Santa Barbara County
PUBLIC Health
DEPARTMENT

COVID-19
Quarterly Report
March 2020 – September 2020

October 13, 2020

2020 COVID-19 Season, March 2020 – September 2020

Background

This report provides a high-level summary, to date, seven months into the COVID-19 pandemic. It uses data collected by the Santa Barbara County Department of Public health to help explain *who* is contracting COVID-19, *how* they are contracting the disease, and *where* transmission is occurring.[1]

In late 2019, Coronavirus disease 2019 (COVID-19) emerged as an isolated disease in a region of China, and then spread quickly across the globe. On March 11, 2020 the World Health Organization (WHO) declared COVID-19 to be a global pandemic, an outbreak occurring worldwide and affecting a large number of people.[2] The Centers for Disease Control and Prevention (CDC) confirmed the first US coronavirus case on January 21, 2020 in Washington State when a resident tested positive after returning from a trip to Wuhan, China.[3] The first case in California, also after a resident's return from Wuhan, was detected on January 25 in Orange County.[4] In Santa Barbara County (SBC), the Public Health Department began actively monitoring COVID-19 in March 2020. The first positive COVID-19 case in SBC was confirmed on March 15. The individual had no history of travel within or outside the United States during the preceding six weeks.[5]

SUMMARY

- COVID-19 cases increased nearly 15 fold between March and July
- Case count, number of tests performed, and testing positivity peaked in July
- Working aged adults (18-49 years) had the highest proportion of cases
- By ten year age group, cases were most common among 20 year olds
- Hispanic/Latinos were disproportionately represented in proportion of COVID-19 cases, hospitalizations, and deaths
- Frontline workers were the most frequent occupation of cases
- Santa Maria has the highest case count and second highest case rate
- Most cases were symptomatic and 39% had close contact with a known case

Initially, in March and April, transmission appears to have been kept limited SBC by stringent California State and local Public Health Orders that required residents to stay at home and/or physically distance. On May 4, a California State Executive Order allowed for the gradual reopening of some industry sectors under new modifications and guidance. This phased reopening continued through June, though on June 16 CA State Health Department (CDPH) flagged SBC for its increased hospitalization rates of individuals with COVID-19. On June 28, in response to surging COVID-19 cases and hospitalizations across California, CDPH released its state-wide County Monitoring List, a system for using data to determine, county-by-county, which businesses, institutions, and activities could be open based on transmission, testing, and hospital capacity criteria. SBC was placed on the

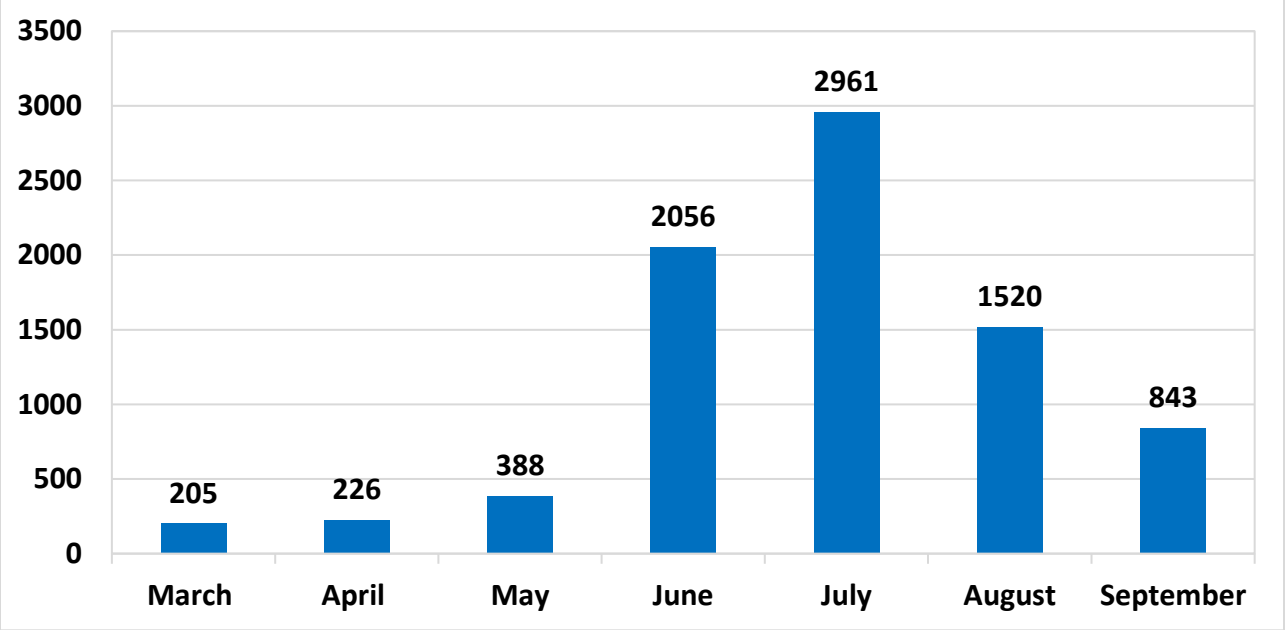
[1] This report focuses on community cases. Inmate data has been excluded. For further information, please see the Santa Barbara County Public Health Department "COVID-19 Racial, Ethnical & Socioeconomic Data & Strategies Report" from May 28, 2020.
[2] World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020. Retrieved on October 6, 2020. https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020.
[3] Centers for Disease Control and Prevention. First travel-related case of 2019 novel coronavirus detected in the United States. Retrieved on October 6, 2020. https://www.cdc.gov/media/releases/2020/p0121-novel-coronavirus-travel-case.html
[4] Orange County Health Care Agency. OC Health Care Agency confirms first case of novel coronavirus in Orange County, California. Retrieved on October 6, 2020. https://mailchi.mp/ochca/novelcoronavirus.
[5] Santa Barbara County Public Health Department. First positive case of COVID-19 confirmed in Santa Barbara County. Retrieved on October 6, 2020. https://www.countyofsb.org/asset.c/5250

"watchlist" for failing to meet these standards and soon thereafter, on July 2, re-tightened restrictions with back-to-back local Health Orders that closed down many sectors once again.[6] On August 28, Governor Newsom unveiled the "Blueprint for a Safer Economy", a new, tiered plan for slowing the spread of coronavirus with revised criteria for loosening and tightening restrictions on activities. Initially, SBC fell in Tier 1 (purple), the most stringent and locked down tier. On September 29, SBC met the State's Tier 2 criteria (red), COVID-19 spread in SBC was downgraded from widespread to substantial, and the SBC Public Health Department issued a Health Officer Order allowing more businesses to reopen indoors with modifications and capacity limits in accordance with the State's Blueprint for a Safer Economy. [7]

COVID-19 Cases and Testing

Figure 1 presents the number of new COVID-19 cases by month in Santa Barbara from March 1st through September 30th. During this time, SBC reported 8,199 cases of COVID-19 infection among community members. From May to June, there was a substantial increase in the number of cases from 388 to 2,056 (Figure 1). Cases peaked in July with 2,961 cases. In August, cases decreased substantially and continued to do so in September, when SBC reported 843 new cases of COVID-19. The wave of cases in the summer months may have been associated with holiday gatherings and partial reopening of some sectors.

Figure 1. Number of New COVID-19 Cases by month (using episode date), as of 9/30/20 (N=8,199)

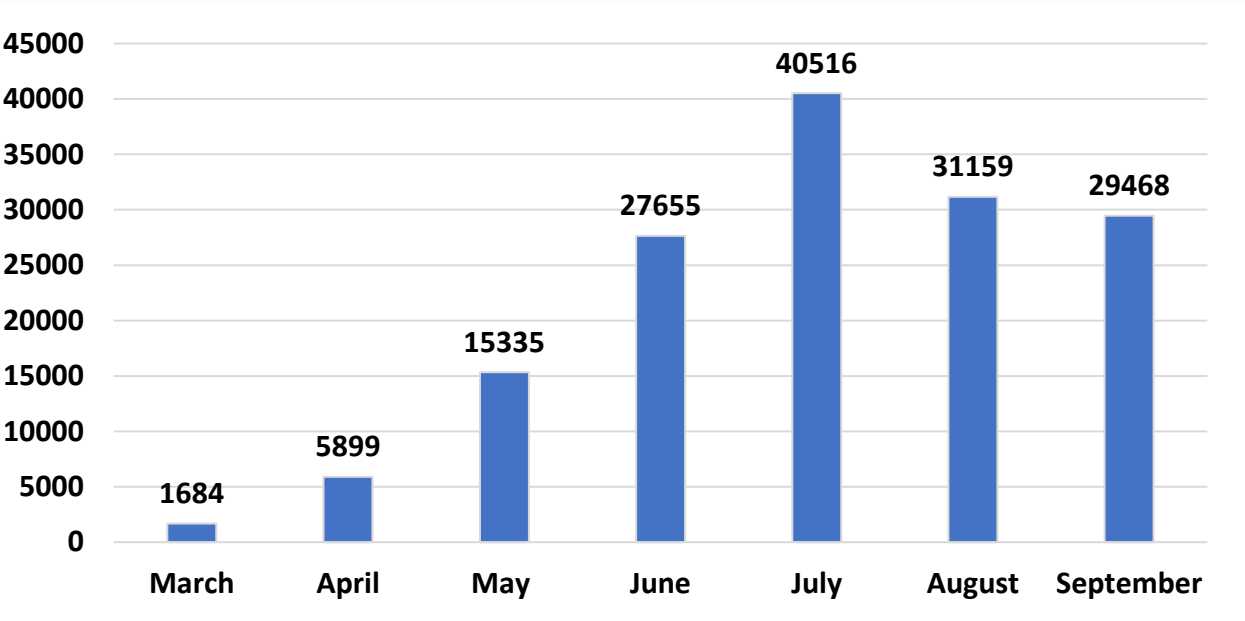


[6] Santa Barbara County Public Health Department. Press Releases 2020. Retrieved on October 6, 2020. https://www.countyofsb.org/phd/pr/2020/

[7] Santa Barbara County Public Health Department. Santa Barbara County moves to the red tier allowing for more businesses to open indoors with modifications. Retrieved on October 6, 2020. https://www.countyofsb.org/asset.c/5740

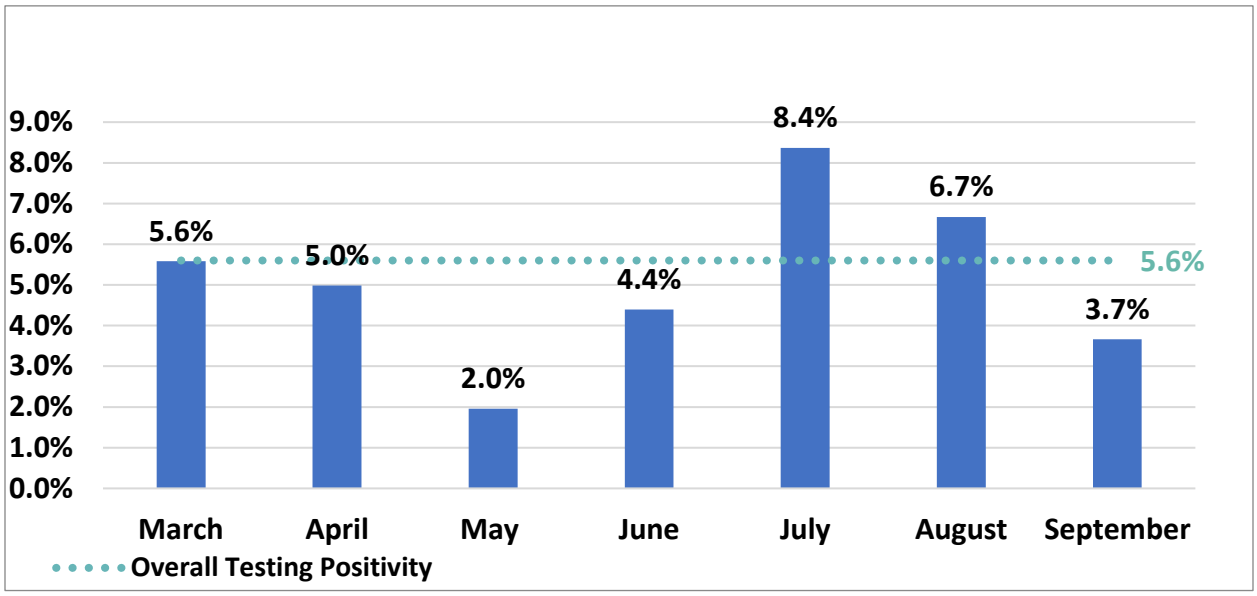
The number of SARS-CoV-2 tests in Santa Barbara County by month from March 1st to September 30th is presented in **Figure 2**. In the beginning of the pandemic, the availability of COVID testing was very limited. With an increase in supply, testing steadily increased from 1,684 total county-wide tests conducted in March to 40,516 conducted in July, which represents the peak. In August and September, SARS-CoV-2 testing numbers had stabilized at around 30,000 per month.

Figure 2. Number of SARS-CoV-2 Tests Conducted, as of 9/30/2020 (N = 151,716)*



Overall testing positivity was 5.6% (**Figure 3**). As testing became more available in May and case counts remained relatively low, testing positivity decreased. Then with the wave of case in the summer, testing positivity increased. Percent of positive tests peaked in July at 8.4% and decreased in August (6.7%) and September (3.7%).

Figure 3. Percent of Positive SARS-CoV-2 Test Results, as of 9/30/2020 (N = 8,454)

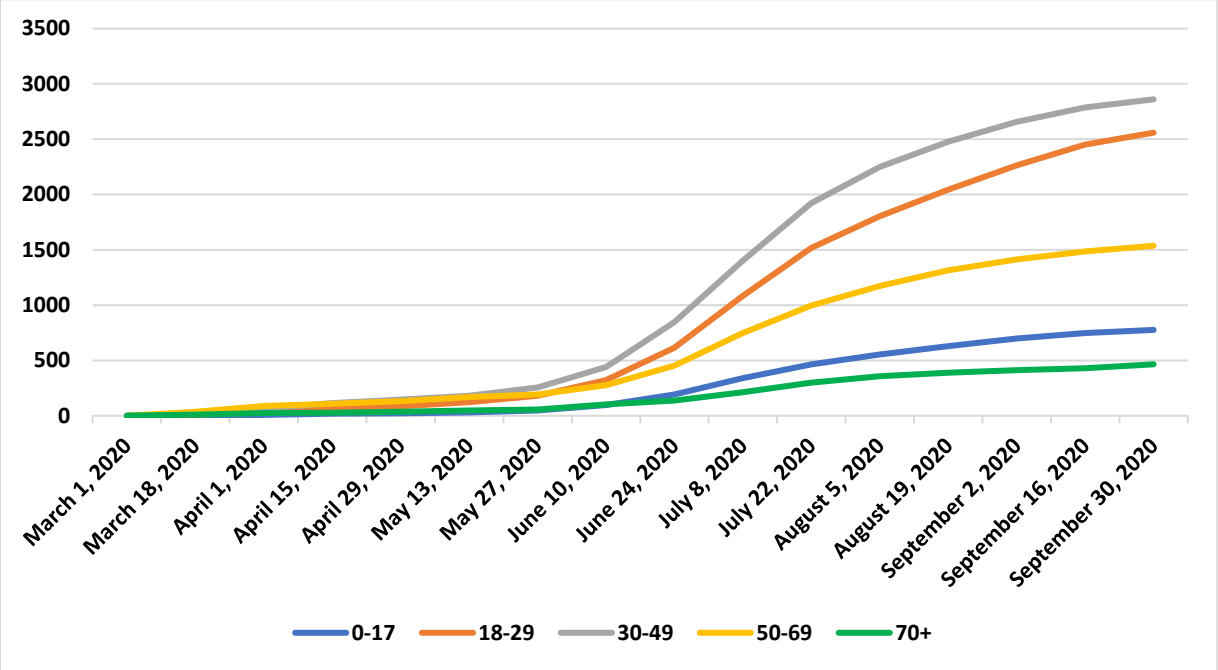


Key Demographics

Age

The cumulative number of COVID-19 cases by age in Santa Barbara County is presented in **Figure 4.** Each bi-weekly value represents the sum total of all the previously confirmed cases. As of September 30th, the 30-49-year-old age group had the highest number of COVID-19 cases, followed by 18-29-year-olds. These younger adults make up a large proportion of workers in frontline occupations and highly exposed industries, putting them at greater risk of contracting COVID-19.[8] The next age group with the highest number of cases was the 50-69-year-olds, followed by 0 -17 year olds and lastly 70 + year-olds. It is important to note that though the absolute number of 70+ year-olds is the lowest, 70+ year-olds also make up a very small relative proportion of the population. While the elderly had lower numbers of cases, this is likely because they are retired and are carefully following stay-at home orders. Attention should be paid to ensuring the elderly have adequate care, including at-home services.

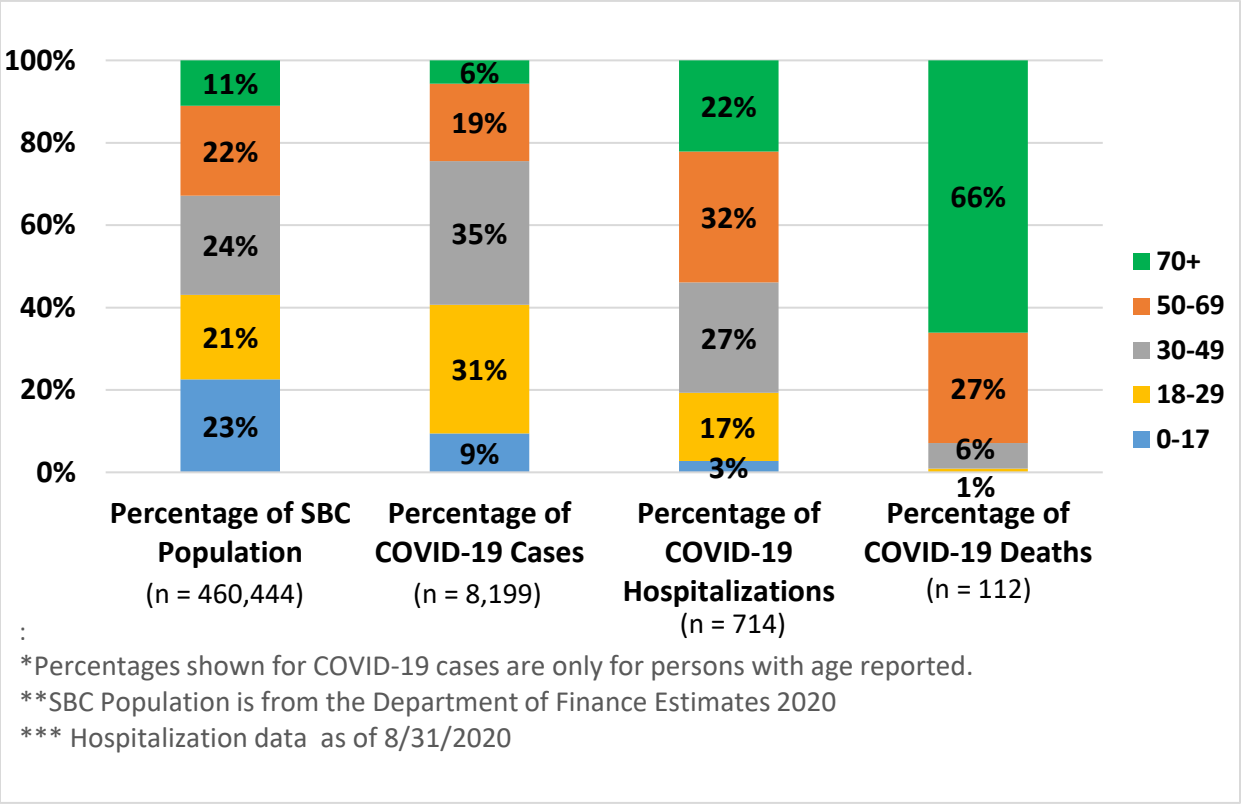
Figure 4. Cumulative Community COVID-19 Case Count by Age Category and Episode Date, as of 9/30/2020 (N=8,199)



[8] Centers for Disease Control and Prevention. Changing age distribution of the COVID-19 pandemic – United States, May – August 2020. Retrieved on October 6, 2020. https://www.cdc.gov/mmwr/volumes/69/wr/mm6939e1.htm.

The age groups of Santa Barbara County's population is compared to the age groups of cases, hospitalizations, and deaths and reveals several important trends (**Figure 5**). First, a greater proportion of cases versus the population were working aged adults ages 18-29 years (31% of cases versus 21% of the population) and 30-49 years (35% of cases versus 24% of the population). Second, a greater proportion of hospitalization were attributed to 50-69 and 70+ year olds (32% and 22%, respectively) compared to their populations (22% and 11%, respectively). Third, most deaths occurred among older adults and this percent was disproportionately higher than the population. Of COVID-19 deaths, 27% were among 50-69 year-olds (N=30) and 66% were among 70+ year-olds (N=74). However, 50-69 year-olds made up 22% of the population and 70+ year-olds only accounted for 11% of the population. Fourth, children accounted for fewer cases (9%) and deaths (1%) than their relative population (23%). It should be noted that during the reporting period, most schools were closed for in-person classes. As Santa Barbara County schools start to re-open, it is possible that more cases will be attributed to children. In the next quarter, the Epidemiology Unit will closely monitor trends among children.

Figure 5. Comparison of COVID-19 Cases, Hospitalizations, Deaths to SBC Population by Age, as of 9/30/2020 (N=8,199)*



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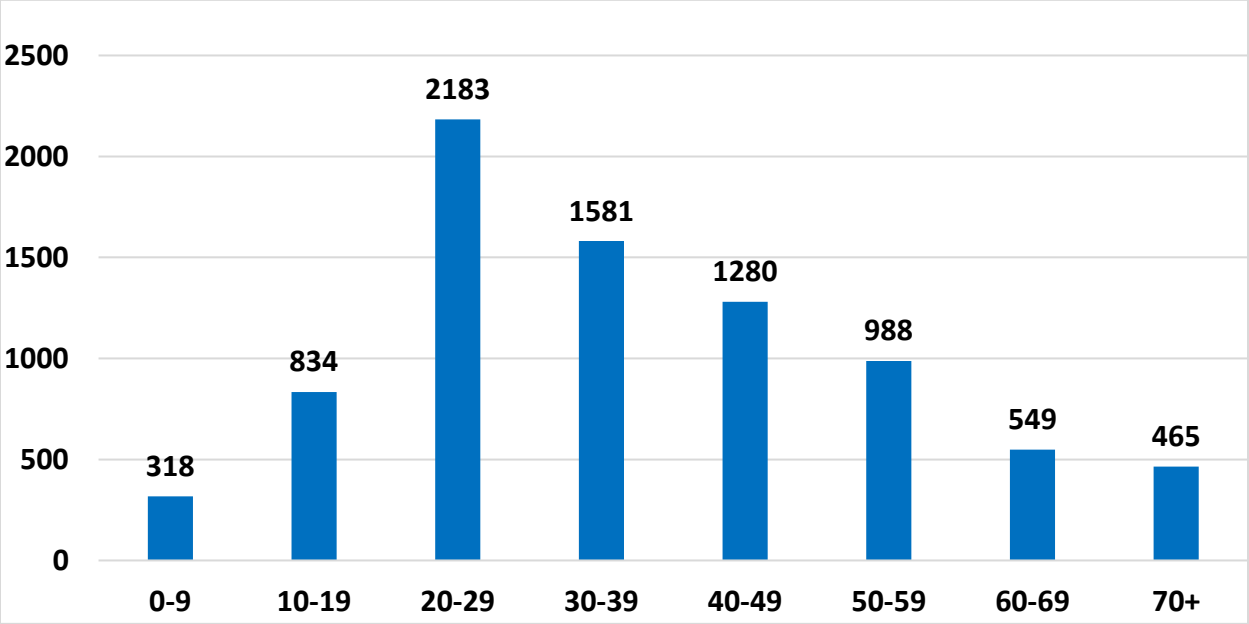
*Percentages shown for COVID-19 cases are only for persons with age reported.
**SBC Population is from the Department of Finance Estimates 2020
*** Hospitalization data as of 8/31/2020

The distribution of age by ten year groupings was analyzed (**Figure 6**). The age group with highest number of cases was 20-29 year olds (N=2183), followed by 30-39 year olds (N=1581), and 40-49 year olds (N=1280). As mentioned previously, these age groups represent working aged adults. In addition, 20-29 year olds may be students.

Figure 6. COVID-19 Cases by 10 Year Age Group, as of 9/30/20 (N=8,199)



Gender

Figures 7-10 shows the relative gender proportions of Santa Barbara County's population, COVID-19 cases, hospitalizations, and COVID-19 deaths**.** The gender of Santa Barbara County's population was approximately equal with 51% male and 49% female (Figure 7). During the reporting period, the gender of COVID-19 cases (Figure 8) and hospitalizations (Figure 9) was similar to the population (49% female, 50% male, and 1% other/unknown/transgender). However, the gender of deaths (Figure 10) was slightly higher among males (55%).

Figure 7. Gender of Santa Barbara County Population (N=460,444)

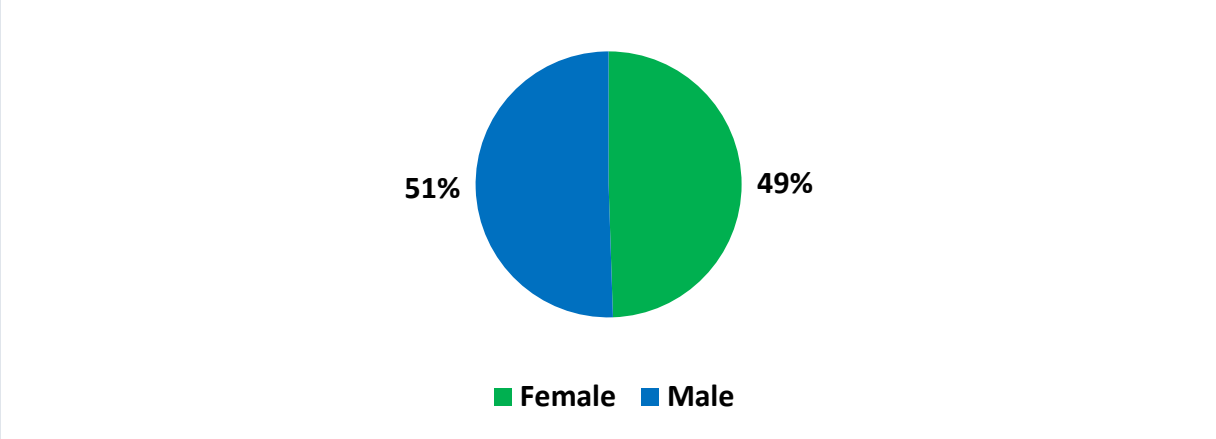


Figure 8. Gender of COVID-19 Cases, as of 9/30/20 (N=8,199)

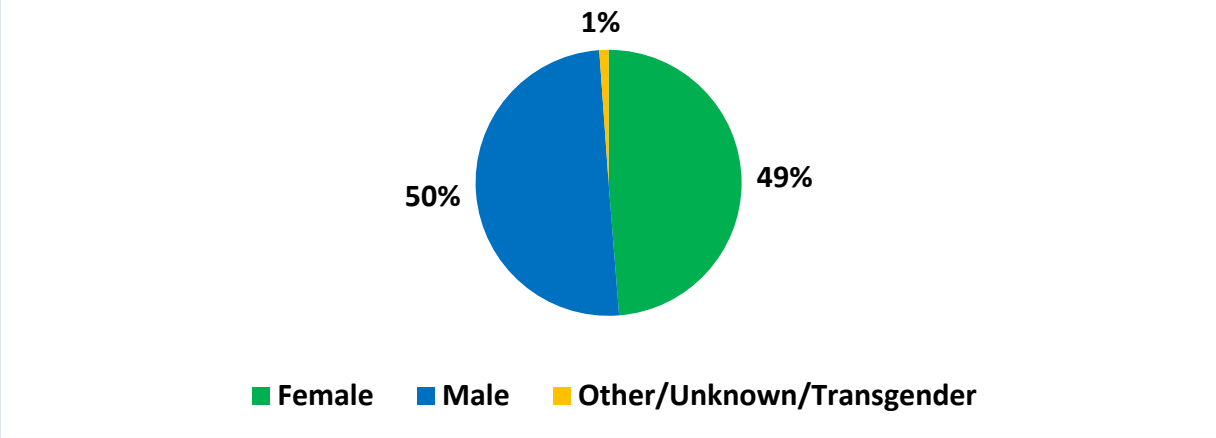


Figure 9. Gender of COVID-19 Hospitalizations, as of 8/31/20 (N=714)

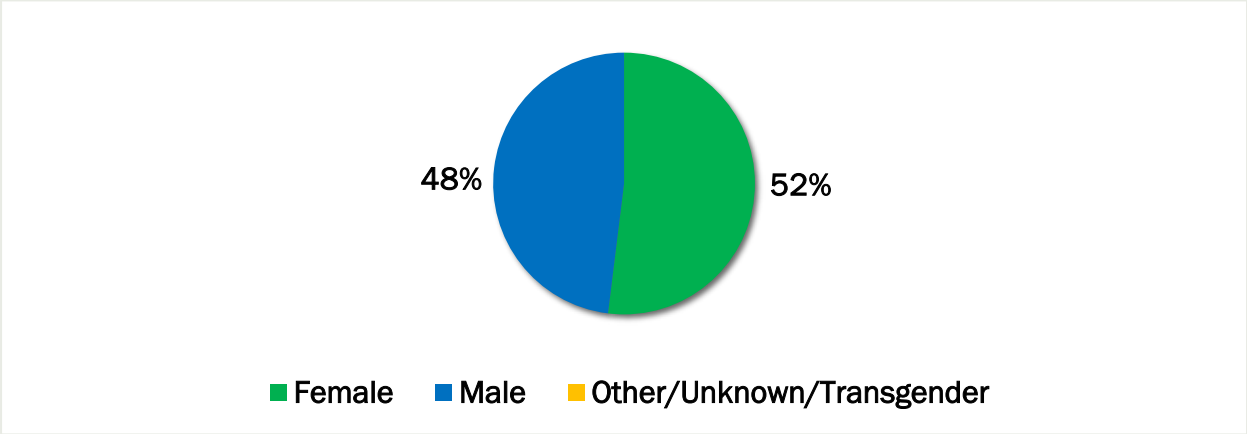
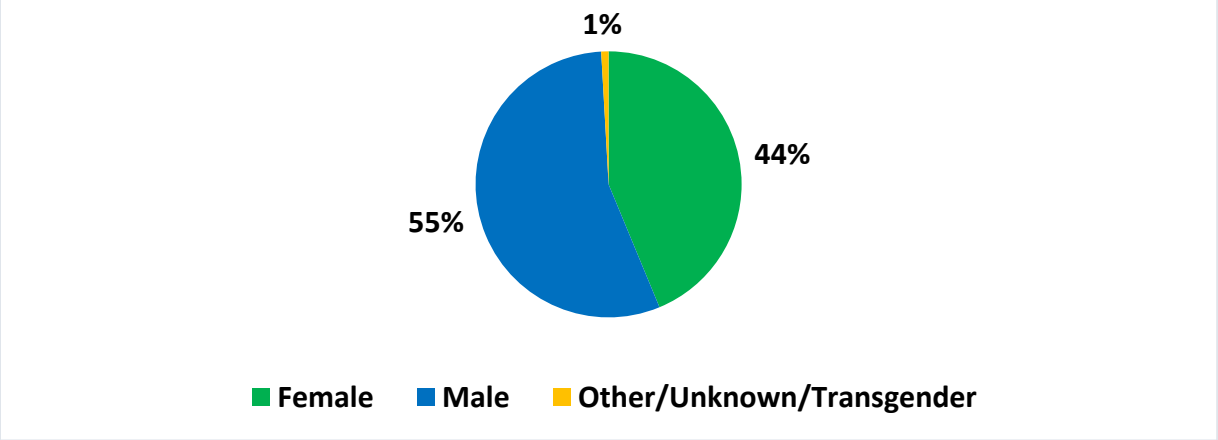


Figure 10. Gender of COVID-19 Deaths, as of 9/30/20 (N=112)



Race

COVID-19 has disproportionately impacted communities of color, highlighting racial disparities. While Hispanics/Latinos accounted for 48% of Santa Barbara County's population (**Figure 11),** they represented 65% of COVID-19 cases (**Figure 12**), 74% of COVID-19 hospitalizations (**Figure 13**), and 56% of COVID-19 deaths (**Figure 14**). In juxtaposition, Whites represented fewer cases (9%) compared to their population (43%). While Whites made up 38% of deaths, many of these deaths occurred at skilled nursing homes and other congregate care settings, which have been highly impacted by the pandemic. While the SARS-CoV-2 is novel, the disparate impact of the COVID-19 pandemic on Santa Barbara County's communities of color is deeply rooted in the historic and ongoing social and economic inequalities that lead to persistent racial disparities in health status.

Figure 11. Santa Barbara County Population by Race/Ethnicity (N=460,444)

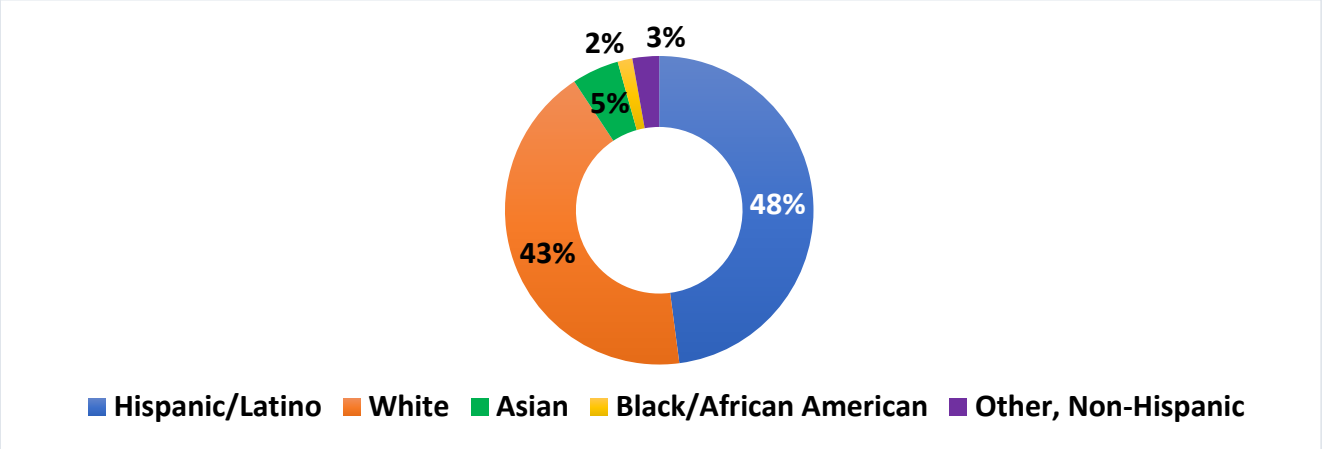


Figure 12. COVID-19 Cases by Race/Ethnicity, as of 9/30/20 (N=8,199)

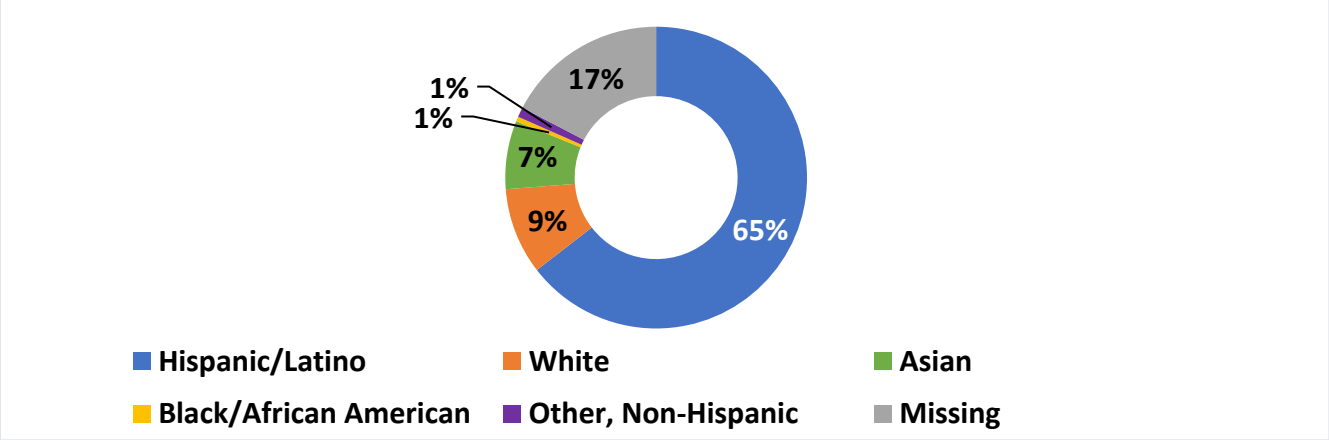


Figure 13. COVID-19 Hospitalizations by Race/ethnicity as of 8/31/20 (N=714)

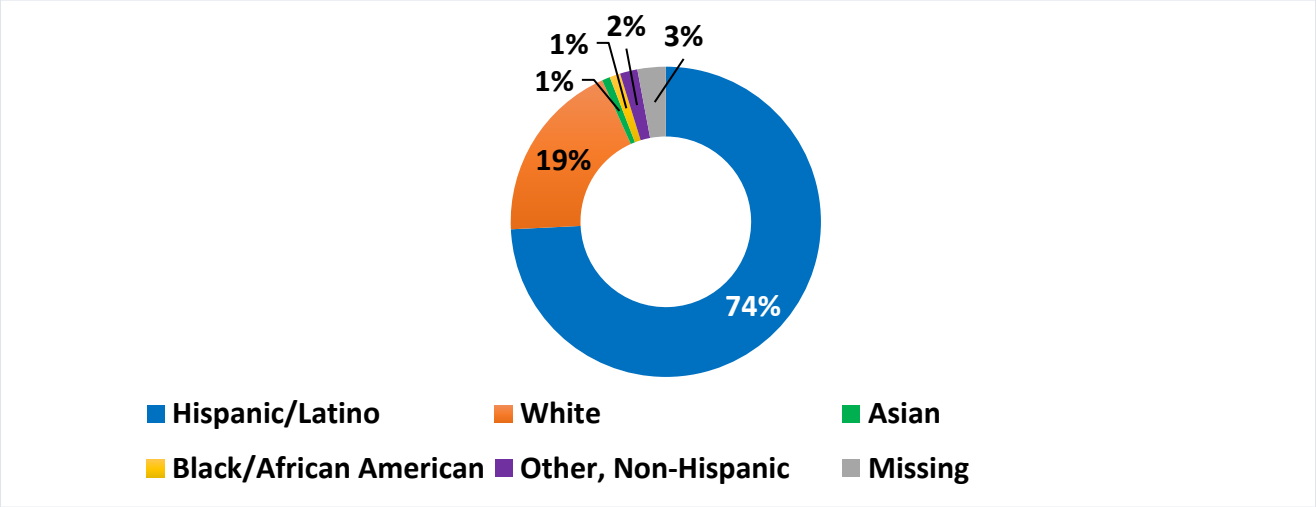
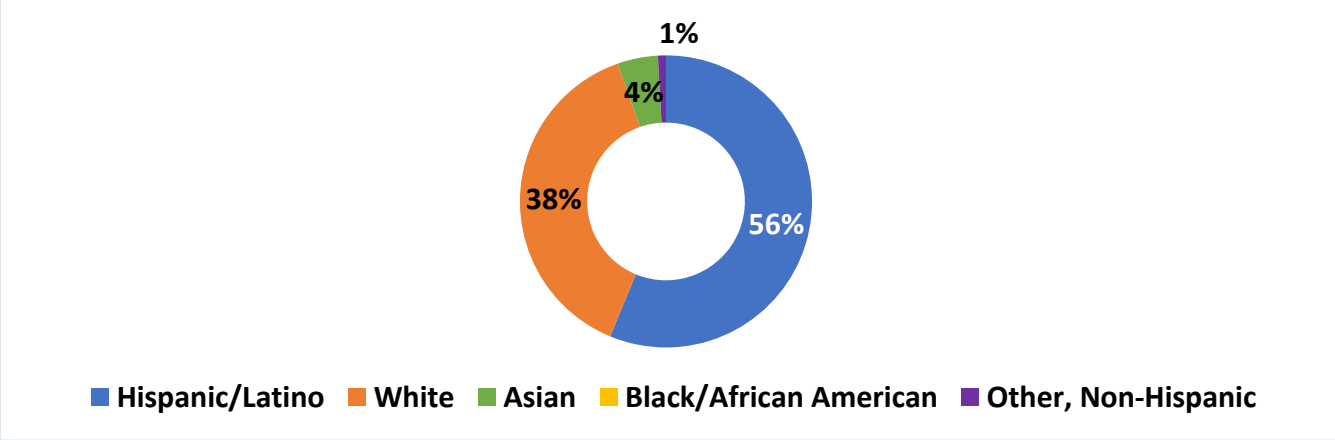


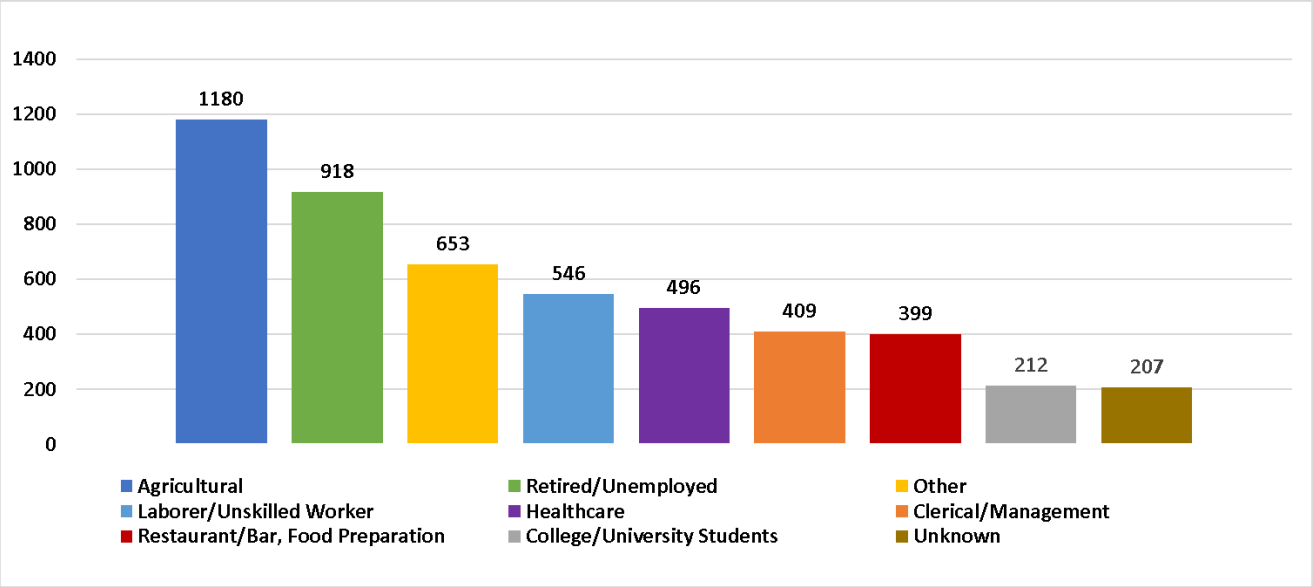
Figure 14. COVID-19 Deaths by Race/ethnicity as of 9/30/20 (N=112)



Occupation

Figure 15 presents all laboratory-confirmed SARS-CoV-2 cases in Santa Barbara County through September 30th disaggregated by occupation. The occupation with the most number of cases was agricultural workers (N=1,180). During the pandemic, there have been nine outbreaks associated with agriculatural workers. Santa Barbara County Public Health Department has worked closely with agricultural communities to contain the spread of the disease. One example is Housing for the Harvest, a program that provides temporary housing for agriculutural workers who need to isolate due to COVID-19. The Retired/Unemployed category is high likely due to the fact that skilled nursing homes and other congregate care settings have been disproportionately impacted by COVID-19. Other occupations with high frequencies included: laborer/unskilled worker, healthcare worker, and restaurant/bar/food preparation. These frontline occupations are less likely to be able to implement social distancing measures that prevent transmission, thus putting them at greater risk of contracting COVID-19.[9] Additional protection strategies are needed for these frontline workers.

Figure 15. Occupation of COVID-19 Cases, as of 9/30/20 (N=8,199)*

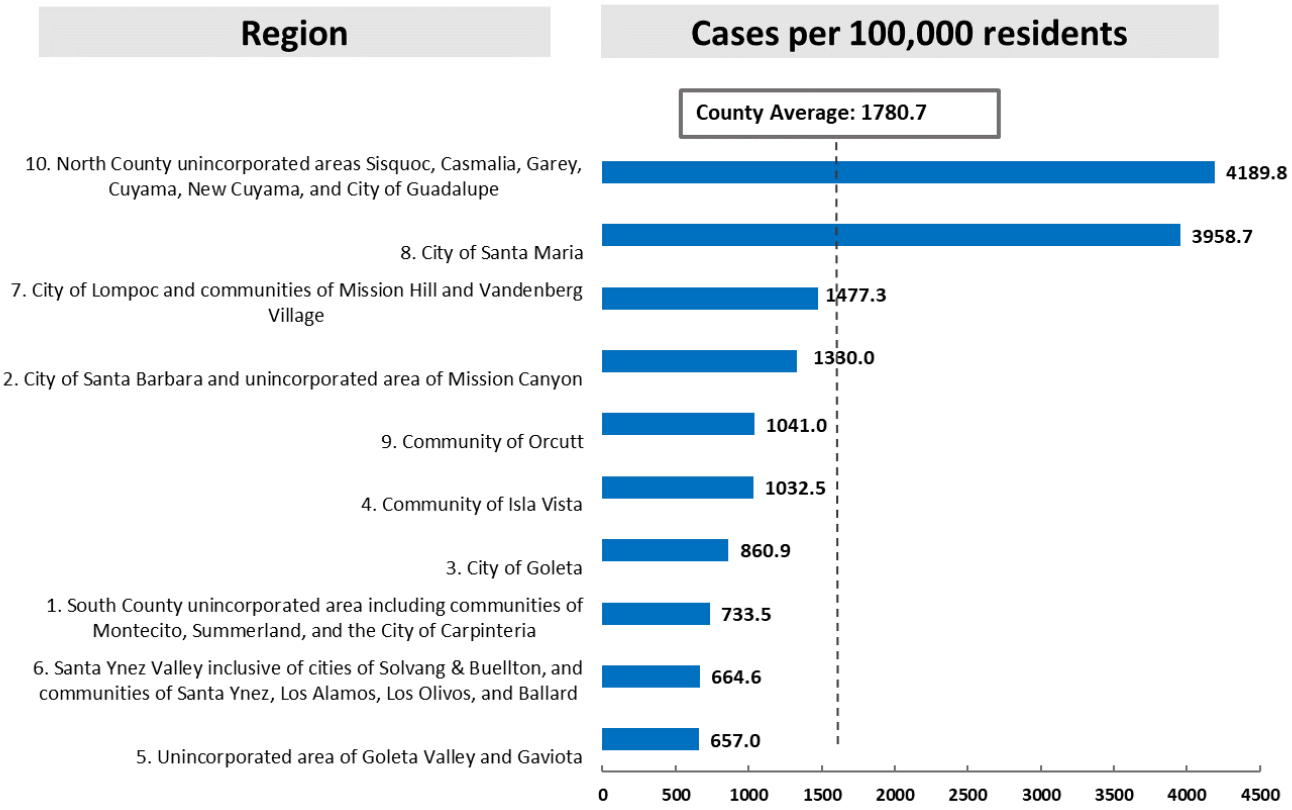


[9] Centers for Disease Control and Prevention. Changing age distribution of the COVID-19 pandemic – United States, May – August 2020. Retrieved on October 6, 2020. https://www.cdc.gov/mmwr/volumes/69/wr/mm6939e1.htm.

Geographic Region

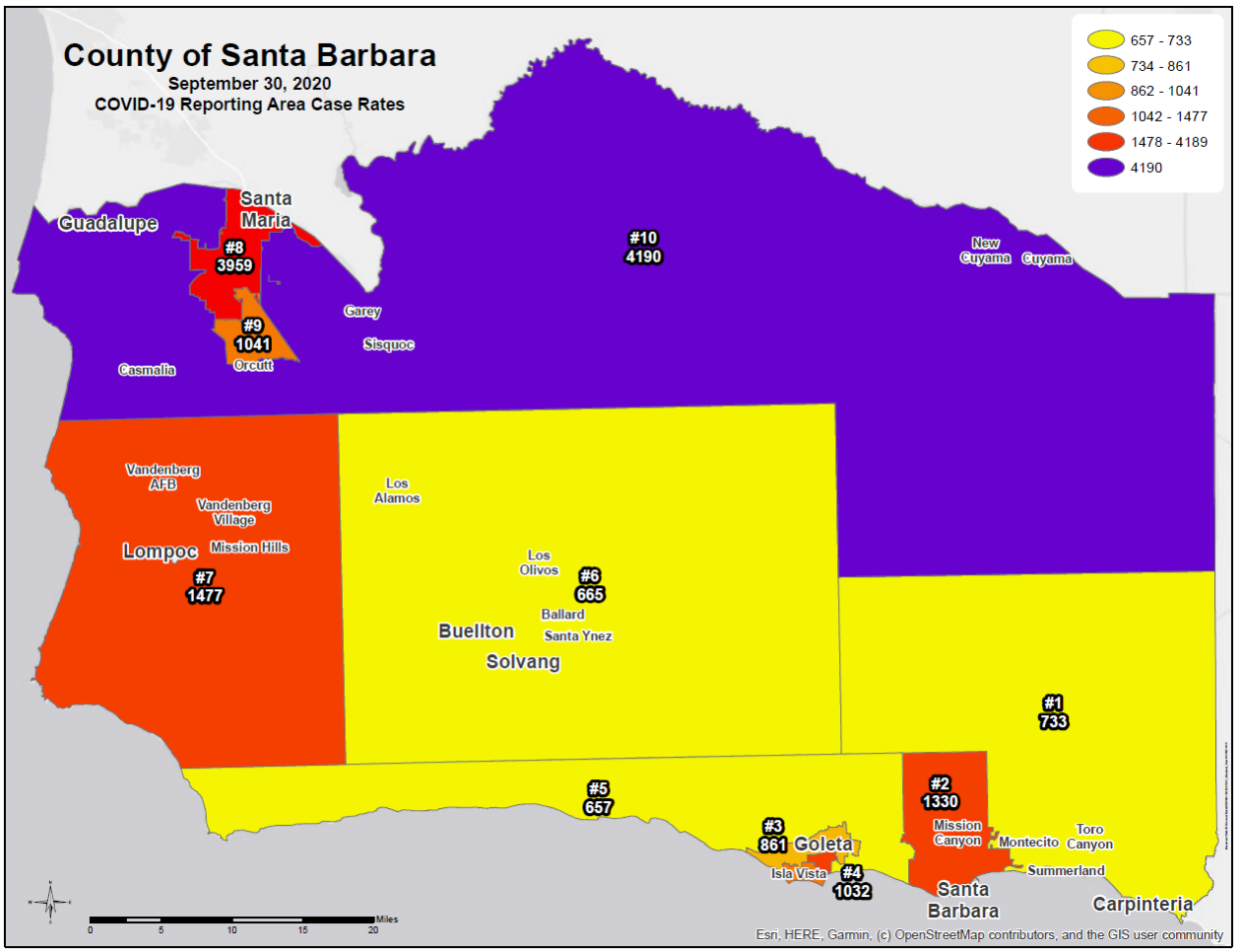
Figures 16 and 17 divide Santa Barbara County into ten geographic regions. Communities with smaller populations were aggregated in order to comply with Privacy and HIPAA regulations. Figure 16 lists the geographic regions from highest to lowest case rates per 100,000 people using 2010 US Census data. At 4,189.8 cases per 100,000 people, North County unincorporated areas have the highest rate of COVID-19 infection. That being said, the total population and case counts in this region are relatively low. Santa Maria, with the second highest case rate of 3,958.7 cases per 100,000 and the highest case count at 3,941, has been disproportionately impacted by the COVID-19 pandemic. Lompoc had the third highest case rate at 1,477.3 per 100,000 and 846 cases. The City of Santa Barbara (fourth highest) had a case rate of 1,333 per 100,000 and 1224 cases. The data for remaining geographic areas are presented in the figures below.[10]

Figure 16. COVID-19 Case Rate per 100,000 by region



[10] Case rates by geographic region have been calculated using 2010 Census data.

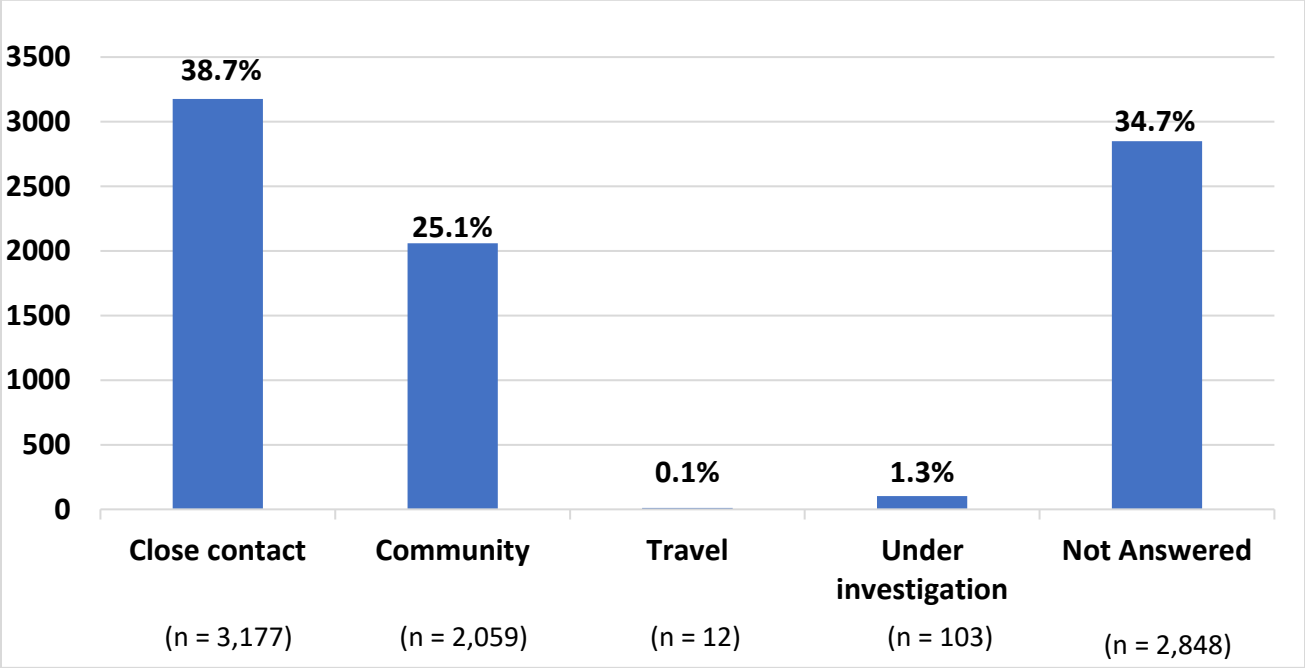
Figure 17. Map of COVID-19 Case Rate per 100,000 by region



Transmission

Transmission type is presented in **Figure 18**. The majority of COVID-19 cases with a known transmission status can be attributed to close contact (38.7%) and community spread (25.1%). Close contact is defined as being within 6 feet of an infected person for at least 15 minutes from 2 days before illness onset or specimen collection date. Cases labeled as community spread are those in which the individual has not had known close contact with an identified case. While the first cases in the country were linked to international travel, less than 1% of cases in Santa Barbara County were due to travel. The transmission status of 1.3% of cases was as yet to be determined at the date of this report's publication. It should be noted that a large percent of cases (nearly 35%) did not answer transmission status interview questions.

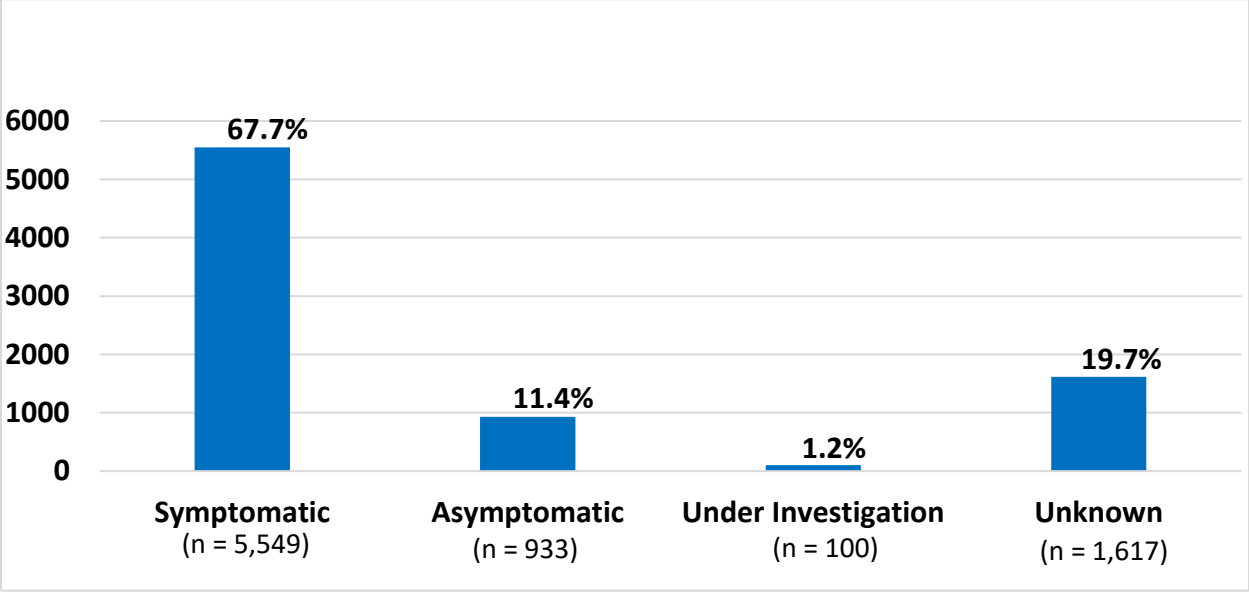
Figure 18. COVID-19 Cases by Transmission Type, as of 9/30/20 (N=8,199)



Symptomology

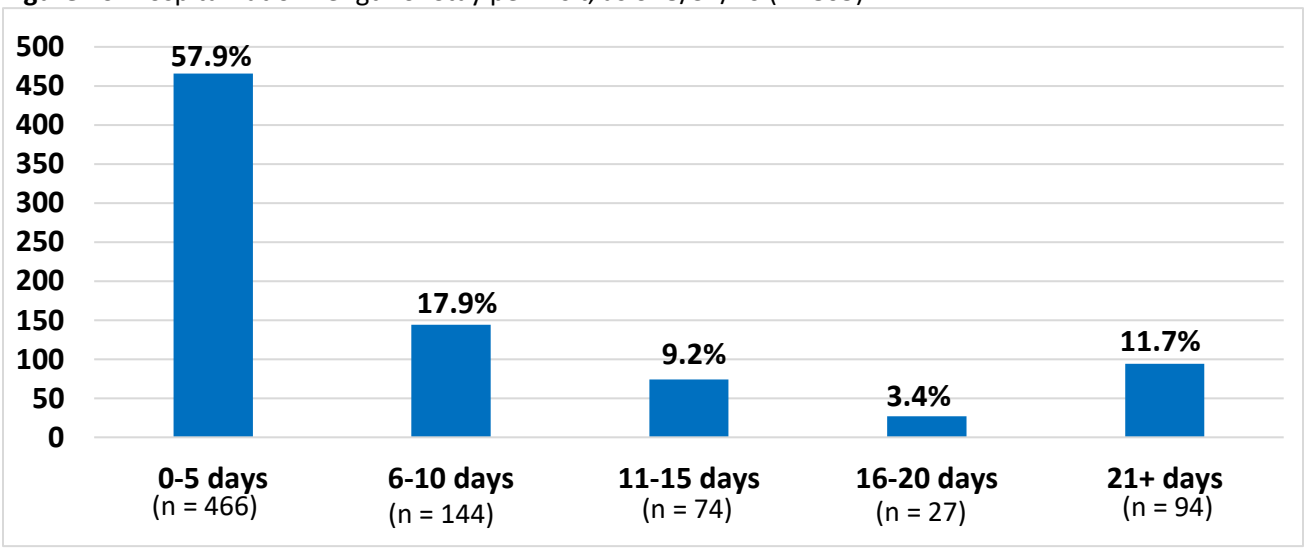
Figure 19 depicts cases that reported having any symptom of COVID-19 (67%) compared to those that were asymptomatic (11%), under investigation (1.2%), and unknown (19.7%). Early in the pandemic, testing was limited to those with symptoms. Since then, testing criteria has broadened. However, asymptomatic residents may be less likely to seek testing. Therefore, the true number of cases and percentage of asymptomatic cases is unknown.

Figure 19. COVID-19 Cases by Symptomology, as of 9/30/20 (N=8,199)



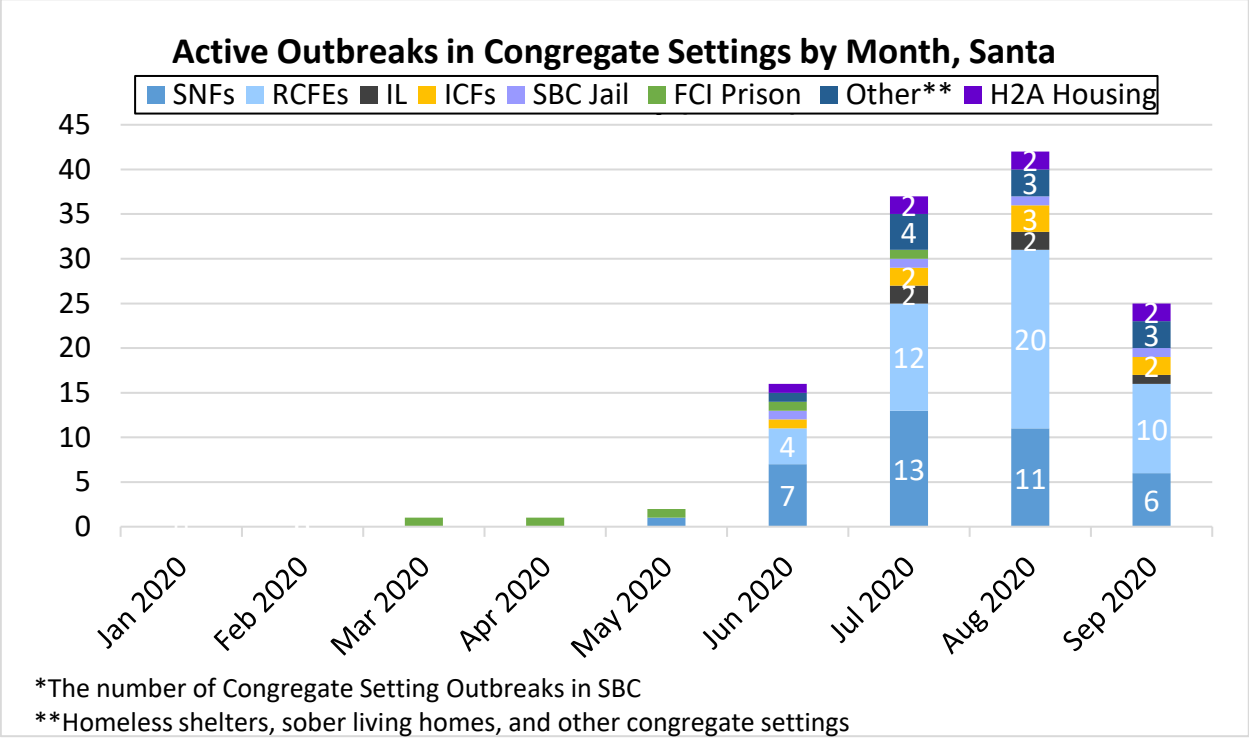
Length of stay among those hospitalized is presented in **Figure 20**. While the majority (57.9%) of hospitalizations had a relatively short length of stay (0-5 days), 11.7% had a length of stay greater than 20 days. Length of stay may indicate severity of disease and need for supportive care.

Figure 20. Hospitalization Length of Stay per Visit, as of 8/31/20 (N=805)



There have been a total of 59 outbreaks at congregate care settings in Santa Barbara County between March through September (**Figure 21**). These congregate care settings included skilled nursing facilities (SNFs), residential care facilities for the elderly (RCFEs), independent living facilities (IL), intermediate care facilities (ICFs), Santa Barbara County Jail (SBC Jail), Lompoc Federal Correction Institute (FCI Prison), homeless shelters, sober living homes, H2A housing, and other congregate settings. Following temporal trends of cases, congregate care setting outbreaks increased during the summer months. August had the highest number of congregate care setting outbreaks. RCFEs accounted for the majority of active outbreaks by month, followed by SNFs.

Figure 21. Active Outbreaks in Congregate Settings by Month, Santa Barbara County (N=59*)



*The number of Congregate Setting Outbreaks in SBC
**Homeless shelters, sober living homes, and other congregate settings

Conclusion:

This report summarized COVID-19 cases in Santa Barbara County from March through September. During this time, there have been 8,199 cases of COVID-19 reported to Public Health. The overall testing positivity was 5.6%. Santa Barbara County saw a wave of case in the summer. The number of cases and testing positivity, peaked in July. This wave of cases could be associated with the reopening of sectors and summer holidays.

The end of this reporting period represented a major transition for Santa Barbara County. On September 29, per Governor Newsom's second and latest reopening classification system, the Blueprint for a Safer Economy, SBC's COVID-19 spread was downgraded from widespread to substantial, it moved from Tier 1 (purple) to Tier 2 (red) and many nonessential indoor businesses were allowed to reopen.[11] From this report we know that a period of reopening led to a major surge in cases in SBC. For this reason, SBC Public Health Department should plan for the potential that this may reoccur.

[11] Santa Barbara County Public Health Department. Santa Barbara County moves to the red tier allowing for more businesses to open indoors with modifications. Retrieved on October 6, 2020. https://www.countyofsb.org/asset.c/5740

The age groups with the majority of cases was working adults (18-29 and 30-49 years old), which made-up for a larger percentage of cases than their respective population proportions. Efforts should focus on working with employers and post-secondary schools to mitigate the spread of disease. In addition, as schools reopen it will be important to monitor the situation with youth.

While Whites had fewer cases than predicted by their relative population size, Hispanic/Latinos have been disproportionately impacted by COVID-19 in Santa Barbara County. This highlights the issue of health equity, which Santa Barbara County Public Health Department is committed to advancing.

Analysis of occupation found there have been multiple outbreaks associated with agricultural workers, which are the most common occupation of COVID-19 cases. Frontline staff (healthcare, laborers/unskilled, and restaurant/bar or food preparation workers) also represent a large number of cases. Further protections for these workers are needed to slow the spread of infection.

The geography of cases has consistently shown that North County unincorporated areas and City of Santa Maria have the highest rates of disease. These community's rates far surpass the County average case rate. When considering implementing new strategies, priority should be placed on areas with the highest burden of disease.

Of cases with known transmission status, the majority were close-contact. This highlights the need to limit gatherings. Residents should be reminded of the importance to limit interactions with people outside of their household.

Technical Notes:

- All cases are laboratory confirmed for SARS-CoV-2 via molecular assay.
- Unless otherwise noted, population numbers are 2020 projections from California Department of Finance.
- Federal inmates are excluded from the analysis.

Next Steps:

- This report will be updated on a quarterly basis.
- A weekly report will be created to monitor the situation in real-time.
- Trends identified in this report will continue to be monitored for any changes.
- Young adults and youth will be closely monitored during reopening of sectors and schools.
- The Public Health Department will continue to work with partners to contain disease during outbreaks.
- For the most up-to-date information, please visit https://publichealthsbc.org/