

**Sexually Transmitted Infections (STI) and HIV
Epidemiology Annual Report,
2021**

County of Santa Clara
Public Health Department
Infectious Disease and Response Branch
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Executive Summary

As the County of Santa Clara and the country have worked to imagine a world after the shock of the early COVID-19 pandemic, so has the STD/HIV Prevention & Control Program sought to re-envision itself in the past year. The journey has included an extensive strategic planning process, engaging a broad range of stakeholders, and culminating in part in changing its name to the Sexual Health and Harm Reduction Program (SHHRP). This report summarizes key findings from surveillance data for HIV and other reportable infections that are primarily sexually transmitted, as reported to the County of Santa Clara Public Health Department. Its findings generally show rates of reportable STIs rebounding from the dip during early 2020 seen across most diseases and demographic groups. However, reported rates among most diseases and demographic groups did not quite return to pre-pandemic levels.

Some of the data collected in 2021 begin to help answer how much of the apparent decrease in rates of most STIs in 2020 were due to decreased transmission versus decreased diagnosis or reporting. They also help to remind us of the upward trajectory we had been experiencing for every STI except HIV for nearly 20 years prior to the COVID-19 pandemic, and that even the substantial decrease seen with some disease categories or for some populations still left these communities with historically high rates of disease. However, in many ways it remains unclear how much transmission may have been paused or reduced versus simply gone unnoticed.

The decrease seen in 2020 was most striking for chlamydia, with reduction in rates by almost 50%. The 2021 data now show a much smaller rebound than for other diseases, perhaps suggesting true pauses and reductions in transmission in some groups and perhaps therefore a reduced reservoir for transmission in 2021, creating an opportunity for further progress in the future. Pre-pandemic patterns of chlamydia spread were less strikingly associated with social determinants of health than other STIs, so it is possible a disproportionate ability to shelter in place and alter sexual and social behaviors in 2020 were able to have more of a true preventative effect on those experiencing chlamydia than other diseases.

Prior to the COVID-19 pandemic, local and statewide gonorrhea rates had begun to level off, after having been the first STI to begin rising in early 2000s before all other bacterial STIs began to show similar trends. The apparent levelling-off continues, and gonorrhea rates perhaps appear less visibly impacted by the pandemic, with minor fluctuations but overall stability over the past 4 years.

Syphilis rates fell in 2020 for many populations, but somewhat surprisingly did not rebound for many in 2021. A major exception is that rates among Hispanic/Latinx men rose in both 2020 and 2021. While rates of syphilis in pregnancy appear to have decreased further after the pandemic, the rate of congenital syphilis remains at the highest level seen in decades.

Unlike other reportable STIs, rates of new HIV diagnoses had stabilized for nearly a decade prior to the pandemic, although concerningly with worsening disparities by race and ethnicity in some populations. The rate in 2021 did not fully return to pre-pandemic levels, and data on late diagnoses suggest that delayed testing and diagnoses contributed considerably to the dip in 2020.

For all diseases described herein, the dramatic changes in most disease reports from 2019 to 2020 were unfortunately not sufficient to move the needle on the decades of disparities that have negatively impacted

LGBTQ populations and African-America/Black and Hispanic/Latinx community members. This year's data show perhaps a continued worsening trend of disparities driven by racism, homophobia, transphobia, and impact on communities experiencing disproportionate homelessness, incarceration, substance use, and mental illness.

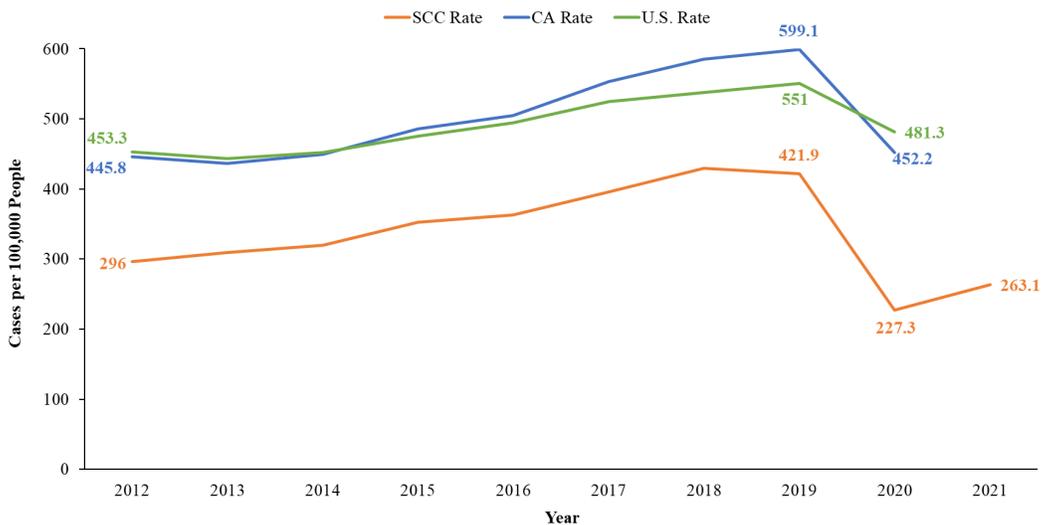
Overall, the work of SHHRP will continue to focus on understanding the persistent trends of record-high rates of STIs; countering the pervasive disparities in sexual health and related outcomes based on race, ethnicity, gender, and sexual orientation; and improving data quality especially around gender data collection. The Program's new strategic priorities align with these needs and allow SHHRP to newly integrate Hepatitis C Virus prevention and control and investigation and response to MPOX (formerly monkeypox or MPX) as it continues to spread via primarily intimate close contact. Future annual reports will aim to include key findings for these additional diseases and incorporate the ways in which populations impacted intersect with those described in this report.

I. Chlamydia

General Trend Over Time

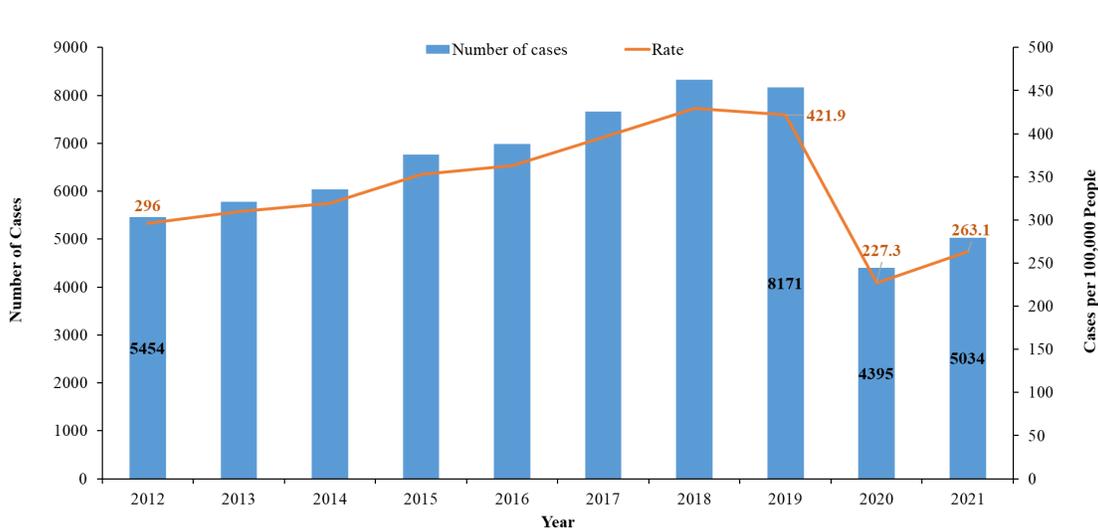
From 2012 – 2021, rates of chlamydia were lower in Santa Clara County, compared to California and the United States as a whole (Figure 1). Chlamydia rates steadily increased over time from 296 cases per 100,000 people in 2012 to 421.9 in 2019. The number of cases and rates then decreased from 2019 to 2020 by 46%, and then increased from 2020 to 2021 by 16% (Figure 2). The decrease in 2020 and the increase in 2021 is seen simultaneously across both males and females and most races, ethnicities, and age groups. The rebound in overall case rates in 2021 is less than similar rebounds seen for other reportable STIs, with rates of chlamydia in 2021 below those seen in 2012.

Figure 1: Chlamydia rates, County of Santa Clara, California, and United States 2012 – 2021



Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021; 4. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2020. Atlanta: U.S. Department of Health and Human Services 2022 (2021 data not yet published).

Figure 2: Chlamydia case counts and rates, County of Santa Clara, 2012 – 2021

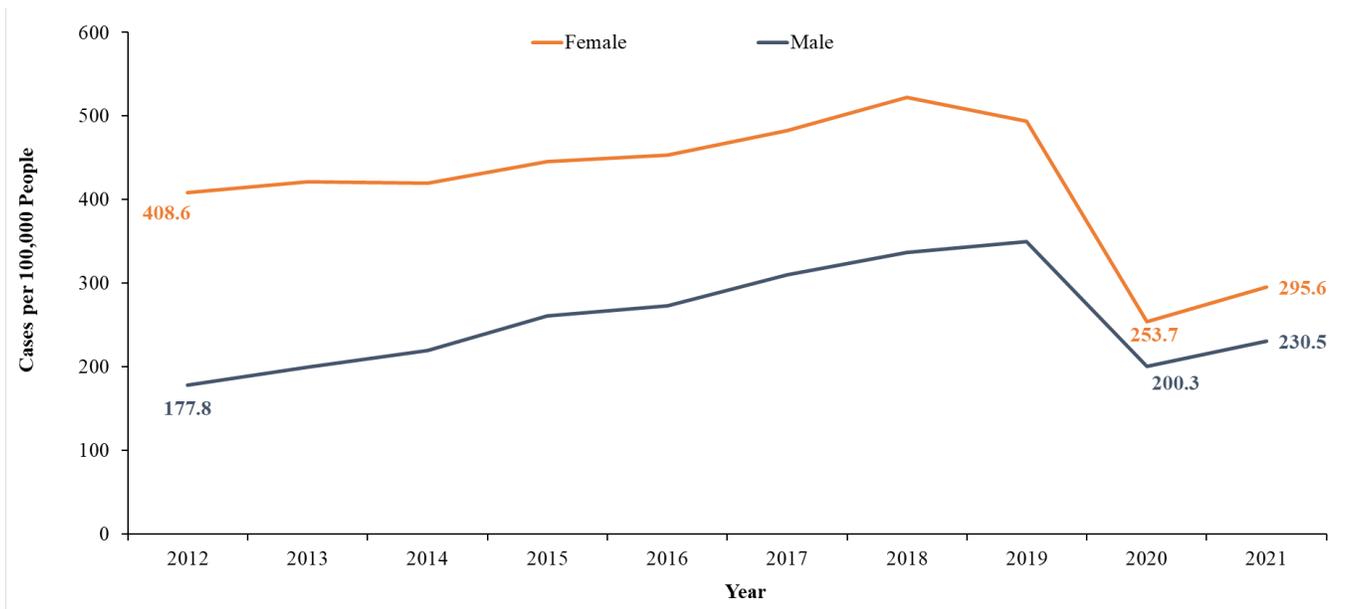


Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Chlamydia and Gender*

Overall, females had higher rates of chlamydia than males. In 2021, the rate among females was 295.6 cases per 100,000 people, 28% higher than the rate among males (230.5). From 2012 to 2019, chlamydia case rates increased among both females and males, with a more rapid increase among males than females, then decreased in 2020 and later increased in 2021 (Figure 3). From 2010 to 2019, the increasing trends of chlamydia among both females and males were highly statistically significant ($p < 0.0001$).

Figure 3: Chlamydia case rates by gender*, County of Santa Clara, 2012 – 2021



*Gender variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data; Rates among transgender populations are not available due to small populations and undefined population denominators.
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

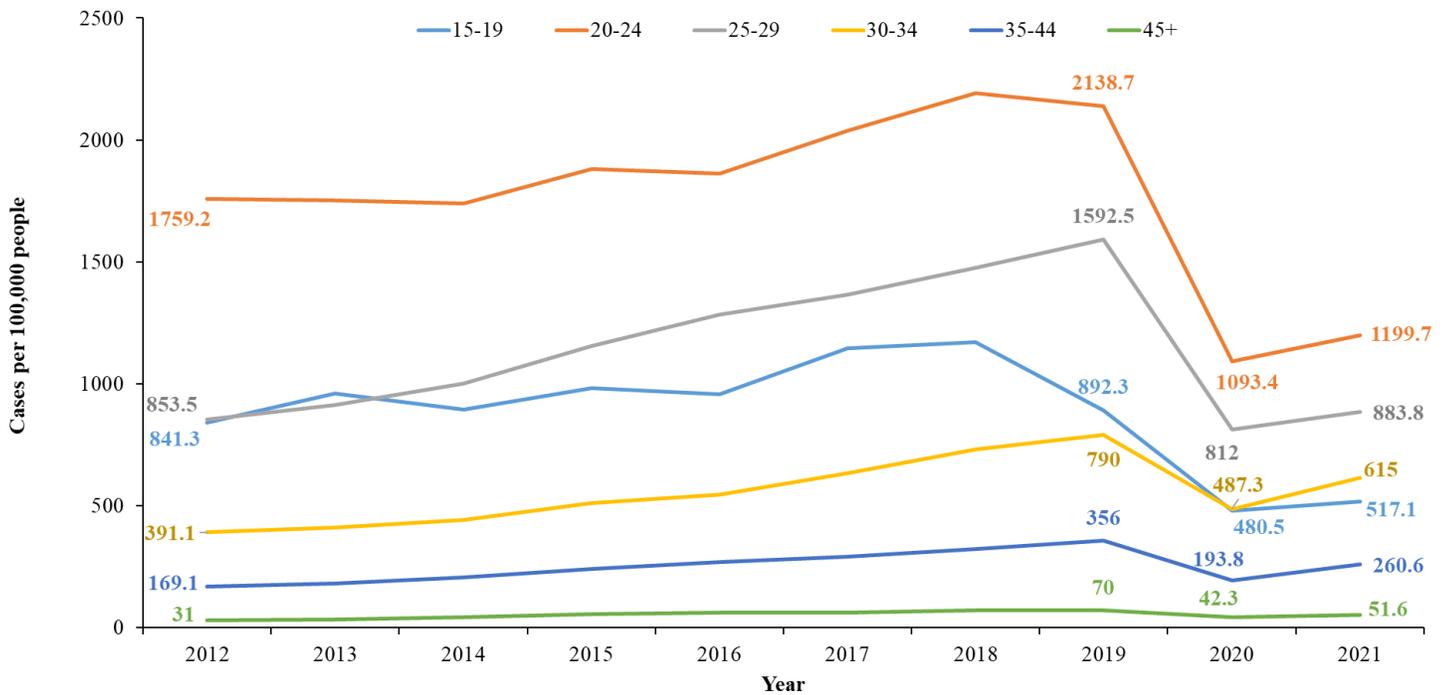
Chlamydia and Age

Young adults ages 20 to 24 had the highest rate of chlamydia among all age groups, with a rate of 1199.7 cases per 100,000 people in 2021, which was over 4 times the average rate among the total population of the county (263.1) (Figure 4).

Age-specific rates among females reflected similar trends as the total population. Among females, the highest rate of chlamydia was among those ages 20 to 24 (Figure 5), which had a rate of 1606.7 cases per 100,000 people, over 5 times the female average rate in 2021 (295.6). In 2021, females ages 25 to 29 had the second highest rate of chlamydia, and females ages 15 to 19 had the third highest rate. From 2012-2019, females ages 25 to 29 had the most rapid increase in the rate of chlamydia among females younger than 30 years old, with a 51% increase in the rate, compared with slower increases among those ages 24 and under.

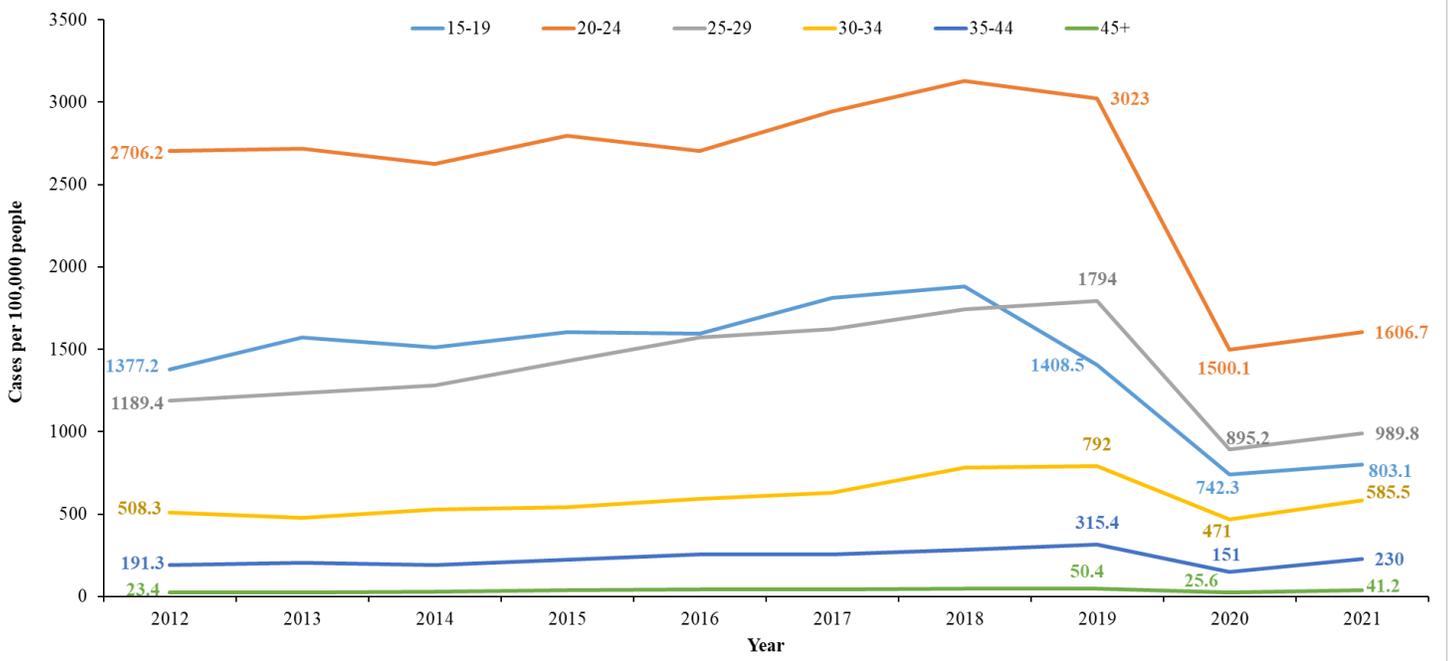
Figure 6 shows the rates of chlamydia among males in selected age groups from 2012 to 2021. Like females, the highest rate of male chlamydia cases was also in the age group 20 to 24 years in 2021 (816.9 cases per 100,000 people), over 3 times the average rate among males in the same year (230.5). Males ages 25 to 29 had the second highest rate of chlamydia and the most significant increase among males younger than 30 years old, with a rate that increased by 163% between 2012 and 2019.

Figure 4: Chlamydia case rates by selected age group, County of Santa Clara, 2012 – 2021



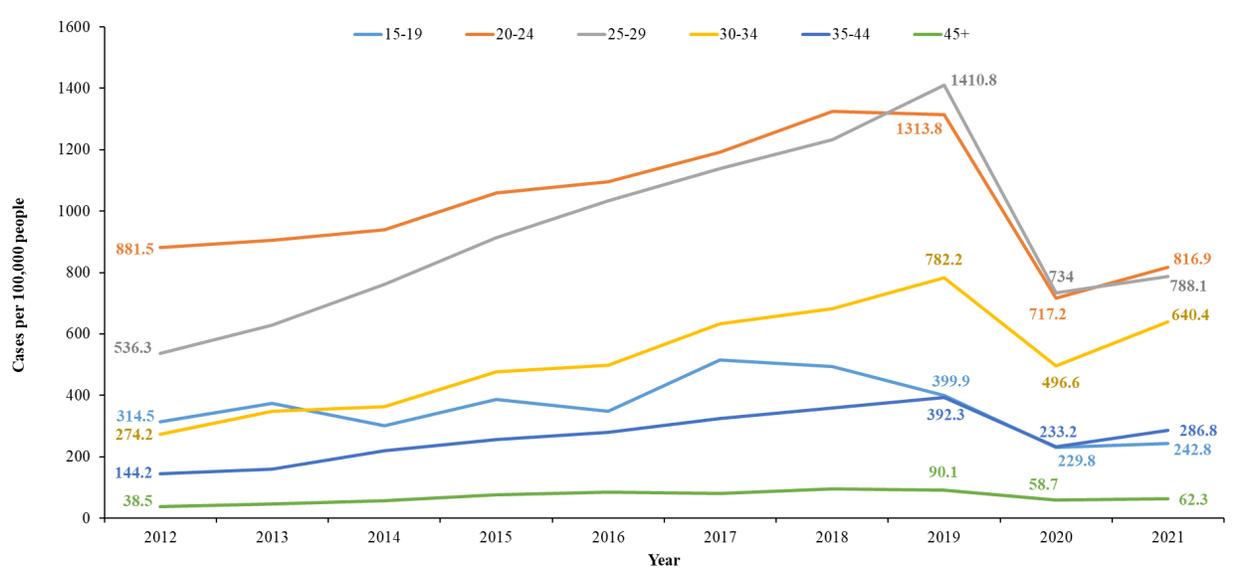
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 5: Chlamydia case rates among females* by selected age group, County of Santa Clara, 2012 – 2021



*Gender variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data; Rates among transgender populations are not available due to small populations and undefined population denominators.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 6: Chlamydia case rates among males* by selected age group, County of Santa Clara, 2012 – 2021



*Gender variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data; Rates among transgender populations are not available due to small populations and undefined population denominators.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

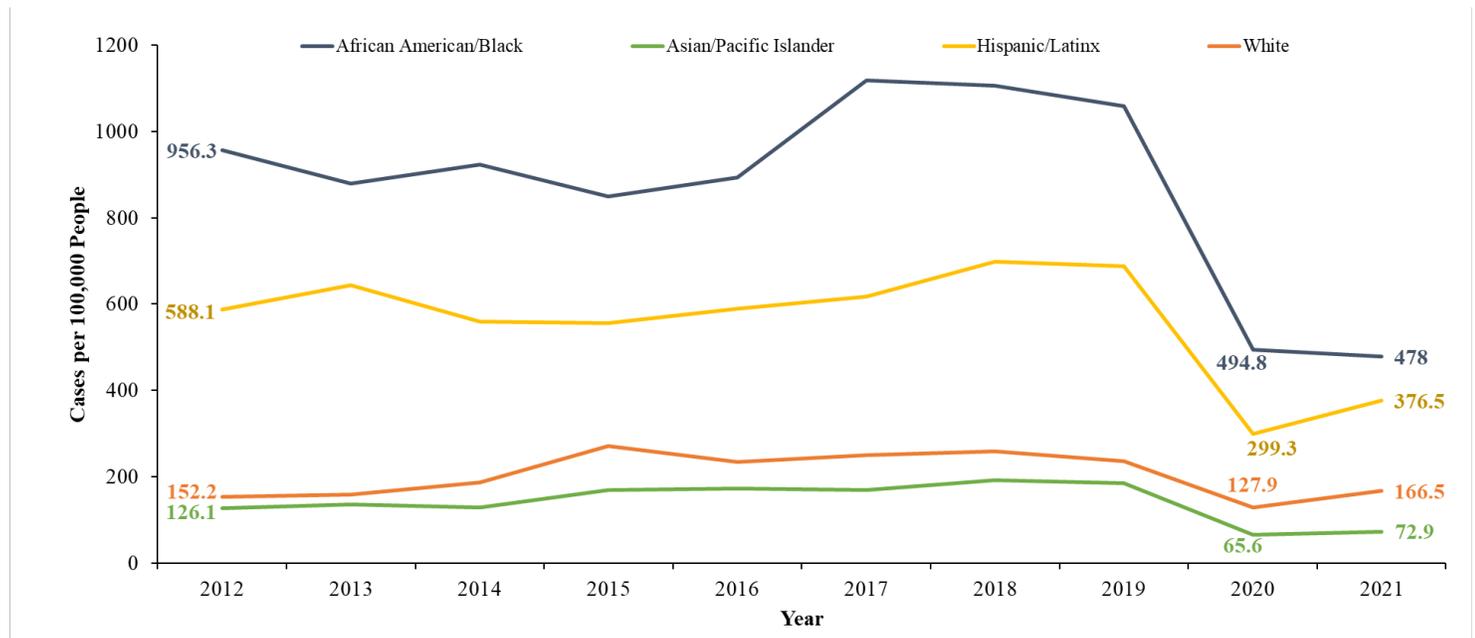
Chlamydia and Race/Ethnicity

Due to large proportions of chlamydia cases reported with unknown race or ethnicity, the race/ethnicity information were imputed (see Technical Notes) to obtain estimated numbers and rates of chlamydia by race/ethnicity. These numbers are not absolute and are intended to help describe the magnitude of the epidemic in each subgroup as compared to each other and to the county average.

The disease burden of chlamydia varied dramatically by race/ethnicity, but temporal trends were similar. Between 2012 and 2019, the rate of chlamydia increased among all racial/ethnic groups, then decreased in 2020. In 2021, rates then increased among all races/ethnicities, except among African Americans/Blacks. Overall, African Americans/Blacks had the highest rate of chlamydia among all racial/ethnic groups, and Hispanic/Latinx had the second highest rate. In 2021, the rate of chlamydia among African Americans/Blacks was 478 cases per 100,000 people, and the rate of chlamydia among Hispanic/Latinx was 376.5 cases per 100,000 people (Figure 7). Substantially higher rates of chlamydia among African Americans/Blacks than other racial/ethnic groups reflect the disproportionate impact of the disease on the relatively small African American/Blacks population of the county. From 2012 to 2019, the rates among Hispanic/Latinx have remained second highest and stable over the years, while the rates among whites and Asian/Pacific Islanders have been slowly increasing. African American/Blacks and Hispanic/Latinx females and males had the highest rates of chlamydia among all racial/ethnic groups. In 2021, chlamydia rates among African American/Blacks in the county were nearly 3 times higher than the rates among whites among females (Figure 8) and over 3 times higher than the rates among whites among males (Figure 9).

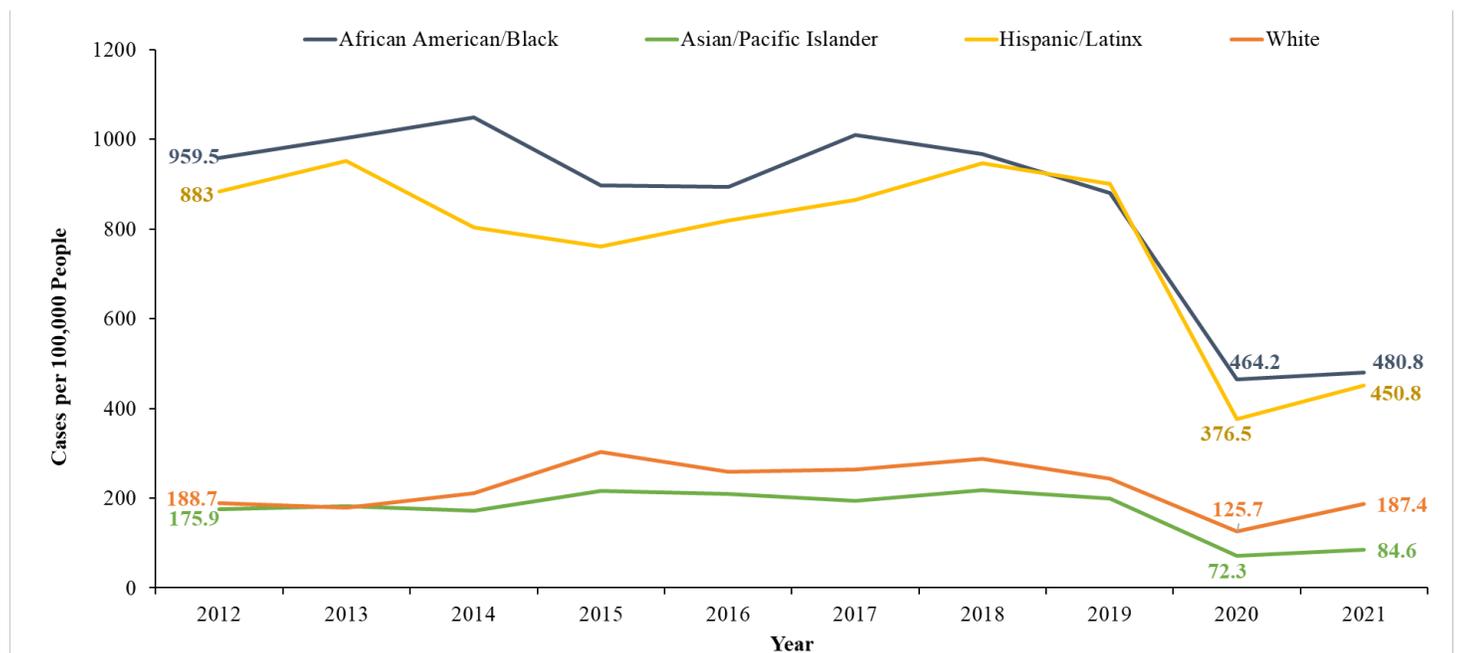
Figure 10 shows age-specific rates of chlamydia by race/ethnicity from 2012 to 2021. Generally, young adults ages 20 to 24 were more likely to have chlamydia than other age groups, and this feature was consistently observed across all racial/ethnic groups. The rate of chlamydia was highest among African American/Blacks age group 20-24. The rate of chlamydia in the youngest age group 15 to 19 was highest among African American/Black and Hispanic/Latinx residents.

Figure 7: Chlamydia case rates by imputed race/ethnicity*, County of Santa Clara, 2012 – 2021



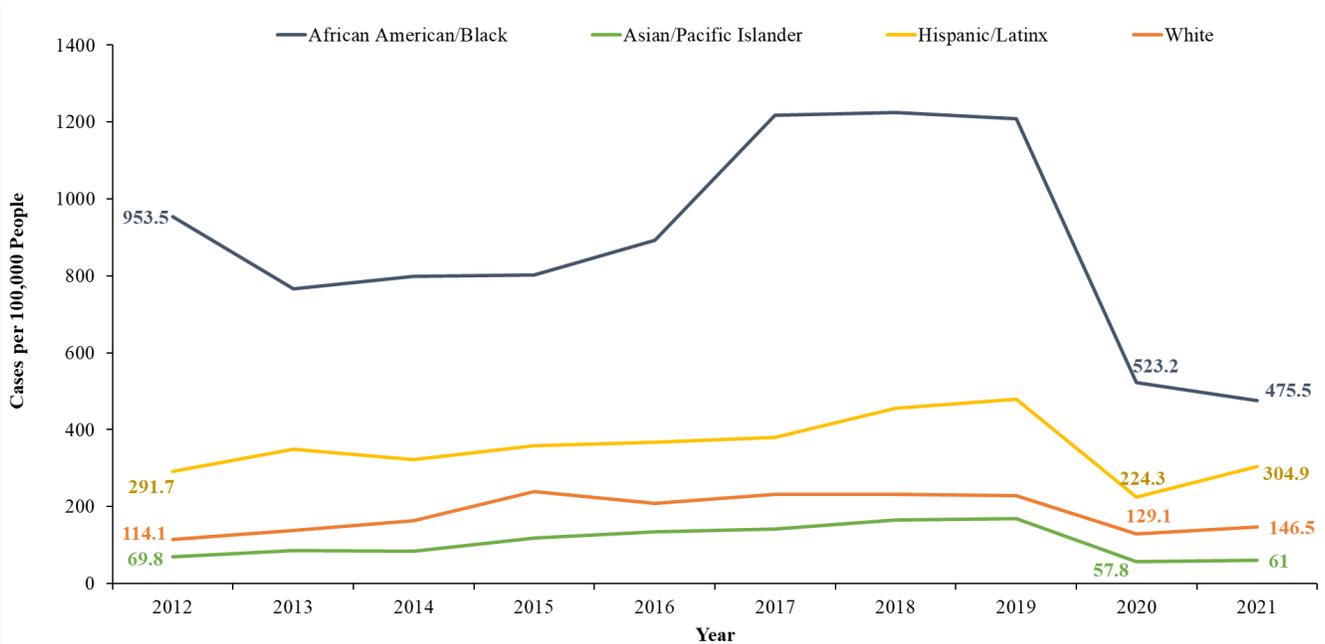
*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 8: Chlamydia case rates among females by imputed race/ethnicity*, County of Santa Clara, 2012 – 2021



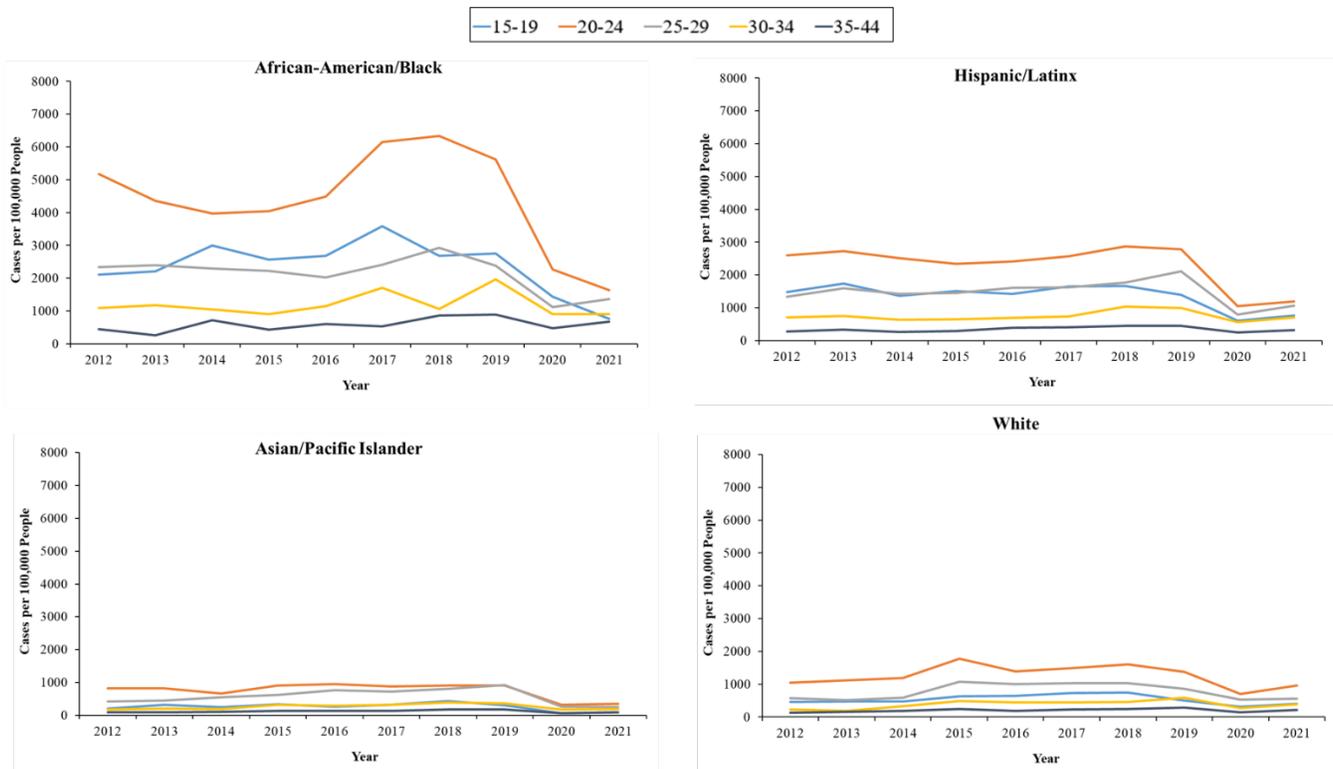
*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 9: Chlamydia case rates among males by imputed race/ethnicity*, County of Santa Clara, 2012 – 2021



*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 10: Chlamydia case rates by imputed race/ethnicity* in selected age groups, County of Santa Clara, 2012 – 2021

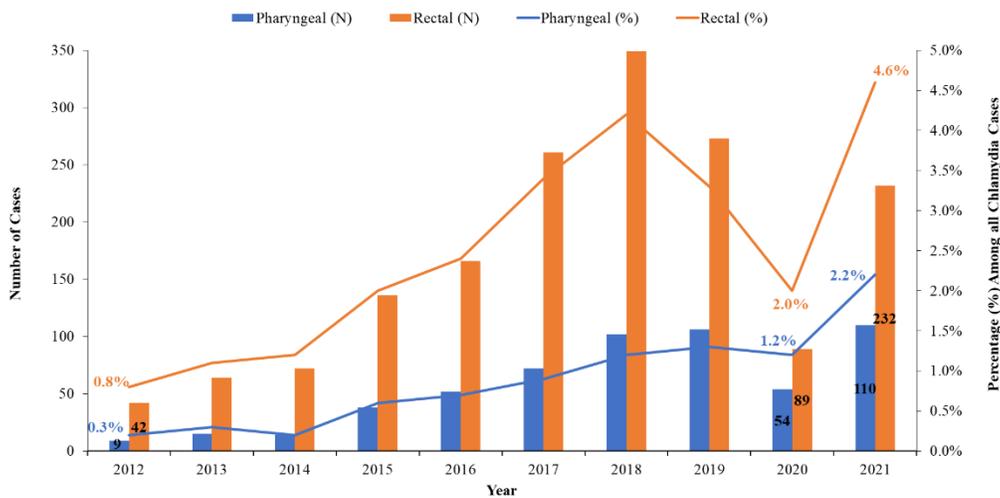


*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Chlamydia and Rectal/Pharyngeal Infections

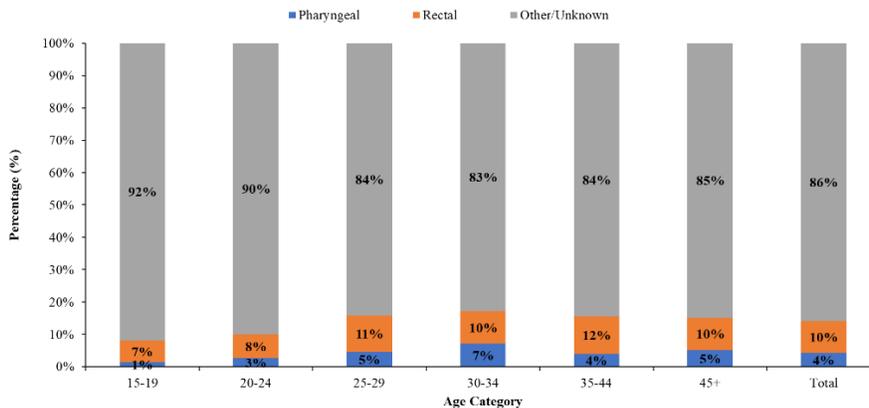
In the County of Santa Clara, rectal and pharyngeal screening for chlamydia and gonorrhea began in 2011 and has since expanded widely, especially among men who have sex with men (MSM) for whom this screening is recommended by the US Centers for Disease Control and Prevention (CDC). Reports of pharyngeal chlamydia continued to increase between 2012 and 2019, then decreased in 2020, and then increased in 2021. Reports of rectal chlamydia continued to increase between 2012 and 2018, then decreased in 2019 and 2020, and then increased in 2021 (Figure 11). Male chlamydia cases were more frequently diagnosed with rectal chlamydia than females. Figure 12 shows rectal infection was associated with increasing age among male chlamydia cases. Older cases had a higher percentage of rectal infection than younger cases, and males ages 35-44 had the highest percentage of reported rectal infection (12%). Although pharyngeal chlamydia cases were fewer than rectal chlamydia cases, the percentage of pharyngeal infection among male chlamydia cases also increased from 0.3% in 2012 to 2.2% in 2021 (Figure 11). Males ages 30 to 34 had the highest percentage of reported pharyngeal infection (7%), while males ages 15 to 19 had the lowest percentage (1%).

Figure 11: Number of cases and percentage of rectal/pharyngeal chlamydia, County of Santa Clara, 2012 – 2021



Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022

Figure 12: Percentage of rectal and pharyngeal chlamydia among males* in selected age groups, County of Santa Clara, 2021

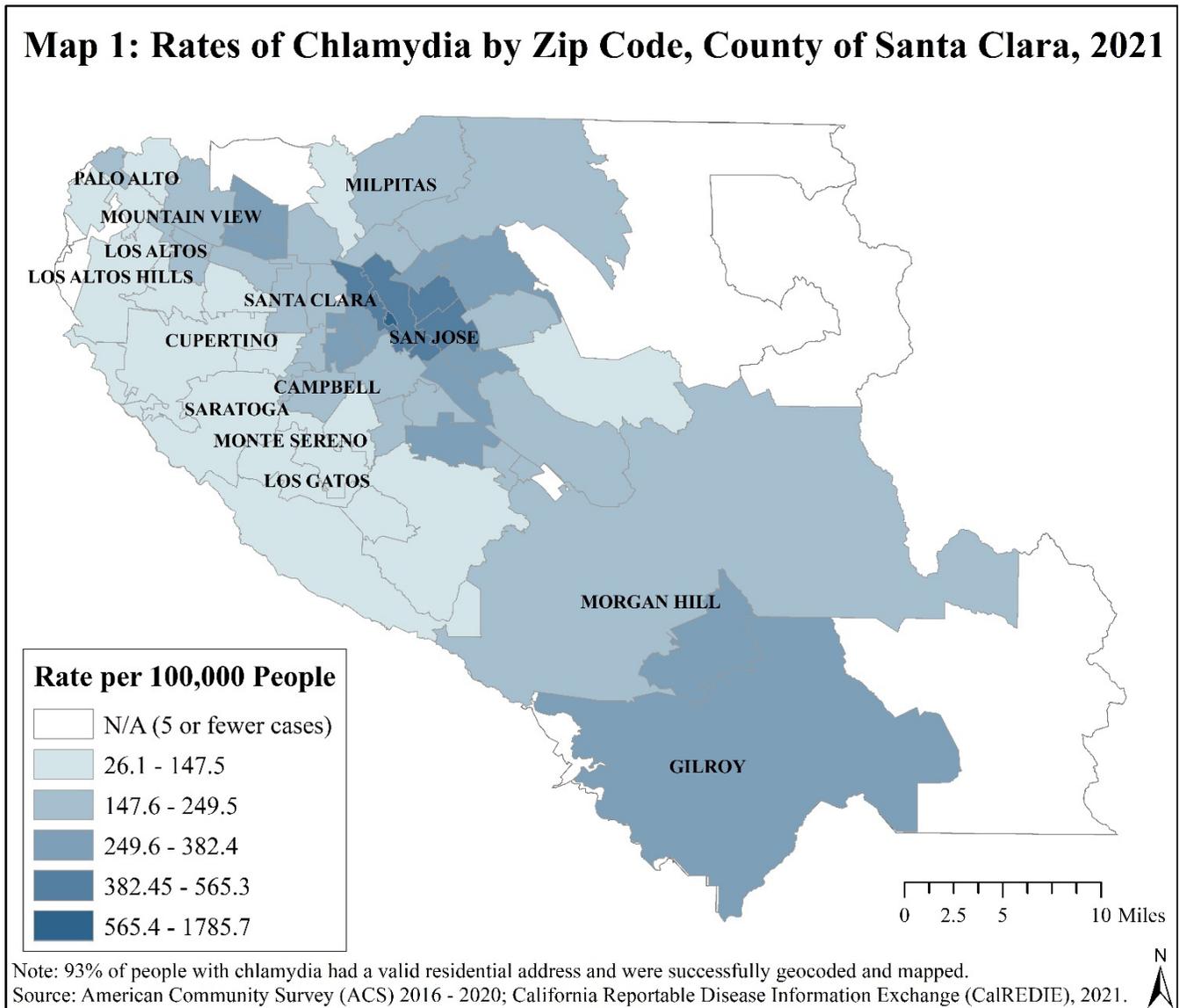


Source: Santa Clara County Public Health Department, CalREDIE (2019), data are provisional as of May 4, 2022.
 *Due to large numbers of missing rectal and pharyngeal testing data among females, analyses are only available among males. This may be in part due to the US Centers for Disease Control and Prevention (CDC) recommendation for regular rectal and pharyngeal screening for chlamydia and gonorrhea among men who have sex with men (MSM). For context, overall rectal and pharyngeal chlamydia rates are 0.3% and 0.4% among females respectively, and 9.8% and 4.3% among males respectively.

Chlamydia and Geographic Distribution

Geographic areas of the County of Santa Clara with the highest rates of chlamydia by zip code were closest to the Downtown San Jose area in the City of San Jose (565.4 – 1785.7 cases per 100,000 people). Higher rates in the downtown area may be due to a younger population and higher percentages of African American/Black and Hispanic/Latinx residents residing in these areas compared to the county as a whole¹. Higher rates were also observed in Gilroy (Map 1).

Map 1: Rates of Chlamydia by Zip Code, County of Santa Clara, 2021



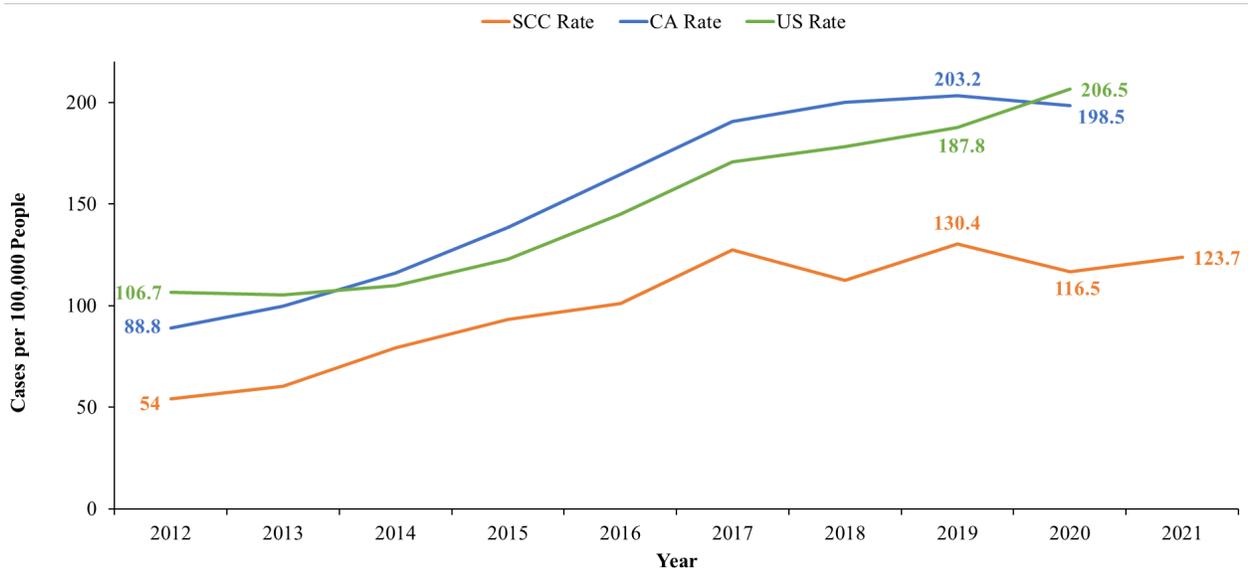
¹ Santa Clara County Public Health Department. Santa Clara County City and Small Area/Neighborhood Profiles: San Jose Downtown Profile 2016. 2016. <https://www.sccgov.org/sites/phd/hi/hd/Pages/san-jose.aspx>

II. Gonorrhea

General Trend Over Time

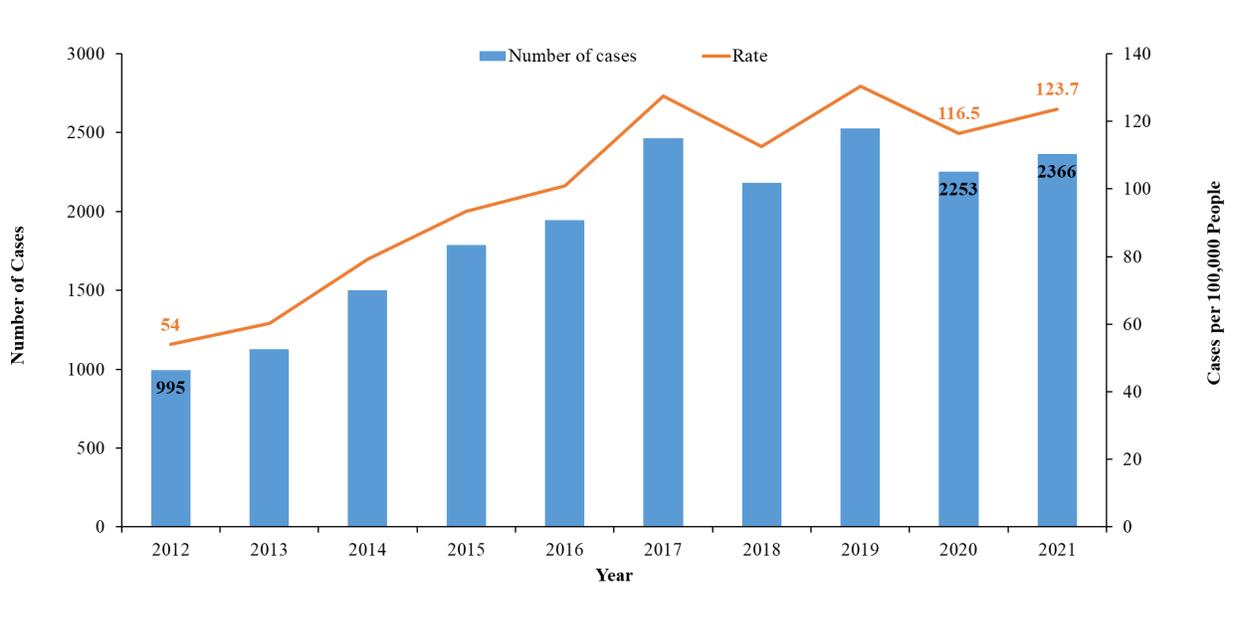
Gonorrhea was the second most frequently reported STI in the County of Santa Clara. From 2012 – 2020, rates of gonorrhea were lower in Santa Clara County, compared to California and the United States as a whole (Figure 13). Gonorrhea cases among all county residents more than doubled from 995 cases in 2012 to 2,366 cases in 2021. Gonorrhea rates among all county residents also more than doubled from 54 cases per 100,000 people in 2012 to 123.7 cases per 100,000 people in 2021 (Figure 14).

Figure 13: Gonorrhea rates, County of Santa Clara, California, and United States 2012 – 2021



Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021; 4. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2020. Atlanta: U.S. Department of Health and Human Services 2022 (2021 data not yet published).

Figure 14: Gonorrhea case counts and rates, County of Santa Clara, 2012 – 2021

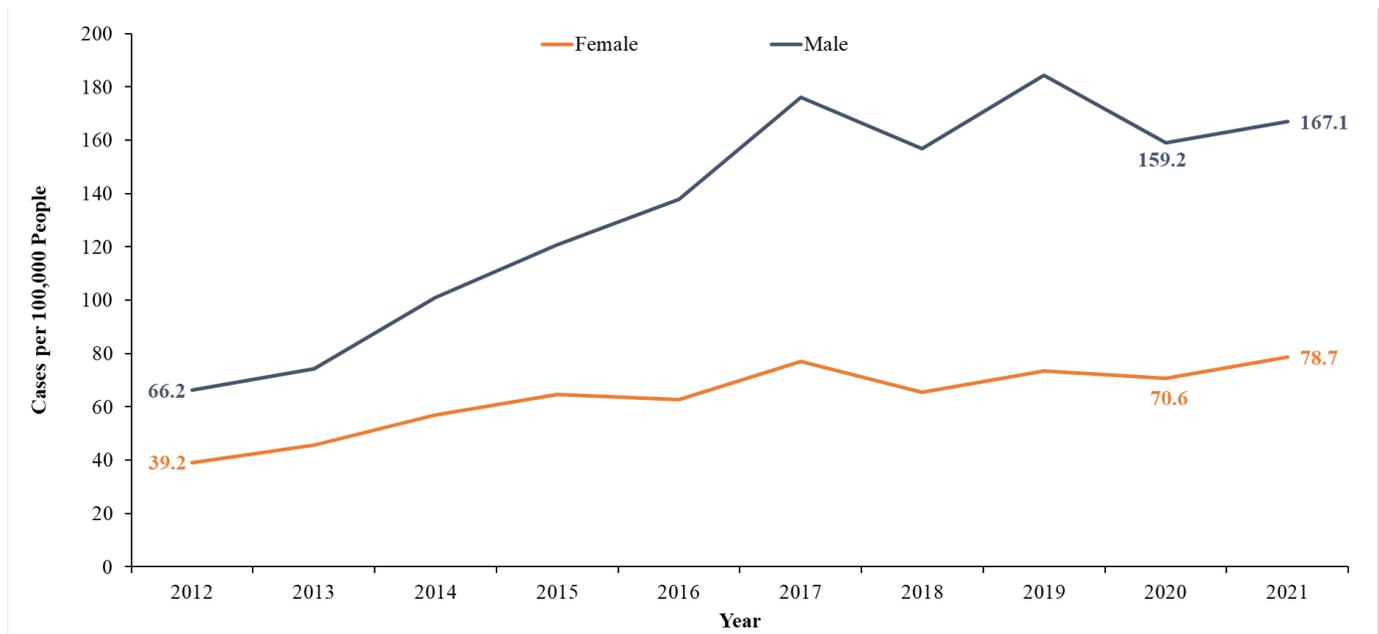


Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Gonorrhea and Gender*

Between 2012 and 2021, gonorrhea rates increased among both females and males, with a more rapid rise in cases among males. From 2012 to 2021, rate of gonorrhea cases among both females and males more than doubled. (Figure 15).

Figure 15: Gonorrhea case rates by gender*, County of Santa Clara, 2012 – 2021



*Gender variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data; Rates among transgender populations are not available due to small populations and undefined population denominators.

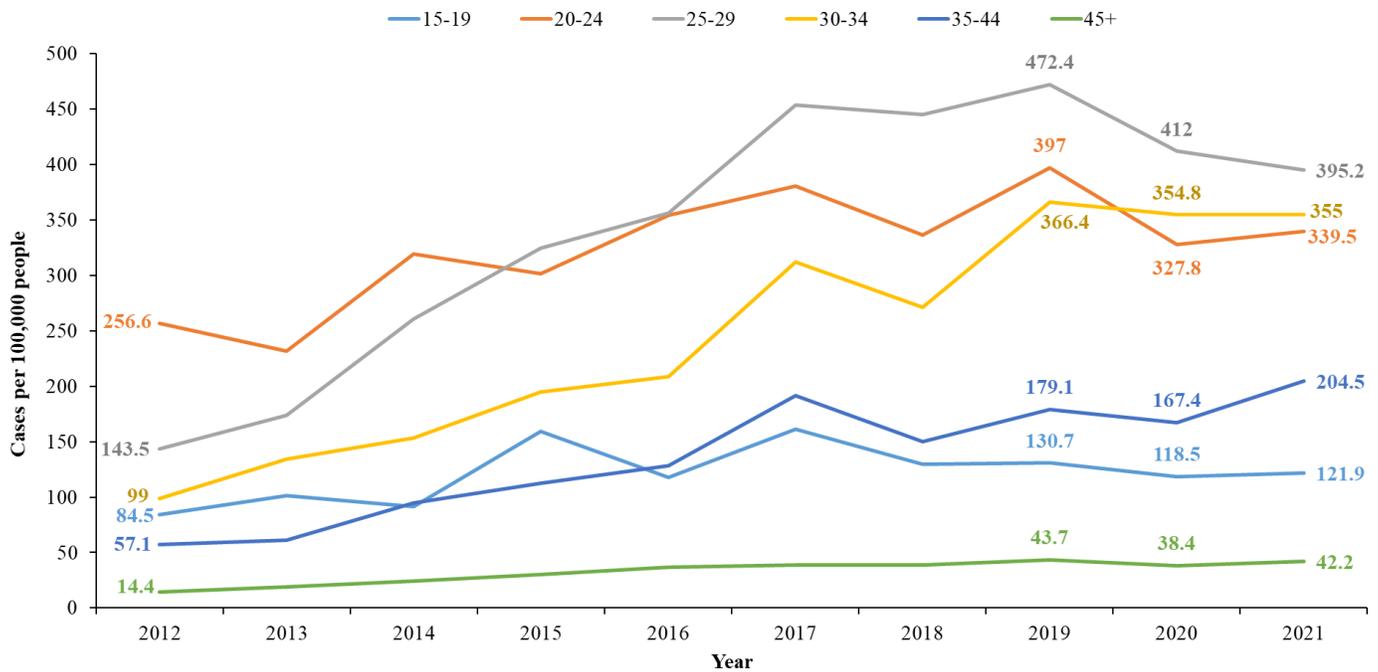
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Gonorrhea and Age

From 2012-2019, gonorrhea rates increased across all age groups, then decreased in 2020, and then increased across all age groups except those ages 25 to 34 in 2021. In 2021, the rate of gonorrhea in the age group 25 to 29 was the highest (395.2 cases per 100,000 people), more than 3 times the county average rate (123.7). From 2012 to 2019, people ages 20 to 24 had the second highest rate of reported gonorrhea but were surpassed by those ages 30 to 34 since 2020. From 2012 to 2021, rates among those ages 30 to 34 nearly quadrupled from 99 cases per 100,000 people to 355 cases per 100,000 (Figure 16).

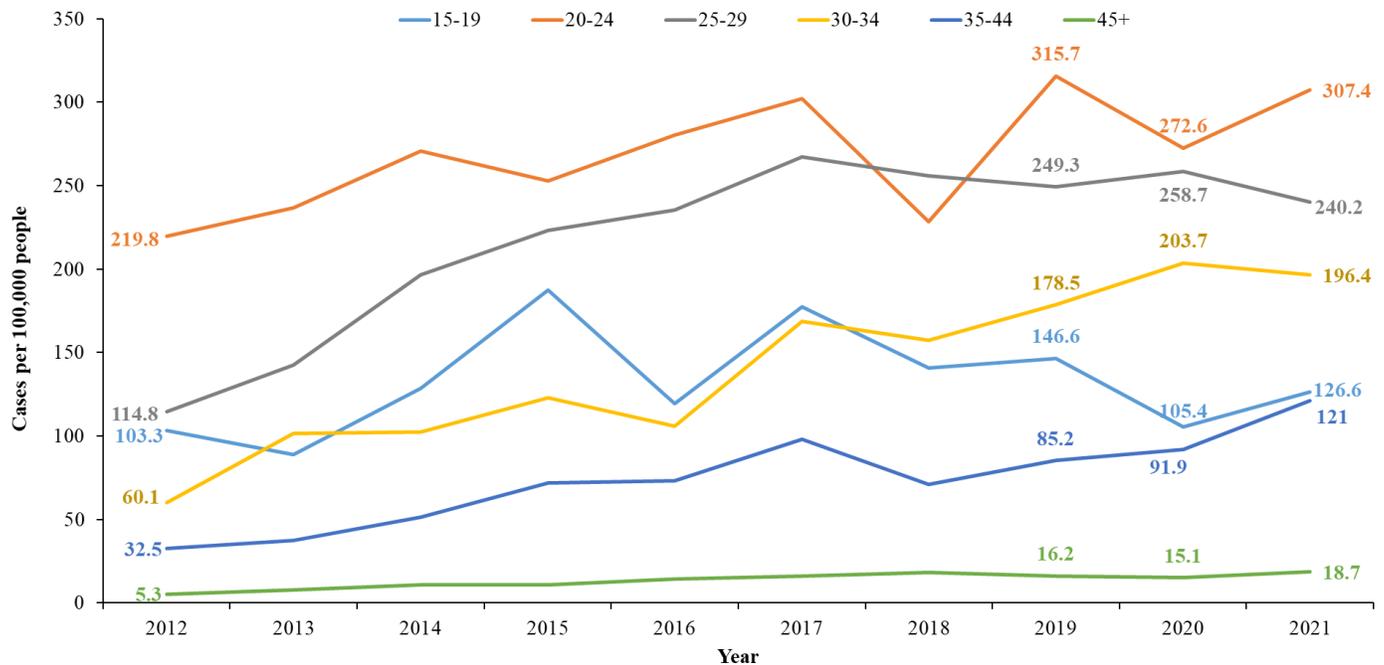
When stratified by sex, rates of gonorrhea over time increased from 2012 to 2021 among all age groups for both females and males (Figure 17 – 18). Since 2012, females in age groups 20 to 24 years most frequently had the highest rate of gonorrhea, while males in age groups between 25 to 29 years most frequently had the highest rate of gonorrhea. An especially marked upsurge in gonorrhea rates was seen among males ages 25 to 29, among whom the rate increased four-fold from 164.7 cases per 100,000 people in 2012 to 656.5 cases in 2019. This increase in reported gonorrhea may be due to an increase in infections and/or a possible increase in screening for oral and rectal infections, especially among young MSM population.

Figure 16: Gonorrhea case rates by selected age groups, County of Santa Clara, 2012 – 2021



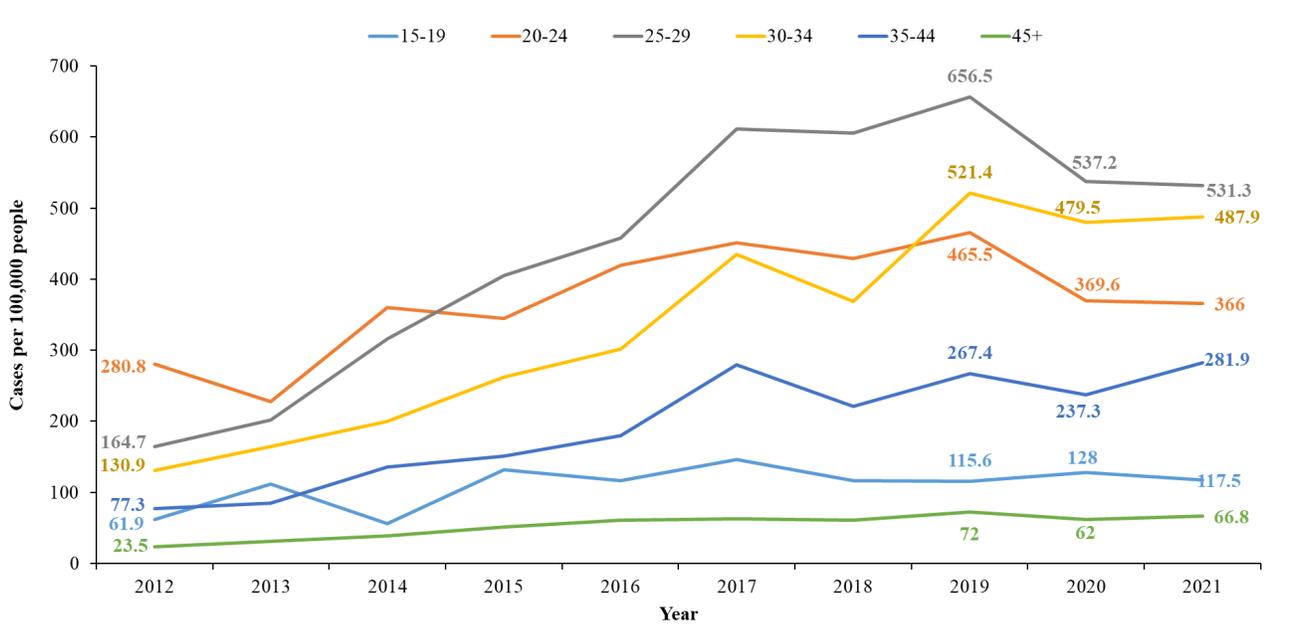
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 17: Gonorrhea case rates among females by selected age groups, County of Santa Clara, 2012 – 2021



Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 18: Gonorrhea case rates among males by selected age groups, County of Santa Clara, 2012 – 2021



Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Gonorrhea and Race/Ethnicity

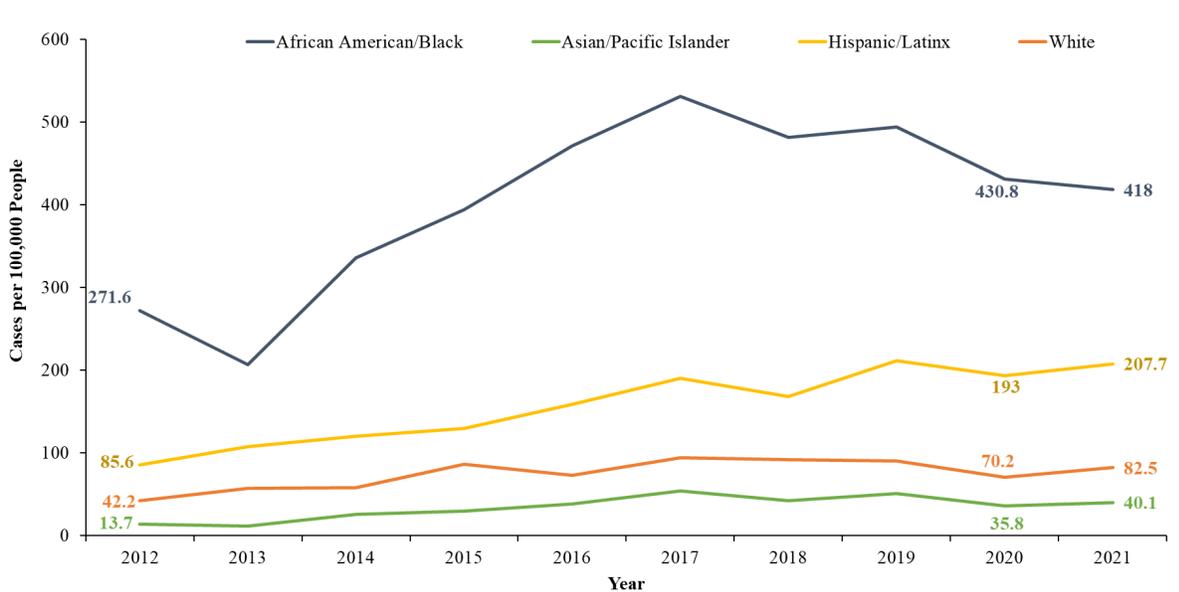
Due to large proportions of gonorrhea cases reported with unknown race or ethnicity, the race/ethnicity information were imputed (see Technical Notes) to obtain estimated numbers and rates of gonorrhea among each racial or ethnic group. These numbers are not absolute and are intended to help describe the magnitude of the epidemic in each subgroup compared to each other and to the county average.

From 2012 – 2019, the rates of gonorrhea cases increased over time for all racial/ethnic groups, while the rate among African American/Blacks nearly doubled, and the rates among whites and Hispanic/Latinx more than doubling, and the rates among Asian/Pacific Islanders nearly quadrupling. Rates among all racial/ethnic groups then decreased in 2020, and then increased across all racial/ethnic groups except among the African American/Black group. African American/Blacks had the highest rate of gonorrhea cases of all racial/ethnic groups (Figure 19). In 2021, the estimated gonorrhea rate among African American/Blacks (418 cases per 100,000 people) was over 2 times the rate among Hispanic/Latinx (207.7), over 5 times the rate among whites (82.5), and over 10 times the rate among Asian/Pacific Islanders (40.1).

African American/Black females were most likely to experience gonorrhea compared to females of all racial/ethnic groups, followed by Hispanic/Latinx females (Figure 20). In 2021, the estimated rate of gonorrhea among African American/Black females was nearly triple the female average rate, was nearly double the rate among Hispanic/Latinx females, over triple the rate among white females, and nearly 10 times the rate among Asian/Pacific Islander females. Similarly, African American/Black males had a higher estimated rate of gonorrhea than males in all other racial/ethnic groups. In 2021, the gonorrhea rate among African American/Black males was nearly 4 times the male average rate, over double the rate among Hispanic/Latinx males, nearly 6 times the rate among white males, and over 10 times the rate among Asian/Pacific Islander males (Figure 21).

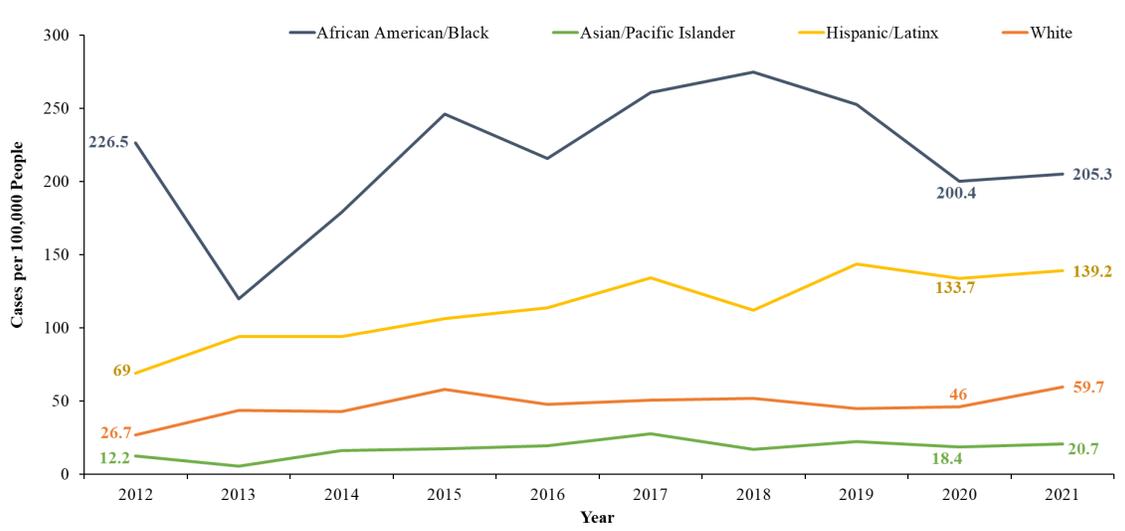
Figure 22 shows age-specific gonorrhea rates by race/ethnicity from 2012 to 2021. In 2021, young adults ages 20 to 34 had the highest rate of gonorrhea than any other age group, and this feature was consistently observed across all racial/ethnic groups. African American/Blacks had the highest reported rate of gonorrhea reported in the county across all age groups among all racial/ethnic groups. Among African Americans/Blacks in 2021, the rates of gonorrhea among 35 to 44 years were the lowest compared to all other age groups. From 2012 to 2021, gonorrhea rates in age groups older than 30 years continued to increase across all racial/ethnic groups.

Figure 19: Gonorrhea case rates by imputed race/ethnicity*, County of Santa Clara, 2012 – 2021



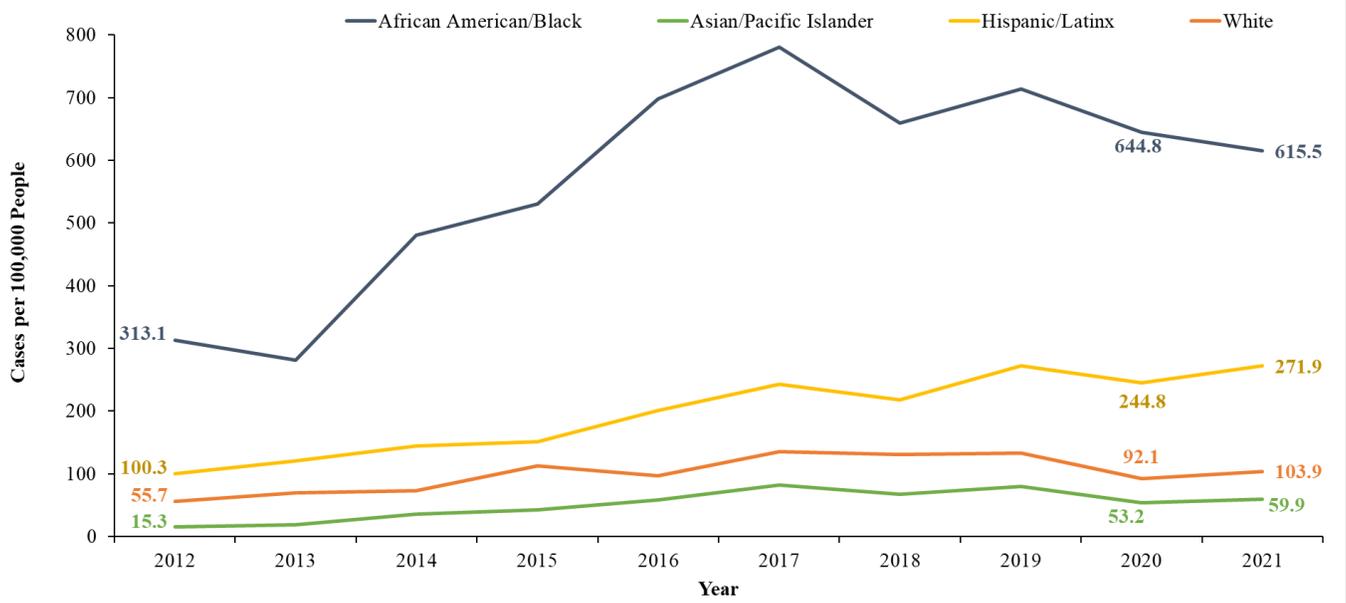
*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 20: Gonorrhea case rates among females by imputed race/ethnicity*, County of Santa Clara, 2012 – 2021



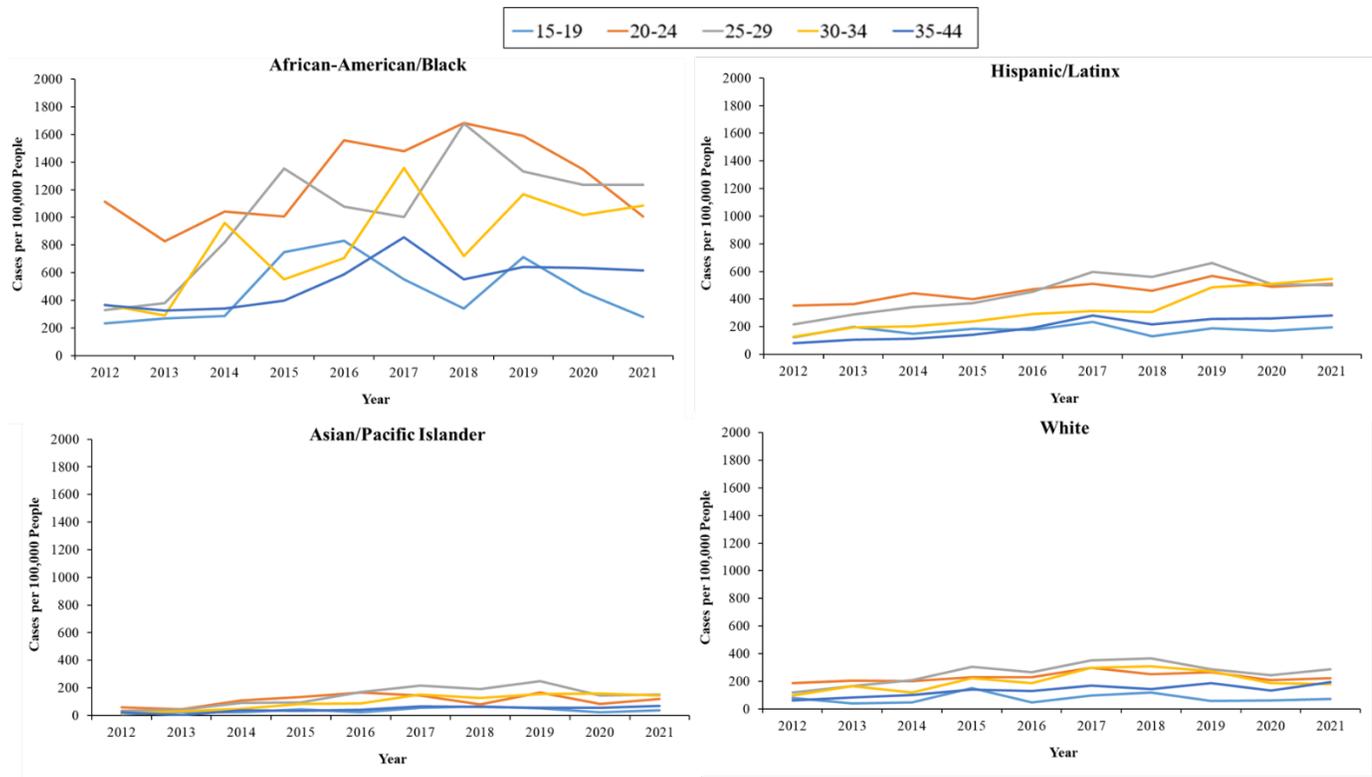
*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 21: Gonorrhea case rates among males by imputed race/ethnicity*, County of Santa Clara, 2012 – 2021



*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 22: Gonorrhea case rates by imputed race/ethnicity* and selected age group, County of Santa Clara, 2012 – 2021

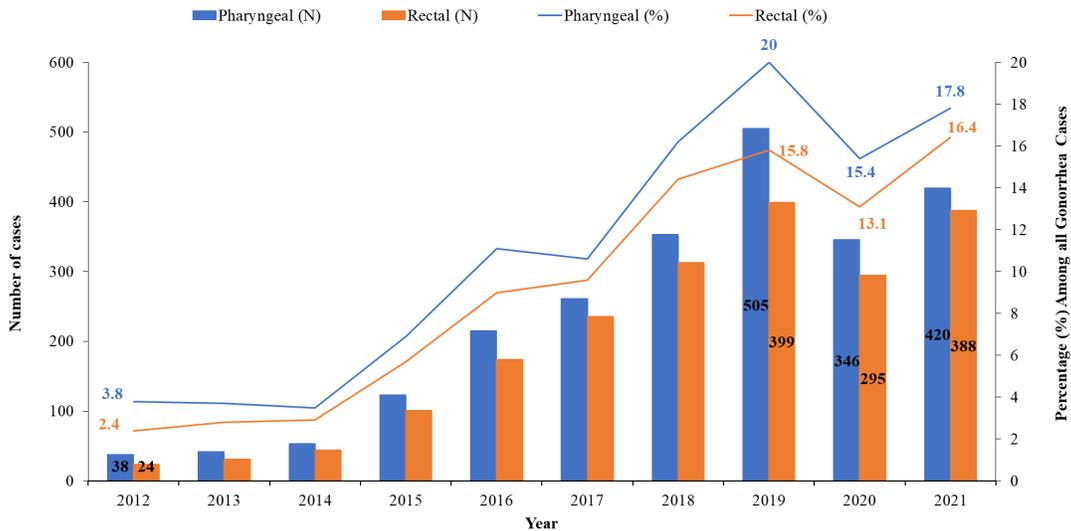


*Due to large proportions of missing data on race/ethnicity, unknown race/ethnicity cases were redistributed based on the proportions of the known race/ethnicity distribution by age groups. Rates and counts based on imputed race/ethnicity should be interpreted with caution.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Gonorrhea and Rectal/Pharyngeal Infections

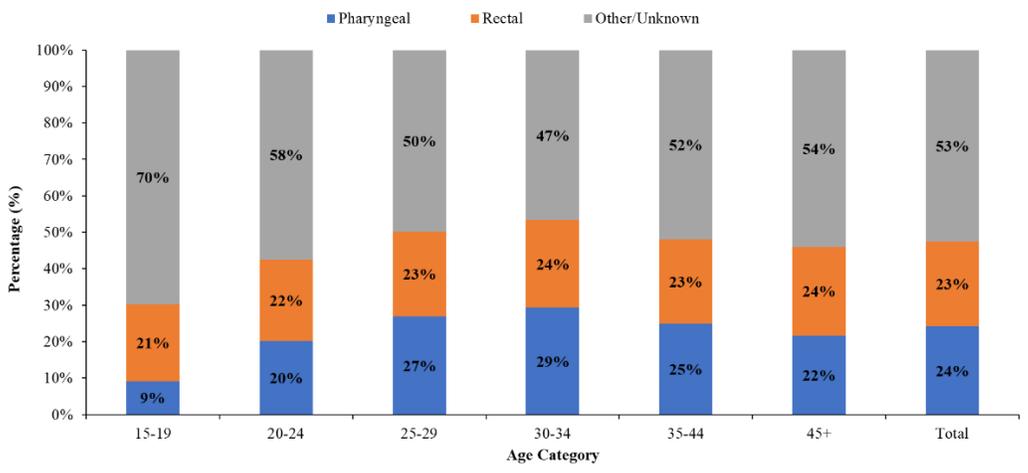
In 2021, 388 rectal gonorrhea and 420 pharyngeal gonorrhea cases were reported. The majority of rectal and pharyngeal gonorrhea cases were male. The percentage of pharyngeal and rectal infections among gonorrhea cases had been increasing from 2012 - 2019, with the highest percentage of 20% and 15.8%, respectively, in 2019, but then decreased to 15.4% and 13.1%, respectively in 2020, and then increased to 17.8% and 16.4%, respectively in 2021. Between 2012 and 2021, there was an eleven-fold increase in the number of pharyngeal infections (38 to 420) and a sixteen-fold increase in the number of rectal infections (24 to 388) among gonorrhea cases (Figure 23). Among male gonorrhea cases, 23% were rectal infections and 24% were pharyngeal infections as reported in 2021 (Figure 24). The highest percentage of rectal (24%) and pharyngeal (29%) gonorrhea was reported among males ages 30 to 34 in 2021.

Figure 23: Number of cases and percentage of rectal/pharyngeal gonorrhea, County of Santa Clara, 2012 – 2021



Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 24: Percentage of rectal and pharyngeal gonorrhea among males* by selected age group, County of Santa Clara, 2021

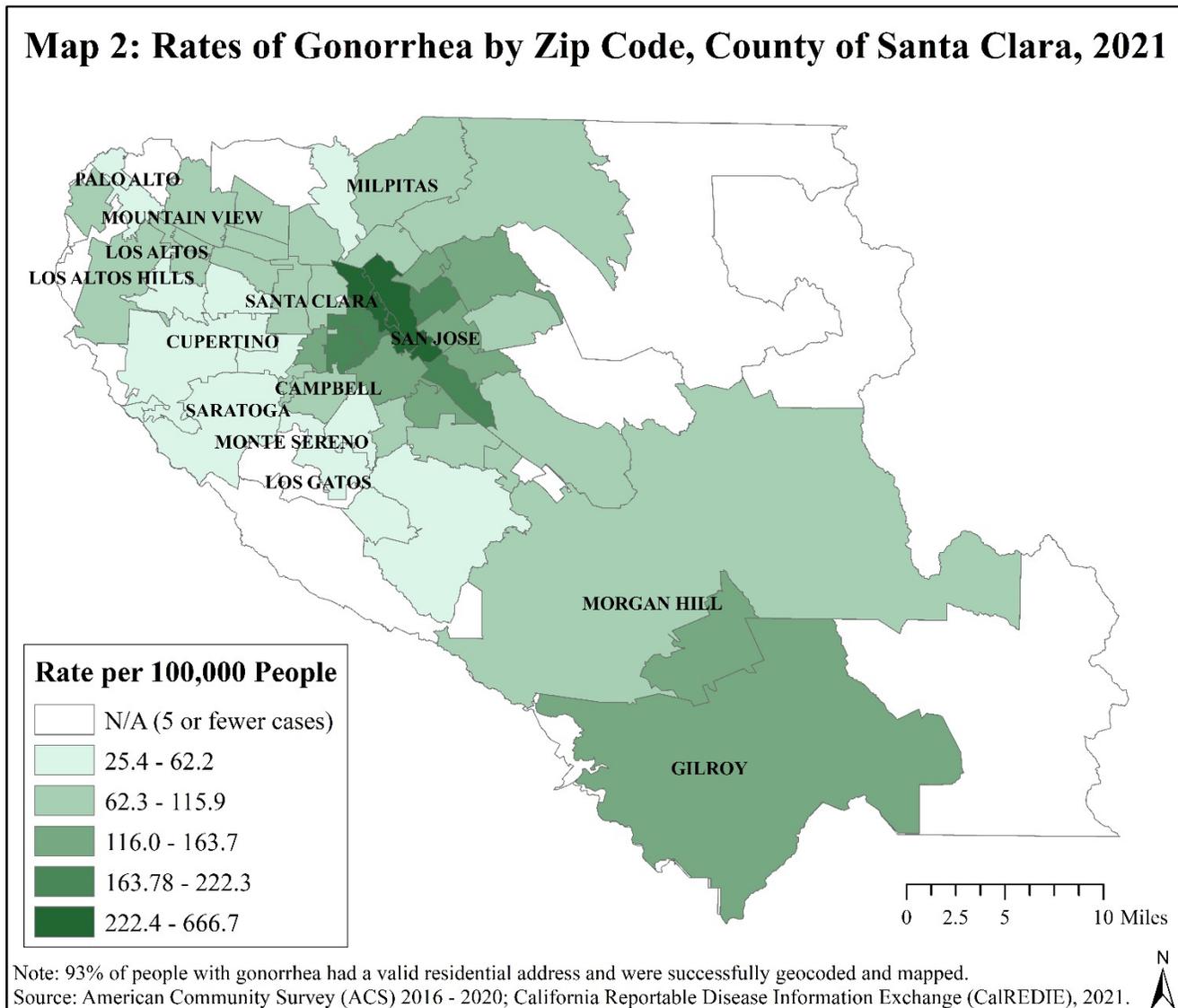


Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Gonorrhea and Geographic Distribution

Geographic areas of the County of Santa Clara with the highest rates of gonorrhea by zip code were closest to the Downtown San Jose area in the City of San Jose (222.4 – 666.7 cases per 100,000 people). Higher rates in the downtown area may be due to a younger population and higher percentages of African American/Black and Hispanic/Latinx residents residing in these areas compared to the county as a whole². Higher rates were also observed in Gilroy (Map 2).

Map 2: Rates of Gonorrhea by Neighborhood, County of Santa Clara, 2021



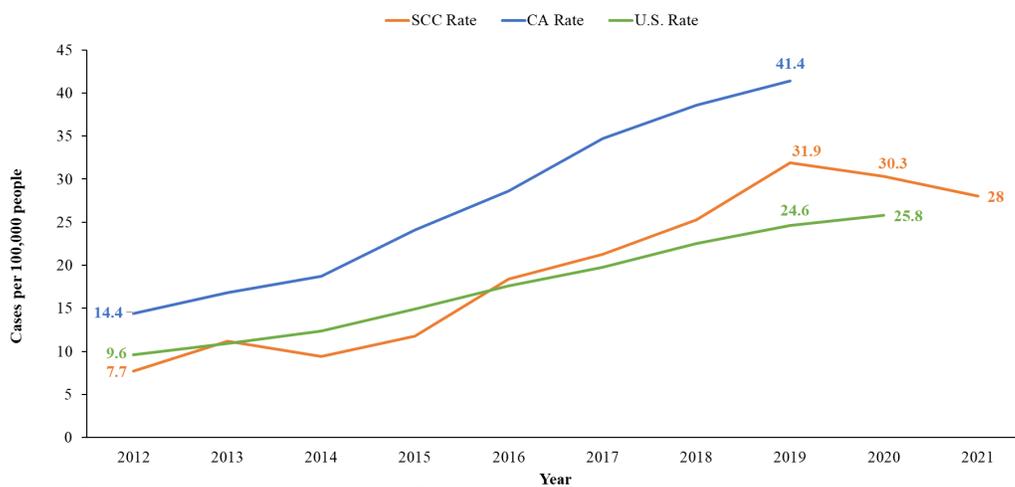
² Santa Clara County Public Health Department. Santa Clara County City and Small Area/Neighborhood Profiles: San Jose Downtown Profile 2016. 2016. <https://www.sccgov.org/sites/phd/hi/hd/Pages/san-jose.aspx>

III. Early Syphilis

General Trend Over Time

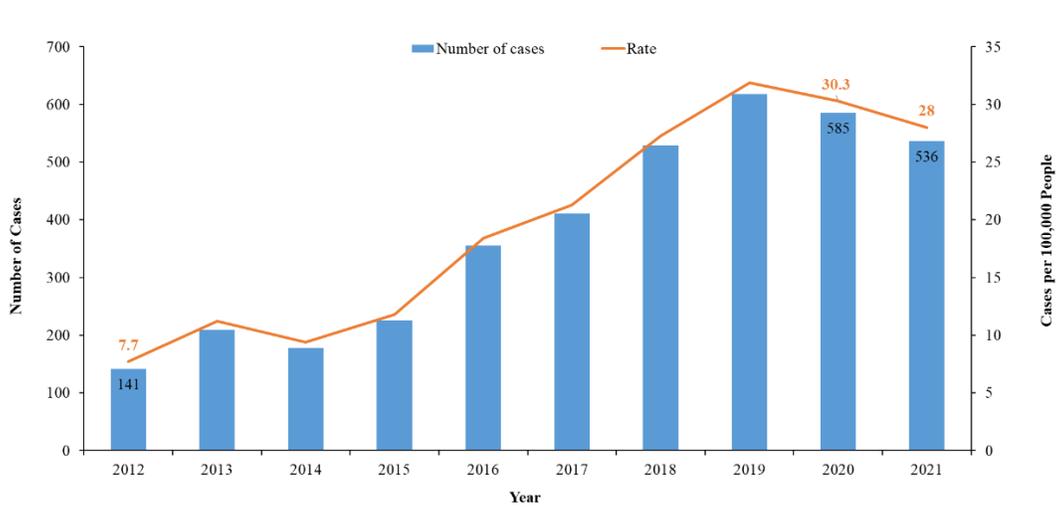
Early syphilis refers to primary, secondary, or early non-primary, non-secondary syphilis in this report. From 2012 – 2019, rates of early syphilis were lower in the County of Santa Clara compared to California but fluctuated above and below the United States average from 2012 to 2016 (Figure 25). Although early syphilis has been less frequently reported than chlamydia and gonorrhea, there has been a similarly increasing trend in reported cases of early syphilis over time. In 2021, 536 cases of early syphilis were reported in the County of Santa Clara at a rate of 28 cases per 100,000 people. From 2012 to 2019, the number and rate of early syphilis cases more than quadrupled, with steep increases in the number of early syphilis cases every year since 2014. From 2019 to 2020, the number of cases and rate decreased by 6% and then further decreased another 8% from 2020 to 2021 (Figure 26).

Figure 25: Early syphilis* rates, County of Santa Clara, California, and United States 2012 – 2021



*Early syphilis cases include primary, secondary, and early latent syphilis.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021; 4. California Department of Public Health STD Control Branch. Sexually Transmitted Diseases Surveillance Report 2019 (2020 data not yet published); 5. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2020. Atlanta: U.S. Department of Health and Human Services 2022 (2021 data not yet published).

Figure 26: Early syphilis* case counts and rates, County of Santa Clara, 2012 – 2021

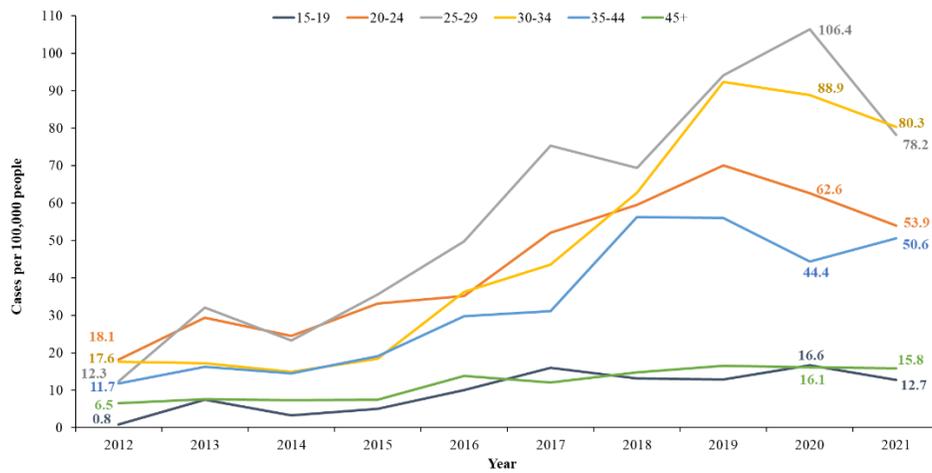


*Early syphilis cases include primary, secondary, and early latent syphilis.
 Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Early Syphilis and Age

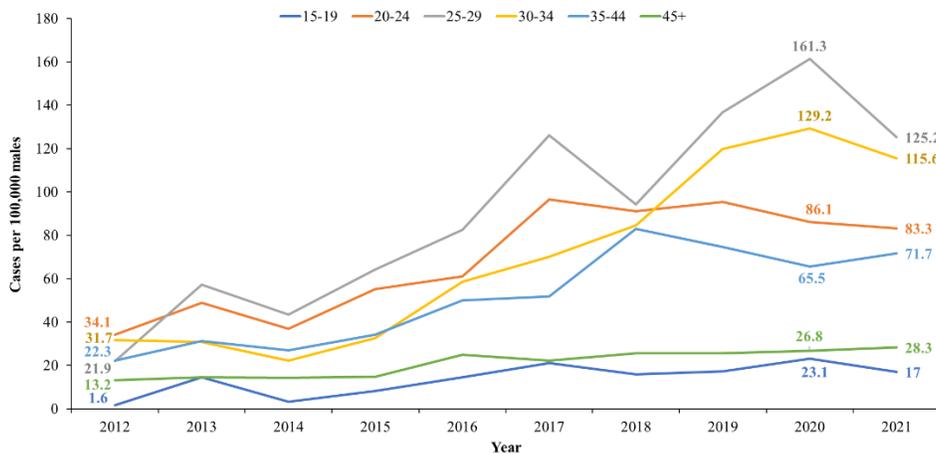
From 2012-2019, early syphilis rates increased across age groups, then decreased in 2020 all age groups except those ages 15 to 19 and 25 to 29, and then decreased in 2021 across all age groups except those ages 35 to 44. Since 2012, adults ages 20 to 34 were most likely to have early syphilis compared to other age groups. In 2020, adults ages 25 to 29 had a rate of 106.4 cases per 100,000 people, which was nearly four times the county average rate (30.3). In 2021, all age groups between 20 to 44 years had rates of syphilis greater than the county average (28) (Figure 27). In contrast, the youngest (15 to 19 years) and oldest (45 years and above) age groups had rates of syphilis lower than the county average. Age distribution among male early syphilis cases mirrored the age distribution for the county. In 2021, males between the ages 25 to 29 and 30 to 34 had the highest rates at 125.2 and 115.6 respectively. Adult males in age groups between 20 to 44 years had early syphilis rates greater than the average rate for males (44.4) in the county in 2021. Males ages 45 and older and males ages 15 to 19 were less likely to be diagnosed with early syphilis compared to other age groups and had early syphilis rates below the male average rate for the county in 2021 (Figure 28). Notably, from 2016 to 2020, the rise in the early syphilis rate in the age group 25 to 29 years outpaced all other age groups (Figures 27-28).

Figure 27: Early syphilis* case rates by selected age group, County of Santa Clara, 2012 – 2021



*Early syphilis cases include primary, secondary, and early latent syphilis.
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 28: Early syphilis* rates among males by selected age group, County of Santa Clara, 2012 – 2021



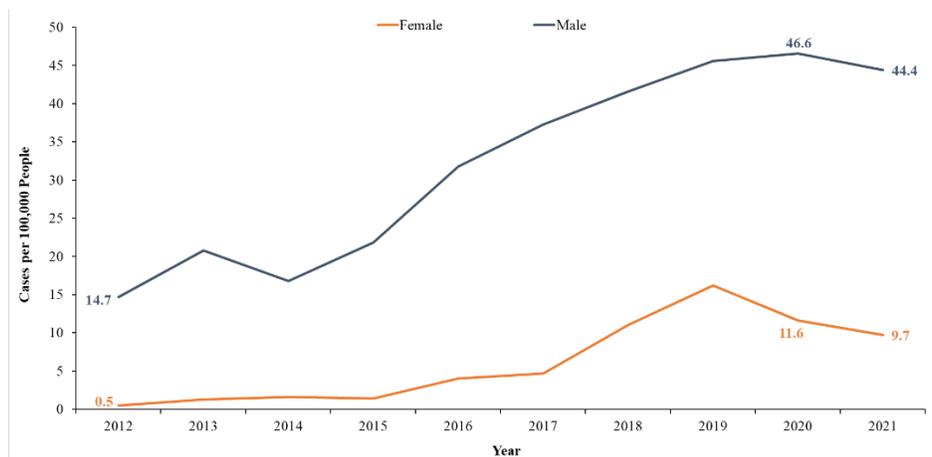
*Early syphilis cases include primary, secondary, and early latent syphilis.
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Early Syphilis by Gender* and Sexual Behavior

Males were more frequently diagnosed with early syphilis than females. In 2021, the rate of early syphilis among males (44.4) was over 4 times the rate among females (9.7) (Figure 29). Between 2012 and 2021, the rates of early syphilis increased for both males and females, over tripling among males, and nearly twenty-fold increase among females.

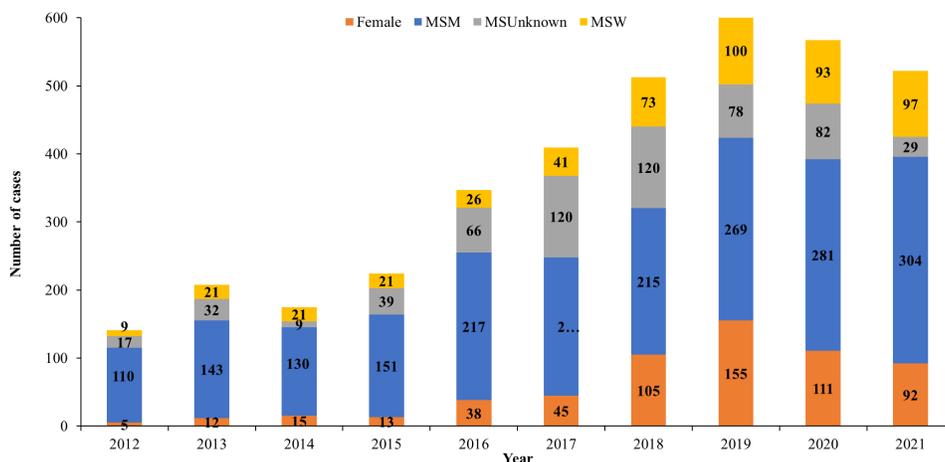
Early syphilis cases in the County of Santa Clara were most frequently reported among MSM (Figure 30). This trend continued into 2021, however the overall share of all early syphilis cases that was among MSM decreased from 78% in 2012 to 58% in 2021. Simultaneously, the percentage of early syphilis cases among females more than quadrupled from 4% in 2012 to 18% in 2021. The share of early syphilis cases among men who have sex exclusively with women (MSW) also increased during the same period from 6% in 2012 to 18% in 2021. Amid ongoing changes in the distribution of early syphilis cases by reported gender and sexual behavior, it is important to note that the number and overall percentage of male early syphilis cases where information on sexual behavior was missing or unknown (MSUnknown) decreased from 12% in 2012 to 6% in 2021.

Figure 29: Early syphilis* case rates by gender, County of Santa Clara, 2012 – 2021**



*Early syphilis cases include primary, secondary, and early latent syphilis.
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 30: Number of early syphilis* cases by gender* and sexual behavior, County of Santa Clara, 2012 – 2021



*Early syphilis cases include primary, secondary, and early latent syphilis.
**Gender variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data; Rates among transgender populations are not available due to small populations and undefined population denominators.
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022

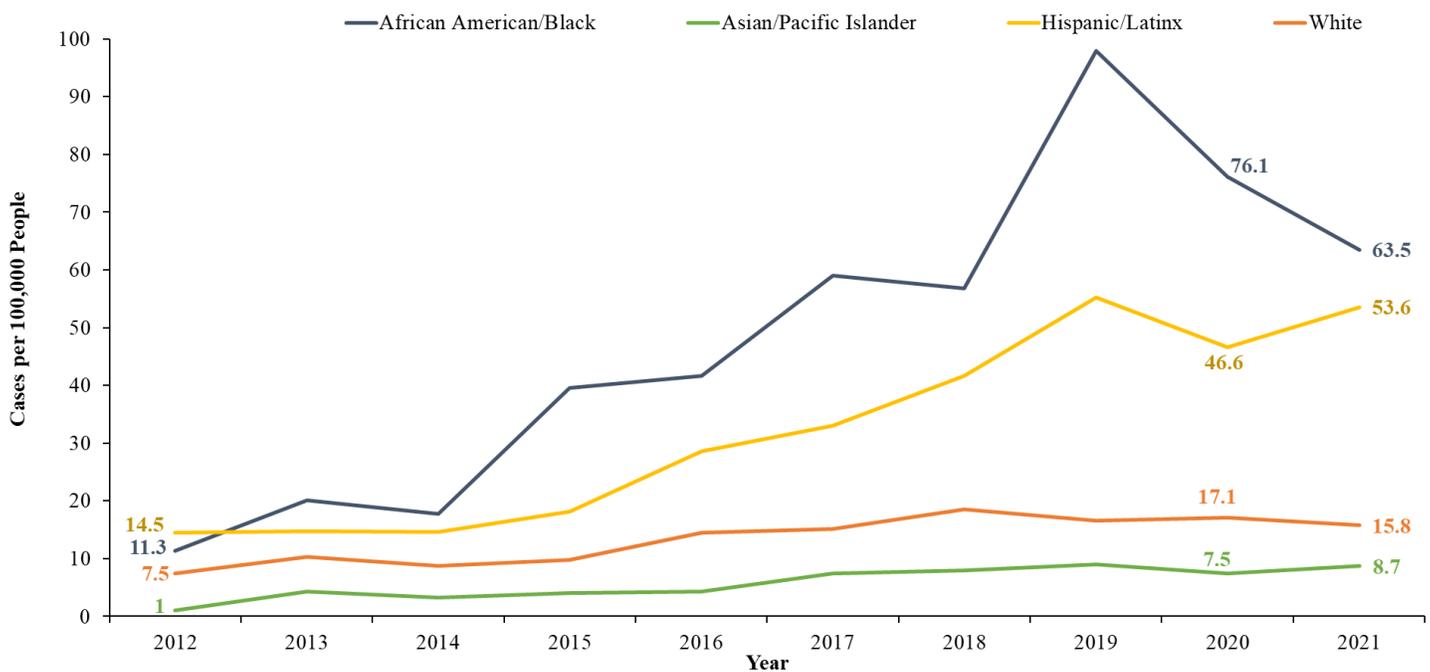
Early Syphilis and Race/ethnicity

Rates of early syphilis varied by race/ethnicity, with African American/Blacks most frequently diagnosed with early syphilis, followed by Hispanic/Latinx residents. From 2012 to 2021, there was an over five-fold increase among African Americans/Blacks, nearly a four-fold increase among Hispanic/Latin, over a two-fold increase among whites, and nearly a nine-fold increase among Asian/Pacific Islanders. In 2021, the rate among African American/Blacks (63.5 cases per 100,000 people) was more than double the county average rate (28), and four times the rate among whites (15.8). Similarly, early syphilis rates among Hispanic/Latinx residents (53.6) of the county was nearly double the county average rate, and more than triple the rate among whites (Figure 31).

African American/Black males had the highest rate of early syphilis compared to males of all other racial/ethnic groups in the county (Figure 32). In 2021, the rate of early syphilis cases among African American/Black males (118.2) was nearly three times the male average rate (44.4), forty percent higher than the rate among Hispanic/Latinx males (81.9), over five times the rate among white males (22.9), and nearly eight times the rate among Asian/Pacific Islander males (15.3).

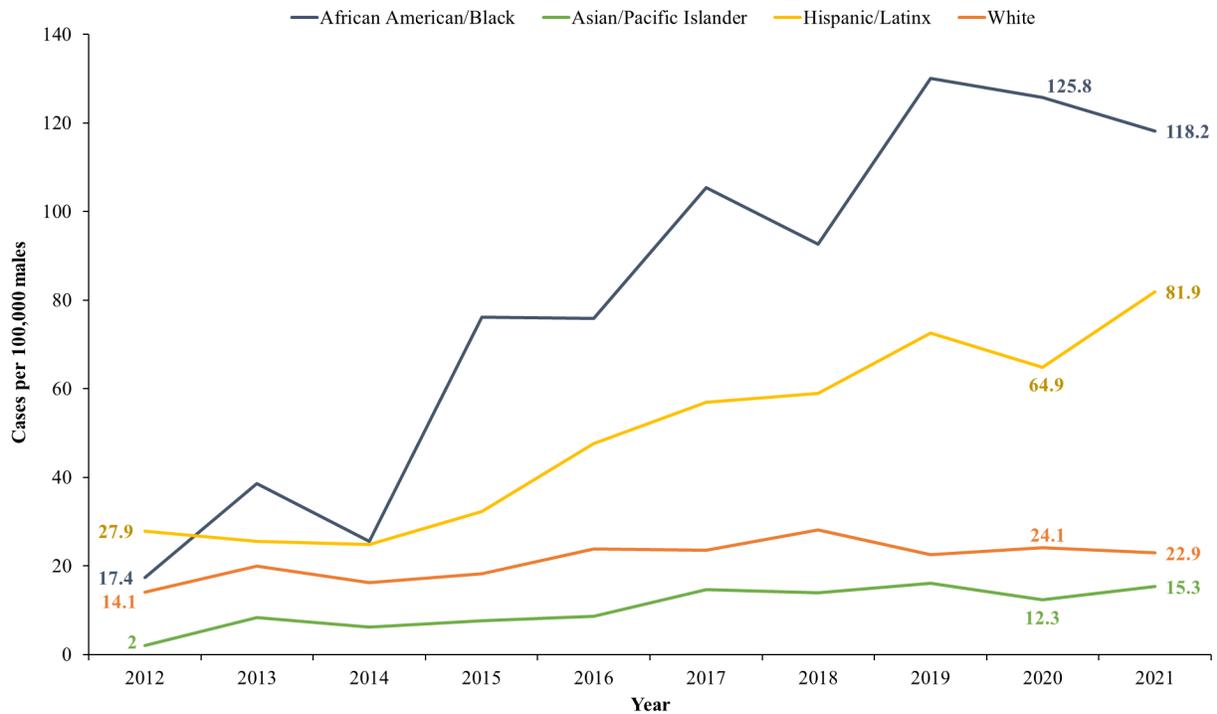
Generally, rates of early syphilis cases among females were lower than the rates among males. From 2012 to 2021, the rates of early syphilis increased from 0.4 to 19.5 cases per 100,000 females among Hispanic/Latinx and increased from 0.6 to 8 cases per 100,000 females among white females in the county (Figure 33). Rates of early syphilis among African American/Black females and Asian and Pacific Islander females were unstable due to small sample sizes and have not been presented here.

Figure 31: Early syphilis* case rates by race/ethnicity, County of Santa Clara, 2012 – 2021



Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

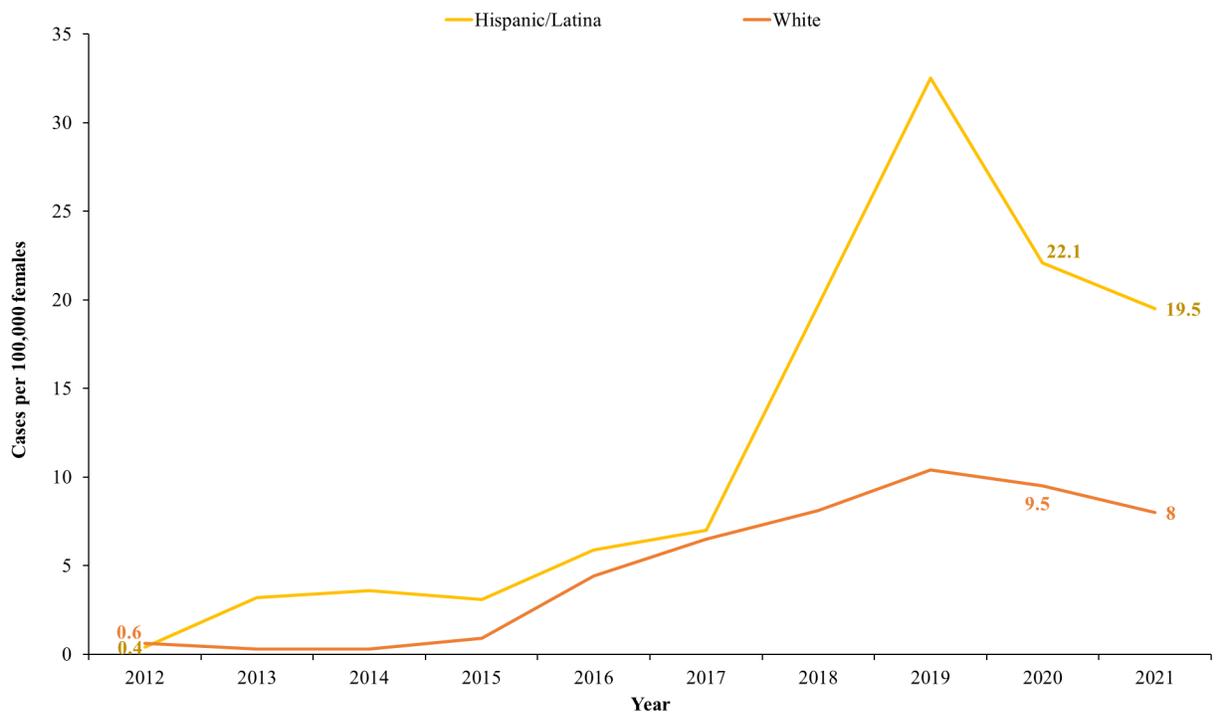
Figure 32: Early syphilis* rates among males by race/ethnicity, County of Santa Clara, 2012 – 2021



*Early syphilis cases include primary, secondary, and early latent syphilis.

Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 33: Early syphilis rates* among females by race/ethnicity, County of Santa Clara, 2012 – 2021**



*Early syphilis cases include primary, secondary, and early latent syphilis.

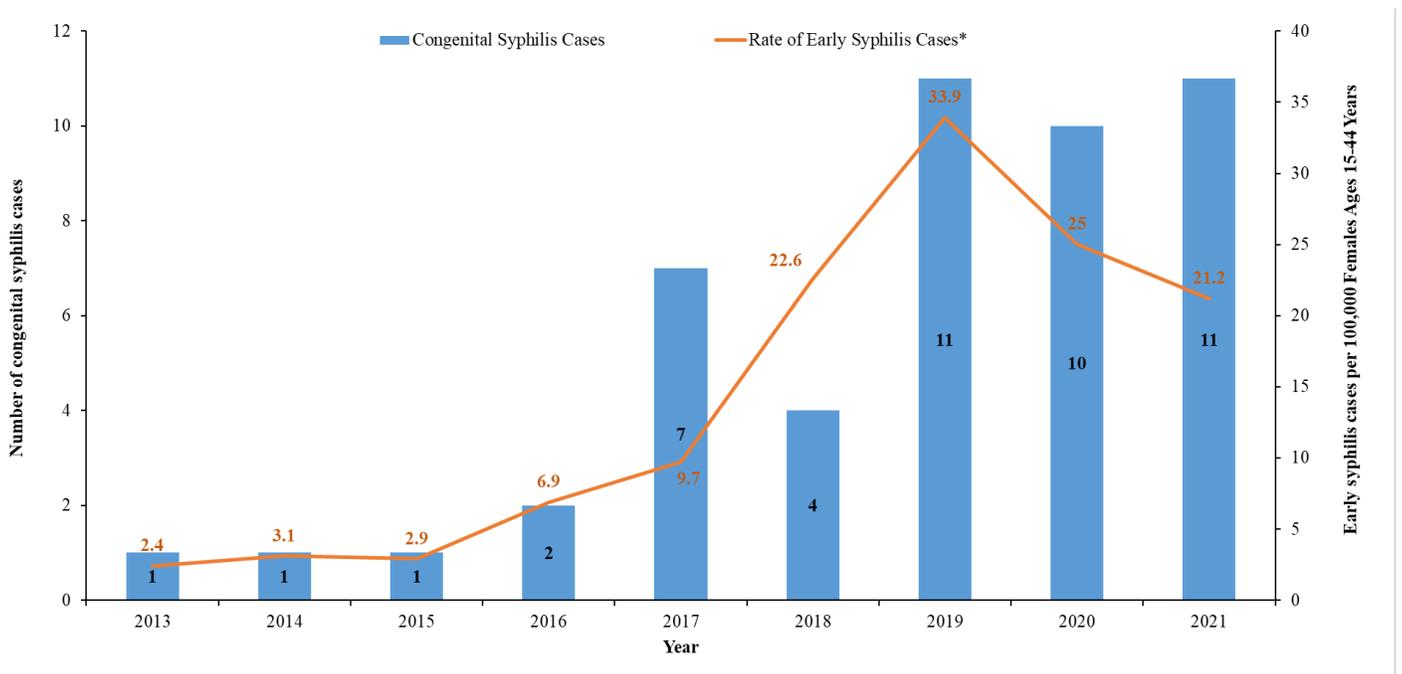
**Rates of early syphilis among African American/Black and Asian/Pacific Islander females were unstable due to small sample sizes and have not been presented here.

Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Congenital and Pregnant Early Syphilis Cases

In 2021, 11 congenital syphilis cases were reported in the County of Santa Clara, which was higher than 2020 (10 cases) and still higher much than years from 2013 – 2016 for which only 1 or 2 cases were reported annually. Notably, the rate of early syphilis and pregnant syphilis cases among women of reproductive age (15 – 44 years) increased by 50% from 2018 to 2019, but then decreased by 37% from 2019 to 2021. Between 2013 and 2021, the rate of early syphilis cases of all stages among women of reproductive age increased nearly nine-fold from 2.4 cases per 100,000 women of reproductive age in 2013 to 21.2 in 2021 (Figure 34). In 2021, 34 out of 218 (16%) female early syphilis cases of reproductive age (15 – 44 years) who had valid information of their pregnancy status were pregnant at the time of their syphilis diagnosis (Figure 35). Between 2012 and 2021, 191 female syphilis cases of reproductive age were known to be pregnant at the time of diagnosis and three-quarters (75%) were late stage or of unknown duration (Figure 36).

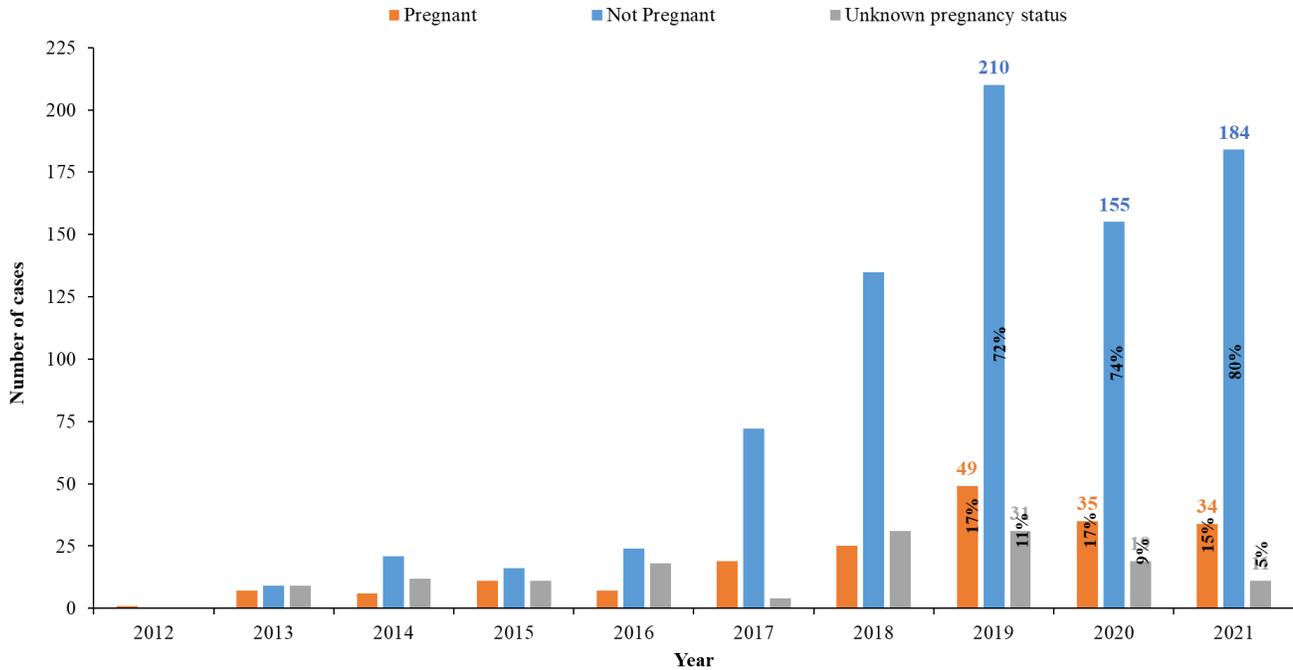
Figure 34: Number of congenital syphilis cases and rate of early syphilis* among women of reproductive age (15 – 44 years), County of Santa Clara, 2013 – 2021



*Early syphilis cases include primary, secondary, and early latent syphilis.

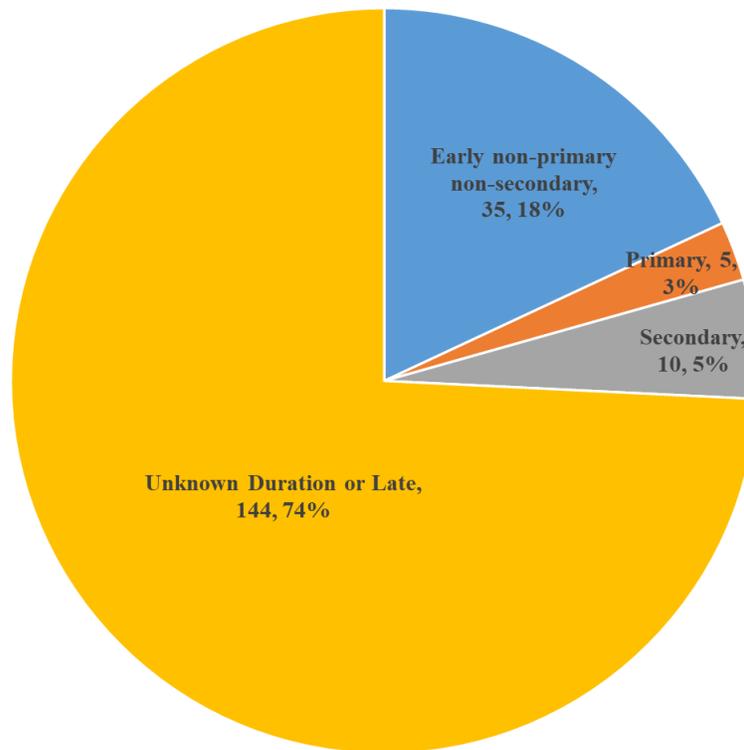
Sources: 1. County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 35: Syphilis* cases among women of reproductive age (15–44 years) by pregnancy status, County of Santa Clara, 2012 – 2021



*Syphilis includes both early syphilis (primary, secondary, and early non-primary non-secondary syphilis), late syphilis, and syphilis of unknown duration.
 Source: County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022

Figure 36: Pregnant syphilis* cases by disease stages, County of Santa Clara, 2012 – 2021

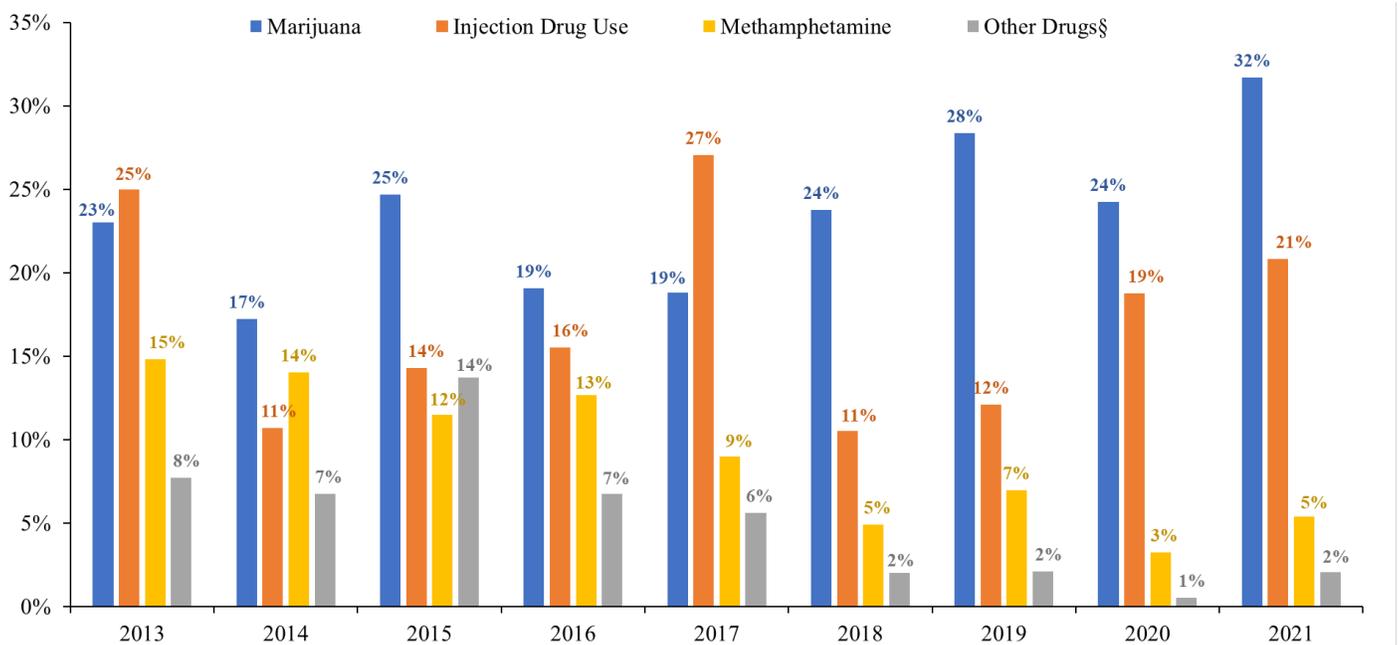


*Syphilis includes both early syphilis (primary, secondary, and early non-primary non-secondary syphilis), late syphilis, and syphilis of unknown duration.
 Source: County of Santa Clara Public Health Department, CalREDIE (2012 – 2021), data as of May 4, 2022

Syphilis and Substance Use

Substance use is associated with sexual behaviors that may raise the risk of syphilis infections^{3,4,5}. In the County of Santa Clara, a follow-up interview is conducted among priority syphilis cases to collect additional information on relevant risk factors, including substance use. Inclusion criteria for follow-up interviews are determined based on program priorities including factors such as case volume and staff availability. Until recently, primary and secondary syphilis cases were prioritized for follow-up interviews. Since late 2018, syphilis cases (all stages) among women of reproductive age (15 to 44 years) are the primary group that are prioritized for follow-up interviews. Methamphetamines, marijuana, and injection drugs were the most reported substances used by patients who completed the follow-up interviews. In 2021, 5% of early syphilis cases in the county who were interviewed reported methamphetamine use, a risk factor associated with syphilis including congenital syphilis⁵.

Figure 37: Percentage* of early syphilis cases who reported substance use, County of Santa Clara, 2013 – 2021



*Denominators of all percentages were number of early syphilis cases who completed the follow up interview and provided valid information regarding their substance use status; data may be under-representative due to changes in inclusion criteria for follow-up interview over time.

§ Other drugs include cocaine, crack, heroin, ecstasy, erectile dysfunction drugs, poppers, and any other drugs.

Source: County of Santa Clara Public Health Department, CalREDIE (2011-2021), data are provisional as of May 4, 2022.

³ Feaster DJ, Parish CL, Gooden L, et al. Substance use and STI acquisition: Secondary analysis from the AWARE study. *Drug Alcohol Depend.* 2016;169:171–179. doi:10.1016/j.drugalcdep.2016.10.027.

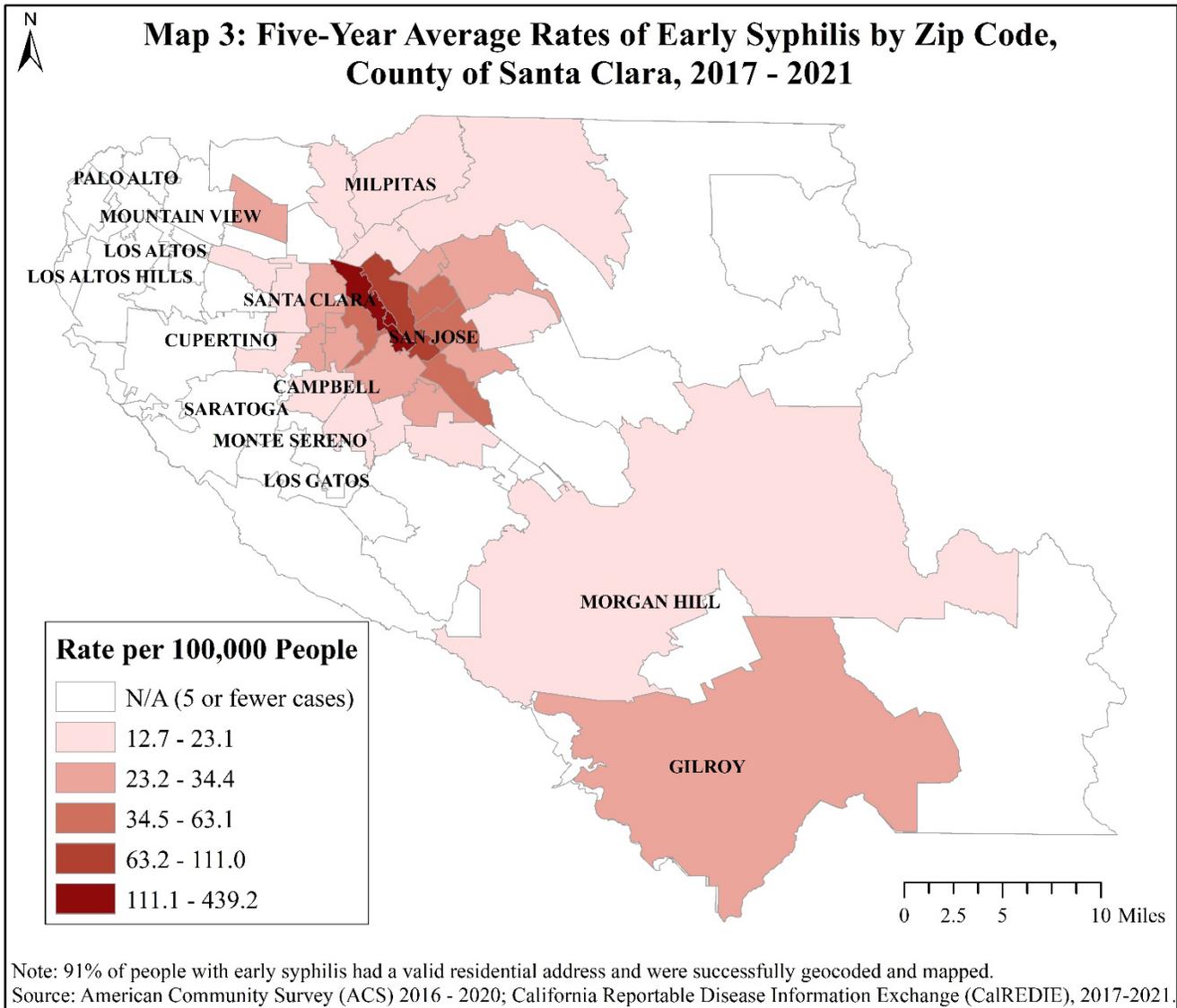
⁴ Wu LT, Ringwalt CL, Patkar AA, Hubbard RL, Blazer DG. Association of MDMA/ecstasy and other substance use with self-reported sexually transmitted diseases among college-aged adults: a national study. *Public Health.* 2009;123(8):557–564. doi:10.1016/j.puhe.2009.06.012.

⁵ Kidd SE, Grey JA, Torrone EA, Weinstock HS. Increased Methamphetamine, Injection Drug, and Heroin Use Among Women and Heterosexual Men with Primary and Secondary Syphilis — United States, 2013–2017. *MMWR Morb Mortal Wkly Rep* 2019;68:144–148. DOI: <http://dx.doi.org/10.15585/mmwr.mm6806a4>.

Early Syphilis and Geographic Distribution

Geographic areas of the County of Santa Clara with the highest five-year average rates of early syphilis by zip code were closest to the Downtown San Jose area in the City of San Jose (111.1 – 439.2 cases per 100,000 people). Higher rates in the downtown area may be due to a younger population and higher percentages of African American/Black and Hispanic/Latinx residents residing in these areas compared to the county as a whole⁶. Higher rates were also observed in Gilroy (Map 3).

Map 3: Five-Year Average Rates of Early Syphilis by Zip Code, County of Santa Clara, 2017-2021



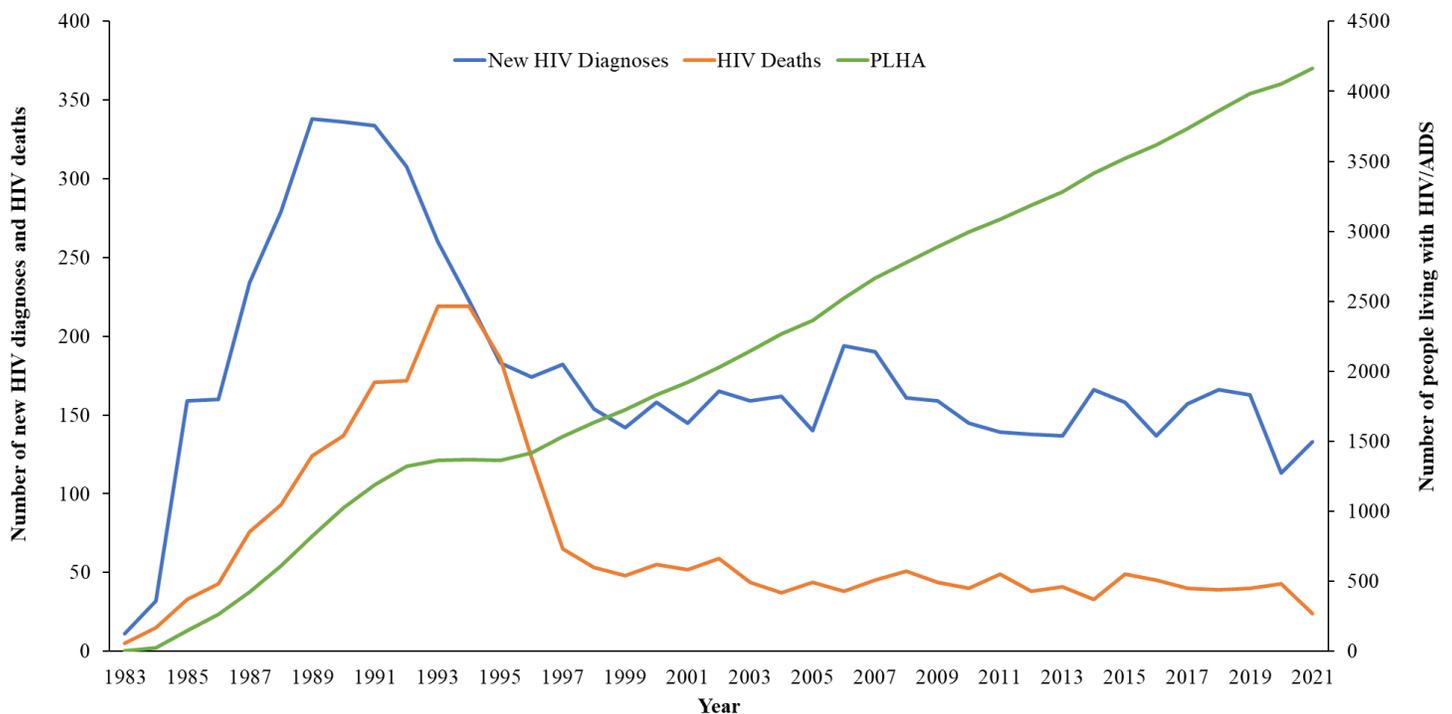
⁶ Santa Clara County Public Health Department. Santa Clara County City and Small Area/Neighborhood Profiles: San Jose Downtown Profile 2016. 2016. <https://www.sccgov.org/sites/phd/hi/hd/Pages/san-jose.aspx>

IV. HIV

A. Overview of HIV in the County of Santa Clara

The County of Santa Clara has collected data on Human Immunodeficiency Virus (HIV) infection and Acquired Immune Deficiency Syndrome (AIDS) since 1983. The number of annual new HIV diagnoses in the County peaked from 1989 until 1991, then declined through 2000 and has remained generally stable since. As of December 31, 2021, a total number of 6,894 individuals diagnosed with HIV had been reported to the County. Of these, 4,991 (72%) were diagnosed with AIDS. A cumulative number of 2,732 (40%) persons with HIV infection were known to have died, including 2,644 with a diagnosis of AIDS. In 2021, 3,618 current residents of the County were living with HIV, including 2,706 (75%) first reported with HIV in the County and 912 (25%) out of jurisdiction cases (Figure 37).

Figure 38: Number of new HIV diagnoses, deaths, and people living with HIV*, County of Santa Clara, 1983 – 2021



*Based on residence at the time of HIV diagnosis

Source: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional

New Diagnoses of HIV Infection

Diagnoses of HIV Infection in 2021

In 2021, 133 individuals were reported as newly diagnosed with HIV infection in the County of Santa Clara. Most of these individuals were male (83%), more than half (65%) were between ages 25 and 44 years, 56% of Hispanic/Latinx ethnicity, and nearly two-thirds (61%) were MSM, including MSM who also use injection drugs (MSM & IDU) (Table 1).

- *Age*: The proportion of newly reported HIV cases who were adolescents and young adults, ages 13 to 24 years, was lower in the county (14%) compared to both California (16%)⁹ and the United States (20%)¹⁰.

The highest proportion of new diagnoses in the county was among residents ages 25 to 44 years, who accounted for (65%) of all new diagnoses, surpassing the same age group statewide (60%) and nationally (57%). Zero new diagnoses were made among individuals ages 65 and older in the county in 2021.

- *Gender*: Of all new cases reported, 111 (83%) were among males, comparable to the statewide proportion of male cases (85%) but slightly higher than the national proportion (80%). In 2021, three (3%) new cases were reported among individuals who identify as transgender.
- *Race/ethnicity*: Consistent with statewide data, Hispanic/Latinx residents accounted for the greatest proportion (56%) of new HIV diagnoses among all racial/ethnic groups in the county. Eleven percent of new diagnoses were among Asian/Pacific Islanders, representing a higher proportion than was seen statewide (6%)⁹ and nationally (2%)¹⁰. Finally, African American/Blacks accounted for 2% of new cases in the county—lower than the national proportion (42%) – and represent 2% of the overall population of the county, such that they were proportionately impacted.
- *Transmission category*: Sixty-one percent of newly diagnosed cases were among MSM (59% MSM and 2% MSM & IDU), a proportion comparable to state (60%) and lower than national data (72%). Heterosexual transmission (2%) and IDU (4%) accounted for a minority of cases. Notably, 33% of new cases in the county were missing information on associated transmission category⁷.

⁷ Transmission categories were statistically adjusted and imputed to account for missing information in the national data. Therefore, any comparison of transmission categories between county-level and state/national data should be interpreted with caution.

Table 1. Demographic and transmission characteristics of people newly diagnosed with HIV in the County of Santa Clara, California, and the United States (2021)

Demographic Characteristic	Category	Santa Clara⁸, 2021 n (%)	California⁹, 2020 n (%)	United States¹⁰, 2020 n (%)
Gender*	Male	111 (83)	3,358 (85)	24,269 (80)
	Female	19 (14)	490 (12)	5,439 (18)
	Transgender	3 (3)	117 (3)	695 (2)
Age at diagnosis (years)	0-12	0 (0)	6 (0.2)	57 (0.2)
	13-24	18 (14)	653 (16)	6,082 (20)
	25-44	87 (65)	2,393 (60)	17,182 (57)
	45-64	28 (21)	832 (21)	6,389 (21)
	65+	0 (0)	81 (2)	693 (2)
Race/ethnicity	African American/Black	3 (2)	688 (17)	12,856 (42)
	White	26 (20)	955 (24)	7,843 (26)
	Hispanic/Latinx	75 (56)	1,987 (50)	8,008 (26)
	Asian/Pacific Islander	14 (11)	228 (6)	703 (2)
	American Indian/Alaska Native	0 (0)	11 (0.3)	201 (1)
	Multiple Races/Other	15 (11)	96 (2)	792 (3)
Transmission category**	MSM	79 (59)	2250 (57)	20,572 (68)
	IDU	5 (4)	195 (5)	2,033 (7)
	MSM & IDU	2 (2)	120 (3)	1,105 (4)
	Heterosexual contact	3 (2)	850 (21)	6,548 (22)
	Unknown/Other	44 (33)	550 (14)	144 (0.5)

Trends in New HIV Diagnoses

The rate of new HIV diagnoses among people ages 13 years and older in Santa Clara County decreased from 9.8 per 100,000 people in 2010 to 8.2 in 2021 (Figure 38). Despite a 22% increase between 2013 and 2014 driven by an increase of new diagnoses among Hispanic/Latinx MSM, the rate of new HIV diagnoses then decreased in both 2015 and 2016. The increase in the rate of new HIV diagnoses since 2016 was attributed to increasing diagnoses among Hispanic/Latinx and Asian/Pacific Islander male patients (Figure 39). In 2021, the rate among males ages 13 and older (13.5 per 100,000 males) was nearly 6 times that of females ages 13 and older (2.4 per 100,000 females).

⁸ County of Santa Clara Public Health Department, eHARS data as of May 4, 2022, and are provisional.

⁹ California Department of Public Health, Office of AIDS, California HIV Surveillance Report – 2020 [Accessed May 4, 2022].

¹⁰ Centers for Disease Control and Prevention. HIV Surveillance Report, 2020; vol. 33. <https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2022. [Accessed May 4, 2022].

*Data on gender are based on variable completion of reporting data, may not distinguish between sex at birth and gender, and are only available for cases ≥13 years old at diagnosis. Although most transgender HIV cases reported in the County are trans female (male-to-female), data for transgender and gender diverse persons are presented with transgender men and women combined and without inclusion of other gender identities due to variations in how gender identity is collected and reported across jurisdictions, and also to protect their confidentiality.

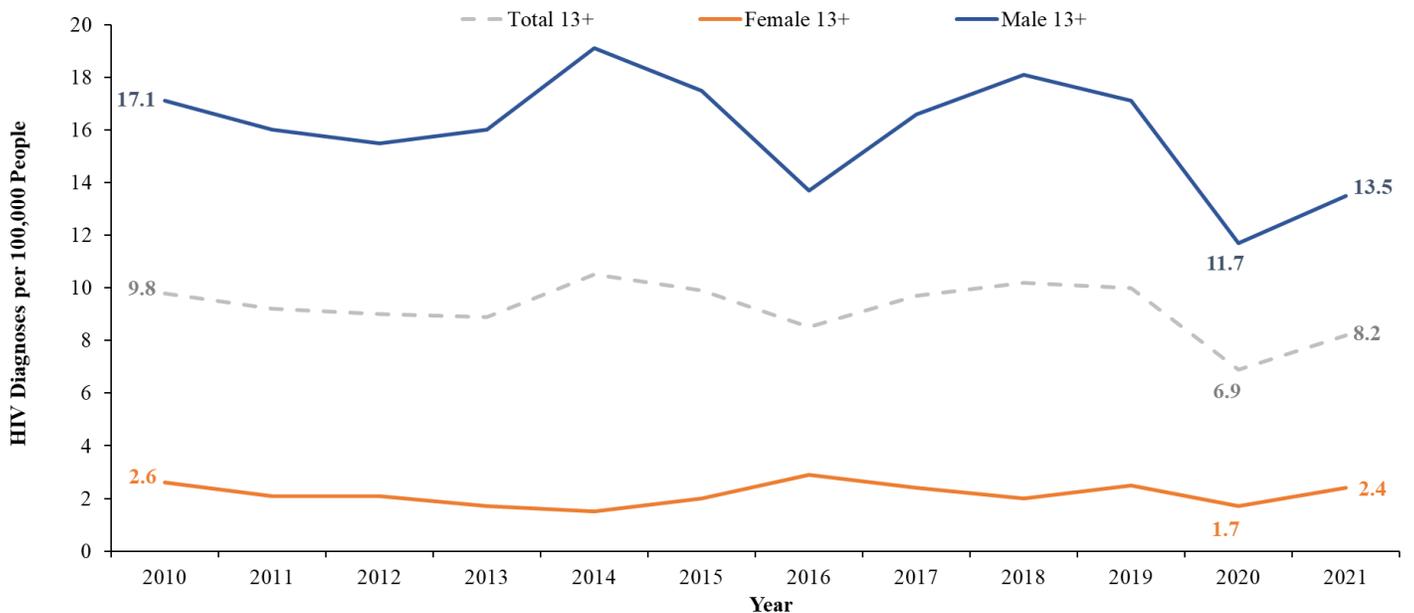
**Centers for Disease Control and Prevention transmission risk data have been statistically adjusted to account for missing transmission category; therefore, values may not sum to overall total.

When stratified by race/ethnicity, the rate of HIV diagnoses in 2020 among males ages 13 years and older was highest among African American/Blacks (34.1 per 100,000 people) and Hispanic/Latinx (25.4), nearly six times and four times that of their white counterparts (5.8), respectively. However, in 2021, rates for African American/Blacks (9.8) dropped substantially below rates of Hispanic/Latinx (29). It is important to note that rates are going to look more dramatic when groups are smaller, so small changes in case counts can largely affect the rates for the small African American/Black population in the county.

While the rates among most races decreased from 2010 to 2021, rates among Hispanic/Latinx remained consistent (29 cases per 100,000 people). Rates among African American/Blacks have also consistently been highest throughout the years, except in 2021 – signifying increasingly disparate rates and trends between white males and populations of color (Figure 39).

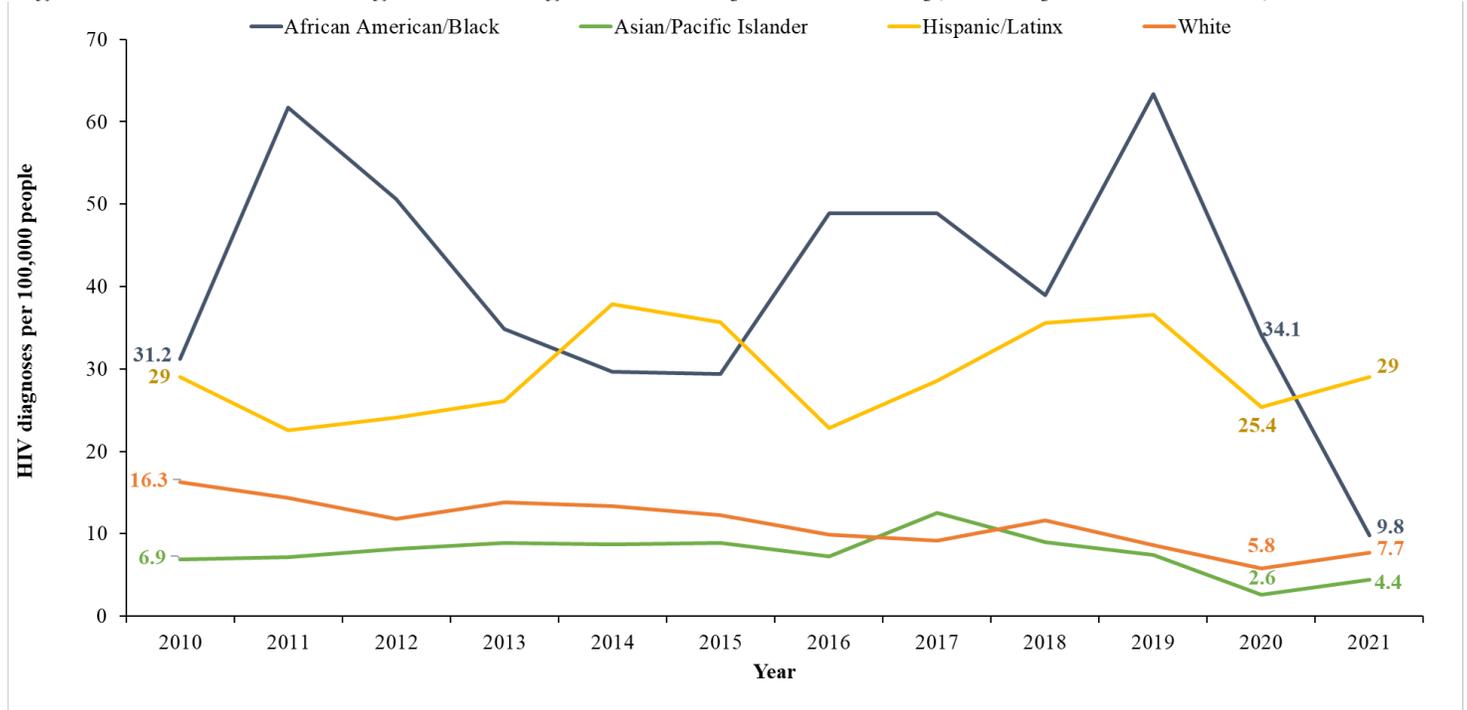
When stratified by age, the rate of HIV diagnosis in 2021 was the highest among males ages 30 to 39 (31.7 per 100,000 people), a sharp increase from 2020 (20.8). From 2010 through 2021, overall rates of HIV diagnoses among all age groups under 40 years increased (Figure 40).

Figure 39: Rate of HIV diagnoses among individuals age 13+, overall and by gender*, County of Santa Clara, 2010 – 2021



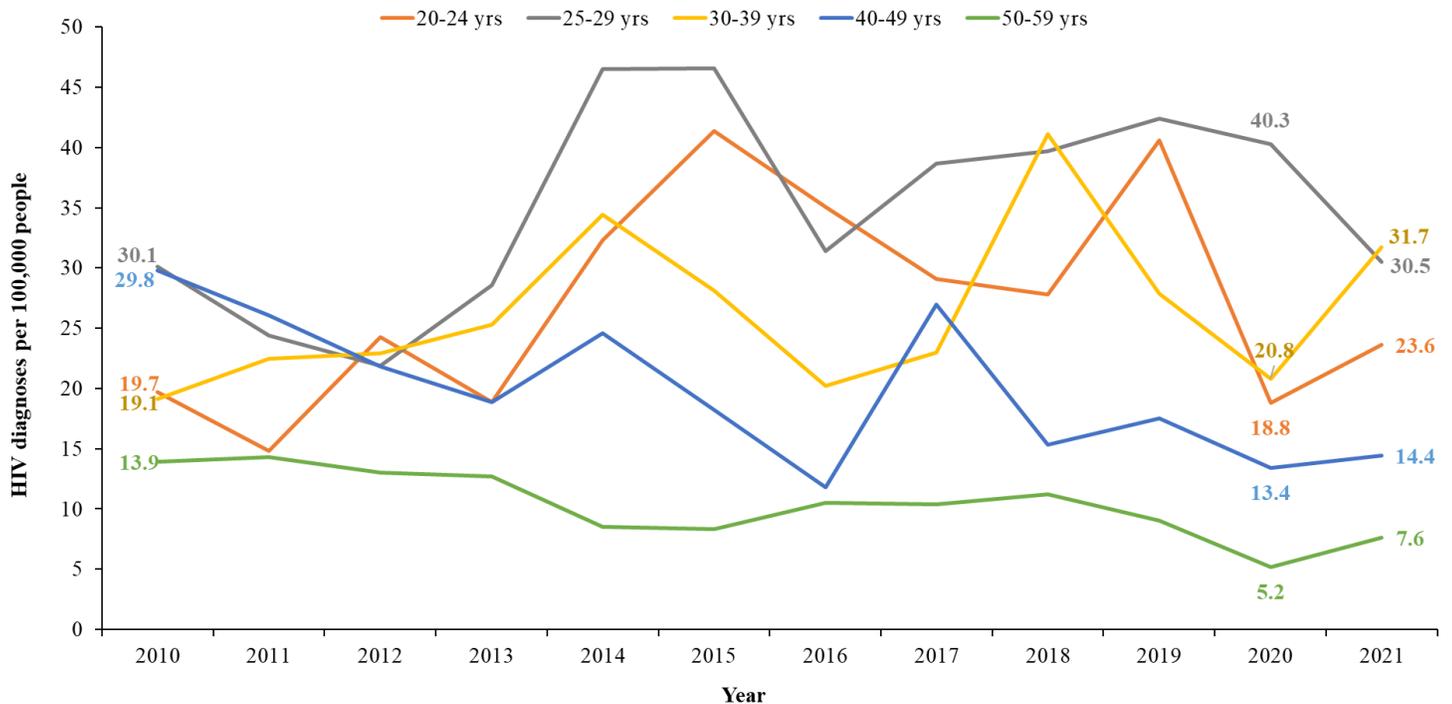
*Gender variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data; Rates among transgender populations are not available due to small populations and undefined population denominators. Sources: County of Santa Clara Public Health Department, eHARS (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 40: Rate of HIV diagnoses among males 13+ by race/ethnicity, County of Santa Clara, 2010 – 2021



Sources: County of Santa Clara Public Health Department, eHARS (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 41: Rate of HIV diagnoses among males by selected age group, County of Santa Clara, 2010 – 2021

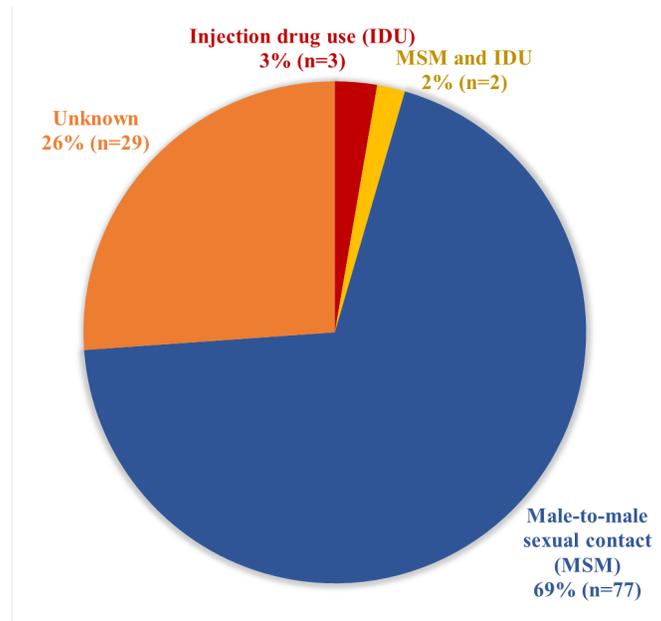


Sources: County of Santa Clara Public Health Department, eHARS (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

HIV Diagnoses by Transmission Mode

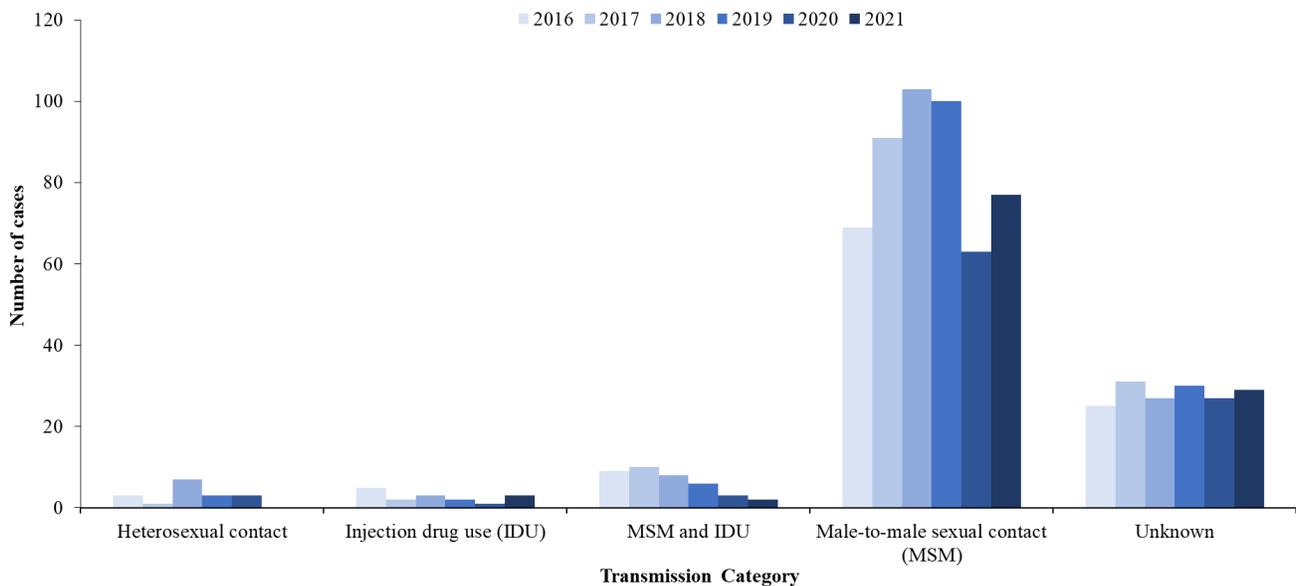
In 2021, 71% of males newly diagnosed with HIV were MSM including MSM & IDU. Notably, information on associated mode of transmission for 26% of new diagnoses among males in 2021 was unknown (Figure 41). HIV diagnoses among MSM increased from 2016 to 2018, slightly decreased in 2019, had a large decrease in 2020, and then a substantial increase in 2021 (Figure 42).

Figure 42: Proportion of males age 13+ newly diagnosed with HIV by transmission category, County of Santa Clara, 2021



Sources: County of Santa Clara Public Health Department, eHARS (2021), data as of May 4, 2022

Figure 43: Number of males age 13+ newly diagnosed with HIV by transmission category, County of Santa Clara, 2016 – 2021



Sources: County of Santa Clara Public Health Department, eHARS (2016 – 2021), data as of May 4, 2022

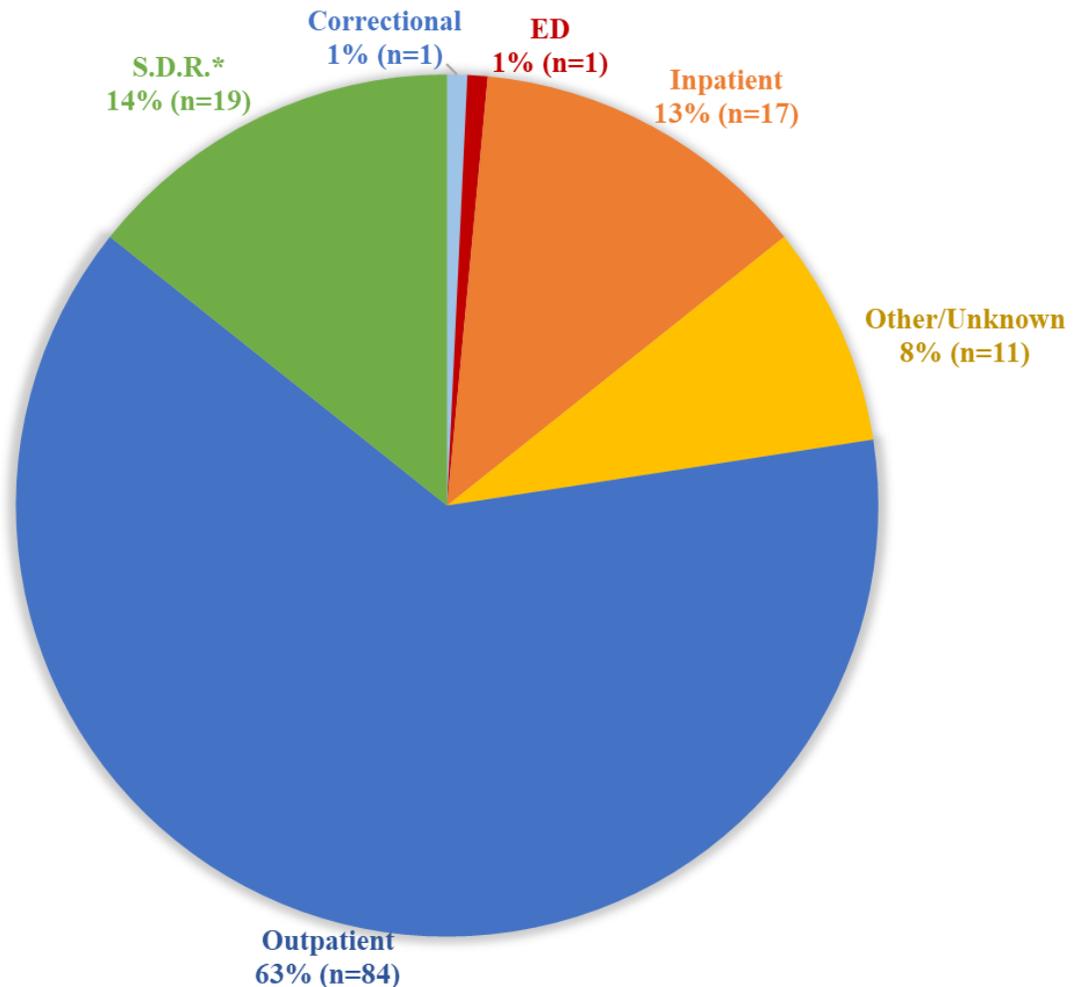
HIV Diagnoses by Diagnostic Setting

In 2021, 84 (63%) new diagnoses were made in the outpatient setting which include primary care or specialty clinics, community health centers, and public health clinics among others; 19 (14%) at screening, diagnostic and referral agencies; 17 (13%) during inpatient admissions; 1 (1%) at correctional facilities; 1 (1%) in an emergency department; 11 (8%) in unknown settings (Figure 43).

From 2019 to 2021, the proportion by facility types remain similar, but the number of outpatient diagnoses continues to increase. In 2021, we continue to see fewer people diagnosed in the emergency department, but higher percentages of people being diagnosed in the hospital setting compared to 2019. The number of HIV cases diagnosed in correctional facilities and screening, diagnostic, and referral agencies decreased (Figure 44).

In 2021, Hispanic/Latinx cases were more frequently diagnosed at screening, diagnostic and referral agencies (17%, 13 of 75 cases) compared to other racial/ethnic groups. Additionally, both Hispanic/Latinx and White cases were more frequently diagnosed in inpatient settings (15%) compared to other racial/ethnic groups (Figure 45).

Figure 44: HIV diagnoses by facility type, County of Santa Clara, 2021



Sources: County of Santa Clara Public Health Department, eHARS (2021), data as of May 4, 2022

Figure 45: Percentage of HIV diagnoses by facility type, County of Santa Clara, 2016 – 2021

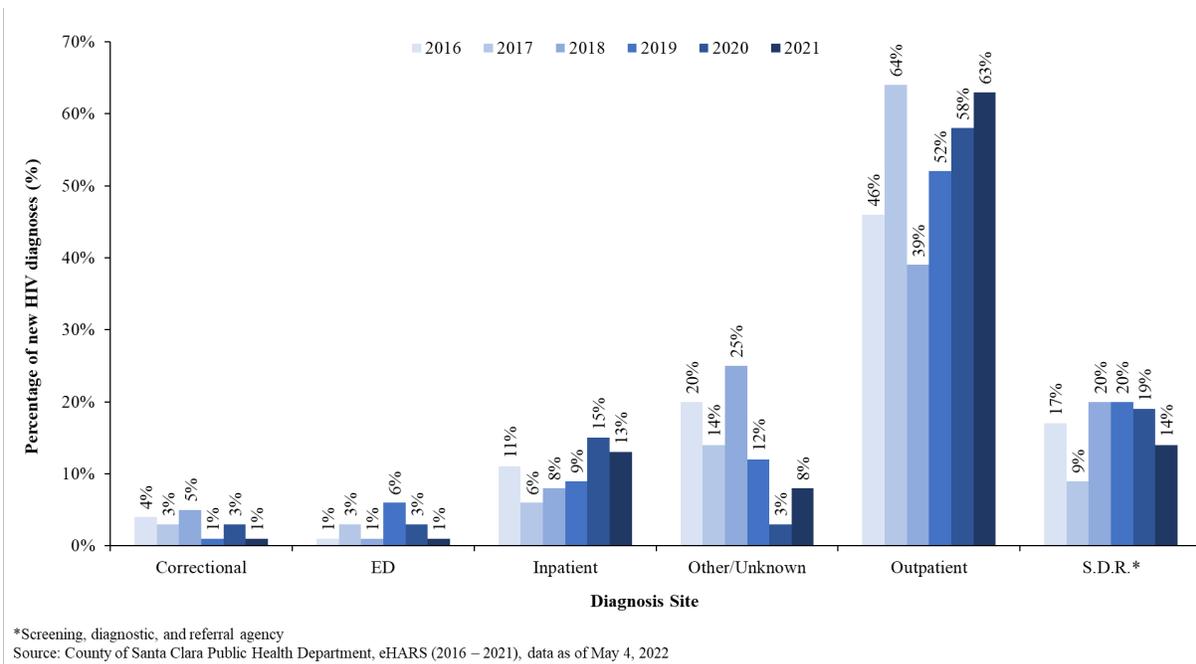
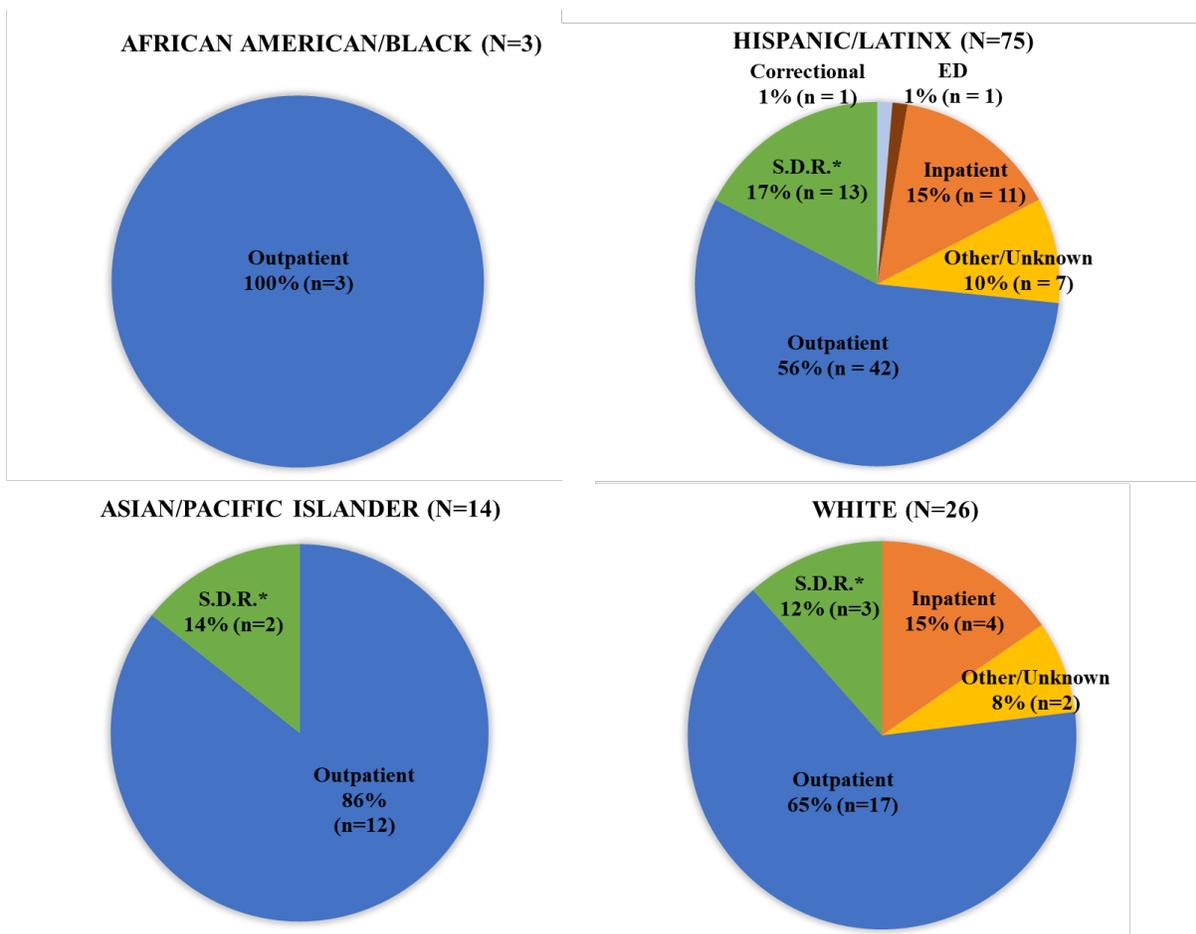


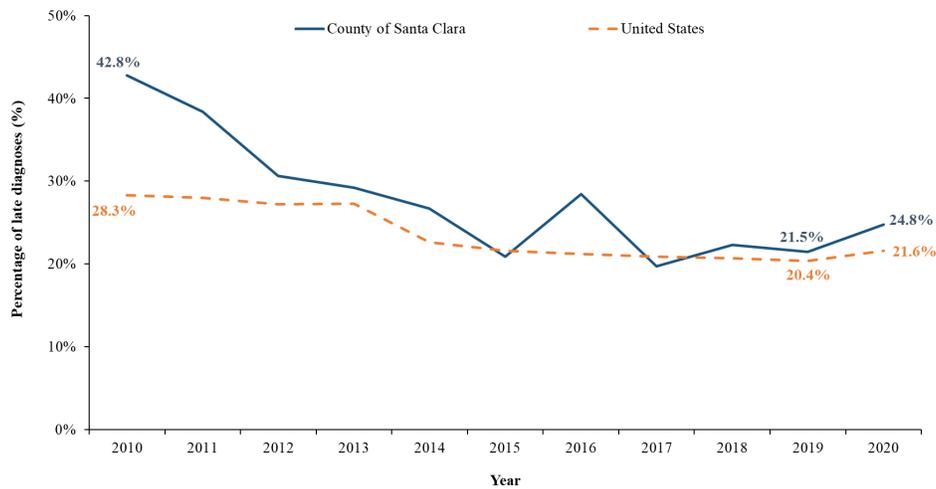
Figure 46: HIV diagnosis by facility type and race/ethnicity, County of Santa Clara, 2021



Late HIV Diagnoses

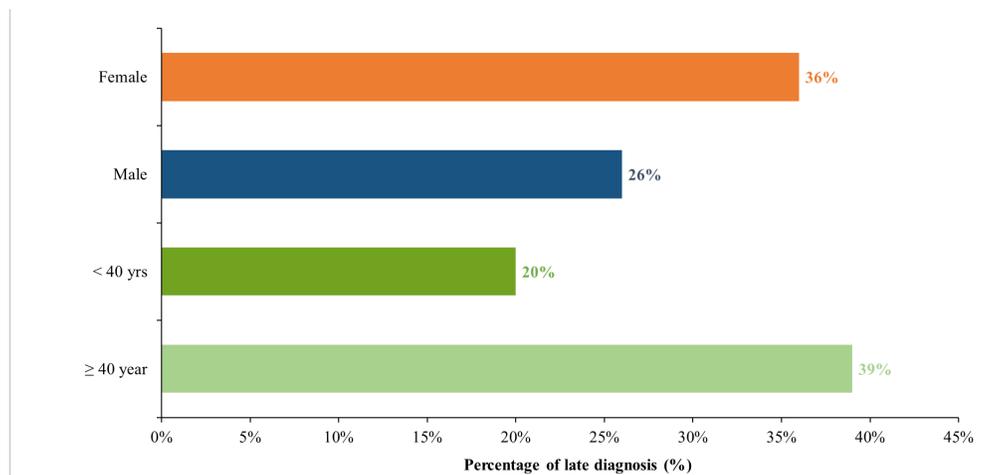
On average, the percentage of late diagnoses (onset of AIDS within three months from HIV diagnosis) among new cases decreased by nearly half, from 42.8% in 2010 to 21.5% in 2019. Closing a gap of more than fourteen percent compared to the national average in 2010, the percentage of late HIV diagnoses in the county was lower than the national average in 2017. From 2019 to 2020, the percentage of late diagnoses increased to 24.8% (Figure 46). Combining data from 2010 through 2020, females and people ages 40 and older were more likely to receive a late diagnosis (36% and 39%, respectively) than their male and/or younger counterparts (26% and 20%, respectively) (Figure 47). African American/Blacks (31%), Asian/Pacific Islanders (34%), and Hispanic/Latinx (28%) were more frequently diagnosed late compared to whites (22%) (Figure 48). People who acquired HIV through injection drug use (38%), MSM and injection drug use (26%), heterosexual contact (32%) or other modes (39%) were more likely to be diagnosed late than MSM (22%) (Figure 49).

Figure 47: Percentage of late HIV diagnoses*, County of Santa Clara and United States, 2010 – 2020



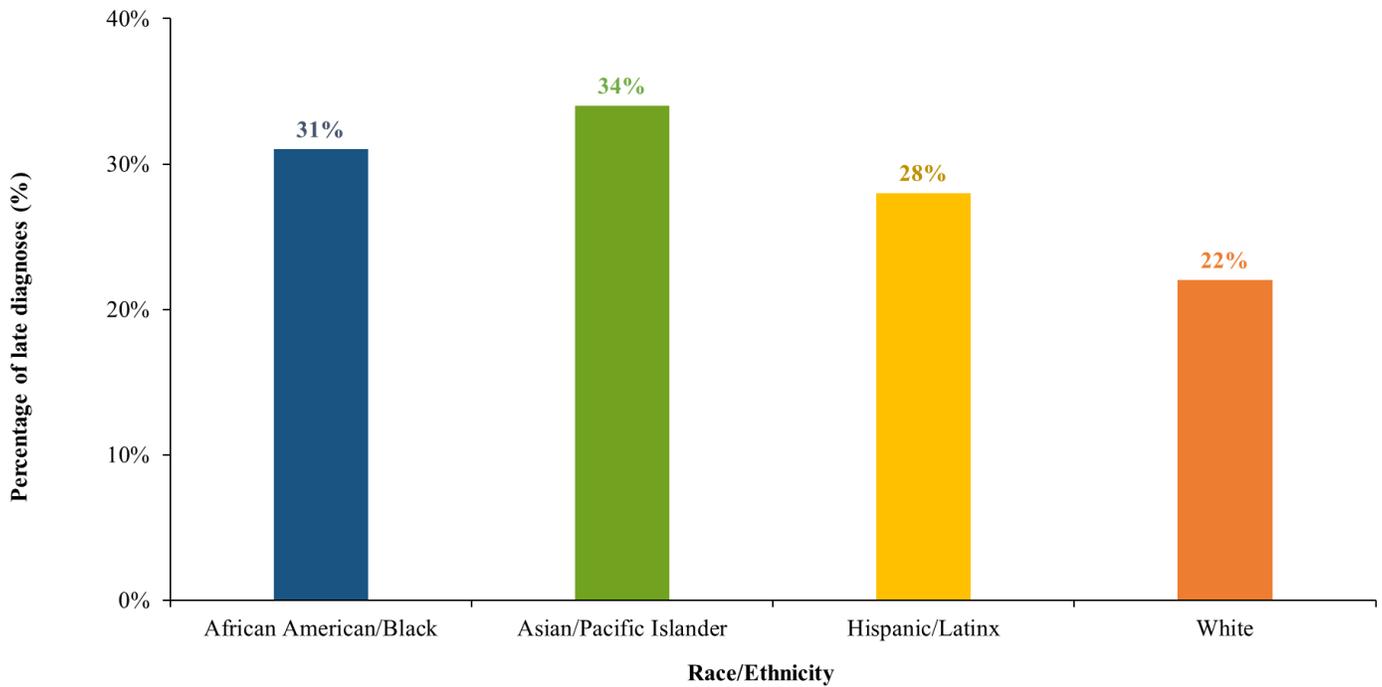
*Late diagnoses is defined as having AIDS diagnosis within 3 months of diagnosis of HIV infection.
 Source: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional; 2. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2020. *HIV Surveillance Supplemental Report* 2022;27(No. 3). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2022. Accessed May 4, 2022.

Figure 48: Percentage of late HIV diagnoses* by gender and age, County of Santa Clara, 2010 – 2020**



*Late diagnoses is defined as having AIDS diagnosis within 3 months of diagnosis of HIV infection.
 **Gender variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data; Rates among transgender populations are not available due to small populations and undefined population denominators.
 Source: County of Santa Clara Public Health Department, eHARS (2010 – 2021) data as of May 4, 2022, and are provisional.

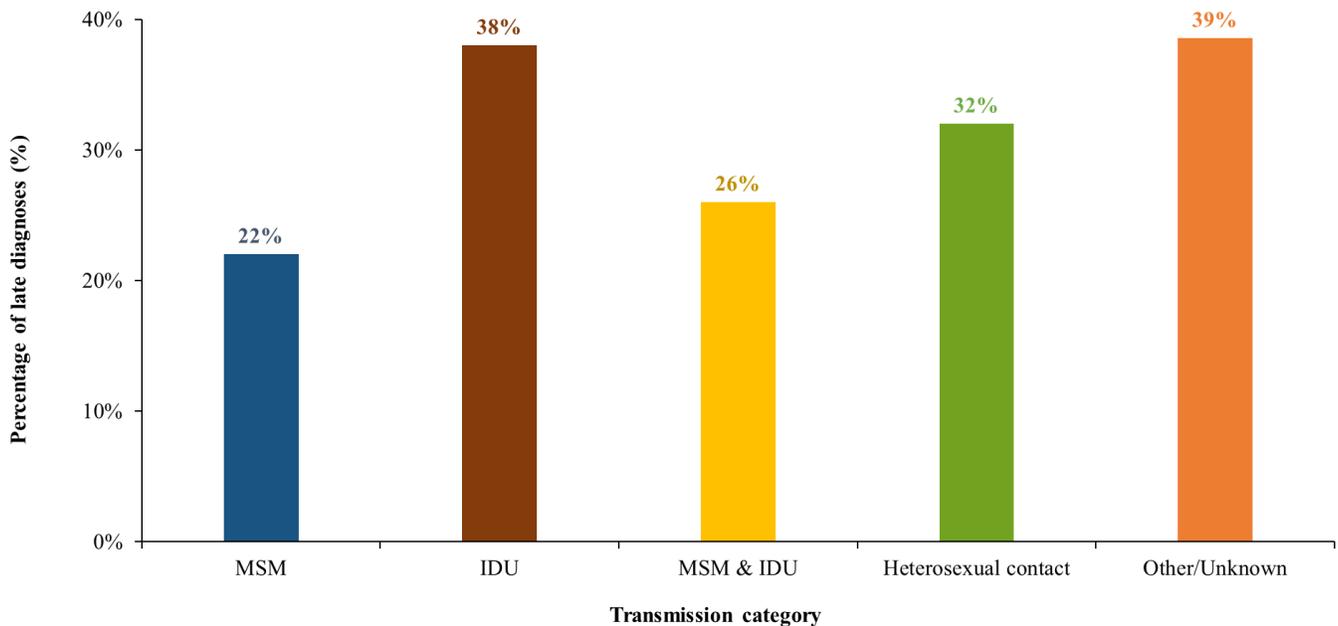
Figure 49: Percentage of late HIV diagnoses* by race/ethnicity, County of Santa Clara, 2010 – 2020



*Late diagnoses is defined as having AIDS diagnosis within 3 months of diagnosis of HIV infection.

Source: County of Santa Clara Public Health Department, eHARS (2010 – 2021) data as of May 4, 2022, and are provisional.

Figure 50: Percentage of late HIV diagnoses* by transmission category, County of Santa Clara, 2010 – 2020



*Late diagnoses is defined as having AIDS diagnosis within 3 months of diagnosis of HIV infection.

Source: County of Santa Clara Public Health Department, eHARS (2010 – 2021) data as of May 4, 2022 and are provisional.

People Living with HIV

In 2021, there were 3,618 PLWH with most recent address in the County of Santa Clara, including 2,706 (75%) first reported in the county and 912 (25%) out of jurisdiction cases. The rate of PLWH among males was nearly seven times the rate among females (321.4 vs. 48.8 per 100,000 people). People ages 45 to 64 had the highest PLWH rate of any age group (359.8), and nearly twice that of the county (189.1). When stratified by race/ethnicity, African American/Blacks had the highest rate (777.1), followed by Hispanic/Latinx (311.1), white (160.3), and Asian/Pacific Islander (71.4) (Table 2).

Table 2: Demographic and transmission characteristics of PLWH*, County of Santa Clara, 2021

Demographic Characteristic	Group	N	%	Rate per 100,000 people
Gender	Male	3,113	86	321.4
	Female	461	13	48.8
	Transgender**	40	1	-
Age (years)	0-12	0	0	-
	13-24	67	2	22.4
	25-44	1,266	35	248.2
	45-64	1,833	51	359.8
	65+	452	12	146.8
Race/ethnicity	White	1,027	28	160.3
	Hispanic/Latinx	1,632	45	311.1
	African American/Black	355	10	777.1
	Asian/Pacific Islander	453	13	71.4
	Other/Unknown	151	4	-
Transmission category	MSM	2,279	63	-
	IDU	156	4	-
	MSM & IDU	213	6	-
	Heterosexual contact	349	10	-
	Other/Unknown	621	18	-
Overall	Total	3,618	100	189.1

*PLWH includes people diagnosed with HIV who were alive through 12/31/2021 and had their most recent address in the County of Santa Clara.

** Due to the small number of reported trans male cases (female-to-male), data are combined with trans female cases to protect their confidentiality. Rates among transgender population and by transmission mode are not available due to undefined population denominators.

Source: 1. The County of Santa Clara PHD, eHARS data as of May 4, 2022, and are provisional; 2. State of California, Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010-2060, Sacramento, California, July 2021; 3. State of California, Dept of Finance, E-2. California County Population Estimates and Components of Change by Year — July 1, 2010–2021, February 2022.

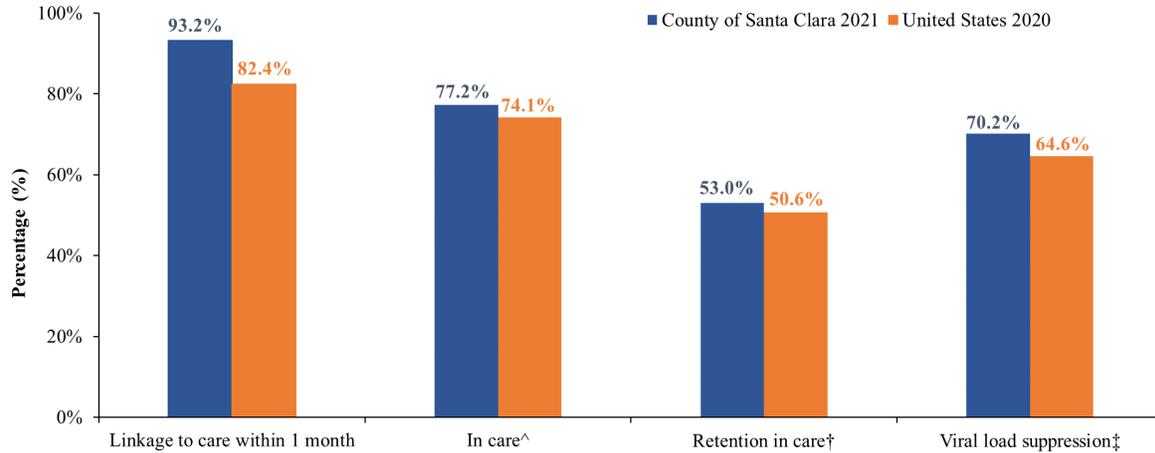
HIV Care Continuum

HIV Care Continuum

In 2021 among people newly diagnosed with HIV in Santa Clara County, 93.2% of people were linked to care within one month of diagnosis. Among people living with HIV in 2021, 77.2% were in care, 53.0% were retained in care, and 70.2% were virally suppressed (Figure 50). The 2021 Santa Clara County continuum of care remained above the 2020 national average for all metrics

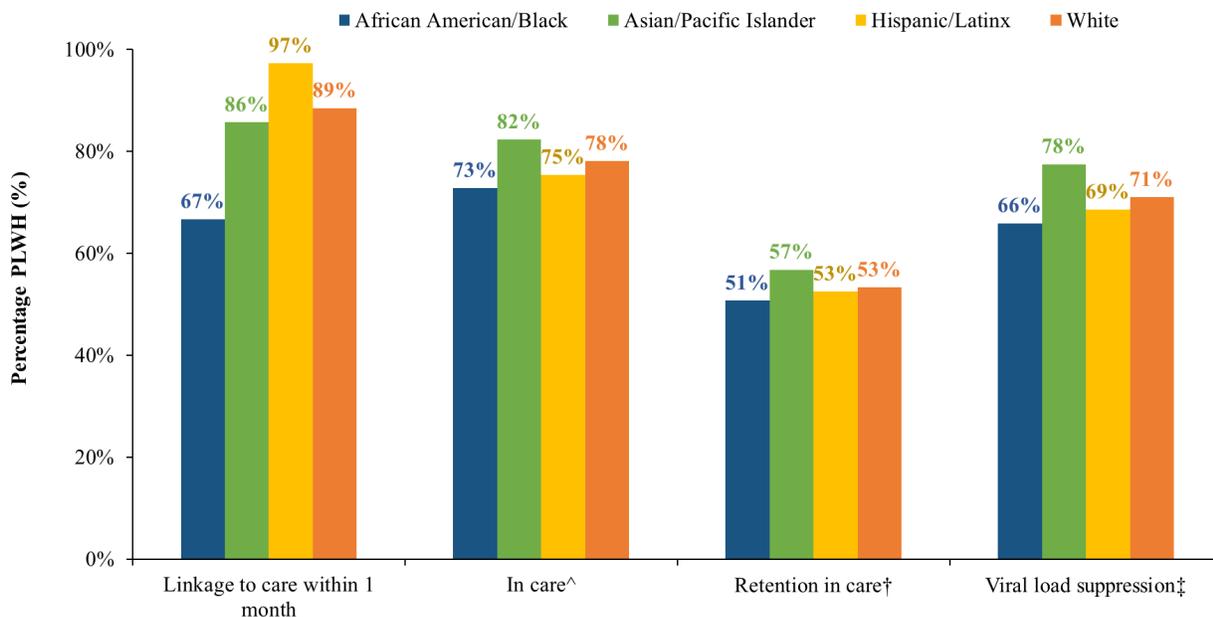
In 2021, Hispanic/Latinx individuals living with HIV were more likely to have been linked to care within 1 month. Asian/Pacific Islanders living with HIV were slightly more likely to have been in care, retained in care, and virally suppressed. On the contrary, African American/Blacks had the lowest care continuum metrics when compared to all other racial/ethnic groups. (Figure 51).

Figure 51: HIV continuum of care, County of Santa Clara and United States*, 2021



*Data for linkage to care within 3 months does not exist within the CDC 2020 HIV Surveillance Report
[^] People who were diagnosed with HIV through 2019 (U.S) or 2020 (Santa Clara) and alive in 2020 (U.S.) or 2021 (Santa Clara) and who had at least 1 documented CD4 or viral load test in 2020 (U.S) or 2021 (Santa Clara).
[†] People who were diagnosed with HIV in 2019 (U.S.) or 2020 (Santa Clara) and alive in 2020 (U.S) or 2021 (Santa Clara), and who had at least 2 documented CD4 or viral load test in 2020 (U.S.) or 2021 (Santa Clara), at least 3 months apart.
[‡] People who were diagnosed with HIV through 2019 (U.S.) or 2020 (Santa Clara) and alive in 2020 (U.S) or 2021 (Santa Clara), with most recent HIV viral load in 2020 (U.S.) or 2021 (Santa Clara) less than 200 copies/ml.
 Source: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional; 2. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2020. *HIV Surveillance Supplemental Report 2022*;27(No. 3). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2022. Accessed May 4, 2022.

Figure 52: HIV continuum of care, by race/ethnicity, County of Santa Clara, 2021

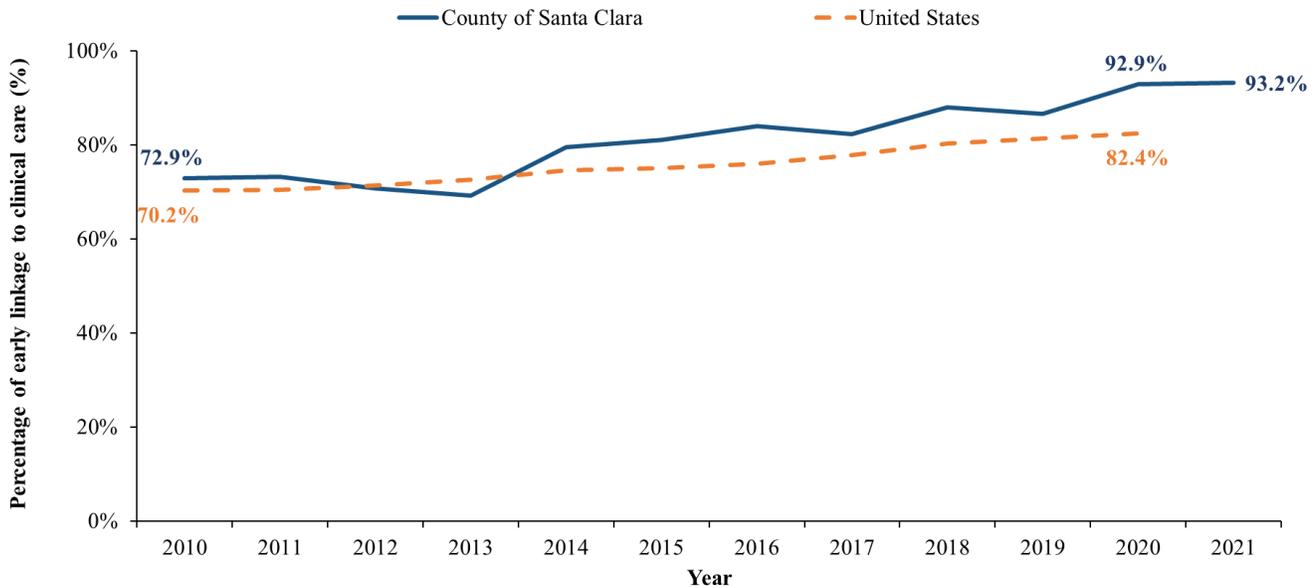


[^] People who were diagnosed with HIV through 2020 and alive in 2021 and who had at least 1 documented CD4 or viral load test in 2021.
[†] People who were diagnosed with HIV through 2020 and alive in 2021, and who had at least 2 documented CD4 or viral load test in 2021, at least 3 months apart.
[‡] People who were diagnosed with HIV through 2020 and alive in 2021, with most recent HIV viral load in 2021 less than 200 copies/ml.
 Source: Santa Clara County Public Health Department, eHARS data (2021) as of May 4, 2022, and are provisional.

Early Linkage to HIV Care

Between 2010 and 2021, the proportion of Santa Clara County residents diagnosed with HIV who received successful early linkage to care increased from 72.9% to 93.2%. Since 2014, the county has had a consistently higher percentage of successful early linkage to care compared to the US average, and as of 2018 had exceeded the national goal of 85% (Figure 52).

Figure 53: Percentage of early linkage to HIV care* among people ages 13+ newly diagnosed with HIV, County of Santa Clara and United States, 2010 – 2021



*Early Linkage to Clinical Care includes at least one CD4 or viral load test within one month of HIV diagnosis.

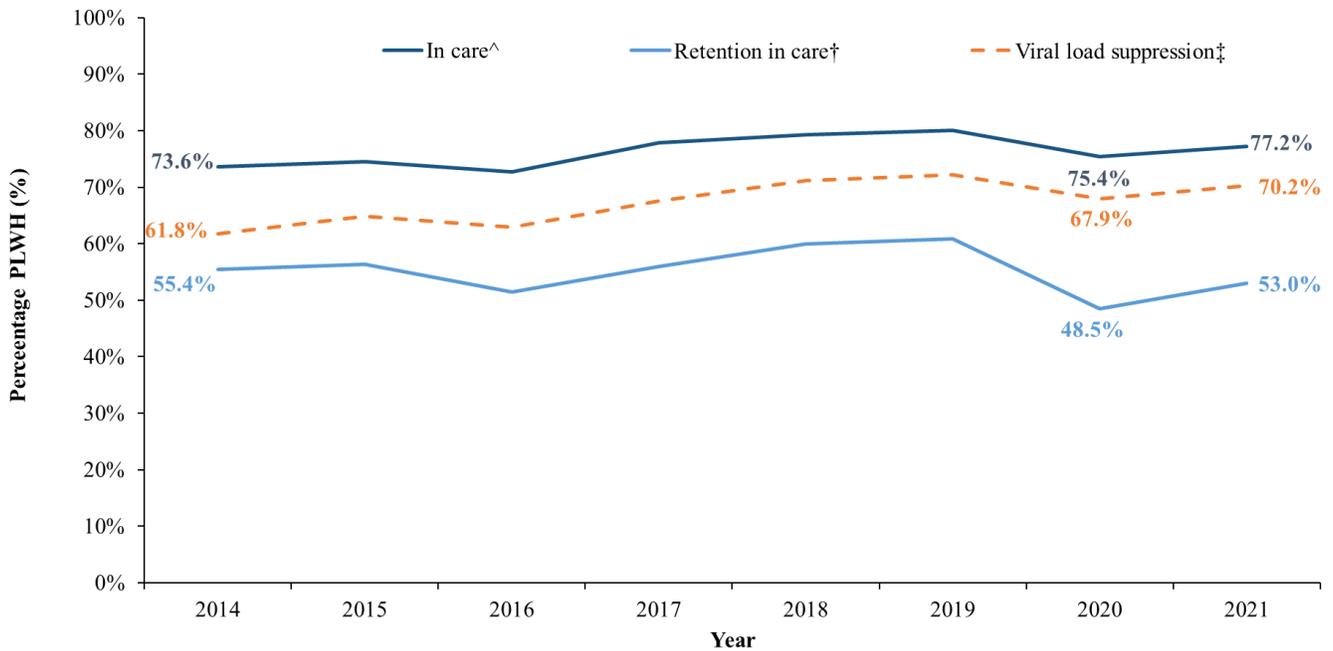
Source: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional; 2. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2020.

HIV Surveillance Supplemental Report 2022;27(No. 3). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2022. Accessed May 4, 2022.

Viral Suppression

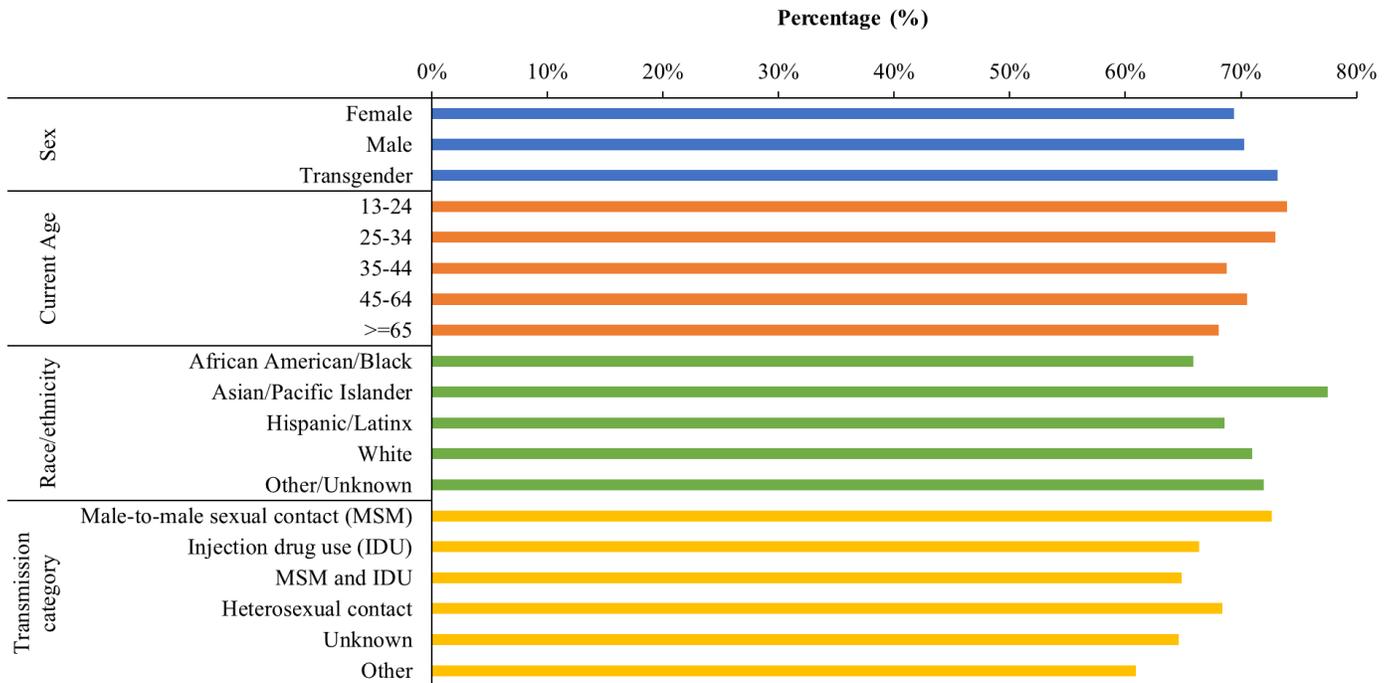
The percentage of those virally suppressed, with most recent HIV viral load less than 200 copies/ml, among PLWH in the county steadily increased from 61.8% in 2014 to 70.2% in 2021 (Figure 53). Males and females had similar viral suppression (70% and 69%, respectively). Viral suppression was most frequent among young people ages 13 to 34, Asian/Pacific Islanders (78%), and MSM (73%). Viral suppression was least frequent among adults ages 65 and older (68%), African Americans/Black (66%), and MSM/IDU (65%) (Figure 54).

Figure 54: HIV continuum of care among PLWH ages 13+, County of Santa Clara, 2014 – 2021



[^] People who were diagnosed with HIV through previous year and alive in specified year and who had at least 1 documented CD4 or viral load test in specified year.
[†] People who were diagnosed with HIV through previous year and alive in specified year, and who had at least 2 documented CD4 or viral load test in specified year, at least 3 months apart.
[‡] People who were diagnosed with HIV through previous year and alive in specified year, with most recent HIV viral load in specified year less than 200 copies/ml.
 Source: Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional.

Figure 55: Viral suppression among PLWH* ages 13+, by demographic and transmission characteristics, County of Santa Clara, 2021

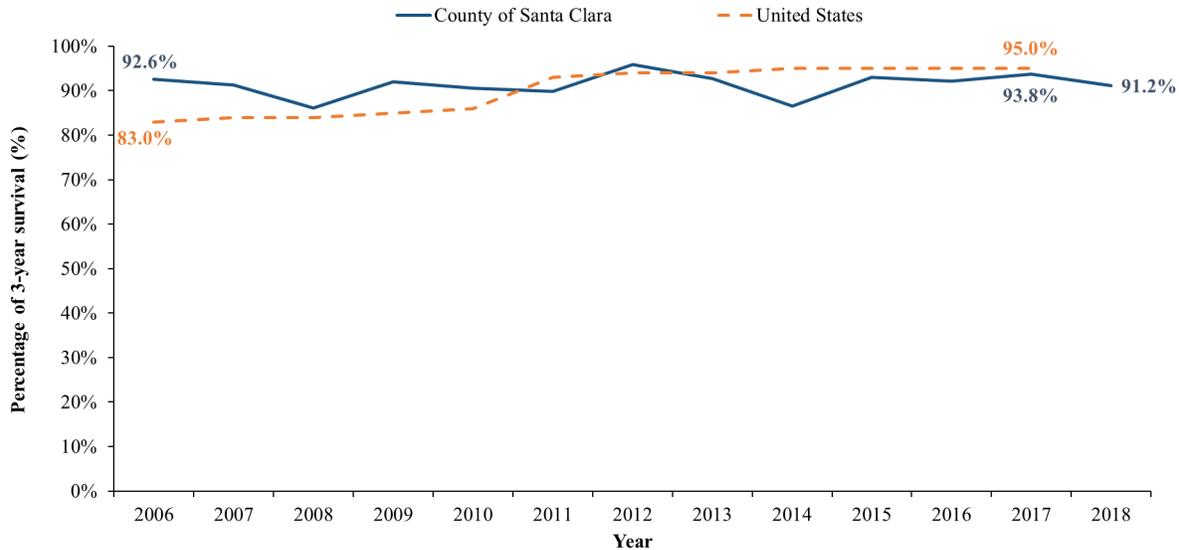


*People who were diagnosed with HIV through 2020 and alive in 2021, with most recent HIV viral load in 2021 less than 200 copies/ml.
 Source: Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional.

HIV Survival

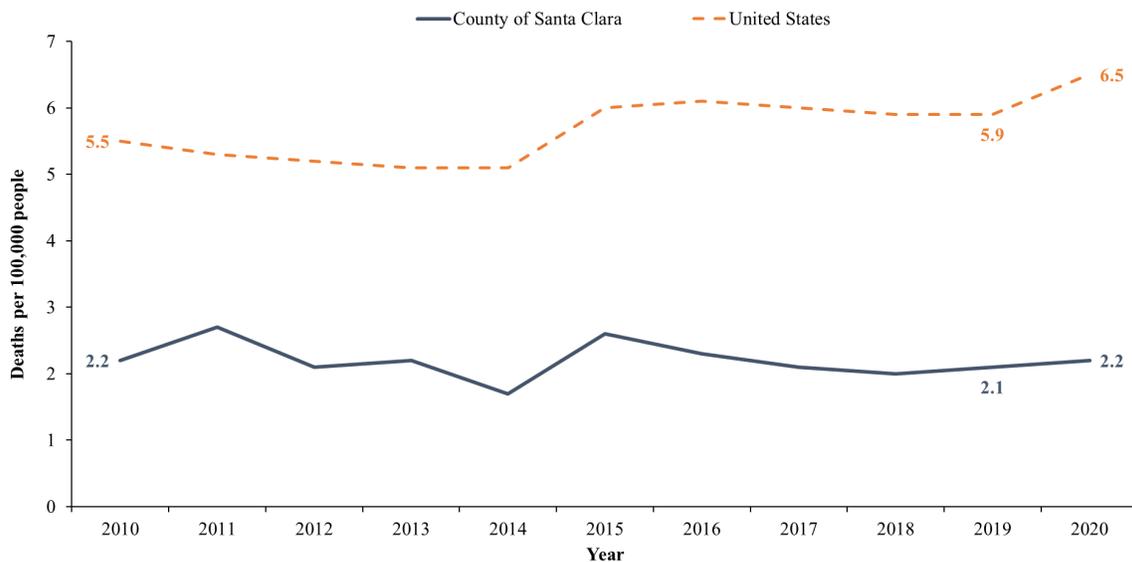
Figure 55 shows the 3-year survival rates among patients diagnosed with AIDS between 2006 and 2018 for the county in comparison with the national rate of survival. From 2006 to 2012, the 3-year AIDS survival rate in the county remained stable and was generally above the national average, but the opposite was true from 2013 to 2017. In 2017, the 3-year AIDS survival rate was 93.8% among the county and 95.0% among the country (Figure 55). Since 2010, the HIV mortality rate in the general population in the county remained below the national rate. In 2020, the HIV mortality rate in the County of Santa Clara (2.2 per 100,000 people) was nearly a third of the national rate (6.5) (Figure 56).

Figure 56: AIDS 3-year survival rate*, County of Santa Clara and United States, 2006 – 2018



Sources: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional; 2. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2020. *HIV Surveillance Supplemental Report 2022:27*(No. 3). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2022. Accessed May 4, 2022.

Figure 57: HIV mortality rate, County of Santa Clara and United States, 2010 – 2020



Source: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional; 2. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2020. *HIV Surveillance Supplemental Report 2022:27*(No. 3). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2022. Accessed May 4, 2022.

HIV and Sexually Transmitted Infection (STI) Co-infection

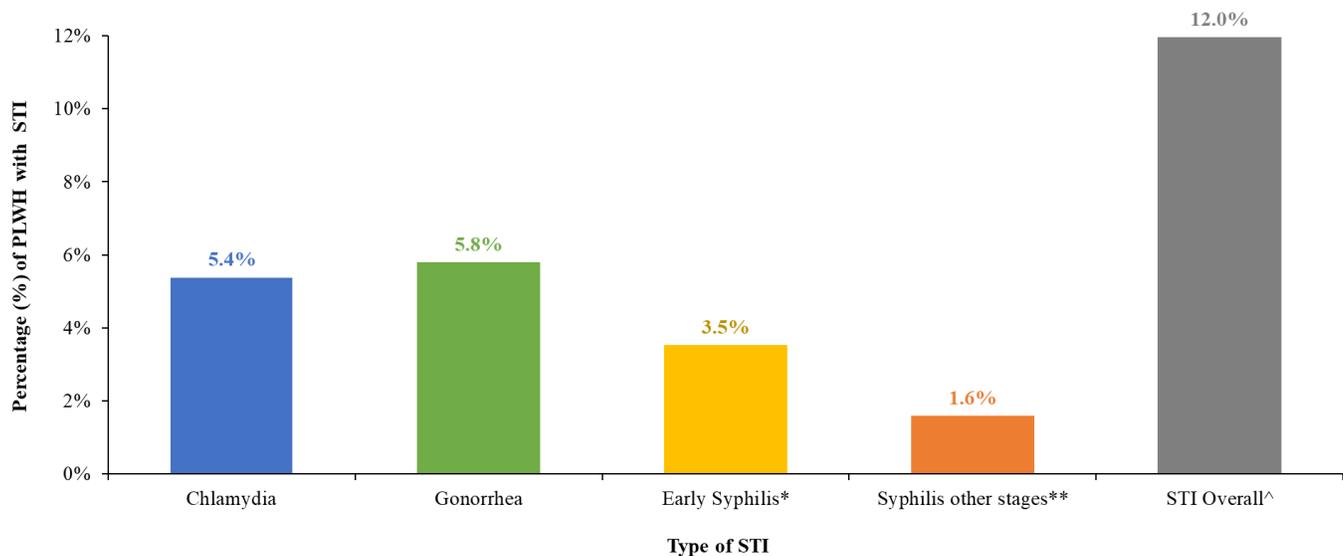
Overall, 12% of PLWH were diagnosed with at least one STI in 2021. Gonorrhea (5.8%) and chlamydia (5.4%) were the most frequently reported STIs among PLWH in 2021, while 3.5% were diagnosed with early syphilis (including primary, secondary, and early latent syphilis) and 1.6% with syphilis of other stages (includes syphilis cases with unknown duration, late, or unknown stage) (Figure 57).

With regard to gender and age, 25% of PLWH who identified as transgender were co-infected with an STI in 2021, while 13.2% of males and 2.6% of females were infected. PLWH ages 13 to 29 were most frequently co-infected with an STI, with 31.3% among those ages 13 to 24, and 26.6% among those ages 25 to 29 experiencing an STI in 2021 (Figure 58).

With regard to race/ethnicity, 15.6% of Hispanic/Latinx PLWH were diagnosed with STI, followed by Asian/Pacific Islanders (10.8%), whites (8.2%), and African American/Blacks (8.2%) (Figure 59).

Among transmission categories, HIV/STI co-infection most disproportionately impacted MSM (15.1%), over two times greater than IDU (7.1%), and more than ten times higher than those whose HIV was attributed to heterosexual contact (1.4%) (Figure 60). The percentage of HIV/STI co-infection among MSM was over double that of non-MSM males, and over five times that of females (Figure 61).

Figure 58: Percentage of people living with HIV with STI†, County of Santa Clara, 2021



† People living with HIV ages 13 and older diagnosed with chlamydia, gonorrhea, or syphilis of all stages in 2021. A person with multiple episodes of one disease in the year will be only counted once for the disease.

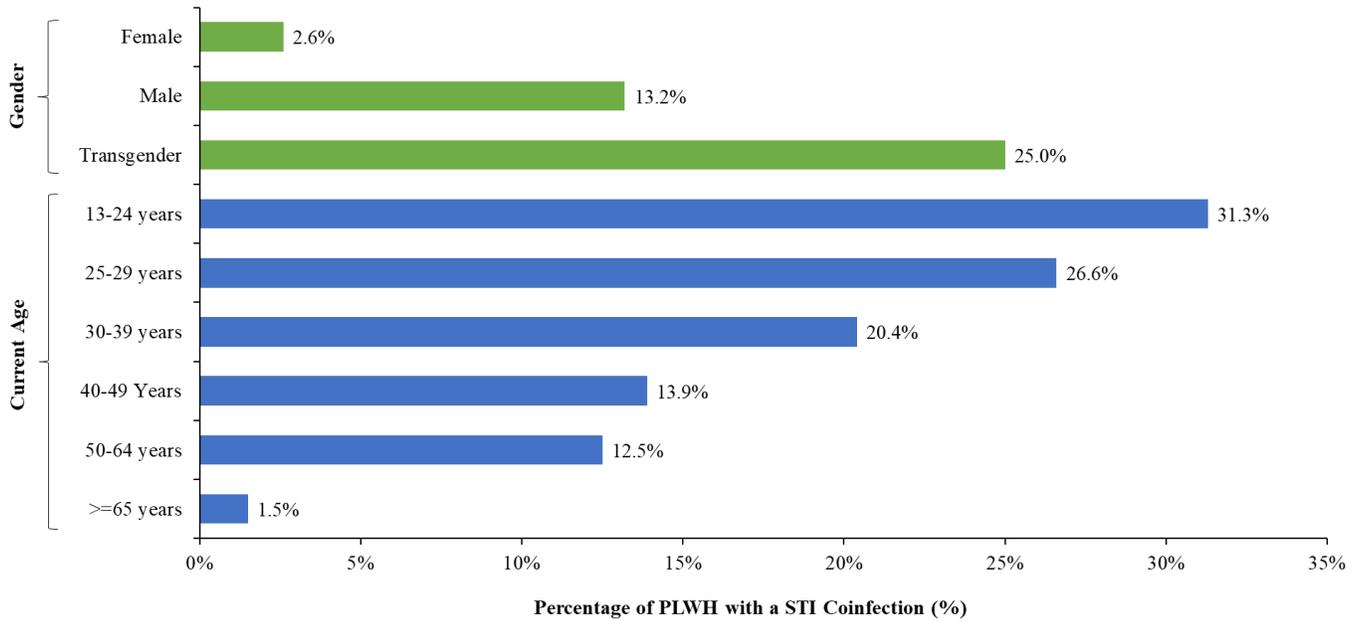
*Includes primary, secondary and early latent syphilis cases.

** Includes syphilis cases with unknown duration or late or unknown stage.

^ The percentage of overall STI diagnosis is lower than the sum of the percentages of chlamydia, gonorrhea, early syphilis, and other stages of syphilis because one person may be diagnosed with multiple diseases.

Source: County of Santa Clara Public Health Department, eHARS (2021), data as of 5/4/2022. County of Santa Clara Public Health Department, CalREDIE (2021), data as of 5/4/2022.

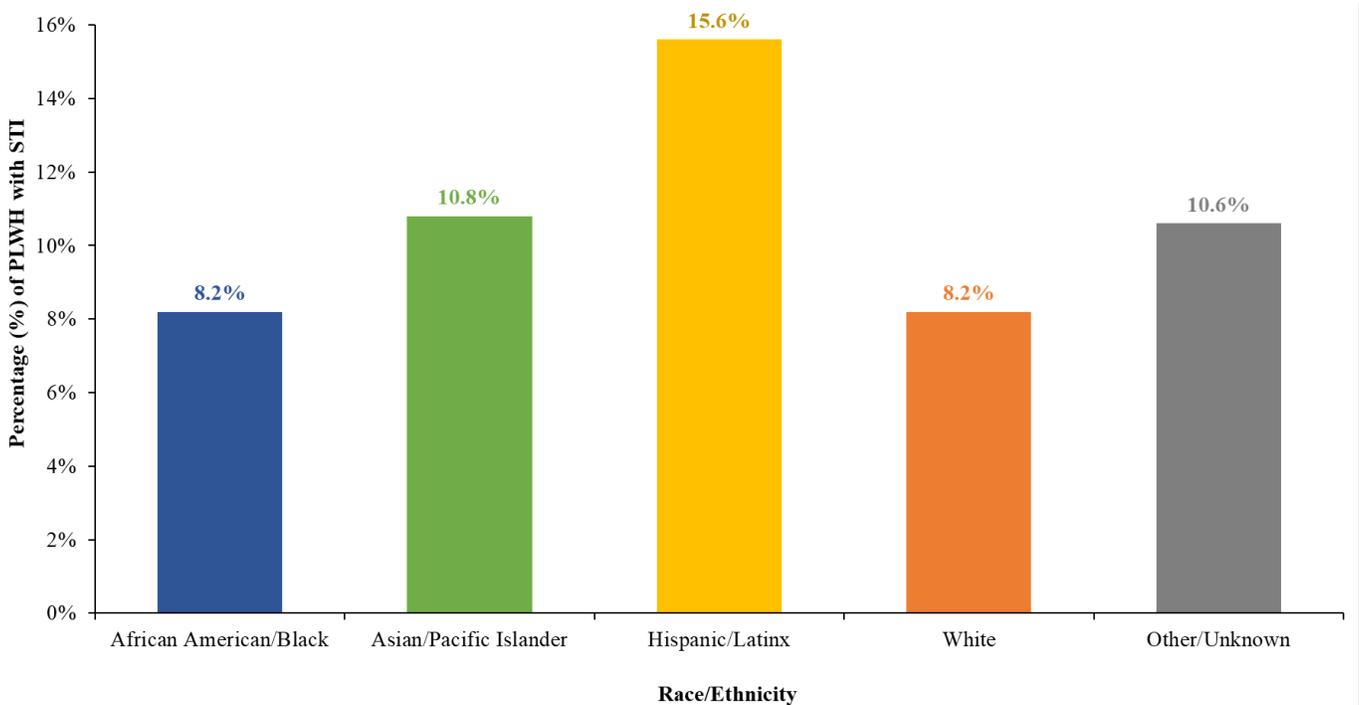
Figure 59: Percentage of people living with HIV with an STI†, by gender and age group, County of Santa Clara, 2021



† People living with HIV ages 13 and older with chlamydia, gonorrhea, and syphilis of all stages diagnosis in 2021. A person with multiple episodes of one disease in the year will be only counted once for the disease.

Source: County of Santa Clara Public Health Department, eHARS (2021), data as of 5/4/2022. County of Santa Clara Public Health Department, CalREDIE (2021), data as of 5/4/2022.

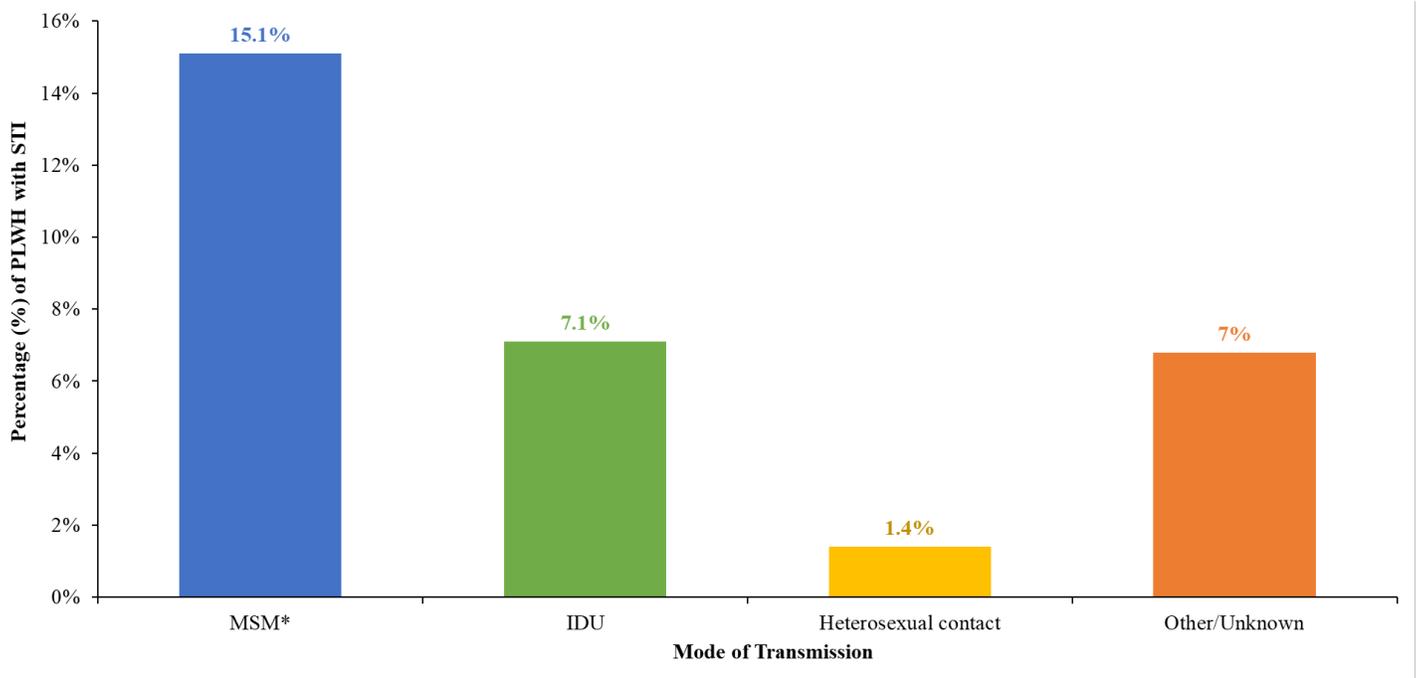
Figure 60: Percentage of people living with HIV with STI†, by race/ethnicity, County of Santa Clara, 2021



† People living with HIV ages 13 and older with chlamydia, gonorrhea, and syphilis of all stages diagnosis in 2021. A person with multiple episodes of one disease in the year will be only counted once for the disease.

Source: County of Santa Clara Public Health Department, eHARS (2021), data as of 5/4/2022. County of Santa Clara Public Health Department, CalREDIE (2021), data as of 5/4/2022.

Figure 61: Percentage of people living with HIV with STI†, by transmission category, County of Santa Clara, 2021

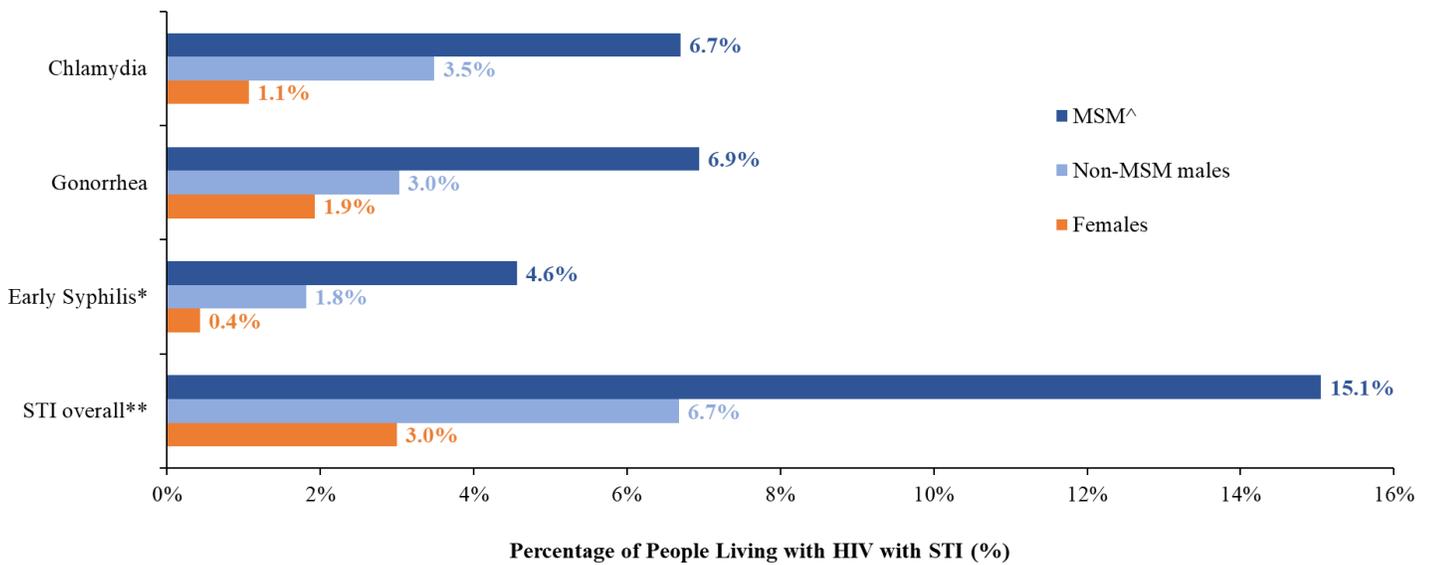


† People living with HIV ages 13 and older with chlamydia, gonorrhea, and syphilis of all stages diagnosis in 2021. A person with multiple episodes of one disease in the year will be only counted once for the disease.

*Includes MSM and MSM & IDU.

Source: County of Santa Clara Public Health Department, eHARS (2021), data as of 5/4/2022. County of Santa Clara Public Health Department, CalREDIE (2021), data as of 5/4/2022.

Figure 62: Percentage of people living with HIV with STI† by disease, County of Santa Clara, 2021



† People living with HIV ages 13 and older with chlamydia, gonorrhea, early syphilis (primary, secondary and early latent) diagnosis in 2021. A person with multiple episodes of one disease in the year will be only counted once for the disease.

* Includes primary, secondary and early latent syphilis cases.

** The percentage of overall STI diagnosis is lower than the sum of the percentages of chlamydia, gonorrhea and early syphilis because one person may be diagnosed with multiple diseases.

^ Includes MSM and MSM & IDU.

Source: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022; 2. Santa Clara County Public Health Department, CalREDIE (2021), data as of May 4, 2022, and are provisional.

A. HIV among Priority Populations in the County of Santa Clara

The HIV epidemic has stabilized in the county since the mid-2000s, with 3,618 people known to be diagnosed and living with HIV as of December 31, 2021. African American/Black and Hispanic/Latinx residents are disproportionately impacted by the disease. MSM have been disproportionately impacted as well since the beginning of the epidemic. These disparities likely relate to social determinants, which are driven by structural factors impacting population health beyond the extent of individual characteristics¹¹. CDC defines *social determinants of health* (SDH) as “overlapping social structures and economic systems (e.g., social environment, physical environment, health services, and structural and societal factors) that are responsible for most health inequities.”¹² To address these health disparities and promote equity, CDC has adopted a holistic framework that emphasizes community-based prevention approaches for HIV.¹³

Health inequities persist in the County of Santa Clara as they do across the State of California and the United States. However, several factors uniquely shape health inequities in the county, such as a growing immigrant population, the rise of the technology industry, and the increase in income inequality. In this report, we highlight populations disproportionately impacted by HIV and other health disparities to illustrate the needs guiding our priorities regarding HIV surveillance and prevention in the County of Santa Clara.

HIV among Men Who have Sex with Men (MSM)

In 2021, the majority of MSM who were newly diagnosed with HIV were less than 40 years old (Figure 62). From 2010 to 2021, HIV diagnoses among MSM decreased among all age groups, except among those ages 30 to 39, with a 19% increase (Figure 62).

In 2021, the majority of new diagnoses in MSM were Hispanic/Latinx (49), followed by whites (16), Asian/Pacific Islanders (9), and African American/Blacks (1). From 2010 to 2021, the number of new diagnoses increased among Hispanic/Latinx by 1 diagnosis, remained consistent among Asian/Pacific Islanders, decreased among whites by 23 diagnoses, and decreased among African American/Blacks by 2 diagnoses.

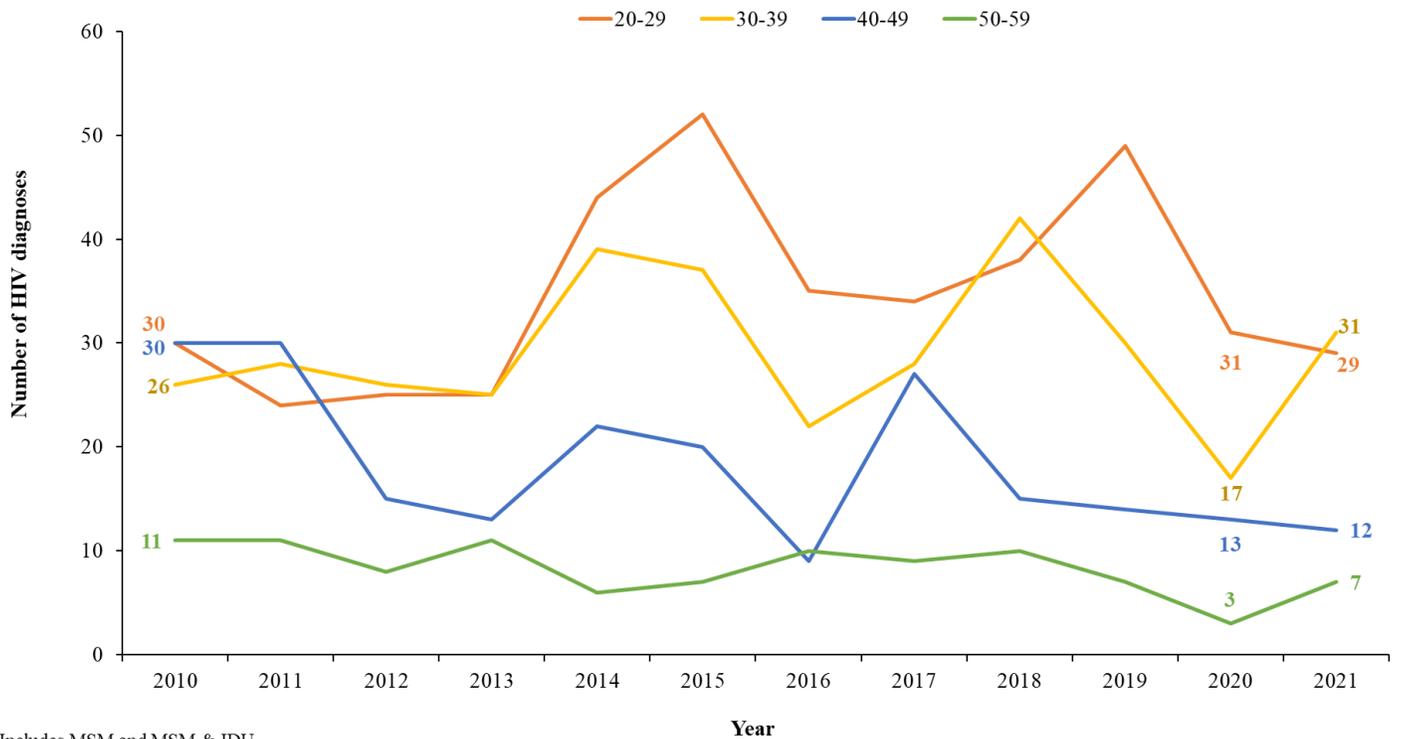
Finally, in 2021, the majority of MSM across all races/ethnicities achieved viral suppression; 78.4% of Asian/Pacific Islander MSM living with HIV were virally suppressed, 73.9 % of whites, and 71.4% of Hispanic/Latinx, while only 63.0% of African American/Black MSM cases had met the clinical criteria for viral suppression (Figure 64).

¹¹ CDC. Social determinants of health among adults with diagnosed HIV infection in 13 states, the District of Columbia, and Puerto Rico, 2015. HIV Surveillance Supplemental Report 2017; 22 (No. 3). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published August 2017. Accessed [Sep 19th, 2019].

¹² CDC. Establishing a Holistic Framework to Reduce Inequities in HIV, Viral Hepatitis, STDs, and Tuberculosis in the United States. Atlanta (GA): U.S. Department of Health and Human Services, CDC; October 2010. Accessed [Sep 19th, 2019].

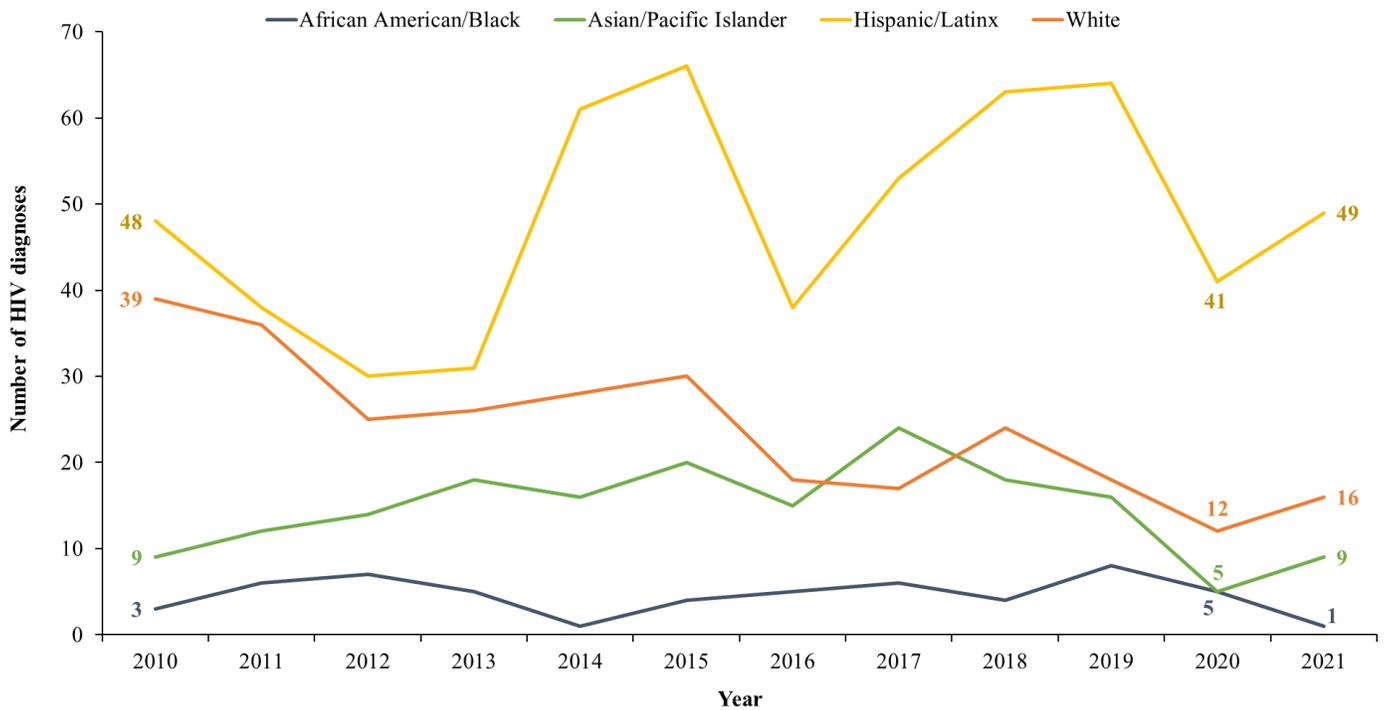
¹³ Centers for Disease Control and Prevention. Establishing a Holistic Framework to Reduce Inequities in HIV, Viral Hepatitis, STDs, and Tuberculosis in the United States. Atlanta (GA): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; October 2010. Accessed [Sep 19th, 2019].

Figure 63: Number of MSM* newly diagnosed with HIV by selected age group, County of Santa Clara, 2010 – 2021



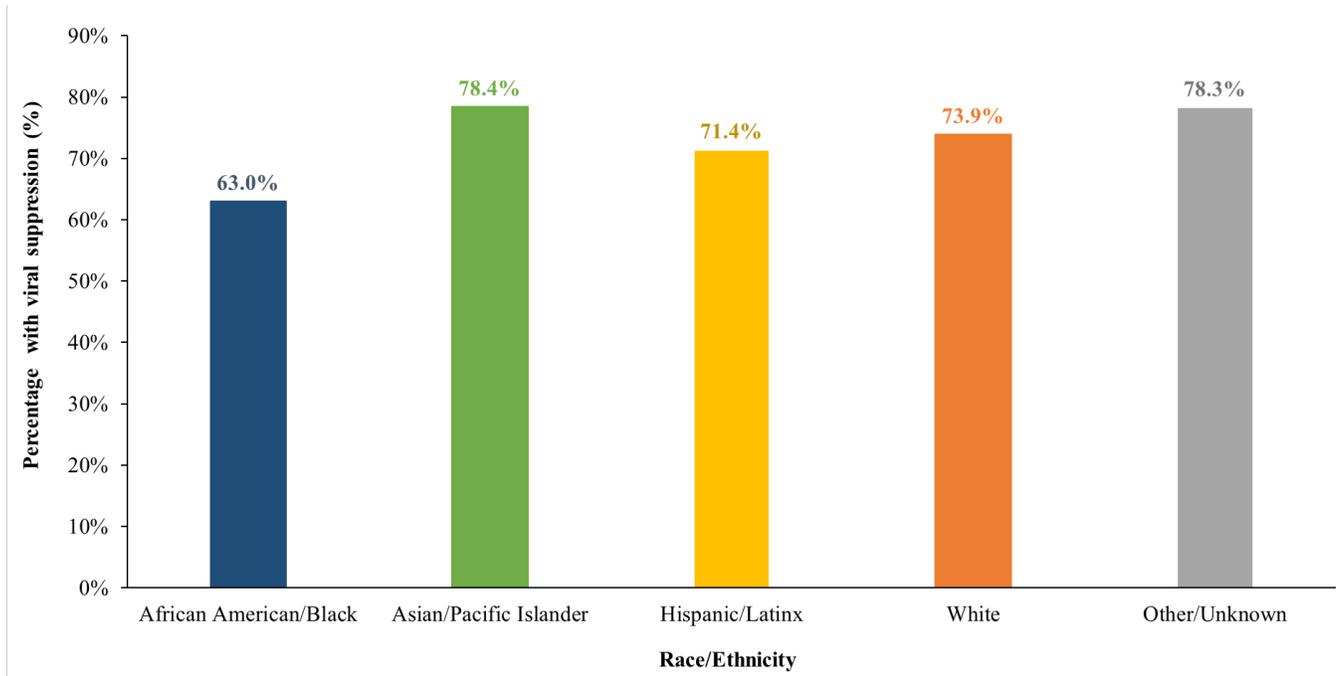
*Includes MSM and MSM & IDU.
 Source: County of Santa Clara Public Health Department, eHARS data as of May 4, 2022, and are provisional.

Figure 64: Number of MSM* newly diagnosed with HIV by race/ethnicity, County of Santa Clara, 2010 – 2021



*Includes MSM and MSM & IDU.
 Source: County of Santa Clara Public Health Department, eHARS data as of May 4, 2022, and are provisional.

Figure 65: Viral suppression among MSM* living with HIV, by race/ethnicity, County of Santa Clara, 2021



*Includes MSM and MSM & IDU.

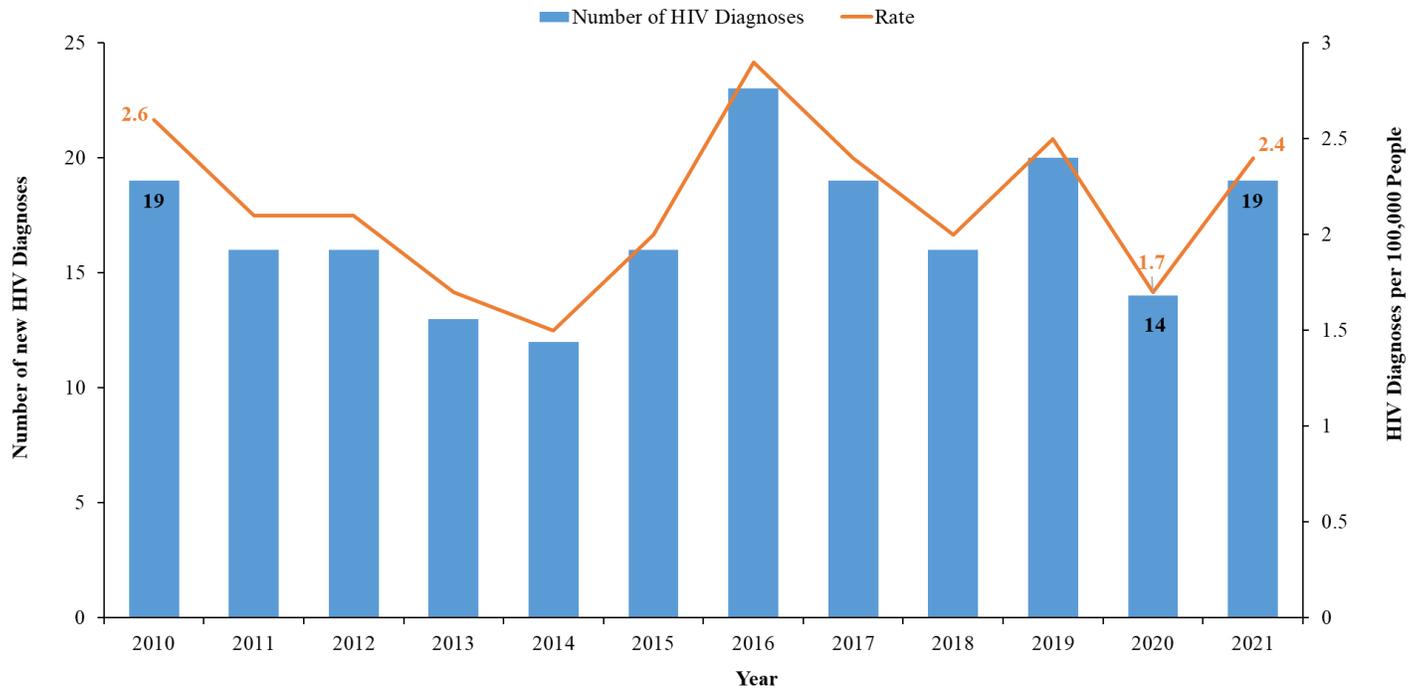
Source: Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional.

HIV among Women

In 2021, 19 women ages 13 and older were newly diagnosed with HIV in the County of Santa Clara. The rate of HIV diagnoses among women aged 13 and older declined from 2010 to 2014, then rebounded in 2015 and 2016 before again declining to 2.0 in 2018. The rate then increased in 2019, decreased again in 2020 to 1.7, and finally increased to 2.4 in 2021 (Figure 65).

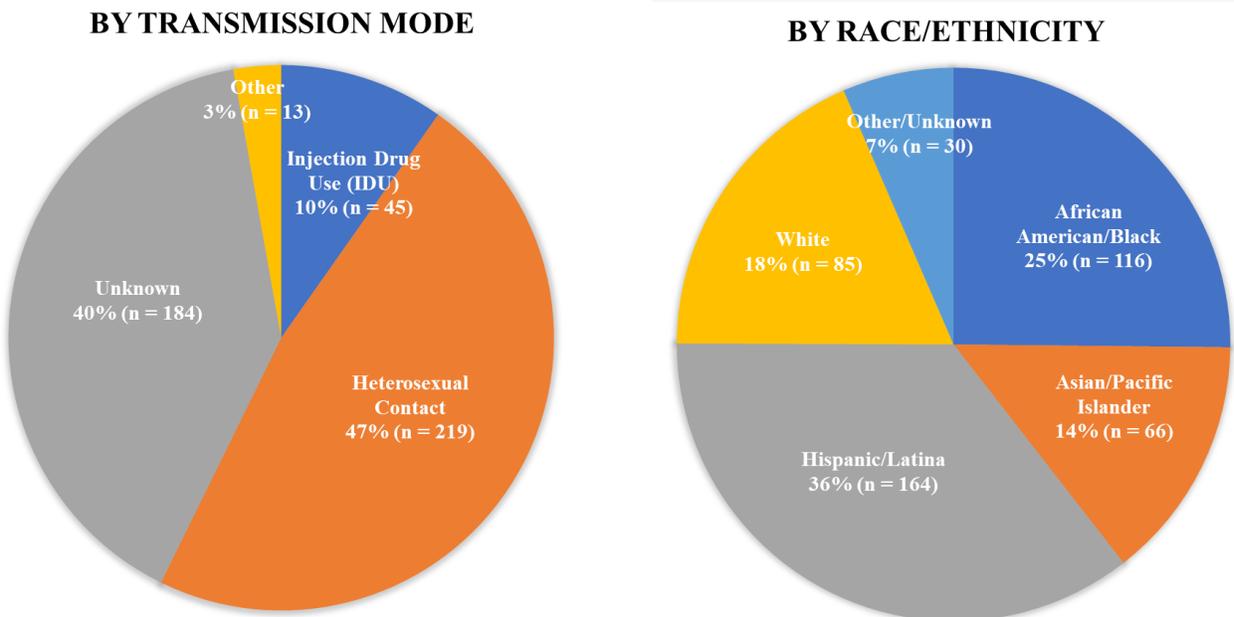
Among all 461 women living with HIV in 2021, 36% were Hispanic/Latinx, 25% were African American/Black, 18% were white, and 14% were Asian/Pacific Islander. Nearly half (47%) of women living with HIV in the county were associated with transmission through heterosexual contact compared to 10% through injection drug use. 40% of women living with HIV had no known source of HIV acquisition (Figure 66).

Figure 66: Number and rate of women ages 13+ newly diagnosed HIV, County of Santa Clara, 2010 – 2021



Sources: County of Santa Clara Public Health Department, eHARS (2012 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

Figure 67: Women living with HIV by transmission category and race/ethnicity, County of Santa Clara, 2021



Source: Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional.

HIV among Adolescents and Young Adults

In 2021, there were 18 new HIV diagnoses among adolescents and young adults ages 13 to 24 years. Among all 259 adolescents and young adults diagnosed with HIV between 2010 and 2021, the majority were male (92%), Hispanic/Latinx (55%) and MSM (82%), including MSM who used injection drugs. Adolescents and young adults diagnosed with HIV were less frequently associated with transmission through heterosexual contact (2%) and injection drugs, including MSM who used injection drugs (5%) (Table 3).

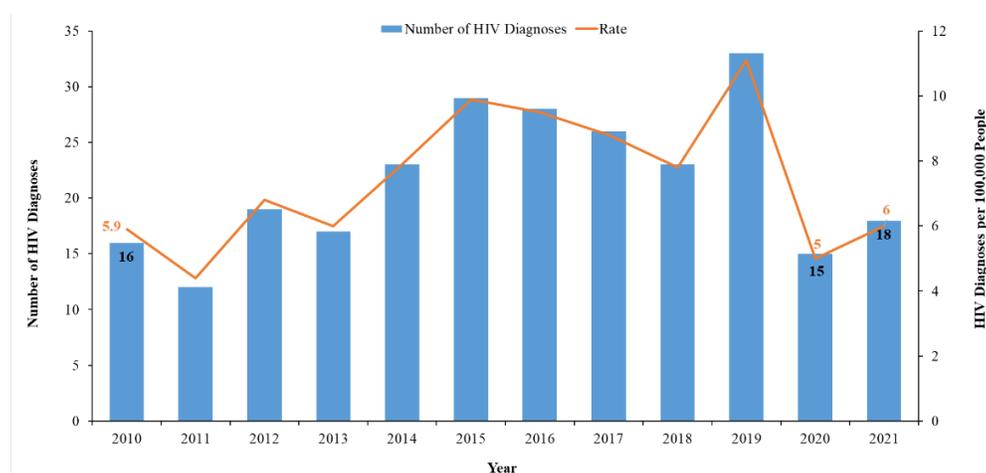
The rates of HIV among those ages 13 to 24 steadily increased from 5.9 per 100,000 people in 2010 to 11.6 in 2019, then decreasing by over 50% to 5 in 2020, and then up to 6 in 2021 (Figure 67). The number of new HIV diagnoses increased from 2010 (16) to 2021 (18). (Figure 67).

Table 3: Adolescents and young adults ages 13-24 with new HIV diagnosis by demographic and transmission characteristics, County of Santa Clara, 2010–2021

Demographic Characteristic	Group	N	Percent (%)
Gender	Female	17	7
	Male	238	92
	Transgender	4	2
Race/Ethnicity	African American/Black	23	9
	Asian/Pacific Islander	37	14
	Hispanic/Latinx	142	55
	White	47	18
	Other/Unknown	10	4
	Transmission Category	MSM	204
	IDU	4	2
	MSM & IDU	7	3
	Heterosexual contact	6	2
	Other/Unknown	38	14
Overall	Total	259	100

Source: The County of Santa Clara Public Health Department, eHARS data as of May 4, 2022, and are provisional.

Figure 68: Number and rate of newly diagnosed HIV among adolescents and young adults ages 13–24, County of Santa Clara, 2010 – 2021



Sources: County of Santa Clara Public Health Department, eHARS (2010 – 2021), data as of May 4, 2022; 2. State of California Department of Finance, E-2: California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010 - 2060, Sacramento, California, July 2021.

HIV among People Ages 50 and Older

In 2021, there were 18 people ages 50 years and older who were newly diagnosed with HIV. Among all 272 people ages 50 or older diagnosed with HIV between 2010 and 2021, the majority were male (81%), White (43%) and MSM (49%), including MSM who used injection drugs. (Table 4).

In 2021, among people newly diagnosed with HIV in Santa Clara County, 92.2% of people less than 50 years of age were linked to care within one month, compared to 100% of people ages 50 or older. Among people living with HIV, the rest of the care continuum was very similar between those less than 50 years of age and those 50 years of age or older: the percent of people in care (76.5% vs. 77.8%), the percent of people retained in care (50.9% vs. 54.9%), and the percent virally suppressed (69.8% vs. 70.5%).

From 2010 to 2020 the HIV mortality rate has increased from 2.3 deaths to 2.5 deaths per 100,000 people among those less than 50 years of age and has decreased from 2.1 to 1.5 deaths per 100,000 people among those ages 50 and older. In 2020, there were 32 deaths among those less than 50 years of age, and 10 deaths among those 50 years of age or older. Additionally, the HIV mortality rate among those less than 50 years of age was nearly double that of those 50 years of age or older (Figure 69).

Table 4: People ages 50 and older with new HIV diagnosis by demographic and transmission characteristics, County of Santa Clara, 2010–2021

Demographic Characteristic	Group	N	Percent (%)
Gender	Female	50	18
	Male	219	81
	Transgender	3	1
Race/Ethnicity	African American/Black	22	8
	Asian/Pacific Islander	43	16
	Hispanic/Latinx	76	28
	White	117	43
	Other/Unknown	14	5
Transmission Category	MSM	122	45
	IDU	18	7
	MSM & IDU	11	4
	Heterosexual contact	25	9
	Other/Unknown	96	35
Overall	Total	272	100

Source: The County of Santa Clara Public Health Department, eHARS data as of May 4, 2022, and are provisional.

Figure 69: HIV continuum of care, by age group, County of Santa Clara, 2021

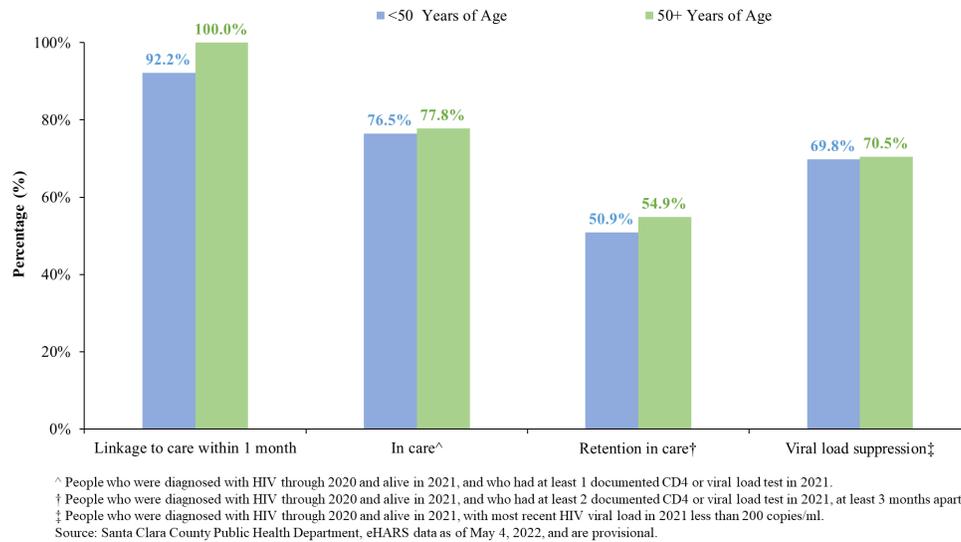
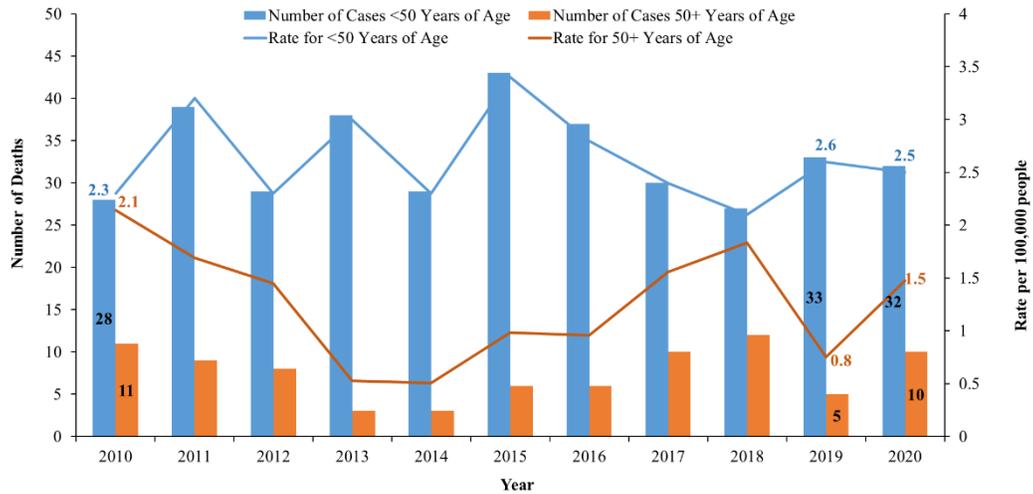


Figure 70: HIV mortality rate, by age group, County of Santa Clara and United States, 2010 – 2020



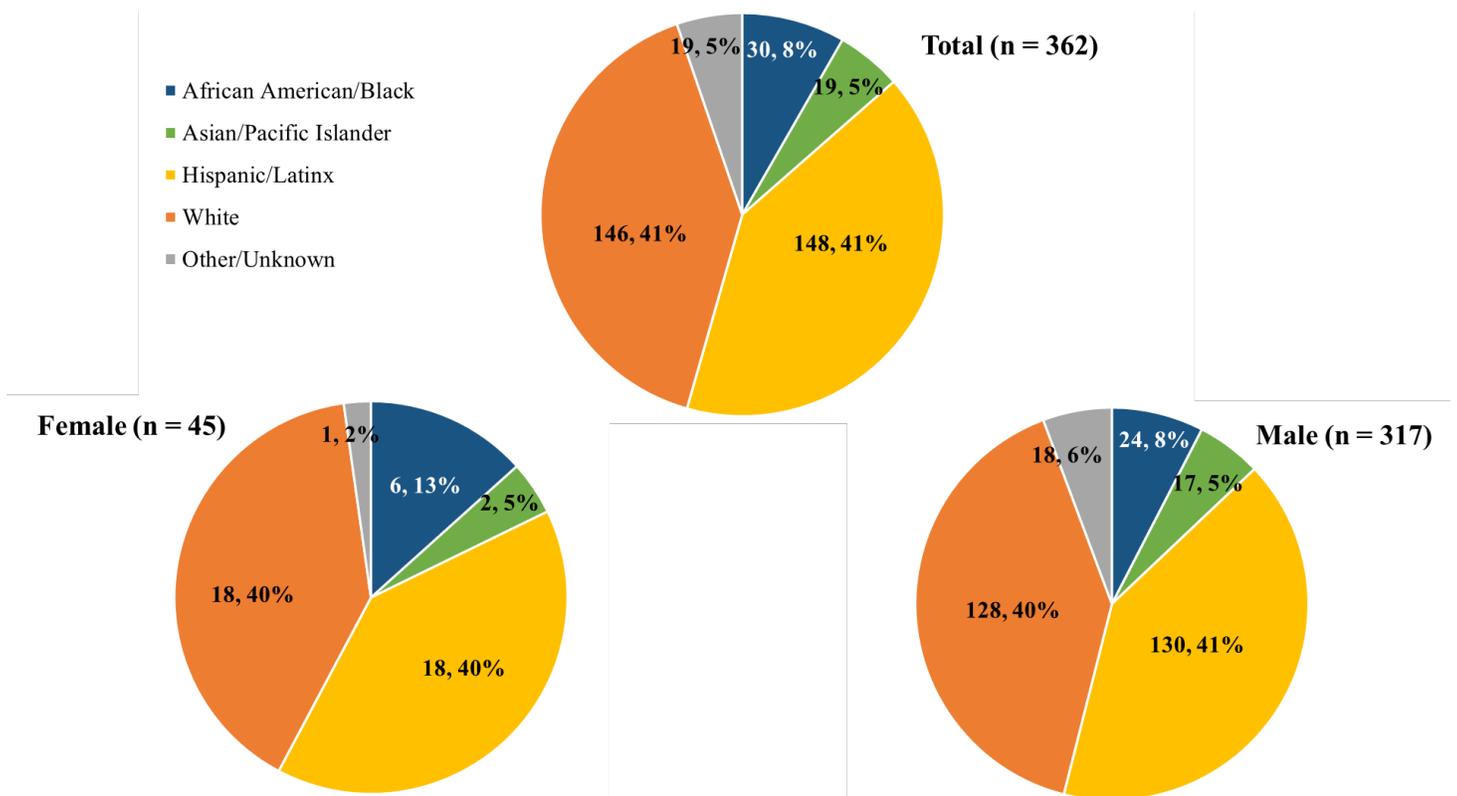
Source: 1. Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional; 2. State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year - July 1, 2010 - 2021, February 2022; 3. State of California, Department of Finance, State and County Population Projections by Race/Ethnicity and Age, 2010-2060, Sacramento, California, July 2021.

HIV among People Who Inject Drugs

Among all PLWH in the County of Santa Clara County in 2021, 362 had a history of IDU. More than half (59%, 213) also identified as MSM (Table 2). 88% of PLWH reporting IDU were males. Overall, the majority of IDU cases were white (41%) and Hispanic/Latinx (41%); African American/Blacks and Asian/Pacific Islanders accounted for 8% and 5%, respectively. Hispanic/Latinx and white male and female cases most frequently reported having a history of IDU (Figure 70). Viral load suppression among PLWH who reported IDU varied by race/ethnicity and sex but was consistently highest among Asian/Pacific Islanders and lowest among African American/Blacks (Figure 71).

A time trend analysis was conducted to track changes in the number and proportion of HIV cases associated with injection drug use (both IDU only and MSM & IDU) in the County of Santa Clara (Figure 72). Before 1995, 18% of HIV cases were among people who injected drugs, which significantly decreased to 15% for the period from 1995-2005 and to 10% for period after 2005 until 2021 ($p < 0.0001$). The county established the Needle Exchange Program (NEX) in 1994, which was the state’s fourth such program at the time. In fiscal year 2018, approximately 8% (55 clients) of NEX Program participants reported having an HIV diagnosis¹⁴. The significant reduction in the percentage of HIV cases associated with injection drug use in the County of Santa Clara may demonstrate the effectiveness of the NEX program over the past 25 years in successful reduction of HIV transmission via sharing of needles and other injection equipment.

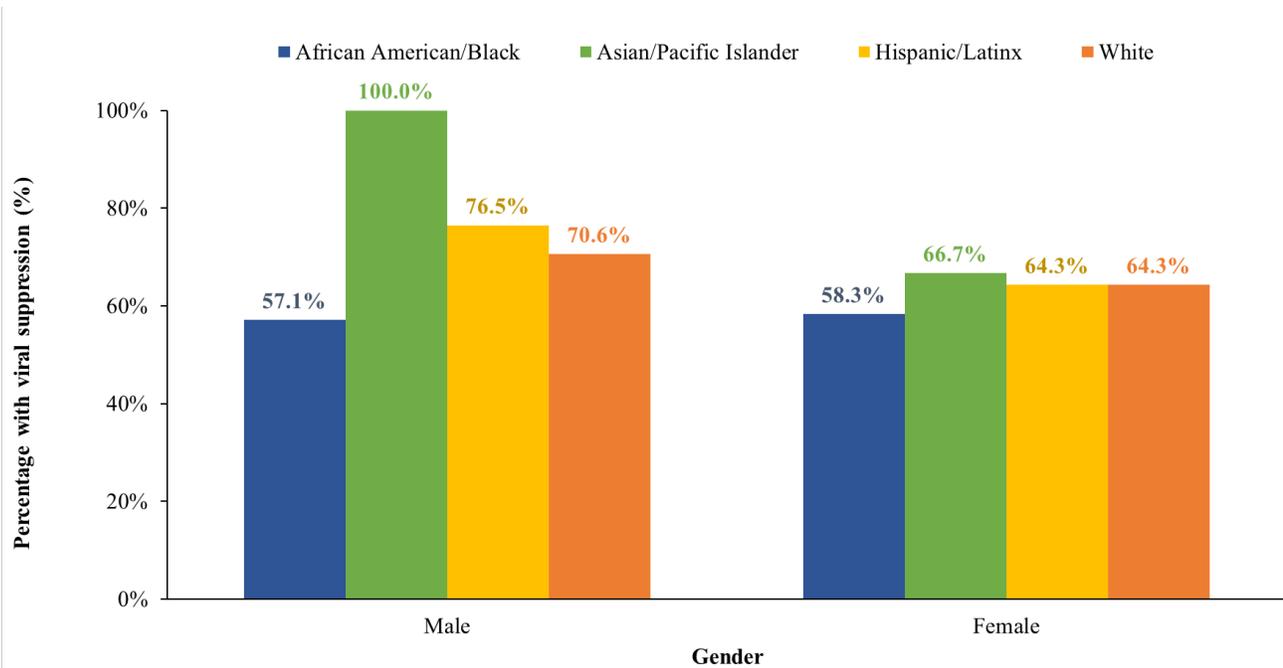
Figure 71: Injection drug use among people living with HIV, by gender* and race/ethnicity, County of Santa Clara, 2021



*Gender Variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data. Source: Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional.

¹⁴ County of Santa Clara Public Health Department, Needle Exchange Program Annual Report 2018.

Figure 72: Viral suppression among people living with HIV* who reported IDU, by gender and race/ethnicity, County of Santa Clara, 2021**

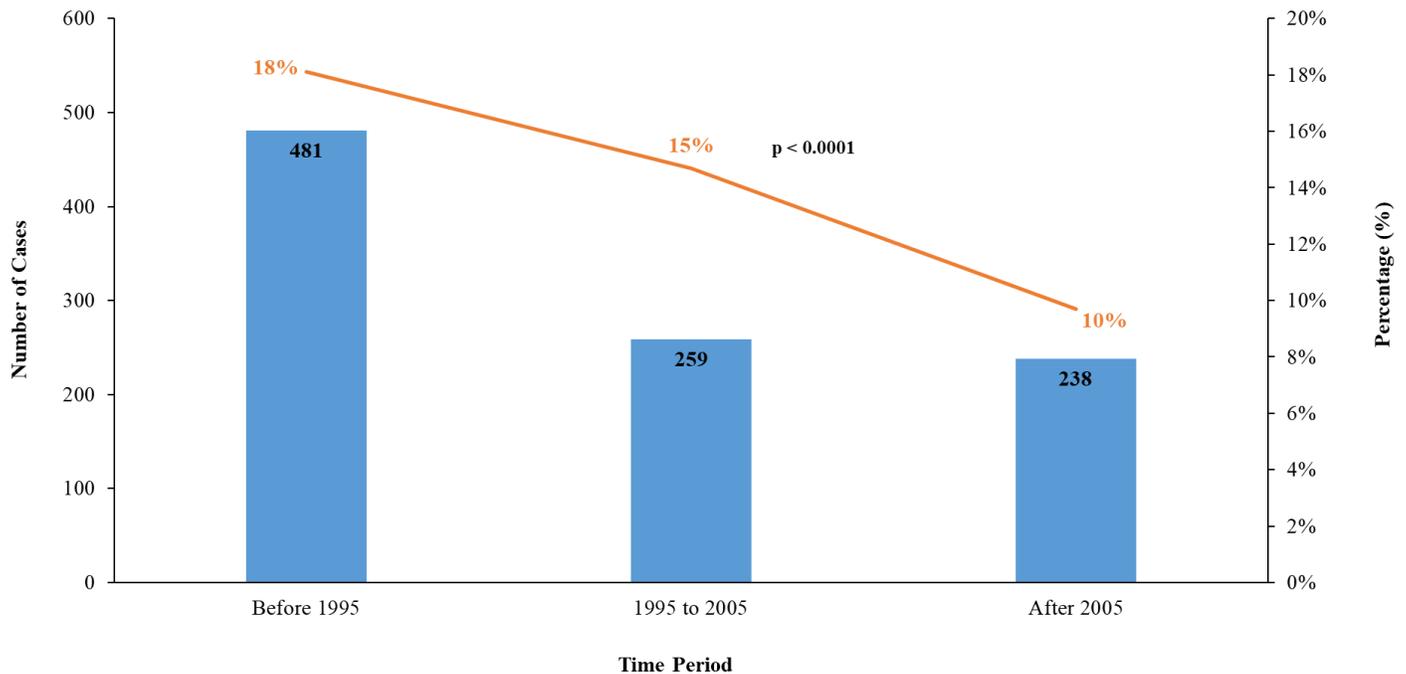


*People who were diagnosed with HIV through 2020 and alive in 2021, with most recent HIV viral load in 2021 less than 200 copies/ml.

**Gender Variable name and categories are limited by how the California Department of Public Health is able to collect sexual orientation and gender identity (SOGI) data.

Source: Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional.

Figure 73: HIV diagnoses associated with Injection Drug Use (IDU only and MSM & IDU) before 1995, 1995 –2005, and after 2005, County of Santa Clara



—Source: Santa Clara County Public Health Department, eHARS data as of May 4, 2022, and are provisional.

HIV among Heterosexuals

In 2021, 10% of PLWH in the County of Santa Clara reported having acquired HIV through heterosexual contact (Table 2). Overall, African American/Blacks living with HIV were more likely to report transmission through heterosexual contact (20.6%), followed by Asian/Pacific Islanders (10.6%), Hispanic/Latinx (8.5%) and whites (6.6%). Fewer African American/Black females (42.2%) and Asian/Pacific Islander females (40.9%) living with HIV were associated with heterosexual contact compared to Hispanic/Latinx (49.4%) and white females (55.3%) (Figure 73). However, these figures are likely underestimates for African American/Black and Asian/Pacific Islander females who had the highest percentage of cases with unknown mode of transmission. Among HIV cases associated with heterosexual transmission, the percentage of people with late diagnoses were highest among Asian/Pacific Islanders (61%) and Hispanic/Latinx (33%) (Figure 74).

Figure 74: Percentage overall and women living with HIV associated with heterosexual transmission, by race/ethnicity*, County of Santa Clara, 2021

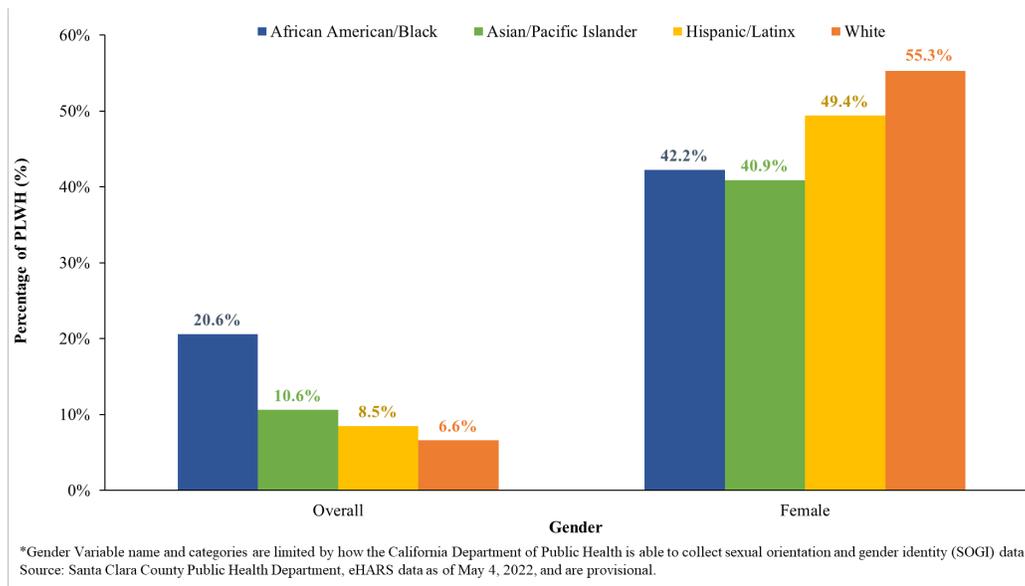
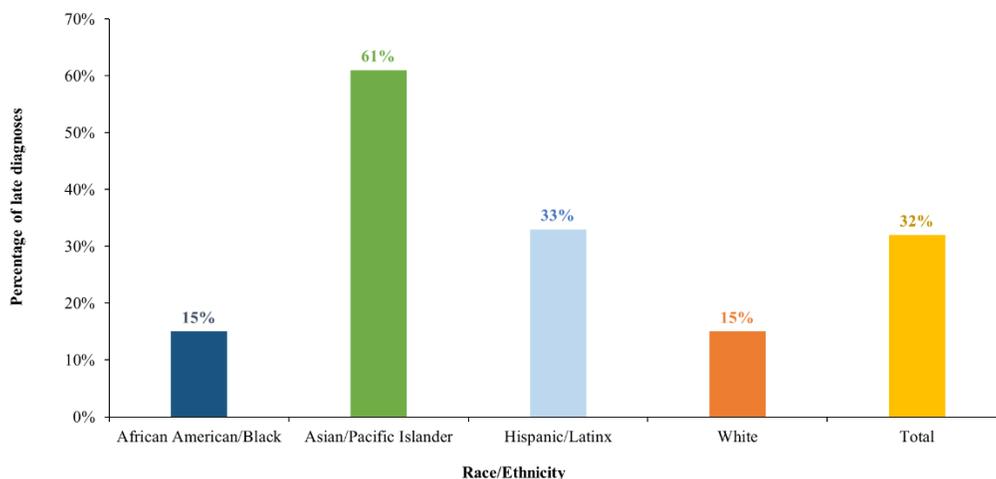


Figure 75: Percentage of people with late diagnoses* among HIV cases associated with heterosexual transmission, by race/ethnicity, County of Santa Clara, 2010 - 2020



*Late diagnoses is defined as having AIDS diagnosis within 3 months of diagnosis of HIV infection. Source: County of Santa Clara Public Health Department, eHARS data as of May 4, 2022, and are provisional.

Health Insurance Status at HIV Diagnosis

Among 1,752 people who were diagnosed with HIV between 2010 and 2021 in Santa Clara County, 1,474 (84%) provided information regarding their health insurance status at the time of HIV diagnosis. Nearly half (46%) of those reported having private insurance, Medicaid accounted for 13% of insurance coverage, and another 29% of cases reported having other types of public insurance. No Medicare coverage was reported. About 11% of people did not have any type of insurance coverage at the time of their HIV diagnosis (Figure 75). In the county, 65% of individuals reported having private insurance, 15% having Medicaid, and 7% without any type of insurance.

Figure 76 shows people who use injection drugs (14%), male (10%), and Hispanic/Latinx (13%) were three subgroups most likely to lack insurance coverage at the time of HIV diagnosis. Females (23%), Hispanic/Latinx (16%), and heterosexual (16%) reported the highest percentage of Medicaid. Males (43%), white (59%), and MSM (45%) groups reported the highest percentages of private insurance coverage, whereas transgender (21%), injection drug users (18%), and Hispanic/Latinx (30%) groups reported the lowest percentages.

Figure 76: Health insurance status among PLWH* at the time of HIV diagnosis and among the overall population, County of Santa Clara, 2010 – 2021

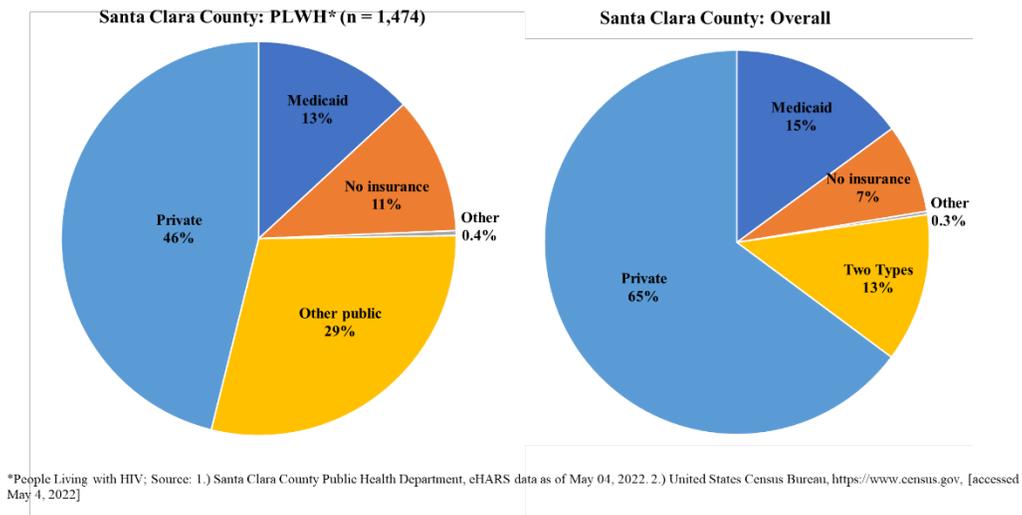
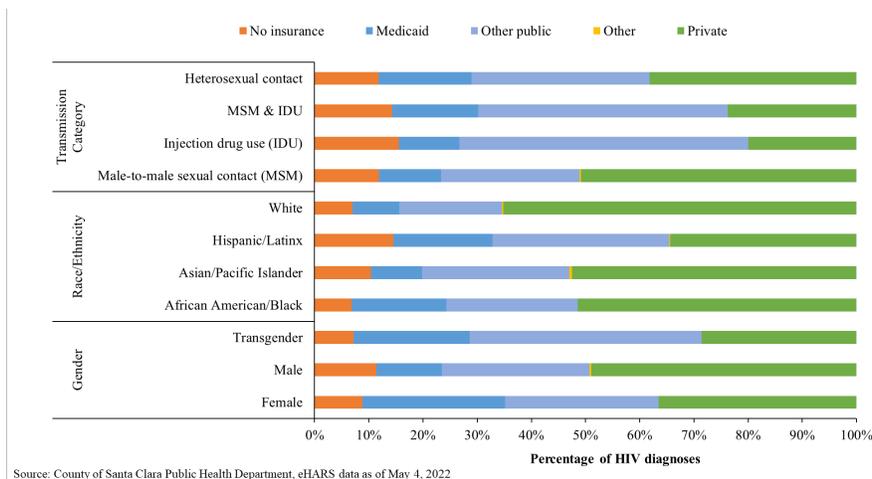


Figure 77: Health insurance at the time of HIV diagnosis, by demographic and transmission characteristics, County of Santa Clara, 2010 – 2021



Country of Origin

Overall, 94% of 6,894 people who were diagnosed with HIV in Santa Clara County provided valid information regarding their country of origin: including 4,733 US-born cases and 1,753 foreign-born cases. Compared to foreign-born cases, US-born HIV patients were more likely to be males (91% vs. 81%), white (59% vs. 7%), MSM (68% vs 58%), IDU (9% vs. 2%), and MSM & IDU (9% vs. 3%) cases. Meanwhile, compared to US-born cases, foreign born cases had higher proportions of females and transgenders, as well as reported heterosexual transmission. (Table 5).

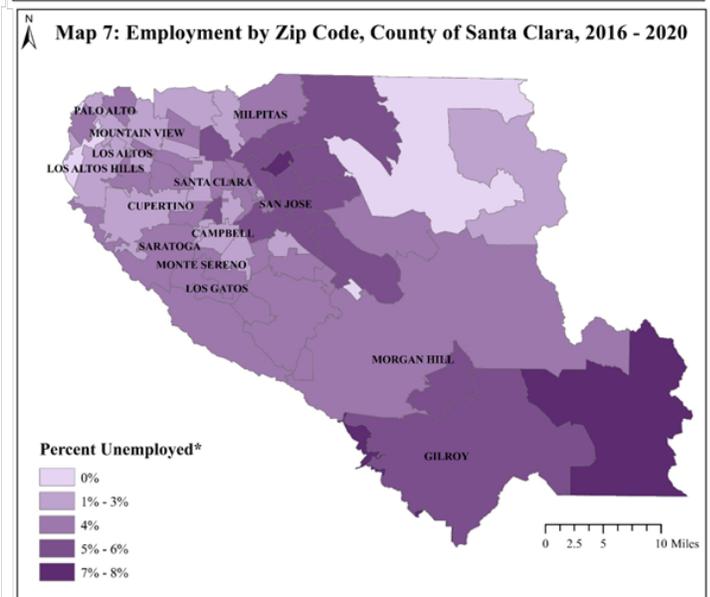
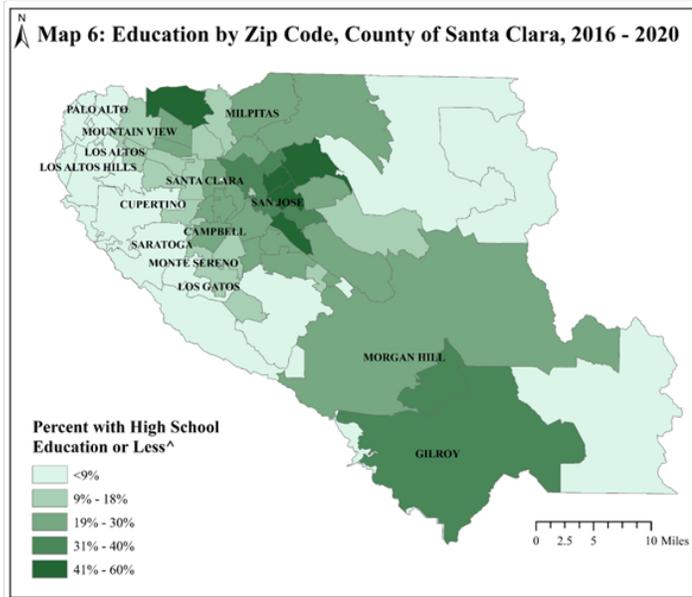
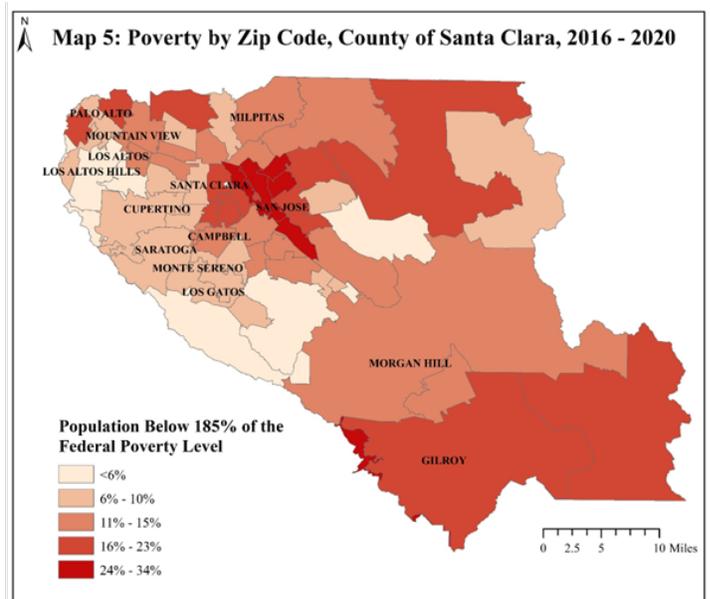
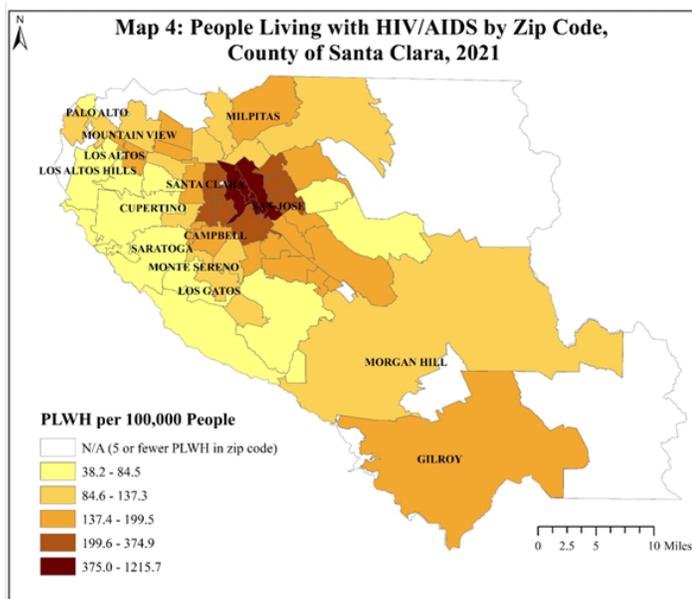
Table 5: People diagnosed with HIV, by country of origin, gender, and transmission category, County of Santa Clara, 1983-2021

		U.S. Born	Foreign Born
Demographic Characteristic	Group	N (Column %)	N (Column %)
Gender	Female	422 (8.9)	300 (17.1)
	Male	4,288 (90.6)	1,426 (81.4)
	Transgender	23 (0.5)	27 (1.5)
Race/Ethnicity	African American/Black	474 (10.1)	173 (9.8)
	Asian/Pacific Islander	118 (2.5)	401 (22.9)
	Hispanic/Latinx	1,231 (26.0)	1,014 (57.8)
	White	2,768 (58.5)	121 (6.9)
	Other/Unknown	142 (3.0)	44 (2.5)
Transmission Category	MSM	3,211 (67.8)	1,008 (57.5)
	IDU	439 (9.3)	40 (2.3)
	MSM & IDU	415 (8.8)	50 (2.9)
	Heterosexual contact	291 (6.2)	264 (15.1)
	Other/Unknown	377 (8.0)	391 (22.3)
Overall	Total	4,733 (100)	1,753 (100)

Source: The County of Santa Clara Public Health Department, eHARS data as of May 4, 2022, and are provisional.

B. Geographic Distribution of HIV and Social Determinants

Geographic areas with high rates of people living with HIV/AIDS were concentrated in the north central part of the county, as well as in the more rural southern region (Map 4). Many of these areas of high HIV prevalence have been associated with higher poverty levels (Map 5), lower education attainment (Map 6), and higher rates of unemployment (Map 7).



Source: American Community Survey (ACS) 2016 - 2020; Santa Clara Public Health Department, eHARS, data as of May 4, 2022

[^]Among those ages 25 years or older

^{*}Among those ages 16 years or older

V. Technical Notes

Overall

SCCPHD collects information on gender identity for HIV and STI cases when it is available. The majority of transgender cases reported in the County are trans female (male-to-female). Due to the small number of reported trans male cases (female-to-male), data are combined with trans female cases to protect their confidentiality. Our report likely underestimates the number of transgender persons affected by HIV or STIs because data on gender identity collected for case reporting is limited.

Data for the County of Santa Clara prior to 2017 lacks information distinguishing sex assigned at birth (based on genetics, hormones, and/or physical features) from gender identity. In this report, cases are classified as male, female, or transgender. However, this classification conflates the concepts of sex and gender while limiting the inclusion of the full spectrum of gender identity and sexual orientation. Therefore, data presented elsewhere in this report that describe a person by gender or sex (including the transmission category MSM) prior to 2017 overlooks the significant impact of HIV or STIs on transgender and non-binary populations.

Chlamydia, Gonorrhea, and Early Syphilis

This report includes cases reported to the statewide infectious disease surveillance systems, Automated Vital Statistics System (January 1, 2010 to June 30, 2011) and California Reportable Disease Information Exchange (CalREDIE, July 1, 2011 to December 31, 2021), reported as of May 4, 2022. Chlamydia and gonorrhea cases include those diagnosed with pelvic inflammatory disease (PID). Early syphilis refers to cases of primary, secondary, and early non-primary non-secondary syphilis, the most infectious forms of syphilis. Other forms of syphilis cases were excluded for the purposes of this report except for syphilis cases among pregnant women. The data are provisional and subject to change.

Rates per 100,000 people were calculated for the numbers of reported chlamydia, gonorrhea, and early syphilis cases with rates specific to age, sex, and race/ethnicity. The population denominators used to compute these rates were based on the State and County population projections files for 2010 to 2060 developed by State of California, Department of Finance in July 2021. Rates of early syphilis cases among MSM were not provided due to lack of reliable population estimates of these two groups.

Due to large proportions of missing race/ethnicity information for chlamydia and gonorrhea cases, cases with missing information were redistributed for these two diseases based on the proportions of the known race/ethnicity cases with consideration of age. This imputation was done using an existing algorithm from the California Department of Public Health STI Prevention and Control Branch. This algorithm is built upon a strong assumption that cases without race/ethnicity information have the same racial/ethnic distribution as the cases with complete information. Given that the accuracy of this assumption is hard to test, the data on case counts and rates of chlamydia and gonorrhea for racial/ethnic groups and associated sex and age groups must be interpreted with caution. They may not reflect the true disease distribution by race/ethnicity and may only be used for comparisons with the State and other jurisdictions within California that use the same adjustment technique.

Data on sex and sexual behavior was collected from early syphilis cases during disease investigation and partner services interviews, and case patients were grouped into four categories: females, men who have sex with men

(MSM) including those who have sex with men and partners of other genders, men who have sex exclusively with ciswomen (MSW), and men whose partners' gender is unknown or not reported (MSUnknown).

Geocoding was performed for chlamydia and gonorrhea cases in 2021 and early syphilis cases from 2017 to 2021. Cases with missing address or no residential address such as homeless individuals, people incarcerated or in health centers/clinics were excluded. Overall, 4,677 (93%) chlamydia cases, 2,191 (93%) gonorrhea cases, and 2,390 (91%) early syphilis cases were successfully geocoded. The denominators used for calculating the rates by geographic area were 2016-2020 American Community Survey (ACS) data. The resulting rates were broken up into quantiles. Neighborhood boundaries and names were defined using the same methodology as the Santa Clara County Public Health Department Neighborhood Profiles.

HIV

This report presents information extracted from the national enhanced HIV/AIDS reporting system (eHARS), which includes HIV cases reported to the County of Santa Clara Public Health Department (SCCPHD) through May 4, 2022. As such, the data may not represent HIV-infected residents who have not been tested or who were tested at a time when the infection could not be detected. Consistent with national reporting standards, individuals diagnosed with HIV infection include persons classified as stage 3 (AIDS).

Given the small number of HIV diagnoses among children under 13, most data presented in this report are for adults and adolescents ages 13 and older.

Rates per 100,000 people were calculated for (1) the numbers of HIV diagnoses, (2) the numbers of deaths of persons diagnosed with HIV, and (3) the numbers of PLWH. Due to instability, rates that are based on numbers less than 12 should be interpreted with caution. Population denominators for calculating rates were based on California County Population Estimates and Components of Change by Year — July 1, 2010–2020 and State and County Population Projections by Race/Ethnicity and Age, 2010-2060 from the California Department of Finance.

The analysis on HIV infection among MSM includes all cases of men who report sexual contact with male partners, including men who have sex with both men and people of other genders, as well as men who report both sex with male partners and injection drug use as risk factors for HIV acquisition (MSM & IDU).

Data for recent years should be interpreted with caution due to reporting delay, particularly for 2021. Reporting delay occurs when HIV diagnoses or deaths are not reported to SCCPHD in a timely manner. Analysis of HIV deaths was restricted to those diagnosed through 2020 to allow at least 12 months for deaths to be reported to SCCPHD. For 3-year survival of AIDS cases, the analysis was limited to persons diagnosed with AIDS through 2018.

STI co-infections among PLWH were identified by matching the list of PLWH who were known to be residents of the County of Santa Clara based on their current address and the list of newly reported STI cases in the County of Santa Clara in 2021. Only chlamydia, gonorrhea, and syphilis were included as STIs in this report. For our analysis, early syphilis cases include primary, secondary, and early non-primary non-secondary cases. Similarly, other syphilis cases include late syphilis or cases of unknown duration.

Additionally, data stratified by demographic and transmission characteristics for transgender population should be interpreted with caution due to small sample sizes. For our analysis of transmission risks among transgender HIV diagnoses, we combined transmission categories of MSM and heterosexual contact into a single category

“sexual contact”, and MSM & IDU into “sexual contact & IDU.” Further analyses as well as improved surveillance efforts are needed to generate reliable estimates that can more accurately describe the disproportionate burden of HIV on transgender and non-binary people.

VI. Abbreviations

ACS: American Community Survey

AIDS: Acquired Immune Deficiency Syndrome

AVSS: Automated Vital Statistics System

CalREDIE: California Reportable Disease Information Exchange

CDC: Centers for Disease Control and Prevention

CHKS: California Healthy Kids Survey

COVID: Coronavirus Disease 2019

DGI: Disseminated Gonococcal Infection

eHARS: Enhanced HIV/AIDS Reporting System

GTZ: Getting to Zero

HIV: Human Immunodeficiency Virus

HSHC: California Healthy Store for a Healthy Community

IDU: Injection Drug Use

LGBTQ: Lesbian, Gay, Bisexual, Transgender, and Queer

MSM: Men Who Have Sex with Men

MSM & IDU: Men Who Have Sex with Men Who Also Use Injection Drugs

MSW: Men who Have Sex Exclusively with Women

MSUnknown: Men Whose Partners' Sex is Unknown or Not Reported

NEX: Needle Exchange Program

PID: Pelvic Inflammatory Disease

PLWH: People Living With HIV

PrEP: Pre-Exposure Prophylaxis

PEP: Post-Exposure Prophylaxis

SCCPHD: County of Santa Clara County Public Health Department

STI: Sexually Transmitted Infections