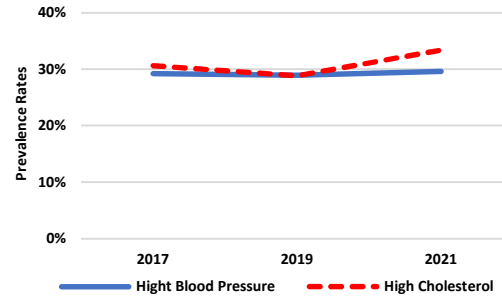# Overview of Chronic Diseases in Fresno County

The 2022 Commuity Medical Center's Community Health Needs Assessment identifies stroke, heart attack, asthma, arthritis, obesity, diabetes, and high blood pressure as the most prevalent chronic diseases in Fresno County[1]. Notably, Fresno County is ranked 23rd in California for lung cancer mortality rates[a], slightly exceeding the statewide average, as reported in the 2023 County Health Status Profiles[2]. This overview aims to underscore the principal chronic diseases trends within Fresno County.

Figure 1. Average Prevalence Rates[b] of Chronic Diseases Among Adults (≥18 years) in Fresno County vs California, 2018-2021[3]. Fresno County exhibits higher average prevalence rates for chronic diseases compared to the San Joaquin Valley (SJV) region and statewide averages, with the exception of high cholesterol. The most prevalent chronic diseases in Fresno County are obesity, high blood pressure, high cholesterol, and arthritis.
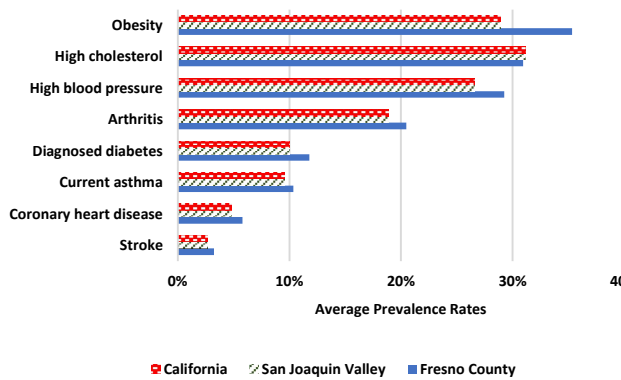

Figure 2. Prevalence Rates[b] of High Blood Pressure (HBP) and High Cholesterol among Adults (≥18 years) in Fresno County[v3]. Between 2017 and 2019, the prevalence rates for high blood pressure (HBP) and high cholesterol were similar. In 2021, however, the prevalence of high cholesterol surpassed that of HBP. While the rates for HBP remained stable over these three years, high cholesterol exhibited slight fluctuation, peaking in 2021. These patterns underscore the persistent difficulties in managing these diseases within the community.


[v] The graph is missing 2018 and 2020 data.

Figure 3. Prevalence Rates[b] of Chronic Diseases Among Adults (≥18 years) in Fresno County, 2018-2021[3].
Obesity and arthritis have consistently been the predominant chronic conditions over the years, with their prevalence rates showing little to no variation. This persistent pattern could possibly highlight the enduring public health challenges that Fresno County faces in mitigating these diseases.
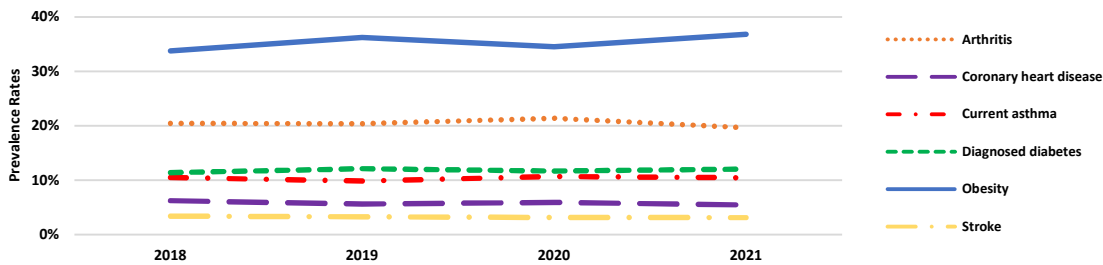
Figure 4. Overall Age-adjusted[c] Heart Attack Mortality Rates (per 100,000), 2018-2021[14]. There appears to be a slight fluctuation in Fresno's mortality rate between the years, but the overall trend shows it maintaining a higher position compared to the regional and state averages.

[1] The data has been smoothed.
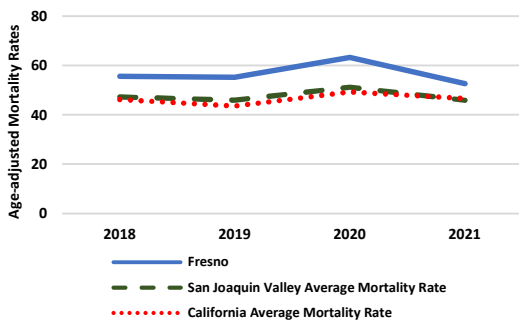
Figure 5. Age-adjusted[c] Heart Attack Mortality (per 100,000) in Fresno County by Race/Ethnicity, 2018-2021[1g]. The mortality rate for the Black population shows the highest figures, experiencing an upward trend peaking around 2020 before a slight decline. The mortality rates for the White Non-Hispanic and Multi-Race Non-Hispanic populations remain relatively stable and lower than that of the Black Non-Hispanic population. The rate for American Indian/Alaska Native exhibits some fluctuation but remains below the rate of the Black N-H population and is comparable to the White N-H and Multi-Race N-H groups.
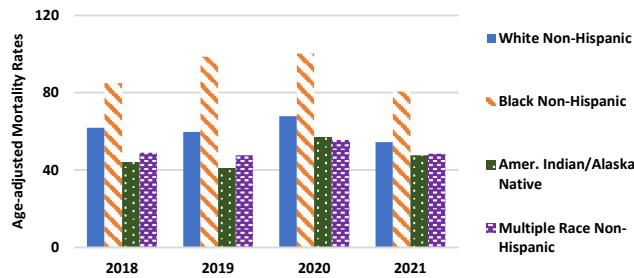
[1] The data has been smoothed.
[g] Asian, Hawaiian/Pacific Islander, and Hispanic groups are suppressed due to data instability.

[a] The mortality rate is age-adjusted per 100,000 population based on 2000 U.S. Standard Population. Rankings are determined in ascending order.
[b] Because rates are given per census tract, weighted average rates for each disease are calculated. Weighted rates adjiust for varying representation of subgroups within a population, providing a more accurate reflection of a characteristic's true prevalence across a diverse population.
[c] Rates are age-adjusted using 2000 U.S. Standard Population.

Within Fresno County, obesity, high blood pressure, and diabetes emerge as the chronic conditions with the highest prevalence. Figures 6 to 8 delve into these diseases, offering an analysis of their trends across different racial and ethnic groups. Additionally, Figure 9 presents an analysis of lung cancer incidence rates (age-adjusted per 100,000) from 2010 and 2020, comparing trends among various racial and ethnic groups within Fresno and against the overall rates for California.
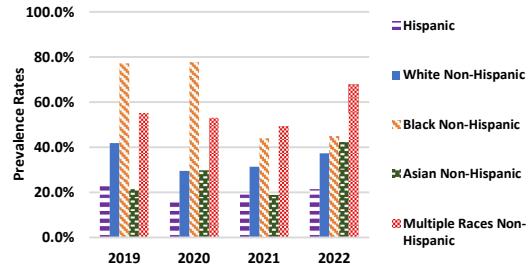
Figure 6. Prevalence Rates of Adults with Body Mass Index (BMI) of ≥ 27.5[Φu] in Fresno County, by Race/Ethnicity 2018-2022[u5]. Throughout the observed period time, the obesity prevalence rates among Hispanic, White Non-Hispanic, and Black Non-Hispanic populations have exhibited fluctuations, yet they persist at elevated levels. The Multiple-Race Non-Hispanic group, despite having the highest prevalence rates, has demonstrated a declining trend since 2019. Asians, which consistently had the lowest rates, experienced a notable increase in 2022.
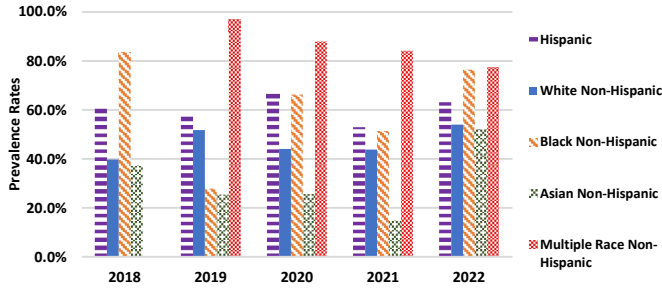
[Φ]The California Health Interview Survey(CHIS) utilizes the World Health Organization's (WHO) definition of body mass index (BMI). According to this definition, individuals with a BMI of 27.5 or higher are considered to be at an increased risk of obesity. The graph presented here exclusively represents data for individuals with a BMI of 27.5 or higher.
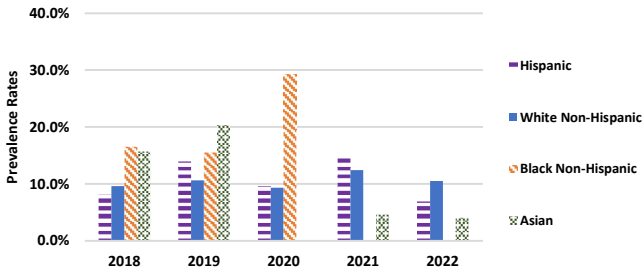[u]American Indian/Alaska Native and Native Hawaiian/Pacific Islander groups have been suppressed due to data instability.

Figure 7. Prevalence Rates of Adults with High Blood Pressure (HBP) in Fresno County, by Race/Ethnicity 2019-2022[u5]. The prevalence rates of HBP have varied among the racial/ethnic groups with Multiple-Race Non-Hispanic and Black Non-Hispanic populations maintaining higher rates compared to other groups. The Asian population, while generally displaying lower rats, saw a significant rise in 2022. The Hispanic group has also persistently shown lower prevalence rates.


[u]American Indian/Alaska Native and Native Hawaiian/Pacific Islander groups have been suppressed due to data instability.

Figure 8. Prevalence Rates of Adults with Diagnosed Diabetes in Fresno County, by Race/Ethnicity 2018-2022[i5]. The prevalence rates of diabetes among White Non-Hispanic and Hispanic groups have fluctuated but stayed comparatively low against other groups. Although the Black Non-Hispanic population experienced an upward trend from 2018 and 2020, data for 2021 and 2022 have been suppressed due to small sample size. Conversely, the Asian population's rates initially increased between 2018 and 2019 but showed a marked decrease in the 2021 and 2022.

[i]American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and Multiple race groups were suppressed due to data instability.

Figure 9. Age-adjusted[c] Lung and Bronchus Cancer Incidence Rates (per 100,000) in Fresno County, 2010-2020[ε6]. The incidence rates for each race/ethnicity group fluctuate year by year, with Black Non-Hispanic group typically showing higher rates than other groups. The overall trends for both Fresno and California appears to be slightly decreasing overtime.
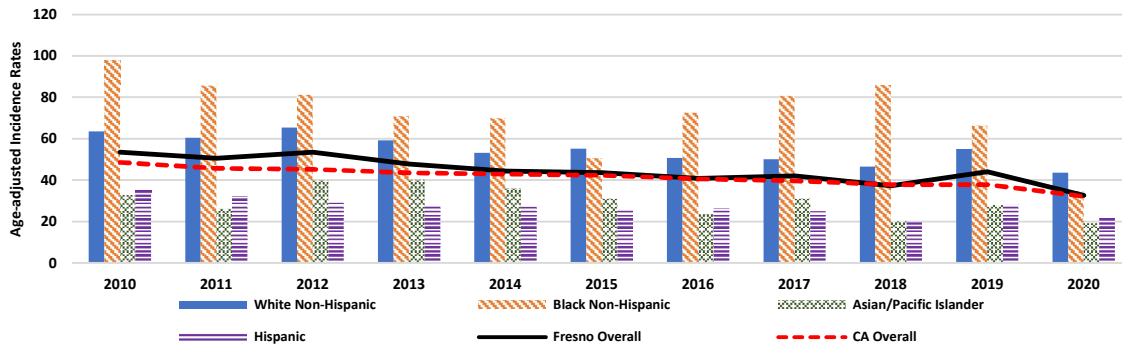
[ε] Hispanic rates include all races within the ethnicity.

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