

# ALAMEDA COUNTY PERINATAL AND INFANT HEALTH INDICATORS



Alameda County Public Health Department  
Health Care Services Agency  
February 2023

This slide set was produced by the Alameda County Public Health Department Community Assessment Planning and Evaluation (CAPE) Unit in collaboration with the Maternal, Paternal, Child and Adolescent Health Unit (MPCAH). It is intended to present the demographics of persons giving birth in Alameda County and identify key perinatal and infant health inequities using recent data, trends, and comparisons by race/ethnicity and insurance type.

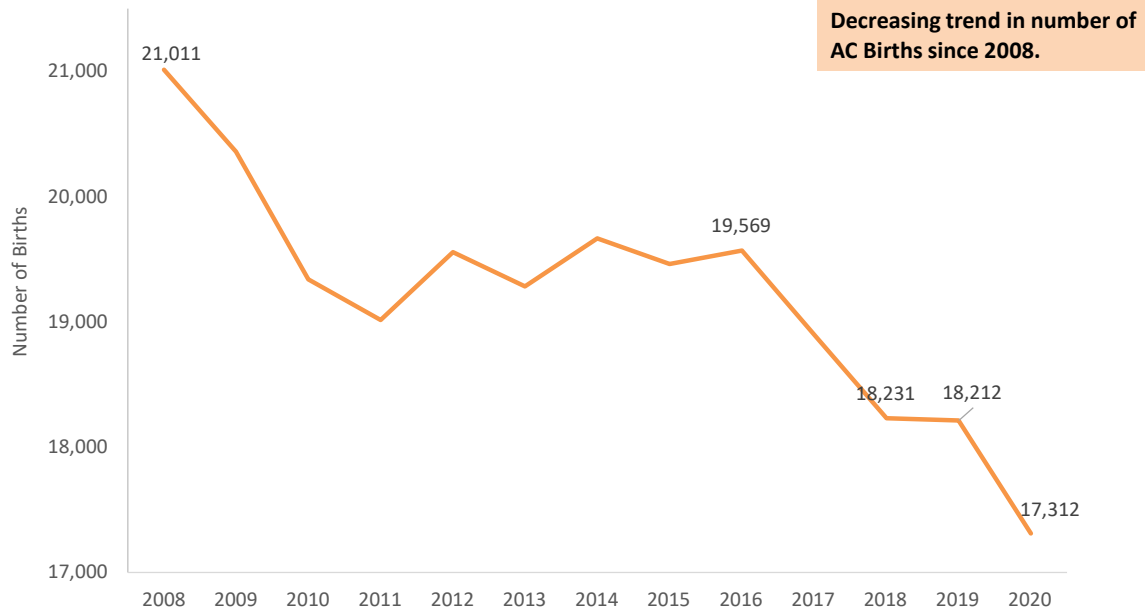
Slides and maps may be referenced and/or reproduced in reports, presentations and publications with the ACPHD logo and the recommended citation: *Alameda County Public Health Department, MPCAH Indicators Slide Set, February 2023.*



This section describes the populations that are giving birth in Alameda County using recent data, trend data and data by race/ethnicity, age, place, education, country of birth, and payer source (e.g. Medi-Cal).

## Annual Births in Alameda County, 2008-2020

3



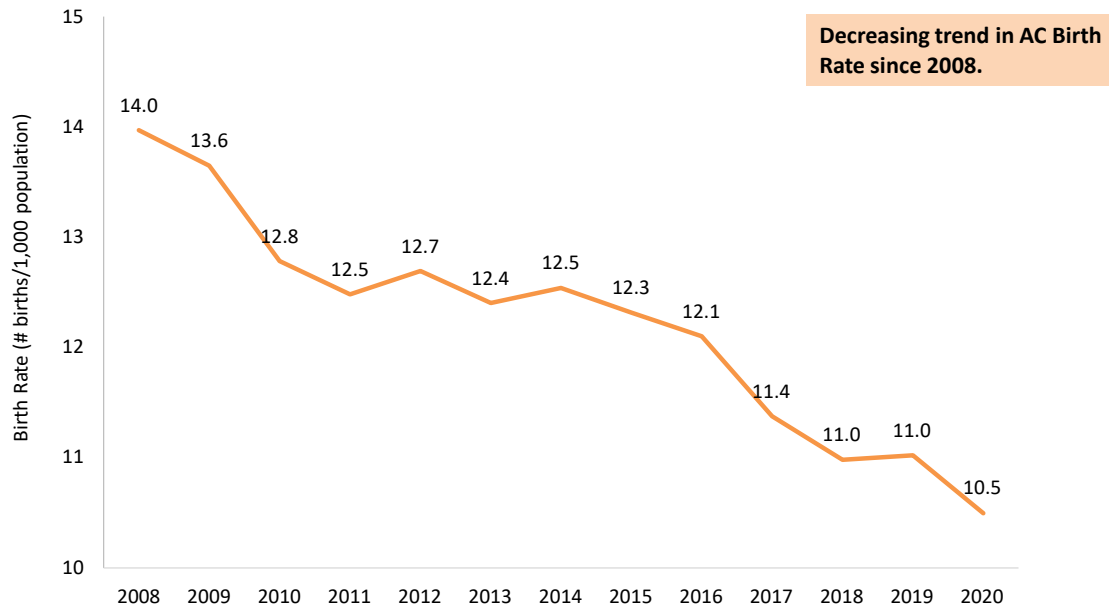
Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- This figure shows the number of total births in Alameda County each year from 2008-2020.
- In 2008, there were 21,011 live births in Alameda County. In 2020, there were 17,312 live births in Alameda County.
- Since 2008 the number of births in Alameda County has decreased.
- Since 2016 the number of births in Alameda County has decreased by over 2,000 births. It is likely we will see even fewer births for 2021 due to current trends and the COVID pandemic.
- This trend matches California and the US.

## Annual Birth Rate in Alameda County, 2008-2020

4



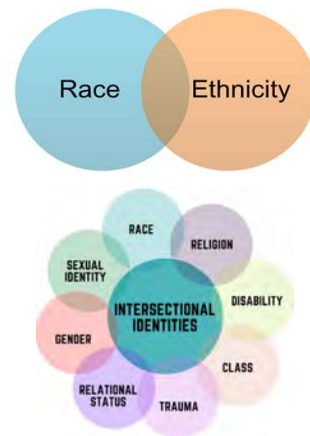
Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- Birth rate: the number of total births per 1,000 population in Alameda County each year 2008-2020.
- This figure shows the Alameda County Birth Rate from 2008-2020.
- The Alameda County birth rate decreased from 14.0 live births per 1,000 population in 2008 to 10.5 live births per 1,000 population in 2020.
- The decrease in the birth rate is likely due to a decrease in the number of live births and an increase in the total population in Alameda County during this time period.
- In 2020 the COVID pandemic may have influenced births toward the second half of 2020 and will likely decrease the birth rate even further in 2021.

# Defining Race & Ethnicity

5

- ❑ Both Race and Ethnicity are Social Constructs!
- ❑ Race: Narrow category based on real or perceived biological differences between groups of people.
- ❑ Ethnicity: Broad category based on common language, religion, nationality, history or another cultural factor.
- ❑ Problems with Categorization
  - ▣ Race & Ethnicity overlap in complex ways
  - ▣ Definitions have changed overtime (“Irish”= Race)
  - ▣ People Can Fit in Multiple Categories
  - ▣ People have multiple/intersecting identities

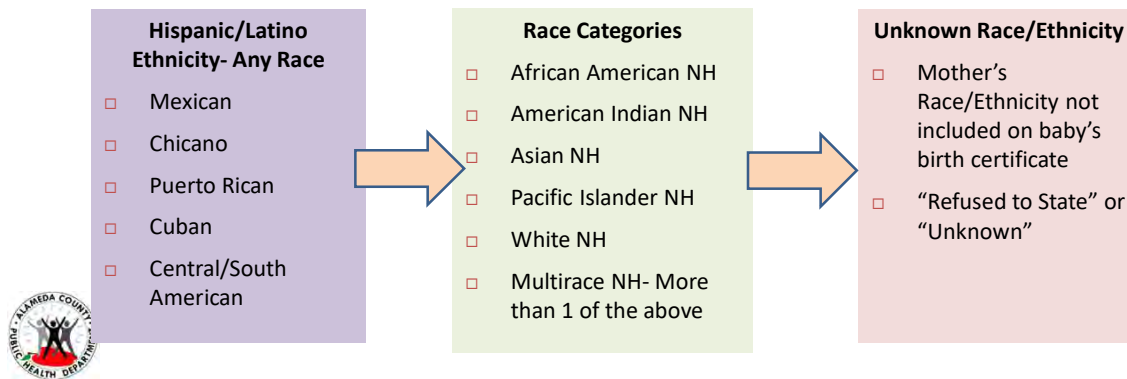


<https://www.verywellmind.com/difference-between-race-and-ethnicity-5074205>

# How We Determine Baby's Race/Ethnicity

6

- ❑ The Birth Certificate allows mothers to select up to 3 race groups and Latino/Hispanic ethnicity
- ❑ Mother's race/ethnicity determines baby's race/ethnicity.
- ❑ Race/Ethnicity is mutually exclusive (one category per mother & baby).
- ❑ Starting Out Strong Uses Similar Methodology
- ❑ Different Program & Data Sources Have Different Definitions



- African Americans: Babies born to Black non-Hispanic mothers.
- American Indians: Babies born to American Indian, Eskimo, or Aleut non-Hispanic mothers.
- Asians: Babies born to Japanese, Korean, Vietnamese, Cambodian, Thai, Laotian, Hmong, Asian Indian, Filipino, and other Asian non-Hispanic Mothers.
- Pacific Islanders: Babies born to Hawaiian, Guamanian, Samoan, Tongan or other Pacific Islander non-Hispanic mothers.
- Whites: Babies born to White non-Hispanic mothers, includes mothers of Middle-Eastern descent.
- Multirace: Babies born to non-Hispanic mothers of more than one race.
- Latinos: Babies born to Hispanic/Latino mothers of any race with Mexican, Chicano, Puerto Rican, Cuban, Central/South American, or other Spanish/Hispanic ethnicity.
- Unknown Race/Ethnicity: Mother's Race/Ethnicity is not included on baby's birth certificate.

## Why We Categorize Baby's Race/Ethnicity

7

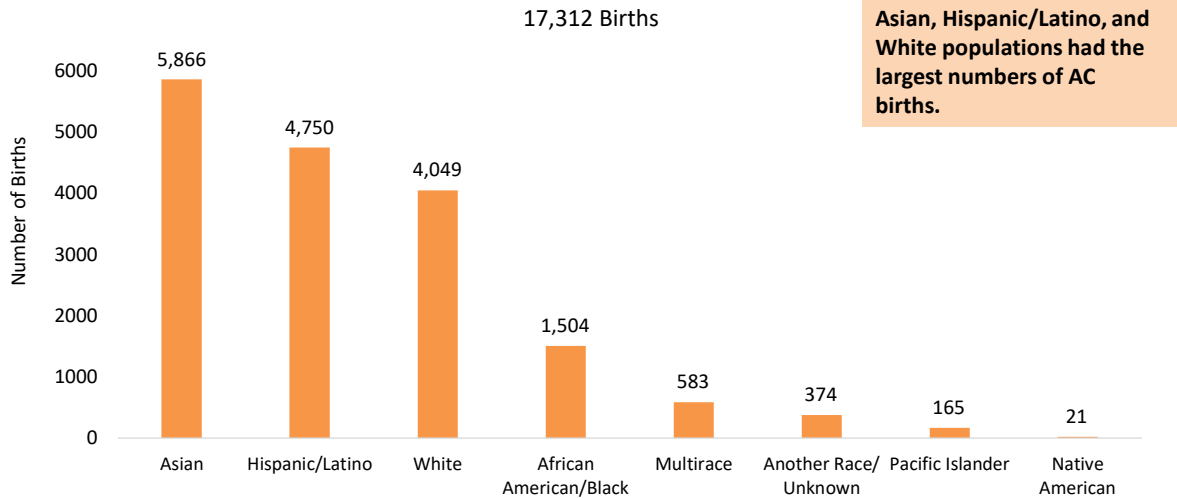
- Data Aggregation/Analyses: to count and compare groups.
- Align with National Standards (NCHS, CDC, CDPH, HP2030)
- Measure how well we are doing compared to other jurisdictions.
- Mother's race/ethnicity incorporates Life Course Perspective.
- #1 reason: To identify health inequities- Race/Ethnicity is our best category for measuring inequities between groups in AC.



- The Life Course Theory suggests that each life stage influences the next, and together the social, economic and physical environments in which we live have a profound influence on our health and the health of our community.
- The Life Course Theory looks at health as an integrated continuum where biological, behavioral, psychological, social and environmental factors interact to shape health outcomes across the course of a person's life.
- Source: Florida Department of Health, <https://www.floridahealth.gov/programs-and-services/womens-health/florida-life-course-indicator-report/life-course-theory-1.html>.

## Number of Births by Race/Ethnicity, 2020

8



Source: CAPE, with data from Alameda County Vital Statistics files, 2020.

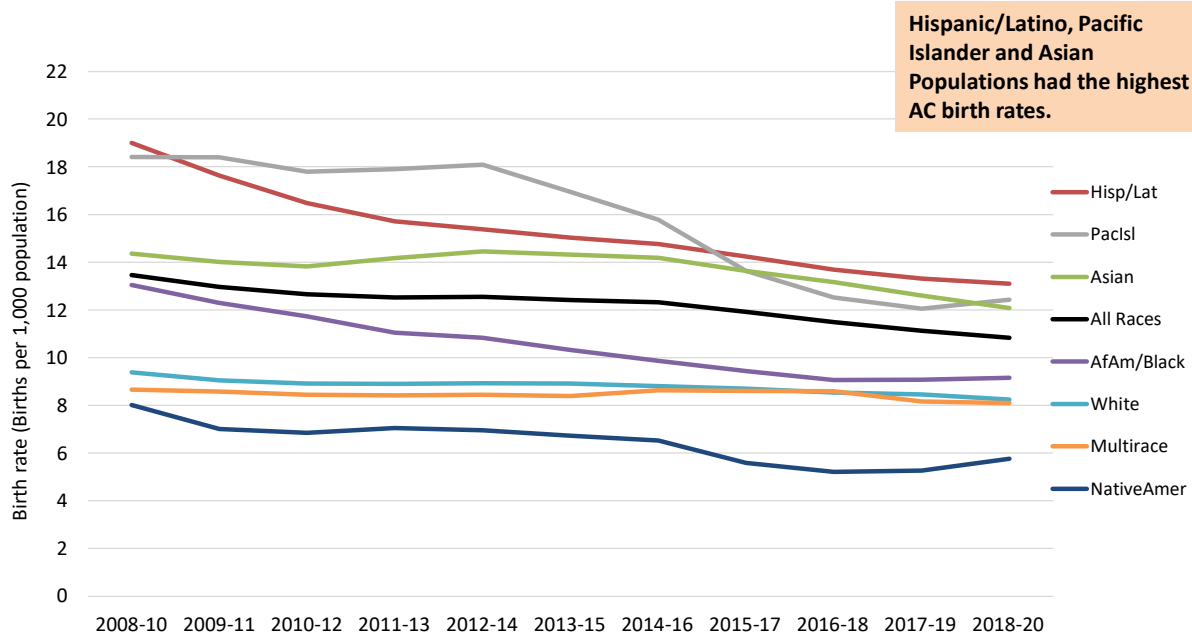
Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2020.

- This figure shows the number of live births in Alameda County by mother's race/ethnicity in 2020.
- In 2020 Asian mothers had the largest number of live births (5,866 births) followed by Hispanic/Latina (4,750 births) and White mothers (4,049).
- Black/ African American mothers had 1,504 live births, Multirace mothers had 583 live births, Pacific Islander mothers had 165 live births, and Native American mothers had 21 live births in 2020.
- In 2020, 374 live births did not include mother's race/ethnicity data on birth certificates. This represents 3.4% of live births in Alameda County in 2020.
- Babies with unknown race/ethnicity are not included in any of the health indicators analyses categorized by race/ethnicity.



## Birth Rate Trend by Race/Ethnicity, 2008-2020

9



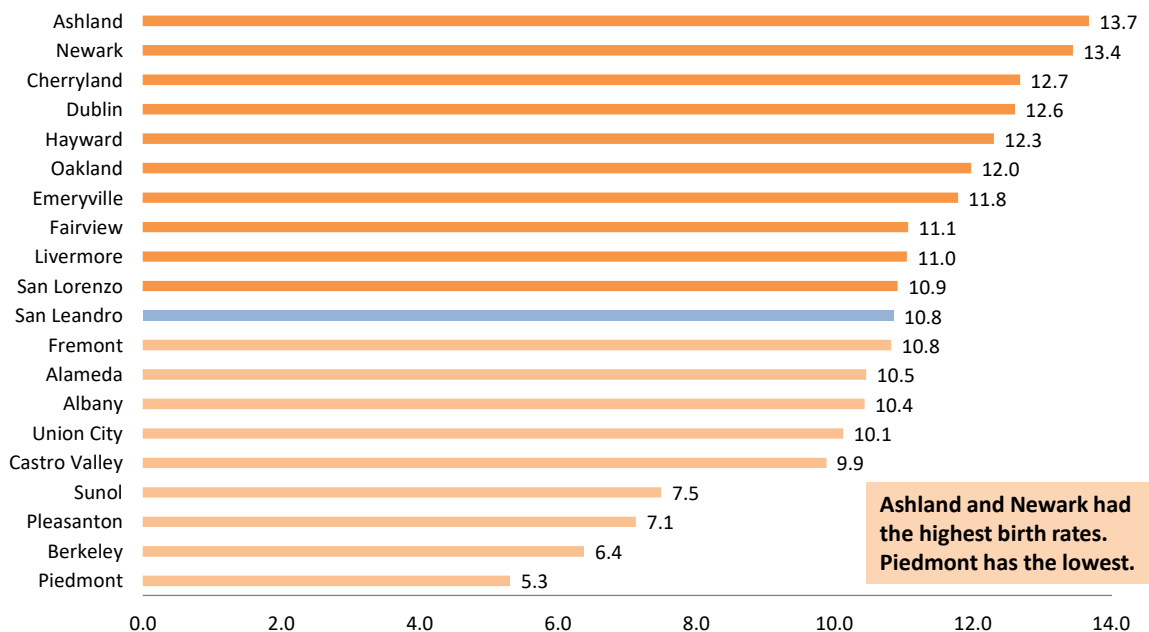
Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- Birth rate: the number of total births per 1,000 race/ethnicity population in Alameda County 2008-2020. (Note: 3 year rolling averages are used to smooth the data.)
- This figure shows the birth rate by race/ethnicity in Alameda County from 2008-2020.
- In 2018-2020 Hispanic/Latino populations had the highest birth rate (13.1 per 1,000 Hispanic/Latino population) and Native Americans had the lowest (5.8 per 1,000 Native American population).
- From 2008-2020 birth rates decreased for most race/ethnic groups and substantially for Hispanic/Latino, African Americans and Pacific Islander populations.
- White and Multirace birth rates remained steady during this period.
- It is likely the birth rates for all groups will further decrease in 2021 as well, and this is consistent with trends in California and the US.

## Birth Rate by City/Place, 2018-2020

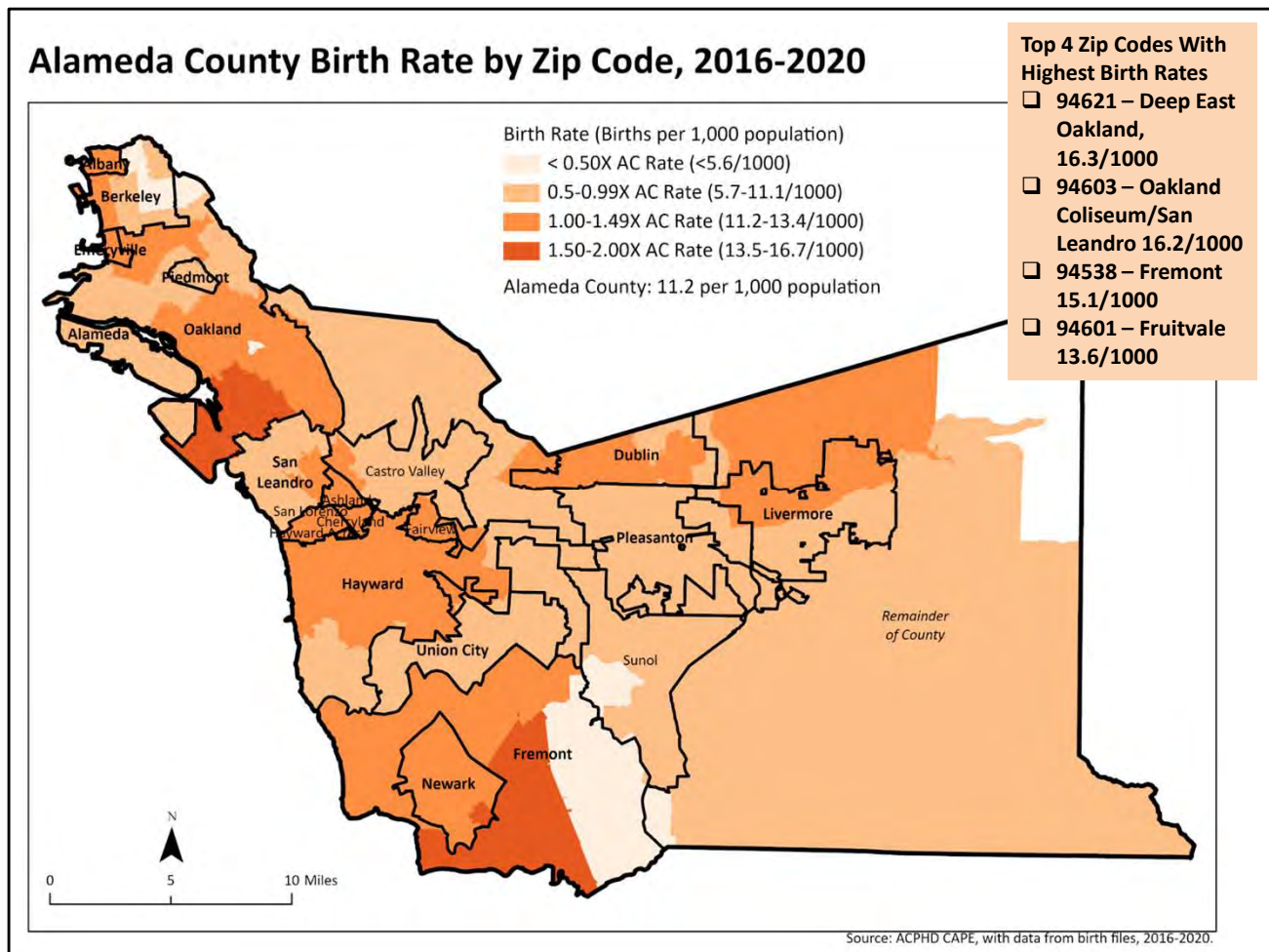
10



Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- Birth rate: the number of total births per 1,000 city/place population in Alameda County.
- This figure shows the birth rate by city/place in Alameda County in 2018-2020, combined years.
- In 2018-2020 Ashland and Newark had the highest birth rates by city/place at 13.7 and 13.4 births per 1,000 population.
- Berkeley and Piedmont had the lowest birth rates by city/place and 6.4 and 5.3 per 1,000 population.
- The population size and the number of births impact the birth rates by city/place in that smaller populations with few births had lower birth rates.

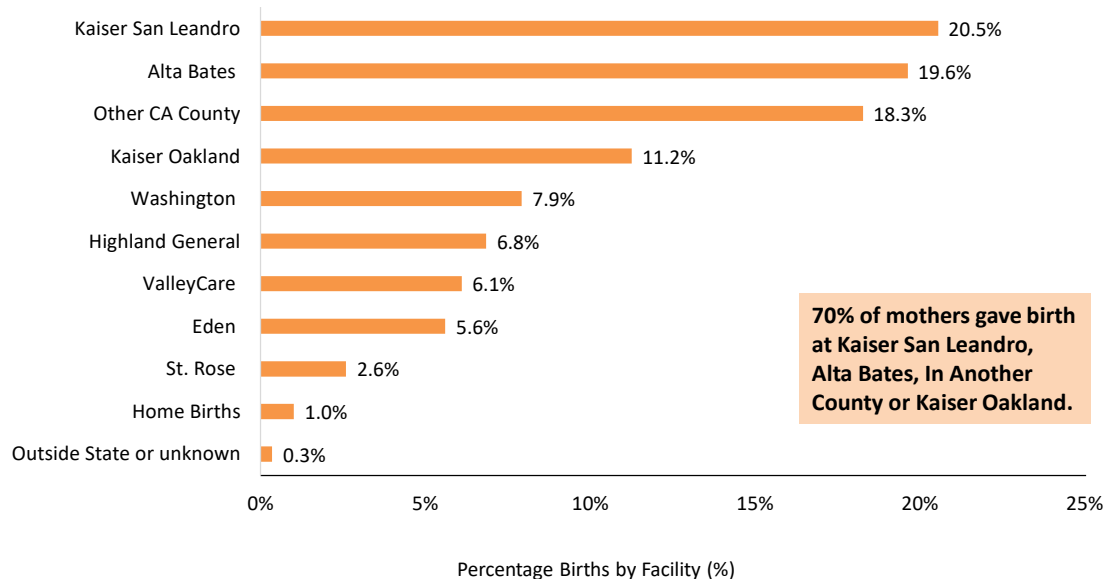


Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2016-2020.

- Birth rate: the number of total births per 1,000 zip code population in Alameda County.
- This map shows the birth rate by zip code in Alameda County for 2016-2020, combined years.
- Zip Codes with the highest birth rates were 94621, 94603, 94538 and 94601, which are mostly in Oakland with one in Fremont.
- These zip codes were the highest likely because they are densely populated and had large numbers of births relative to their populations.

## Percentage Share Alameda County Births by Facility, 2018-2020

12



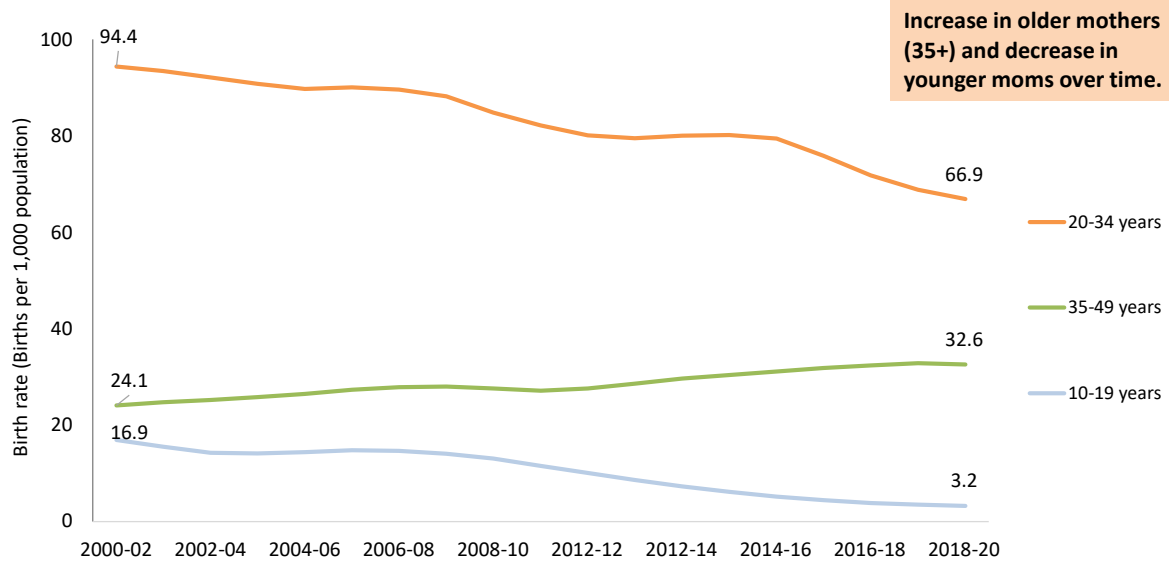
Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2018-2020.

- This figure shows the percentage share of Alameda County live births by birthing facility for 2018-2020, combined years.
- Kaiser San Leandro had the largest portion of live births (20.5%) followed by Alta Bates (19.6%) and Kaiser Oakland (11.2%). This means that 1 out of 2 Alameda County births occurred at one of these facilities.
- Facilities in “Other California Counties” comprised 18.3% of all births to Alameda County residents. Most of these birthing facilities are in adjoining counties such as Contra Costa, Santa Clara and San Francisco.
- The remaining Alameda County birthing facilities comprise a little over one quarter of the share of births to AC residents.
- Home births comprise about 1% of all Alameda County births and this percentage share is consistent over time (not shown.)

## Birth Rate Trend by Age Category, 2008-2020

13



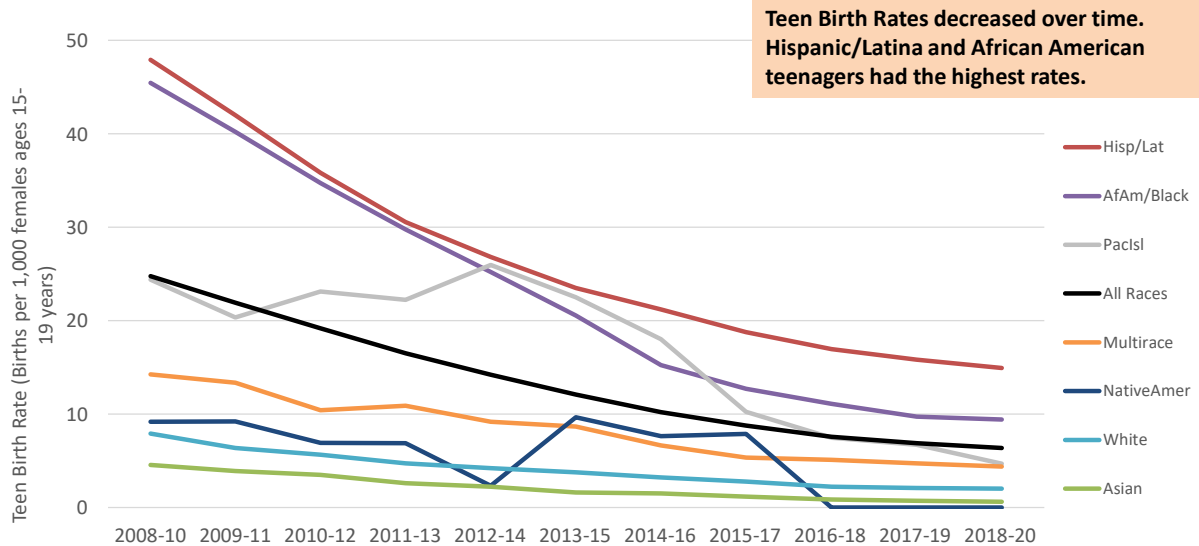
Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- Age-specific Birth Rate: the number of total births per 1,000 population females per age category in Alameda County 2008-2020. (Note: 3 year rolling averages are used to smooth the data.)
- This figure shows the age-specific birth rate trends by age category in Alameda County from 2008-2020.
- There has been an increase in births to older mothers (35+ years) from 27.6 births per 1,000 females 35-49 years in 2008-2010 to 32.6 in 2018-2020.
- Conversely, there has been a substantial decrease in births to younger mothers 20-34 years from 84.8 to 66.9 as well as teens during this period.
- This reflects the California and US trend of women waiting to have children and may be related to economic pressures in Alameda County.

## Teen Birth Rate Trend by Race/Ethnicity, 2008-2020

14



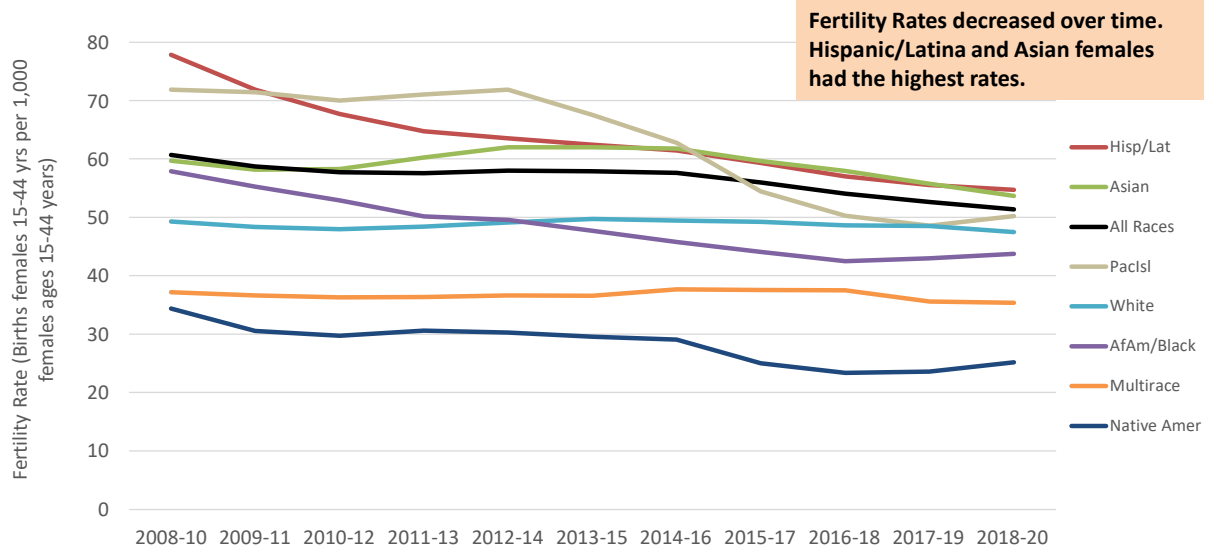
Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- Teen birth rate: the number of births to mothers 15-19 years of age per 1,000 population females 15-19 years of age in Alameda County.
- This figure shows the Teen Birth Rate Trend in Alameda County by race/ethnicity from 2008-2020. (Note: 3 year rolling averages are used to smooth the data.)
- There were 1,321 teen births in Alameda County in 2008 and only 305 teen births in Alameda County in 2016. This represents a 77% decrease in teen births in Alameda County over this time period (not shown).
- The Alameda County Teen Birth Rate decreased from 27.2 teen births per 1,000 females 15-19 years in 2008 to 5.9 in 2020. Alameda County is ranked 8th out of 56 counties for the lowest teen birth rate in California (not shown).
- Hispanic/Latina and African American/Black teenagers had the steepest declines during this period.
- Pacific Islander and Native American teen birth rates also declined despite yearly fluctuations due to small numbers.
- The substantial reduction in the teen birth rates is likely due to delayed age of sexual activity and the increased use of long-acting reversible contraceptives among teens.

## Fertility Rate Trend by Race/Ethnicity, 2008-2020

15



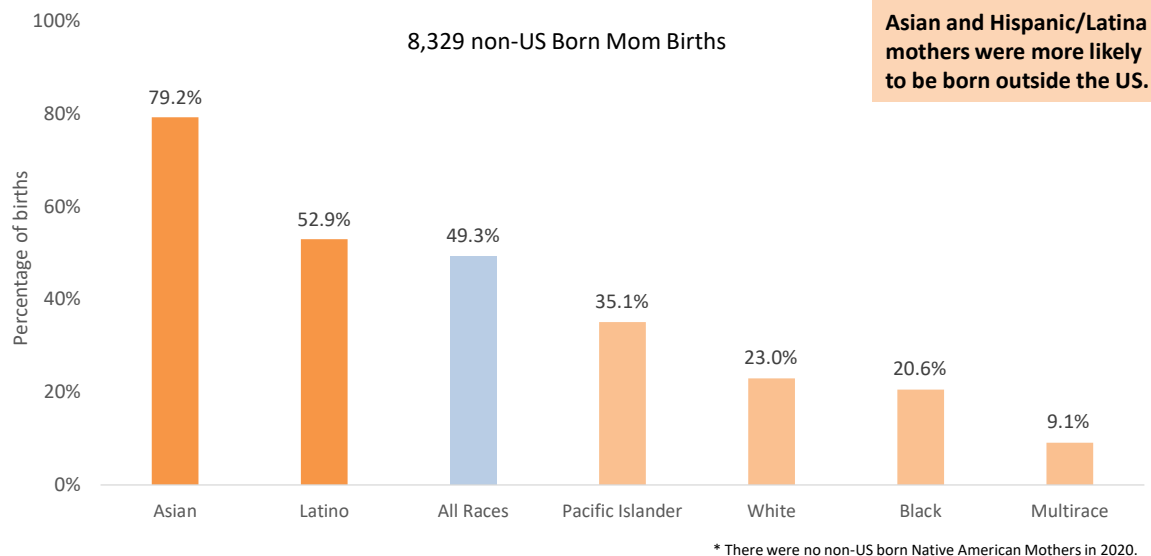
Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- Fertility Rate: the number of births to females 14-55 years per 1,000 population females 15-44 years by race/ethnicity in Alameda County. (This is also an age-specific rate).
- This figure shows the fertility rate by race/ethnicity in Alameda County from 2008-2020. (Note: 3 year rolling averages are used to smooth the data.)
- In 2018-2020 Hispanic/Latina and Asian females had the highest fertility rates (54.8 and 53.7, respectively). Native American females had the lowest (25.2 per 1,000 Native American females 15-44 years).
- From 2008-2020 fertility rates decreased for all race/ethnic groups and substantially for Hispanic/Latina, African Americans and Pacific Islander populations.
- The White and Multirace Fertility Rates remained steady during this period.
- It is likely the fertility rates for all groups will further decrease in 2021 as well, and this is consistent with trends in California and the US.

## Percentage Births to Non-US Born Mothers by Race/Ethnicity, 2020

16



Source: CAPE, with data from Alameda County Vital Statistics files, 2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2020.

- This figure shows the percentage of births to mothers whose country of birth was not the US by race/ethnicity of mother in 2020.
- Note: Birth Certificate data does not include the number of years the mother has been living in the United States.
- About one-half (49%) of all Alameda County births were to non-US born moms in 2020.
- Alameda County had a higher percentage of births to non-US born mothers than California at 35% (not shown).
- Asian and Latina mothers are the key drivers of this percentage. 80% of Asian births were to Asian non-US born mothers and 53% of Latino births were to Latina non-US born mothers in 2020.
- About one in three Pacific Islander mothers were born outside the US.
- 23% or less of White, Black/African and Multirace births were to non-US born mothers in 2020.



# Top Countries of Mothers' Birth by Race/Ethnicity, 2020

17

Asian (5,866)		
Rank	Country	Percent
1	India	33.5%
2	US	22.4%
3	China	16.7%
4	Philippines	7.5%
5	Vietnam	4.6%

Pacific Islander (165)		
Rank	Country	Percent
1	US	66.1%
2	Tonga	13.9%
3	Fiji	13.3%

Black/ African American (1,504)		
Rank	Country	Percent
1	US	80.0%
2	Ethiopia	5.2%
3	Eritrea	3.9%
4	Nigeria	2.7%

White (4,409)		
Rank	Country	Percent
1	US	75.3%
2	Afghanistan	4.5%
3	Yemen	4.3%
4	Russia	1.6%

Hispanic/Latino (4,750)		
Rank	Country	Percent
1	US	49.5%
2	Mexico	26.1%
3	Guatemala	10.2%
4	El Salvador	6.8%
5	Honduras	2.1%



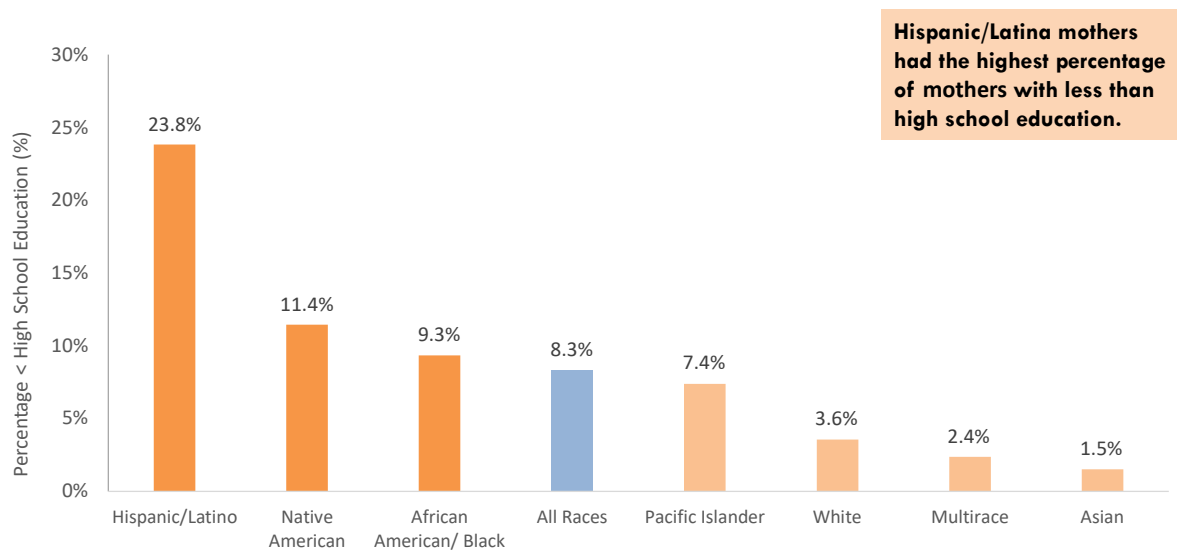
Source: CAPE, with data from Alameda County Vital Statistics files, 2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2020.

- This figure shows the percentage of births to mothers by country of birth and race/ethnicity of mother in 2020.
- Note: Birth Certificate data does not include the number of years the mother has been living in the United States.
- Among Asian mothers, about one-third were born in India and almost one-quarter were born in the US. Substantial percentages of Asian mothers were born in China, the Philippines and Vietnam.
- Among Pacific Islander mothers, about two-thirds were born in the US (which includes Hawaii and US territories). Outside of the US, most were born in Tonga and Fiji.
- Among Black/African Americans mothers most were US born (80%), with small percentages from Ethiopia, Eritrea, and Nigeria.
- Among White mothers, three-quarters were US born with small percentages from Afghanistan, Yemen and Russia.
- Finally, about one-half of Hispanic/Latina mothers were born in US with about one-quarter from Mexico and many born in Guatemala, El Salvador, and Honduras.

## Percentage Mothers Less than High School Education by Race/Ethnicity, 2018-2020

18



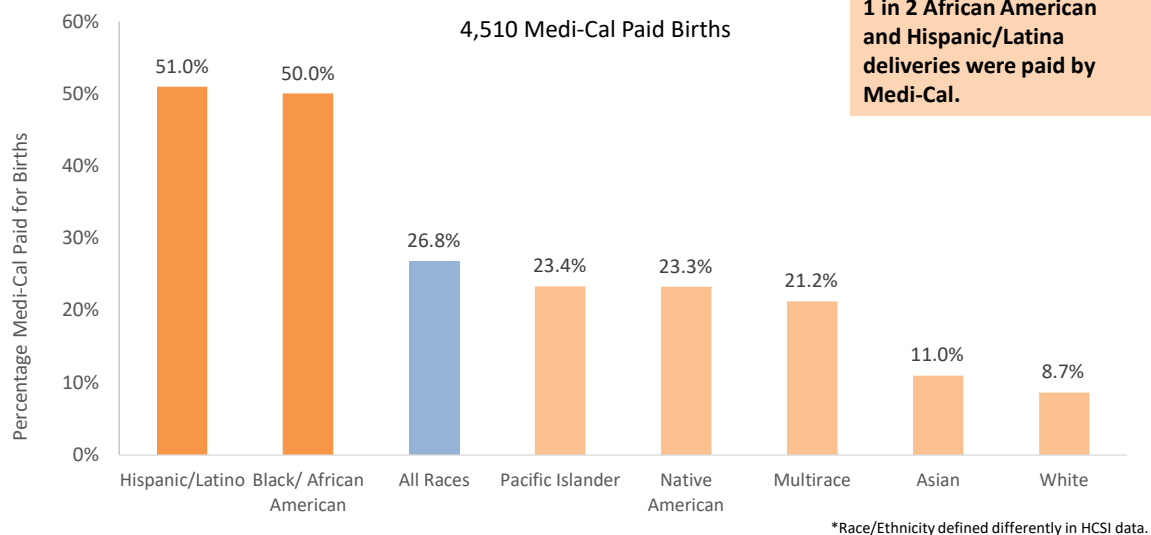
Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2018-2020.

- This figure shows the percentage of births to mothers with less than a high school education by race/ethnicity of mother in 2018-2020.
- Education is often used as a proxy for income or living in poverty, which can show the populations in Alameda County that qualify for public health and social support services such as CalFresh and Medi-Cal.
- Alameda County had a low percentage of mothers with less than a high school education at 8.3%, however there were differences by race/ethnic group.
- Hispanic/Latina mothers had the highest percentages of those with less than a high school education at 24% or about one in four.
- Native American and African American/Black mothers had slightly higher rates than Alameda County (11% and 9%, respectively).
- Pacific Islander mothers were about at the county rate with 7%.
- White, Multirace and Asian mothers had the lowest percentages of those with less than a high school education in Alameda County.

## Percentage Medi-Cal Births by Race/Ethnicity, 2020

19



Source: CDPH, with data from HCAI patient discharge files, 2020.

Source: CAPE with data from the California Department of Health Care Access and Information (HCAI) Patient Discharge Data files using medical diagnoses and procedure billing codes (ICD-10), 2020.

- Note: HCAI data is used because it is a more accurate count of Medi-Cal births than birth certificate data. Also, race/ethnicity is defined differently in the HCAI data and is still based on mother's race/ethnicity.
- This figure shows the percentage of Medi-Cal paid for births by race/ethnicity of mother in 2020.
- Medi-Cal is often used as a proxy for income or living in poverty, which can show the populations in Alameda County that have the greatest needs for public health and social support services.
- About 27% of all Alameda County births were paid by Medi-Cal in 2020.
- There are differences by race/ethnicity where one-half or one in every two Hispanic/Latina and Black/African American deliveries were paid by Medi-Cal in 2020.
- Only about one-quarter of Pacific Islander, Native American and Multirace deliveries were paid by Medi-Cal. This may represent a gap in access to Medi-Cal for these populations.
- The rates of Medi-Cal for prenatal care were equivalent to Medi-Cal paid for births because these populations are the same.

## Medi-Cal Births by AC Birthing Facility

20

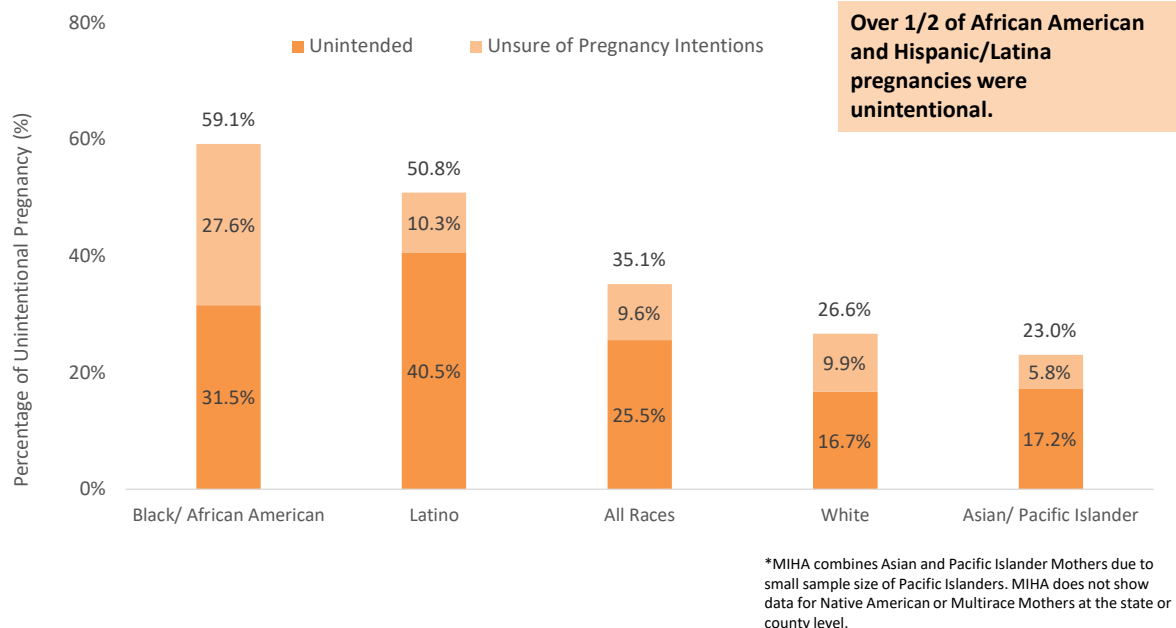
- ☐ Facilities with highest percentages of Medi-Cal births
  - ☐ Highland, St Rose and Alta Bates
- ☐ Facilities with the lowest percentages of Medi-Cal births
  - ☐ Kaiser San Leandro, Kaiser Oakland, Eden and Home Births.
- ☐ Note: Medi-Cal Births are underestimated on birth certificates and hospital diagnostic and billing data is a better source for payer type.



Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

## Percentage Unintentional Pregnancy by Race/Ethnicity, 2016-2018

21



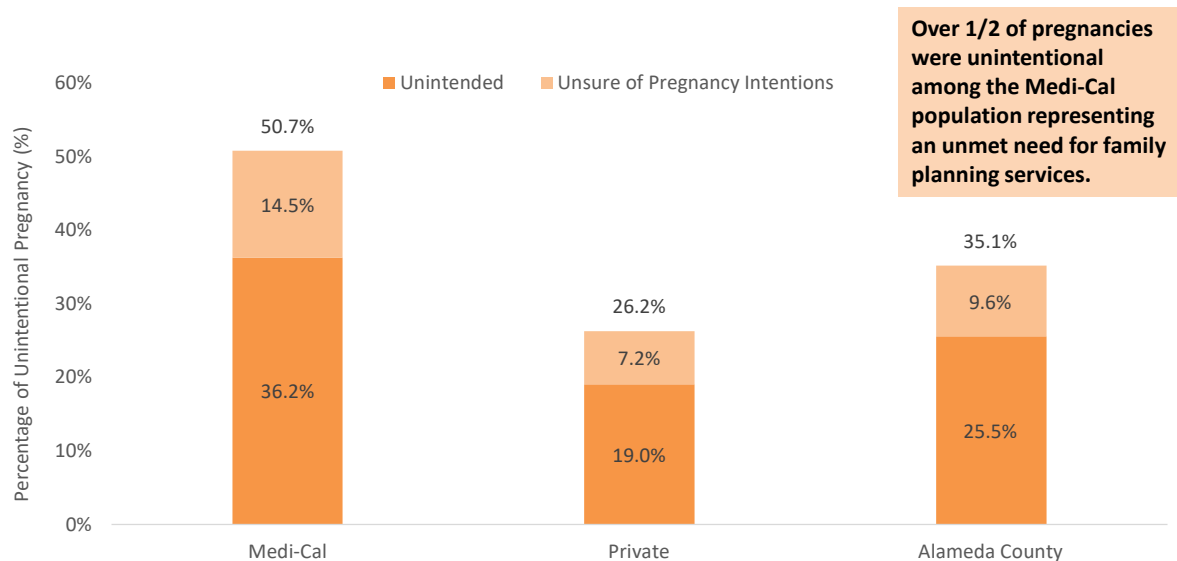
Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Data Snapshots, California Counties 2016-2018 combined years.

- Note: MIHA is a self reported annual survey data of postpartum women in California and asks questions about maternal experiences and perinatal behaviors.
- Mistimed or unwanted pregnancy: Just before pregnancy, person felt they did not want to get pregnant then or wanted to get pregnant later.
- Unsure of pregnancy intentions: Just before pregnancy, person was not sure if they wanted to get pregnant.
- This figure shows the percentage of mothers who reported their pregnancy was unintentional by race/ethnicity in Alameda County from 2016-2018.
- About 35% of all pregnancies in Alameda County were unintentional (25.5% unintended and 9.6% unsure).
- Black/African Americans and Hispanic Latina mothers had the highest rates of unintentional pregnancy at 59% and 51%, respectively.
- Whites and Asian Pacific Islander mothers had the lowest percentages.
- These percentages show the importance of and need for contraception and family planning services in Alameda County.

## Percentage Unintentional Pregnancy: Medi-Cal vs. Private Insurance 2016-2018

22



Source: Maternal and Infant Health Assessment (MHIA) Survey 2016-2018.

Source: Maternal and Infant Health Assessment (MHIA) Data Snapshots, California Counties 2016-2018 combined years.

- Note: MIHA is a self reported annual survey data of postpartum women in California and asks questions about maternal experiences and perinatal behaviors.
- Mistimed or unwanted pregnancy: Just before pregnancy, person felt they did not want to get pregnant then or wanted to get pregnant later.
- Unsure of pregnancy intentions: Just before pregnancy, person was not sure if they wanted to get pregnant.
- This figure shows the percentage of mothers who reported their pregnancy was unintentional by health insurance payer type in Alameda County from 2016-2018.
- About 35% of all pregnancies in Alameda County were unintentional (25.5% unintended and 9.6% unsure).
- One in two pregnancies among those with Medi-Cal were unintentional compared to about one-quarter or one in four among those with private insurance.
- These percentages show the importance of and need for contraception and publicly funded family planning services in Alameda County.

## Unmet Need for Family Planning Services in AC and CA

23

- ❑ In 2016, over 87,000 women in AC aged 13-44 years needed publicly funded family planning services.
- ❑ Publicly funded family planning centers in AC served about 54,000 female clients in 2015.
- ❑ The abortion rate for CA residents was 16.4 per 1,000 women ages 15-44 years in 2017.
- ❑ Publicly funded family planning centers in CA helped avert about 350,000 unintended pregnancies in 2016.



Source: Guttmacher Institute. Unintended Pregnancy in the US, Fact Sheet September 2016.  
<https://data.guttmacher.org/>

Source: Guttmacher Institute. Unintended Pregnancy in the US, Fact Sheet September 2016. <https://data.guttmacher.org/>

Abortion data is not available at the county level for California.

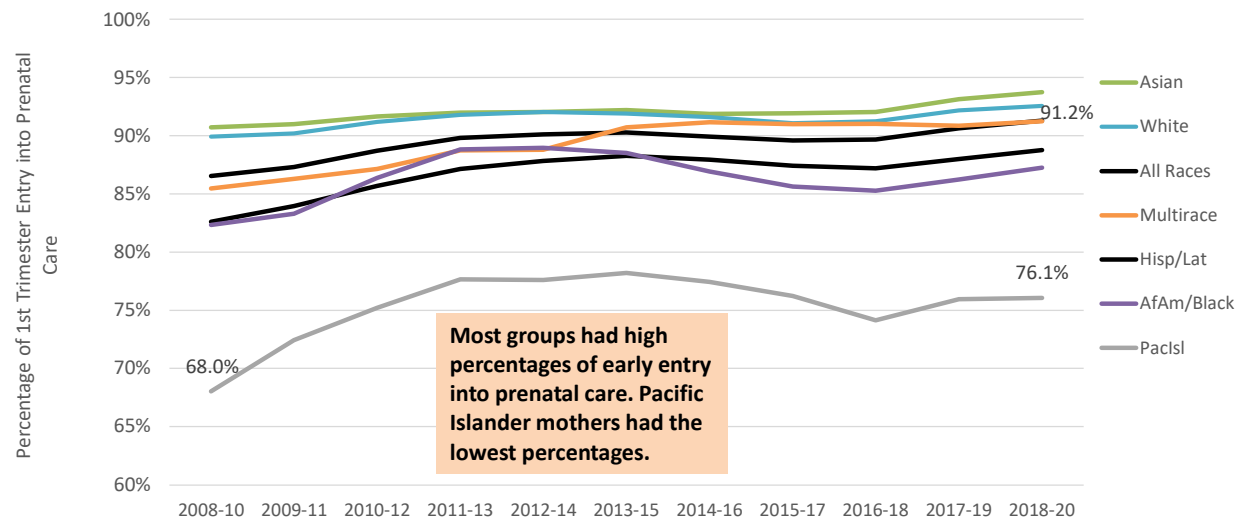
## Alameda County Pregnancy and Maternal Health Indicators



This section describes key pregnancy and maternal health indicators using recent data, trend data and data by race/ethnicity and payer source.



## Percentage of First Trimester Prenatal Care Trend by Race/Ethnicity, 2008-2020



\* Native American mothers first trimester entry into prenatal care was similar to other populations, but not included due to yearly fluctuations.

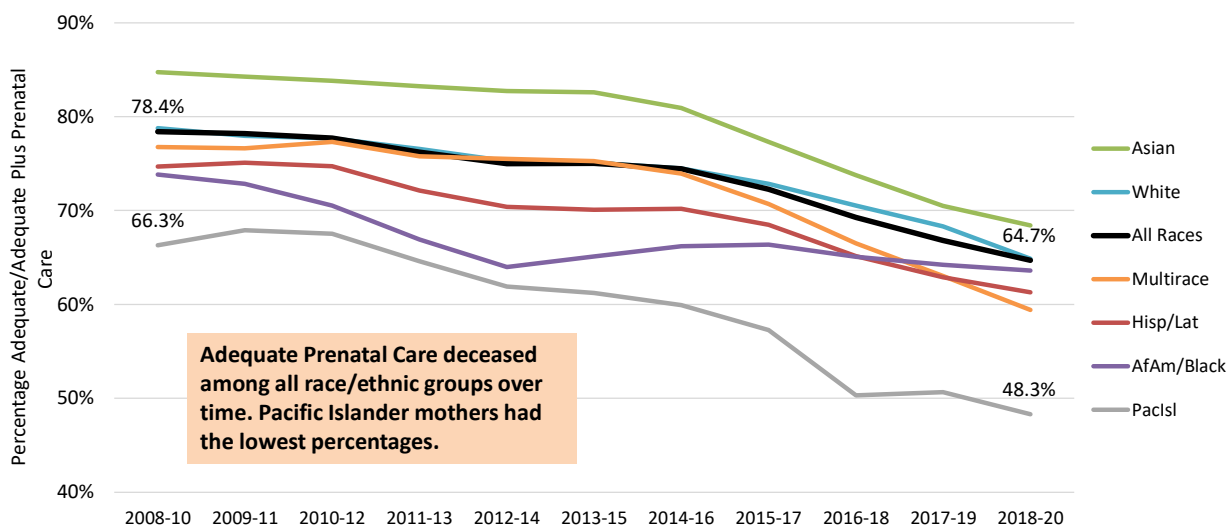
Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- First Trimester Prenatal Care: Pregnant women who began prenatal care within the first three months of their pregnancy.
- This figure shows the percentage of first trimester prenatal care in Alameda County by race/ethnicity from 2008-2020. (Note: 3 year rolling averages are used to smooth the data.)
- In Alameda County 91% of pregnant women received prenatal care in their first trimester in 2018-2020.
- Alameda County ranked 2nd out of 58 counties in California in having the highest percentages of early prenatal care (not shown).
- Except for Pacific Islander mothers, the percentage of first trimester prenatal care for mothers in each race/ethnic group ranged between 87%-94%, including Native American mothers (not shown).
- About three-quarters (76%) of Pacific Islander mothers received at least one prenatal care visit in their first trimester in 2018-2020.
- Pacific Islander mothers consistently had the lowest percentage of first trimester entry into prenatal care over time.

## Percentage of Adequate/Adequate Plus Prenatal Care Trend by Race/Ethnicity, 2008-2020

**Adequate/Adequate Plus Prenatal Care:** Received ~80% of needed prenatal care visits during pregnancy. (Kotelchuck Index)



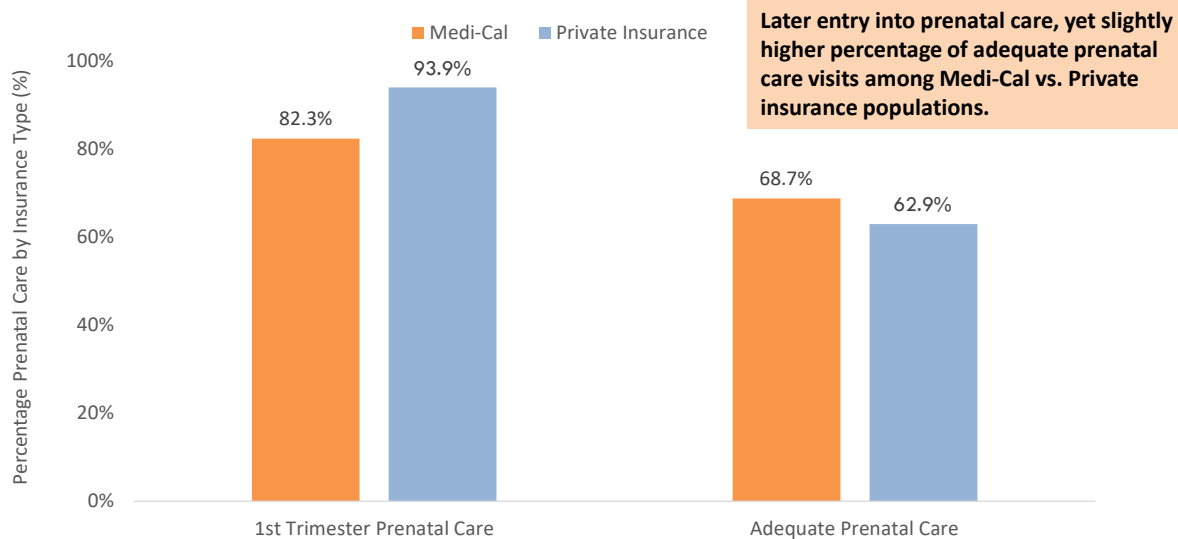
\* Native American mothers first trimester entry into prenatal care was similar to other populations, but not included due to yearly fluctuations.

Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2008-2020.

- Adequate/Adequate Plus Prenatal Care: Calculated index that takes into account gestational age and birth weight. Adequate/Adequate Plus are those who received approximately 80% of needed prenatal care visits during their pregnancy (Kotelchuck Index).
- This figure shows the percentage of adequate/adequate plus prenatal care in Alameda County by race/ethnicity from 2008-2020. (Note: 3 year rolling averages are used to smooth the data.)
- The Alameda County percentage decreased from 78% in 2008-2010 to 65% in 2018-2020.
- The adequate/adequate plus prenatal care percentages decreased for every race/ethnic group in the county during this period.
- Alameda County ranks 50th out of 58 counties for adequate prenatal care. (not shown).
- Pacific Islander mothers had the lowest rates with less than one-half receiving adequate prenatal care in 2018-2020.
- While pregnant women in Alameda County seek prenatal care in their first trimester, they are not receiving an adequate number of visits during their pregnancy periods.

## Percentage 1st Trimester & Adequate Prenatal Care Medi-Cal vs. Private, 2018-2020

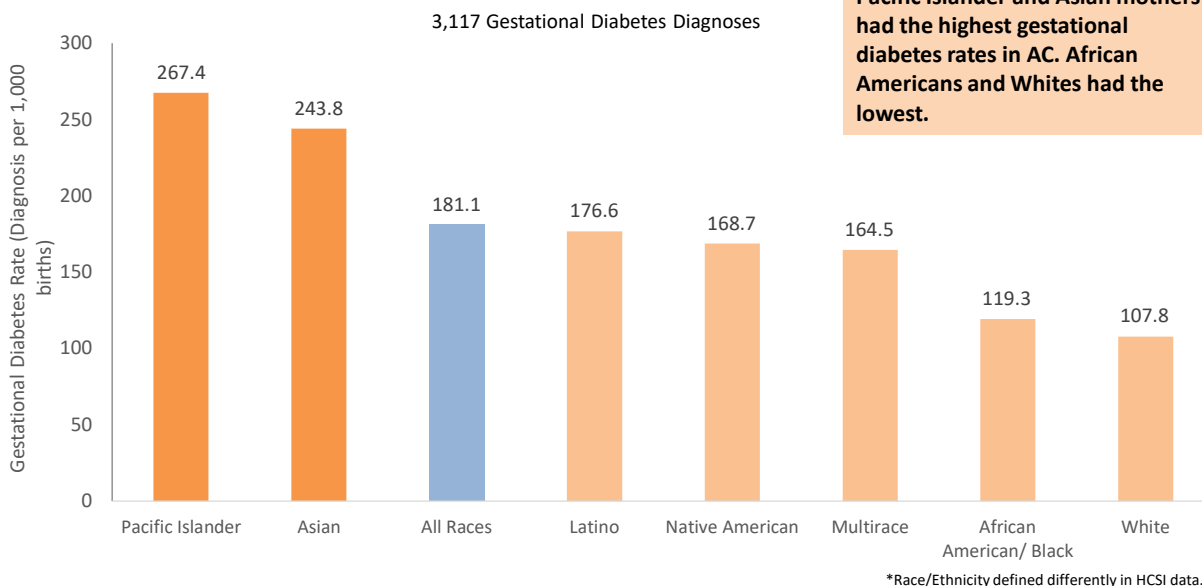


Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2018-2020.

- First Trimester Prenatal Care: Pregnant women who began prenatal care within the first three months of their pregnancy.
- Adequate/Adequate Plus Prenatal Care: Calculated index that takes into account gestational age and birth weight. Adequate/Adequate Plus are those who received approximately 80% of needed prenatal care visits during their pregnancy (Kotelchuck Index).
- Mothers with private insurance had higher rates of early entry into prenatal care compared to mothers using Medi-Cal (94% vs. 82%).
- Conversely, mothers using Medi-Cal had slightly higher percentages of adequate prenatal care compared to those using private insurance (69% vs. 62%).

## Gestational Diabetes Rate by Race/Ethnicity, 2019-2020

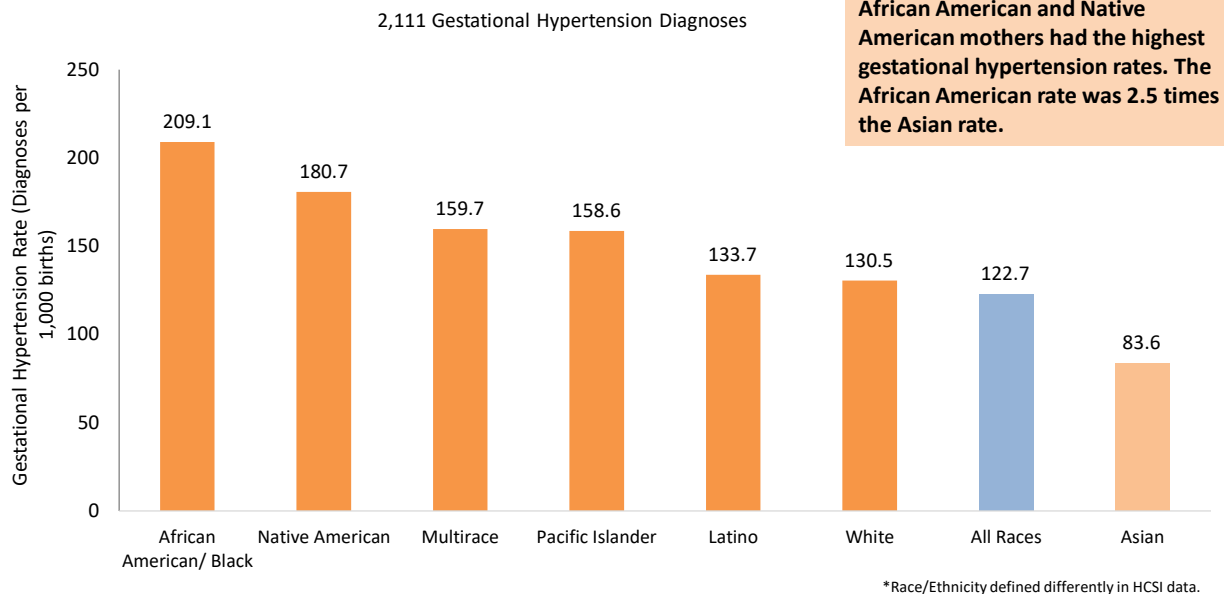


Source: CDPH, with data from HCAI patient discharge files, 2019-2020.

Source: CAPE with data from the California Department of Health Care Access and Information (HCAI) Patient Discharge Data files using medical diagnoses and procedure billing codes (ICD-10), 2019-2020, combined years.

- Gestational Diabetes: Diabetes diagnoses during pregnancy per 1,000 live birth deliveries.
- This figure shows the gestational diabetes rate in Alameda County by race/ethnicity in 2019-2020, combined years.
- The Alameda County gestational diabetes rate was 181.1 per 1,000 live birth deliveries. The Alameda County rate is consistently higher than the California rate (not shown).
- Pacific Islander and Asian mothers had the highest rates of gestational diabetes diagnoses at 267 and 244 diagnoses per 1,000 live births. African American and White mothers had the lowest rates during this period.
- The Pacific Islander and Asian rates were over three times the White rate and were statistically significantly higher than the county rate.
- The African American and White rates were statistically significantly lower than the county rate.

## Gestational Hypertension Rate by Race/Ethnicity, 2019-2020

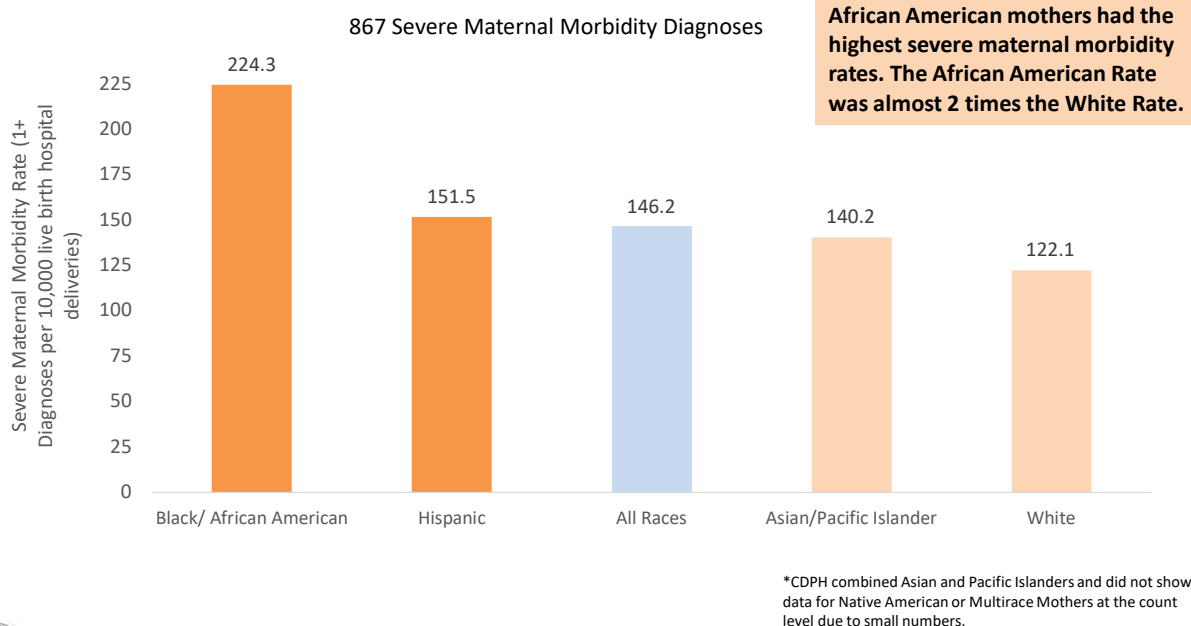


Source: CDPH, with data from HCAI patient discharge files, 2019-2020.

Source: CAPE with data from the California Department of Health Care Access and Information (HCAI) Patient Discharge Data files using medical diagnoses and procedure billing codes (ICD-10), 2019-2020, combined years.

- Gestational Hypertension: Hypertension diagnoses (preeclampsia and eclampsia) during pregnancy per 1,000 live birth deliveries.
- This figure shows the gestational hypertension rate in Alameda County by race/ethnicity in 2019-2020, combined years.
- The Alameda County gestational hypertension rate was 122.7 per 1,000 live birth deliveries.
- African American mothers had the highest rate at 209 per 1,000 African American births. The African American rate was 1.7 times the county rate and over 2.5 times the Asian rate.
- Native American, Multirace and Pacific Islander mothers also had higher rates than the county rate.
- The Alameda County Rate is lower than most race/ethnic groups because the Asian Rate is much lower and influencing the county rate.

## Severe Maternal Morbidity by Race/Ethnicity, 2019-2021

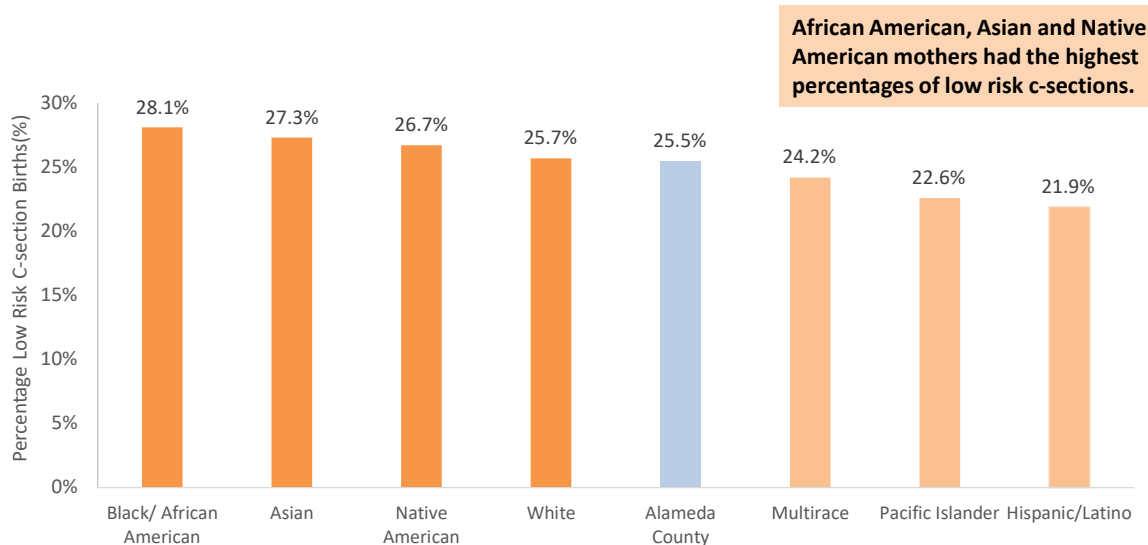


Source: CDPH, with data from HCAI patient discharge files, 2019-2021.

Source: CAPE with data from the California Department of Health Care Access and Information (HCAI) Patient Discharge Data files using medical diagnoses and procedure billing codes (ICD-10), 2020.

- Severe Maternal Morbidity (SMM): Number of unexpected and potentially life-threatening complications from labor and delivery that result in significant short- or long-term health consequences. SMM includes 20 indicators that represent either serious complications of pregnancy or delivery, such as sepsis or acute renal failure, or procedures used to manage serious conditions, such as ventilation or hysterectomy. The SMM rate is the number of conditions/complications per 10,000 live birth deliveries.
- This figure shows the severe maternal morbidity rate in Alameda County by race/ethnicity in 2019-2021 combined years.
- The Alameda County SMM rate was 146.2 per 10,000 live birth deliveries.
- Black/African American mothers had the highest rate at 224 per 10,000 African American births. The African American Rate was 1.5 times the county rate and 1.8 times the White Rate.
- Asian/Pacific Islander and Hispanic/Latino mothers had SMM rates in line with the Alameda County rate.
- White mothers had the lowest SMM rate at 122 per 10,000 white births.
- The Alameda County rate is over 40% higher than the California Rate during this period (not shown).

## Percentage Low Risk C-Section by Race/Ethnicity, 2018-2020



Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2018-2020.

- Low Risk C-section: Primary C-section during full-term (not premature) singleton delivery.
- This figure shows the percentage of low risk c-section births in Alameda County by race/ethnicity in 2018-2020, combined years.
- The rates to do differ very much by race/ethnic group.
- About one-quarter of singleton full term births in Alameda County were performed via c-section.
- Black/African American, Asian and Native American mothers had slightly higher percentages than the county.
- Pacific Islander and Hispanic/Latina mothers had slightly lower rates.

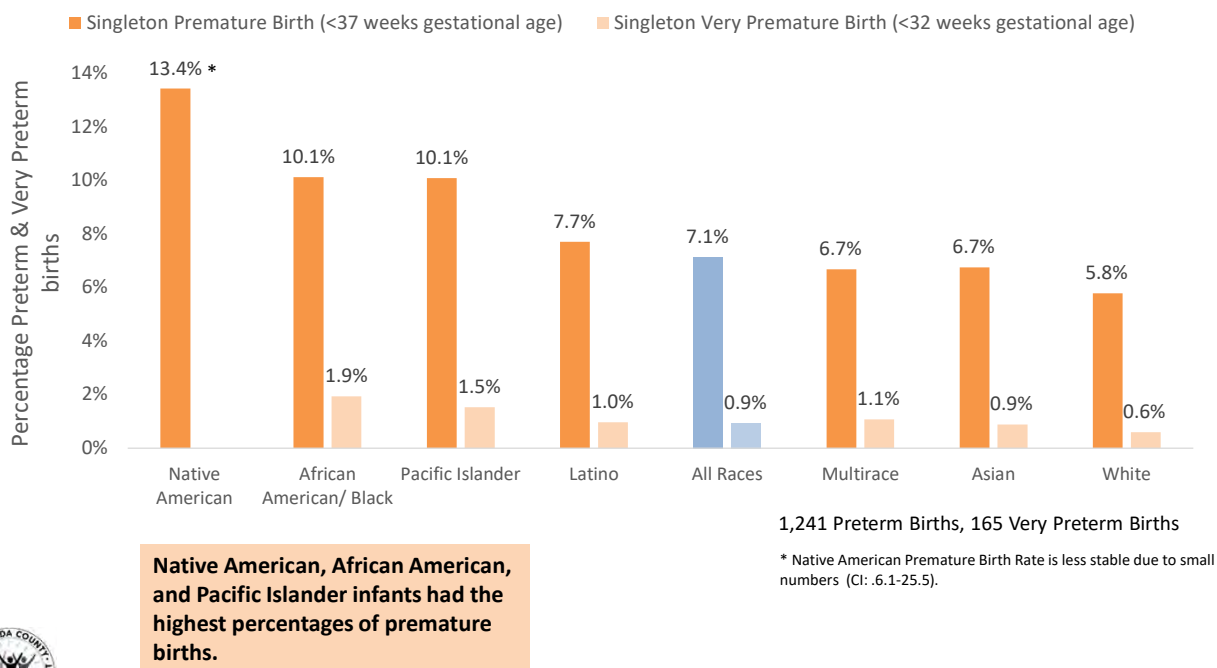
## Alameda County Infant Health Indicators



This section describes key infant health indicators using recent data, trend data and data by race/ethnicity.



## Percentage Premature and Very Premature Births by race/ethnicity, 2018-2020

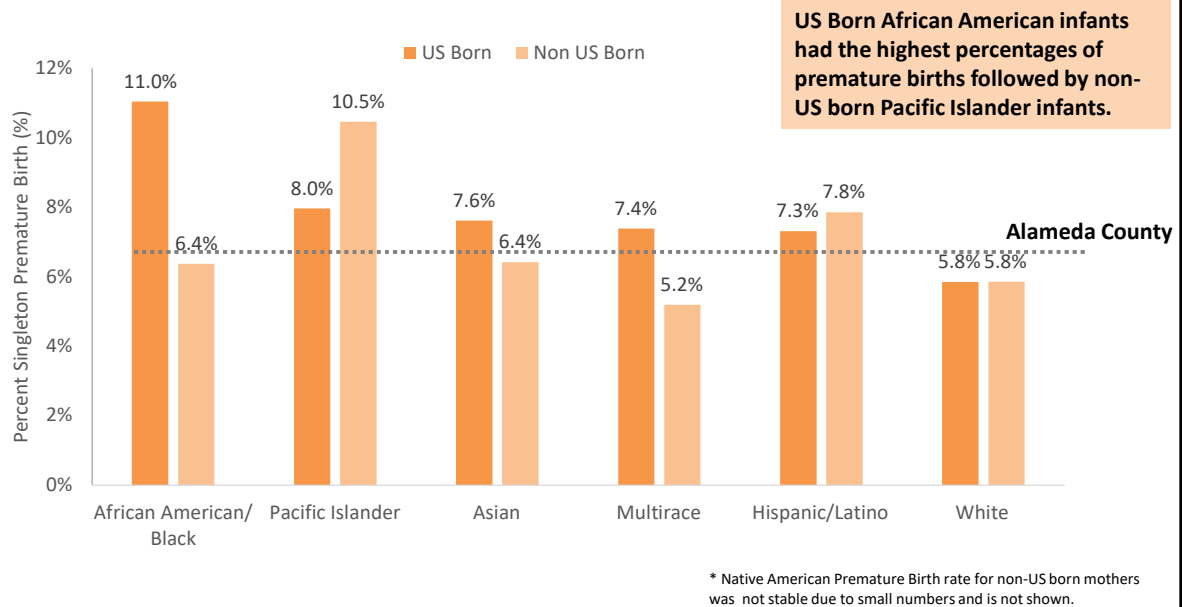


Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2018-2020.

- Premature Births: births that occur at less than 37 weeks gestational age. Very Premature Births: births that occur at least than 32 weeks gestational age.
- Note: Singleton births are included because babies born during multiple births are often born premature and have low birth weights.
- This figure shows the percentage of premature and very premature births in Alameda County by race/ethnicity in 2018-2020, combined years.
- 7.1% of births in Alameda County were premature and almost 1% were very premature in 2018-2020.
- Native Americans had the highest percentage of premature births (13.4%). However, this rate represents fewer than ten Native American births during this period. Due to small numbers the Native American premature birth percentage is not as stable as those of other race/ethnic groups.
- African American and Pacific Islander mothers also had high percentages of premature (10%) and very premature births (1.5-2.0%).
- The Native American, African American and Pacific Islander Premature Birth Rates were 2-3 times the White Rates.
- The inequities in premature births between black, indigenous and pacific islander communities and other groups in Alameda County have persisted over time (not shown).

## Percentage Singleton Premature Births by Race/Ethnicity for US versus non-US Born Mothers, 2016-2020

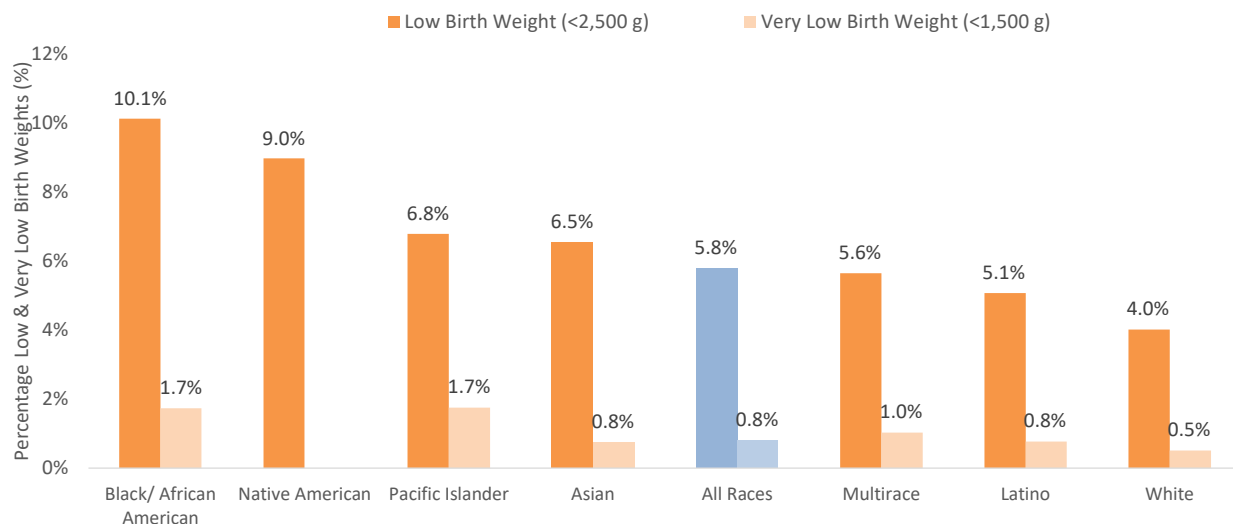


Source: CAPE, with data from Alameda County Vital Statistics files, 2016-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2016-2020.

- Premature Births: births that occur at less than 37 weeks gestational age.
- Note: Singleton births are included because babies born during multiple births are often born premature and have low birth weights.
- This figure shows the percentage of singleton premature births by race/ethnicity for US versus non-US born mothers in 2016-2020, combined years.
- US born African American mothers had the highest percentage of premature births of all groups in Alameda County during this time period followed by non-US born Pacific Islander mothers.
- The percentage of premature births of infants to US born African American mothers was 1.7 times the percentage of premature births among non-US born mothers of African decent.
- Conversely, the percentage of premature births of infants of non-US born Pacific Islander mothers was 1.3 times the percentage of premature births among infants of US born Pacific Islander mothers.
- The Alameda County percentage of premature births for both US and non-US born mothers was 7.1%.
- All other race/ethnic groups in California had similar percentages of premature infants among US non-US born mothers.

## Percentage Low Birth Weight (LBW) and Very Low Birth Weight (VLBW) Births by Race/Ethnicity, 2018-2020



**African Americans, Native Americans and Pacific Islander infants had the highest percentages of low birth weight births.**

1,007 LBW Births, 138 VLBW Births

\* Native American Low Birth Weight is less stable due to small numbers (CI: .3.3-19.5).

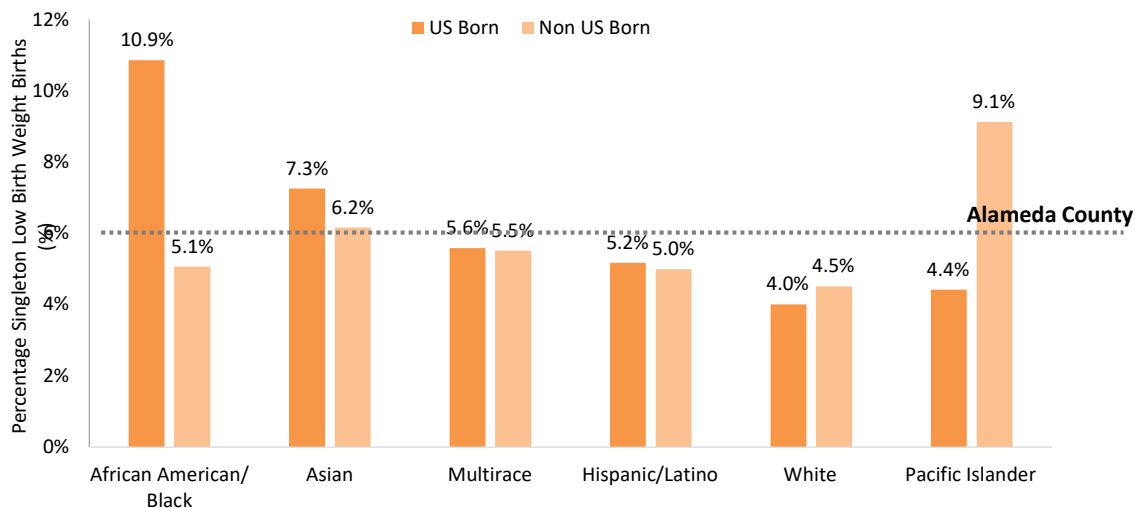


Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2018-2020.

- Low Birth Weight (LBW) Births: births less than 2,500 grams. Very Low Birth Weight (VLBW) Births: births less than 1,500 grams.
- This figure shows the percentage of low birth weight and very low birth weight births in Alameda County by race/ethnicity in 2018-2020, combined years.
- 5.8 percent of Alameda County births were low birth weight and 0.8 percent were very low birth weight in 2018-2020.
- African American mothers had the highest percentages of low birth weight (10%) and very low birth weight births (1.7%) in Alameda County during this period.
- The African American percentage of low birth weight births was over 2.5 times the percentage of White births.
- Native Americans also had high rates of low birth weight births compared to the race/ethnic groups.
- This inequity in healthy weight babies born to African American mothers and other race/ethnic groups in Alameda County has persisted over time (not shown).

## Percentage Singleton Low Birth Weight by Race/Ethnicity for US versus non-US Born Mothers, 2016-2020



**US Born African American infants had the highest percentages of low birth weight births followed by non-US born Pacific Islanders.**

\* Native American low birth weight percentage for non-US born mothers was not stable due to small numbers and is not shown.

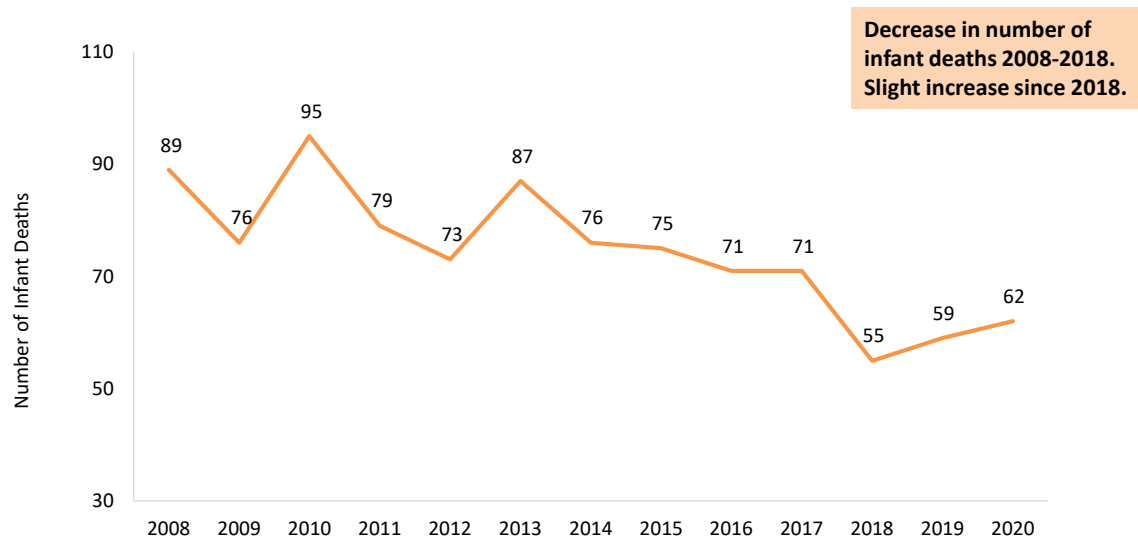


Source: CAPE, with data from Alameda County Vital Statistics files, 2016-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth Files, 2016-2020.

- Low Birth Weight (LBW) Births: births <2,500 grams.
- Note: Singleton births are included because babies born during multiple births are often born premature and have low birth weights.
- This figure shows the percentage of singleton low birth weight births by race/ethnicity for US versus non-US born mothers in Alameda County in 2016-2020, combined years.
- US born African American mothers had the highest percentage of low birth weight births of all groups in Alameda County during this time period followed by non-US born Pacific Islanders.
- The percentage of low birth weight births of infants born to US born African American mothers was over 2 times the percentage of low birth weight births among infants born to mothers of African descent.
- In contrast, the percentage of low birth weight births among infants of non-US born Pacific Islander mothers was 3 times the percentage of low birth weight births among infants of US-born Pacific Islander mothers.
- All other race/ethnic groups in California had similar percentages of low birth weight infants among US versus foreign born mothers.
- The Alameda County US and non-US born percentage of low birth weight births was 6.5%.

## Number of Infant Deaths in Alameda County, 2008-2020

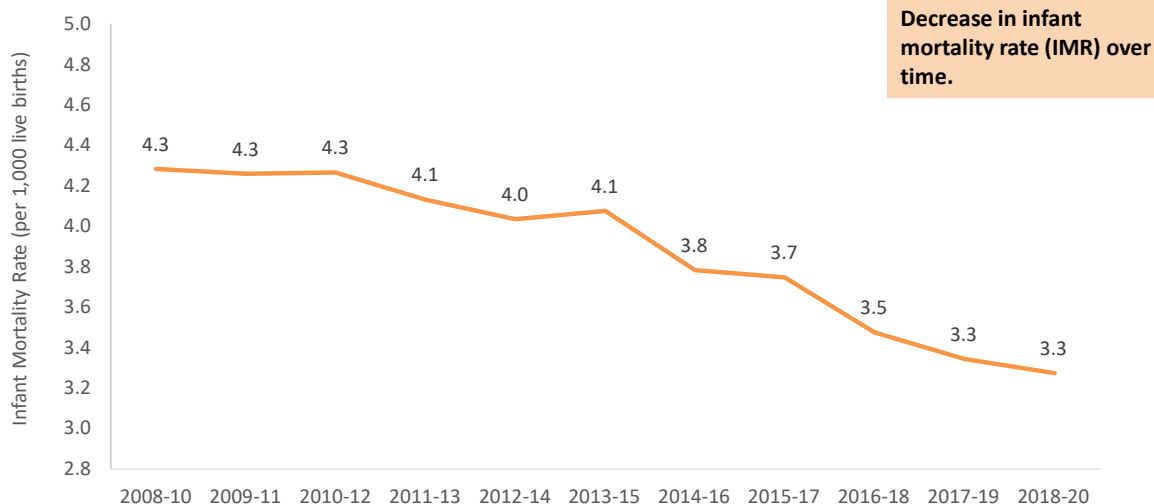


Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Mortality Files, 2008-2020.

- Infant deaths: deaths to infants less than one year of age.
- Each of these infant deaths reflects a family and community tragedy. Luckily, infant death continues to be a rare occurrence in Alameda County.
- This figure shows the number of infant deaths in Alameda County each year from 2008-2020.
- While there are yearly fluctuations, the number of infant deaths in Alameda County decreased from 2008 to 2020.
- Alameda County had the highest number of infant deaths in 2010 (95) and the lowest number in 2018 (55).
- There has been a slight increase in infant deaths with 62 in 2020.

## Infant Mortality Rate Trend in Alameda County, 2008-2020

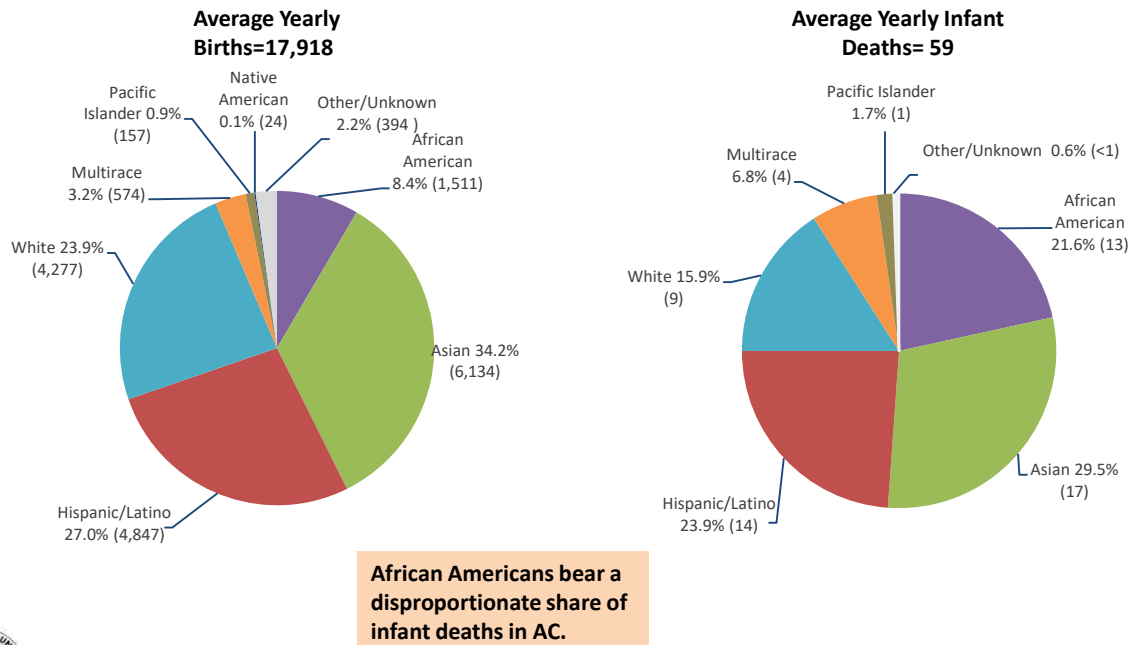


Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Sources: CAPE with data from Alameda County Vital Statistics Birth and Mortality Files, 2008-2020.

- Infant mortality rate: deaths to infants less than 1 year of age per 1,000 live births.
- This figure shows the infant mortality rate trend in Alameda County from 2008-2020 using 3 year rolling averages to smooth the data.
- Since 2008, there has been a decrease in the infant mortality rate in Alameda County with the steepest decline from 2013-2020
- The Alameda County Infant Mortality Rate decreased from a high of 4.3 to a low of 3.3 deaths per 1,000 live births during this period.
- In 2018-2020, Alameda County had a lower infant mortality rate than California at 3.9 (not shown).
- The Alameda County Infant Mortality rate was ranked 12th lowest of 41 local health jurisdictions in the state (not shown).

## Percentage of Births v. Infant Deaths by Race/Ethnicity, 2018-2020

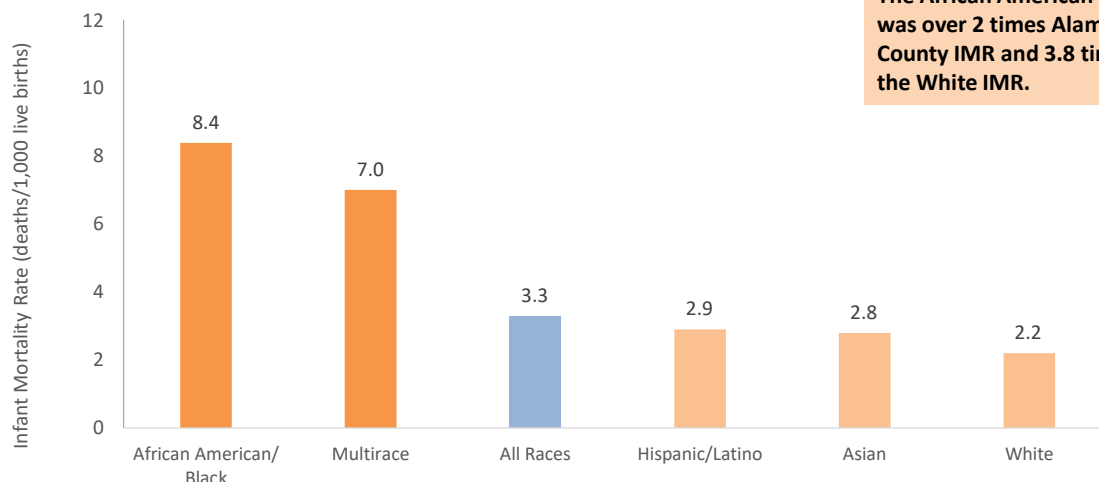


Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Sources: CAPE with data from Alameda County Vital Statistics Birth and Mortality Files, 2018-2020.

- This figure shows the percentage share of births by race/ethnicity compared to the percentage share of infant deaths by race/ethnicity in 2018-2020 combined years.
- There were 17,918 average annual births and 54 average annual infant deaths from 2018-2020.
- If there were no racial/ethnic disparities in deaths the pie chart on the right would look exactly like the pie chart on the left in that the shares of births and deaths would be the same for each race/ethnic group.
- This is not the case as African American infants had a larger share of infant deaths as compared to their births and Asian and White infants had smaller shares of infant deaths as compared to their births.
- Asian infants made up the largest percentage share of all births (34%) followed by Hispanic/Latino (27%) and White (24%) infants.
- African American infants made up about 8% of all births in Alameda County in 2018-2020. In contrast, African American infants made up 21.6% of infant deaths during this period.

## Infant Mortality Rate (IMR) by Race/Ethnicity, 2018-2020



Average Annual Number Infant Deaths = 54

\*Multirace, Native American and Pacific Islander Infant Mortality Rates are not shown due to small numbers and unstable rates



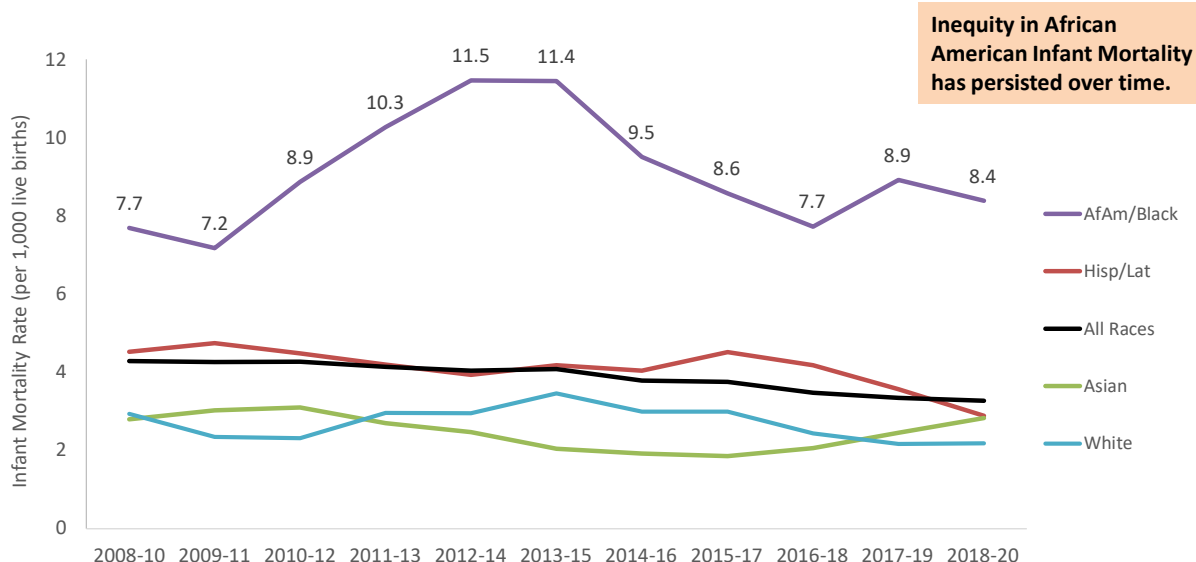
Source: CAPE, with data from Alameda County Vital Statistics files, 2018-2020.

Sources: CAPE with data from Alameda County Vital Statistics Birth and Mortality Files, 2018-2020.

- Infant Mortality Rate (IMR): deaths to infants less than 1 year of age per 1,000 live births.
- This figure shows the infant mortality rate in Alameda County by race/ethnicity in 2018-2020 combined years.
- Black/African American infants had the highest Infant Mortality Rate (8.4 deaths per 1,000 African American births) followed by Multirace infants (7.0) in 2018-2020.
- The Hispanic/Latino and Asian Infant Mortality Rates were slightly lower than Alameda County at 2.9 and 2.8, respectively.
- White infants had the lowest infant mortality rate at 2.0 deaths per 1,000 White births.
- The African American IMR was over 2 times the County Rate and 3.8 times the White Rate.
- The high African American IMR is due to the number of African American infant deaths (13 per year on average) relative to their small total number of live births (than 1,500 per year on average).
- Alameda County ranked 37th out of 41 California local health jurisdictions on African American infant mortality, which is not a positive relative indicator (not shown).



## Infant Mortality Rate Trend by Race/Ethnicity, 2008-2020



\*Multirace, Native American and Pacific Islander Infant Mortality Rates are not shown due to small numbers and unstable rates.



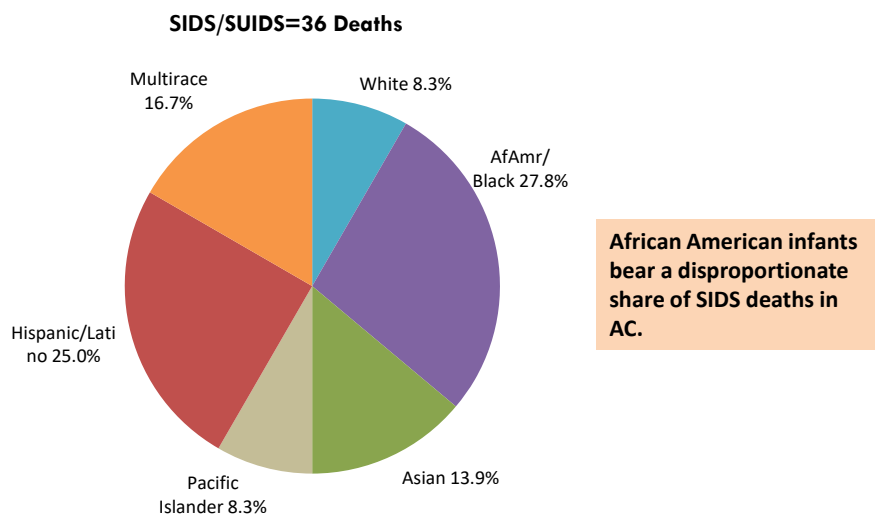
Source: CAPE, with data from Alameda County Vital Statistics files, 2008-2020.

Source: CAPE with data from Alameda County Vital Statistics Birth and Mortality Files, 2008-2020.

- Infant Mortality Rate (IMR): deaths to infants less than 1 year of age per 1,000 live births.
- This figure shows the infant mortality rate trend in Alameda County by race/ethnicity from 2008-2020. (Note: three year rolling averages are used to smooth the data.)
- The Black/African American IMR increased from 2008-2013, decreased through 2018 and slightly increased in recent years.
- The yearly fluctuations in African American IMR is partly due to the smaller numbers of African American births compared to the other groups. The yearly differences in African American IMR are not statistically significant.
- In 2008-10, the African American IMR was 2.6 times the White IMR. In 2018-2020 the African American IMR was 3.8 times the White IMR. This increasing gap was due to an increase in the African American IMR and a decrease in the White IMR during this period.
- The Asian IMR increased slightly in recent years as the White and Hispanic/Latino IMRs decreased during this period.
- The inequity in infant mortality between African Americans and other race/ethnic groups in Alameda County has persisted over time.

## Percentage Share SIDS Deaths in Alameda County, 2016-2020

Over the last five years, in Alameda County there was an average of 6 SIDS deaths per year.



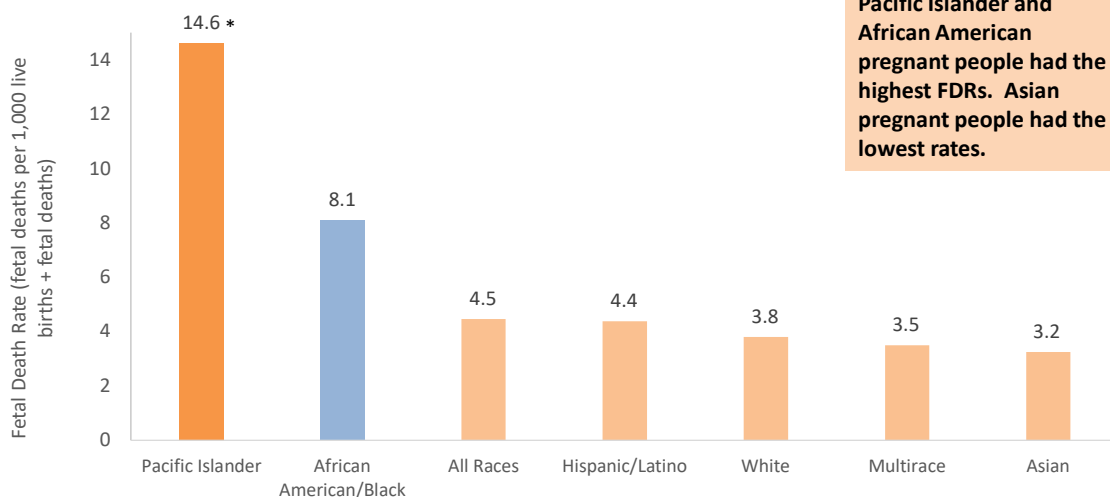
\*There were no Native American SIDS deaths during this period.

Source: CAPE, with data from Alameda County Vital Statistics files, 2016-2020.

Source: CAPE with data from Alameda County Vital Statistics Mortality Files, 2016-2020.

- SIDS Deaths: Number of deaths from Sudden Unexplained or Infant Death Syndrome per 1,000 births (ICD-10 Mortality Codes: W75, R95, R99).
- This figure shows the percentage share of SIDS/SUIDS deaths in Alameda County by race/ethnicity for 2016-2020 combined years.
- There were a total of 34 SIDS/SUIDS deaths in Alameda with an average of 6 deaths annually during this period.
- African American/Black infants had the largest percentage share of SIDS/SUIDS deaths at 28% followed by Hispanic/Latino infants at 25%.
- African Americans comprise 8-9% of births and 28% of SIDS/SUIDS deaths whereas Hispanic/Latino infants comprise the same percentage shares of births and deaths.
- Pacific Islander infants comprise 8.3% of SIDS/SUIDS deaths and about 1% of births during this period.
- Therefore, African Americans and Pacific Islander infants bear disproportionate burdens of SIDS/SUIDS death compared to births in Alameda County.

## Fetal Death Rate (FDR) by Race/Ethnicity, 2018-2020



Pacific Islander and African American pregnant people had the highest FDRs. Asian pregnant people had the lowest rates.

Average Annual Number Fetal Deaths = 80

\* Pacific Islander Fetal Death Rate is less stable due to small numbers (CI: .5-30.1).

\*\*Native American Fetal Mortality Rates are not shown due to small numbers and unstable rates.

\*\*\*Race/Ethnicity categorized differently in Fetal Death data.



Source: CAPE, with data from Alameda County Fetal Death Data Files and Birth Files, 2018-2020.

Sources: CAPE with data from Alameda County Fetal Death Data Files and Birth Files, 2018-2020.

- Fetal Death Rate (FDR): Number of deaths after 22 weeks gestation and prior to birth not due to abortions per 1,000 live births + fetal deaths.
- This figure shows the fetal death rate in Alameda County by race/ethnicity in 2018-2020 combined years.
- The Alameda County Fetal Death Rate was 4.5 fetal deaths per 1,000 live births + fetal deaths in 2018-2020.
- Pacific Islander pregnant persons had the highest fetal death rate (14.6) followed by Black/African American pregnant people (8.1) in 2018-2020.
- The Pacific Islander Fetal Death Rate represents fewer than ten fetal deaths during this period and is not as stable as the rates for other race/ethnic groups.
- The Hispanic/Latino Fetal Death rate was similar to the Alameda County rate (4.4).
- White, Multirace and Asian pregnant people had the lowest fetal death rates in the county.
- The Pacific Islander Fetal Death Rate was over 3 times the County Rate and 4.5 times the Asian Rate.
- The Black/ African American Fetal Death Rate was over twice the County Rate and 2.5 times the Asian Rate.

## Alameda County Perinatal & Infant Health Indicators by Social Gradient



This section described key perinatal and infant health indicators by social gradient (neighborhood poverty) and race/ethnicity.

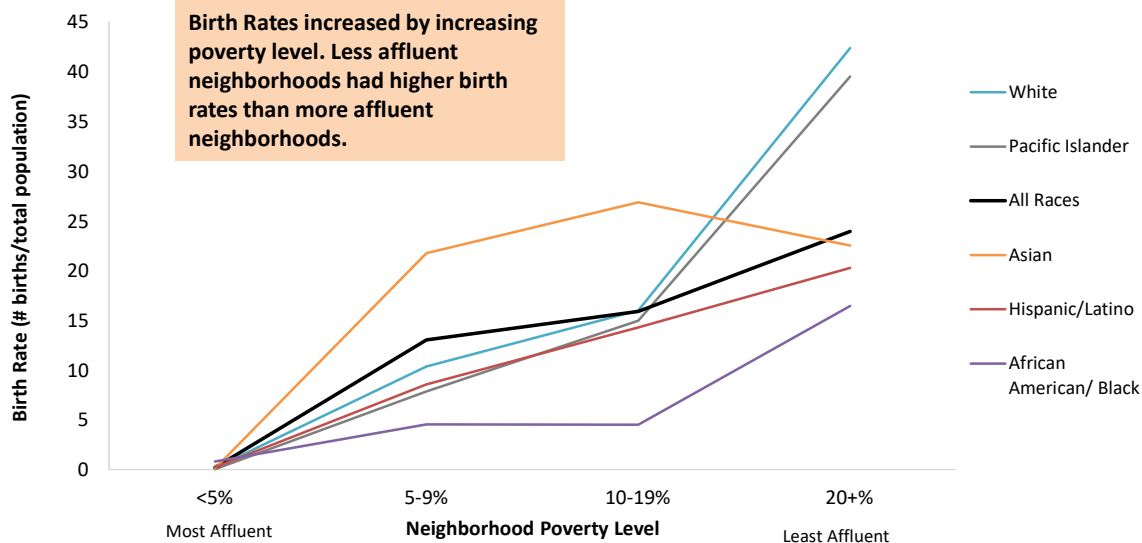
## Social Gradient and Birth Rates

45

- ❑ Social gradient: people who are less affluent (lower SES) have worse health outcomes than those who are more affluent.
- ❑ Race and Class (socioeconomic status) are closely connected.
  - ▣ The most affluent AC neighborhoods have high % of Whites and Asians.
  - ▣ The least affluent AC neighborhoods have high % of Latinos and African Americans.
- ❑ Birth Rates and Teen Birth Rates have social gradients.
  - ▣ Poorer neighborhoods have ↑ Birth Rates and Teen Birth Rates compared to more affluent neighborhoods across all race/ethnic groups.
  - ▣ Within race/ethnic groups, those living in poorer neighborhoods have ↑ Birth Rates and Teen Birth Rates compared to those living in more affluent neighborhoods.



## Birth Rate by Race/Ethnicity & Poverty Level, 2015-2019



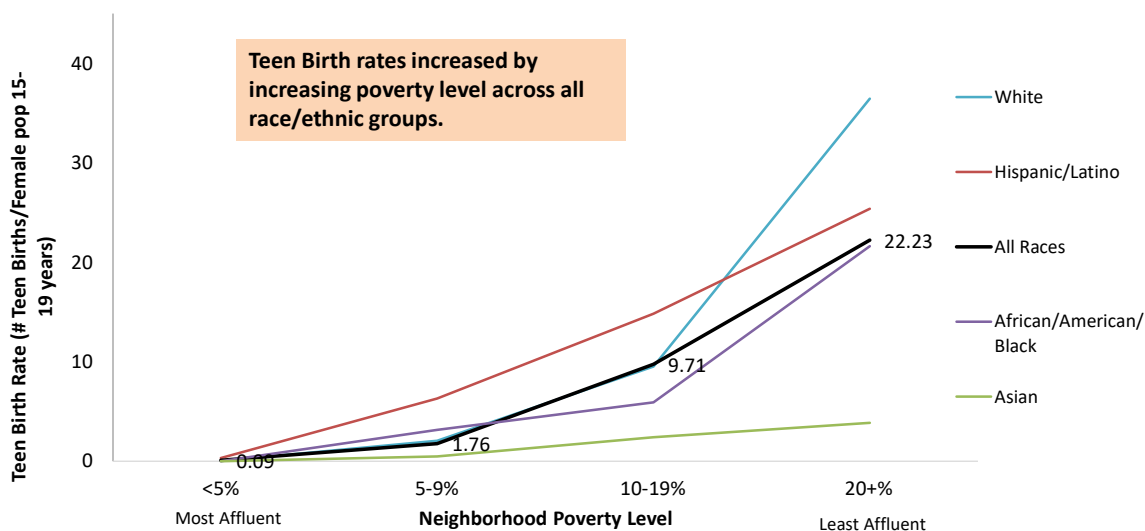
\*Multirace and Native American Teen Birth Rates are not shown due to small numbers and unstable rates.

Sources: CAPE, with data from ESRI and Alameda County Vital Statistics files, 2015-2019.

Source: CAPE with data from ESRI and Alameda County Vital Statistics Death Files, 2015-2019.

- Neighborhood Poverty Level: Percentage of residents living at or below 100% of the federal poverty level by census tract. For example, <5% FPL= all census tracts in Alameda County where less than 5% of residents live at or below the federal poverty level (e.g. the most affluent neighborhoods).
- Birth rate: the number of births per 1,000 population in Alameda County.
- This figure shows the birth rate by neighborhood poverty level and race/ethnicity in Alameda County from 2015-2019, combined years.
- This figure shows that for Alameda County and for each race/ethnic group there is a relationship between neighborhood poverty and birth rate. The less affluent the neighborhood (more residents living in poverty) the higher the birth rate.
- The Alameda County birth rate increased from 0.2 per 1,000 in the most affluent neighborhood to 24 in the least affluent neighborhood. The birth rate in the least affluent neighborhoods was over 12 times the rate in the most affluent neighborhoods.
- White and Pacific Islander teenagers had the strongest relationship in that the birth rate increased with each increase in neighborhood poverty level.

## Teen Birth Rate by Poverty Level and Race/Ethnicity, 2015-2019



\*Multirace, Native American and Pacific Islander Teen Birth Rates are not shown due to small numbers and unstable rates.



Sources: CAPE, with data from ESRI and Alameda County Vital Statistics files, 2015-2019.

Source: CAPE with data from ESRI and Alameda County Vital Statistics Death Files, 2015-2019.

- Neighborhood Poverty Level: Percentage of residents living at or below 100% of the federal poverty level by census tract. For example, <5% FPL= all census tracts in Alameda County where less than 5% of residents live at or below the federal poverty level (e.g. most affluent neighborhoods).
- Teen birth rate: the number of births to 15-19 year old mothers per 1,000 population females 15-19 years of age in Alameda County.
- This figure shows the teen birth rate by neighborhood poverty level and race/ethnicity in Alameda County from 2015-2019, combined years.
- This figure shows that for Alameda County and for each race/ethnic group there is a relationship between neighborhood poverty and teen birth rate. The less affluent the neighborhood (e.g. more residents living in poverty) the higher the teen birth rate.
- The Alameda County teen birth rate increased from 0.09 in the most affluent neighborhood to 22.3 in the least affluent neighborhood. The teen birth rate in the least affluent neighborhoods was over 12 times the teen birth rate in the most affluent neighborhoods.
- Whites and Latina teenagers had the strongest relationship in that the teen birth rate increased with each increase in neighborhood poverty level.
- The African American Teen Birth Rate in the least affluent neighborhoods was almost 7 times the African American Teen Birth Rate in the most affluent neighborhoods.

## MCH Indicators not Impacted by Social Gradient

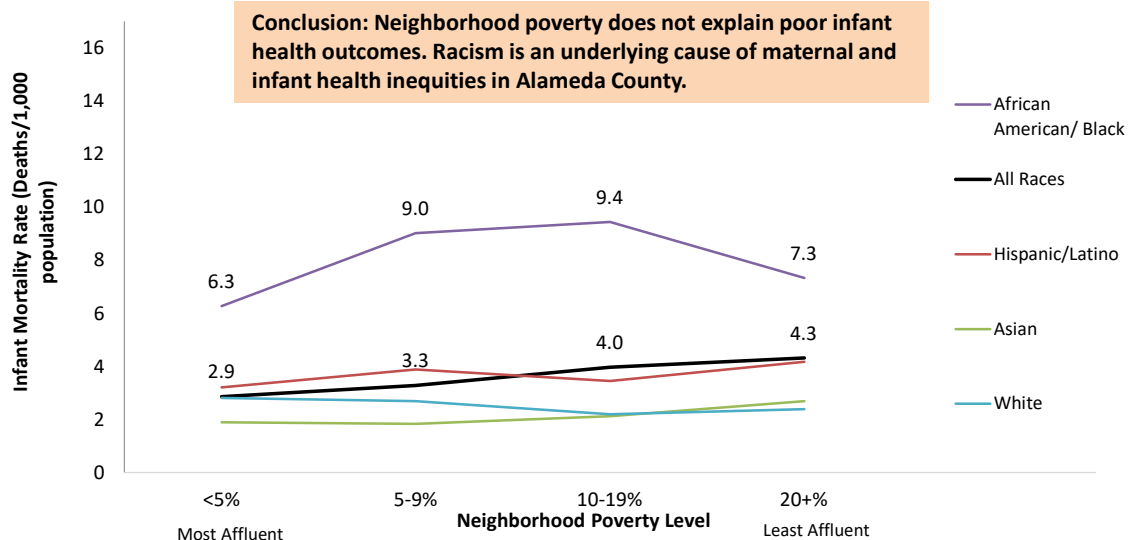
48

- All other MCH Indicators do not follow a social gradient (Infant Mortality, Low Birth Weight, Prenatal Care, Premature Birth).
- This means racial/ethnic inequities persist when controlling for neighborhood poverty.
- African American Rates are higher than every other group across all neighborhood poverty levels.
- African American have ↑ Infant Mortality Rates (IMRs), premature births, and low birth weight babies compared to Whites, Asians and Latinos regardless of neighborhood poverty.
- **Conclusion: Neighborhood poverty does not explain poor infant health outcomes. Racism is an underlying cause of maternal and infant health inequities in Alameda County.**





## Infant Mortality Rate by Poverty Level and Race/Ethnicity, 2016-2020



Sources: CAPE, with data from ESRI and Alameda County Vital Statistics files, 2015-2019.

Source: CAPE with data from ESRI and Alameda County Vital Statistics Death Files, 2015-2019.

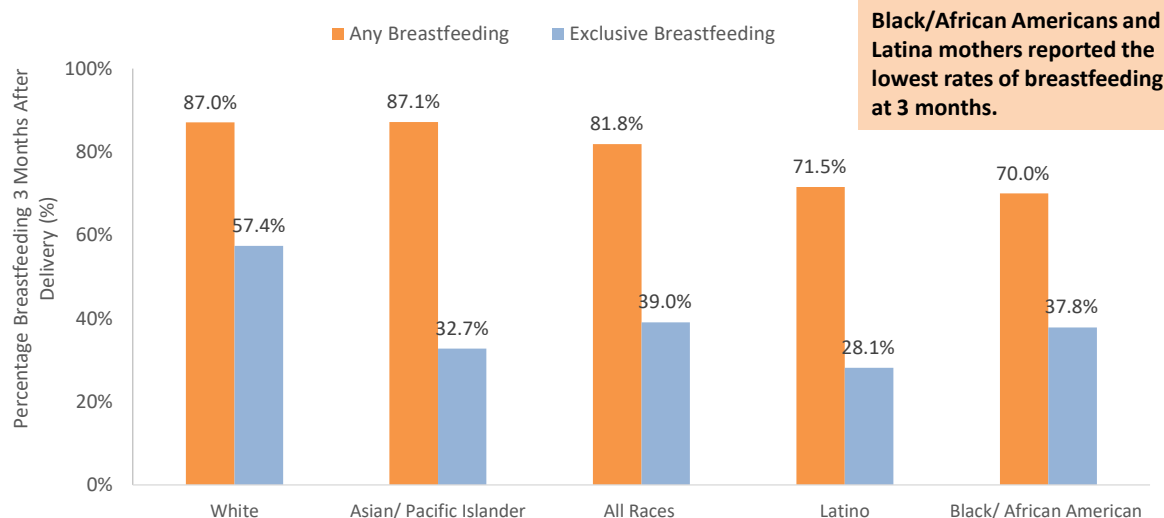
- Neighborhood Poverty Level: Percentage of residents living at or below 100% of the federal poverty level by census tract. For example, <5% FPL= all census tracts in Alameda County where less than 5% of residents live at or below the federal poverty level (e.g. most affluent neighborhoods).
- Infant Mortality Rate (IMR): deaths to infants less than 1 year of age per 1,000 live births.
- This figure shows the infant mortality rate by neighborhood poverty level in Alameda County from 2015-2019.
- This figure shows that there is a slight overall relationship between neighborhood poverty and infant mortality in Alameda County.
- Overall the IMR increases slightly from the most to least affluent neighborhood levels (2.9-4.3)
- The Black/ African American IMR is consistently higher than every one else and about the same across the poverty levels.
- This shows that Black/African American IMR is higher than all other groups regardless of poverty level.

## Alameda County Breastfeeding and Infant Sleep



This section describes breastfeeding and safe sleep practices by race/ethnicity and insurance type.

## Percentage Breastfeeding at Three Months by Race/Ethnicity, 2016-2018



\*MIHA combines Asian and Pacific Islander due to small sample size of Pacific Islanders. MIHA does not show data for Native American or Multirace Mothers at the state or county level.

Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

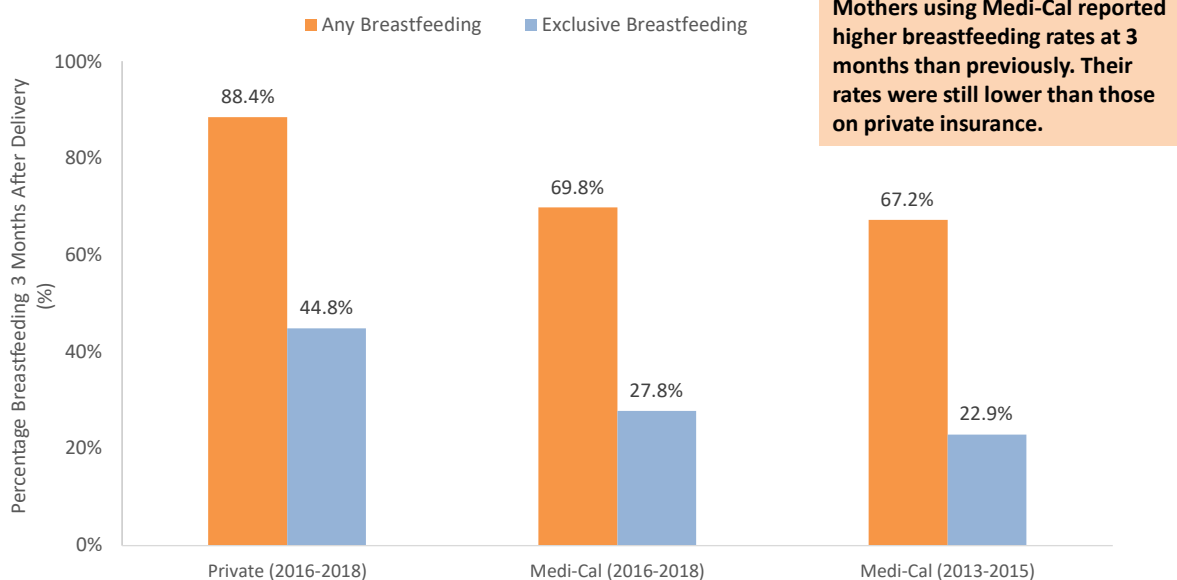
Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

(<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Default.aspx>)

- Note: MIHA is a self reported annual survey data of postpartum women in California and asks questions about maternal experiences and perinatal behaviors.
- Any breastfeeding, 3 months after delivery: Fed infant breast milk for at least three months after delivery with or without supplementing with formula.
- Exclusive breastfeeding, 3 months after delivery: Fed infant only breast milk (no supplementation with formula, other liquids or food) for at least three months after delivery.
- This figure shows the percentage of mothers who reported any and exclusive breastfeeding three months postpartum by race/ethnicity from 2016-2018, combined years.
- Over 80% of Alameda County mothers reported any breastfeeding and 40% of mothers reported exclusive breastfeeding 3 months postpartum in 2016-2018.
- White and Asian/Pacific Islander mothers reported higher percentages of any breastfeeding and Black/African American mothers reported lower percentages than AC county.
- Latina and Asian/Pacific Islander mothers reported lower percentages of exclusive breastfeeding than Alameda County.
- There has been an increase in the percentage of mothers who report any and exclusive breastfeeding for all race/ethnic groups over time (not shown).



## Percentage Breastfeeding at Three Months: Medi-Cal vs. Private Insurance

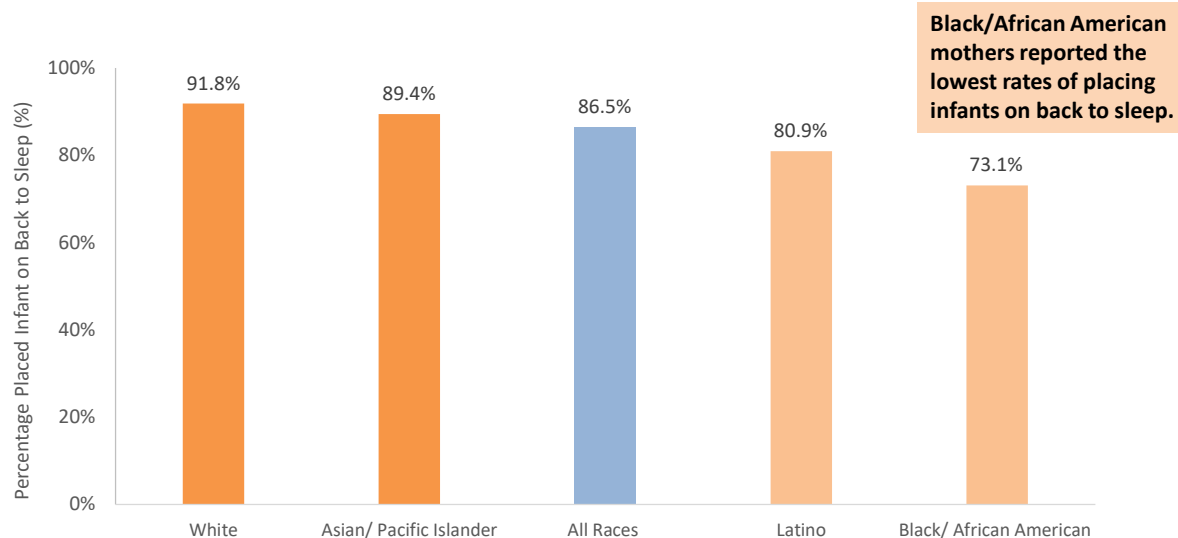


Source: Maternal and Infant Health Assessment (MIHA) Survey 2013-2015, 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018, 2013-2015. (<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Default.aspx>)

- MIHA is an annual, statewide-representative survey of women with a recent live birth in California. MIHA participants are English- or Spanish-speaking women aged 15 years and older who have had a live birth.
- Any breastfeeding, 3 months after delivery: Fed infant breast milk for at least three months after delivery with or without supplementing with formula.
- Exclusive breastfeeding, 3 months after delivery: Fed infant only breast milk (no supplementation with formula, other liquids or food) for at least three months after delivery.
- This figure shows the percentage of mothers who reported any and exclusive breastfeeding three months postpartum by insurance type from 2016-2018 and for those mothers on Medi-Cal for the previous time period (2013-2015).
- Mothers using Medi-Cal report lower rates of any and exclusive breastfeeding at three months compared to private insurance.
- There was a slight increase in breastfeeding among Medi-Cal mothers compared to the previous time period especially for those exclusively breastfeeding at three months.

## Percentage Placed Infant on Back to Sleep by Race/Ethnicity, 2016-2018



\*MIHA combines Asian and Pacific Islander due to small sample size of Pacific Islanders. MIHA does not show data for Native American or Multirace Mothers at the state or county level.

Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

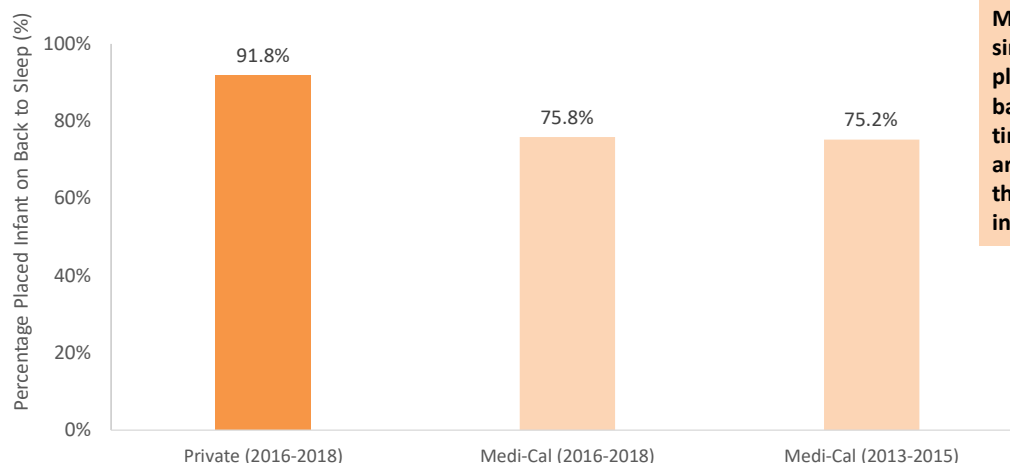
Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

(<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Default.aspx>)

- MIHA is an annual, statewide-representative survey of women with a recent live birth in California. MIHA participants are English- or Spanish-speaking women aged 15 years and older who have had a live birth.
- Placed infant on back to sleep: Put baby down to sleep on his or her back most of the time.
- This figure shows the percentage of mothers who reported they put their infant on his/her back to sleep by race/ethnicity most of the time from 2016-2018.
- The majority (87%) of Alameda County (AC) mothers responded that they placed their infant on back to sleep most of the time in 2013-2015.
- White non-Hispanic mothers had a higher percentage than Alameda County at 92% and Black/African American mothers had the lowest percentage at 73%.



## Percentage Placed Infant on Back to Sleep: Medi-Cal vs. Private Insurance



Mothers using Medi-Cal reported similar rates of placing infant on back to sleep over time. These rates are lower than those on private insurance.

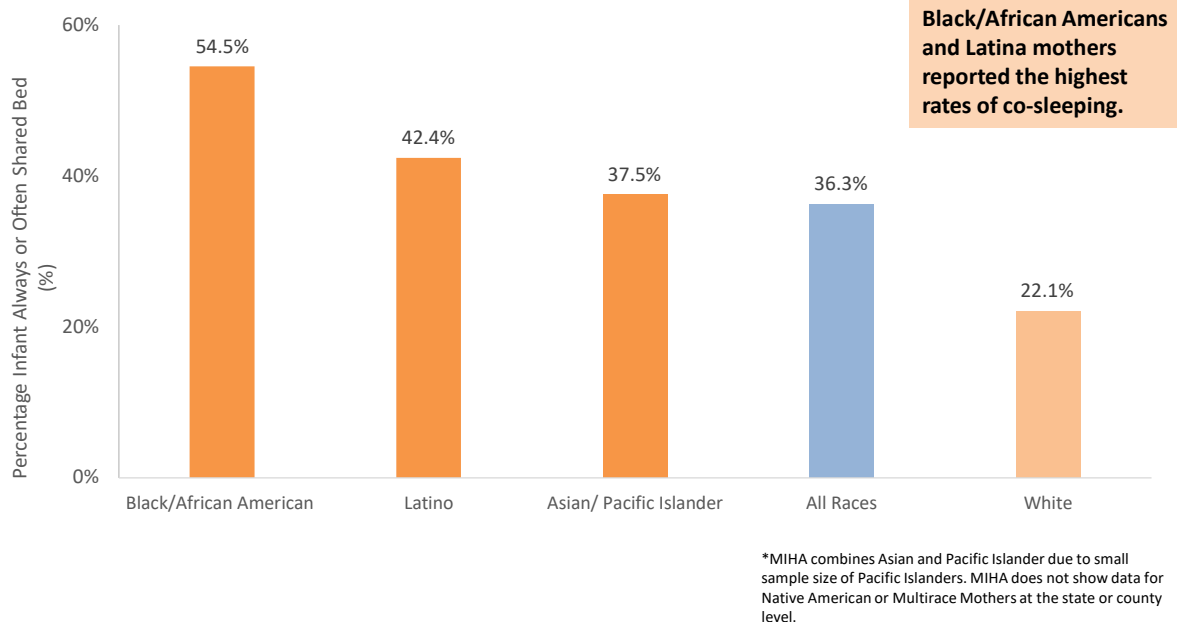


Source: Maternal and Infant Health Assessment (MIHA) Survey 2013-2015, 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018, 2013-2015. (<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Default.aspx>)

- MIHA is an annual, statewide-representative survey of women with a recent live birth in California. MIHA participants are English- or Spanish-speaking women aged 15 years and older who have had a live birth.
- Placed infant on back to sleep: Put baby down to sleep on his or her back most of the time.
- This figure shows the percentage of mothers who reported they put their infant on his/her back to sleep by insurance type from 2016-2018 and for those mothers on Medi-Cal for the previous time period (2013-2015).
- Mothers using Medi-Cal report lower rates of placing infants on their backs to sleep compared to mothers using private insurance.
- There was no change over time in mothers using Medi-Cal placing their infants on their back to sleep.

## Percentage Infant Always or Often Shared Bed by Race/Ethnicity, 2016-2018



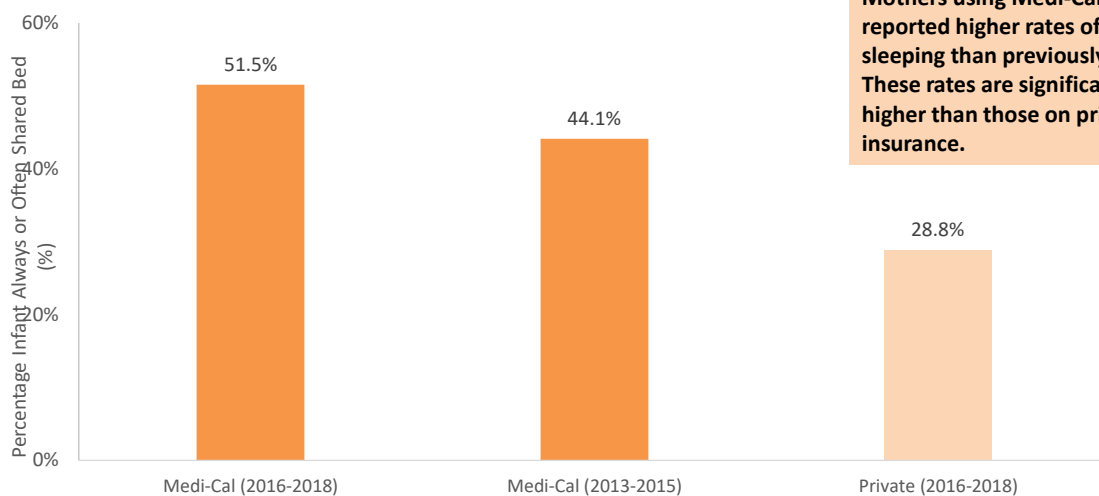
Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

(<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Default.aspx>)

- MIHA is an annual, statewide-representative survey of women with a recent live birth in California. MIHA participants are English- or Spanish-speaking women aged 15 years and older who have had a live birth.
- Infant always or often shared bed: Baby always or often slept in the same bed with mother or someone else.
- This figure shows the percentage of mothers who reported their infant always or often shared the bed by race/ethnicity from 2016-2018.
- Approximately 36% of Alameda County mothers responded that their infant always or often shared their bed in 2016-2018.
- Black/African American and Latina mothers reported the highest percentages of co-sleeping (54% and 42%).
- White mothers reported the lowest percentage at 22%, which was lower than the county overall.
- The percentages of co-sleeping for Black/African and Latina mothers increased from the previous time period (not shown).

## Percentage Infant Often/Always Shared Bed: Medi-Cal vs. Private Insurance



Source: Maternal and Infant Health Assessment (MIHA) Survey 2013-2015, 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018, 2013-2015. (<https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Default.aspx>)

- MIHA is an annual, statewide-representative survey of women with a recent live birth in California. MIHA participants are English- or Spanish-speaking women aged 15 years and older who have had a live birth.
- Infant always or often shared bed: Baby always or often slept in the same bed with mother or someone else.
- This figure shows the percentage of mothers who reported co-sleeping with their infant by insurance type from 2016-2018 and for those mothers on Medi-Cal for the previous time period (2013-2015).
- Mothers using Medi-Cal reported higher rates of co-sleeping compared to mothers using private insurance.
- There was an increase in the percentage of mothers using Medi-Cal co-sleeping over time.

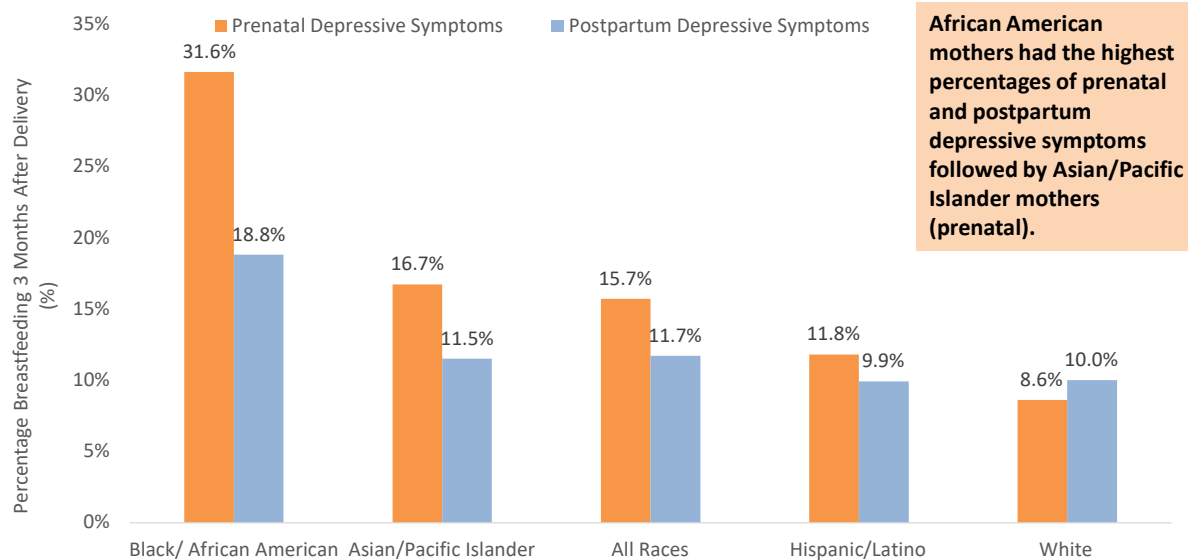


## Alameda County Perinatal Mental Health



This section describes perinatal mental health and lifetime experiences with racism.

## Percentage Experiencing Depressive Symptoms, 2018-2020



\*MIHA combines Asian and Pacific Islander due to small sample size of Pacific Islanders. MIHA does not show data for Native American or Multirace Mothers at the state or county level.



Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Data Snapshots, California Counties 2018-2020 combined years.

Note: MIHA is a self reported annual survey data of postpartum women in California and asks questions about maternal experiences and perinatal behaviors.

Experiencing Depressive Symptoms: Always or often felt down, depressed hopeless or had little interest or pleasure in doing things usually enjoyed during.

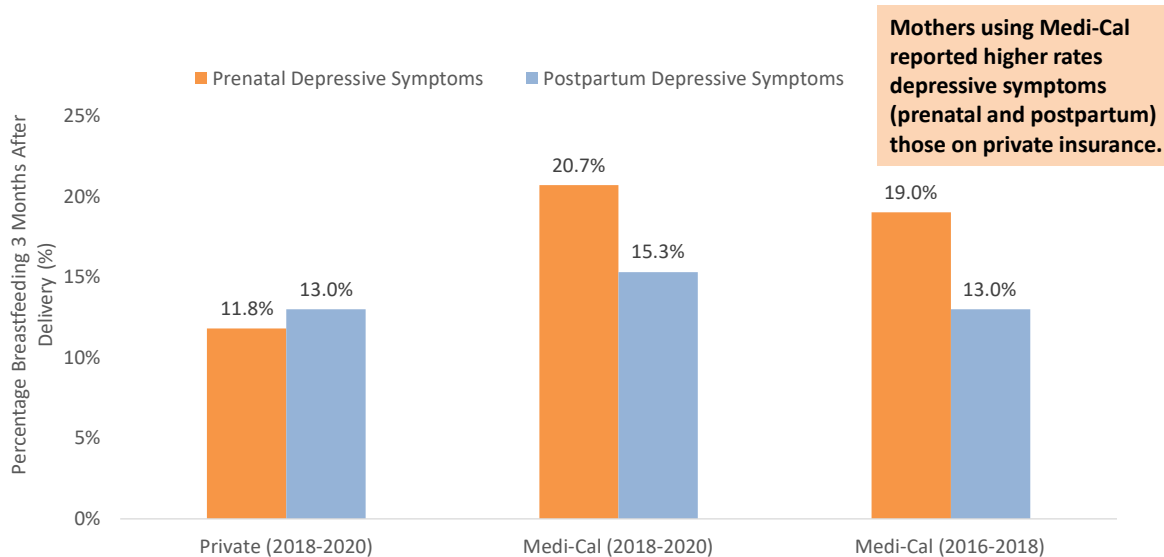
This figure shows the percentages of survey respondents who reported experiencing depressive symptoms during their pregnancy and up to three months postpartum in Alameda County by race/ethnicity in 2018-2020, combined years.

In Alameda County about 16% of respondents reported experiencing prenatal depressive symptoms and 12% reported experiencing depressive symptoms postpartum.

Black/African American mothers reported the highest percentages of prenatal (32%) and postpartum depressive symptoms (19%). The prenatal depressive percentage for African American mothers was higher than the rate for Alameda County.

Asian/Pacific Islander mothers also reported higher rates of prenatal depressive symptoms (17%).

## Percentage Experiencing Depressive Symptoms: Medi-Cal vs. Private Insurance



Source: Maternal and Infant Health Assessment (MIHA) Survey 2013-2015, 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Data Snapshots, California Counties 2018-2020 and 2016-2018 combined years.

Note: MIHA is a self reported annual survey data of postpartum women in California and asks questions about maternal experiences and perinatal behaviors.

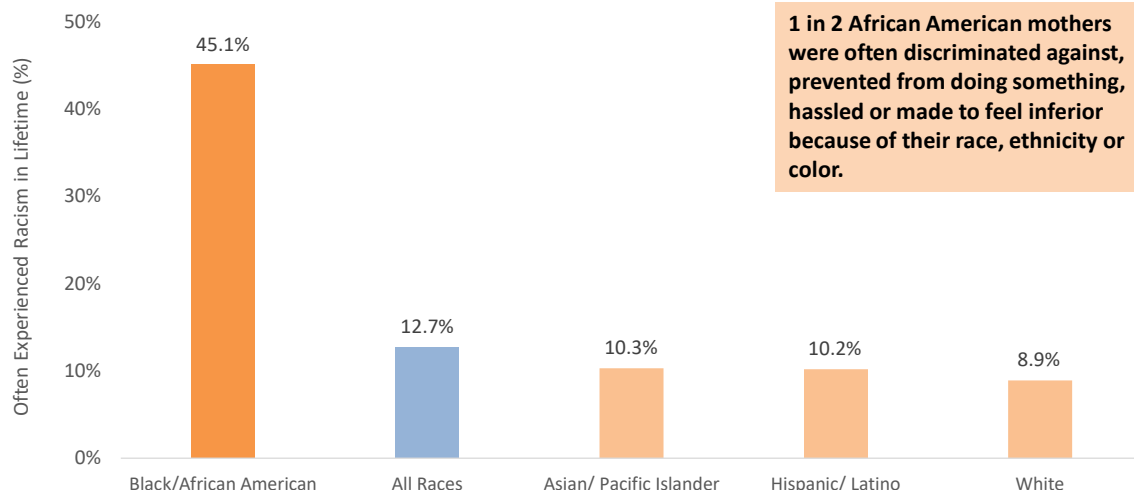
Experiencing Depressive Symptoms: Always or often felt down, depressed hopeless or had little interest or pleasure in doing things usually enjoyed during.

This figure shows the percentages of survey respondents who reported experiencing depressive symptoms during their pregnancy and up to three months postpartum in Alameda County by insurance type from 2018-2020 and for those mothers on Medi-Cal for the previous time period (2016-2018).

Mothers using Medi-Cal reported higher rates of prenatal and postpartum depressive symptoms compared to mothers using private insurance.

The higher rates among mothers using Medi-Cal has persisted over time.

## Percentage Often Experienced Racism Over Lifetime, 2016-2018



\*MIHA combines Asian and Pacific Islander due to small sample size of Pacific Islanders. MIHA does not show data for Native American or Multirace Mothers at the state or county level.



Source: Maternal and Infant Health Assessment (MIHA) Survey 2016-2018.

Source: Maternal and Infant Health Assessment (MIHA) Data Snapshots, California Counties 2016-2018 combined years.

Note: MIHA is a self reported annual survey data of postpartum women in California and asks questions about maternal experiences and perinatal behaviors.

Often Experienced Racism Over Lifetime: Overall during your life until now, have you been discriminated against, prevented from doing something, or hassled or made inferior because of your race, ethnicity or color- very/often.

This figure shows the percentage of MIHA respondents who reported that they often experienced racism over their lifetime by race/ethnicity in Alameda County, 2016-2018 combined years.

Almost one-half or one out of two Black/ African American mothers said they often experienced racism, and this was statistically significantly higher than Alameda County and all other groups.

About 10% of Asian/Pacific Islander and Hispanic/Latina mothers often experienced racism and less than 9% of White mothers.

The cumulative impacts of racism may help explain why we see health inequities between African Americans across every neighborhood and all other race/ethnic groups in our County for key MCH indicators.

61

## Take Home Points



## Key Takeaways: Alameda County Births

62

- ☐ There has been a ↓ in births since 2008. (approx. 17,000 births in 2020.)
- ☐ AC has seen a dramatic ↓ in younger moms (teens and <35 years) and an ↑ in mature moms (35-49 years).
- ☐ There has been a ↓ in birth rates, fertility rates and teen birth rates since 2008.
- ☐ Zip Codes in East Oakland, Fremont and Fruitvale had the highest birth rates.
- ☐ Most births occurred at Kaisers (San Leandro and Oakland), Alta Bates and Neighboring County Facilities.
- ☐ 1 in 2 Black and Latina births were paid by Medi-Cal. Alta Bates, Highland and St. Rose serve majority Medi-Cal births.
- ☐ 1 in 2 Black and Latina pregnancies were unintended likely due to unmet need for contraception/family planning.



## Key Takeaways: Perinatal Health Indicators

63

- ☐ Overall, AC moms and infants are very healthy!
- ☐ AC has high % of moms receiving prenatal care. (Pacific Islander and Medi-Cal inequities persist.)
- ☐ AC has lower % of moms receiving adequate number prenatal care visits (slightly higher for Medi-Cal).
- ☐ Inequities persist for Black/African American, Native American and Pacific Islander mothers (gestational hypertension, severe maternal morbidity, low birth weight, premature births.)



## Key Takeaways: Infant Health Indicators

64

- ☐ AC has seen a ↓ in infant mortality over time other indicators have remained steady.
- ☐ Black/ African American infants bear a disproportionate burden of infant deaths and SIDS deaths in AC.
- ☐ Improving trends in breastfeeding among Black/African American mothers and Medi-Cal population, but lower rates persist.
- ☐ Worsening trend in safe sleep practices among Black/African American mothers and Medi-Cal populations.
- ☐ Black/ African American infants bear a disproportionate burden of infant deaths and SIDS deaths in AC.





## Key Takeaways: Black/African American Social Determinants of Health

65

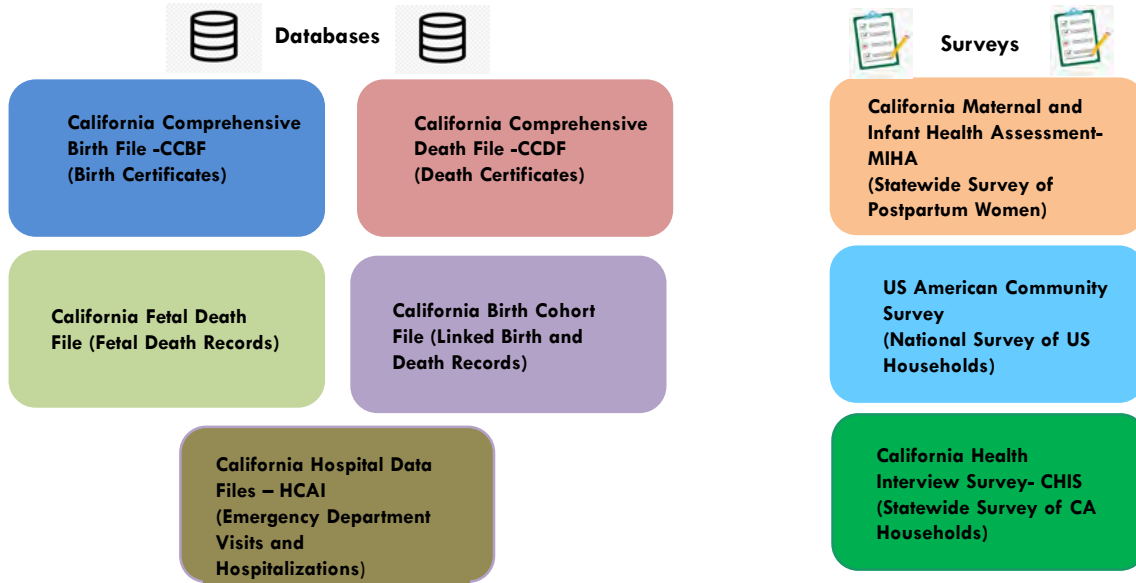
- ☐ Black mothers disproportionately face economic instability during their pregnancies.
- ☐ Black mothers experience health care access and utilization challenges pre-pregnancy, during pregnancy and postpartum.
- ☐ Black mothers experience higher rates of chronic asthma and hypertension.
- ☐ Black mothers experience higher rates of depression (during pregnancy and postpartum).
- ☐ Racism and discrimination are common and cumulative experiences for black mothers.
- ☐ **Conclusion: Racism is a key social determinant of black perinatal and infant health in Alameda County.**



## Maternal and Infant Population Data Sources



# MPCAH Population Data Sources



## Strengths & Limitations of Population Data

68

### Strengths

- ☐ Birth and Death Databases most complete and accurate count of all births and deaths in AC.
- ☐ Hospital data best for medical diagnoses and procedures for childbirth, newborns and mothers' outcomes.
- ☐ Surveys best for population health status, behaviors, actions, utilization and social determinants.
- ☐ Population data identifies health inequities and measures trends.
- ☐ Population data allows for comparing within/across groups and meeting goals/objectives (HP2030, county rankings).

### Limitations

- ☐ Lag time between when data collected and available.
- ☐ Underreporting data elements in birth and death databases (Medi-Cal births).
- ☐ Inconsistent definitions across data sources (race/ethnicity).
- ☐ Surveys capture small proportion (sample) of entire population at a single point in time.
- ☐ Selection, response and recall bias in surveys.
- ☐ Respondents may be hesitant to report status, behaviors, hardships (**stigma**).
- ☐ No information on birth experiences or quality of care in population data.



## MPCAH Purpose and Values

- Promoting and supporting client-centered decisions and goals for health which include positive pregnancy outcomes, thriving births, families, and communities
- Maternal and infant mortality disparities drive interventions, programs and our collective work, specifically in the Black community and other populations such as parents of medically fragile and first-time mothers
- Values are:
  - ▣ Relationship-Based
  - ▣ Trauma-Informed
  - ▣ Race and Equity Focused



# Our Vision of Health Equity

70



EVERYONE in Alameda County –  
no matter who you are,  
where you live,  
how much money you make,  
or the color of your skin –  
can lead a healthy,  
fulfilling and productive life.



## Resources

71

**Lisa Goldberg, MPCA**  
Epidemiologist, Alameda County Public  
Health Department.

Contact by phone at 510-267-8024  
or by email: [lisa.goldberg@acgov.org](mailto:lisa.goldberg@acgov.org)

**Misha Taherbhai**, Data Management  
Analyst, Alameda County Public  
Health Department.

Contact by phone at 510-667-4432  
or by email  
[misha.taherbhai@acgov.org](mailto:misha.taherbhai@acgov.org)

For Additional Maternal,  
Paternal, Child, Adolescent  
Health Indicators Go To:

[http://www.acphd.org/data-  
reports/reports-by-  
topic/maternal,-child,-and-  
adolescent-health.aspx](http://www.acphd.org/data-reports/reports-by-topic/maternal,-child,-and-adolescent-health.aspx)

