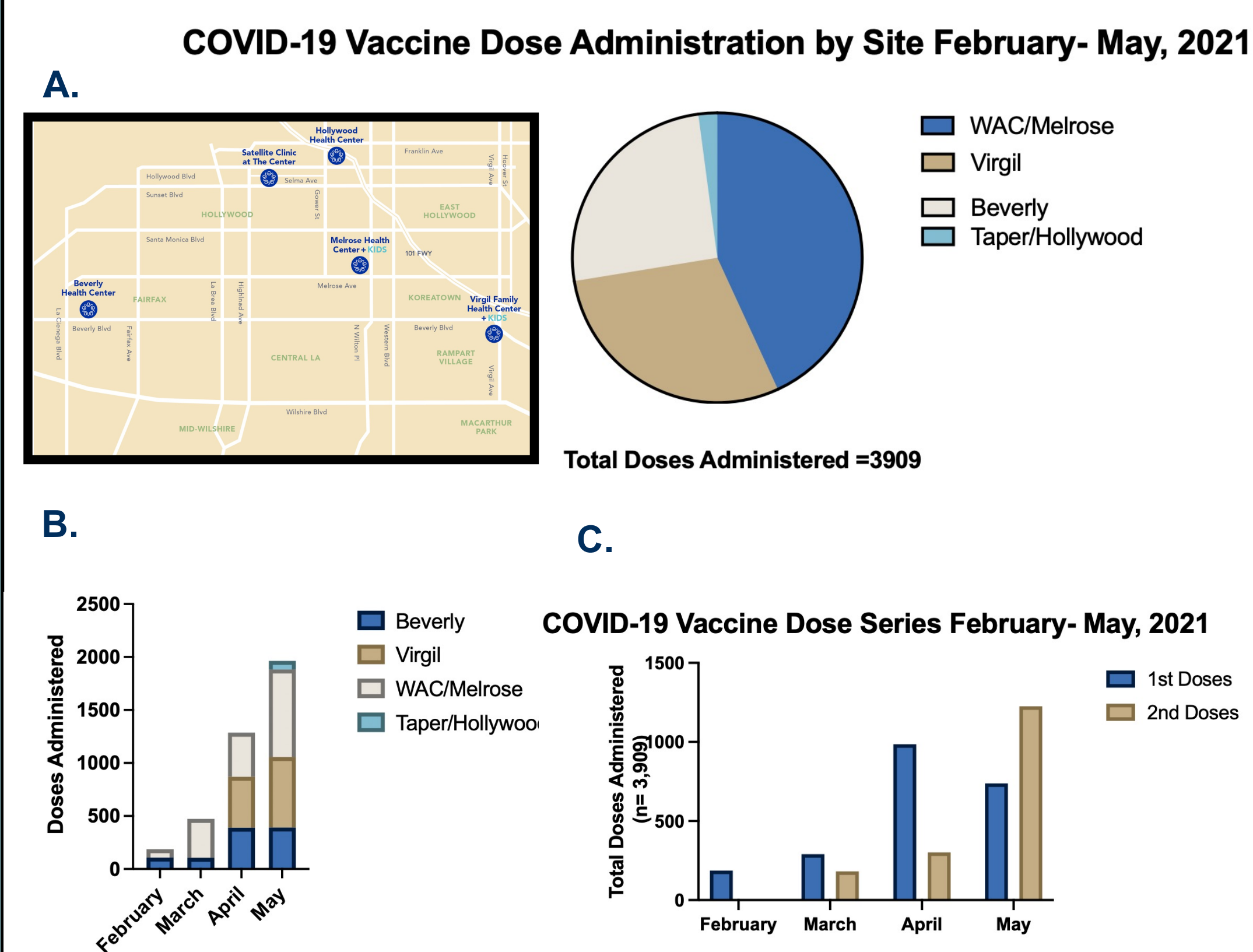
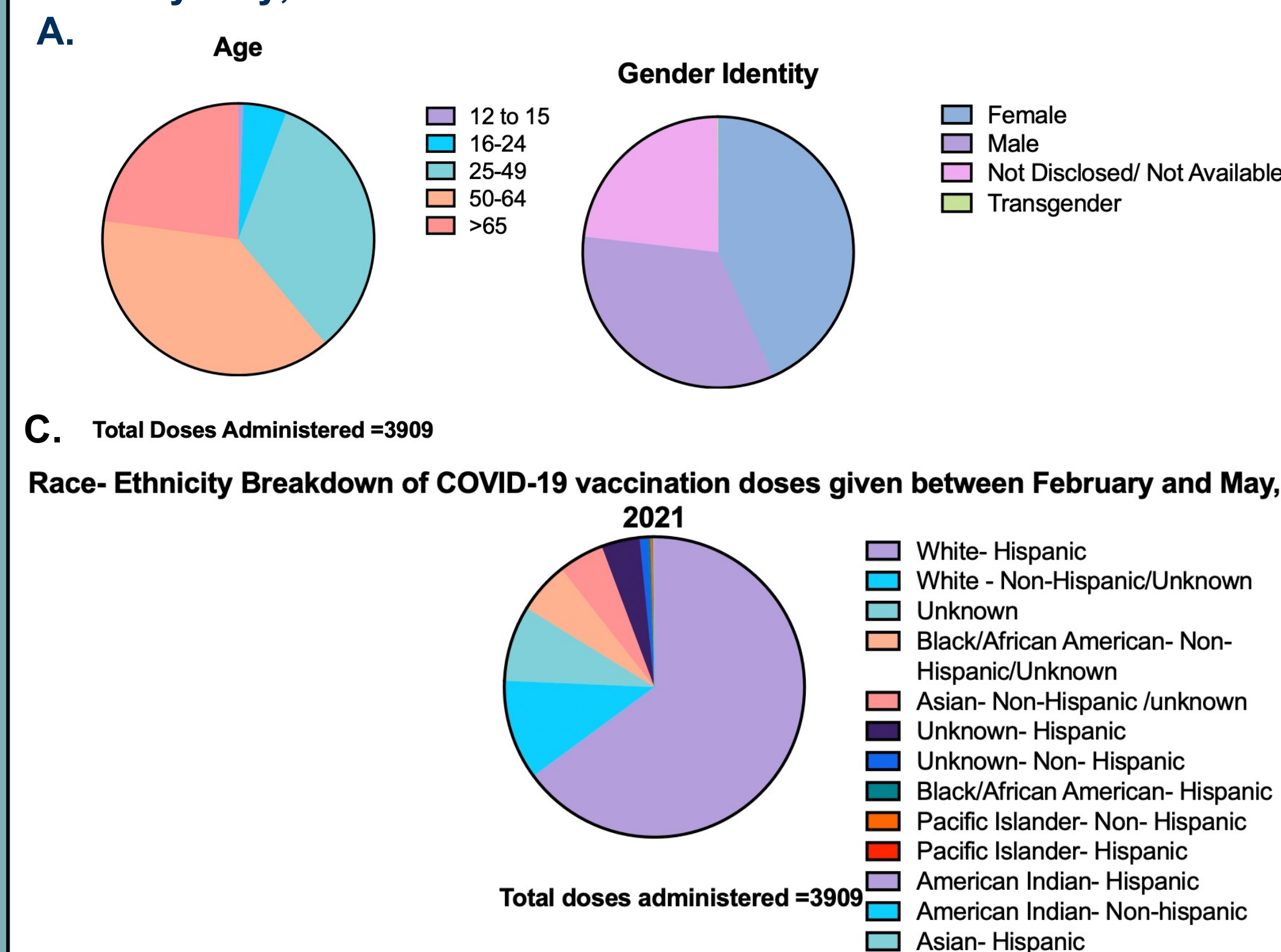


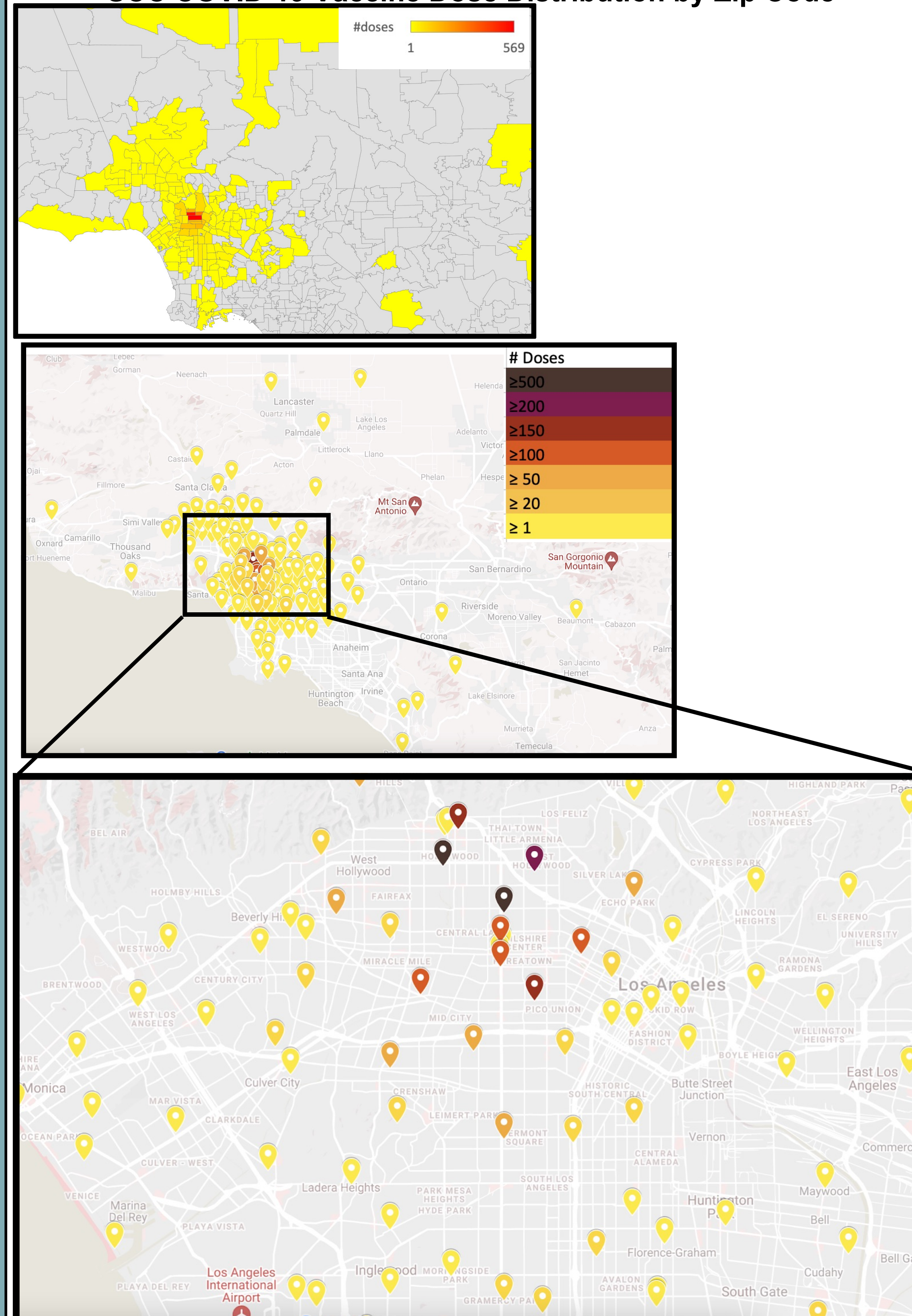
Fig. 2A: SCC's clinics sites (WAC/Melrose, Virgil, Beverly, and Taper/Hollywood) are located in four distinct Los Angeles neighborhoods and have provided COVID-19 vaccinations to community members in 2021. From February through May of 2021, these 4 clinic sites administered a total of 3,909 vaccinations. 43.13%, 29.29%, 25.48%, and 2.10% were administered at the WAC/Melrose, Virgil, Beverly, and Taper/Hollywood sites, respectively. **Fig. 2B-C:** Vaccination rates per clinic sites vary by month, with the most vaccinations given in May, 2021, the majority of which were second doses. **Fig. 2C:** The month with the largest number of first doses administered was April.

Results Cont.

Fig 3: Demographic Breakdown of SCC Vaccinated Patients February-May, 2021



D. SCC COVID-19 Vaccine Dose Distribution by Zip Code



Results Cont.

Fig. 3A: Of the 3,909 COVID-19 vaccines administered February- May 2021, people between ages of 50 and 64 received 38.25% of the total doses administered, 25-49 received 33.13% of the doses, >65 received 22.84%, 16-24 years received 5.19% and those 12-15 years received 0.59% of the doses. Fig.3B: 43.36 % of the total vaccine doses given were administered to patients identifying as female, 33.49% to those identifying as males, .13% to those identifying as transgender. 23.02% of patients chose not to disclose this information, or it was unavailable. Fig. 3C: Race-ethnicity breakdown of vaccine dose administration is as follows: White-Hispanic (64.90%), White-Non-Hispanic (10.77%), Black/African American - Non-Hispanic (5.58%), Asian- Non-Hispanic (4.91%), Unknown- Hispanic (4.12%), Unknown- Non-Hispanic (0.90%), Black/African American- Hispanic (0.26%), Pacific Islander - Non-Hispanic (0.20%), Pacific Islander- Hispanic (0.08%), American Indian Hispanic (0.05%), American Indian- Non-Hispanic (0.05%), Asian- Hispanic (0.05%), and 8.14% of doses with unknown race-ethnicity data. Fig. 3 D: Vaccine dose administration broken down by Zip code shows the highest number of doses administered were from the 90004 (Hancock Park) and 90038 (Hollywood) Zip codes, followed by 90029 (Downtown) and 90028 (Hollywood) and 90006 (Pico heights). Those that received over 100 doses were in zip codes 90020 (Hancock park), 90019 (Country Club Park/mid city), 90005 (Koreatown) and 900057 (Westlake).

Discussion

- Between February and May, 2021 SCC administered 3,909 vaccine doses in Los Angeles.
- A zip code analysis shows that 4 of the zip codes were in the list of LA county's top 100 communities with the most COVID-19 Cases (Westlake, Pico Union, Hollywood, Downtown, and Koreatown).
- While the outreach in these communities is great, there is room for improvement in COVID-19 vaccination rates in some of the hardest hit areas of Los Angeles.
- By May 2020, the pandemic deeply affect South and Southeast L.A., as well as parts of the San Fernando Valley and far reaches of L.A. County, including Pomona, Santa Clarita, Palmdale, and Lancaster.
- While some of SCC's vaccinations reached these areas, expanding the vaccine program to target South and East LA, may help support communities most affected by the pandemic.
- Though hosting geographically targeted vaccination events may help improve outreach, a good starting point might be to assess the reasons for lack of dose administration in these areas. Challenges of vaccine reach to these areas may include vaccine hesitancy, language barriers, and lack of accessibility.

References and Sources

- "Locations & Demographics." COVID-19 Locations & Demographics - LA County Department of Public Health, publichealth.lacounty.gov/media/coronavirus/locations.htm.
- Saban Community Clinic Impact Summary 2020
- Cowan, Jill, and Matthew Bloch. "In Los Angeles, the Virus Is Pummeling Those Who Can Least Afford to Fall Ill." The New York Times, The New York Times, 30 Jan. 2021, www.nytimes.com/interactive/2021/01/29/us/los-angeles-county-covid-rates.html?referringSource=articleShare.
- "How Race, Class, and Place Fuel a Pandemic." *Race Counts*, 1 Apr. 2021, www.racecounts.org/covid/
- County of Los Angeles Zip Code List: http://file.lacounty.gov/SDSInter/lac/1031552_MasterZipCodes.pdf
- Sara Chodosh | Published Jan 25, 2021 6:00 PM. "5 Graphs That Show How Bad COVID-19 Is in LA County." Popular Science, 26 Apr. 2021, www.popsci.com/story/health/los-angeles-covid/.
- "Coronavirus Ravages Poorer L.A. Communities While Slowing in Wealthier Ones, Data Show." Los Angeles Times, Los Angeles Times, 28 May 2020, www.latimes.com/california/story/2020-05-28/coronavirus-surge-in-poor-la-county-neighborhoods-reveals-two-americas