

About the Data – Prenatal Care

Indicator Description

Early prenatal care is defined as prenatal care initiated during the first trimester (first, second or third month) of pregnancy.

Adequacy of prenatal care utilization (often referred to as the Kotelchuck Index) 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 the American College for Obstetricians and Gynecologists (ACOG). Adequate prenatal care includes women who initiated prenatal care within the first four months of pregnancy and completed at least 80% of expected 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.

Data Sources

California 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 Comprehensive Master Birth File, 2018-2021: 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: Increase early and adequate prenatal care](#)

Data Analysis

The early prenatal care rate shown in these dashboards is the number of infants whose mother/parent giving birth received prenatal care beginning in the first trimester of pregnancy per 100 live births, stratified by selected birth and maternal characteristics. The adequate

prenatal care utilization rate is the number of infants whose mother/parent giving birth adequately utilized prenatal care per 100 live births, stratified by selected birth and maternal characteristics. 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.

Denominators include all live births to California resident mothers/parents giving birth. Records with unknown prenatal care initiation were excluded. For adequacy of prenatal care utilization, records with an unknown Kotelchuck Index were excluded. 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

Adequacy of prenatal care utilization: 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.

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

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.

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](#)

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 payment source: Principal source of payment for prenatal care. Medi-Cal includes Comprehensive Perinatal Services Program support services; other includes non-Medi-Cal government programs (federal, state or local). Excludes records with unknown payment source.

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/ethnicity: Hispanic includes all persons of Hispanic origin of any race, including Other and Unknown race. Multi-Race 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 Other Pacific Islander (Pacific Islander), White, Other or Unknown. Other and Unknown race are not shown on the dashboards but are available in the downloadable data table.

Trimester of initiation: Trimester of pregnancy in which the mother/parent giving birth first received prenatal care.

Suggested Citation

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