

Definition of Reported Measures

- **Hospitalizations due to Asthma** represents the number of hospitalizations due to asthma among California residents; expressed as a rate per 10,000 California residents.
- **Emergency department (ED) visits due to Asthma** represents the number of ED visits due to asthma among California residents; expressed as a rate per 10,000 California residents.
- **Lifetime asthma prevalence** describes the percentage of people who have ever been diagnosed with asthma by a healthcare provider.
- **Current asthma prevalence** describes the percentage of people who have ever been diagnosed with asthma by a healthcare provider *and* report that they still have asthma and/or had an asthma episode or attack within the past 12 months.
- **Death due to Asthma** represents California residents who died due to an asthma episode or attack. Because asthma deaths are relatively rare events, rates are expressed as the number of deaths per 1,000,000 California residents per 3-year period.
- **Insurers** describes the percentage of asthma emergency department (ED) visits and hospitalizations paid for by insurance type in California and each county. This measure is presented for all ages.
 - Insurance type is grouped into the following four categories: 1) Medicare = Medicare (including HMO/PPO), 2) Medi-Cal = Medi-Cal (including HMO/PPO), 3) Private Insurance = private insurance company (e.g., HMO, PPO, Blue Cross/Blue Shield), and 4) Other = workers' compensation, county indigent program, charity care, self-pay, other governmental sources, etc.

How to Read Tables, Charts, and Maps

- The **95% confidence interval (CI)** is the range of values that likely contains the true rate in the population.
- **Crude rates** express the number of outcomes relative to the size of the population. N/A indicates that the data are not available due to the number of events being less than 12.
- Some counties have a greater proportion of people who are old or young than other counties, which makes it difficult to compare across counties or over time. Scientists often fix this problem through a technique called age adjustment so comparisons can be made. In addition to crude rates, we also present **age-adjusted rates**.
- **Modeled rates** further take into account the frequency of events in surrounding areas. Modeled rates can be useful when there aren't enough events in an area to calculate rates in the conventional manner, and they are often useful for examining regional trends.
- **Total** counts are listed next to rates unless the total number of events is less than 12. They are typically not listed next to modeled rates.
- The **map legend** displays the data with four class breaks, where the data is divided into four equal bins known as quartiles.
- Because of small numbers of survey responses at the county-level, **asthma prevalence data** are combined for two-year periods (as recommended by CHIS). In addition, some counties with small populations are grouped together for analysis of prevalence data:
 - Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, and Tuolumne counties are grouped
 - Colusa, Glenn, and Tehama counties are grouped
 - Del Norte, Lassen, Modoc, Plumas, Sierra, Siskiyou, and Trinity counties are grouped
- Effective October 1, 2015, hospital record (HCAI) data transitioned from ICD-9 to ICD-10-CM. Differences between counts and rates in years prior to 2015 compared with 2015 and subsequent years could be a result of this coding change and not an actual difference in the number of events.

- Prior to 2019, data for Asians and Pacific Islanders were combined into a single group (Asian/PI). Beginning in 2019, data were reported separately for Asians and Native Hawaiian Pacific Islanders (NHPI). Data were also reported for Multi-race individuals starting in 2019.

Data Sources

- Emergency Department and Patient Discharge Datasets are from the California Department of Health Care Access and Information (HCAI), formerly known as the Office of Statewide Health Planning and Development (OSHPD).
- Asthma prevalence data are from the California Health Interview Survey (CHIS)
- Asthma death data are from the California Death Statistical Master Files provided by the California Department of Public Health Center for Health Statistics and Informatics
- Denominators for county level rates are based on estimates from the California Department of Finance.
- Denominators for zip-code level rates are based on population estimates from a private vendor.

Methods

- Cases of Asthma hospitalizations and emergency department visits are identified by using the following ICD-9-CM: 493; or ICD-10-CM code: J45 as the primary diagnosis.
- Cases of asthma deaths are identified by using the following ICD-9-CM: 493; or ICD-10-CM codes starting with J45 or J46.
- Asthma prevalence is identified from the California Health Interview Survey (CHIS), a statewide telephone and web survey administered to 20,000 to 50,000 households each year by the UCLA Center for Health Policy Research. Adults and teens (ages 12–17 years) are asked: 1) “Has a doctor ever told you that you have asthma?”, 2) “Do you still have asthma?”, and 3) “During the past 12 months, have you had an episode of asthma or an asthma attack?” Asthma prevalence for children (ages 0–11 years) is obtained from their parent/guardian using the questions: 1) “Has a doctor ever told you that your child has asthma?”, 2) “Does {your child} still have asthma?”, and 3) “During the past 12 months, has {your child} had an episode of asthma or an asthma attack?”

Limitations of the Data

- Data Collection Purpose- Diagnosis codes are recorded by hospitals for reimbursement purposes and not for public health surveillance.
- The rates provided include ED visits and hospitalizations for California residents. Out-of-state residents and unhoused patients with no recorded address are excluded from the rates.
- Low-level of resolution- Hospitals are not mandated to report patient addresses. The level of geographic resolution of the data is limited to state, county, and zip code.
- Zip code level data- Zip codes are not geographic areas; Zip codes may change from year to year and even within a year; Zip codes can cross city or county boundaries; and Zip code populations are estimates. Only Zip codes with data are displayed.
- Asthma prevalence data are based on self-report from telephone surveys and are subject to bias and low response rates. Warning is provided when prevalence estimate is statistically unstable (standard error is 30-50% of prevalence estimate). Data are suppressed when standard error exceeds 50% of prevalence estimate.

ADA Accessible Data File

If you would like to request asthma data in an alternative format or request any other reasonable accommodation, please contact [California Breathing](#) or send us an email at California.Breathing@cdph.ca.gov

Suggested Citation

California Department of Public Health, California Breathing Asthma Program and Tracking California, Public Health Institute. Asthma data. Accessed [Month/Day/Year] from <https://data.trackingcalifornia.org>