

# CALIFORNIA Health Care Almanac



NOVEMBER 2023

## Maternity Care in California Delivering the Data

# Executive Summary

There were 420,000 births in California in 2021, accounting for about one in 10 of all births nationwide. The number of births in the state declined 26% between 2007 and 2021. *Maternity Care in California: Delivering the Data* provides an overview of the delivery of maternity care in California, using the most recent data. When available, comparisons of California data to national averages, as well as metrics by race/ethnicity and trend data, are provided.

**KEY FINDINGS INCLUDE:**

- While most of California’s births were delivered in a hospital by a doctor, the portion delivered by midwives increased between 2011 and 2021.
- In 2021, more than half of the state’s births (54%) were covered by private insurance, and 40% were covered by Medi-Cal.
- In 2019, two-thirds of Medi-Cal births were covered by a managed care plan, up from less than one-third in 2009.
- In 2022, 46,000 California women age 18 to 44 lived in counties with no hospitals with obstetrics care or birth centers, and an additional 76,000 lived in counties with only one hospital with obstetrics care or a birth center.
- In 2021, about one in four hospital births in California were low-risk, first-birth cesareans (c-sections). In 2021, half of California hospitals’ c-section rates were higher than the Healthy People 2030 target of 23.6%.
- Significant racial/ethnic disparities existed across a variety of maternal quality measures in California, from prenatal visits to preterm births to maternal and infant mortality rates. For many of these measures, Black women / birthing people\* and infants had lower scores than their peers in other racial/ethnic groups.
- California’s pregnancy-related mortality rate has fluctuated since 2009, peaking in 2020. Throughout this period, the rate for Black mothers / birthing people was three to four times higher than the rate for other races/ethnicities.
- More than one in five California women / birthing people reported prenatal or postpartum depressive symptoms. Black California women / birthing people reported higher rates of depressive symptoms than those of other races/ethnicities.

\* *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

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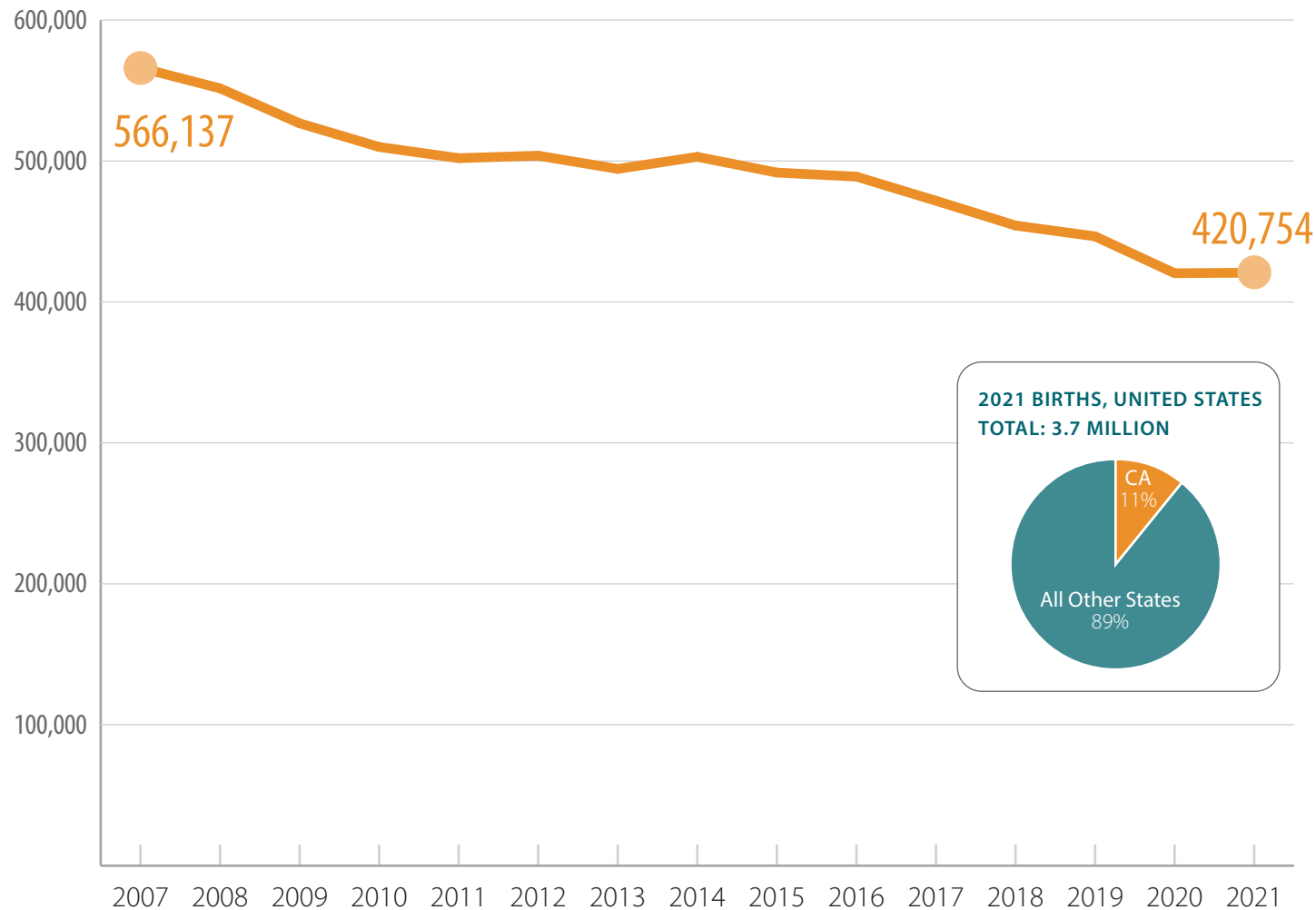
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# Births

## California, 2007 to 2021

NUMBER OF BIRTHS



Note: Births by place of residence.

Source: "Births," California Dept. of Public Health, last updated February 6, 2023.

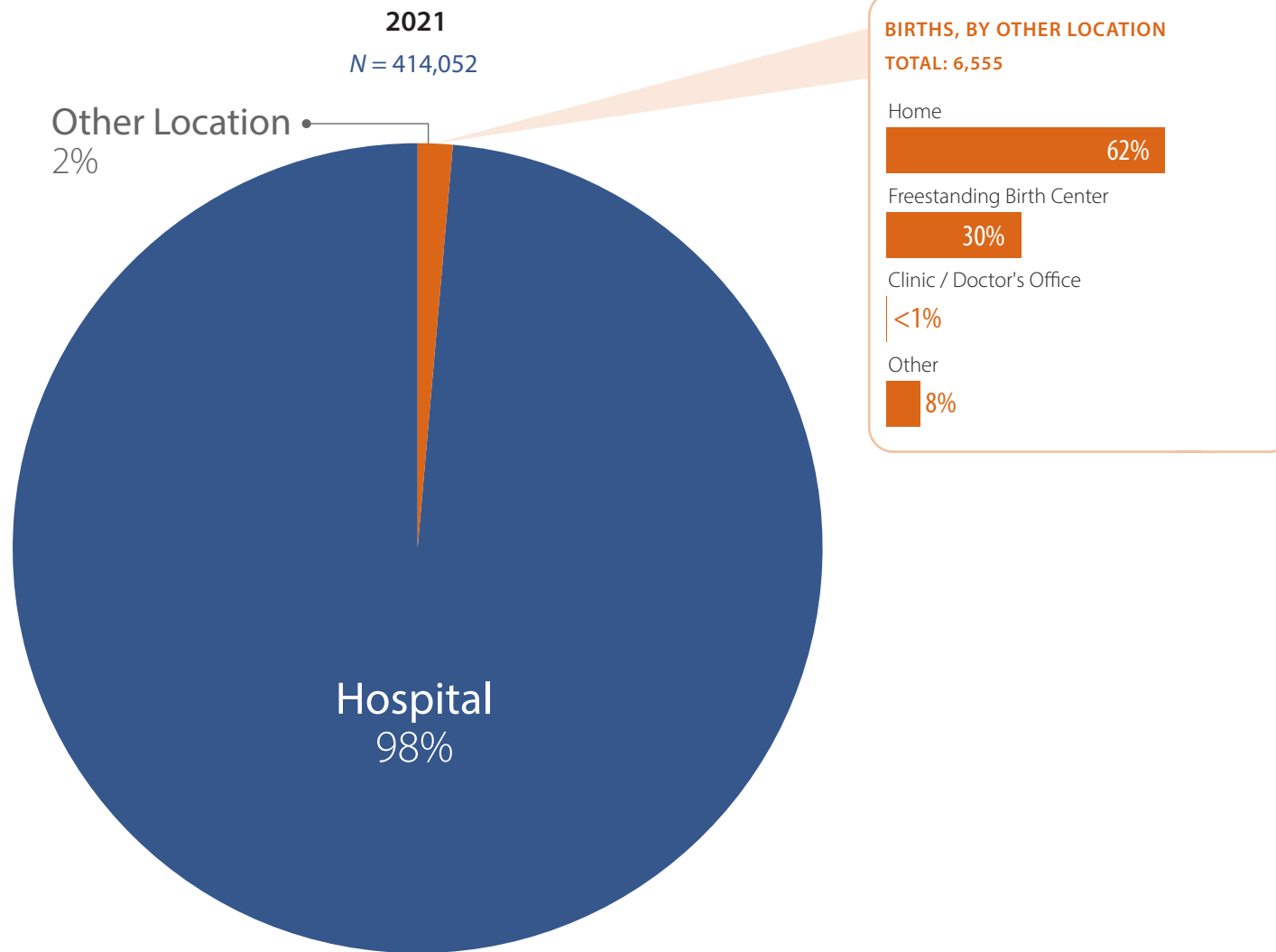
### Maternity Care in California

Births and Demographics

In 2021, California accounted for about 1 in 10 births in the nation. The number of births in California declined by 26% between 2007 and 2021.

# Births, by Location

## California, 2021



Note: Location of birth was unknown for one birth.

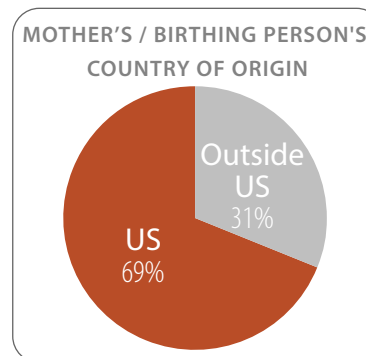
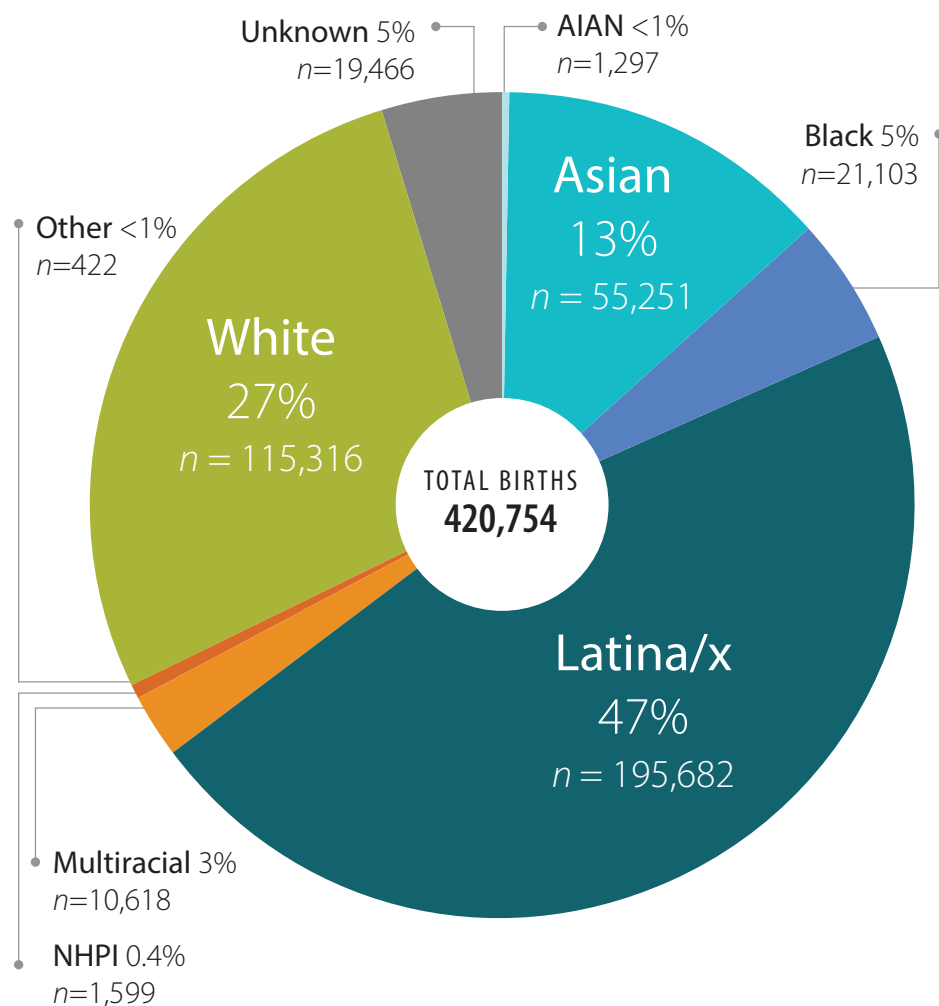
Source: "Nativity Information: Live Births" (2007–21), CDC WONDER Database, Centers for Disease Control and Prevention, accessed January 27, 2023.

### Maternity Care in California

Births and Demographics

In 2021, nearly all California births occurred in a hospital. Among the 2% of births that did not occur in a hospital, the majority occurred in the home (62%); freestanding birth centers (30%) were the second most common location outside of a hospital.

# Births, by Mother's / Birthing Person's Race/Ethnicity California, 2021



## Maternity Care in California

### Births and Demographics

In 2021, births to Latina/x mothers / birthing people made up nearly half of all births in the state, at just under 200,000 births. About 3 in 10 births in California were to mothers / birthing people born outside the US.

Notes: *Birthing person* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Births by place of residence. AIAN is American Indian and Alaska Native. NHPI is Native Hawaiian and Pacific Islander. Source uses *Hispanic*, *Multi-Race*, and *Pacific Islander*. *Outside US* includes US territories and foreign countries. Figures may not sum due to rounding. See [Appendix C](#) for detail by region.

Source: "Births," California Dept. of Public Health, last updated February 6, 2023.

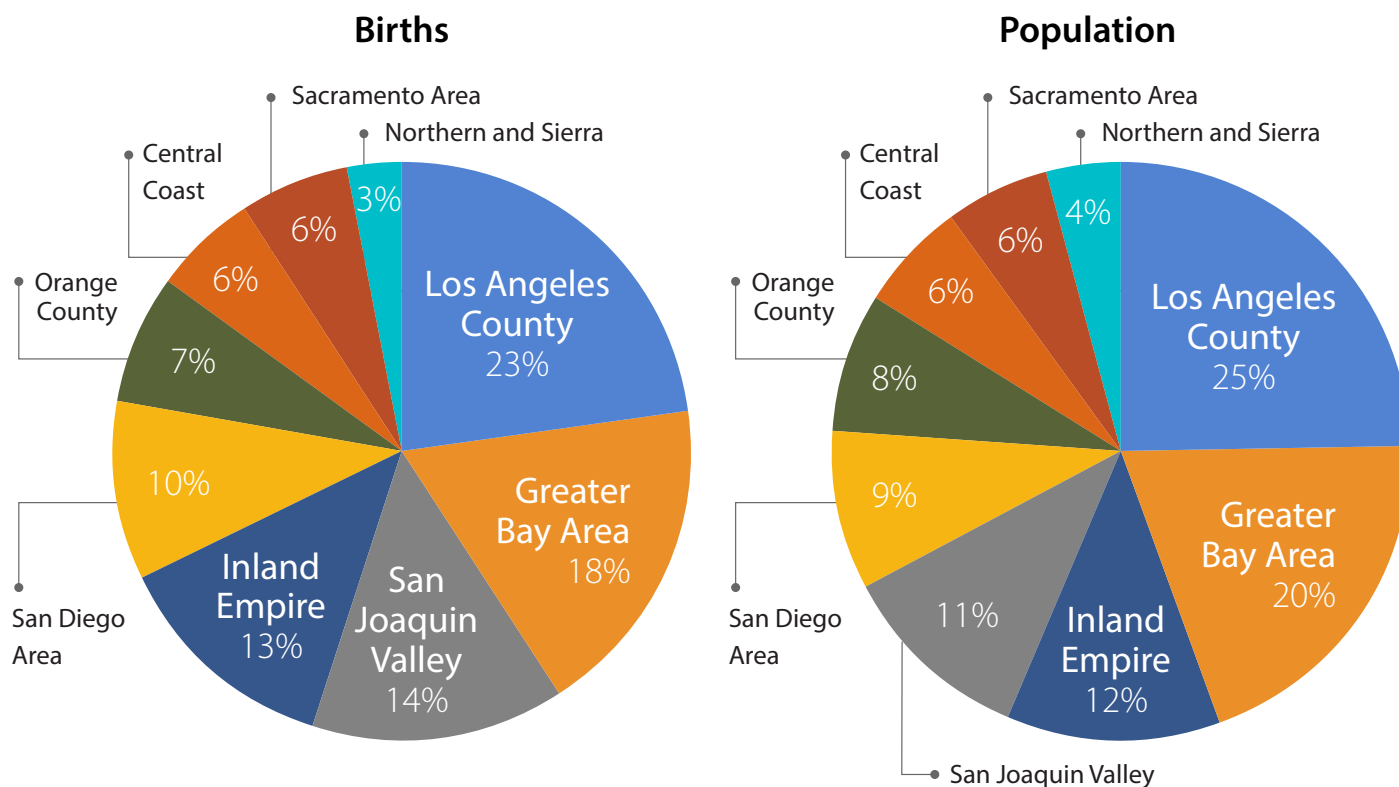
# Births and Population, by Region

## California, 2021

### Maternity Care in California

Births and Demographics

In 2021, California births and overall population had similar distributions throughout the state. Los Angeles County was home to nearly one in four California births (23%) and one in four residents.

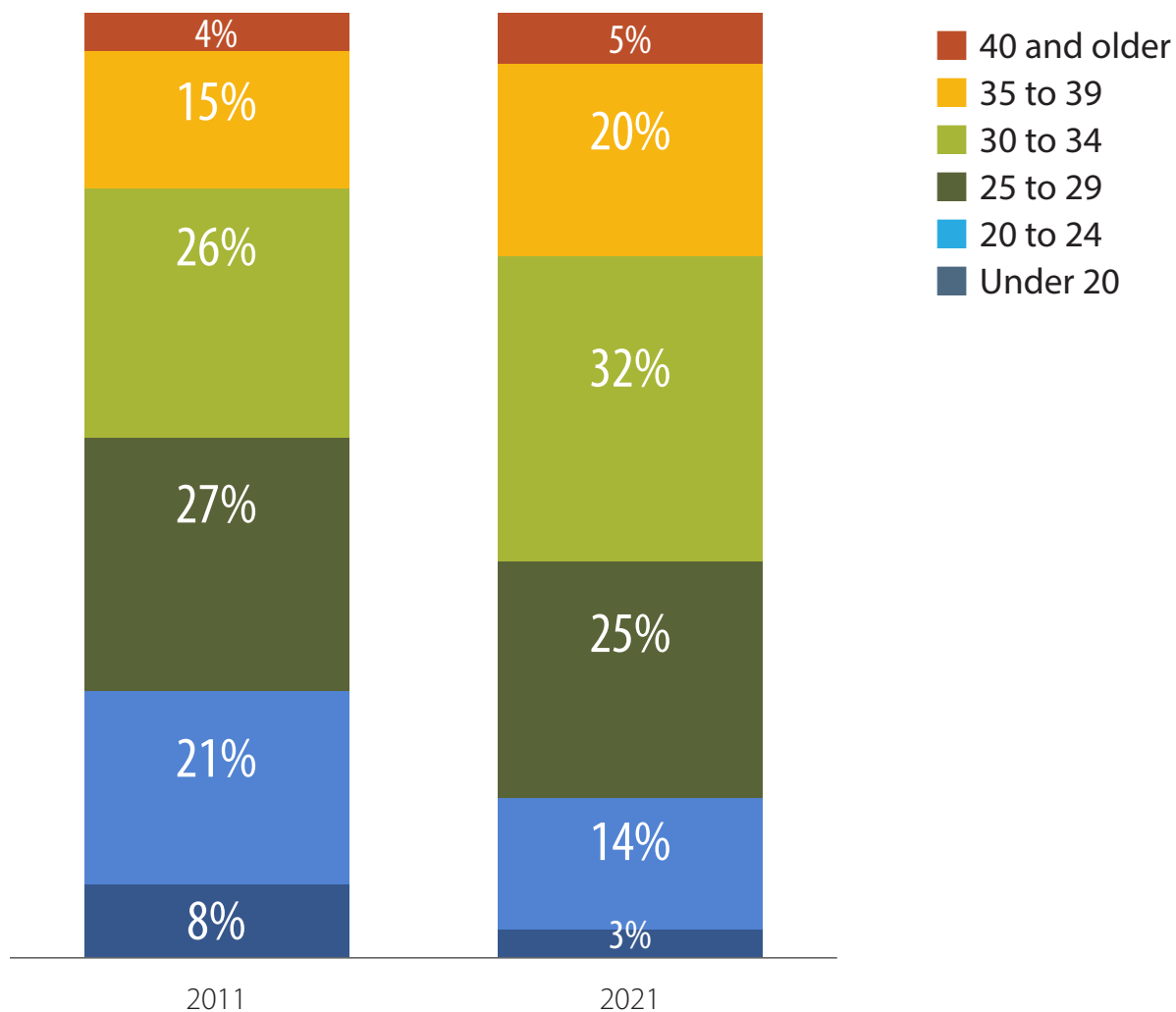


Notes: See [Appendix A](#) for a map of counties in each region. Figures may not sum due to rounding.

Sources: "Births," California Dept. of Public Health, last updated February 6, 2023; and "California Counties by Population," California Demographics.

# Births, by Age of Mother / Birthing Person

California, 2011 and 2021



## Maternity Care in California

Births and Demographics

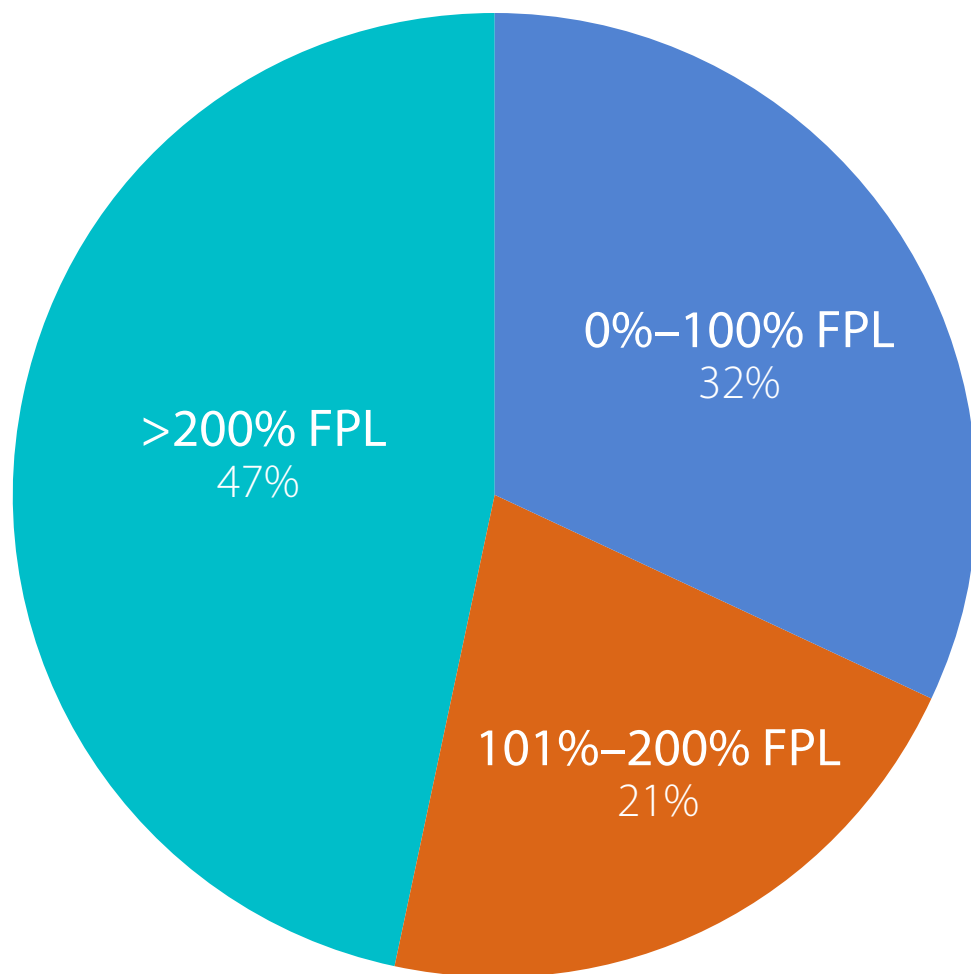
The age of mothers / birthing people in California has shifted over the last decade. In 2011, the majority of births (55%) were to mothers / birthing people under age 30. In 2021, the majority of births (58%) shifted to mothers / birthing people age 30 and older.

Notes: *Birthing person* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Figures may not sum due to rounding.

Source: "Births," California Dept. of Public Health, last updated February 6, 2023.

# Births, by Household Federal Poverty Level

## California, 2018 to 2020



Notes: The federal poverty level (FPL) for a family of four in 2018 was \$25,100. Data are from a population-based survey of 18,571 California resident mothers / birthing people with a live birth; data from 2018 to 2020 were combined. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Figures may not sum due to rounding.

Source: Custom data request, Maternal and Infant Health Assessment (MIHA) Survey Data, California Dept. of Public Health, received February 17, 2023.

### Maternity Care in California

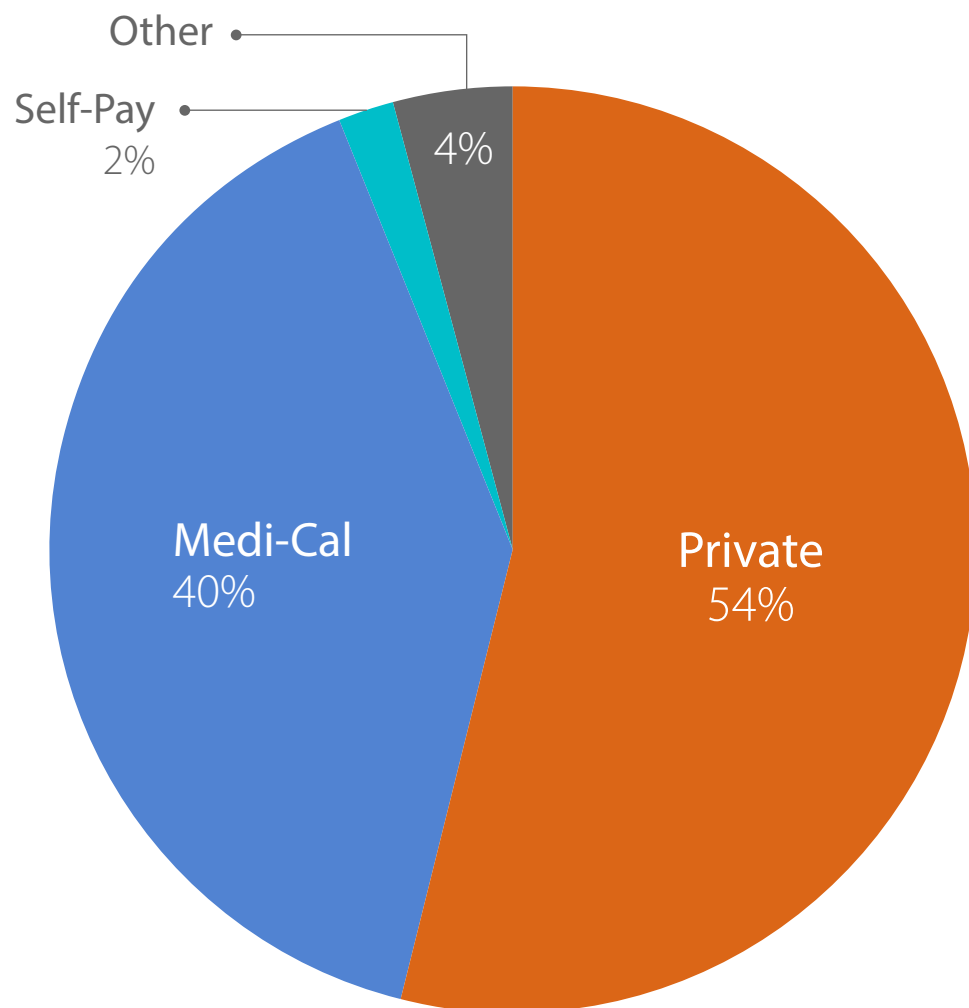
#### Births and Demographics

In California, nearly one in three births (32%) were to mothers / birthing people whose household income was at or below the federal poverty level (FPL). Nearly half of all births (47%) were to mothers / birthing people in households with incomes above 200% FPL.



# Births, by Expected Payment Source

## California, 2021



Notes: Excludes records with unknown payment sources and medically unattended births. Figures may not sum due to rounding.

Source: "Births," California Dept. of Public Health, last updated February 6, 2023.

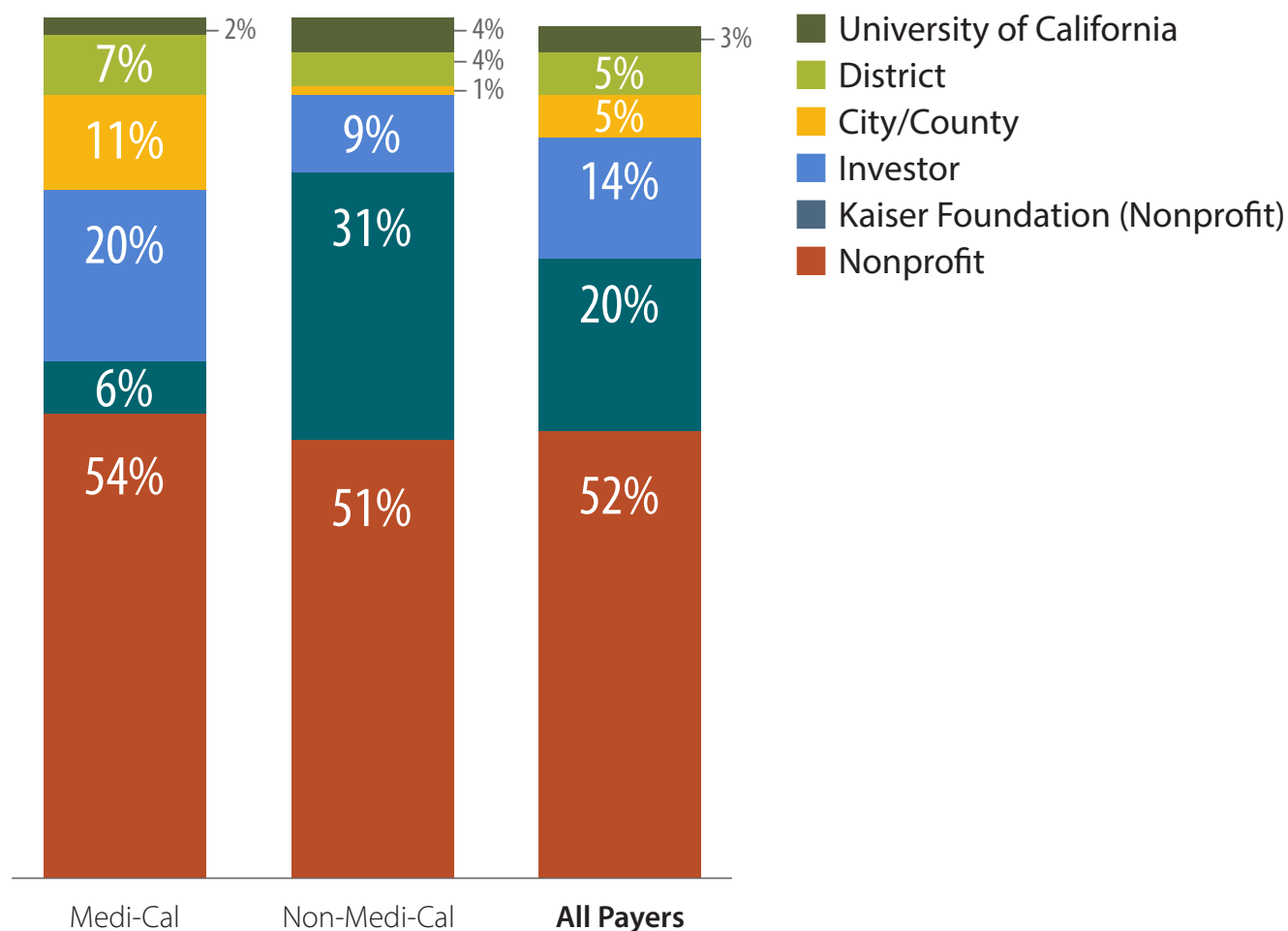
### Maternity Care in California

Births and Demographics

In 2021, more than half of California births (54%) were covered by private insurance, and 40% were covered by Medi-Cal. Since 2010, the share of births covered by private insurance has been growing, while the share of births covered by Medi-Cal has been declining (not shown).

# Births, Medi-Cal vs. Non-Medi-Cal, by Hospital Type

## California, 2021



### Maternity Care in California

#### Births and Demographics

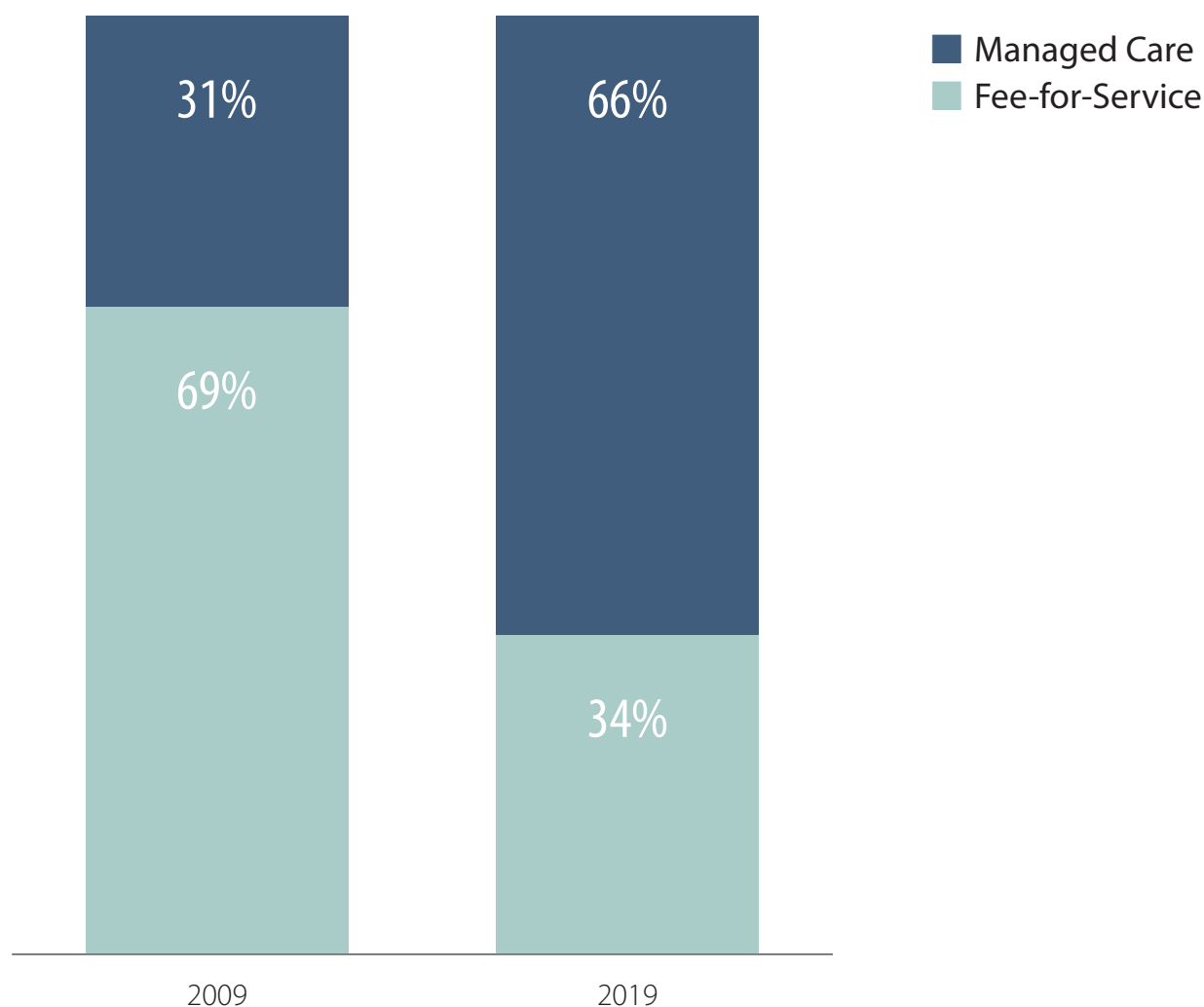
In California, the majority of Medi-Cal and non-Medi-Cal births in 2021 occurred in nonprofit hospitals. Kaiser Foundation hospitals accounted for 31% of all non-Medi-Cal births but only 6% of Medi-Cal births.

Notes: Data are based on in-hospital at nonmilitary hospitals that performed deliveries in 2021 and reported data to the California Department of Health Care Access and Information. Payer based on mother's / birthing person's insurance. *Nonprofit* hospitals include church-related hospitals. *Investor* hospitals are for-profit. *All payers* includes uninsured patients. There are 36 Kaiser Foundation hospitals in California. *Birthing person* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Figures may not sum due to rounding.

Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

# Medi-Cal Births, Fee-for-Service vs. Managed Care

## California, 2009 and 2019



Source: *CA Resident Births, by CY, Payer, Delivery System, and Select Birth Characteristics*, California Dept. of Health Care Services, last updated July 12, 2021.

### Maternity Care in California

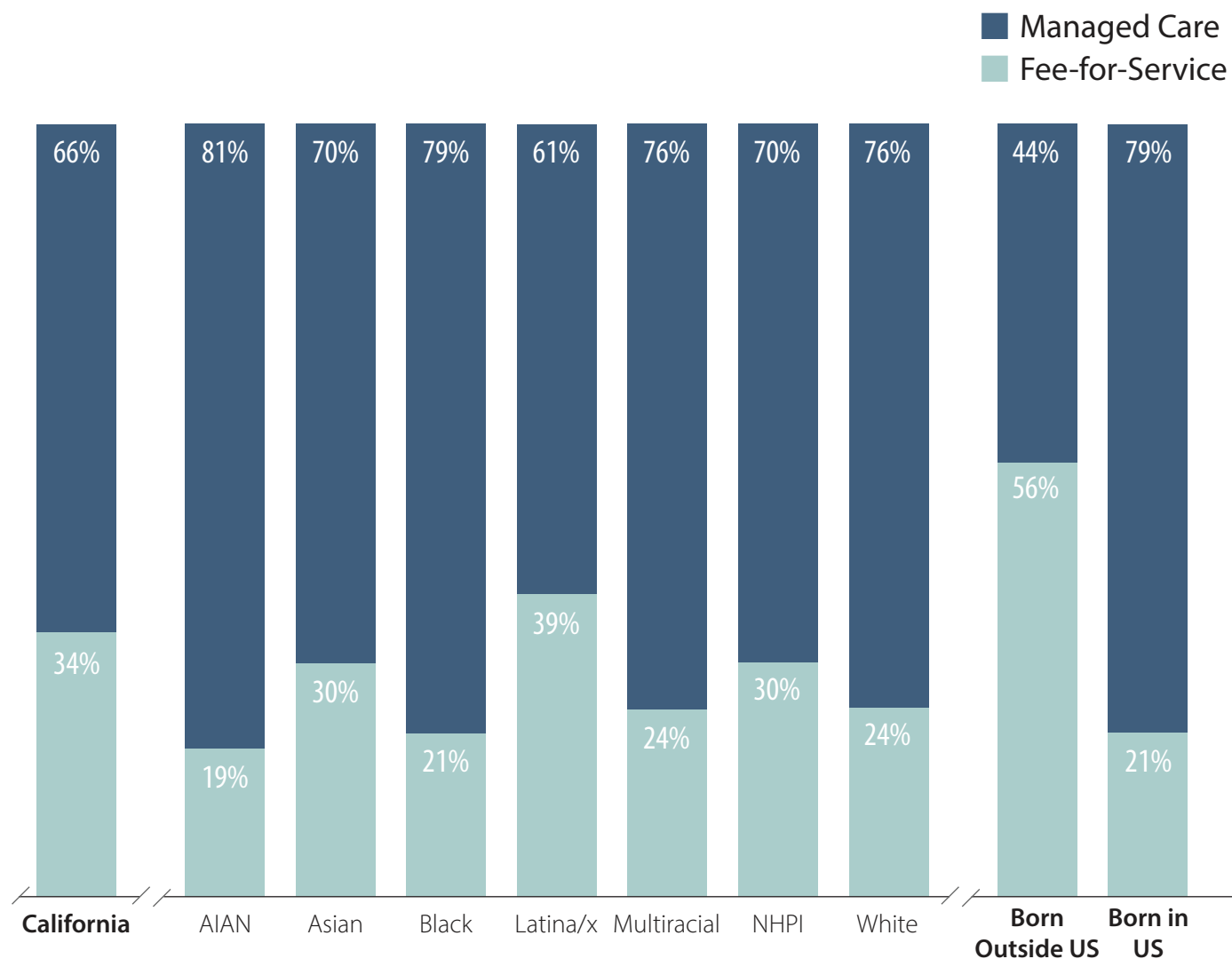
#### Births and Demographics

Over the last decade, Medi-Cal births covered through a managed care plan have grown, increasing from one in three Medi-Cal births in 2009 to two in three in 2019. During this time, enrollment in Medi-Cal managed care plans increased from 53% to 82% of total Medi-Cal enrollment (not shown).\*

\* Based on enrollment as of January 2010 and December 2019 in *Month of Eligibility, Delivery System and Health Plan, by County, Medi-Cal Certified Eligibility*, California Dept. of Health Care Services, accessed August 24, 2023.

# Medi-Cal Births, Fee-for-Service vs. Managed Care

by Race/Ethnicity and Country of Origin, California, 2019



Notes: AIAN is American Indian and Alaska Native. NHPI is Native Hawaiian and Pacific Islander. The source uses African American, Hispanic, and Two or More Races. Born outside US does not pertain to citizenship or documentation status.

Source: CA Resident Births, by CY, Payer, Delivery System, and Select Birth Characteristics, California Dept. of Health Care Services, last updated July 12, 2021.

## Maternity Care in California

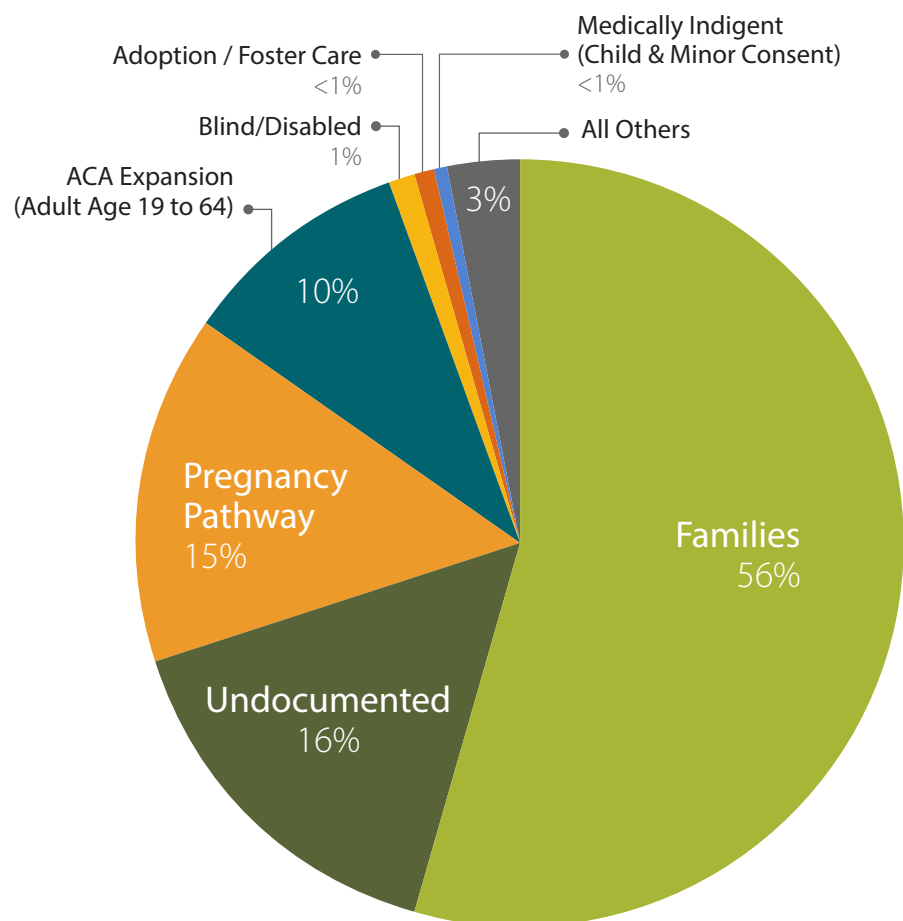
Births and Demographics

In 2019, two in three Medi-Cal births were covered through a managed care plan. Births to mothers / birthing people\* born outside the US were less likely to be covered through managed care than other groups.

\* Birthing people is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

# Medi-Cal Births, by Aid Category

## California, 2019



Notes: ACA is Affordable Care Act. *Pregnancy Pathway* is restricted scope — that is, limited to pregnancy-related and postpartum services for women who are not undocumented and whose family income is 200% FPL or below. *Families* refers to Section 1931(b) of the Social Security Act, which ensures that families who have children and are in financial need will get access to Medi-Cal. This eligibility category combines the eligibility criteria from several other programs including CalFresh, AFDC, and CalWORKs. Figures may not sum due to rounding.

Source: *Certified Eligible Medi-Cal Births, by CY, Geographic Region, and Select Birth Characteristics*, California Dept. of Health Care Services, last updated July 12, 2021.

### Maternity Care in California

#### Births and Demographics

In 2019, the majority of Medi-Cal births were covered through the Families aid category. One in six Medi-Cal births were to mothers / birthing people\* who were undocumented.

\* *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

# Medi-Cal Undocumented Births, by Enrollee Region

## California, 2017

Los Angeles

36%

Southern California

21%

Bay Area

15%

Central Valley

13%

Central Coast

10%

Sacramento Valley

3%

Sierra Range / Foothills

1%

Far North

<1%

North Coast

<1%

### Maternity Care in California

Births and Demographics

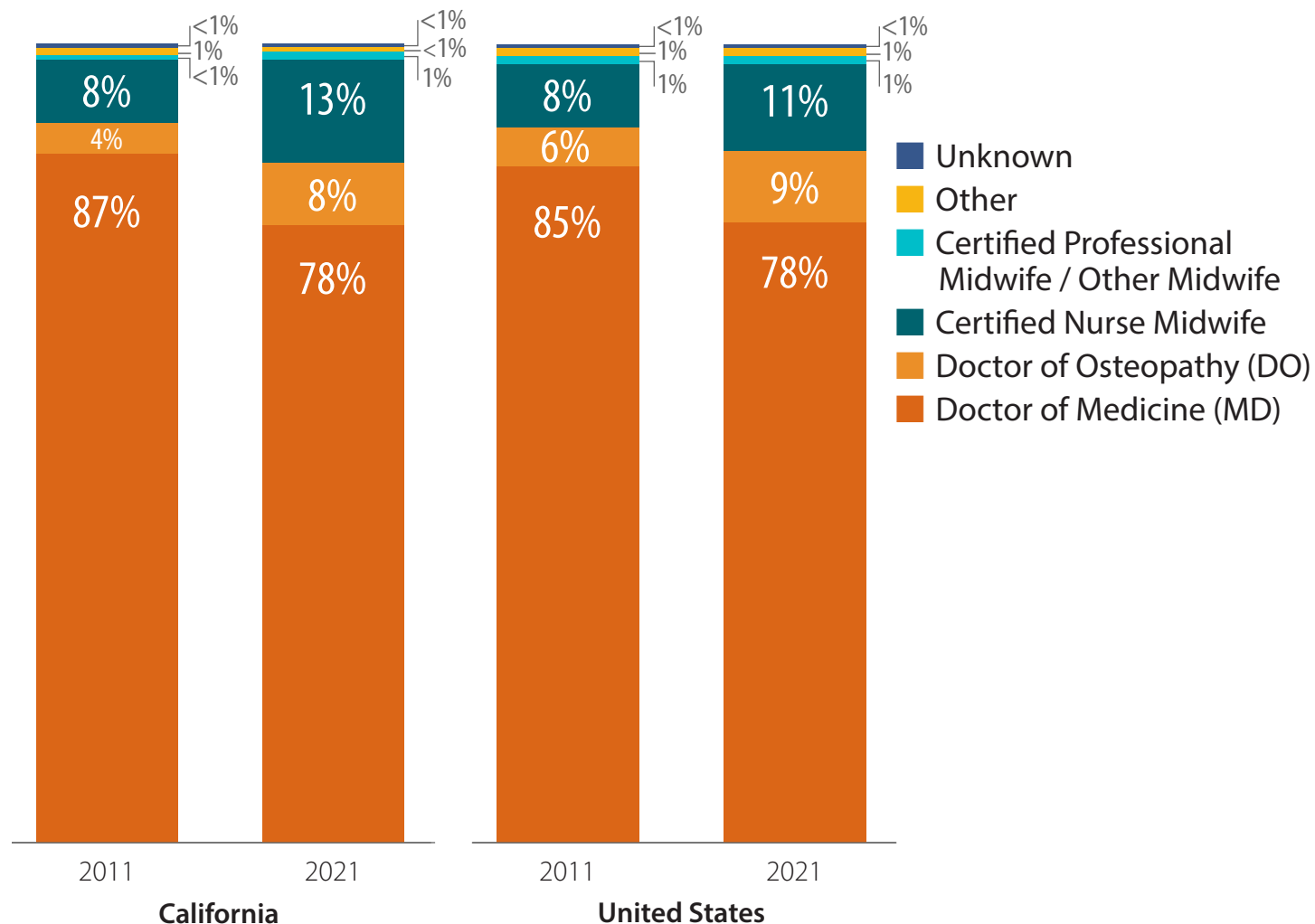
More than one-third of Medi-Cal births in 2017 to mothers / birthing people\* who were undocumented were in Los Angeles County.

Source: *Certified Eligible Medi-Cal Births, by CY, Geographic Region, and Select Birth Characteristics*, California Dept. of Health Care Services, last updated July 12, 2021.

\* *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

# Births, by Attendant

California vs. United States, 2011 and 2021



## Maternity Care in California

Workforce

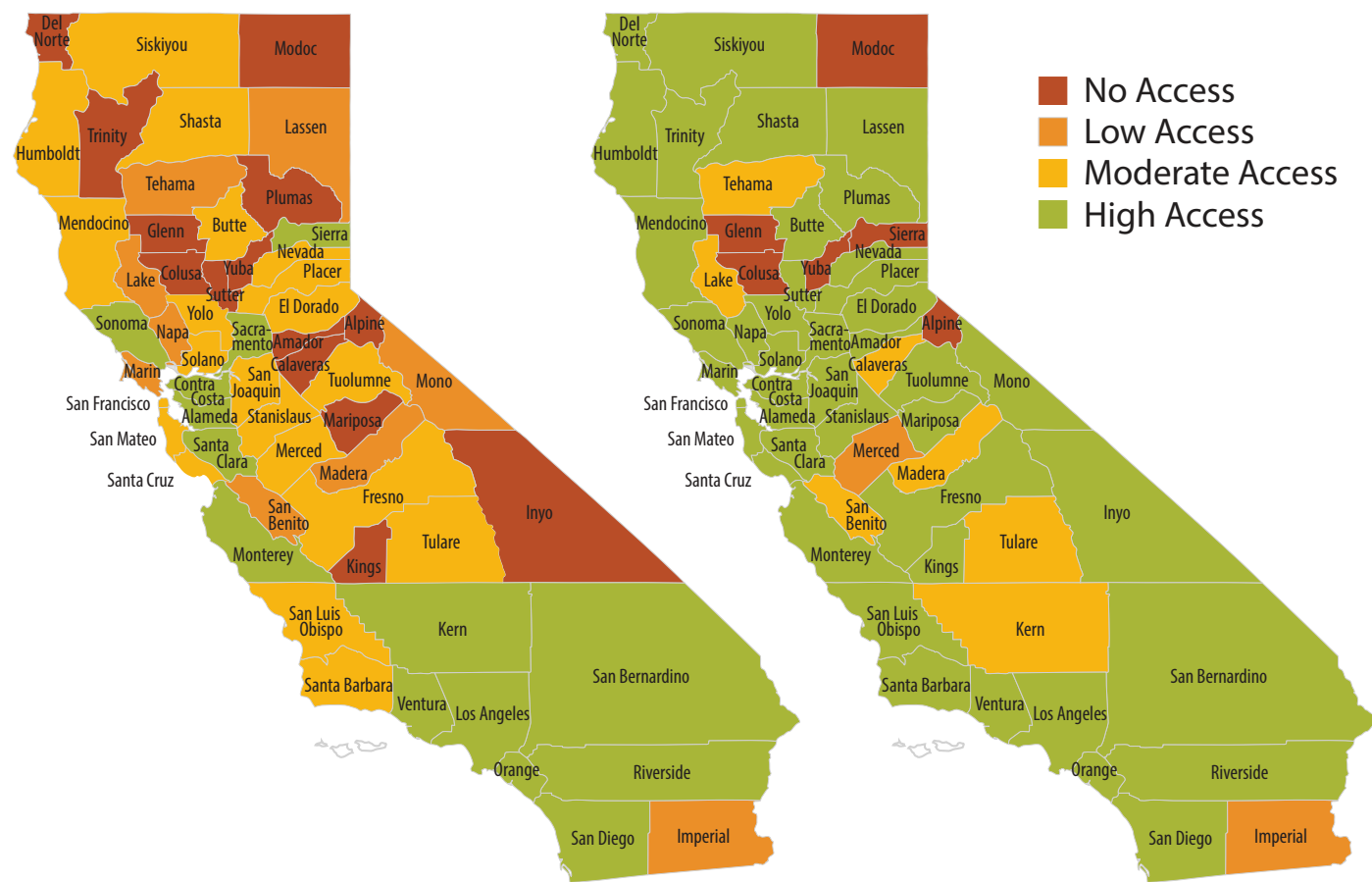
From 2011 to 2021, the percentage of births attended by midwives or by DOs in California and the United States increased, while births attended by MDs decreased. Midwives, the vast majority of whom were certified nurse midwives, attended one in eight California births in 2021.

Notes: Data are derived from birth certificates. Attendant at birth is the individual physically present who is responsible for the delivery. For example, if an intern or nurse midwife delivers an infant under the supervision of an obstetrician who is present in the delivery room, the obstetrician would be reported as the attendant. If the obstetrician is not physically present, the intern or nurse midwife would be reported as the attendant. *Certified nurse midwife* represents certified nurse midwife (CNM), certified midwife (CM), and advanced practice registered nurse (APRN). *Certified professional midwife / other* represents a midwife other than CNM/CM/APRN. Source uses *other midwife*. Figures may not sum due to rounding. Excludes *Unknown or not stated*. See [Appendix B](#) for an overview of select maternity care workforce professions.

Source: "Natality Information: Live Births" (2007–21), CDC WONDER Database, Centers for Disease Control and Prevention, accessed January 31, 2023.

# Access to Maternity Care Providers

## California, 2022



Notes: Access to hospital with obstetrics care or birth center--no access is defined as 0 hospitals / birth centers; low access is 1; moderate access is 2 to 4; high access is 5 or more. Access to obstetric provider--no access is defined as 0 obstetricians / certified nurse midwives; low access is 1 to 29 per 10,000 births; moderate access is 30 to 59 per 10,000 births; high access is 60 or more per 10,000 births.

Source: "March of Dimes Maternity Care Deserts Dashboard," Deloitte, accessed May 10, 2023.

### Maternity Care in California

Workforce

Access to quality maternal care is essential for positive birth outcomes. In California, 46,000 women age 15 to 44 live in counties with no hospitals with obstetrics care or birth centers, and an additional 76,000 live in counties with only one hospital with obstetrics care or a birth center. Fifty-one thousand women age 18 to 44 live in counties with fewer than 29 obstetricians or certified nurse midwives per 10,000 births.



# Active Obstetrician/Gynecologists per 1,000 Live Births by Region, California, 2020

Greater Bay Area

14.3

Orange County

12.0

Sacramento Area

10.8

Los Angeles County

10.6

San Diego Area

9.7

Central Coast

8.0

San Joaquin Valley

5.6

Inland Empire

5.2

Northern and Sierra

5.2

9.6 CALIFORNIA

Notes: Active obstetrician/gynecologists (ob/gyns) are based on self-reported data and defined as doctors of medicine (MDs) with active California licenses, California addresses, primary practice area in obstetrics and gynecology, and 20 or more weekly patient care hours as of July 1, 2020. Region is based on physician's address of record with the Medical Board of California. See [Appendix A](#) for a map of counties in each region.

Sources: Author calculations based on *Physicians by Specialty and Patient Care Hours*, California Health and Human Services Agency, last updated April 22, 2022; and "Births," California Dept. of Public Health, last updated February 6, 2023.

## Maternity Care in California

### Workforce

In 2020, about 4,000 obstetricians/gynecologists (ob/gyns) were active in patient care—that is, had 20 or more weekly patient care hours, in California. The supply of licensed ob/gyns varied across the state. The US Department of Health and Human Services projects that demand for ob/gyns in California will exceed supply by 1,160 full-time equivalents by 2030, based on current use patterns.\*

\* *Projections of Supply and Demand for Women's Health Service Providers: 2018-2030* (PDF), Health Resources and Services Administration, March 2021.

# Nurse Midwives per 1,000 Births, by Region

## California, 2021

Greater Bay Area

4.9

Northern and Sierra

4.9

Central Coast

3.7

San Diego Area

3.5

Sacramento Area

2.8

Orange County

2.7

Los Angeles

2.0

Inland Empire

1.2

San Joaquin Valley

1.1

2.8 CALIFORNIA

Notes: *Nurse midwives* are registered nurses who, having received a certificate from the Board of Registered Nursing (BRN), attend cases of normal childbirth and provide prenatal, intrapartum, and postpartum care, including family planning care for mothers / birthing people and immediate care for the newborn. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Data include nurse midwives licensed by the BRN in fiscal year 2021 with a California address of record. See [Appendix A](#) for a map of counties in each region.

Sources: Author calculation based on "DCA Active License Population by County," California Dept. of Consumer Affairs; and "Births," California Dept. of Public Health, last updated February 6, 2023.

## Maternity Care in California

### Workforce

In 2021, 1,163 nurse midwives were licensed in California. Many nurse midwives are also nurse practitioners and practice in that capacity rather than as midwives.<sup>†</sup> The supply of nurse midwives varied across California, from one per 1,000 births in San Joaquin Valley and the Inland Empire to five per 1,000 births in the Greater Bay Area and Northern and Sierra regions.

<sup>†</sup> Joanne Spetz et al., *2017 Survey of Nurse Practitioners and Certified Nurse Midwives*, California Board of Registered Nursing, April 11, 2018.

# Licensed Midwives

## California, 2011 and 2021

|   | 2011       | 2021       | % CHANGE     |
|---|------------|------------|--------------|
| <b>Licensed Midwives</b>  | <b>241</b> | <b>421</b> | <b>74.7%</b> |
| • Clients served as primary caregiver at onset of care                | 3,934      | 7,976      | 102.7%       |
| • Planned out-of-hospital births at onset of labor                    | 2,611      | 5,354      | 105.1%       |
| • Planned out-of-hospital births completed in out-of-hospital setting | 2,123      | 4,511      | 112.5%       |

Notes: Data are self-reported. Births attended by licensed midwife as the primary caregiver during the calendar year. *Licensed midwives* are licensed by the Medical Board of California and authorized to attend cases of normal pregnancy and childbirth, and to provide prenatal, intrapartum, and postpartum care.

Source: *Licensed Midwife Annual Report Summary* (2011, and 2021[in press]), Medical Board of California.

### Maternity Care in California

#### Workforce

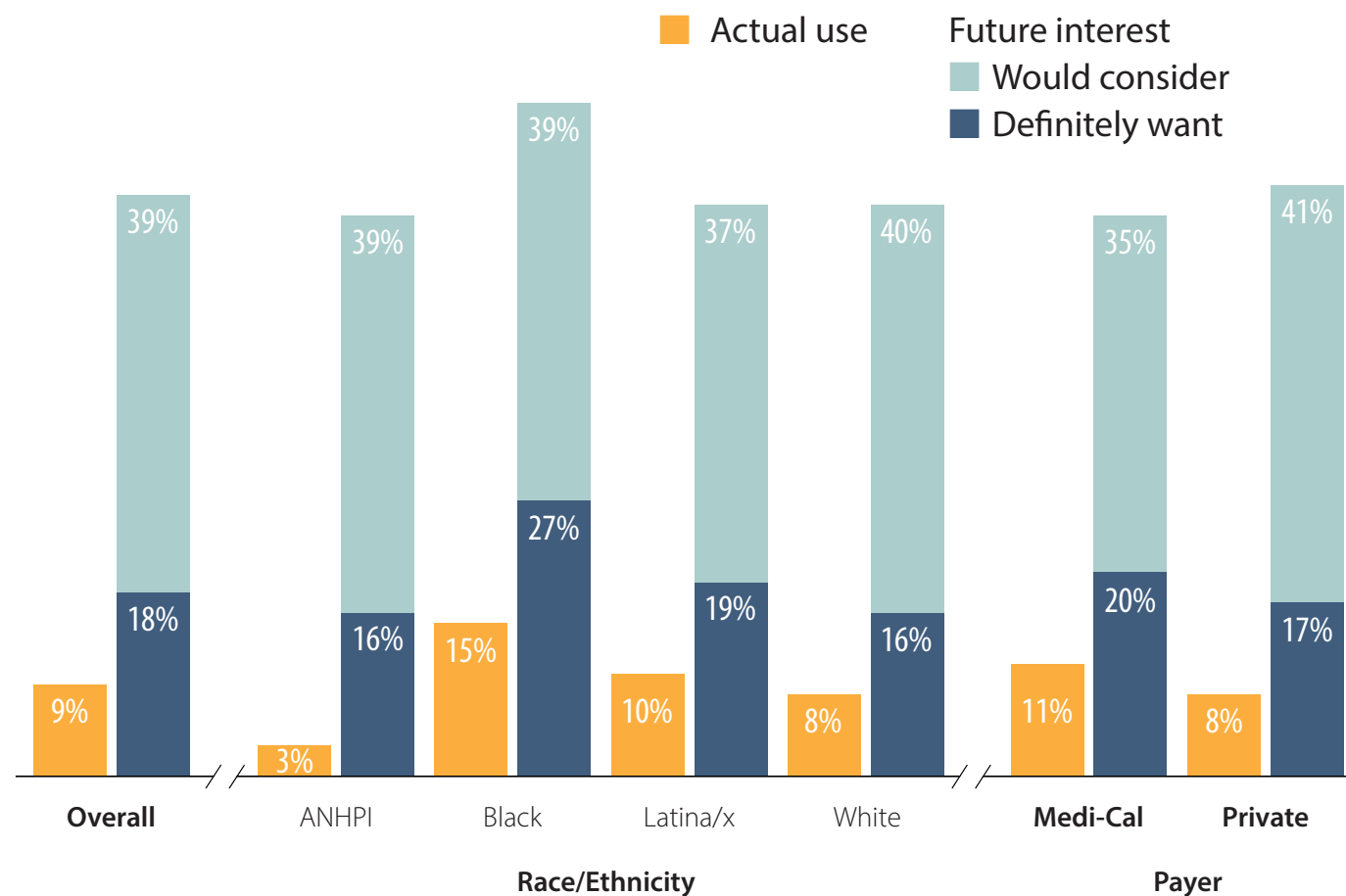
From 2011 to 2021, California's supply of licensed midwives (LMs) nearly doubled, and clients served and births attended by LMs more than doubled. Despite this significant growth, out-of-hospital births attended by LMs represent a very small portion of total births in the state. In a statewide survey, many mothers / birthing people\* expressed interest in using midwives for future births.†

\* *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

† Carol Sakala, Eugene R. Declercq, and Jen Joynt, *Listening to Mothers in California*, California Health Care Foundation, September 2018.

# Labor Doula Use: Actual and Future Interest

by Race/Ethnicity and Payer, California, 2016



Notes: Data are from a survey of 1,433 women / birthing people who speak primarily English at home due to evidence of overcounting the doula role among some non-English speakers. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Respondents were asked, "If you have a future pregnancy, how open would you be to having the support of a doula (trained labor companion) while you are giving birth? A *labor doula* is a nonclinician health worker who offers women / birthing people continuous support during labor, such as comfort measures and encouragement. "Would definitely not want this" and "Not sure" not shown. ANHPI is Asian, Native Hawaiian, and Pacific Islander. Medi-Cal respondents were identified based on a Medi-Cal record of a paid 2016 childbirth claim. *Private* respondents self-identified in the survey. Not all eligible respondents answered each item.

Source: Carol Sakala, Eugene R. Declercq, and Jen Joynt, *Listening to Mothers in California*, California Health Care Foundation, September 2018.

## Maternity Care in California

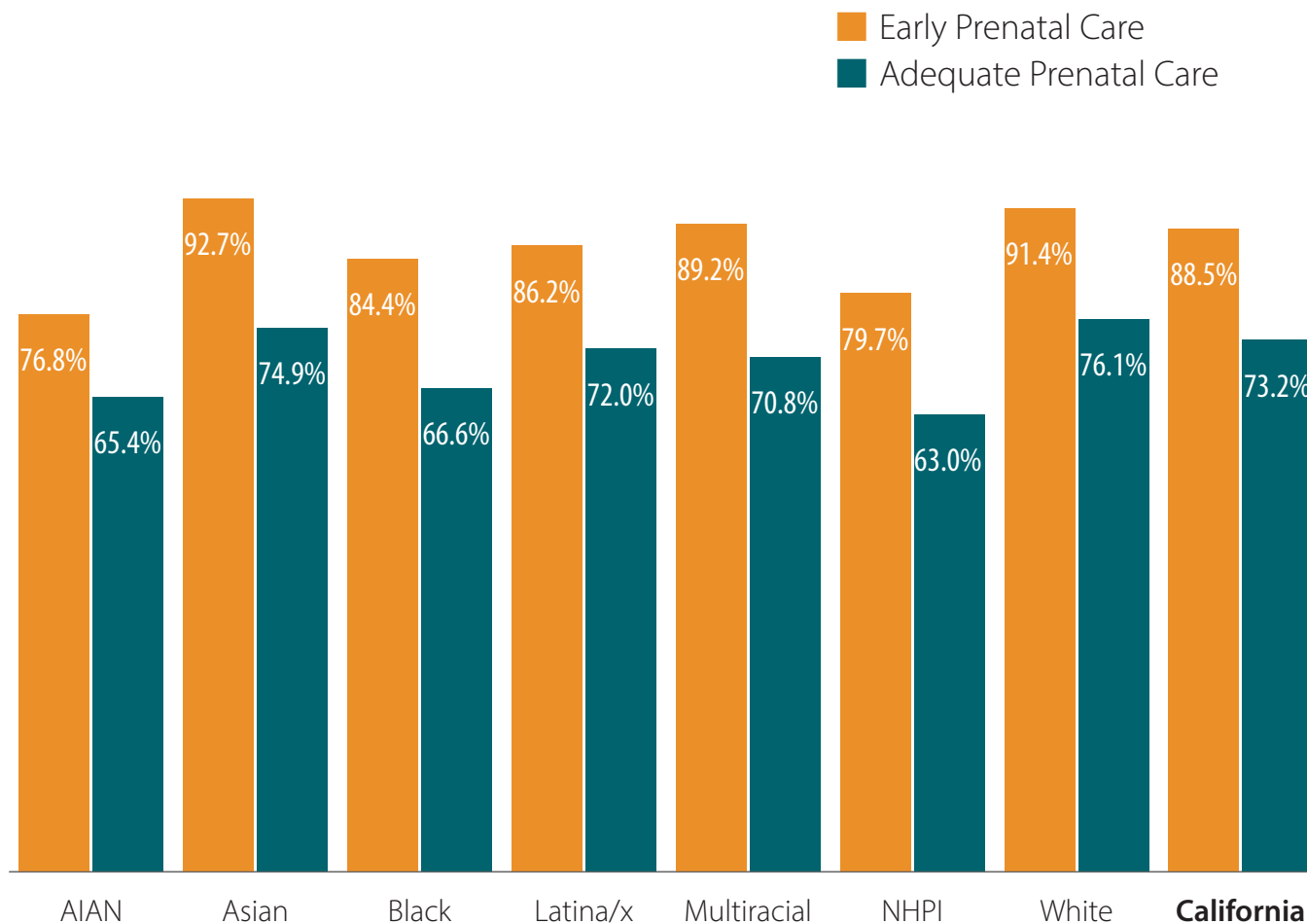
Workforce

Interest in doula support for a future birth was high among California women / birthing people and exceeded actual use for their recent birth. Nearly one in five women / birthing people said they would definitely want and two in five would consider doula support for a future birth.

# Prenatal Care, by Race/Ethnicity

## California, 2021

PERCENTAGE OF LIVE BIRTHS



Notes: Births by place of residence. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander. Data source uses *Hispanic*, *Multi-Race*, and *Pacific Islander*. *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.

Source: "Prenatal Care," California Dept. of Public Health, last updated February 3, 2023.

### Maternity Care in California

Quality

Prenatal care has been shown to improve pregnancy outcomes, such as decreasing the risk of low birthweight and infant mortality.\* In California, pregnant mothers / birthing people<sup>†</sup> receiving early or adequate prenatal care varied by race/ethnicity. In 2021, 73% of mothers / birthing people in California received adequate prenatal care, below the Healthy People 2030 target of 80.5%.<sup>‡</sup>

\* **"Prenatal Care,"** US Dept. of Health and Human Services, last updated February 22, 2021.

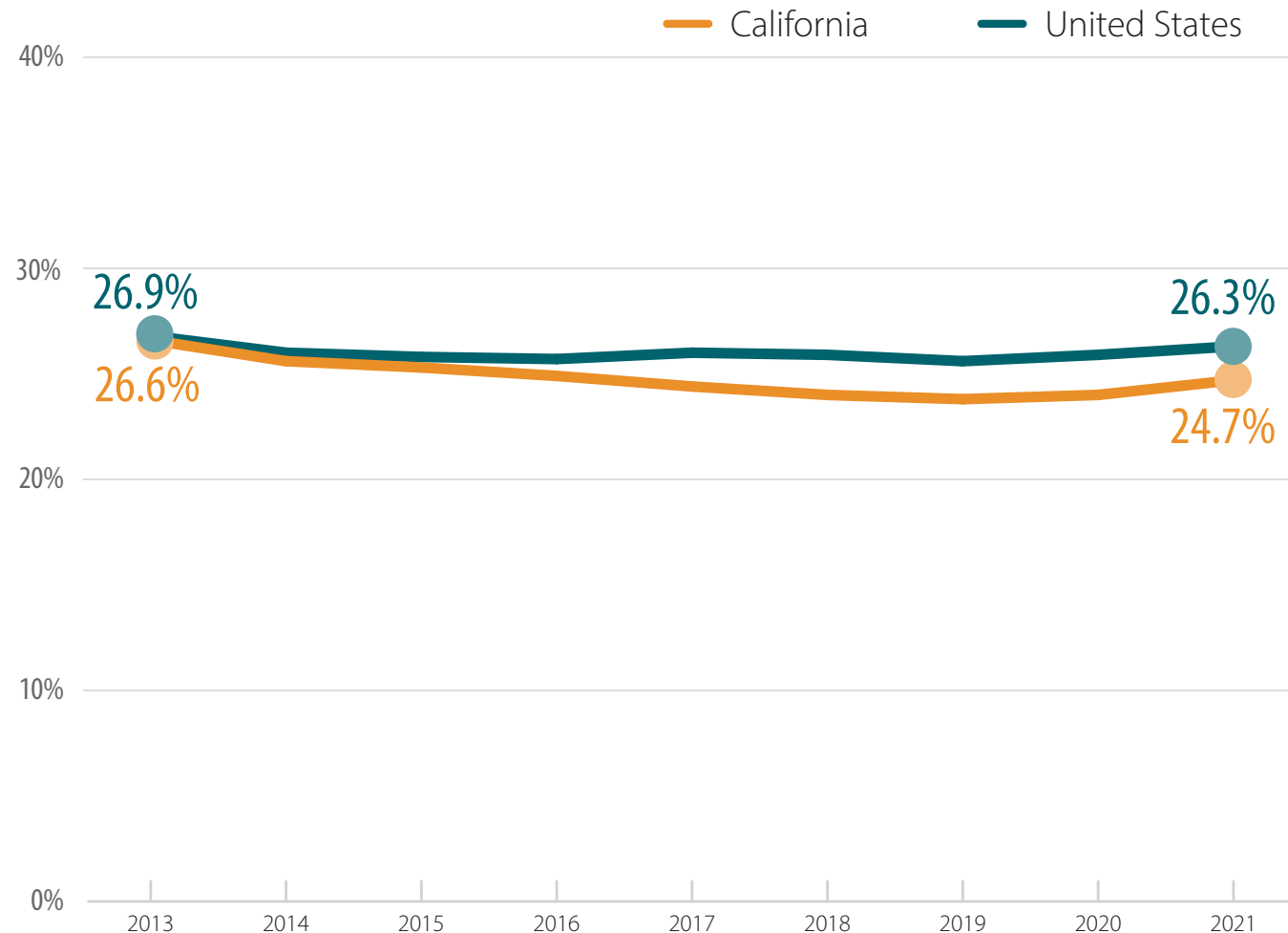
† *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

‡ Healthy People 2030 sets data-driven national objectives to improve health and well-being over the next decade (see <https://health.gov/healthypeople>).

# Low-Risk, First-Birth Cesarean Rate

## California vs. United States, 2013 to 2021

PERCENTAGE OF LIVE BIRTHS



Notes: *Low-risk, first-birth cesarean rate* represents the percentage of cesarean deliveries among first-time mothers / birthing people delivering a single baby in a head-down position after 37 weeks gestational age. The technical term for this measure is the nulliparous, term, singleton, vertex cesarean birth rate. A lower rate is better. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

Sources: "Births: Final Data for [2013–21]" (PDF) (reports and internet tables), *National Vital Statistics Reports* (births and reports); and *Trends in Low-Risk Cesarean Delivery in the United States 1990-2013* (PDF), *National Vital Statistics Reports* 63, no. 6 (Nov. 5, 2014).

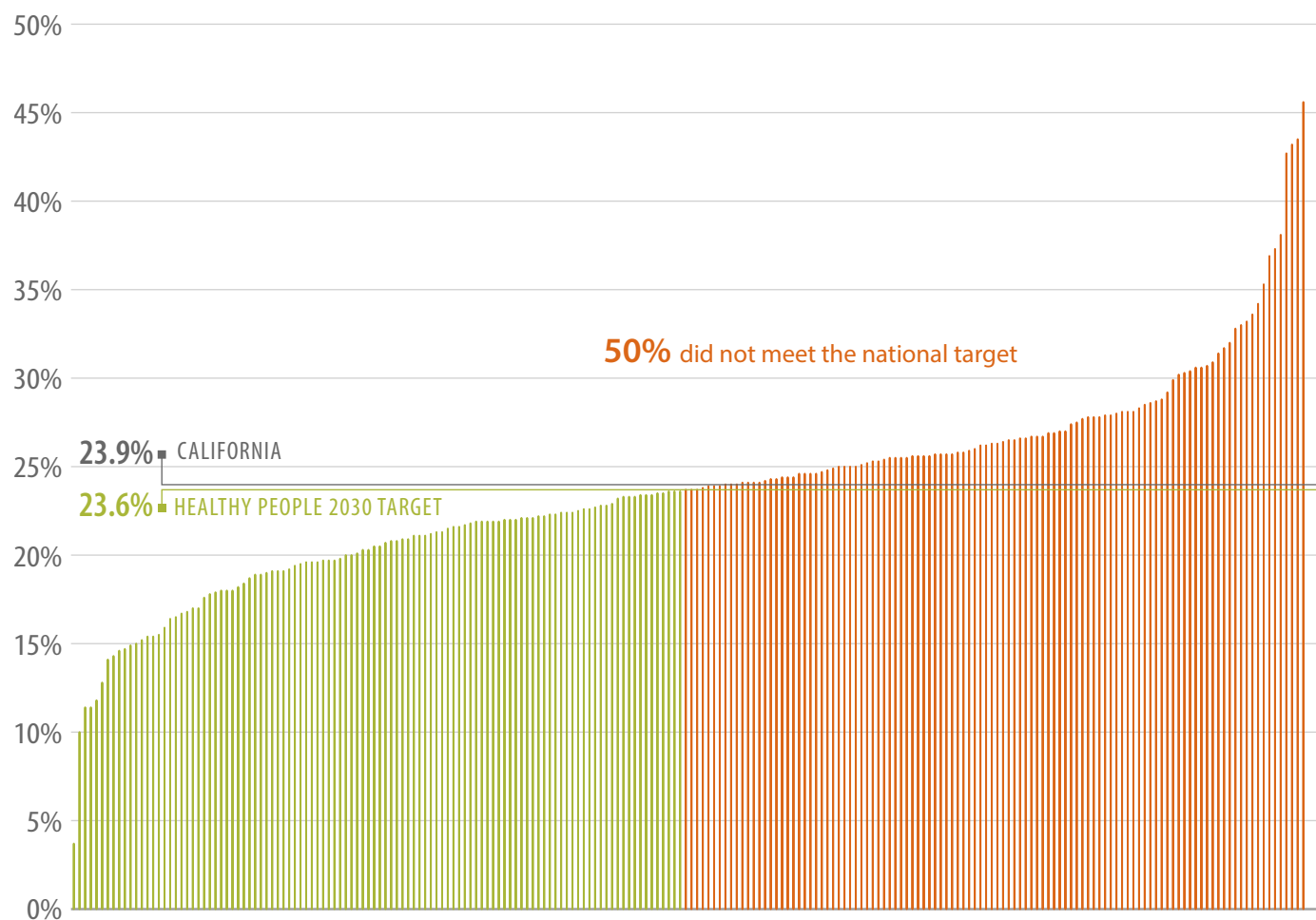
### Maternity Care in California

Quality

California's low-risk, first-birth cesarean rate has been lower than the nation's since 2014. Rates increased slightly in 2021, which may be due to COVID-19. Cesarean deliveries, while sometimes necessary, are associated with higher rates of maternal complications, higher admissions to the neonatal intensive care unit, and increased barriers to breastfeeding.\*

\* **"Supporting Vaginal Birth,"** California Maternal Quality Care Collaborative.

# Low-Risk, First-Birth Cesarean Rate, by Hospital California, 2021



Notes: Each line represents one of California's 218 hospitals that performed deliveries in 2021 and reported data to the California Department of Health Care Access and Information. *Low-risk, first-birth cesarean rate* represents the percentage of cesarean deliveries among first-time mothers / birthing people delivering a single baby in a head-down position after 37 weeks gestational age. The technical term for this measure is the nulliparous, term, singleton, vertex cesarean birth rate. Healthy People 2030 sets data-driven national objectives to improve health and well-being over the next decade (see <https://health.gov/healthypeople>). *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

## Maternity Care in California

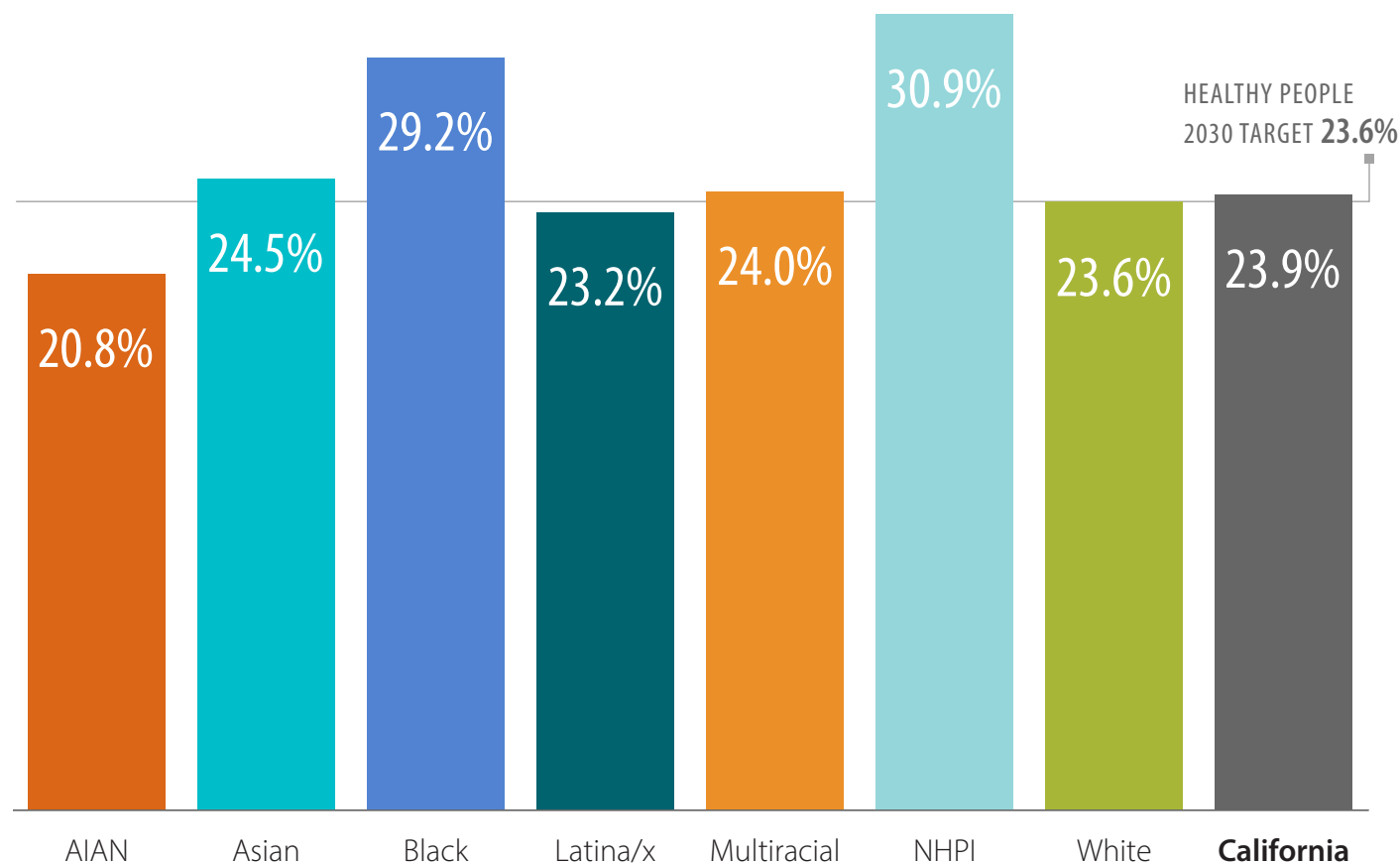
### Quality

In 2021, 23.9% of in-hospital births (37,000) were low-risk, first-birth cesareans (c-sections), a decline from 26.1% in 2014 (not shown). Hospital rates ranged from 4% to 46% of low-risk births delivered by c-section. Half of California hospitals had rates exceeding the Healthy People 2030 goal of 23.6%.

# Low-Risk, First-Birth Cesarean Rate, by Race/Ethnicity

## California, 2021

PERCENTAGE OF LIVE BIRTHS



Notes: Data are based on in-hospital births at nonmilitary hospitals that performed deliveries in 2021 and reported data to the California Department of Health Care Access and Information. *Low-risk, first-birth cesarean rate* represents the percentage of cesarean deliveries among first-time mothers / birthing people delivering a single baby in a head-down position after 37 weeks gestational age. The technical term for this measure is the nulliparous, term, singleton, vertex cesarean birth rate. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander. Healthy People 2030 sets data-driven national objectives to improve health and well-being over the next decade (see <https://health.gov/healthypeople>). *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

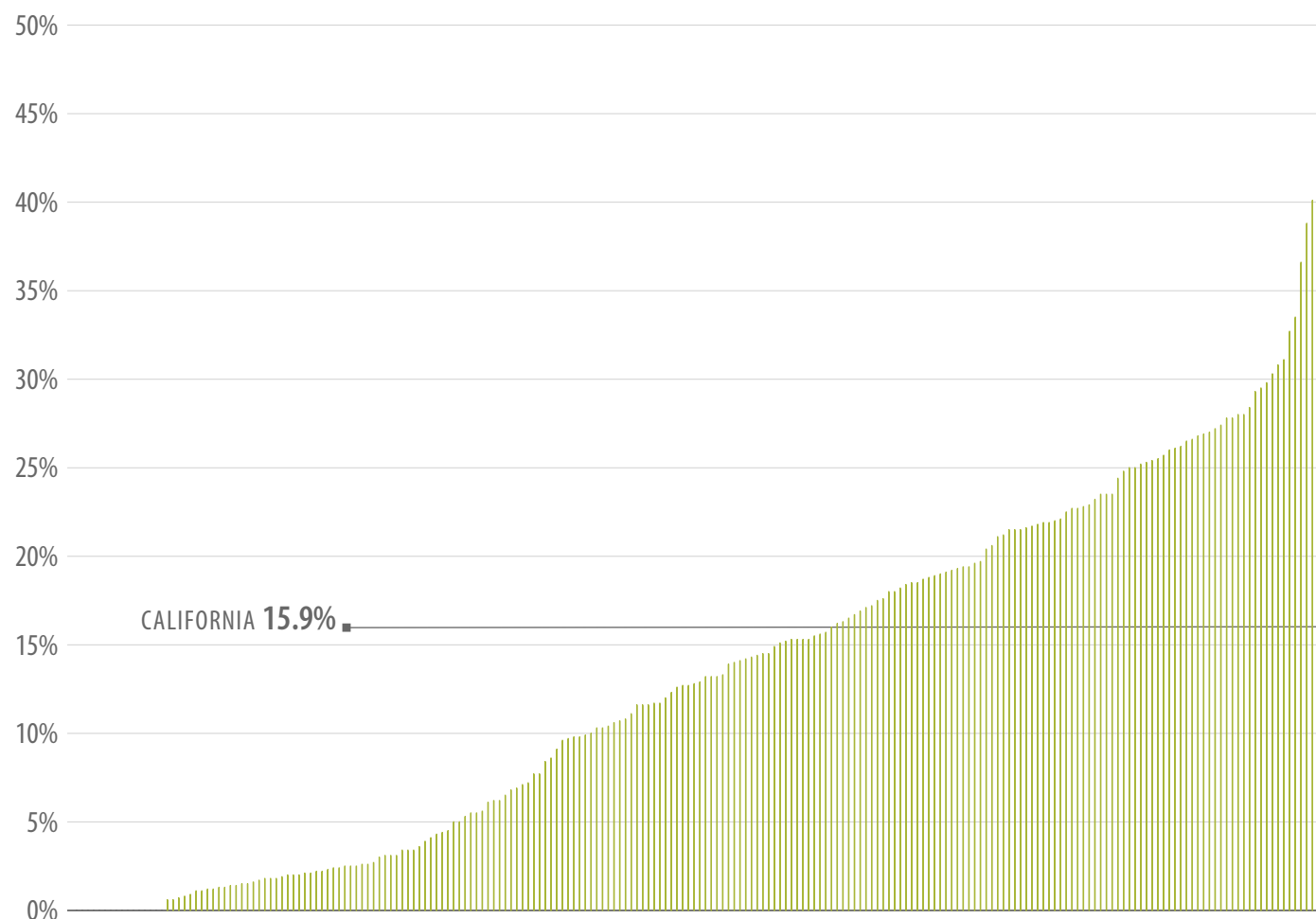
### Maternity Care in California

Quality

Low-risk, first-birth cesarean rates varied by race/ethnicity. Both Black and Native Hawaiian and Pacific Islander mothers / birthing people had rates about six percentage points higher than the national target.



# Vaginal Birth After Cesarean Delivery Rate, by Hospital California, 2021



Notes: Each line represents one of California's 219 hospitals that performed deliveries in 2021 and reported data to the California Department of Health Care Access and Information. The *vaginal birth after cesarean* rate measures the number of mothers / birthing people achieving a successful vaginal delivery among all those with a prior c-section. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

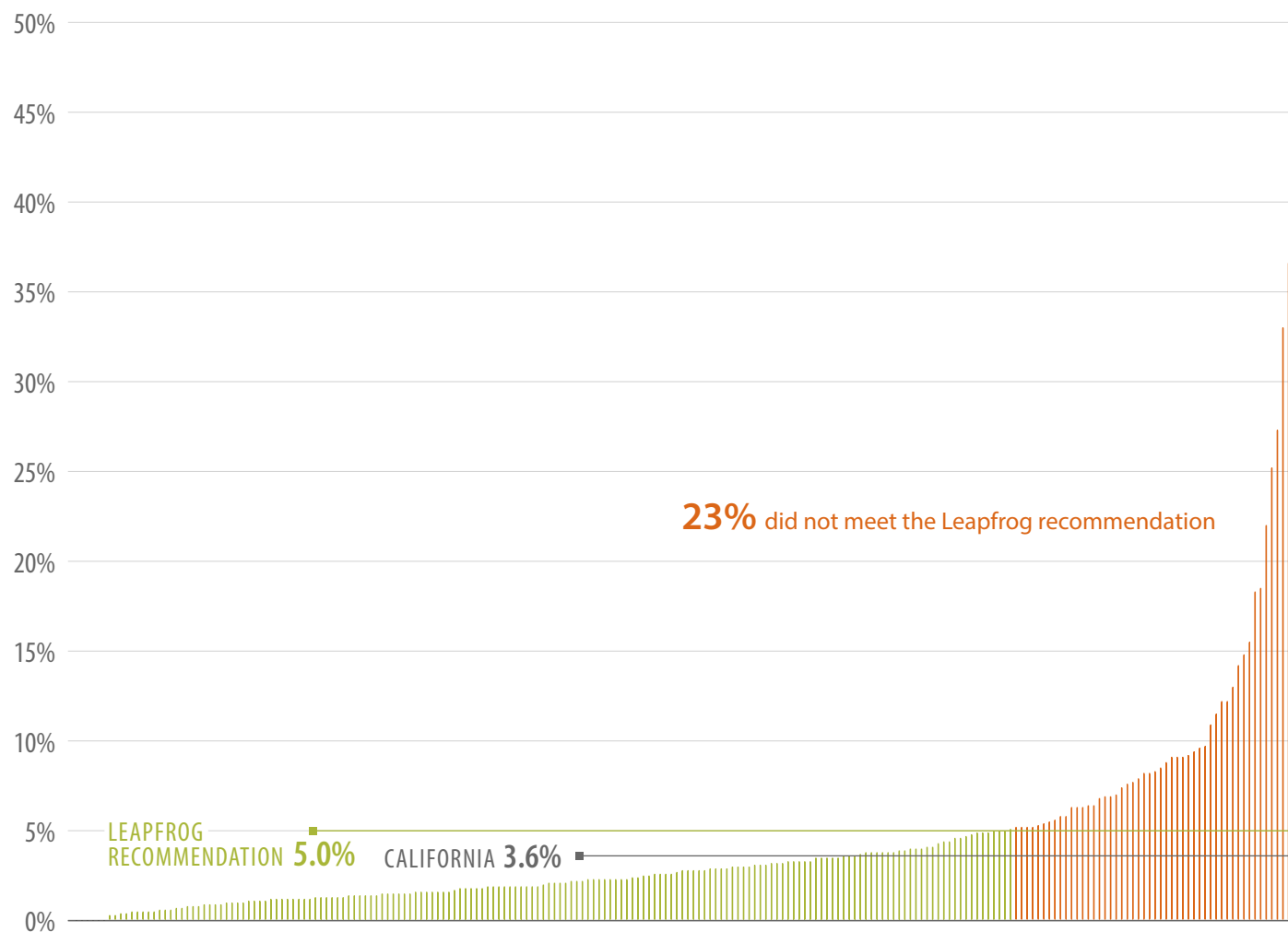
Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

## Maternity Care in California Quality

For many mothers / birthing people, vaginal births after cesarean deliveries (VBACs) are safe and often preferable to repeat cesarean sections (c-sections). The risk of serious complications increases with each subsequent c-section.\* In California, the VBAC rate increased from 11% in 2014 (not shown) to 16% in 2021. However, large variations in rates by hospitals persist.

\* **"Research and Evidence,"** Natl. Partnership for Women & Families.

# Episiotomy Rate, by Hospital California, 2021



Note: Each line represents one of California's 220 hospitals that performed deliveries in 2021 and reported data to the California Department of Health Care Access and Information.  
Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

## Maternity Care in California Quality

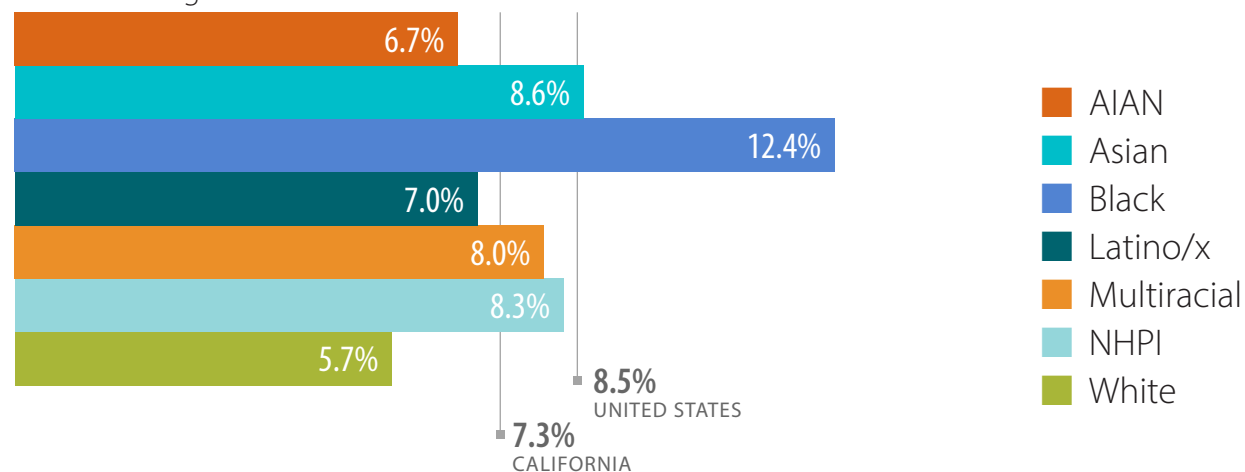
The American Congress of Obstetricians and Gynecologists recommends limiting the use of episiotomies, in which a surgical cut is made in the vaginal opening to make more space for birth. Since 2014, California hospitals have reduced the use of episiotomies from 11.7% (not shown) to 3.6%. About one in four California hospitals had rates higher than the Leapfrog recommendation of 5%.\*

\* **Factsheet: Maternity Care** (PDF), Leapfrog Group, last revised April 1, 2023.

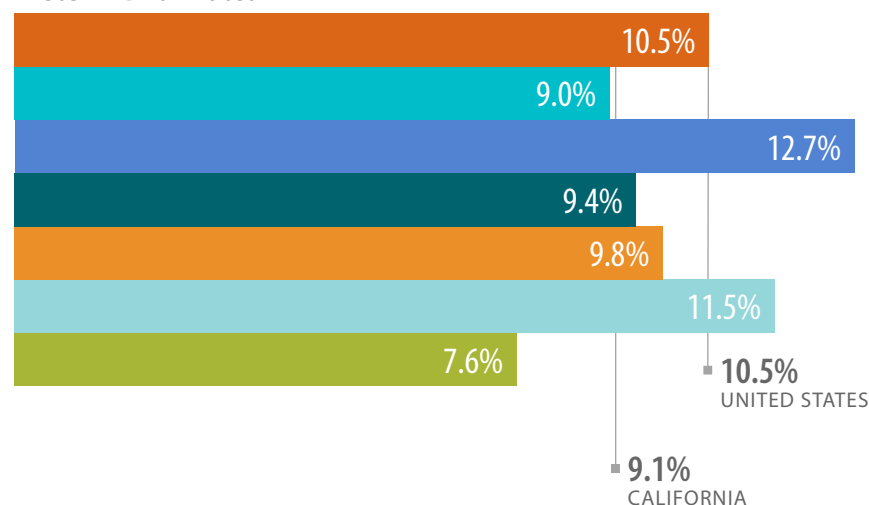
# Low-Birthweight and Preterm Birth Rates, by Race/Ethnicity

## California, 2021

### Low-Birthweight Births



### Preterm Birth Rates



Notes: *Low birthweight* birth is an infant born weighing less than 2,500 grams, or 5 pounds, 8 ounces. *Preterm* birth is a birth at less than 37 completed weeks of gestation. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander. Source uses *Hispanic*, *Multi-Race*, and *Pacific Islander*.

Sources: "Preterm Birth," California Dept. of Public Health (CDPH), last updated January 26, 2023; and "Low Birthweight," CDPH, last updated March 6, 2023.

### Maternity Care in California

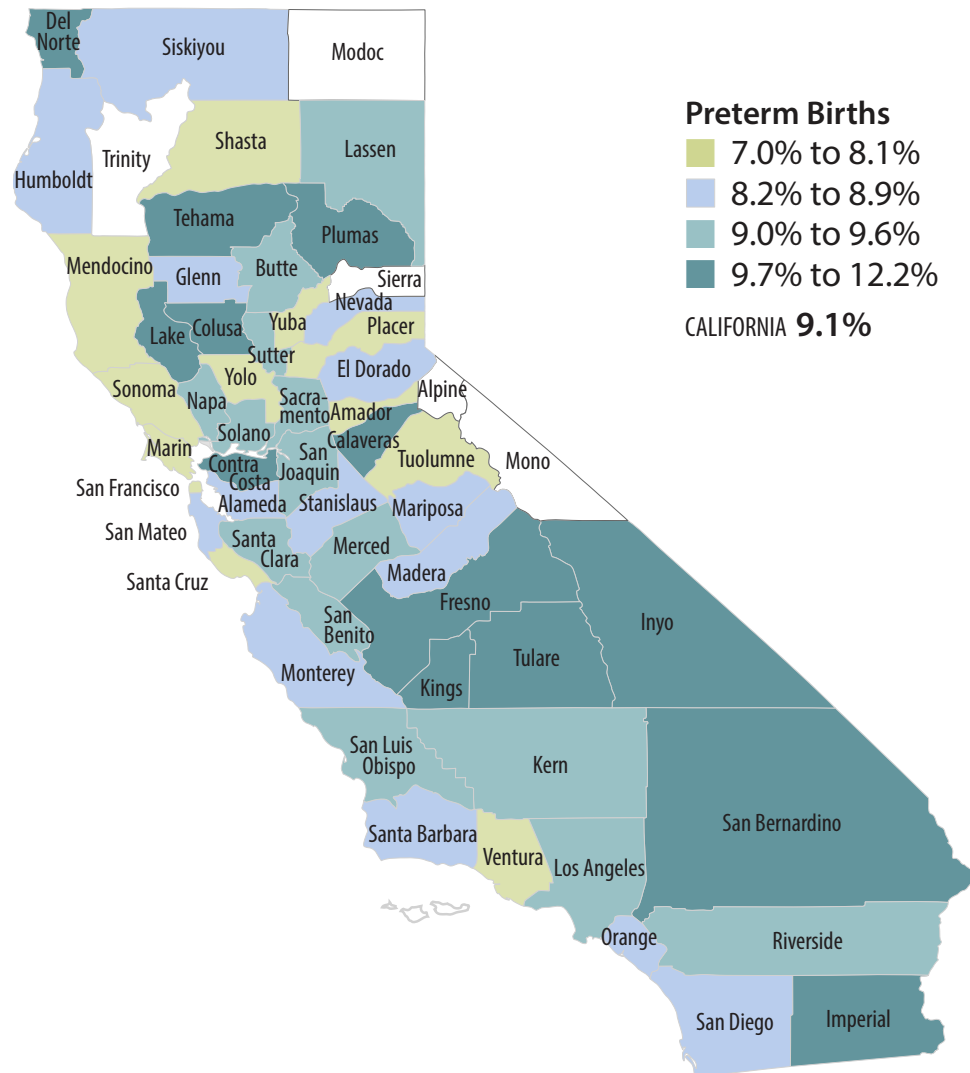
#### Quality

Low-birthweight and preterm babies are at increased risk for long-term health problems. California's low-birthweight and preterm birth rates varied by race/ethnicity. Black infants had the highest low-birthweight rate. Black, Native Hawaiian and Pacific Islander, American Indian and Alaska Native, and multiracial infants had preterm birth rates above the Healthy People 2030 target of 9.4%.\*

\* Healthy People 2030 sets data-driven national objectives to improve health and well-being over the next decade (see <https://health.gov/healthypeople>).

# Preterm Birth Rates, by County

## California, 2021



Notes: *Preterm* birth is a birth at less than 37 completed weeks of gestation. Data include births with gestational age of 17 to 47 weeks. Rates are not shown for counties with fewer than 10 preterm births.

Source: "Preterm Birth," California Dept. of Public Health, last updated January 26, 2023.

### Maternity Care in California

Quality

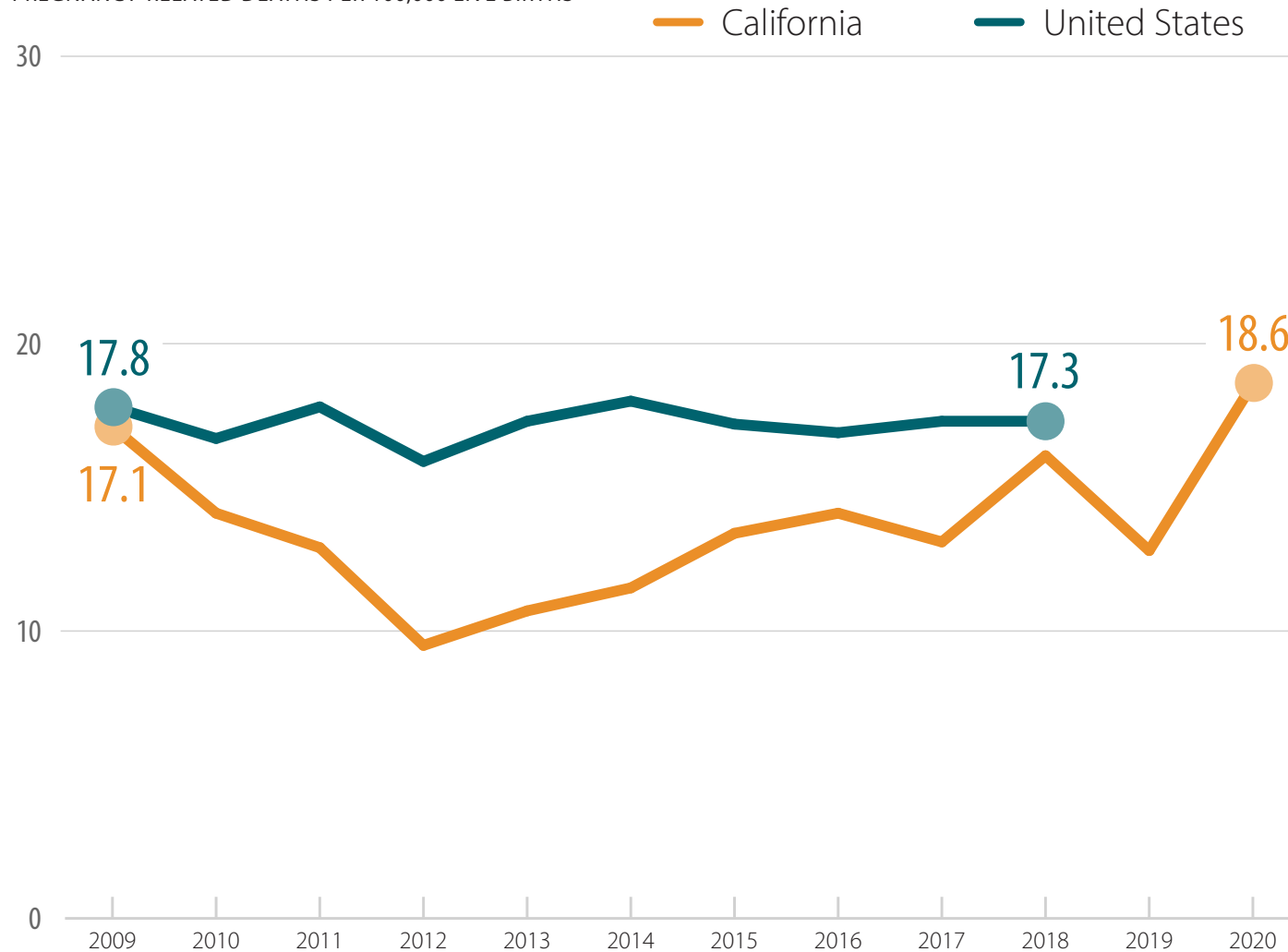
Preterm birth is a leading contributor to infant death and can cause lifelong health problems in surviving infants including breathing problems, vision problems, cerebral palsy, and developmental delays.\* Preterm birth rates varied widely across California counties, from a low of 7% in Placer County to a high of 12% in Colusa County.

\* "Preterm Birth," Centers for Disease Control and Prevention, last reviewed November 1, 2022.

# Pregnancy-Related Mortality Rate

## California vs. United States, 2009 to 2020

PREGNANCY-RELATED DEATHS PER 100,000 LIVE BIRTHS



Notes: *Pregnancy-related mortality* is a death while pregnant or within one year of the end of pregnancy — regardless of the outcome, duration, or site of the pregnancy — from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (including suicide, homicide, or drug overdose).

Source: "Pregnancy-Related Mortality," California Dept. of Public Health, last updated March 9, 2023.

### Maternity Care in California

#### Quality

California's pregnancy-related mortality rate has fluctuated since 2009. It increased by 45% from 2019 to 2020, possibly due to COVID-19.\* About one in four deaths occurred on the day of delivery between 2018 and 2020 (not shown). A recent CDC analysis found that more than four in five pregnancy-related deaths were preventable.†

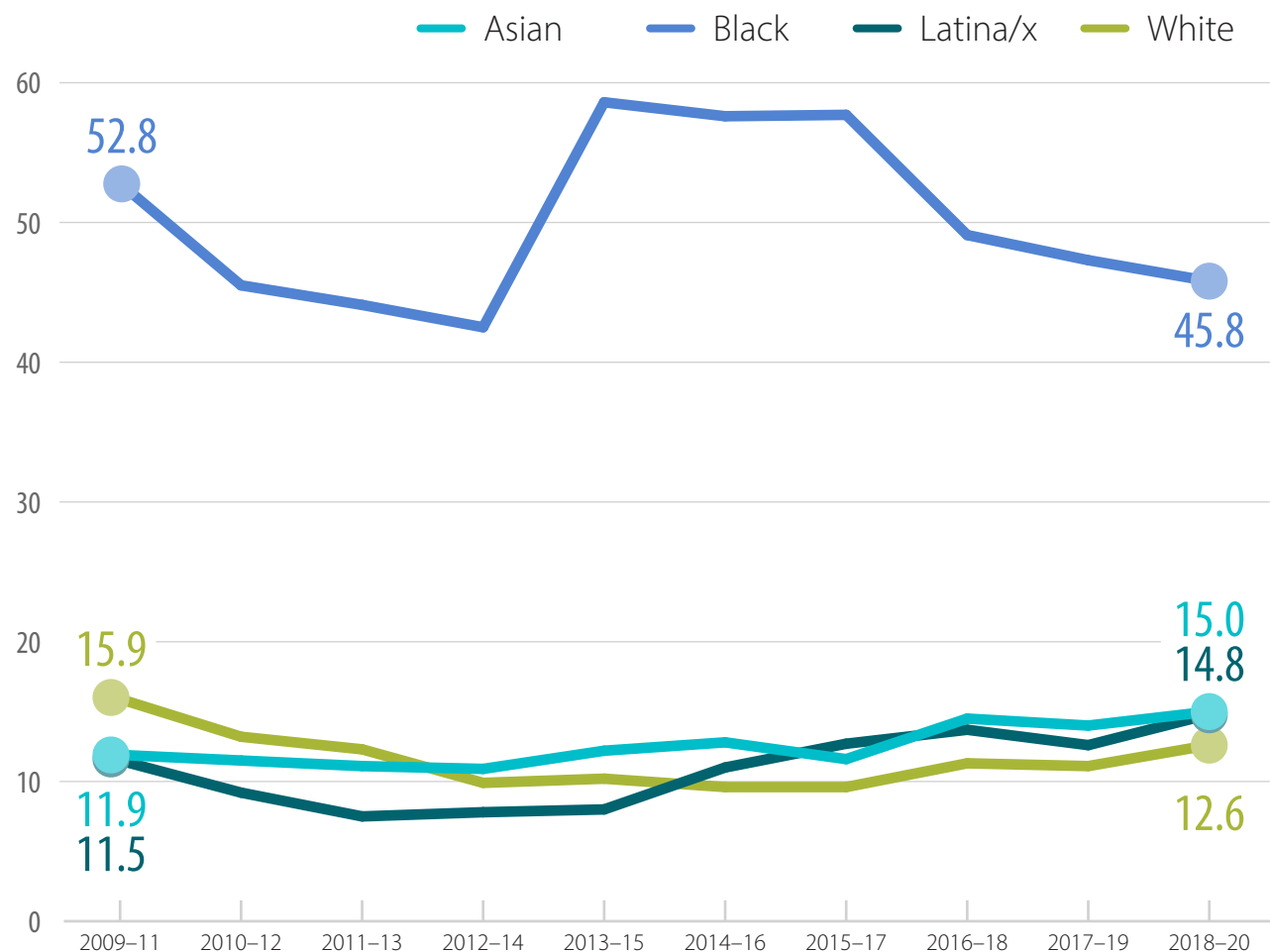
\* Marissa Evans, "Maternal Deaths Surged During the Pandemic. How California Is Fighting That Trend," *Los Angeles Times*, March 19, 2023.

† Susanna Trost et al., "Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019," Centers for Disease Control and Prevention (CDC), last reviewed September 19, 2022.

# Pregnancy-Related Mortality, by Race/Ethnicity

## California, 2009 to 2020

PREGNANCY-RELATED DEATHS PER 100,000 LIVE BIRTHS



Notes: *Pregnancy-related mortality* is a death while pregnant or within one year of the end of pregnancy — regardless of the outcome, duration, or site of the pregnancy — from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (including suicide, homicide, or drug overdose). Three-year moving average was used. Source uses *Hispanic*.

Source: "Pregnancy-Related Mortality," California Dept. of Public Health, last updated March 9, 2023.

### Maternity Care in California

Quality

Between 2009 and 2020, the pregnancy-related mortality rate for Black mothers / birthing people\* was three to four times higher than the rate for mothers / birthing people of other races/ethnicities. This variation cannot be explained by factors such as age, income, education, and health insurance coverage. Research shows that implicit bias and racism are key causes of disparate outcomes for Black mothers / birthing people.†

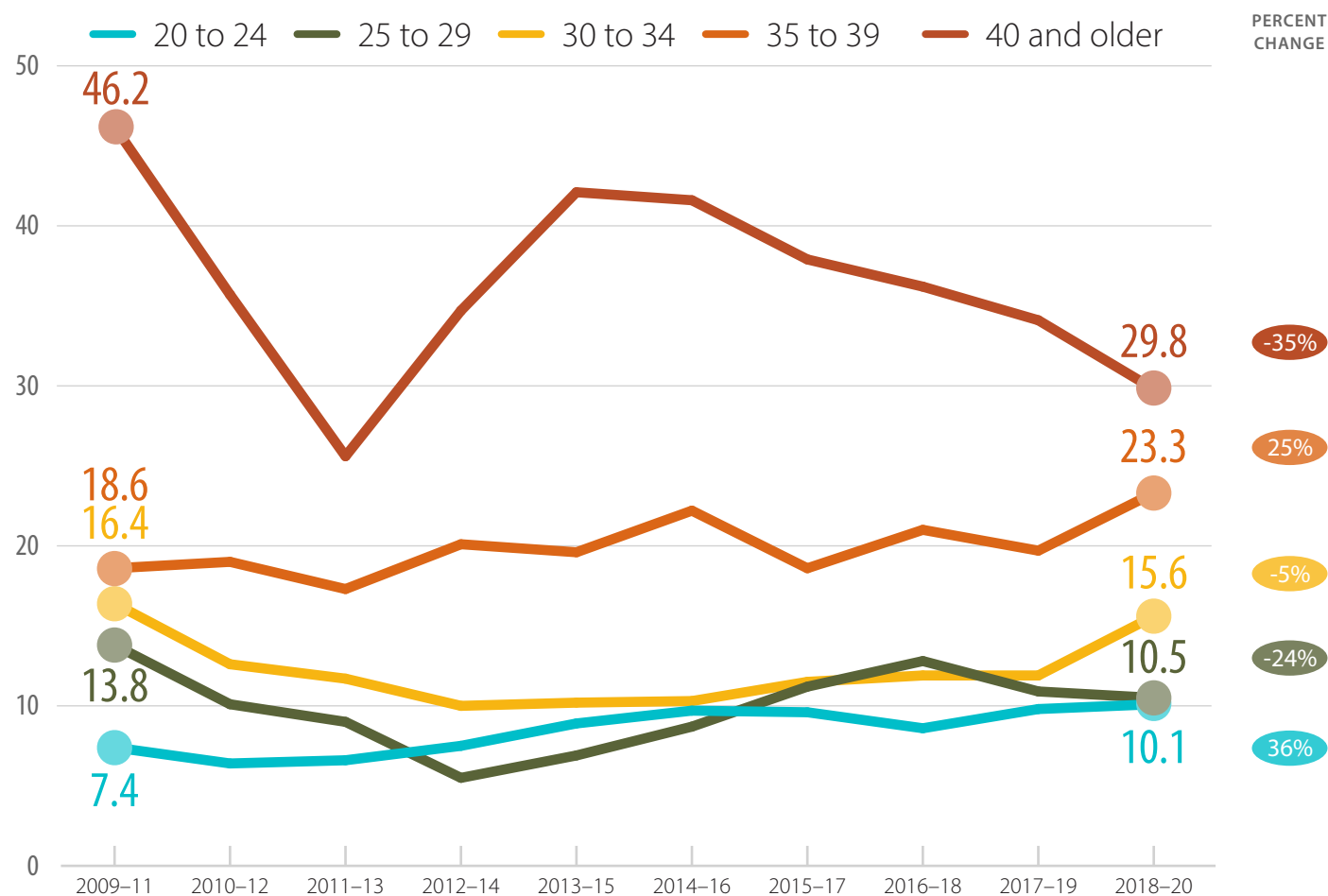
\* *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

† "**Birth Equity**," California Health Care Foundation.

# Pregnancy-Related Mortality, by Age

## California, 2009 to 2020

PREGNANCY-RELATED DEATHS PER 100,000 LIVE BIRTHS



Notes: *Pregnancy-related mortality* is a death while pregnant or within one year of the end of pregnancy — regardless of the outcome, duration, or site of the pregnancy — from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (including suicide, homicide, or drug overdose). Three-year moving average was used.

Source: "Pregnancy-Related Mortality," California Dept. of Public Health, last updated March 9, 2023.

### Maternity Care in California

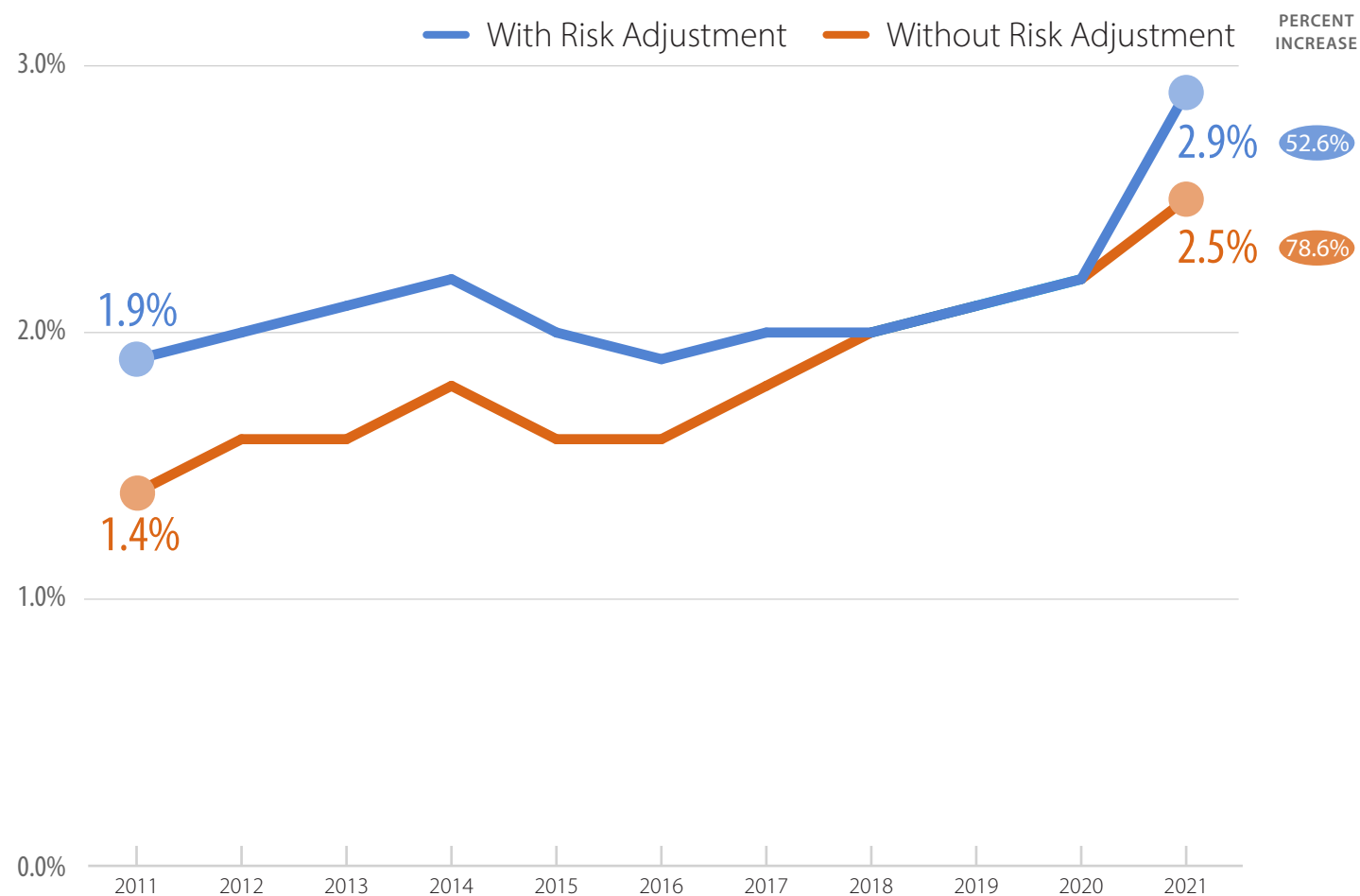
Quality

From 2009 to 2020, the trend in pregnancy-related mortality rates in California varied by age group. Mothers / birthing people\* age 40 and older and 25 to 29 experienced double-digit declines in mortality rates, while mothers / birthing people age 20 to 24 and 35 to 39 experienced double-digit increases in mortality rates.

\* *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

# Severe Maternal Morbidity

## California, 2011 to 2021



Notes: Data are based on in-hospital births at nonmilitary hospitals in 2021 that reported data to the California Department of Health Care Access and Information. *Severe maternal morbidity* includes unexpected and potentially life-threatening complications from labor and delivery that result in significant health consequences.

Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

### Maternity Care in California

#### Quality

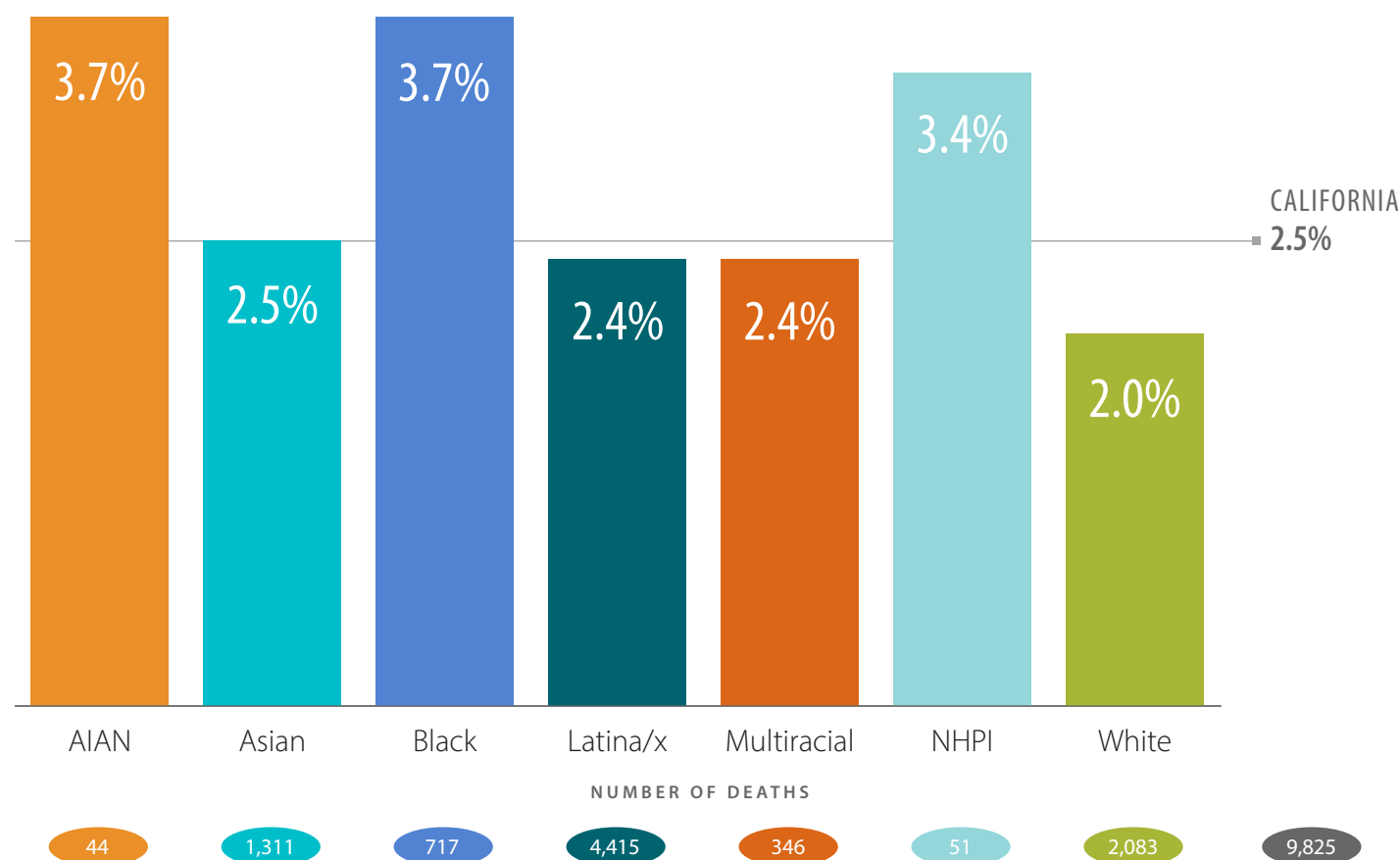
From 2011 to 2021, the rate of severe maternal morbidity (SMM) increased in California, likely due to changes in the health of the birthing population.\* SMM includes unexpected outcomes and complications from labor and delivery, such as hemorrhage, infection, and cardiac events, that result in significant short- and long-term health consequences. Tracking and developing interventions to address SMM can help to improve the quality of maternity care.\*

\* "**Severe Maternal Morbidity**," California Dept. of Public Health, last updated April 11, 2023.



# Severe Maternal Morbidity, by Race/Ethnicity

## California, 2021



Notes: Data are based on in-hospital births at nonmilitary hospitals in 2021 that reported data to the California Department of Health Care Access and Information. *Severe maternal morbidity* includes unexpected and potentially life-threatening complications from labor and delivery that result in significant health consequences. Rates are not risk-adjusted. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander.

Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

### Maternity Care in California

#### Quality

In California, rates of severe maternal morbidity (SMM) varied by race/ethnicity. American Indian and Alaska Native, Black, and Native Hawaiian and Pacific Islander mothers / birthing people\* had the highest SMM rates in 2021. Maternal age and chronic conditions such as obesity, diabetes, and hypertension are associated with increased risk of SMM.†

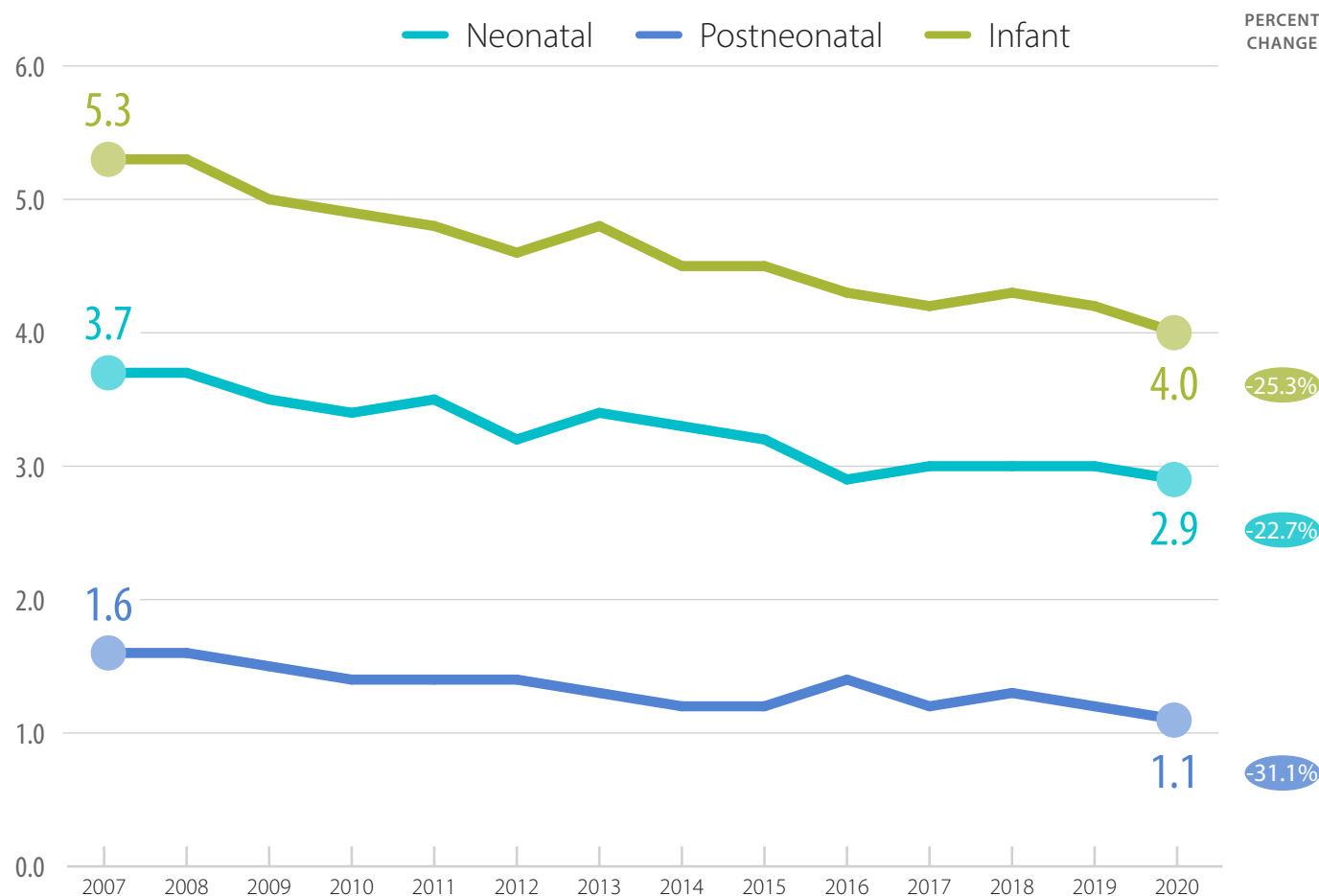
\* *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

† "**Severe Maternal Morbidity**," California Dept. of Public Health, last updated April 11, 2023.

# Infant, Neonatal, and Postneonatal Mortality

## California, 2007 to 2020

INFANT DEATHS PER 1,000 LIVE BIRTHS



Notes: *Infant mortality* is deaths among infants under one year of age. *Neonatal mortality* is deaths less than 28 days from birth. *Postneonatal mortality* is deaths 28 days to one year.  
Source: "Infant Mortality," California Dept. of Public Health, last updated June 26, 2023.

### Maternity Care in California

#### Quality

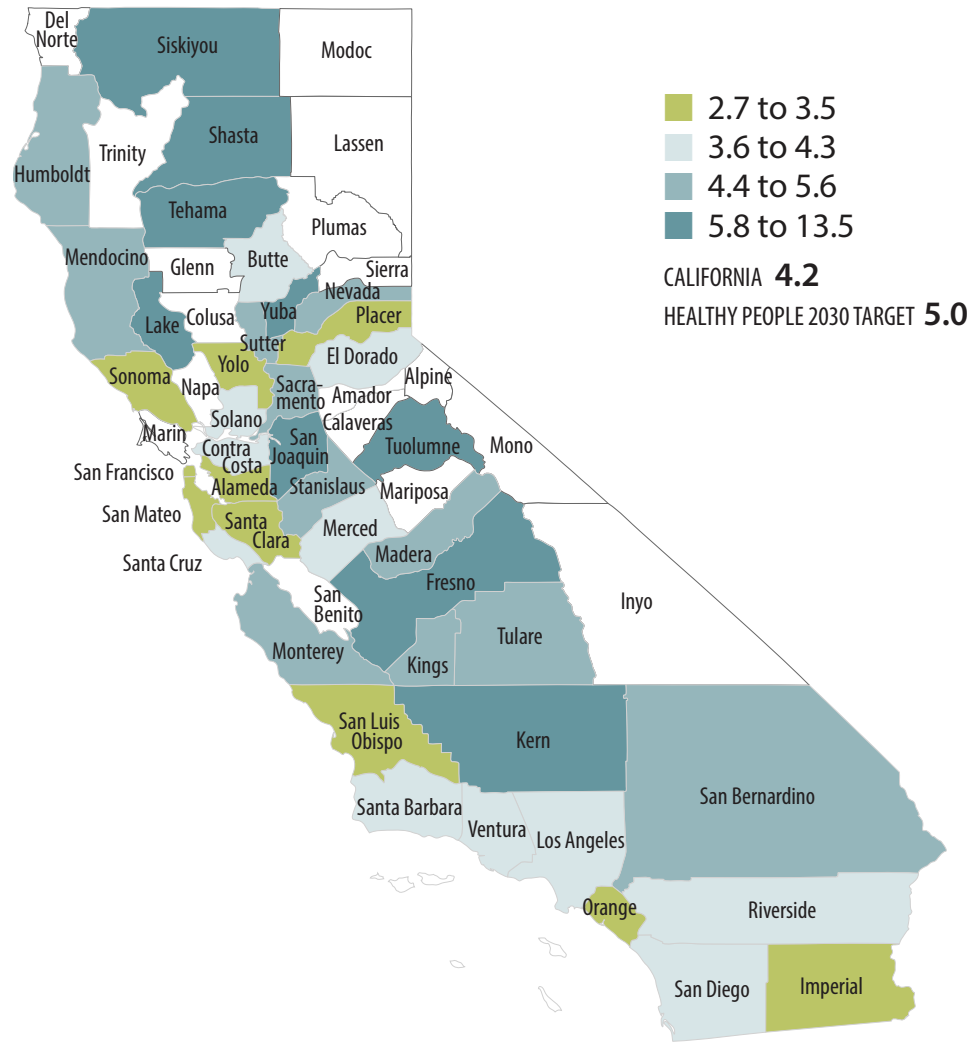
In 2020, California's infant mortality rate of 4.0 was lower than the Healthy People 2030 target of 5.0.\* From 2007 to 2020, California's infant mortality rate declined 25%. Over this period, the neonatal mortality rate, which is deaths occurring less than 28 days from birth, declined 23%, while deaths occurring from 28 days until one year (postneonatal deaths) declined 31%.

\* Healthy People 2030 sets data-driven national objectives to improve health and well-being over the next decade (see [www.healthypeople.gov](http://www.healthypeople.gov)).

# Infant Mortality, by County

## California, 2018 to 2020

INFANT DEATHS PER 1,000 LIVE BIRTHS



Notes: *Infant* is under one year of age. Rates not shown for counties with fewer than 10 deaths total.

Source: "Infant Mortality," California Dept. of Public Health, last updated June 26, 2023.

### Maternity Care in California

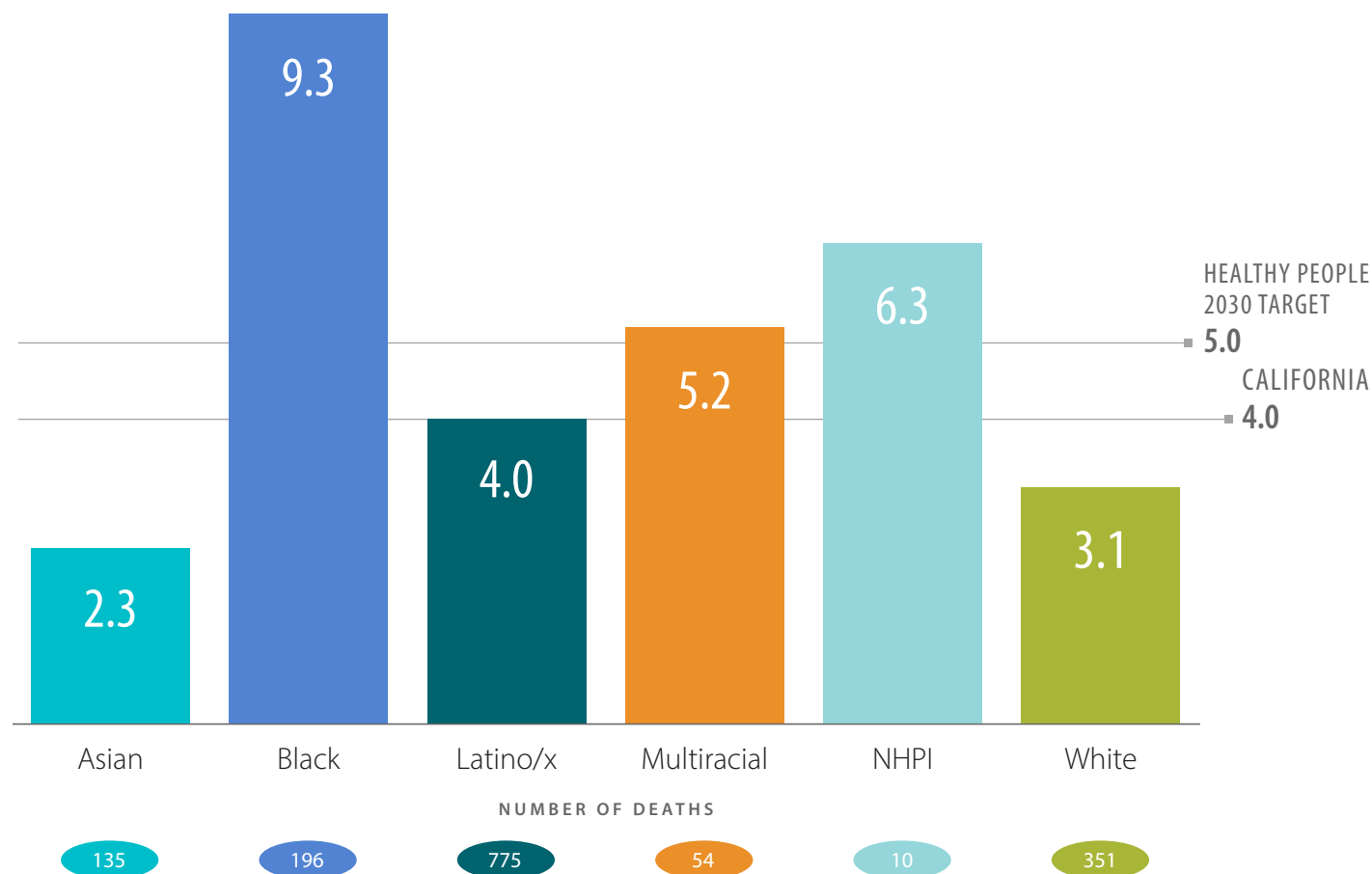
Quality

In 2018 to 2020, California's infant mortality rate per 1,000 live births varied across the state, from a low of 2.7 infant deaths in Santa Clara County to a high of 13.5 in Siskiyou County.

# Infant Mortality, by Race/Ethnicity

## California, 2020

INFANT DEATHS PER 1,000 LIVE BIRTHS



Notes: *Infant* is under one year of age. Data for American Indian and Alaska Native infants were not available. *NHPI* is Native Hawaiian and Pacific Islander. Source uses *Hispanic, Multi-Race, and Pacific Islander*.

Source: "Infant Mortality," California Dept. of Public Health, last updated June 26, 2023.

### Maternity Care in California

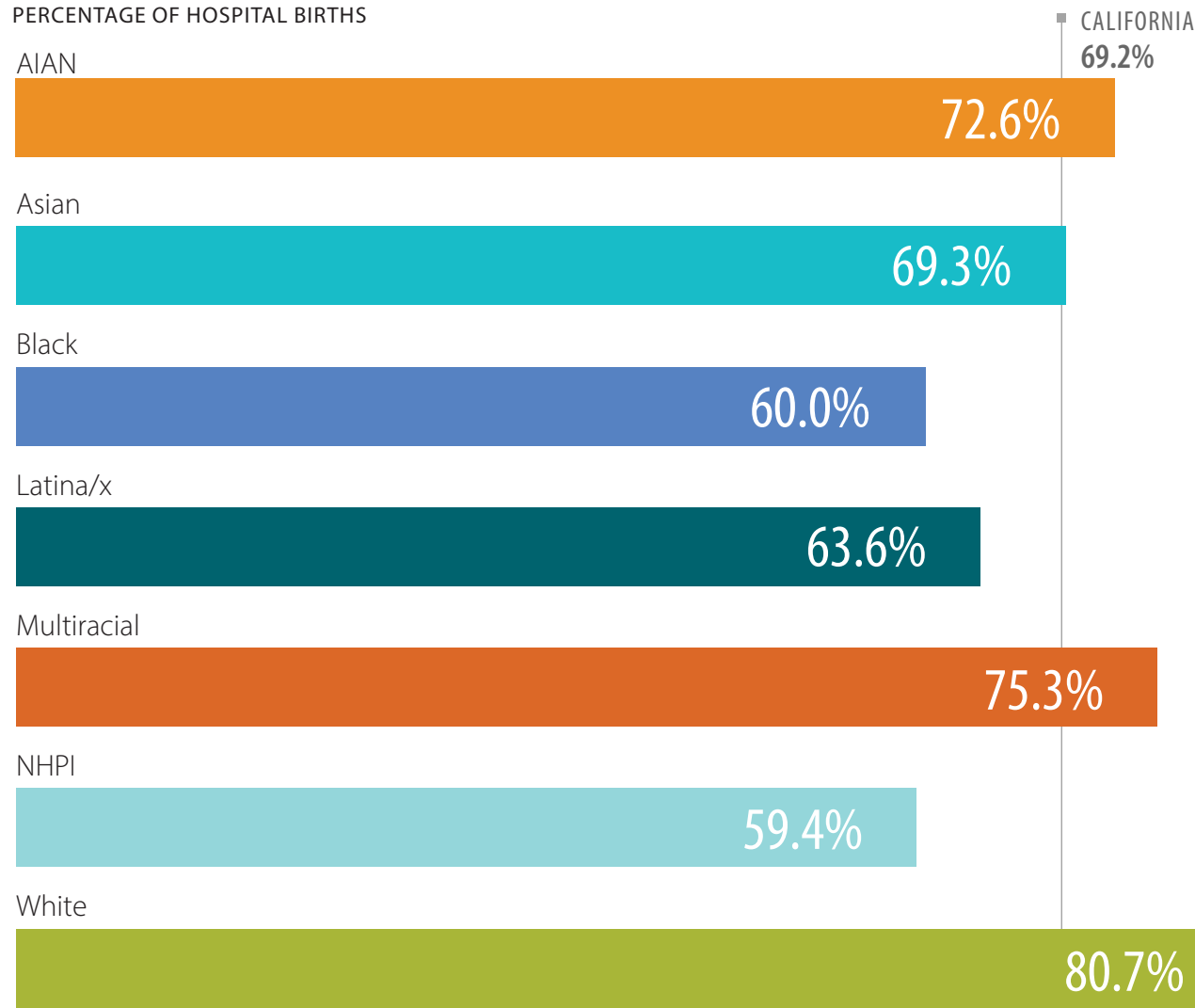
Quality

Significant racial and ethnic disparities persist in California's infant mortality rate. Black infants had higher rates of mortality than infants of other races/ethnicities. Many factors drive disparities in infant mortality rates, including racism and discrimination, social and economic inequities, and other barriers to care in the health care system.\*

\* Latoya Hill, Samantha Artiga, and Usha Ranji, "**Racial Disparities in Maternal and Infant Health: Current Status and Efforts to Address Them**," KFF, November 1, 2022.

# Exclusive In-Hospital Breastfeeding by Race/Ethnicity, California, 2021

PERCENTAGE OF HOSPITAL BIRTHS



Notes: *Exclusive breastfeeding* represents all feedings from birth to time of newborn specimen (blood) collection, usually 24 to 48 hours since birth and represents infants fed "only human milk." Excludes data for infants in the neonatal intensive care unit at time of specimen collection. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander. Data source uses *Hispanic* and *Multiple-Race*.

Source: "Breastfeeding Initiation," California Dept. of Public Health, last updated January 18, 2023.

## Maternity Care in California

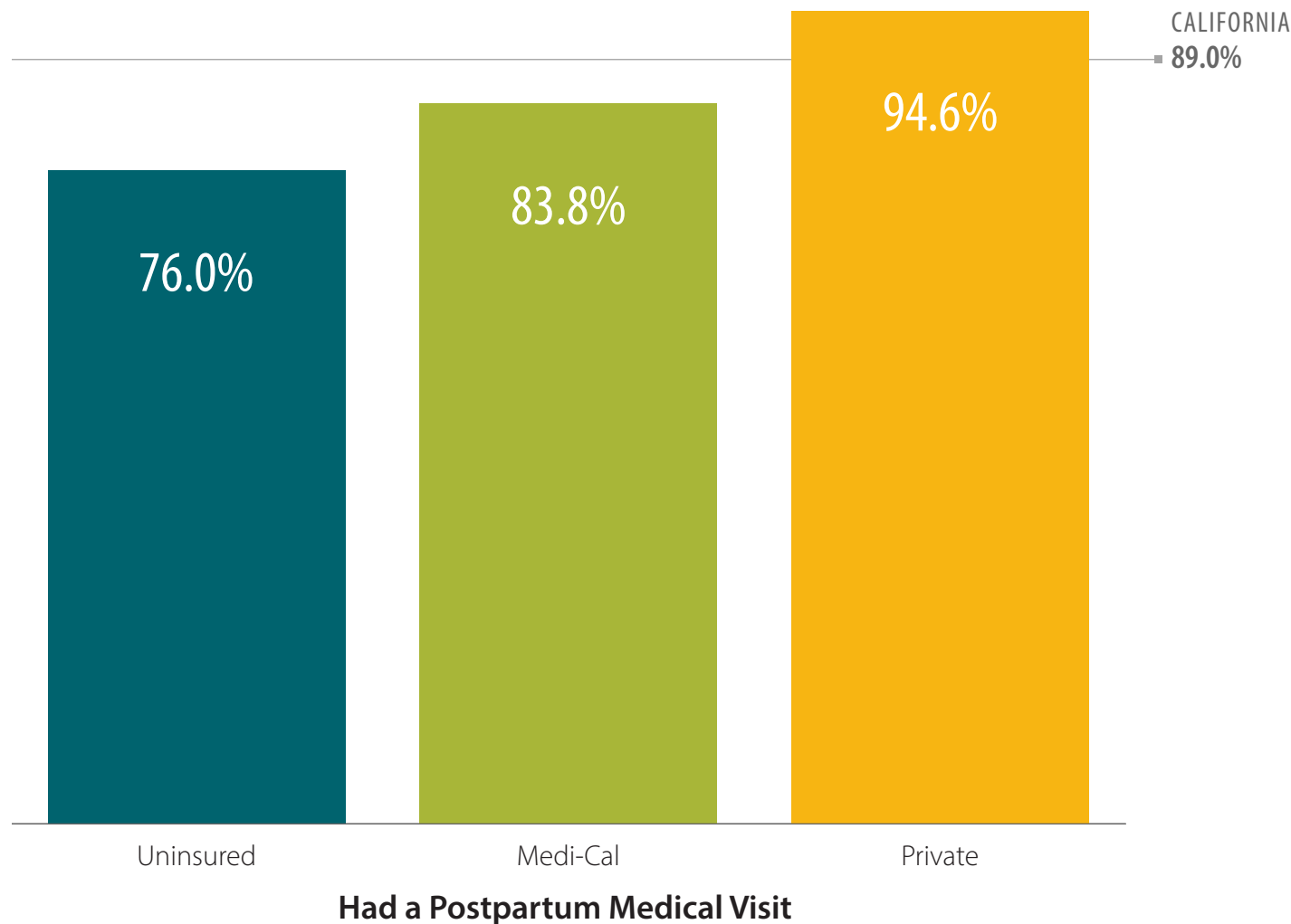
Quality

Breastfeeding has many benefits, including increasing infants' resistance to disease and infection, speeding recovery from childbirth, and reducing the cancer risk of the mother / birthing person.\* Seven of 10 California newborns were fed exclusively breast milk during their hospitalizations. Breastfeeding rates varied among racial and ethnic groups, with a high of 81% of White infants to a low of 59% of Native Hawaiian and Pacific Islander and Black infants.

\* *Birthing person* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

# Postpartum Care, by Health Insurance

## California, 2018 to 2020



Notes: Self-reported prenatal health insurance from an annual population-based survey of 18,571 California-resident mothers / birthing people with a live birth; data from 2018 to 2020 were combined. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Respondents were asked, "Since your most recent birth, have you had a postpartum checkup for yourself (the medical checkup a person has about 4 to 6 weeks after giving birth)?"

Source: Custom data request, Maternal and Infant Health Assessment Survey, California Dept. of Public Health, received February 17, 2023.

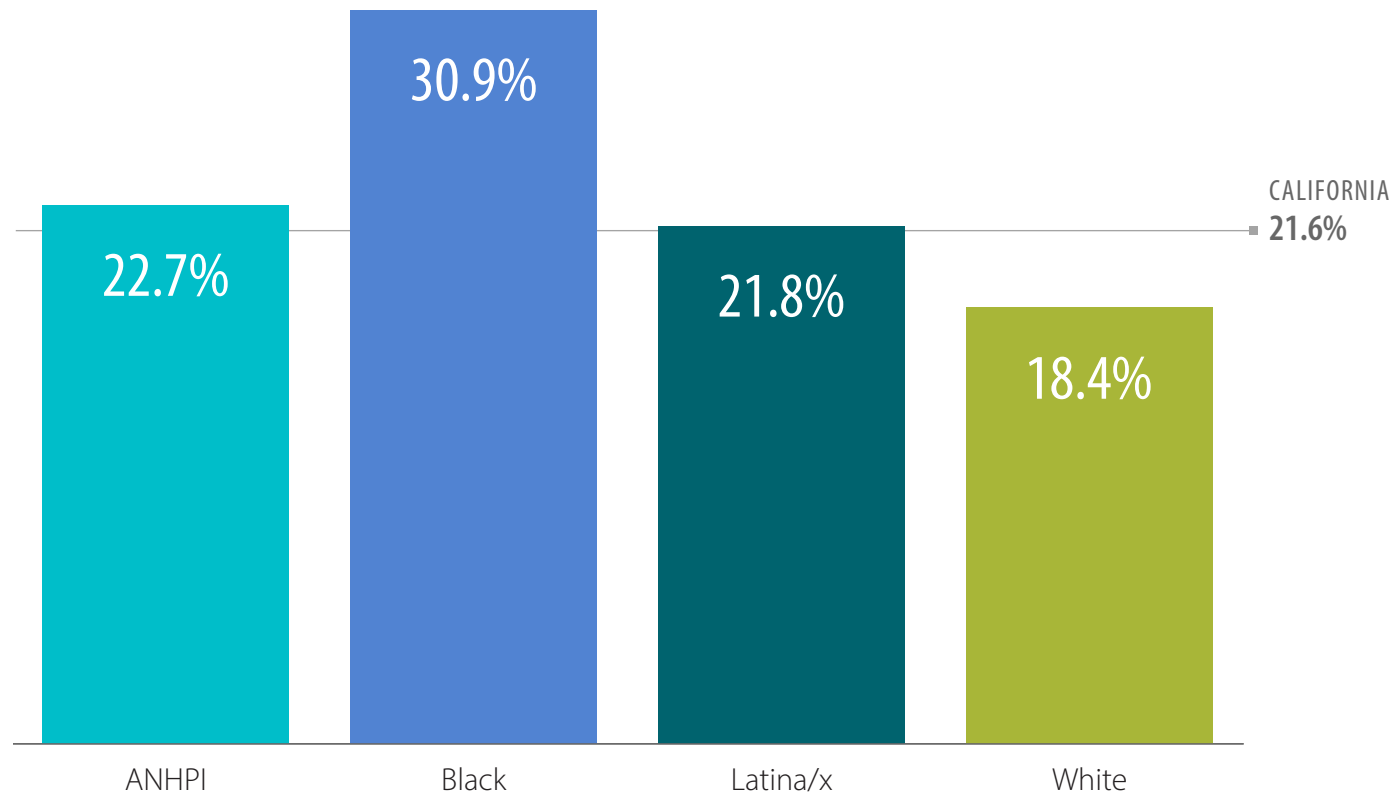
### Maternity Care in California

#### Quality

Postpartum care is critical for optimizing the health of women / birthing people and infants and should include a comprehensive assessment of physical and psychological well-being.\* In 2018 to 2020 surveys of California mothers / birthing people, 89% of respondents reported that they had a postpartum medical visit. Mothers / birthing people who were uninsured or with Medi-Cal were less likely to report a postpartum visit than those with private insurance.

\* "**Optimizing Postpartum Care**," ACOG Committee Opinion, no. 736, Amer. College of Obstetricians and Gynecologists, May 2018.

# Prenatal or Postpartum Depressive Symptoms by Race/Ethnicity, California, 2018 to 2020



Notes: Data are from an annual population-based survey of 18,571 California-resident women / birthing people with a live birth; data from 2018 to 2020 were combined. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Respondents were asked "How often did you feel down, depressed, or hopeless?" and "How often did you have little interest or little pleasure in doing things you usually enjoyed?" both "during your recent pregnancy" and "since your most recent birth." Answer options were "always," "often," "sometimes," "rarely," or "never." Depressive symptoms are defined as reporting "always" or "often" to either question. *ANHPI* is Asian, Native Hawaiian, and Pacific Islander.

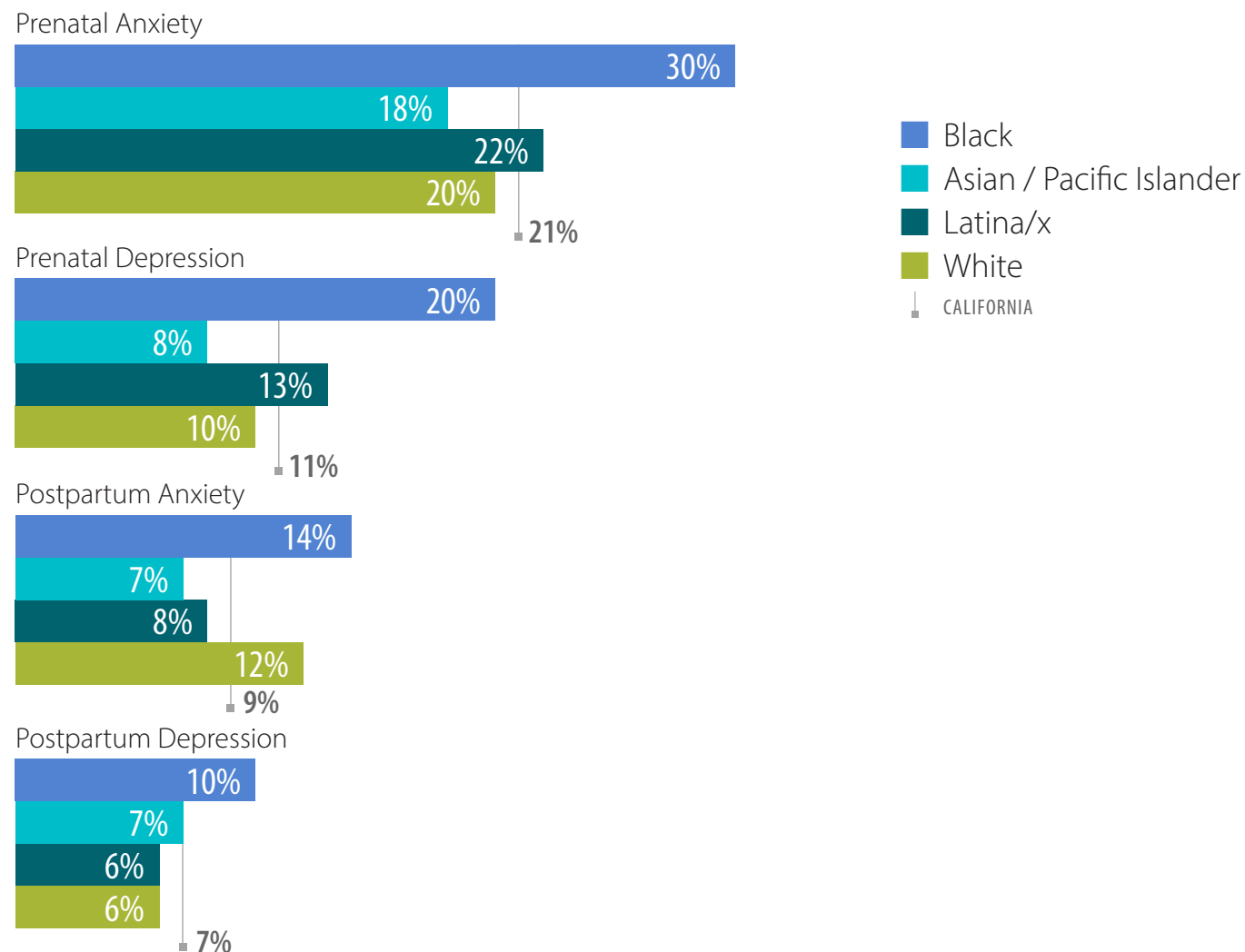
Source: Custom data request, Maternal and Infant Health Assessment Survey, California Dept. of Public Health, received February 17, 2023.

## Maternity Care in California

Mental Health and Substance Use

Many mothers / birthing people in California experience mental health conditions while pregnant or after giving birth, which can negatively impact the mother / birthing person and the child. Over one in five California survey respondents reported either prenatal or postpartum depressive symptoms. Black mothers / birthing people were more likely to report prenatal or postpartum depressive symptoms.

# Prenatal and Postpartum Symptoms of Anxiety and Depression by Race/Ethnicity, California, 2017



Notes: Data are from a statewide survey of 2,539 mothers / birthing people who gave birth in California in 2016. Not all eligible respondents answered each item; 2,519 birthing people answered these questions. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. Respondents were asked two questions each about the frequency of anxiety symptoms and depression symptoms, both “during your recent pregnancy” and “over the past two weeks” (postpartum).

Source: Carol Sakala, Eugene R. Declercq, and Jen Joynt, *Listening to Mothers in California*, California Health Care Foundation, September 2018.

## Maternity Care in California

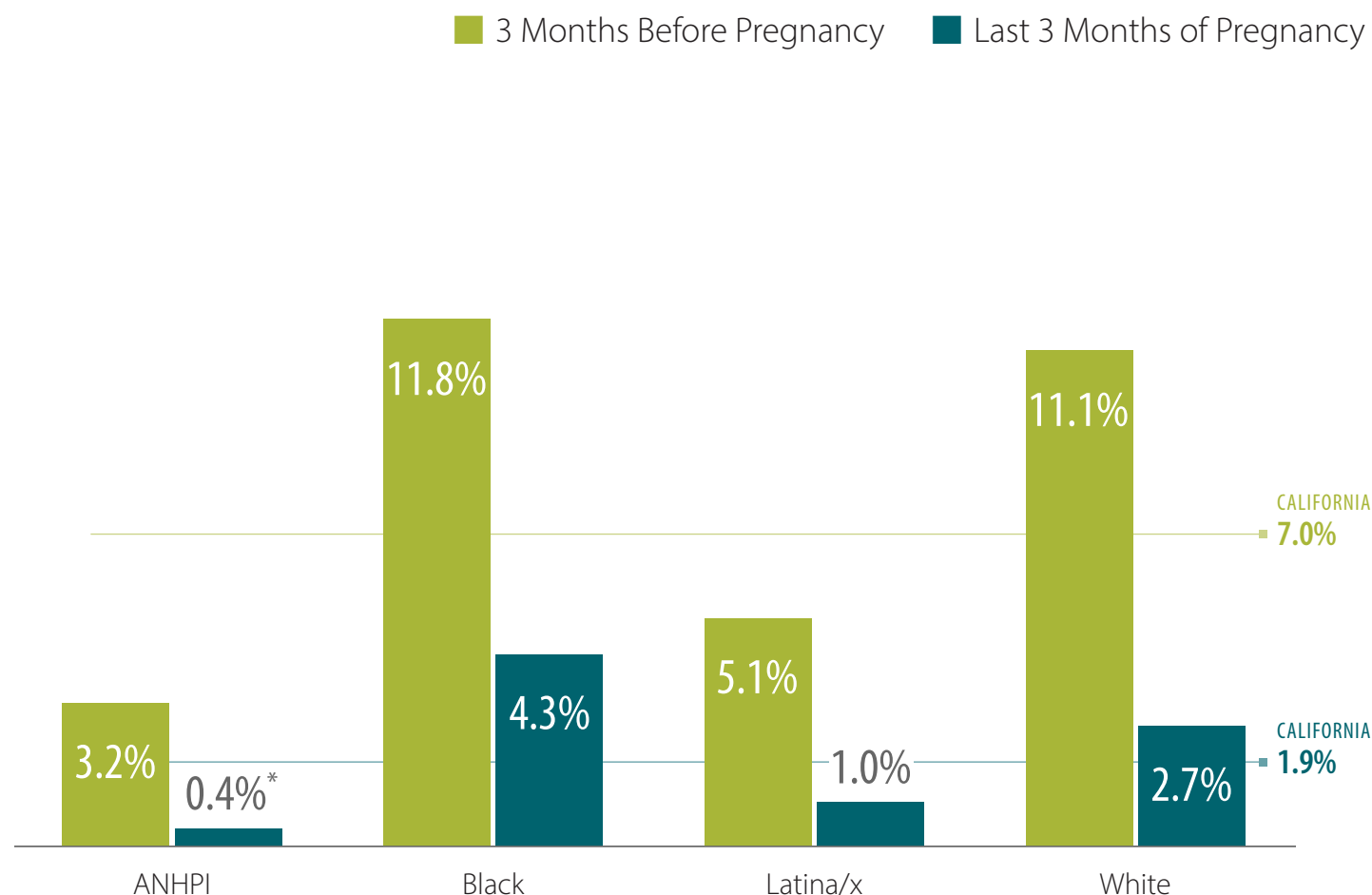
Mental Health and Substance Use

Many California mothers / birthing people suffer from mental health conditions while pregnant or after giving birth. A higher percentage reported symptoms of anxiety than of depression during their recent pregnancy and during the last two weeks (postpartum). In all cases, a greater portion of Black mothers / birthing people reported such symptoms than those of other racial or ethnic groups.



# Smoking Before or During Pregnancy, by Race/Ethnicity

## California, 2018 to 2020



\* Interpret with caution due to low statistical reliability.

Notes: Data are from a population-based survey of 18,571 California-resident mothers / birthing people with a live birth; data from 2018 to 2020 were combined. ANHPI is Asian, Native Hawaiian, and Pacific Islander. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

Source: Custom data request, Maternal and Infant Health Assessment Survey, California Dept. of Public Health, received February 17, 2023.

### Maternity Care in California

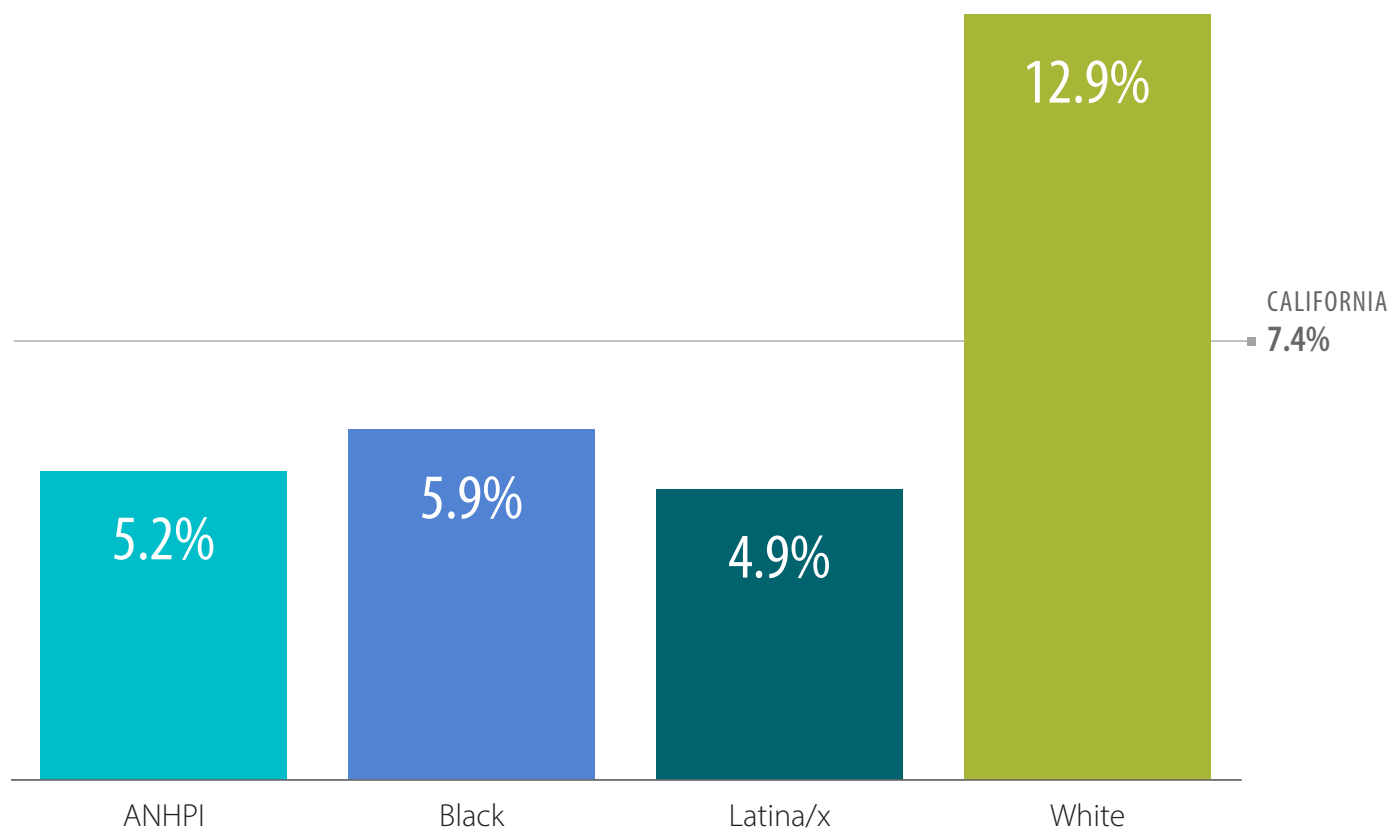
#### Mental Health and Substance Use

Smoking during pregnancy increases the risk of preterm birth, low birthweight birth, birth defects of the mouth and lip, and sudden infant death syndrome.<sup>†</sup> In the last three months of pregnancy, the highest rates of smoking were reported by Black mothers / birthing people (4%) and White mothers / birthing people (3%).

<sup>†</sup> "Substance Use During Pregnancy," Centers for Disease Control and Prevention, last reviewed May 23, 2022.

# Alcohol Use During Last 3 Months of Pregnancy

## by Race/Ethnicity, California, 2018 to 2020



Notes: Data are from a population-based survey of 18,571 California-resident mothers / birthing people with a live birth; data from 2018 to 2020 were combined. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. *ANHPI* is Asian, Native Hawaiian, and Pacific Islander.

Source: Custom data request, Maternal and Infant Health Assessment Survey, California Dept. of Public Health, received February 17, 2023.

### Maternity Care in California

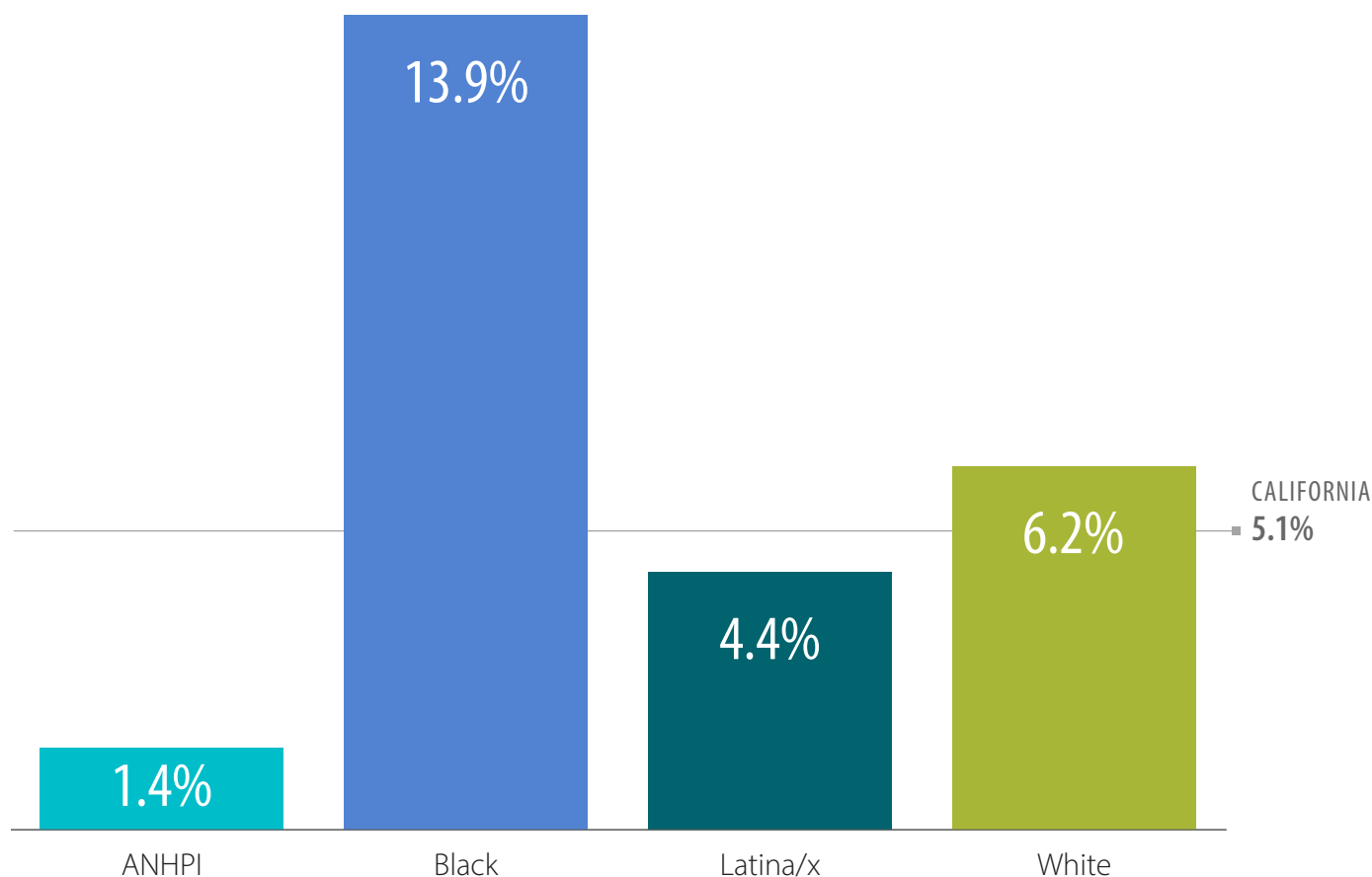
Mental Health and Substance Use

Drinking alcohol during pregnancy can cause miscarriage, stillbirth, and fetal alcohol spectrum disorders, which involve a range of lifelong physical, behavioral, and intellectual disabilities.\* Thirteen percent of White mothers / birthing people reported drinking alcohol during the last three months of pregnancy, higher than mothers / birthing people of other races and ethnicities.

\* **"Alcohol Use During Pregnancy,"** Centers for Disease Control and Prevention, last reviewed November 4, 2022.

# Marijuana Use During Pregnancy, by Race/Ethnicity

## California, 2018 to 2020



Notes: Data are from a population-based survey of 18,571 California-resident mothers / birthing people with a live birth; data from 2018 to 2020 were combined. *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. *ANHPI* is Asian, Native Hawaiian, and Pacific Islander.

Source: Custom data request, Maternal and Infant Health Assessment Survey, California Dept. of Public Health, received February 17, 2023.

### Maternity Care in California

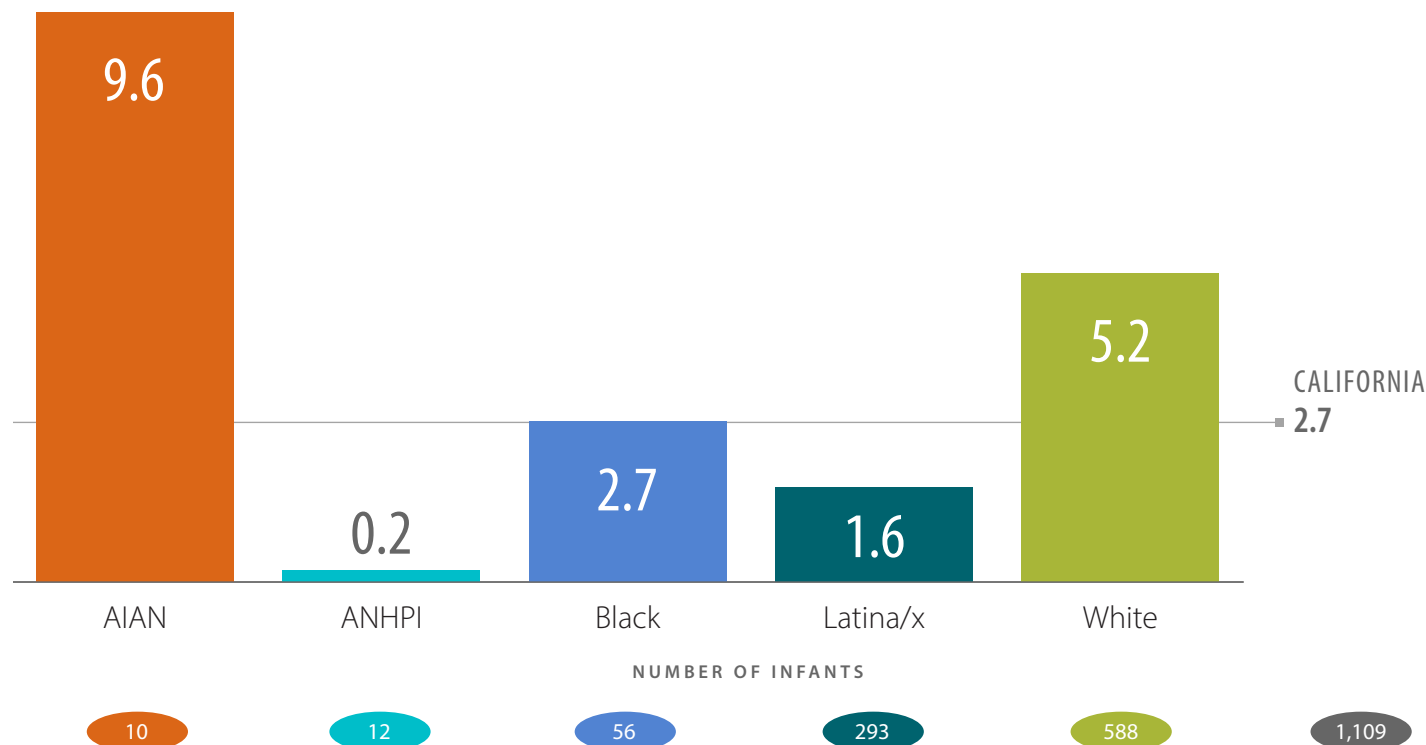
Mental Health and Substance Use

While research on the impact of marijuana use on birth outcomes is limited, the American College of Obstetricians and Gynecologists recommends that pregnant people discontinue marijuana use due to concerns about impaired infant neurodevelopment.\* About 5% of California mothers / birthing people overall reported marijuana use during pregnancy. The highest reported use was among Black mothers / birthing people (14%).

\* **"Marijuana Use During Pregnancy and Lactation,"** ACOG Committee Opinion no. 722, American College of Obstetricians and Gynecologists, October 2017.

# Infants Born with Neonatal Abstinence Syndrome by Race/Ethnicity, 2021

RATE PER 1,000 DELIVERIES



Notes: *Neonatal abstinence syndrome* (NAS) is a withdrawal syndrome that most commonly occurs due to maternal use of opiates such as heroin, methadone, and prescription pain medications. Rate is number of birth hospitalizations with a diagnosis code of NAS per 1,000 birth hospitalizations, stratified by selected infant and hospital characteristics. NAS cases were identified using ICD-9-CM diagnosis code 779.5 (drug withdrawal syndrome in newborn) and ICD-10-CM diagnosis code P96.1 (neonatal withdrawal symptoms from maternal use of drugs of addiction). Coding practices may vary by hospital. *AIAN* is American Indian and Alaska Native. *ANHPI* is Asian, Native Hawaiian, and Pacific Islander.

Source: "Neonatal Abstinence Syndrome," California Dept. of Public Health, last updated October 18, 2022.

## Maternity Care in California

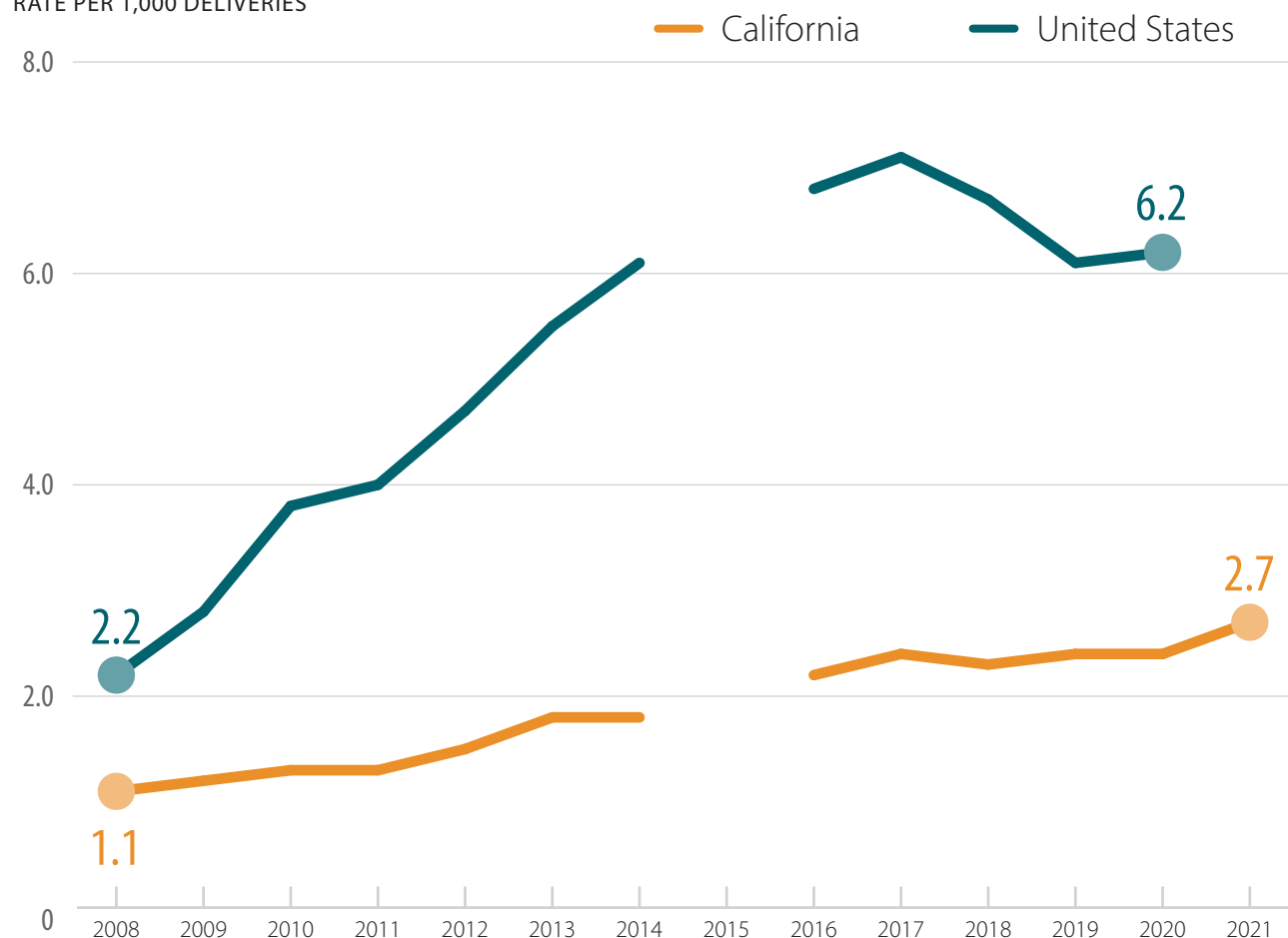
Mental Health and Substance Use

Neonatal abstinence syndrome (NAS) results from a baby's exposure to drugs, most often opioids, in the womb. Newborns with NAS can suffer from seizures and other complications and require hospitalization. American Indian and Alaska Native infants had the highest NAS rates, and White infants accounted for half of all NAS diagnoses.

# Infants Born with Neonatal Abstinence Syndrome

## California vs. United States, 2008 to 2021

RATE PER 1,000 DELIVERIES



Notes: *Neonatal abstinence syndrome* (NAS) is a drug withdrawal syndrome that most commonly occurs due to maternal use of opiates such as heroin, methadone, and prescription pain medications. Rate is number of birth hospitalizations with a diagnosis code of NAS per 1,000 birth hospitalizations, stratified by selected infant and hospital characteristics. NAS cases were identified using ICD-9-CM diagnosis code 779.5 (drug withdrawal syndrome in newborn) and ICD-10-CM diagnosis code P96.1 (neonatal withdrawal symptoms from maternal use of drugs of addiction). Data for 2015 are not shown since it represented only three quarters of the year (California was 2.0 and United States was 6.4). Data for 2016 and onward are based on ICD-10-CM and may not be comparable to 2008 through 2014 data based on ICD-9-CM. US estimates are calculated using data from Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases and may not be comparable to California data. US estimates use state data from HCUP State Inpatient Databases and are not nationally weighted; therefore, US estimates may not be comparable across years due to the different states included in any given year.

Source: "Neonatal Abstinence Syndrome," California Dept. of Public Health, last updated October 18, 2022.

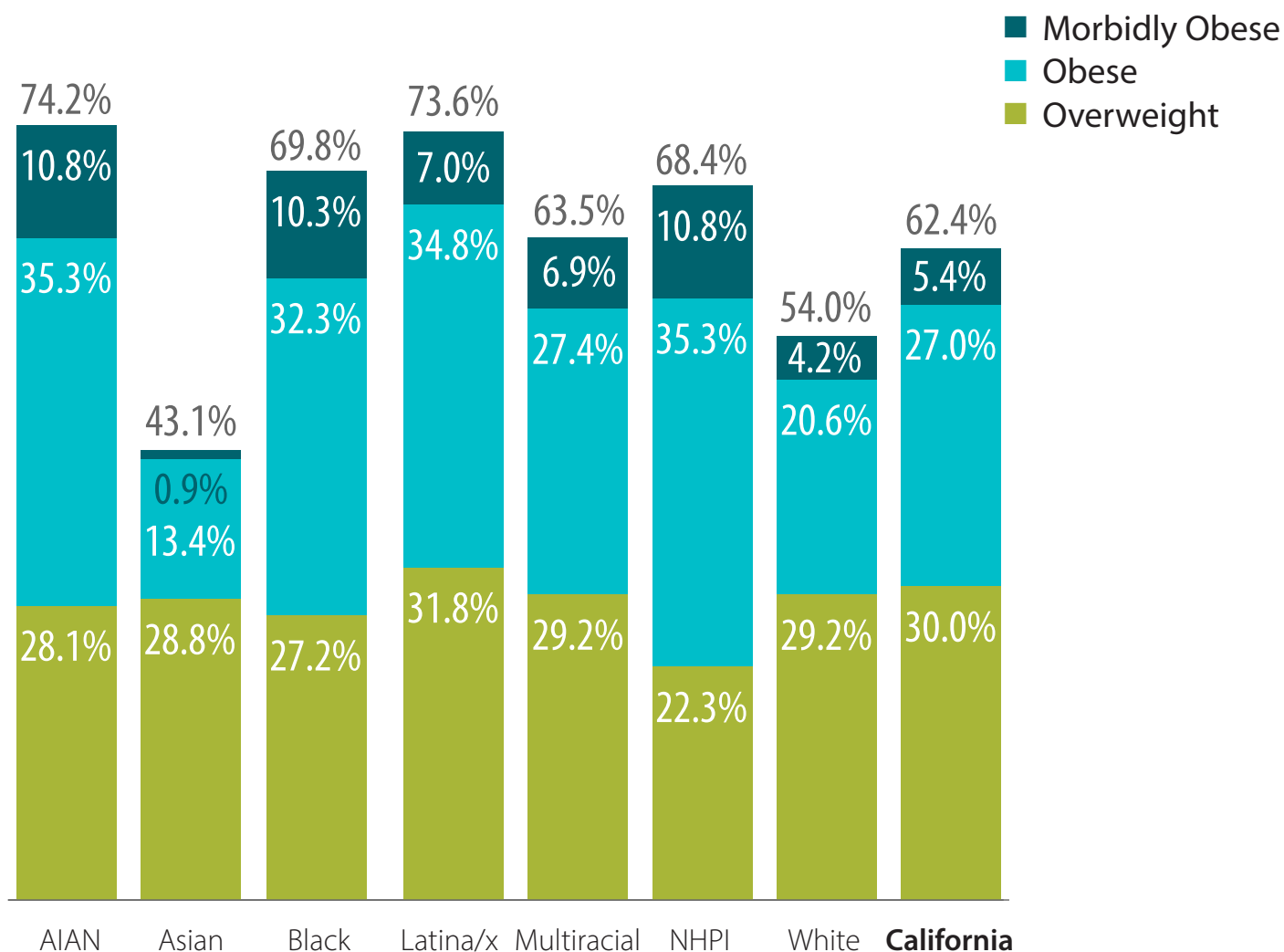
### Maternity Care in California

Mental Health and Substance Use

While California's rate of neonatal abstinence syndrome (NAS) increased from 2008 to 2021, it remained below the national average through 2020 (latest data available). The number of infants born in California with neonatal abstinence syndrome nearly doubled from 2008 to 2021 (not shown).

# Prepregnancy Overweight and Obesity, by Race/Ethnicity

## California, 2021



Notes: Data are based on in-hospital births at nonmilitary hospitals that performed deliveries in 2021 and reported data to the California Department of Health Care Access and Information. *Overweight*, *obese*, and *morbidly obese* are based on BMI, from weight reported by the mother / birthing person on the birth certificate. *Birthing person* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. A prepregnancy BMI of 25–29.9 is classified as overweight; a BMI of 30–39.9 is classified as obese; a BMI of 40 or higher is classified as morbidly obese. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander.

Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

### Maternity Care in California

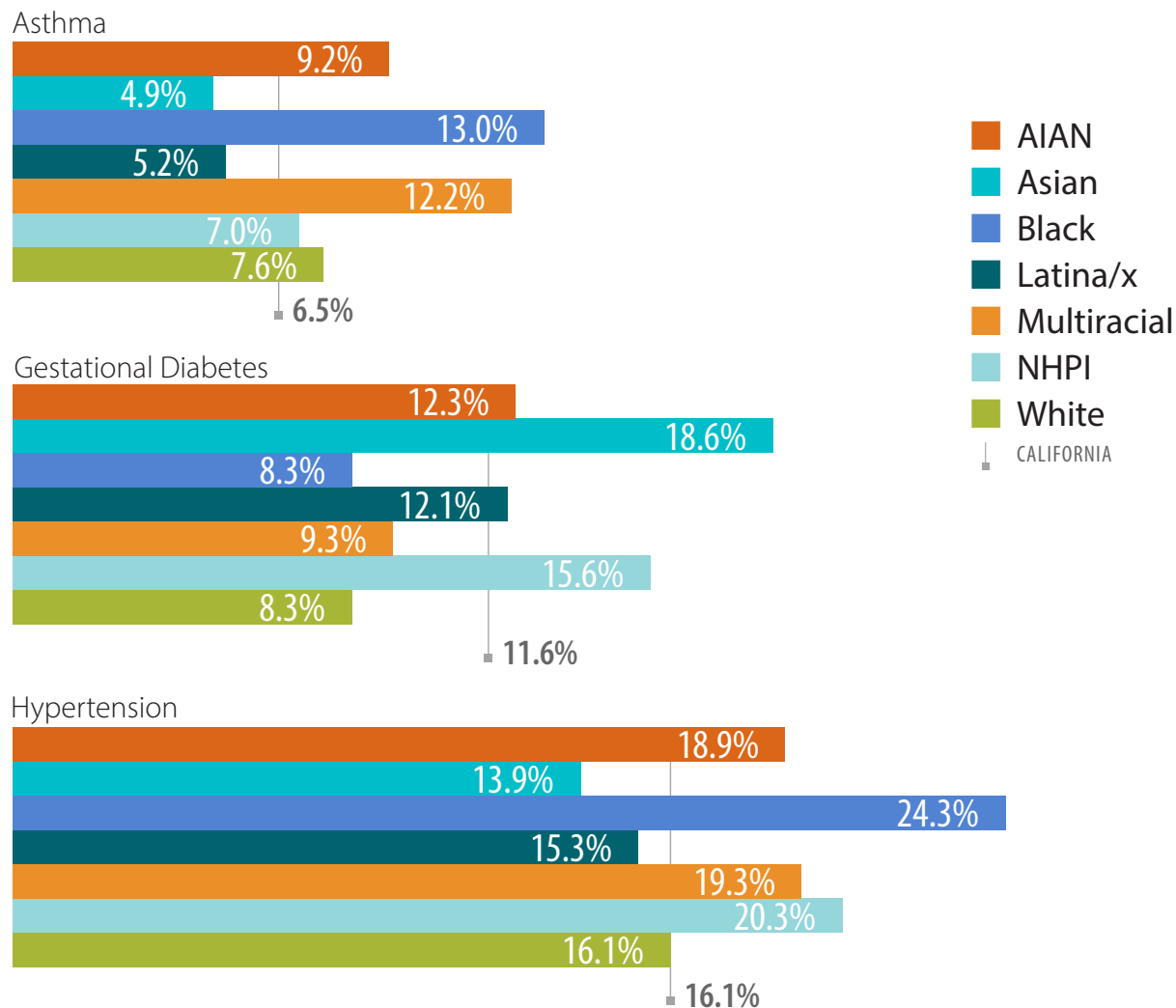
#### Risk Factors

In 2021, 6 in 10 of all California mothers / birthing people and 3 in 4 American Indian and Alaska Native and Latina/x mothers / birthing people were overweight or obese before pregnancy. Being overweight or obese increases the risk of pregnancy complications such as gestational diabetes, hypertension, and cesarean delivery.\*

\* **"Prepregnancy Weight,"** California Dept. of Public Health, last updated May 8, 2023.

# Chronic Conditions During Pregnancy, by Race/Ethnicity

## California, 2021



Notes: Data are based on in-hospital births at nonmilitary hospitals that performed deliveries in 2021 and reported data to the California Department of Health Care Access and Information. *Hypertension* includes eclampsia, severe preeclampsia, mild preeclampsia, chronic, or gestational. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander.

Source: Custom data request, California Maternal Quality Care Collaborative, received April 28, 2023.

### Maternity Care in California

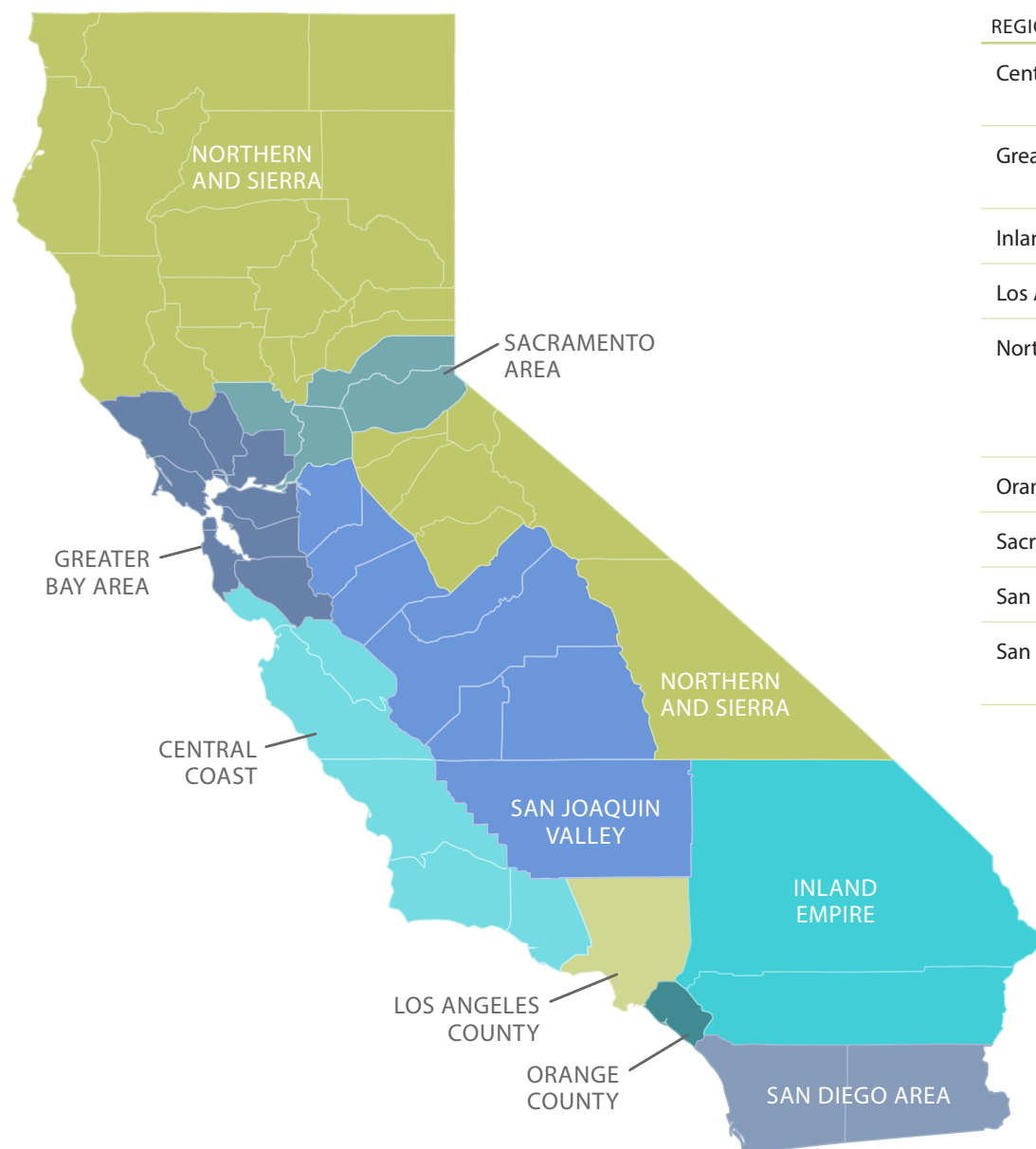
#### Risk Factors

During pregnancy, medical conditions such as hypertension and diabetes increase the risk of complications and poor birth outcomes, including the need for induced labor and cesarean delivery and preterm and low-birthweight births.\* In 2021, 16% of California mothers / birthing people<sup>†</sup> had high blood pressure, 12% had gestational diabetes, and 7% had asthma. Rates varied by race/ethnicity.

\* "High Blood Pressure During Pregnancy," Centers for Disease Control and Prevention (CDC), last review Feb. 15, 2023; and "Gestational Diabetes," CDC, last reviewed December 30, 2022.

<sup>†</sup> *Birthing people* is used to recognize that not all people who become pregnant and give birth identify as women or mothers.

## Appendix A. California Counties Included in Regions



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



## Appendix B. Maternity Care Workforce Overview

|  | BRIEF DESCRIPTION  | EDUCATION REQUIRED   | LICENSING ORGANIZATION   |
|--|--|--|--|
| <b>Certified Nurse Midwife</b><br>(CNM)  | Advanced practice nurses educated to provide midwifery care, including perinatal, well-woman, and newborn care. CNMs primarily attend births in hospitals.   | Master's degree in nursing with specialty in nurse-midwifery                 | California Board of Registered Nursing                                 |
| <b>Doula</b>   | Provider of physical, emotional, and informational labor support to mother before, during, and after birth.  | No special requirements  | None   |
| <b>Licensed Midwife</b><br>(also designated as Certified Professional Midwife) | Health care professional authorized to attend cases of normal childbirth and provide prenatal, delivery, and postpartum care for the mother and immediate care for the newborn. Typically attend births out of hospital. | Three-year postsecondary education program in an accredited midwifery school | Medical Board of California  |
| <b>Obstetrician/Gynecologist</b>   | Doctor of medicine or doctor of osteopathic medicine specially trained to provide medical and surgical care to women, including providing pregnancy care.  | Medical school plus four-year residency in obstetrics and gynecology         | Medical Board of California or Osteopathic Medical Board of California |

Source: Medical Board of California; California Board of Registered Nurses.

## Appendix C. Births, by Region and Race/Ethnicity of Mother / Birthing Person, California, 2019 to 2021

| REGION              | TOTAL BIRTHS BY RACE/ETHNICITY |                |               |                |               |              |              |                |               |            | CALIFORNIA       |
|---------------------|--------------------------------|----------------|---------------|----------------|---------------|--------------|--------------|----------------|---------------|------------|------------------|
|                     | AIAN                           | ASIAN          | BLACK         | LATINA/X       | MULTIRACIAL   | OTHER        | NHPI         | WHITE          | UNKNOWN       | MISSING    |                  |
| Central Coast       | 107                            | 3,011          | 693           | 44,852         | 1,489         | 21           | 97           | 22,850         | 2,468         | 47         | 75,635           |
| Greater Bay Area    | 329                            | 63,922         | 11,785        | 66,127         | 7,083         | 321          | 1,501        | 65,622         | 16,746        | 26         | 233,462          |
| Inland Empire       | 545                            | 11,374         | 11,022        | 95,361         | 3,870         | 130          | 569          | 33,980         | 8,402         | -          | 165,253          |
| Los Angeles County  | 387                            | 40,968         | 21,594        | 163,533        | 5,158         | 452          | 648          | 62,097         | 5,804         | -          | 300,641          |
| Northern and Sierra | 1,233                          | 1,945          | 441           | 10,548         | 1,728         | -            | 78           | 25,234         | 1,674         | 232        | 43,113           |
| Orange County       | 104                            | 22,504         | 1,252         | 38,928         | 1,801         | 61           | 258          | 28,371         | 3,252         | -          | 96,531           |
| Sacramento Area     | 237                            | 11,660         | 5,572         | 20,574         | 3,728         | 92           | 795          | 32,328         | 1,946         | 12         | 76,944           |
| San Diego Area      | 418                            | 11,100         | 4,697         | 50,743         | 3,192         | 57           | 400          | 37,174         | 13,174        | 3          | 120,958          |
| San Joaquin Valley  | 739                            | 13,843         | 7,242         | 102,432        | 3,525         | 125          | 483          | 42,669         | 4,064         | 20         | 175,142          |
| Missing             | 51                             | 21             | 59            | -              | 20            | 74           | 64           | -              | 51            | -          | -                |
| <b>California</b>   | <b>4,150</b>                   | <b>180,348</b> | <b>64,357</b> | <b>593,098</b> | <b>31,594</b> | <b>1,333</b> | <b>4,893</b> | <b>350,325</b> | <b>57,581</b> | <b>340</b> | <b>1,287,679</b> |

Notes: *Birthing person* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander. Birth totals are suppressed when there are fewer than 10 births in a category. See [Appendix A](#) for a map of counties in each region.

Sources: "Births," California Dept. of Public Health, last updated February 6, 2023.

## Appendix C. Births, by Region and Race/Ethnicity of Mother / Birthing Person, California, 2019 to 2021, *cont.*

| REGION              | PERCENTAGE OF BIRTHS BY RACE/ETHNICITY |             |             |             |             |             |             |             |             |             | CALIFORNIA  |
|---------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                     | AIAN                                   | ASIAN       | BLACK       | LATINA/X    | MULTIRACIAL | OTHER       | NHPI        | WHITE       | UNKNOWN     | MISSING     |             |
| Central Coast       | 3%                                     | 2%          | 1%          | 8%          | 5%          | 2%          | 2%          | 7%          | 4%          | 14%         | 6%          |
| Greater Bay Area    | 8%                                     | 35%         | 18%         | 11%         | 22%         | 24%         | 31%         | 19%         | 29%         | 8%          | 18%         |
| Inland Empire       | 13%                                    | 6%          | 17%         | 16%         | 12%         | 10%         | 12%         | 10%         | 15%         | 0%          | 13%         |
| Los Angeles County  | 9%                                     | 23%         | 34%         | 28%         | 16%         | 34%         | 13%         | 18%         | 10%         | 0%          | 23%         |
| Northern and Sierra | 30%                                    | 1%          | 1%          | 2%          | 5%          | 0%          | 2%          | 7%          | 3%          | 68%         | 3%          |
| Orange County       | 3%                                     | 12%         | 2%          | 7%          | 6%          | 5%          | 5%          | 8%          | 6%          | 0%          | 7%          |
| Sacramento Area     | 6%                                     | 6%          | 9%          | 3%          | 12%         | 7%          | 16%         | 9%          | 3%          | 4%          | 6%          |
| San Diego Area      | 10%                                    | 6%          | 7%          | 9%          | 10%         | 4%          | 8%          | 11%         | 23%         | 1%          | 9%          |
| San Joaquin Valley  | 18%                                    | 8%          | 11%         | 17%         | 11%         | 9%          | 10%         | 12%         | 7%          | 6%          | 14%         |
| Missing             | 1%                                     | 0%          | 0%          | 0%          | 0%          | 6%          | 1%          | 0%          | 0%          | 0%          | 0%          |
| <b>California</b>   | <b>100%</b>                            | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

Notes: *Birthing person* is used to recognize that not all people who become pregnant and give birth identify as women or mothers. *AIAN* is American Indian and Alaska Native. *NHPI* is Native Hawaiian and Pacific Islander. Birth totals are suppressed when there are fewer than 10 births in a category. See [Appendix A](#) for a map of counties in each region. Figures may not sum due to rounding.

Sources: "Births," California Dept. of Public Health, last updated February 6, 2023.

## Maternity Care in California

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### ABOUT THIS SERIES

The California Health Care Almanac is an online clearinghouse for data and analysis examining the state's health care system. It focuses on issues of quality, affordability, insurance coverage and the uninsured, and the financial health of the system with the goal of supporting thoughtful planning and effective decisionmaking. Learn more at [www.chcf.org/almanac](http://www.chcf.org/almanac).

### AUTHOR

Jen Joynt, Independent Health Care Consultant

### FOR MORE INFORMATION



California Health Care Foundation  
1438 Webster Street, Suite 400  
Oakland, CA 94612  
510.238.1040  
[www.chcf.org](http://www.chcf.org)