

About the Data – Maternal Mental Health

Indicator Description

The prenatal depressive symptoms indicator* is defined as, during pregnancy, always or often: felt down, depressed or hopeless; or had little interest or pleasure in doing things usually enjoyed. Prior to 2016, this indicator was defined as, during pregnancy, experiencing both of the following for two weeks or longer: felt sad, empty, or depressed for most of the day; and lost interest in most things usually enjoyed.

The postpartum depressive symptoms indicator* is defined as, since most recent birth, always or often: felt down, depressed or hopeless; or had little interest or pleasure in doing things usually enjoyed. Prior to 2016, this indicator was defined as, since most recent birth, experiencing both of the following for two weeks or longer: felt sad, empty or depressed for most of the day; and lost interest in most things she usually enjoyed.

*Prenatal and postpartum depressive symptoms indicators prior to 2016 were based on a different set of questions and are not comparable to prenatal and postpartum depressive symptoms indicators for 2016 and later.

Data Source

Maternal and Infant Health Assessment (MIHA), 2013-2020: MIHA is a statewide representative survey of individuals with a recent live birth in California that has been conducted since 1999. MIHA collects self-reported information about maternal and infant experiences and behaviors before, during, and shortly after pregnancy. MIHA respondents are a stratified random sample of English- or Spanish-speaking individuals aged 15 years or older who had a live birth and who resided in California at the time of delivery. MIHA data are weighted to be representative of all individuals with a live birth in California, excluding those who were nonresidents, were younger than 15 years old at delivery, had a multiple birth greater than triplets, or had a missing address on the birth certificate. The population represented by MIHA is defined using the annual birth file, which is the final compilation of California birth data released annually by the Center for Health Statistics and Informatics.

MIHA is led by the Maternal, Child and Adolescent Health Division in the California Department of Public Health (CDPH), in collaboration with the CDPH Women, Infants and Children (WIC) Division and the Center for Health Equity at the University of California, San Francisco.

Data Analysis

The prenatal and postpartum depressive symptoms shown in these dashboards are the percent of mothers/parents giving birth who experienced symptoms of depression during or after pregnancy, stratified by selected characteristics. Percentage and estimated number of mothers/parents giving birth in the population who experienced depressive symptoms are best estimates of the actual prevalence in the population. The 95% confidence interval (95% CI) presented in the tooltips indicates there is a 95% chance that the range contains the actual prevalence in the population.

The state, county, and regional dashboards use three-year aggregated data for the percent and 95% CI, and the annual estimate shown is a three-year average.

See the [MIHA Technical Notes](#) for more information on weighting, comparability across years, and technical definitions.

Data Annotation and Suppression

The relative standard error (RSE) is used to measure the statistical reliability of survey estimates. Estimates that should be interpreted with caution due to low statistical reliability (RSE is between 30% and 50%) are noted in the tooltips.

The percent, 95% CI, and population estimate are suppressed when the RSE is greater than 50% or could not be calculated, sample numerator is less than five, or the weighted population denominator is less than 100.

Category and Subcategory Definitions

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

Education: Highest level of education attained by mother/parent giving birth at time of survey completion. Less than high school includes those who completed no school, 8th grade or less, or some high school (but did not graduate); high school graduate includes GED; some college includes community college; and college graduate includes graduation from a four-year college or university or more. Excludes records with unknown education level.

Geography: State, county, or region of maternal residence at time of delivery. County is based on residence reported on birth certificate, and the nine MIHA regions include births from all counties within the geographical region. MIHA county-level data are available for the 35 California counties with the greatest numbers of births. Due to their smaller birth populations and sample sizes, county-level estimates are not provided for the remaining 23 counties.

Thirty-five counties with the greatest number of births: Alameda, Butte, Contra Costa, El Dorado, Fresno, Humboldt, Imperial, Kern, Kings, Los Angeles, Madera, Marin, Merced, Monterey, Napa, Orange, Placer, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Solano, Sonoma, Stanislaus, Tulare, Ventura, and Yolo.

The nine MIHA Regions are defined as follows:

- Central Coast Region: Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura counties
- Greater Sacramento Region: El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties
- Los Angeles County Region: Los Angeles County
- North/Mountain Region: Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity, and Tuolumne counties
- Orange County Region: Orange County
- San Diego County Region: San Diego County
- San Francisco Bay Area Region: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties
- San Joaquin Valle Region: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties
- Southeastern California Region: Imperial, Riverside, and San Bernardino counties

Health insurance: Had one of the following as principal source of payment for prenatal care: Medi-Cal or a health plan paid for by Medi-Cal; private insurance through employment of mother/parent giving birth, their spouse/partner, or their parents, or purchased directly; or uninsured. Mothers/parents giving birth with both Medi-Cal and private insurance are categorized as Medi-Cal. Excludes records with unknown prenatal health insurance coverage.

Household income: Income as a percentage of the Federal Poverty Guideline (FPG) is calculated from monthly family income, before taxes from all sources, including jobs, welfare, disability, unemployment, child support, interest, dividends, and support from family members, and the number of people living on that income. See the [annual Poverty Guidelines](#) published by the U.S. Department of Health and Human Services for more details. Excludes records with unknown household income.

Neighborhood poverty: The percentage of residents living below the federal poverty threshold in a given neighborhood, as defined by census tract of the residence, reported on the birth certificate. The estimated percentage of residents below poverty by census tract is obtained from [American Community Survey 5-year estimates](#) from the most recent year. Birth certificate and American Community Survey data are linked. Categories are defined as: Low (<10% of residents below poverty), moderate-low (10-19% of residents below poverty), moderate-high (20-29% of residents below poverty) and high (\geq 30% of residents below poverty).

Total live births: The number of live births the mother/parent giving birth delivered as reported on the birth certificate. If the most recent delivery was twins or triplets, only the first baby born is included in the count and is considered one birth. For prior multiple births each baby is counted separately.

Population density: Urban and rural/frontier designations are based on the population size or densities of Medical Service Study Areas (MSSAs). MSSAs are sub-county geographic units composed of one or more census tracts. Mothers/parents giving birth are classified as living in an urban area if their MSSA ranges in population from 75,000 to 125,000; a rural area if their MSSA has a population density of less than 250 persons per square mile, and a frontier area if their MSSA has a population density of less than 11 persons per square mile. The MSSA of mother/parent giving birth is based on the residence reported on the birth certificate. See the [California Department of Health Care Access and Information \(HCAI\)](#) for more detail on MSSAs.

Race/ethnicity: Hispanic includes all persons of Hispanic origin of any race, including Other and Unknown race, reported on birth certificate. The remaining groups are of non-Hispanic origin who reported a single race: Asian, Native Hawaiian or Other Pacific Islander (Asian/Pacific Islander), Black or White. Race/ethnicity groups for which estimates are unstable due to small sample size are excluded.

Suggested Citation

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