

About the Data – Delivery Methods

Indicator Description

The delivery method is the final route of delivery. Cesarean delivery includes primary (first) and repeat cesarean births. Low-risk cesarean delivery is defined as cesarean delivery among nulliparous (first birth), term (37 or more completed weeks of gestation based on the obstetric estimate), singleton (one fetus), and vertex or cephalic (headfirst) births (also known as NTSV). Vaginal birth after cesarean (VBAC) includes vaginal births among those with previous cesarean delivery.

Data Source

California Department of Public Health, Birth Statistical Master File, 2007–2017: 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.

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 cesarean births among low-risk women with no prior births](#)

Downloadable Data Table

The downloadable data table includes additional years of archival data not shown on the dashboard. For optimal readability of the data visualizations, only the most recent data are shown.

Data Analysis

The cesarean delivery rates shown in these dashboards are the numbers of cesarean births per 100 live births, stratified by selected birth and maternal characteristics. The low-risk cesarean delivery rates are the numbers of full-term, singleton, and vertex births with cesarean delivery method per 100 women/parents giving birth for the first time with full-term, singleton, vertex births. The VBAC delivery rates are the numbers of VBAC births per 100 live births with previous cesarean delivery method.

Denominators include all live births to California resident mothers/parents giving birth. Records with missing or unknown delivery method were excluded.

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 disaggregated into more detailed Asian subgroups. Other Asian includes Indonesian, Malaysian, Taiwanese, Bangladeshi, Pakistani, and Sri Lankan. Two or more subgroups includes those mothers/parents giving birth who reported more than one Asian subgroup. Subgroups are shown for 2019 and forward.

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. Vaginal delivery is not shown on the dashboards but is available in the downloadable data table.

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 patient's residence at time of hospitalization. Excludes records with unknown county.

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.

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.

Suggested Citation

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