

About the Data – Interpregnancy Interval

Indicator Description

Interpregnancy interval (IPI) is defined as the number of months between an individual's previous live birth and the conception of the current live birth based on obstetric estimate of gestation. Short IPI is defined as an IPI of less than 18 months.

Data Source

California Department of Public Health, Birth Statistical Master File, 2012–2017: Compiled from information on birth certificates, including demographic information related to the infant and parents, as well as medical data related to the birth.

California Department of Public Health, California Comprehensive Master Birth File, 2018–2023: Compiled from information on birth certificates, including demographic information related to the infant and parents, as well as medical data related to the birth. Beginning in 2018, the California Comprehensive Master Birth File replaced the Birth Statistical Master File.

National Comparison

Healthy People 2030: National 10-year plan addressing public health priorities, developed by the U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion. Available from: [Healthy People 2030: Reduce pregnancies conceived within 18 months of a previous birth](#)

Data Analysis

The short IPI rate shown in these dashboards is the number of mothers/parents giving birth with an IPI less than 18 months per 100 live births, stratified by selected birth and maternal characteristics.

Interpregnancy interval is calculated by subtracting the last live birth date from the date of conception for current live birth, displayed in months.

- Last live birth date comes from the birth certificate; if 'month' and 'year' are present with only the 'day' data element missing, then last live birth date = MM/15/YY.
- Date of conception is calculated by subtracting the child's date of birth from the gestational age based on obstetric estimate.
- An IPI of 30 days is coded as 1 month.

The denominator includes California resident mothers/parents giving birth, aged 15–44 years, with at least one previous live birth; records with missing gestational age or with gestational age less than 17 or greater than 47 weeks are excluded.

Additional exclusions for IPI analysis:

- 2nd and higher order of multiple births; retain only one record per individual giving birth
- Missing date of last live birth
- Missing infant date of birth
- Last live birth date equal to infant date of birth
- Infant date of birth minus last live birth between 1 and 29 days
- Infant date of birth minus last live birth less than 0
- Last live birth to date of conception less than 30 days

The 95% confidence interval presented in the tooltips indicates there is a 95% chance that the range contains the true prevalence or rate in the population. Rates or percentages with wide confidence intervals should be interpreted with caution.

The state dashboard uses single year data; the county dashboard uses three-year aggregated data.

Overlapping time periods show the general direction or slope of the trendline across the entire timeframe. Rates should not be compared for overlapping time periods; for example, rates for 2020–2022 and 2021–2023 should not be compared. Only non-overlapping periods can be compared; for example, rates for 2018–2020 and 2021–2023 can be compared.

See Category and Subcategory Definitions below for additional inclusion/exclusion criteria.

Data Suppression

The numerator, rate, and confidence interval are not shown when the numerator is less than 10.

Category and Subcategory Definitions

Age: Age of mother/parent giving birth at time of delivery. Excludes records with unknown age.

Asian alone subgroup: Non-Hispanic Asian race/ethnicity disaggregated into more detailed Asian subgroup. Other Asian includes Indonesian, Malaysian, Taiwanese, Bangladeshi, Pakistani, and Sri Lankan. Two or more subgroups includes those who reported more than one Asian subgroup. Subgroups are shown for 2019 and forward.

Birthweight: Weight of the infant at time of delivery, reported in grams. Excludes birthweights less than 227 grams, greater than 8165 grams and records with unknown birthweight.

Delivery method: Final route of delivery. Cesarean delivery includes primary and repeat cesarean births. Vaginal delivery includes vaginal birth after previous cesarean birth. Excludes records with unknown delivery method.

Delivery payment source: Expected principal source of payment for delivery. Other includes Indian Health Service, CHAMPUS/TRICARE, other non-Medi-Cal government programs (federal, state or local), self-insured/self-funded plans or payments from local organized charities. Excludes records with unknown payment source and medically unattended births.

Education: Highest level of education attained by the mother/parent giving birth at time of delivery. High school graduate includes GED; some college includes college credit either without a degree or with an associate's degree; and college graduate includes bachelor's degree or higher. Excludes records with unknown education level.

Geography: State or county of maternal residence at time of delivery.

Gestational age: Obstetric estimate of gestation at time of delivery, in completed weeks. Excludes records with unknown gestational age or values less than 17 weeks or greater than 47 weeks.

Native Hawaiian and Pacific Islander alone subgroup: Non-Hispanic Native Hawaiian or Pacific Islander (NHPI) race disaggregated into more detailed NHPI subgroups. Other Pacific Islander includes Fijian and Tongan. Two or more subgroups includes those mothers/parents giving birth who reported more than one NHPI subgroup. Subgroups are shown for 2019 and forward.

Nativity: Birthplace of mother/parent giving birth. Born outside U.S. includes U.S. territories, Canadian provinces and foreign countries. Excludes records with unknown birthplace.

Neighborhood poverty: Percentage of residents of a census tract who are living below the federal poverty threshold. Census tracts with a poverty rate of 30% or higher are considered high poverty neighborhoods. Data are based on geocoded maternal addresses beginning with 2010 and exclude records that did not geocode. Available from: [US Census Bureau American Community Survey 5-year estimates: Poverty status in the past 12 months](#)

Plurality: Single-gestation births or multiple-gestation births (i.e., twin, triplet and higher-order births).

Population density: Based on Medical Service Study Areas (MSSAs) where maternal residence is located. Data are based on geocoded maternal addresses beginning with 2010 and exclude records that did not geocode. MSSAs are sub-county geographical units with population, demographic and physician data. Available from: [California Department of Health Care Access and Information: Healthcare Workforce](#)

- An Urban MSSA has a population range of 75,000 to 125,000 and is homogeneous with respect to demographic and socio-economic characteristics.
- A Rural MSSA has a population density of less than 250 persons per square mile, and no population center exceeds 50,000 persons.
- A Frontier MSSA has a population density of less than 11 persons per square mile.

Prenatal care (trimester of initiation): Trimester of pregnancy in which the mother/parent giving birth first received prenatal care. Excludes records with unknown prenatal care initiation.

Prenatal care (adequacy of initiation): Often referred to as the Kotelchuck Index, adequacy of prenatal care utilization is based on the month prenatal care began and the number of visits adjusted for gestational age. The number of visits is assessed by comparing the number of reported visits with the number of expected visits for a particular gestational age, based on recommendations from ACOG. Inadequate care is defined as all prenatal care that began after the fourth month of pregnancy, as well as prenatal care that included less than 50% of the recommended number of visits. Intermediate care includes 50%–79% of the recommended visits, adequate care includes 80%–109%, and adequate plus care is 110% or more of the recommended visits. The Kotelchuck Index uses recommendations from ACOG for low-risk pregnancies and may not measure the adequacy of care for high-risk women. The Kotelchuck Index does not measure the quality of the care provided.

Prepregnancy weight: Body Mass Index (BMI) was calculated from self-reported weight and height, classified as underweight (<18.5), normal weight (18.5–24.99), overweight (25–29.99) or obese (30+). BMI was calculated only for women reporting height within 48–83 inches and weight within 75–399 pounds. BMI values outside 13–69.99 were excluded. BMI should not be used as the sole criterion for making health recommendations. It is a screening tool as part of an assessment for determining weight classifications. BMI may overestimate or underestimate body fatness in some individuals since it does not take into consideration an individual's muscle or bone mass.

Race alone and ethnicity (previously labelled Race/Ethnicity as shown below): Mutually exclusive racial and ethnic groups reported by the mother/parent giving birth; percentages across the groups sum to 100 percent. Hispanic includes all persons of Hispanic origin of any race, including Other and Unknown race. Multiracial includes those of non-Hispanic origin who reported more than one race. The remaining groups are of non-Hispanic origin who reported a single race: American Indian or Alaska Native (AIAN), Asian, Black, Native Hawaiian or Pacific Islander (NHPI), White, Other, or Unknown. Other and Unknown race are not shown on the dashboards but are available in the downloadable data table. Race and Hispanic-origin ethnicity are reported independently on the birth certificate, with reporting of more than one race allowed.

Race/Ethnicity (previous label)	Race Alone and Ethnicity (current label)
AIAN	AIAN alone
Asian	Asian alone
Black	Black alone
Hispanic	Hispanic of any race
Multi-Race	Multiracial alone
Pacific Islander	NHPI alone
White	White alone

Race alone or in combination and ethnicity: Alone or in combination groups combine all individuals belonging to a particular racial or ethnic group (whether alone or in combination with another racial or ethnic group). For example, a mother/parent giving birth who reported being both White and Black would fall into both the “White alone or in combination” group and the “Black alone or in combination” group. These groups are not mutually exclusive; individuals identifying with more than one race and/or ethnicity are included multiple times; therefore, percentages across the groups sum to greater than 100 percent. Race and Hispanic-origin ethnicity are reported independently on the birth certificate, with reporting of more than one race allowed. This category is shown for 2014 and forward.

Sex: Sex of infant at birth is defined as either male or female. Excludes records with unknown and nonbinary sex.

Total live births: Total number of live births the mother/parent giving birth delivered. Twins, triplets and higher-order births are considered one birth. Excludes records with unknown number of live births.

Suggested Citation

California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, Interpregnancy Interval Dashboard, Last Modified June 2025. go.cdph.ca.gov/Interpregnancy-Interval-Dashboard