This slide set was produced by the Alameda County Public Health Department of Community Assessment Planning and Evaluation (CAPE) Unit in collaboration with the Maternal, Paternal, Child and Adolescent Health Unit (MPCAH). It is intended to present key maternal and infant health indicators and includes recent data, trends, and racial and ethnic group inequities.

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Key Questions

1. Who is giving birth in Alameda County?

2. How healthy are moms, newborns, and infants in Alameda County and what health inequities exist?

3. How healthy are young children and women of child bearing age in Alameda County and what inequities exist?

4. How has Alameda County been doing over time and within different communities?

5. How is Alameda County doing compared to Healthy People 2020 (HP2020) and within California?
Types of Data Presented

- **Count**: Number of events or cases at a given point in time.
  - Counts are used to look at the magnitude of the health event within a population.

In 2016, there were 19,551 births in Alameda County.

[Graph showing number of births from 2000 to 2016]
Types of Data Presented

- **Percentage**: Share of events over the population that can be affected at a given point in time.
  - Percentages are used to compare populations of different sizes for example comparing different races/ethnicities or age groups.

In 2016, 27.9% of births were to women 35-49 years of age.
Types of Data Presented

- **Rate**: measure of a health event in a specific population over a set time period.
  - Rates are used to compare populations of different sizes or over different time periods.

The Alameda County birth rate went from 15.3 births per 1,000 population in 2000 to 12.1 in 2016.
**Ratio**: a relationship between two numbers indicating how many times the first number contains the second.

- Ratios are used to show health disparities or to compare outcomes across different groups.

In 2016, the percentage of low birth weight births among African Americans was 2.1 times the percentage of low birth weight births among whites.
Determining Baby’s Race/Ethnicity

- 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).

**Race Categories**
- African American NH
- American Indian NH
- Asian NH
- Pacific Islander NH
- White NH
- Multirace NH - More than 1 of the above

**Hispanic/Latino Ethnicity - Any Race**
- Mexican
- Chicano
- Puerto Rican
- Cuban
- Central/South American

**Declined to State (DTS) Race/Ethnicity**
- Mother’s Race/Ethnicity not included on baby’s birth certificate
- “Refused to State” or “Unknown”

- African Americans: Babies born to Black non-Hispanic mothers.
- American Indians: Babies born to American Indian, Eskimo, or Aleut non-Hispanic mothers.
- Pacific Islanders: Babies born to Hawaiian, Guamian, Samoan, or other Pacific Islander non-Hispanic mothers.
- Whites: Babies born to White non-Hispanic mothers.
- 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.
- Declined to State (DTS): Mother’s Race/Ethnicity is not included on baby’s birth certificate.
This section describes the populations that are giving birth in Alameda County using recent data, trend data and data by race/ethnicity and place.
Birth Trend in Alameda County, 2000-2016


- This figure shows the number of total births in Alameda County each year from 2000-2016.
- In 2000, there were 22,148 live births in Alameda County. In 2016, there were 19,551 live births in Alameda County.
- From 2006-2011, the number of births in Alameda County decreased.
- Since 2012, the number of births in Alameda County has stayed at approximately 19,500 per year.
Annual Birth Rate Trend in Alameda County, 2000-2016


- **Birth rate**: the number of total births per 1,000 population in Alameda County.
- The birth rate decreased from 15.3 live births per 1,000 population in 2000 to 12.1 live births per 1,000 population in 2016.
- The steepest decline in the Alameda County birth rate occurred between 2007-2011.
- Since 2011 the Alameda County birth rate has remained steady at approximately 12.3 live births per 1,000 population.
- 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.
- The declining birth rate in Alameda County is consistent with California which has also seen a decreasing birth rate in the same time period.
Birth Rate Trend by Race/Ethnicity, 2000-2016


- **Birth rate:** the number of total births per 1,000 population in Alameda County each year 2000-2016. (Note: 3 year rolling averages are used to smooth the data.)

- From 2000-2016 the birth rate has decreased for all race/ethnic groups in Alameda County except Multirace.

- Hispanic/Latinos had the largest decline in birth rates in Alameda County from 2006-2016 followed by African Americans.

- The White Birth Rate declined from 2000-2010 and has remained steady at about 9 live births per 1,000 White population.

- Pacific Islanders have had the highest birth rate of all race/ethnic groups in Alameda County since 2010.

- The Pacific Islander (PI) birth rate declined from 2000-2016. From 2008-2014, the Pacific Islander birth rate remained steady at approximately 18 live births per 1,000 PI population. From 2014-2016 the Pacific Islander birth rate declined to approximately 15 live births per 1,000 PI population.

- The Asian birth rate declined from 2000-2010. Since 2010, the Asian birth rate has slightly increased to about 14 live births per 1,000 Asian population.

- The Multirace birth rate increased from 2000-2008. Since 2008 the Multirace birth rate has remained steady at approximately 8.5 live births per 1,000 Multirace population.

- **Note**: Child’s race/ethnicity is based on mother’s race and/or ethnic origin from birth certificates.

- This figure shows the **number of live births** in Alameda County by mother’s race/ethnicity in 2016.

- In 2016 Asians had the largest number of live births (6,162 births) followed by Hispanic/Latinos (5,126 births).

- Whites had 4,513 live births, African Americans had 1,585 live births, Multirace had 618 live births, Pacific Islanders had 170 live births, and American Indian/Alaskan Natives had 33 live births in 2016.

- In 2016, 1,344 live births did not include mother’s race/ethnicity data on birth certificates. This represents 6.9% of all births in Alameda County in 2016.

- These “other/unknown” babies are not included in any of the health indicators analyses by race/ethnicity.
Birth Rate by Race/Ethnicity, 2016


- **Birth rate**: the number of total births per 1,000 population in Alameda County.
- This figure shows the birth rate in Alameda County (AC) by race/ethnicity in 2016.
- The darker orange bars represent groups with higher rates than Alameda County and the lighter orange bars represent groups with lower rates than AC.
- The Alameda County birth rate was 12.1 live births per 1,000 population in 2016.
- Hispanic/Latinos had the highest birth rate of all race/ethnic groups in Alameda County in 2016 at 13.9 per 1,000 Hispanic/Latino population.
- Pacific Islanders (PI) had the second highest birth rate at 13.5 live births per 1,000 PI population, followed by Asians at 13.4 live births per 1,000 Asian population.
- African Americans, Multirace, Whites, and American Indians had lower birth rates than the Alameda County rate.
- The Pacific Islander birth rate is high due to the number of PI babies (170) relative to their small total population in Alameda County (12,621).
- There has been a trend in higher birth rates among Hispanic/Latino, PI, and Asians compared to Alameda County overall and the other race/ethnic groups since 2000.
Birth Rate by City/Place, 2014-2016


- **Birth rate**: the number of total births per 1,000 population in Alameda County.
- This figure shows the birth rate in Alameda County by city/place in 2014-2016.
- The Alameda County birth rate was 12.3 live births per 1,000 population in 2014-2016.
- Cherryland, Ashland, and Dublin had the highest birth rates of all city/places in Alameda County at about 15.0 births per 1,000 population.
- Piedmont, Sunol and Berkeley had the lowest birth rates of all city/places in Alameda County in 2014-2016.
- Birth rates are based on the number of live births and the population of the city/places in Alameda County. Higher numbers of live births coupled with smaller populations result in higher birth rates.

- **Note**: Births to Alameda County residents in other CA counties as well as outside the state are not included in this figure and comprise about 20% of births from 2008-2016. Most of these births occurred in neighboring counties.

- This figure shows the percentage of births to Alameda County residents by AC hospital from 2008-2016.

- Since 2008, about one-quarter of all births to AC residents occurred at Alta Bates Hospital (22%-28%).

- Kaiser Hayward now Kaiser San Leandro had the second largest share of births at 18% in 2016.

- Kaiser Hayward/San Leandro has seen the fastest growth in births to AC residents from 13% in 2008 to 18% in 2016.

- Kaiser Oakland had 10% and Washington Hospital had 9% of births to Alameda County residents in 2016.

- The rest of the hospitals comprised about 21% of births to Alameda County residents in 2016.

- Home births comprised about 1% of annual births from 2008-2016.

- **Note:** The 10-19 age category is primarily comprised of mothers aged 15-19 years.
- This figure shows the percentage share of total births by age category of mother in 2000 versus 2016.
- For 10-19 year old mothers, the percentage share of total births decreased from 7.8% in 2000 to 2.1% in 2016.
- For 20-34 year old mothers, the percentage share of total births decreased slightly from 73.4% in 2000 to 69.9% in 2016.
- For 35-49 year old mothers, the percentage share of total births increased from 18.8% in 2000 to 27.9% in 2016.
- Since 2000, the percentage share of teen mothers 15-19 years has decreased in Alameda County while the percentage share of more mature mothers (35-49 years) has increased.
Teen Birth Rate by Race/Ethnicity, 2016


- **Teen birth rate**: the number of births to 15-19 year old mothers per 1,000 population 15-19 years of age.

- This figure shows the Teen Birth Rate in Alameda County by race/ethnicity in 2016.

- The Alameda County Teen Birth Rate was 8.3 in 2016.

- Latinos had the highest teen birth rate of all race/ethnic groups in Alameda County at 17.7 births to 15-19 year olds per 1,000 Latina population 15-19 year olds in 2016.

- African Americans had the second highest teen birth rate at 12.3.

- The White, Multirace, and Asian Teen Birth Rates were less than the Alameda County rate.

- The Latino Teen Birth Rate was 14.8 times the Asian Teen Birth Rate.

- There were 1,692 teen births in Alameda County in 2000 and only 415 teen births in Alameda County in 2016. This represents a 75% decrease in teen births in Alameda County over this time period (*not shown*).

- **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 trend in Alameda County by race/ethnicity from 2000-2016. (Note: 3 year rolling averages are used to smooth the data.)

- There were 1,692 teen births in Alameda County in 2000 and only 415 teen births in Alameda County in 2016. This represents a 75% decrease in teen births in Alameda County over this time period. *(not shown)*

- The Alameda County Teen Birth Rate decreased from 37.4 in 2000 to 8.3 in 2016.

- The Hispanic/Latino, African American, White, and Asian teen birth rates decreased substantially from 2000-2016.

- Hispanic/Latinos had the steepest decline in teen birth rates followed by African Americans.

- Despite yearly fluctuations, the Pacific Islander teen birth rate has declined since 2000.

- The substantial reduction in the teen birth rates is likely due to the increased use of long acting reversible contraceptives among teens. *(https://www.slideshare.net/hmhbga/long-acting-reversible-contraception)*

- **Teen birth rate**: the number of births to 15-19 year old mothers per 1,000 population 15-19 years of age.

- This map represents teen births at the zip code level for Alameda County residents in 2012-2016. The darker colors on the map correspond to higher teen birth rates, and the lighter colors correspond to lower rates. Five years of data are shown instead of three years to increase the stability of the rates.

- Teen birth rates are highest among residents of east Oakland and west Oakland as well as Ashland, Cherryland, San Lorenzo, and portions of Hayward and Union City. Teen births track very closely to high poverty areas.

- In 2012-2016 in Alameda County, there was an average of 595 teen births per year, at a rate of 12.3 teen births per 1,000 females aged 15-19.

- For zip codes with ten or more teen births in 2012-2016, the teen birth rate ranged from 5.8 to 44.3.

- This figure shows the percentage of births to first-time Moms (e.g. first child) by race/ethnicity of mother in 2016.

- A little less than one-half (44%) of all Alameda County births were to first-time moms in 2016.

- About one-half of Multirace, White and Asian moms were first-time moms in 2016.

- 41% of Black/African American moms were first time moms in 2016.

- About one-third of American Indian, Latina, and Pacific Islander moms were first-time moms in 2016. (This means that more than two-thirds of these moms had at least one child previously).

- This figure shows the percentage of births to mothers whose country of birth was not the US by race/ethnicity of mother in 2016.

- **Note:** Birth Certificate data does not include the number of years the mother has been living in the United States.

- One-half (50%) of all Alameda County births were to non US-born moms in 2016.

- Alameda County had a higher percentage of births to non US-born moms than California as a whole (38%).

- Asian and Latino mothers are the key drivers of this percentage. 82% of Asian births were to Asian non US-born mothers and 55% of Latino births were to Latina non US-born mothers in 2016.

- Pacific Islanders had roughly the same percentage of births to non US-born mothers as Alameda County (52%)

- 21% or less of White, Black, and Multirace births were to non US-born mothers in 2016.
Top 5 Countries of Mothers’ Birth, 2016

<table>
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<td>343</td>
</tr>
<tr>
<td>6</td>
<td>Vietnam</td>
<td>315</td>
</tr>
</tbody>
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<tbody>
<tr>
<td>1</td>
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<td>2,329</td>
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<tr>
<td>2</td>
<td>Mexico</td>
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<tr>
<td>4</td>
<td>Guatemala</td>
<td>313</td>
</tr>
<tr>
<td>5</td>
<td>Other</td>
<td>191</td>
</tr>
</tbody>
</table>


- These two tables show the top countries of mother’s birth for Asian and Latina mothers in 2016.
- For Asian mothers the top three countries of birth were India (1,818), China (1,277), and the US (1,133).
- For Latina mothers the top two countries of birth were the US (2,329) and Mexico (1,857).
- 472 more Latino births in Alameda County were to US-born versus Mexican-born Latina mothers in 2016.

- This figure shows the percentage of births where the expected source of payment for the delivery was Medi-Cal by race/ethnicity from 2000-2016.

- Percentages of Medi-Cal births are underestimates due to underreporting from some hospitals in Alameda County.

- Regardless, the differences in the percentages of Medi-Cal paid for births by race/ethnicity persist.

- Hispanic/Latinos, African Americans, Pacific Islanders, and American Indians had the largest percentages of their births paid from Medi-Cal from 2000-2016.

- Multirace, Asians and Whites had lower percentages of their births paid from Medi-Cal from 2000-2016.

- Medi-Cal payment is often used as a proxy for mothers living in poverty and is linked to funding and eligibility for some MPCAH programs.
Percentage Share of Medi-Cal Births* within each Alameda County Hospital, 2008-2016


- This figure shows the percentage share of births where the expected source of payment for the delivery was Medi-Cal within each Alameda County (AC) Hospital from 2008-2016.
- Percentage shares of Medi-Cal births are underestimates due to underreporting from some hospitals in Alameda County.
- Regardless, there are large differences in Medi-Cal patients between AC Hospitals.
- Highland and St. Rose had over 80% of their births paid from Medi-Cal from 2008-2016.
- Alta Bates had about 50% of their births paid from Medi-Cal during this time period.
- The percentage share of Medi-Cal births decreased for Valley Care and Eden to about 25% and Washington to 10% in 2016.
- About 8% of Home Births were paid from Medi-Cal in 2016.
- Kaiser Oakland and San Leandro reported almost no births paid through Medi-Cal. This is an underestimate due to incomplete payer information in patients’ medical records.

- This figure shows the percentage of births where the mother participated in the Women Infants and Children (WIC) program during her pregnancy by race/ethnicity from 2008-2016.

- About one-third of women giving birth in Alameda County participated in the WIC program from 2008-2016.

- Similar to Medi-Cal paid for births, disparities in the percentages of WIC participants by race/ethnicity persist.

- Hispanic/Latinos, African Americans, American Indians and Pacific Islanders, had the largest percentages of WIC participants from 2008-2016.

- Multirace, Asians and Whites had lower percentages of WIC participation during this time period.
How healthy are moms & newborns in Alameda County?

- Prenatal Care
- Premature Birth
- Low Birth Weight
- Infant Deaths
- Fetal Deaths
- Recent Data
- Trends
- Race/Ethnicity
- Compared to HP2020 & California

This section describes the health of mothers and infants in Alameda County using recent data, trend data, data by race/ethnicity and comparisons to Healthy People 2020 benchmarks and California.
Percentage of Medi-Cal Prenatal Care* by Race/Ethnicity, 2008-2016


- This figure shows the percentage of births where the expected source of payment for prenatal care was Medi-Cal by race/ethnicity from 2008-2016.
- Percentages of Medi-Cal prenatal care are underestimates due to underreporting from some hospitals in Alameda County.
- Regardless, the disparities in the percentages of Medi-Cal paid for prenatal care by race/ethnicity persist.
- Hispanic/Latinos, African Americans, American Indians, and Pacific Islanders had the largest percentages of their prenatal care visits paid from Medi-Cal from 2008-2016.
- Multirace, Asians and Whites had lower percentages of their prenatal care visits paid from Medi-Cal from 2008-2016.
- Medi-Cal payment is often used as a proxy for mothers living in poverty and is linked to funding and eligibility for some MPCAH programs.

*Medi-Cal prenatal care visits are underestimates due to missing data.

- **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 entry into prenatal care in Alameda County by race/ethnicity in 2016.

- In Alameda County, 89% of pregnant women received prenatal care in their first trimester in 2016.

- Except for Pacific Islanders, the percentage of first trimester prenatal care for each race/ethnic group ranged between 85%-94%

- 77% of Pacific Islanders received at least one prenatal care visit in their first trimester in 2016.

- Pacific Islanders have consistently had the lowest percentage of first trimester entry into prenatal care over time.

- Alameda County ranked 2nd among California Counties for highest percentage of first trimester entry into prenatal care in 2014-2016.

- **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 2000-2016. (Note: 3 year rolling averages are used to smooth the data.)

- In Alameda County, 89% of pregnant women received prenatal care in their first trimester in 2014-2016. This percentage is consistent since 2000.

- Except for Pacific Islanders, the percentage of first trimester prenatal care for race/ethnic group ranges between 85%-92% from 2000-2016.

- 77% of Pacific Islanders received at least one prenatal care visit in their first trimester in 2014-2016.

- Pacific Islanders have consistently had the lowest percentage of first trimester entry into prenatal care over time.

- **First Trimester Prenatal Care**: Pregnant women who began prenatal care within the first three months of their pregnancy.

- This figure shows the percentage of mothers receiving prenatal care in their first trimester of pregnancy by race/ethnicity for US versus non-US-born mothers in 2012-2016.

- US and non-US born Pacific Islanders had the lowest percentages of first trimester entry into prenatal care of all groups in Alameda County during this time period.

- Non US-born Black and White mothers had lower percentages of first trimester entry into prenatal care than their US born counterparts.

- The differences in first trimester entry into prenatal care between US versus non-US born mothers were not statistically significant.

- **Adequacy of Prenatal Care Utilization (APNCU) Index (Kotelchuck Index):** APNCU uses two crucial elements obtained from birth certificate data—when prenatal care began (initiation) and the number of prenatal visits from when prenatal care began until delivery (received services).

- **Adequate/Adequate Plus Prenatal Care (APNC) is a ratio of observed to expected visits and is considered adequate when it is equal to or greater than 80%.

- **Note:** The Kotelchuck Index does not measure the quality of prenatal care. It also depends on the accuracy of the patient or health care provider’s recall of the timing of the first visit and the number of subsequent visits.

- This figure shows the percentage of mothers who received adequate/adequate plus prenatal care (APNC) in Alameda County by race/ethnicity in 2016.

- In Alameda County, about 70% of pregnant women received APNC in 2016.

- Asians had the highest percentage of APNC (75%). Whites and Multirace had similar percentages to Alameda County at 69% in 2016.

- African Americans, American Indians, and Latinos had slightly lower percentages than the county (65%-67%).

- Pacific Islanders had the lowest percentage of APNC compared to all race/ethnic groups in Alameda County (57%).

- Alameda County ranked 36th (out of 56) among California Counties for highest percentage of APNC in 2014-2016.

- **Adequacy of Prenatal Care Utilization (APNCU) Index (Kotelchuck Index):** APNCU uses two crucial elements obtained from birth certificate data—when prenatal care began (initiation) and the number of prenatal visits from when prenatal care began until delivery (received services).

- **Adequate/Adequate Plus Prenatal Care (APNC)** is a ratio of observed to expected visits and is considered adequate when it is equal to or greater than 80%.

- **Note:** The Kotelchuck Index does not measure the quality of prenatal care. It also depends on the accuracy of the patient or health care provider’s recall of the timing of the first visit and the number of subsequent visits.

- This figure shows the percentage of mothers who received adequate/adequate plus prenatal care (APNC) in Alameda County by race/ethnicity from 2008-2016. (Note: 3 year rolling averages are used to smooth the data.)

- In Alameda County, the percentage of women receiving adequate/adequate plus prenatal care has decreased from 79% in 2008 to 70% in 2016.

- Asians consistently had the highest percentage of APNC (79%-85%) and Pacific Islanders consistently had the lowest percentage of APNC (59%-67%) during this time period.

- **Adequate/Adequate Plus Prenatal Care (APNC)** is a ratio of observed to expected visits and is considered adequate when it is equal to or greater than 80%.

- **Note:** The Kotelchuck Index does not measure the quality of prenatal care. It also depends on the accuracy of the patient or health care provider's recall of the timing of the first visit and the number of subsequent visits.

- This figure shows the percentage of mothers receiving adequate/adequate plus prenatal care (APNC) by race/ethnicity for US versus non-US-born mothers in 2012-2016.

- Pacific Islanders and Black mothers (US and non-US born) had the lowest percentages of APNC among all groups.

- Non-US-born Black and White mothers had lower percentages of APNC than their US-born counterparts.

- The differences in APNC between US versus non-US born mothers were not statistically significant.

• **Premature Births**: births that occur at less than 37 weeks gestational age.

• This figure shows the percentage of singleton premature births by race/ethnicity in 2016.

• **Note**: Singleton births are included because babies born during multiple births are often born premature and have low birth weights.

• There were 1,229 (6.6%) singleton premature births in Alameda County in 2016.

• African Americans and Multirace had the highest percentages of premature births in 2016 at 8.4% and 8.2%, respectively.

• Pacific Islanders and Latinos had slightly higher percentages of premature births than Alameda County in 2016.

• Asians and Whites had the lowest percentages of single premature births in Alameda County in 2016.

• The African American singleton premature birth percentage was 1.5 times the white percentage.

- **Premature Births**: births that occur at less than 37 weeks gestational age.
- This figure shows the percentage of singleton premature births in Alameda County by race/ethnicity from 2000-2016. (Note: three year rolling averages are used to smooth the data.)
- **Note**: Singleton births are included because multiple births (twins, triplets) are often premature.
- 6.6% of all singleton babies in Alameda County were born prematurely in 2016. From 2000-2016 the percentage of premature births in Alameda County decreased by 2.1 percentage points.
- The percentage of premature births declined for all race/ethnic groups from 2000-2016.
- From 2000-2016 the African Americans percentage of premature births decreased by 4.5 percentage points. (This is good news!) However, African Americans had higher percentages of premature births compared to all other racial ethnic groups during this time period.
- In 2014-2016, the African American percentage of premature births was 1.8 times the White percentage of premature births. This inequity between African Americans and other race/ethnic groups in Alameda County has persisted over time.

- **Premature Births**: births that occur at less than 37 weeks gestational age.

- This figure shows the percentage of singleton premature births by race/ethnicity for US versus non US-born mothers in 2012-2016.

- **Note**: Singleton births are included because babies born during multiple births are often born premature and have low birth weights.

- **Note**: Birth Certificate data does not include the number of years the non US-born mother has been living in the United States.

- African American mothers had the highest percentage of premature births of all groups in Alameda County during this time period.

- The percentage of premature births among African American mothers was 1.6 times the percentage of premature births to mothers of African decent.

- Conversely, the percentage of premature births among non US-born Pacific Islander mothers was 2.1 times the percentage of premature births among US born Pacific Islander mothers.

- The Alameda County percentage of premature births for US and non US-born mothers was 7%.

- All other race/ethnic groups in California had similar percentages of premature births among US versus non-US born mothers.

- **Low Birth Weight (LBW) Births**: births weighing less than 2,500 grams.
- This figure shows the percentage of singleton low birth weight births by race/ethnicity in 2016.
- **Note**: Singleton births are included because babies born during multiple births are often born premature and have low birth weights.
- There were 1,027 (5.4%) singleton LBW births and 133 (0.7%) singleton very low birth weight births in Alameda County in 2016 (*not shown*).
- African Americans had the highest percentage of LBW births at 8.6% in 2016.
- The African American percentage of LBW births was 2.1 times the percentage of White LBW births.
- This represents a substantial racial inequity in healthy weight babies in Alameda County in 2016.

- **Low Birth Weight (LBW) Births**: births <2,500 grams.

- This figure shows the percentage of singleton low birth weight births in Alameda County by race/ethnicity from 2000-2016. (Note: three year rolling averages are used to smooth the data.)

- Singleton births are included because babies born during multiple births often have low birth weights.

- From 2000-2016 the percentage of low birth weight singleton births in Alameda County (5.4%) did not change.

- The percentage of singleton LBW births has declined for whites since 2006 and increased slightly for Hispanic/Latinos since 2010.

- From 2000-2016 African Americans had the highest percentages of LBW births compared to all other race/ethnic groups during this time period.

- In 2014-2016, the African American percentage of LBW births was 2.4 times the White percentage of premature births. This inequity between African Americans and other race/ethnic groups in Alameda County has persisted over time.

- **Low Birth Weight (LBW) Births**: births <2,500 grams.

- This figure shows the percentage of singleton low birth weight births by race/ethnicity for US versus non US-born mothers in 2012-2016.

- **Note**: Singleton births are included because babies born during multiple births are often born premature and have low birth weights.

- **Note**: Birth Certificate data does not include the number of years the mother has been living in the United States.

- African American mothers had the highest percentage of low birth weight births of all groups in Alameda County during this time period.

- The percentage of low birth weight births among African American mothers was 2 times the percentage of low birth weight births among mothers of African decent.

- In contrast the percentage of low birth weight births among non US-born Pacific Islander mothers was 3 times the percentage of low birth weight births among US-born Pacific Islander mothers.

- All other race/ethnic groups in California had similar percentages of low birth weight births among US versus non-US born mothers.

- The Alameda County US and non-US born percentage of singleton low birth weight births was 5.5%.

- **Infant deaths**: deaths to infants less than 1 year of age.
- This figure shows the yearly number of infant deaths in Alameda County from 2000-2016.
- While there are yearly fluctuations, the number of infant deaths in Alameda County decreased from 2001-2016.
- Alameda County had the highest number of infant deaths in 2001 (132) and the lowest number in 2016.
- There were 67 infant deaths in Alameda County in 2016.

- **Infant mortality rate**: deaths to infants <1 year of age per 1,000 live births.
- This figure shows the infant mortality rate trend in Alameda County from 2000-2016.
- Since 2000, there has been a decrease in the infant mortality rate in Alameda County with the steepest decline from 2004 (4.9 deaths/1000 live births) to 2016 (3.7 deaths/1000 live births).
- This represents a decrease of 1.2 deaths/1000 live births in the past 10 years.

- This figure shows the percentage share of births by race/ethnicity compared to the percentage share of infant deaths by race/ethnicity in 2014-2016.
- There were 19,517 average annual births and 72 average annual infant deaths from 2014-2016.
- **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 Americans had a larger share of infant deaths as compared to their births and Asians and Whites had smaller shares of infant deaths as compared to their births.
- Asians made up the largest percentage share of all births (30%) followed by Latinos (27%) and Whites (23%). African Americans made up about 9% of all births in Alameda County in 2014-2016.
- In contrast, African Americans made up 22% of infant deaths during this time period.
- Latinos had roughly the same percentage share of births and infant deaths in 2014-2016.
Infant Mortality Rate by Race/Ethnicity, 2014-2016


- **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 in 2014-2016.
- Note: A three year average is used due to the small number of yearly infant deaths and to protect privacy.
- The Alameda County IMR was 3.7 in 2014-2016.
- African Americans had the highest Infant Mortality Rate (9.5) in 2014-2016.
- The Latino IMR was slightly higher than the Alameda County IMR at 3.9.
- The White and Asian IMRs were lower than Alameda County County at 3.0 and 2.0, respectively.
- The African American IMR was 3.2 times the White IMR.
- The high African American IMR is due to the number of African American infant deaths (16 per year on average) relative to their small total number of live births (less than 1,700 per year on average).
Infant Mortality Rate Trend by Race/Ethnicity, 2000-2016


- **Infant Mortality Rate (IMR):** deaths to infants <1 year of age per 1,000 live births.

- This figure shows the infant mortality rate trend in Alameda County by race/ethnicity from 2000-2016. (Note: three year rolling averages are used to smooth the data.)

- The IMR for Alameda County and all race/ethnic groups, except African Americans decreased from 2000-2016.


- 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 between African American IMR are not statistically significant.

- In 2016, the African American infant mortality rate (9.5) was 3.2 times the White infant mortality rate.

- This inequity in infant mortality between African Americans and other race/ethnic groups in Alameda County has persisted over time.

- **Neonatal Mortality Rate**: deaths to infants less than 1 month of age per 1,000 live births
- **Post-neonatal Mortality Rate**: deaths to infants between 1 month and 1 year of age per 1,000 live births.

This figure shows the neonatal and post-neonatal mortality rates in Alameda County by race/ethnicity in 2014-2016.

The neonatal mortality rates are much higher than the post-neonatal rates because infants are at higher risk in their first month than subsequent months.

Alameda County’s neonatal mortality rate was 2.5 and post-neonatal rate was 1.2 in 2014-2016.

The African American neonatal mortality rate was 3.5 times the White neonatal mortality rate.

Similarly, the African American post-neonatal mortality rate was 2.5 times the White post-neonatal mortality rate during this time period.

Latinos had a slightly higher neonatal mortality rate than Alameda County.

Asians had the lowest neonatal and post-neonatal mortality rates during this time period.
### Leading Causes of Infant Death in Alameda County, 2012-2016

<table>
<thead>
<tr>
<th>Cause</th>
<th>5-Yr Total Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Other Perinatal Conditions</td>
<td>116</td>
<td>30.9%</td>
</tr>
<tr>
<td>Congenital Abnormalities</td>
<td>91</td>
<td>24.2%</td>
</tr>
<tr>
<td>Perinatal Conditions - Short Length of Gestation and Low Birth Weight Disorders</td>
<td>43</td>
<td>11.4%</td>
</tr>
<tr>
<td>Neonatal Medical Conditions</td>
<td>35</td>
<td>9.3%</td>
</tr>
<tr>
<td>Sudden Infant Death Syndrome (SIDS)</td>
<td>33</td>
<td>8.8%</td>
</tr>
<tr>
<td>Perinatal Conditions - Maternal Pregnancy, Labor, and Delivery complications</td>
<td>28</td>
<td>7.4%</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>14</td>
<td>3.7%</td>
</tr>
<tr>
<td>All Other Infant Diseases</td>
<td>11</td>
<td>2.9%</td>
</tr>
<tr>
<td>Accidents or Assault</td>
<td>5</td>
<td>1.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>376</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


- This table shows the leading causes of infant mortality in Alameda County in 2012-2016.
- The top 5 leading causes of infant death are all other perinatal conditions (30.9%), congenital anomalies (24.2%), perinatal conditions related to short gestation and low birth weight (11.4%), neonatal medical conditions (9.3%) and SIDS (8.8%).
Source: CAPE, with data from Alameda County Vital Statistics files, 2012-2016

- This figure shows the percentage share of infant deaths by cause of death for African Americans versus all other race/ethnic groups (White, Latino, Multirace, Pacific Islander and Other) from 2012-2016.

- There were 90 African American deaths and 286 other infant deaths from 2012-2016.

- **If there were no disparities in cause of infant deaths the pie chart on the right would look exactly like the pie chart on the left.**

- This is not the case as African Americans had a larger share of infant deaths due to Sudden Infant Death Syndrome (SIDS) (17.8%) compared to all other race/ethnic groups (5.9%).

- Conversely African Americans had smaller shares of infant deaths caused by neonatal conditions and congenital abnormalities compared to all other race/ethnic groups during this time period.
Number of Fetal Deaths in Alameda County, 2008-2016


- **Fetal deaths**: deaths after 22 weeks gestational age and prior to birth not due to abortion.
- **Note**: 2015 Fetal death data is likely substantially underreported.
- This figure shows the yearly number of fetal deaths in Alameda County from 2008-2016.
- Disregarding 2015, the number of fetal deaths in Alameda County decreased from 2008-2011 and has remained steady at around 110 deaths per year since 2013.
- There were 106 fetal deaths among Alameda County residents in 2016.
Fetal Mortality Rate in Alameda County, 2008-2016

- **Fetal mortality rate**: deaths after 22 weeks gestational age not due to abortions per 1,000 live births + fetal deaths.
- **Note**: 2015 Fetal death data is likely substantially underreported.
- This figure shows the fetal mortality rate trend in Alameda County from 2008-2016.
- Again 2015 appears to be an outlier and likely should be disregarded.
- The fetal mortality rate deceased in Alameda County from 2008-2011.
- Disregarding 2015, the fetal mortality rate has stayed roughly the same since 2012 at about 5.5 per 1,000.
- In 2016 the Alameda County fetal mortality rate was 5.4.

*2015 Fetal Death Rate may be an underestimate.
Fetal Mortality Rate Trend by Race/Ethnicity, 2009-2016

- **Fetal Mortality Rate**: deaths after 22 weeks gestational age not due to abortions per 1,000 live births + fetal deaths.
- **Note**: 2015 Fetal death data is likely substantially underreported.
- This figure shows the fetal mortality rate trend in Alameda County by race/ethnicity from 2008-2016. (Note: three year rolling averages are used to smooth the data.)
- Despite yearly fluctuations, the fetal mortality rate for Alameda County and all race/ethnic groups remained about the same from 2008-2016. The differences in the fetal mortality rates over time within each race/ethnic group were not statistically significant.
- In 2008-2010 the African American fetal mortality rate was 3.4 times with White fetal mortality rate.
- In 2014-2016 the African American fetal mortality rate was about 2.7 times the White fetal mortality rate.
- This inequity in fetal and infant mortality between African Americans and other race/ethnic groups in Alameda County has persisted over time.


- **Fetal mortality rate**: deaths after 22 weeks gestational age not due to abortions per 1,000 live births + fetal deaths.

- **Infant Mortality Rate (IMR)**: deaths to infants <1 year of age per 1,000 live births.

- This figure shows the fetal and infant mortality rates by race/ethnicity in Alameda County in 2014-2016.

- The fetal mortality rates are higher than the infant mortality rates across all race/ethnic groups indicating a higher risk of fetal death than infant death.

- African American/Blacks had the highest rates of both fetal and infant death than all other race/ethnic groups in Alameda County.

- All other race/ethnic groups fetal and infant mortality rates were at below the county rate (except for the Latino infant mortality rate).

- The African American infant mortality rate was 3.1 times the White infant mortality rate.

- The African American fetal mortality rate was 2.6 times the White fetal mortality rate.
### Comparisons: Infant Health Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>HP2020</th>
<th>California</th>
<th>Alameda County</th>
<th>AC Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Trimester Prenatal Care</td>
<td>77.9% or more</td>
<td>83.3%</td>
<td>89.1%</td>
<td>2/56</td>
</tr>
<tr>
<td>Adequate/Adequate Plus Prenatal</td>
<td>77.6% or more</td>
<td>77.9%</td>
<td>73.3%</td>
<td>38/56</td>
</tr>
<tr>
<td>Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breastfeeding Initiation during</td>
<td>81.9% or more</td>
<td>93.8%</td>
<td>97.4%</td>
<td>8/56</td>
</tr>
<tr>
<td>early postpartum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive Breastfeeding</td>
<td>46.2%</td>
<td>29.1%</td>
<td>34.6%</td>
<td>—</td>
</tr>
<tr>
<td>3 months after delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


- This table shows mother and infant health indicator comparisons between Alameda County, California, and the Healthy People 2020 (HP2020) benchmarks.
- The table also shows the Alameda County ranking for specific indicators.
- **Note**: California ranks counties 1-58; 1=best.
- Alameda County had higher percentages of mothers receiving prenatal care in the first trimester and exclusively breastfeeding in the hospital than California and HP 2020.
- However, Alameda County had a lower percentage of adequate prenatal care and exclusive breastfeeding 3 months after delivery than the HP2020 benchmarks.
## Comparisons: Infant Health Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>HP2020</th>
<th>California</th>
<th>Alameda County</th>
<th>AC Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teen Births</td>
<td>—</td>
<td>17.6/1000</td>
<td>10.2/1000</td>
<td>7/52</td>
</tr>
<tr>
<td>Premature Births</td>
<td>11.4% or less</td>
<td>8.5%</td>
<td>6.6%*</td>
<td>—</td>
</tr>
<tr>
<td>Low Birth Weight</td>
<td>7.8% or less</td>
<td>6.8%</td>
<td>7.1%*</td>
<td>42/52</td>
</tr>
<tr>
<td>Very Low Birth Weight</td>
<td>1.4% or less</td>
<td>1.2%</td>
<td>1.2%</td>
<td>—</td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td>6.0/1000 or fewer</td>
<td>4.6/1000</td>
<td>3.7/1000</td>
<td>—</td>
</tr>
</tbody>
</table>

*Low Birth Weight and Premature Births in this table are based on all births not just singleton births.

**Sources:** CAPE, with data from Alameda County Vital Statistics files, 2014-2016. Healthy People 2020. California Department of Public Health (CDPH) 2018 County Health Profiles.

- This table shows mother and infant health indicator comparisons between Alameda County, California, and the Healthy People 2020 benchmarks.
- The table also shows the Alameda County ranking for specific indicators.
- **Note:** California ranks counties 1-58; 1=best and 58=worst.
- Alameda County had lower percentages of premature births, very low birth weight births and infant mortality rates compared to California and the HP2020 benchmarks.
How healthy are infants in Alameda County?

- SIDS & Safe Sleep
- Breastfeeding
- Recent Data
- Race/Ethnicity

This section describes SIDS deaths, safe sleep and breastfeeding behaviors in Alameda County using recent data, trends and comparisons by race/ethnicity.
Over the last five years, in Alameda County there was an average of 7 SIDS cases per year.

The trend shows a slight decrease in SIDS rates over time that is not statistically significant (p=0.07).


- **SIDS Death Rate**: Number of deaths from Sudden Infant Death Syndrome per 1,000 births.
- The pie chart on the right shows the percentage of SIDS deaths by race/ethnicity from 2012-2016 (5 year time period).
- Alameda County averaged 7 SIDS deaths per year from 2012-2016.
- African Americans made up almost one-half of all SIDS deaths (48.5%), followed by Multirace (18%) and Whites (15%).
- The disproportionate share of African American SIDS deaths points to racial inequities in infant deaths caused by SIDS for African Americans.
- The trend line on the left shows the annual SIDS death rate in Alameda County from 2000-2016.
- The Alameda County SIDS death rate has slightly decreased over time, but it is not statistically significant.
- The Alameda County SIDS death rate for 2012-2014 was 0.20 SIDS deaths per 1000 live births.
SIDS Mortality Rate Trend by Race/Ethnicity, 2005-2016


- **SIDS mortality rate**: deaths to infants <1 year of age per 1,000 live births.

- This figure shows the SIDS mortality rate trend in Alameda County for African Americans versus all other race/ethnic groups from 2005-2016. (Note: five year rolling averages are used to smooth the data.)

- The number of SIDS deaths among African Americans during this time period was 15-25 deaths in each 5 year period or 3-5 deaths per year on average. All other race/ethnic groups combined had similar numbers of SIDS deaths (18-26) in a five year period as African Americans.

- The African American SIDS mortality rate was 9.5 times the SIDS mortality rate for all other race/ethnicities combined in 2012-2016.

- 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.
- MIHA has maintained a response rate of approximately 70% statewide.
- Placed infant on back to sleep: Put baby down to sleep on his or her back most of the time.
- Note: Higher/lower than county percentage indicates when the percentage is statistically higher than or lower than the county percentage (Confidence Intervals do not cross).
- 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 2013-2015.
- About 83% 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 92.6% and Black/African American non-Hispanics had a lower percentage at 65.6%.
Percentage Infant Always or Often Shared Bed by Race/Ethnicity, 2013-2015

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

- **Infant always or often shared bed**: Baby always or often slept in the same bed with mother or someone else.

- **Note**: Higher/lower than county percentage indicates when the percentage is statistically higher than or lower than the county percentage (Confidence Intervals do not cross).

- This figure shows the percentage of mothers who reported their infant always or often shared the bed from 2013-2015.

- Approximately 37% of Alameda County mothers responded that their infant always or often shared their bed in 2013-2015.

- Black/African American and Latina mothers reported the highest percentages of co-sleeping.

- White mothers had the lowest percentage at 20.6%, which was lower than the county overall.
Source: California Department of Public Health, In-Hospital Breastfeeding, 2016.

- This figure shows the **percentage of newborns who were exclusively breastfed in the hospital after birth by mother’s race/ethnicity in 2016**.

- The results are based on an In-Hospital Breastfeeding Survey of 17,072 Alameda County births in 2016.

- **Note**: The Pacific Islander and American Indian percentages are overestimated due to their small populations in Alameda County. (The true American Indian percentage is likely between 72% - 99% and the true Pacific Islander percentage is likely between 66% - 92%.)

- Approximately, 83% of Alameda County (AC) newborns were exclusively breastfed in the hospital in 2016.

- White mothers had a higher percentage of exclusive newborn breastfeeding than Alameda County at 88% and Black/African Americans had a lower percentage than the county at 78%.
Percentage Breastfeeding at 3 Months by Race/Ethnicity, 2013-2015

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

- **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.

- **Note**: Higher/lower than county percentage indicates when the percentage is statistically higher than or lower than the county percentage (Confidence Intervals do not cross).

- This figure shows the percentage of mothers who reported any and exclusive breastfeeding 3 months postpartum from 2013-2015.

- About three-quarters (74%) of Alameda County mothers reported any breastfeeding and a little more than one-third of mothers reported exclusive breastfeeding 3 months postpartum from 2013-2015.

- White and Asian/Pacific Islander mothers reported higher percentages of any breastfeeding and Black/African American mothers reported lower percentages than AC county.

- Asian/Pacific Islander and Black/African American mothers reported lower percentages of exclusive breastfeeding than Alameda County.
This section discusses reproductive life planning indicators around unintended pregnancies, postpartum birth control use, and family planning.
In 2011, 45% (2.8 million/6.1 million) pregnancies in the US each year were unintended.

In 2011, 5% of reproductive-age women had an unintended pregnancy each year.

Demographic Disparities

- Teen Moms (15-17 years) & Young Moms (18-24 years)
- Poor Women (<200% Federal Poverty Level)
- Less than high school education
- Single/Cohabitating Moms
- Racial/Ethnic Groups


- **Unintended pregnancy** is a pregnancy that was either mistimed or unwanted.
- **Mistimed pregnancy** occurs when a woman did not want to become pregnant at the time the pregnancy occurred, but does want to become pregnant at some point in the future.
- **Unwanted pregnancy** occurs when woman did not want to become pregnant then or at any time in the future.

- Unintended pregnancy rates in the US are highest among poor and low-income women, teen mothers and adult women aged 18–24, women with less than HS diploma, unmarried/cohabiting women, and women of color.

- In 2011, the rate of unintended pregnancy among poor women (those with incomes below the federal poverty level) was more than five times the rate among women with incomes of at least 200% of the federal poverty level.

- In 2011, women without a high school degree had the highest unintended pregnancy rate among all educational levels and rates were lower for women with more years of education.

- In 2011, the unintended pregnancy rate for black women was more than double that of non-Hispanic white women.
Unintended Pregnancies CA

- In 2010, 48% of all pregnancies (393,000) in California were unintended.

- CA unintended pregnancy rate in 2010: 50 per 1,000 women aged 15–44 years.

- In 2010, 42% of unintended pregnancies in California resulted in births; 45% in abortions; the remainder resulted in miscarriages.

- In 2010, federal and state government spent $1.8 billion on unintended pregnancies in CA.

**Percentage Unintentional Pregnancy by Race/Ethnicity, 2013-2015**


- **Mistimed or unwanted pregnancy**: Just before pregnancy, felt that she did not want to get pregnant or wanted to get pregnant later.
- ** Unsure of pregnancy intentions**: Just before pregnancy, felt that she was not sure if she wanted to get pregnant.

This figure shows the percentage of mothers who reported their pregnancy was unintended (unwanted or mistimed) or they were unsure of pregnancy by race/ethnicity in Alameda County from 2013-2015.

- About 38% of all pregnancies in Alameda County were either unintended (25%) or unsure (13%) from 2013-2015.
- Black/African Americans and Latinos had higher rates of unintentional pregnancies compared to the county rate and Whites and Pacific Islanders had lower rates.
- Latinos and Asian/Pacific Islanders had lower rates of unsure of pregnancy intentions compared to the county and other race/ethnic groups.
- Due to the small sample sizes, none of the rates were statistically higher or lower than the county.
(https://www.cdph.ca.gov/Programs/CFH/DMCAH/MIHA/Pages/Default.aspx)

• **Postpartum birth control use:** Woman or husband/partner was doing something at the time of the survey to keep from getting pregnant.

• This figure shows the percentage of mothers who reported postpartum birth control use by race/ethnicity in Alameda County from 2013-2015.

• About 86% of women in Alameda County reported some form of postpartum birth control use from 2013-2015.

• Latino women reported the highest rates (90%) and Black/African American women reported the lowest rates (78%).

• None of the rates were statistically higher or lower than the county.
Source: Family Health Outcomes Project (FHOP) Alameda County Databook 2015.

• Births <18 months apart: Number of women giving birth to a child less than 18 months after giving birth to a previous child.

• This figure shows the percentage of mothers who gave birth to two children less than 18 months apart by race/ethnicity in Alameda County in 2015.

• About 23% of women in Alameda County gave birth to children <18 months apart.

• About one in three white mothers gave birth to infants <18 months apart compared to about one in five African American, Asian/Pacific Islander and Latino mothers in 2015.
Unmet Need for Family Planning Services in CA

- In 2014, over 2.6 million CA women aged 13-44 years were in need of publicly funded family planning services.
- Publicly funded family planning centers in CA served 1.3 million female clients in 2014.
- Publicly funded family planning centers in CA helped avert over 321,000 unintended pregnancies in 2010.
  - This would have resulted in 156,000 unplanned births and 116,000 abortions.
  - This saved the state and federal government over $1.79 billion.

### MCH Indicators by Social Gradient

- Teen Birth Rate
- Infant Mortality Rate
- % Low Birth Weight

This section looks at key MCH indicators by race/ethnicity and social gradient (neighborhood poverty).
Birth Rate by Poverty Level and Race/Ethnicity, 2012-2016


- **Neighborhood Poverty Level**: Percentage of residents living at or below 100% of the federal poverty level by zip code. For example, <10% = all zip codes in Alameda County where <10% of residents live at or below the federal poverty level (e.g. most affluent zip codes).

- **Birth rate** is the number of births per 1,000 population.

- This figure shows the birth rate by neighborhood poverty level and race/ethnicity in Alameda County from 2012-2016.

- This figure shows that for Alameda County and for every race/ethnic group except Asians there is a relationship between neighborhood poverty and birth rate. The less affluent the neighborhood (e.g. more residents living in poverty) the higher the birth rate.

- The Alameda County birth rate increased from 10.7 in the most affluent neighborhood to 14.9 in the least affluent neighborhood.

- Latinos had the strongest relationship in that the birth rate increased with each increase in neighborhood poverty level.

- Latinos living in the most affluent neighborhoods had a birth rate of 11.7. Latinos living in the least affluent neighborhoods had a birth rate of 17.5. The Latino birth rate in the least affluent neighborhoods is 1.5 times the Latino birth rate in the most affluent neighborhoods.

- Conversely, the Asian birth rate in the most affluent neighborhoods is higher than the Asian birth rate in the least affluent neighborhoods.

- **Neighborhood Poverty Level**: Percentage of residents living at or below 100% of the federal poverty level by census tract. For example, <10% FPL = all census tracts in Alameda County where less than 10% of residents live at or below the federal poverty level (e.g. most affluent neighborhoods).

- **Teen birth rate** is the number of births to 15-19 year old mothers per 1,000 population females 15-19 years of age.

- This figure shows the Teen Birth Rate by neighborhood poverty level and race/ethnicity in Alameda County from 2012-2016.

- 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 6.6 in the most affluent neighborhood to 30.7 in the least affluent neighborhood. The teen birth rate in the least affluent neighborhoods was 4.6 times the teen birth rate in the most affluent neighborhoods.

- Latinos and African Americans 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 3.9 times the African American teen birth rate in the most affluent neighborhoods.

- **Neighborhood Poverty Level**: Percentage of residents living at or below 100% of the federal poverty level by census tract. For example, <10% FPL= all census tracts in Alameda County where less than 10% 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 2012-2016.

- This figure shows that there is a relationship between neighborhood poverty and infant mortality in Alameda County, especially among African Americans.

- The less affluent the neighborhood (e.g. more residents living in poverty) the higher the IMR.

- The Alameda County IMR increased from 3.1 in the most affluent neighborhood to 6.5 in the least affluent neighborhood.

- The African American IMR increased with each increase in poverty level. The African American IMR in the least affluent neighborhoods is 3 times the African American IMR in the most affluent neighborhoods.

- Also, the African American IMR in the most affluent neighborhoods is higher than the Asian and Latino IMR in the least affluent neighborhoods.
Social Gradient Takeaways

1. Race and Class (socioeconomic status) are closely connected
   - The most affluent neighborhoods have high % of Whites and Asians.
   - The least affluent neighborhoods have high % of Latinos and African Americans.

2. Birth Rates, Teen Birth Rates, and Infant Mortality are associated with neighborhood poverty.
   - Poorer neighborhoods have ↑ Birth Rates compared to more affluent neighborhoods.
   - Poorer neighborhoods have ↑ Teen Birth Rates compared to more affluent neighborhoods, especially for Latino and African American teens.
   - Infant Mortality ↑ with neighborhood poverty, especially for African Americans
   - The African American IMR in the poorer neighborhoods is 3X the African American IMR in the most affluent neighborhoods.
Social Gradient: Key Takeaways

3. Racial/Ethnic Inequities persist when controlling for neighborhood poverty
   - African Americans in the most affluent neighborhoods have ↑ % of premature babies than Whites, Asians and Latinos in the poorest neighborhoods.
   - African Americans in the most affluent neighborhoods have ↑ % of low birth weight babies than Whites, Asians and Latinos in the poorest neighborhoods.

4. Conclusion: Neighborhood poverty does not fully explain poor infant health outcomes. Racism is an underlying cause of maternal and infant health inequities in Alameda County.
Racism happens at multiple levels in our society.

Whether internalized, personally-mediated, or institutionalized, all these forms of racism can profoundly impact health through multiple pathways – some of which are illustrated here.

The causes of poorer African American maternal and infant health are complex and multifactorial and include:

- Cumulative impact of exposure to racial, socioeconomic, and environmental stress
- Inequities remain even when controlling for socioeconomic status
- Long history of racism and segregation for African-Americans
- Life course approaches are needed
Improving African American Birth Outcomes

- Supporting and strengthening existing programs specifically serving African-American families
  - Black Infant Health
  - Healthy Start
- Focused attention on improved outreach to the African-American community
- Introduction of RBA measures that relate more directly to infant mortality
- Department-wide Initiative “Turn the Curve on African American IMR.” Next steps include:
  - Awareness campaign
  - Implicit bias training with providers
  - Collaborating with partners on housing/financial security
How healthy are young children in Alameda County?

This section describes key indicators for young children (ages 0-5 years) in Alameda County by race/ethnicity.
Children 5 years and under Living in Poverty by Race/Ethnicity, 2016

Source: Cape with data from US Census Bureau American Community Survey, 1 year and 5 year files 2016.

- **Note:** Data for American Indians and Pacific Islanders is from 5 year census files, 2012-2016.
- **Children living in poverty:** Children under 6 years of age living at or below 100% poverty level for whom poverty status can be determined. The Federal Poverty Level (FPL) is $24,250 annual income for a family of four.
- This figure shows the percentage of children less than 6 years of age living in poverty by race/ethnicity in Alameda County in 2016.
- 11.6% of Alameda County children less than 6 years of age were living in poverty in 2016.
- Black/African Americans, American Indians, Pacific Islanders and Latinos had the highest percentages of children living in poverty. Over one in three African American children, one in three American Indian children and one in six Pacific Islander and Latino children were living in poverty in 2016.
- Asians, White Non-Hispanics, and Multirace had the lowest percentages of children living in poverty.
- The percentage of Black/African American children living in poverty was 7.2 times that of White Non-Hispanic children in Alameda County in 2016.
### Percentage Children 5 Years and under with Public Health Insurance by Race/Ethnicity, 2016

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage of Children &lt;6 on Public Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>55.6%</td>
</tr>
<tr>
<td>Latino</td>
<td>54.0%</td>
</tr>
<tr>
<td>Multirace</td>
<td>37.4%</td>
</tr>
<tr>
<td>American Indian*</td>
<td>36.8%</td>
</tr>
<tr>
<td>All races</td>
<td>33.0%</td>
</tr>
<tr>
<td>Pacific Islander*</td>
<td>30.7%</td>
</tr>
<tr>
<td>White NH</td>
<td>18.4%</td>
</tr>
<tr>
<td>Asian</td>
<td>16.8%</td>
</tr>
</tbody>
</table>

*Data for American Indians and Pacific Islanders is from 5 year files 2012-2016.

**Source:** Cape with data from IPUMS USA Integrated files, 1 year file 2016 and 5 year file 2012-2016.

- **Note:** Data for American Indians and Pacific Islanders is from 5 year census files, 2012-2016.

- **Public Health Insurance:** Children under 6 years of age who have insurance through Medicare, Medicaid, and/or the Department of Veterans Affairs insurance. (The Census Bureau does not consider insurance provided by Indian Health Services to be public coverage, as IHS policies are not always comprehensive.)

- This figure shows the percentage of children less than 6 years of age who were covered through public health insurance by race/ethnicity in Alameda County in 2016.

- 33% of Alameda County children <6 years had public health insurance in 2016 (39,353).

- Over one-half of African American/Black and Latino children had public health insurance.

- A little more than one-third of Multirace and American Indian children and a little less than one-third of Pacific Islander children had public health insurance in 2016.

- Only 18% of White non-Hispanic and 17% of Asian children had public health insurance, most of these children were privately insured during this time period.
Percentage Children 5 Years and under by Race/Ethnicity, 2016

Source: Cape with data from IPUMS USA Integrated files, 1 year and 5 year files 2016.

- **Note:** Data for American Indians and Pacific Islanders is from 5 year census files, 2012-2016.
- **Note:** Medi-Cal eligibility for infants is at 200% the federal poverty level (FPL) and 150% for children less than 18 years.
- This figure shows the percentage of children less than 6 years of age living at or below the federal poverty level and the percentage on public health insurance by race/ethnicity in Alameda County in 2016.
- We expect to see a larger percentage of children less than 6 years of age with public health insurance than living in poverty by race/ethnicity.
- This holds true for all groups except American Indians, which had about the same percentages. This means that there are more American Indian children that qualify for public health insurance than are currently receiving it.
Asthma Hospitalizations for Children 0-4 years by Race/Ethnicity, 2013-3Q2015

Source: CAPE, with data from OSHPD ED Visits, 2013-3Q2015.

• **Asthma Hospitalization Rate**: number of asthma hospitalizations among children 0-4 years of age by race/ethnicity per 10,000 population 0-4 years.

• **Note**: Asthma hospitalization rate is a key measure of early childhood health care utilization.

• This figure shows the asthma hospitalization rate for children 0-4 years by race/ethnicity in Alameda County from 2013 through the third quarter of 2015.

• African Americans had the highest asthma hospitalization rates compared to other groups in Alameda County.

• All race/ethnic groups except Whites had higher asthma hospitalization rates than the HP2020 objective of 18.2 or fewer.

• The African American asthma hospitalization rate is 5.7 times the White rate during this time period.

• Poverty, exposure to pollution, lack of a regular medical home and lack of access to asthma prescription medications (e.g. inhalers) results in more asthma ED visits and hospitalizations.
Unintentional Injury Hospitalizations for Children 0-4 years by Race/Ethnicity, 2013-2015

Source: CAPE, with data from OSHPD Hospitalizations, 2013-3Q2015.

• **Unintentional Injury Hospitalization Rate**: number of hospital admissions for unintentional injuries (resulting from motor vehicle crashes, falls, fires and burns, drowning, poisonings and aspirations) among children 0-4 years of age by race/ethnicity per 100,000.

• **Note**: The Unintentional hospitalization rate is the most common reason for hospital care among young children 0-4.

• This figure shows the unintentional injury hospitalization rate for children 0-4 years by race/ethnicity in Alameda County from 2013 through the third quarter of 2015.

• There were 869 unintentional injury hospitalizations from 2013 – 3Q2015 in Alameda County.

• African Americans had the highest unintentional injury hospitalization rate during this time period.

• The African American hospitalization rate was 2 times the Alameda County rate and 24 times the White rate.
How healthy are women of child bearing age (15-44 years) in Alameda County?

This section describes key indicators for women of child bearing age in Alameda County by race/ethnicity.
Women Living in Poverty by Race/Ethnicity, 2016

Source: Cape with data from US Census Bureau American Community Survey, 1 year file 2016 and 5-year files 2012-2016.

- **Note:** Data for American Indians and Pacific Islanders is from 5 year census files, 2012-2016.
- **Women living in poverty:** Women between 15-44 years of age living at or below 100% poverty level for whom poverty status can be determined. The Federal Poverty Level (FPL) is $24,250 annual income for a family of four.
- This figure shows the percentage of women living in poverty by race/ethnicity in Alameda County in 2016.
- 12.2% of Alameda County women 15-44 years were living in poverty in 2016.
- African Americans, American Indians and Pacific Islanders had the highest percentages of women living in poverty.
- Asians and White non-Hispanics had the lowest percentages of women living in poverty.
- The percentage of African American women living in poverty was 3.6 times that of White non-Hispanic women in Alameda County.
Source: Cape with data from IPUMS USA Integrated files, 1 year and 5 year files 2016.

Note: Data for American Indians, Pacific Islanders, and Multirace is from 5 year census files, 2012-2016.

- This figure shows the percentage of women ages 18-44 years who had public health insurance and percentage who were uninsured by race/ethnicity in Alameda County in 2016.
- 20% of Alameda County women of child bearing age had public health insurance and 5% were uninsured in 2016.
- Over one-third of African American/Black women had public health insurance and 7.5% were uninsured.
- A little less than one-third of Latina women had public health insurance and 11% were uninsured.
- One third of American Indian women were uninsured and only 17% have public insurance.
- About 12% of Pacific Islander women were uninsured or on public insurance.
- White non Hispanic and Multirace had the lowest percentages of uninsured and publicly insured women. Most women in these groups were privately insured.
Source: Cape with data from US Census and IPUMS USA Integrated files, 1 year file 2016 and 5 year file 2012-2016.

• **Note:** Data for American Indians, Pacific Islanders, and Multirace is from 5 year census files, 2012-2016.

• **Note:** Medi-Cal eligibility is at 150% the federal poverty level (FPL) for children less than 18 years and 133% FPL for women over 18 years.

• This figure shows the percentage of women 15-44 years living at or below the federal poverty level and the percentage on public health insurance by race/ethnicity in Alameda County in 2016.

• We expect to see a larger percentage of women with public health insurance than living in poverty by race/ethnicity.

• This holds true for most groups except American Indians and Pacific Islanders. This means that there are more American Indian and Pacific Islander women of child bearing age that qualify for public health insurance than are currently receiving it.
Women with Less than High School Education by Race/Ethnicity, 2016

Source: Cape with data from IPUMS USA Integrated files, 1 year and 5 year files 2016.

- **Note**: Data for American Indians, Pacific Islanders, and Multirace is from 5 year files, 2012-2016.

- **Less than High School Education**: Women ages 18-44 years whose highest level of education was less than a high school diploma or GED for whom educational attainment could be determined.

- This figure shows the percentage of women ages 18-44 years with less than a high school education by race/ethnicity in Alameda County in 2016.

- 7.5% of Alameda County women 18-44 years had less than a high school education in 2016.

- 19% of Latinas had less than a high school education. 11% of American Indian and 9% of African American women had less than a high school education.

- White Non-Hispanics, Asians and Multirace had the lowest percentages of women with less than a high school education.

- The percentage of Latina women with less than a high school education was 6.5 times Whites in 2016.

*Data for American Indians and Pacific Islanders is from 5 year files - 2012-2016.
Source: Cape with data from US Census and IPUMS USA Integrated files, 1 year file 2016 and 5 year file 2012-2016.
Source: Cape with data from California Health Interview Survey (CHIS) pooled data 2012-2016.

- **Overweight/Obese**: Women ages 18-44 years whose body mass index (BMI) ≥ 25.0.
- This figure shows the percentage of women ages 18-44 years who were overweight or obese in Alameda County in 2012-2016 by race/ethnicity.
- 48% of Alameda County women 18-44 years were overweight or obese during this time period.
- Latino women had the highest rate of overweight/obesity followed by African Americans and Multirace women.
- White and Asian women had lower percentages of overweight/obesity compared to the county.
Key Takeaways

1. Who is giving birth in Alameda County (AC)?
   - There has been a $\downarrow$ in AC births since 2000. (Ave. 19,500 births per year since 2012.)
   - Asians and Latinos have the largest # of births. Latinos have the highest birth rate.
   - AC has seen a dramatic $\downarrow$ in teen moms (15-19 years) and an $\uparrow$ in mature moms (35-44 years).
   - AC has large % of non US-born moms (Asian, Latino).
2. How healthy are moms, newborns, and infants in Alameda County?

- Overall, AC moms, newborns and infants are very healthy!

- AC has high % of moms receiving prenatal care and breastfeeding. (Pacific Islanders inequities persist.)

- AC has seen a ↓ in preterm births over time.

- Other AC indicators have remained steady. Likely due to persistent African American inequities.


  - Non-US born Black mothers have lower % low birth weight and preterm births. Yet, Non-US born Black mothers have lower % of early and adequate prenatal care.

  - Non-US born Pacific Islander mothers have higher % low birth weight and preterm births and similar rates of PNC.
SIDS, Safe Sleep Practices and Breastfeeding

- African Americans disproportionately affected by SIDS deaths.
- Majority of AC moms engage in safe sleep behaviors and many breastfeed infants. African American inequities persist.

Reproductive Planning

- About 1/3 of pregnancies were unintended or unsure with ↑ % among African Americans and Latinos.
- Majority of AC moms use birth control postpartum. However, substantial unmet need for family planning services in Alameda County (50%).

Fetal and Infant Mortality

- AC has seen a ↓ in infant mortality over time. The fetal death trend is unclear due to underreporting in 2015.
- African American Fetal and Infant Mortality is much higher than all other race/ethnic groups in AC.
- Infant Mortality ↑ with neighborhood poverty, especially for African Americans.

Racism is an underlying cause of maternal and infant health inequities in Alameda County.
3. How healthy are young children and women 18-44 years in Alameda County?
   - Most young children are women of childbearing age are very healthy.
   - Racial/ethnic inequities exist in key SES indicators: poverty rates, health insurance, injury and high school completion.
   - African American, Latino, and American Indian young children and women are most affected.

4. How has Alameda County been doing over time and within different communities?
   - High neighborhood poverty is associated with poor mom and infant health outcomes.
   - Life course approaches are needed.
   - MPCAH has targeted programs to improve African American mother, infant and child outcomes.

5. How is Alameda County doing compared to Healthy People 2020, within California?
   - AC does very well compared to other counties on key birth and family planning indicators.
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.

As a Health Department, our work is guided by a vision of an Alameda County where everyone — 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.
For Additional Alameda County Maternal, Child, and Adolescent Health Indicators:  

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