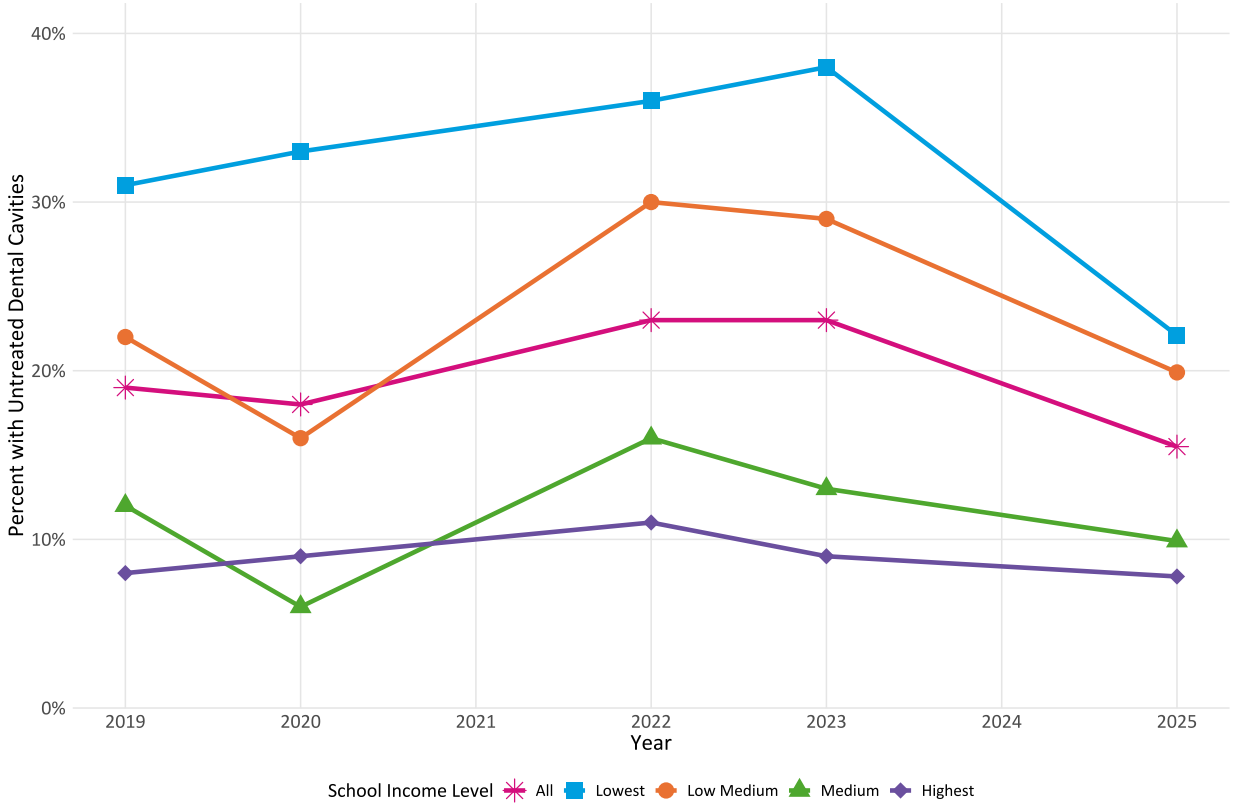
2025 Sugary Drinks Distributor Tax (SDDT) Data Brief Appendix

This appendix accompanies the 2025 Sugary Drinks Distributor Tax (SDDT) Data Brief.

Contents

Data graphs not included in the 2025 Data Brief

Percent of SFUSD Kindergartners with Untreated Dental Cavities by School Income and School Year, 2019-2025



Source: San Francisco Unified School District (SFUSD), Kindergarten Oral Health Screening Program, 2019-2025

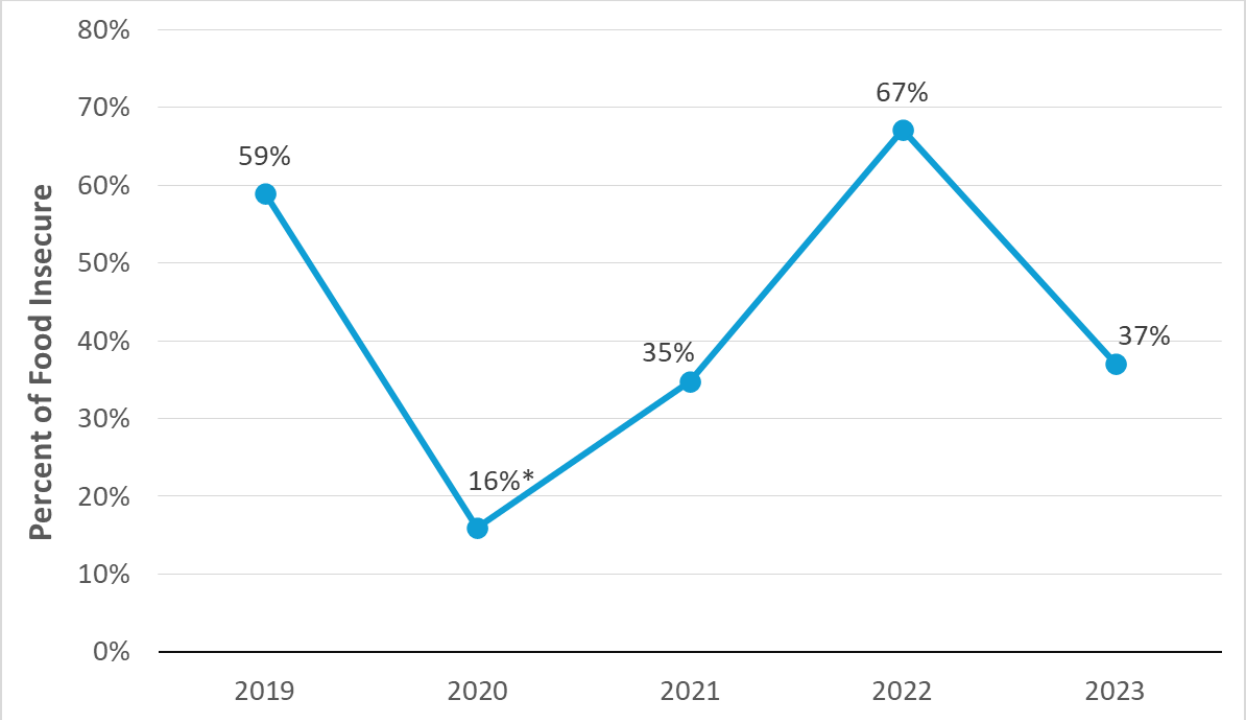
Note: The year refers to the school year, so 2019 refers to the 2018-2019 school year. Estimates for 2020 were based on incomplete data from screenings finished in the Fall 2019, before the

COVID-19 shelter-in-place orders and were weighted using enrollment data for 2019-2020. Estimates for 2022 and 2023 are not weighted. Estimates from 2020 through 2023 may not be comparable to other years. Estimates were not available for 2021 and 2023.

Comments:

- Kindergartners in the lowest income school experienced the sharpest drop in the prevalence of untreated dental cavities from 2019 to 2025
- Across all years, the lowest and low medium income schools have the highest prevalence of untreated dental cavities among kindergarteners

Percent of Adults Earning Less Than 200% of the Federal Poverty Level that are Food Insecure, 2019-2023



Source: UCLA, California Health Interview Survey (CHIS), 2019-2023

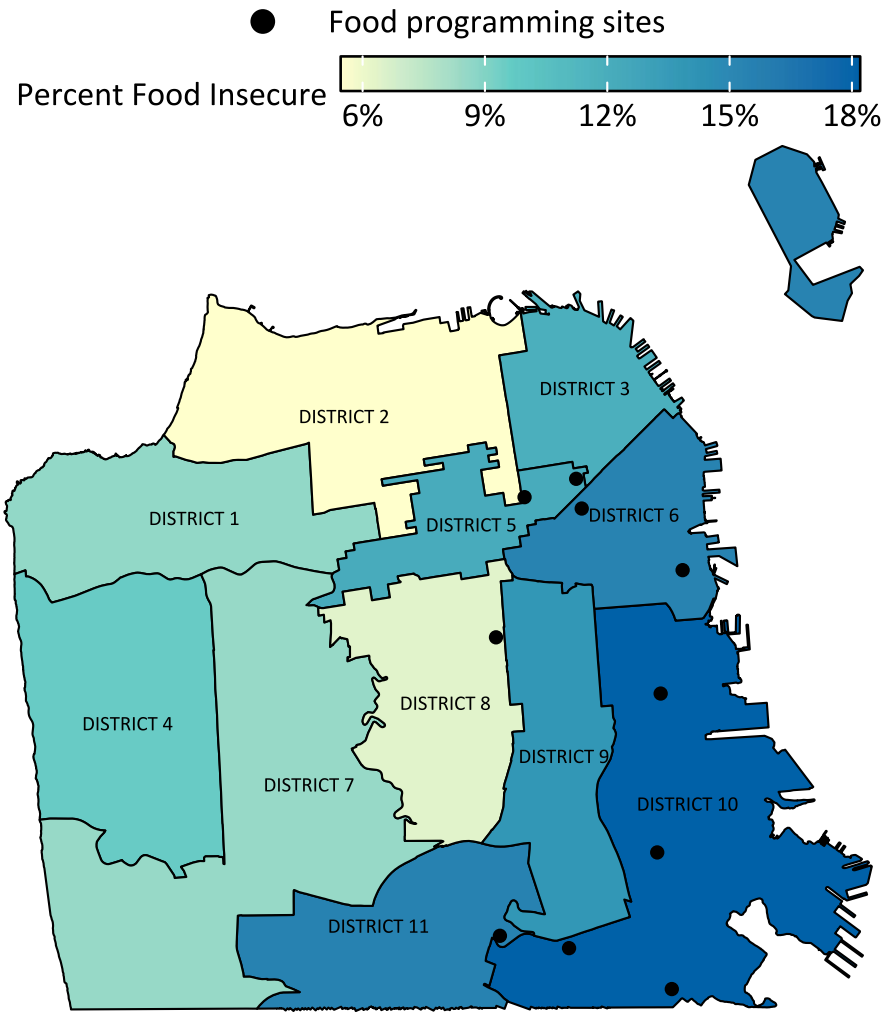
Note: * indicates an estimate that is statistically unstable. The California Health Interview Survey only asks individuals earning less than 200% of the federal poverty level about food security.

Comments:

- In 2020, the percentage of adults earning less than 200% of the federal poverty level who were food insecure may have dropped substantially before increasing again to 35% in 2021 and 67% in 2022. While the lower estimate for 2020 is statistically unstable, this may be explained by federal support in 2020 and 2021 during the COVID-19 pandemic.

- In 2023 the percent of adults in San Francisco earning less than 200% of the federal poverty level that were food insecure dropped to 37% from an all-time high of 67% in 2022. The reason for this observed drop is unknown but may be due to the small sample sizes used to generate these population estimates.

Percent of Adults in San Francisco that are Food Insecure by Supervisorial District, 2022



Source: Population Level Analysis and Community Estimates, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, 2022

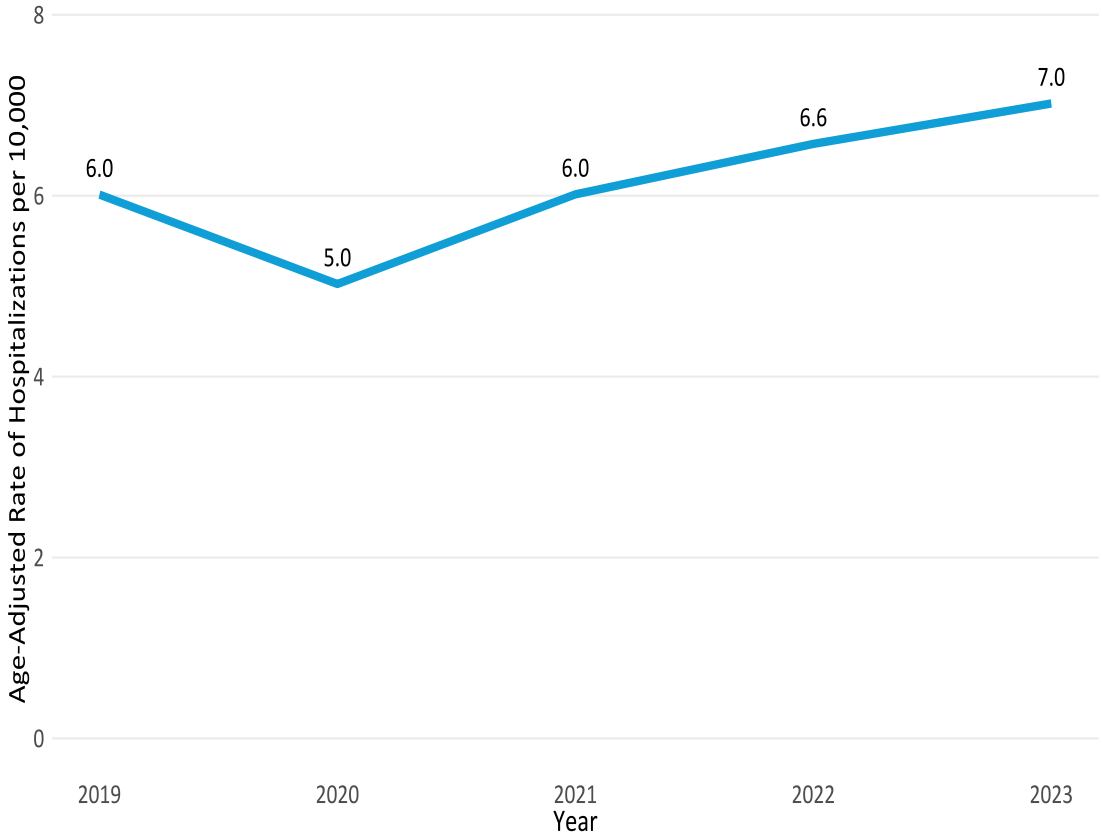
Note: Data are the modeled crude prevalence of food insecurity in the past 12 months among all adults at the supervisorial district level. Food programming sites are the main addresses for organizations funded by SDDT in FY2324 that provided food directly to residents of San Francisco.

Comments:

- Almost 1 in 5 adults in district 10 and 1 in 7 adults in districts 11 and 6 were food insecure in the past 12 months (18%, 15%, and 15% respectively).
- Organizations funded by the SDDT to provide food assistance are generally located in districts with higher rates of adult food insecurity.

Morbidity Data

Age-Adjusted Hospitalization Rates Due to Type 2 Diabetes by Year, 2019-2023

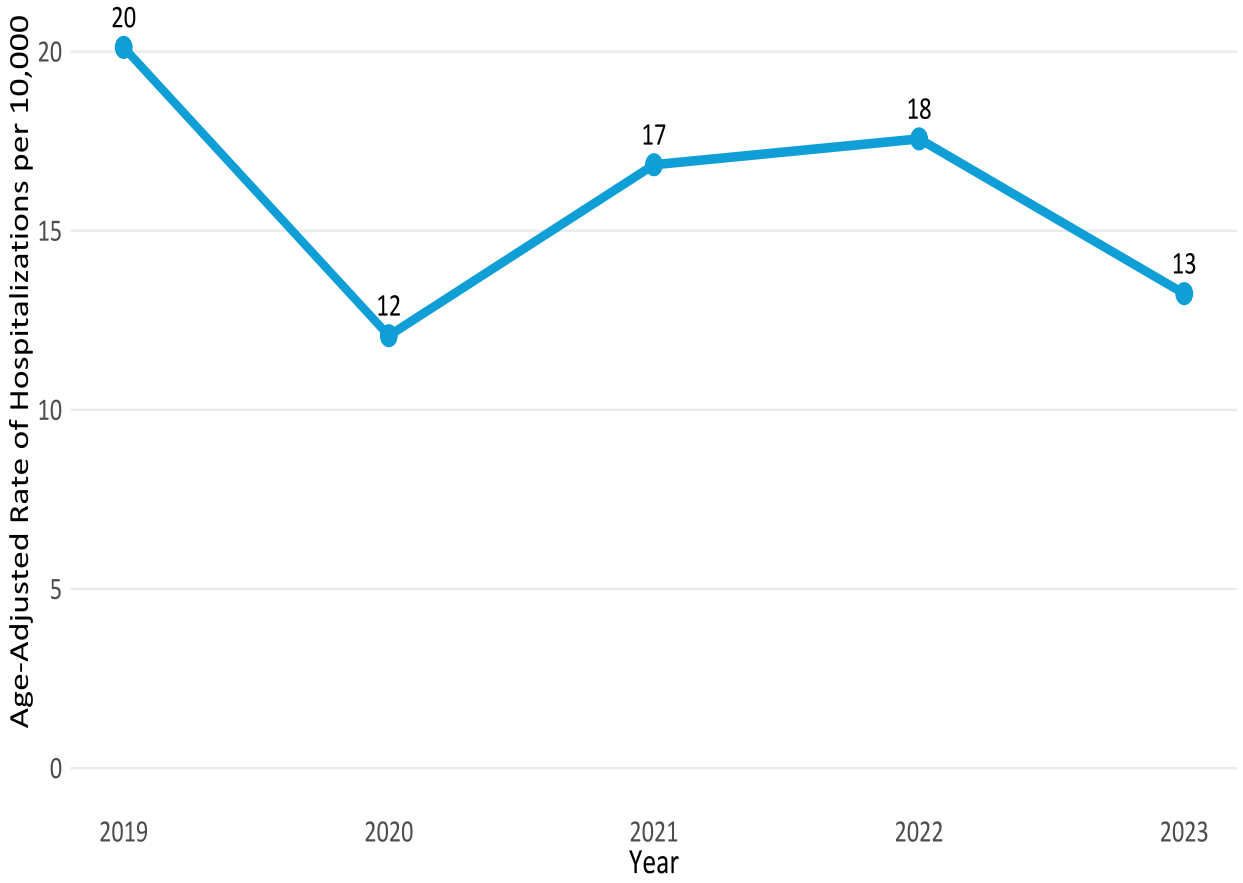


Source: California Department of Public Health, Department of Healthcare Access and Information 2019-2023.

Comment:

- Hospitalizations due to diabetes dipped in 2020 likely due to the COVID-19 pandemic but have slowly increased year over year since then.

Age-Adjusted Rates of Non-Traumatic Dental Emergency Department Visits by Year, 2019-2023

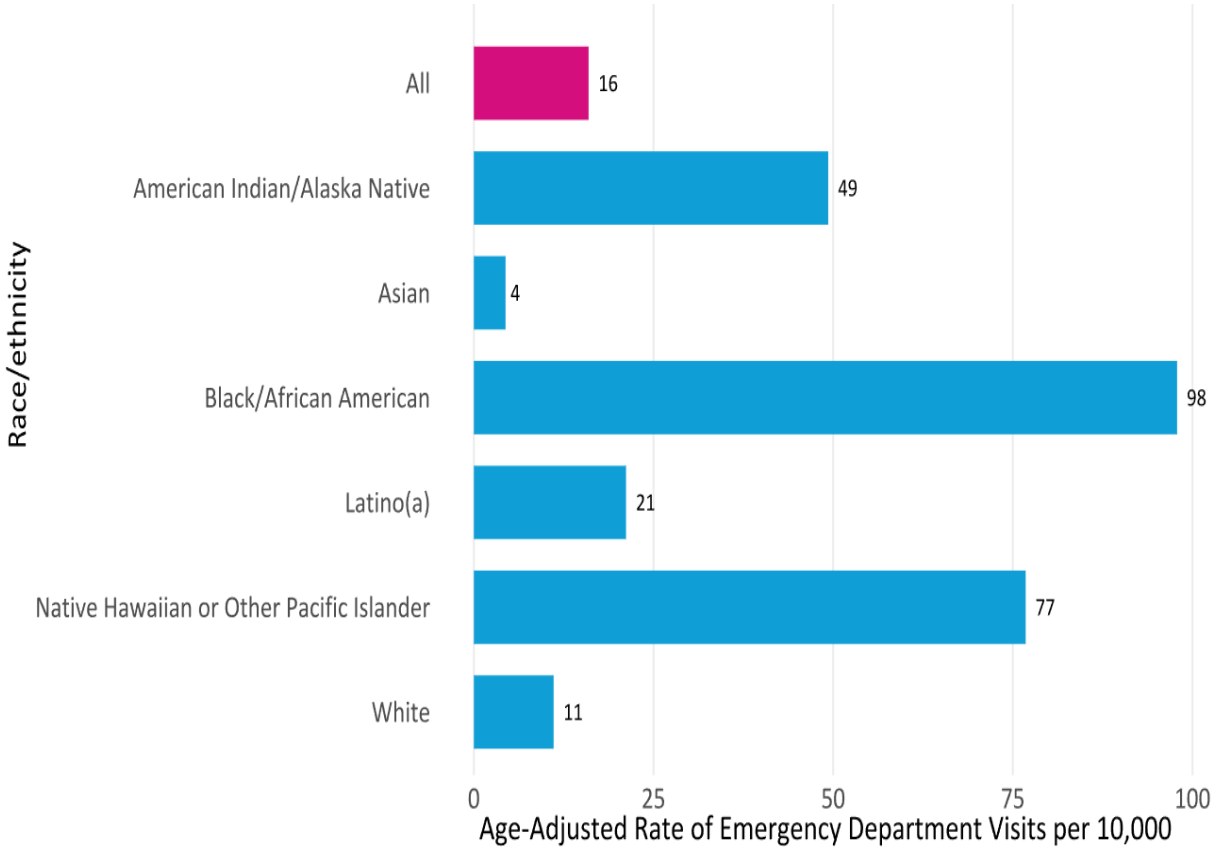


Source: California Department of Public Health, Department of Healthcare Access and Information 2019-2023.

Comments:

- Emergency department visits from non-traumatic dental conditions (NTDC) dropped significantly from 20 per 10,000 in 2019 to 12 per 10,000 in 2020 likely due to the COVID-19 pandemic. However, rates increased to 17 and 18 per 10,000 people in 2021 and 2022 before dropping to 13 per 10,000 in 2023. These data may potentially indicate that the increase in rates of NTDC are due to return to normal behavior of seeking emergency care and a temporary increase in the severity of illnesses presenting at the hospital due to delayed care in 2020.
- Overall the trend of NTDC emergency department visits from 2019 to 2023 is on the decline.

Age-Adjusted Rates of Non-Traumatic Dental Emergency Department Visits by Race/Ethnicity, 2019-2023



Source: California Department of Public Health, Department of Healthcare Access and Information 2019-2023.

Note: Data are pooled 5-year estimates.

Comments:

- Rates of emergency department visits from NTDCs are substantially higher for Black/African American, Native Hawaiian or Other Pacific Islander, and American Indian/Alaska Native residents than the overall citywide rate.
- Black/African American residents have more than 6 times the citywide rate (98 vs 16 per 10,000) while Native Hawaiian or Other Pacific Islander residents have almost 5 times the citywide rate (77 vs 16 per 10,000) and American Indian/Alaska Native residents have 3 times the citywide rate (49 vs 16 per 10,000).

Data Sources and Caveats

Sugary Drinks Distributors Tax Quarterly Revenue Data

Technical notes:

- Data are calculated from revenue generated by the sugary drink distribution tax using a $0.01/fluid ounce conversion.
- Data for the most recent year may be underreported as businesses can submit and amend their payments for previous quarters.

Behavioral Risk Factor Surveillance System

Technical notes:

- The survey question for soda consumption is, "**During the past 30 days, how often did you drink regular soda or pop that contains sugar? Do not include diet soda or diet pop**." The survey question for sweet drink consumption is, "**During the past 30 days, how often did you drink sugar sweetened fruit drinks (such as Koolaid™ and lemonade), sweet tea, and sports or energy drinks (such as Gatorade™ and Red Bull™)? Do not include 100% fruit juice, diet drinks, or artificially sweetened drinks**." A composite SSB consumption variable is created by translating both answers to times per day and summing the values.

Limitations:

- Data are self-reported consumption of sweet drinks and soda from the previous 30 days. The previous 30-day period at the time of the survey may not be representative of what someone typically consumes. As data are self-reported and SSB consumption has a negative connotation, data may be affected by a social desirability bias. Survey data are weighted and may not be from a representative sample – especially when the number of observations within groups is low.

California Department of Health Care Access and Information

Technical notes:

- Non-Traumatic Dental Conditions: ICD-10 codes for non-traumatic dental conditions were adopted by the Association of State and Territorial Dental Directors' Recommended Guidelines for Surveillance of Non-Traumatic Dental Care in Emergency Departments.
- Diabetes. ICD-10 codes for Diabetes are based on PQI 01: Diabetes Short Term Complications Admissions Rate, and PQI 03: Diabetes Long-Term Complications Admissions Rate technical specifications published by the Agency for Healthcare

Research and Quality (July 2024). A medical visit was determined to be primarily due to Diabetes if the primary diagnosis field contained on the identified ICD-10 (October 2015 and later) codes. To Identify visits where Diabetes was the primary cause only the patient's *primary diagnosis* field was searched for ICD-10 codes included in PQI 01 or PQI 03.

Limitations:

- Hospitalization and ER rates measure the number of discharges or visits, not the number of residents who are hospitalized. Admissions records may include multiple admissions by the same person.

Kindergarten Oral Health Screening Program

Technical Notes:

- Parents may opt their children out from screenings. Estimates for 2020 were based on incomplete data from screenings finished in the Fall 2019, before the COVID-19 shelter in place orders and were weighted using enrollment data for 2019-2020. Estimates for 2022 and 2023 are not weighted. Estimates from 2020 through 2023 may not be comparable to other years.

CDC PLACES

Technical notes

- PLACES data are estimates of health measures for small geographic areas, created using statistical modeling techniques that combine survey data with population information.

Measures

Food Security:

- Presented as crude prevalence (%). A detailed probability among adults who reported that the food that they bought always/usually/sometimes did not last, and they didn't have money to get more.
- In order to generate estimates at the supervisorial district level, geospatial analysis was performed using aerial weighting. Census tracts boundaries were intersected with supervisorial district boundaries, and a weighted proportion of the population was used to assign and calculate estimates at the supervisorial district level. Importantly, this method assumes a uniform distribution of food insecurity in each census tract which is likely incorrect. Although most census tracts can be completely assigned to one

supervisorial district, some overlap with more than one and food insecurity estimates at the supervisorial district level should therefore be interpreted with caution.

Burden of Nutrition Sensitive diseases:

- A detailed probability was calculated for the following:
    - high blood pressure: adults ever having been told by a doctor, nurse, or other health professional that they have high blood pressure. Women who were told they had high blood pressure only during pregnancy and those who were told they had borderline hypertension are not included;
    - diabetes: adults being told by a doctor or other health professional that they have diabetes (other than diabetes during pregnancy for female respondents);
    - coronary heart disease: adults ever having been told by a doctor, nurse, or other health professional that they had angina or coronary heart disease; and
    - high cholesterol: adults who report having ever been screened for high cholesterol and told by a doctor, nurse, or other health professional that they had high cholesterol.
- The probability for each chronic disease was then applied to the detailed population estimates at the appropriate geographic level to generate the prevalence. The 95% confidence interval was derived using Monte Carlo simulation. In order to generate estimates at the neighborhood level, the estimated crude prevalences for each chronic diseases were multiplied by the adult population estimate for that census tract, resulting in the estimated number of adults for each census tract that had the chronic disease of interest. These values were then summed across chronic diseases for each neighborhood and then divided by the adult population estimate for each neighborhood, creating a composite indicator of the summed crude prevalence of nutrition-sensitive diseases. Importantly, this method may overestimate the burden of disease for neighborhoods as this approach assumes mutually exclusive probabilities. We attempt to account for this by not reporting the actual values and instead show a gradient for the neighborhoods

Overall Limitations of PLACES

- Underlying health data is from BRFSS which is a state-based cross-sectional telephone survey conducted over landline and cellular telephones.
- Data are self-reported and may be subject to recall and social desirability biases.
- Survey data are weighted and may not be from a truly representative sample. For example, data may be subject to nonresponse bias.
- PLACES data are modeled small area estimates using a multi-level regression and post-stratification approach applied to BRFSS and ACS data.

California Department of Public Health (CDPH), Vital Records Business Intelligence System (VRBIS) - death data

Technical notes

The Vital Records Business Intelligence System (VRBIS) Master Death File is maintained by the California Department of Public Health (CDPH). Data is acquired from CDPH through a request process.

For more information, please see the following website:
https://www.cdph.ca.gov/Programs/CHSI/Pages/Data%20Types%20and%20Limitations.aspx

Limitations:

- The California Department of Public Health maintains a dataset of all deaths in California. Each death is recorded with a primary cause of death. The analysis presented in this document includes only the primary cause of death and does not consider comorbid or contributing causes of death. Specific cause-of-death categories were designed based on the World Health Organization Global Burden of Disease and Injury (WHO GBD) and the National Center for Health Statistics 113 Selected and 50 Rankable Causes of Death.
- Race/ethnicity was categorized according to San Francisco ethnicity data guidelines.
- The VRBIS dataset includes confidential and non-confidential identifiers, demographic information, and medical/health data from death certificates. The information in these certificates is provided by informants and clinicians, and its accuracy and completeness depend on the reporting parties.
- It is important to note that Vital Statistics data may not be fully accurate or complete due to various circumstances, including amendments to the legal records that may have been filed after the data files were produced. Additionally, death data files are not legal records and should not be used as substitutes for the official legal records from which they were derived.

California Health Interview Survey (CHIS)

Technical Notes:

CHIS is a population based multimodal (web and phone) address-based health survey that uses a stratified random sampling approach. A weighting procedure is applied to a sample in order to generate estimates that are representative of California's non-institutionalized population living in households and in counties. In San Francisco City and County, about 400 adults are sampled to generate county specific estimates. Data were obtained through the AskCHIS Neighborhood Edition.

Measure: Food insecurity

- Respondents were asked various questions related to food security.
- Asked only of adults whose income is less than 200% of the Federal Poverty Level.

Limitations:

- Though CHIS is a weighted survey, weighting adjustments may not fully control for nonresponse bias. Nonresponse can lead to bias if nonrespondents differ systematically from survey respondents in health status or behaviors.