

Adolescent Births in California

2000 – 2018



Maternal, Child & Adolescent Health
mcah



California Department of Public Health
Maternal, Child and Adolescent Health Division
Epidemiology, Surveillance and Federal Reporting Branch

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Introduction

Adolescent birth rates (ABR) continue to decline in California and nationally. Despite this progress, adolescent childbearing remains an important public health issue. Most births, particularly those among younger adolescents aged 15-17, are unintended,¹ which can lead to socioeconomic and health-related challenges for adolescents and their children relative to their peer groups.^{2,3}

Compared to infants born to women aged 20 and over, infants born to adolescents are more likely to be premature and underweight and are at increased risk of dying within the first year of life.⁴ Childbearing in adolescence has also been associated with the lack of completion of either primary or post-secondary schooling, decreased likelihood of future employment and increased chances of becoming dependent on public assistance.⁵ Research shows that many of the effects are not directly caused by becoming a young parent; rather, they are caused by other factors already present.⁶ Social determinants of health, such as high rates of poverty, limited economic and educational opportunities, and a lack of safe and nurturing environments influence the life course trajectories of young people, regardless of early parenthood.⁷ While pregnant and parenting youth are resilient, they may face greater challenges than their non-parenting peers, which not only limits their individual choices and opportunities but also increases broader social, economic and health disparities.⁸

In California, adolescents with a live birth are more likely to be food and housing insecure, experience intimate partner violence during pregnancy, and experience two or more

hardships in their childhood compared to the adult birthing population.⁹

Several adolescent population subgroups in California experience higher rates of childbearing compared to adolescents in general. These populations include youth in foster care, youth experiencing homelessness and youth who identify as LGBTQ.^{10,11}

Significant and persistent county-by-county and racial/ethnic group variations exist in the ABR. In light of these disparities, and seeking to monitor and identify the areas and populations most in need of support and program services, the Maternal, Child, and Adolescent Health Division (MCAH) within the California Department of Public Health presents this report on ABR and percent repeat birth (PRB) trend data.

This report provides information about statewide trends in the ABR (defined as the number of live births per 1,000 females aged 15-19) over time, as well as the current year's ABR by race and Hispanic ethnicity, age group, and county. The report also presents data on the PRB (defined as the number of subsequent live births per 100 births by adolescent females aged 15-19). While most of the data focus on adolescents between the ages of 15 and 19, some data for females under the age of 15 are also included. ABR is a standard demographic measure commonly used as an indicator of adolescent sexual health and well-being that can provide indirect evidence on access to sexual and reproductive health services. Using this age group for the ABR indicator allows for national and state comparisons.

Methods

Data Sources

The following data sources were used in the development of this report:

Births:

- ▶ 2000-2017, California Birth Statistical Master File. California Department of Public Health, Center for Health Statistics and Informatics.
- ▶ 2018, California Comprehensive Master Birth File. California Department of Public Health, Center for Health Statistics and Informatics.

Population:

- ▶ 2000-2009, Race/Hispanics Population with Age and Gender Detail, 2000–2010. September 2012. California Department of Finance. Demographic Research Unit.
- ▶ 2010-2018, State and county population projections 2010-2060 [P-3: State and County Projections Dataset]. January 2020. California Department of Finance. Demographic Research Unit.

U.S. Adolescent Birth Rate:

- ▶ 2018, Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2018. NVSR 68(13);
- ▶ 2017, Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2017. NVSR 67(8);
- ▶ 2016, Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2016. NVSR 67(1);
- ▶ 2000-2015, Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for

2015. NVSR 66(1). Hyattsville, MD: National Center for Health Statistic.

Measures

The number of adolescent births and repeat births were derived from the California Birth Statistical Master File (2000-2017) and the California Comprehensive Master Birth File (2018). The size of the adolescent population, along with geographic and demographic distributions, were derived using data from the California Department of Finance. Standard measures of Adolescent Birth Rate (ABR, defined as the number of live births per 1,000 females aged 15-19) and Percentage of Repeat Birth (PRB, defined as the number of subsequent live births per 100 births by adolescent females aged 15-19) were calculated overall and by subgroups by dividing the number of births by the estimated population size. Among the three race/ethnicity groups with the highest numbers of births, disparity ratios were calculated by dividing a given sub-population's rate (Hispanic, Black) by that of the group with the lowest rate (White). This yielded a Hispanic-White Birth Rate Ratio, and a Black-White Birth Rate Ratio.

In addition, both relative (rate ratio) and absolute (rate difference) measures of ABR and PRB were assessed to provide a deeper understanding of change over time. Relative ABR was calculated by subtracting a given year's rate from that of the previous year and dividing the result by the previous year's rate, producing a percentage change from one year to the next. The absolute difference was calculated by subtracting the ABR in a given year from that of the previous year, producing a difference in ABR from one year to the next.

To obtain more stable county-level ABR and PRB estimates, three-year aggregated (2016-2018) data were used. Even with these aggregated data, there are 18 counties for which the ABR was suppressed due to small numbers of observations and 22 counties for which the PRB was suppressed, following California’s Health and Human Services Data De-Identification Guidelines.

The 2000-2018 California birth rates presented in this report differ somewhat from other published sources due to using different data sources to calculate population denominators

(e.g., rates published by the National Center for Health Statistics used Census data to determine the value of the population denominator, while MCAH used population data from the California Department of Finance). To prevent inadvertent or intentional identification of individuals included in the data presented in this surveillance report, MCAH adheres to the California Health and Human Services [Data De-Identification Guidelines \(DDG\)](#).

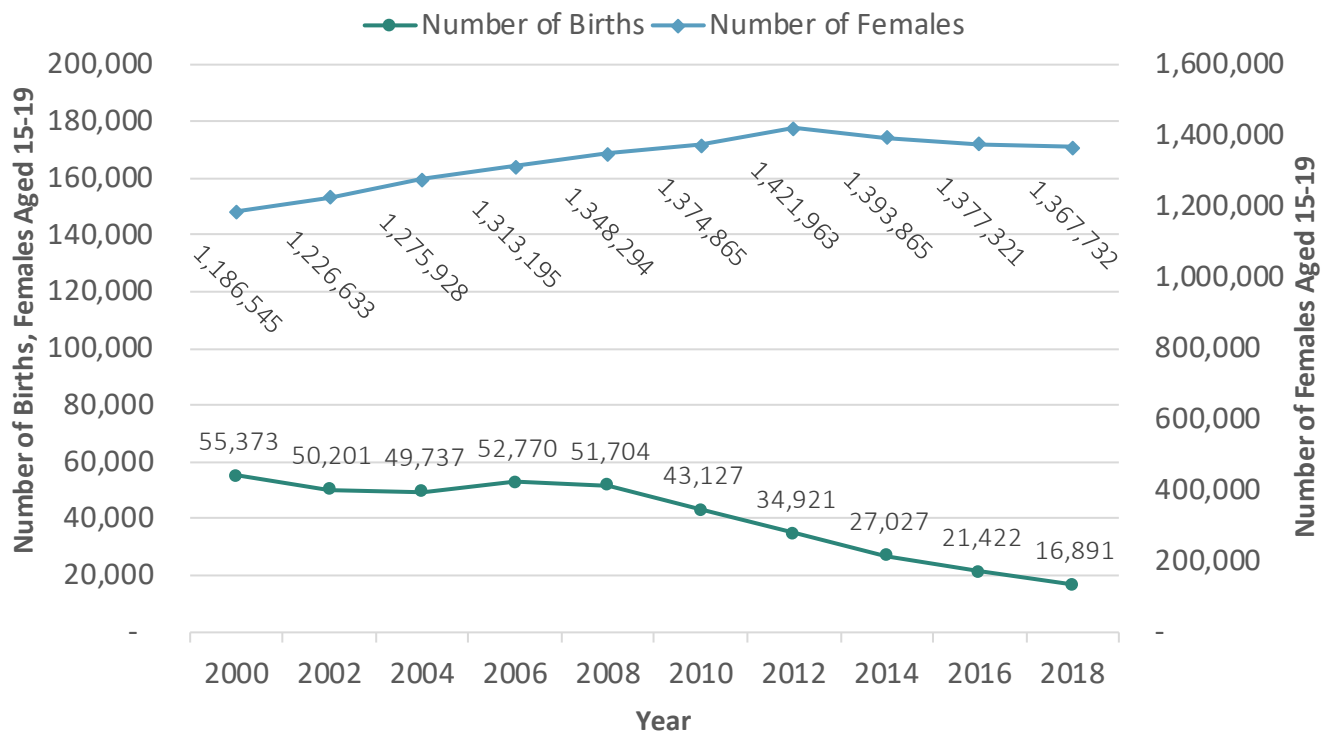
Results

Number of Births to Adolescents

The number of births to California adolescent females ages 15-19 decreased by 70% between 2000 (n=55,373) and 2018 (n=16,891) despite a

15% increase in the size of this population during the period (Figure 1). The increase in the size of the adolescent female population occurred between 2000 and 2012, after which it decreased slightly. Most of the decline in annual number of births occurred between 2008 (51,704 births) and 2018 (16,891 births).

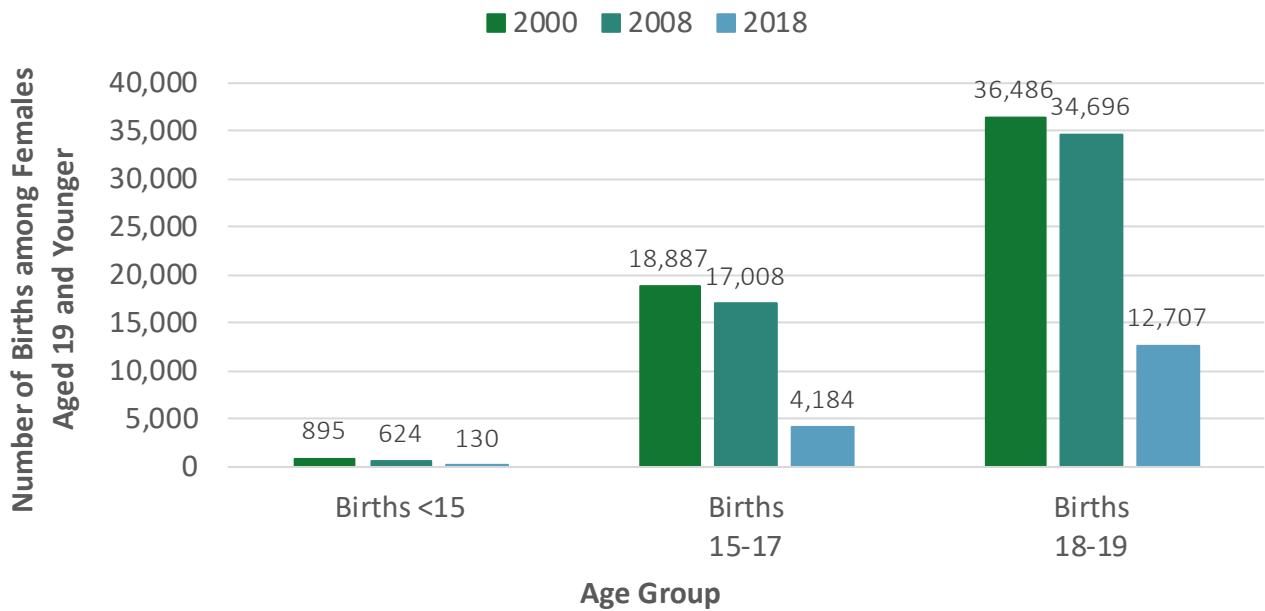
Figure 1: Number of Births to Adolescent Females Aged 15-19 and Number of Adolescent Females, California, 2000-2018



The large declines seen in the number of adolescent births were present across all age groups between 2000 and 2018 (Figure 2). Most of the decline occurred after 2008. The largest decrease (85%) was seen among adolescents under the age of 15, falling from 895 births in 2000 to 130 births in 2018. There

were 78% and 65% reductions in numbers of births among 15-17- and 18-19-year-olds, respectively, during the same period. In 2018, most adolescent births occurred among those aged 18-19 (12,707 births), followed by those aged 15-17 (4,184 births), and finally those under the age of 15 (130 births).

Figure 2: Number of Births among Adolescent Females Aged 15-19, by Age Group, California, 2000, 2008, 2018

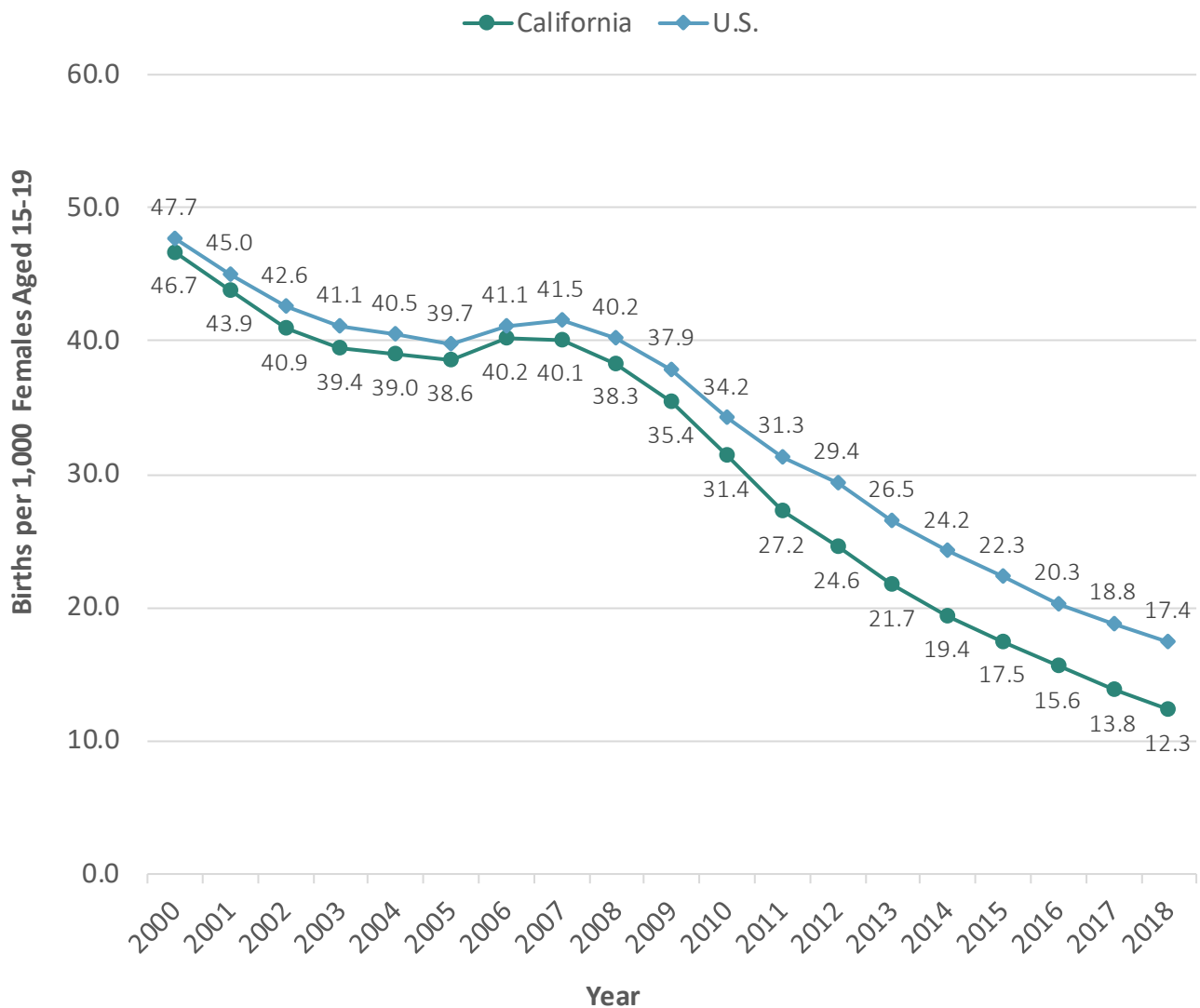


Adolescent Birth Rate

Since 2000, the overall ABR for adolescent females aged 15-19 declined each year except in 2006, falling from 46.7 in 2000 to 12.3 in 2018, a reduction of 74% (Figure 3). The U.S. ABR declined 64% during the same period. The widening of the gap between the California and U.S. ABRs accelerated beginning in 2009, one

year after the Great Recession began. In 2017 and 2018, the California ABR was lower than that of the U.S. by about five births per 1,000. A larger proportion of the decline in California’s ABR, 61%, occurred between 2010 and 2018, while the decline between 2000 and 2009 was 24%.

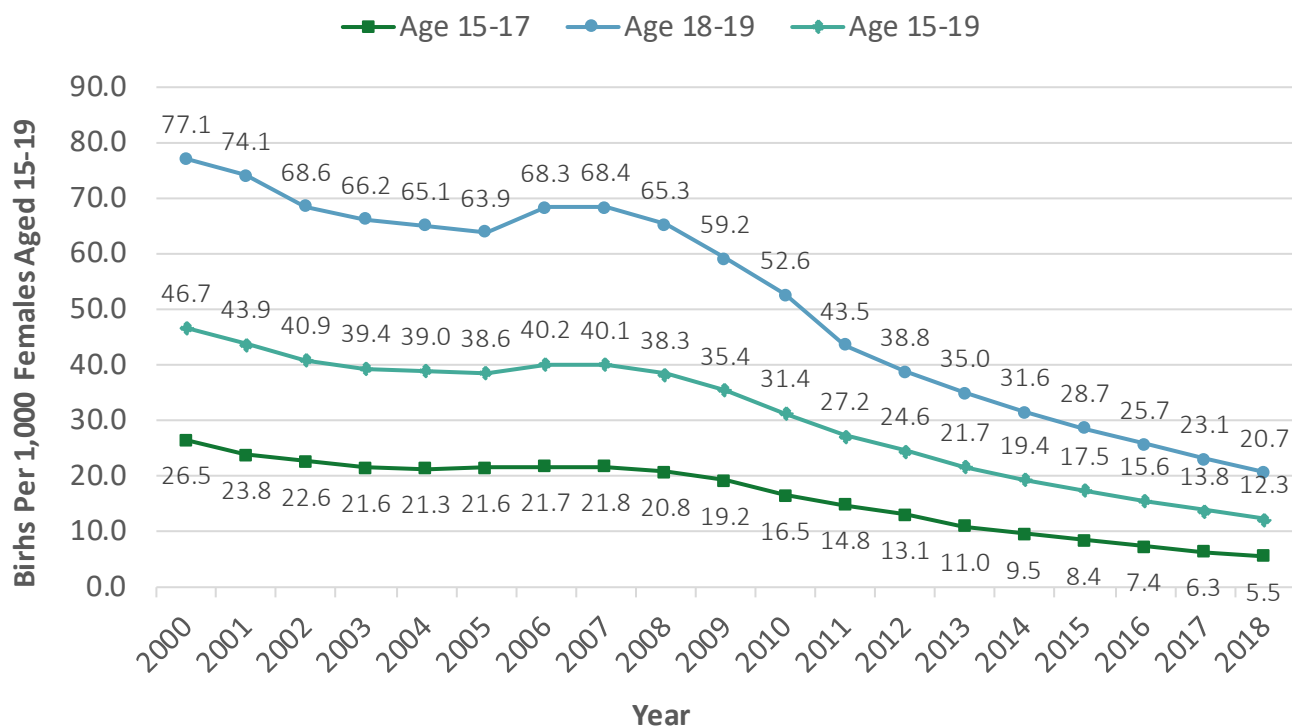
Figure 3: Adolescent Birth Rate among Females Aged 15-19, California and the United States, 2000-2018



Decreases in California’s ABR were observed across both age subgroups between 2000 and 2018. The rate among females aged 15-17 saw a decline of 79% between 2000 and 2018, most recently dropping 13% between 2017 and 2018 (Figure 4). Similarly, among females aged 18-19, rates declined 73% and 10%, respectively, during the same time periods.

California’s ABR did increase slightly in 2006 and adolescents aged 18-19 accounted for a larger share of that increase (absolute ABR increase of 4.4 births per 1,000) than adolescents aged 15-17 (absolute ABR increase of less than 1 birth per 1,000). From 2000 to 2018, adolescents aged 18-19 exhibited an absolute decrease of 56.4 births per 1,000, while the decrease among adolescents aged 15-17 was 21.0 births per 1,000.

Figure 4: Adolescent Birth Rate among Females Aged 15-19, by Age Group, California, 2000-2018



Large reductions in the ABR occurred across all racial/ethnic groups though only one group, Asian adolescents, saw an uninterrupted annual decline between 2000 and 2018 (Figure 5). By race and Hispanic ethnicity, the percentage drop in the ABR between 2000 and 2018 ranged from 62% (American Indian/Alaska Native [AIAN]) to 90% (Asian); ABRs among Hispanic, Black and White groups dropped 75%, 76%, and 79%, respectively. Between 2017 and 2018, AIAN and Pacific Islander (PI) females experienced a slight increase in the ABR.

Among Hispanic adolescents, the absolute difference in ABR from 2000 to 2018 was 58.3 births per 1,000, falling from 77.3 to 19.0. Similarly, among Black adolescents, the absolute ABR fell by 45.1 births per 1,000, from 59.1 in 2000 to 14.0 in 2018. The ABR declines

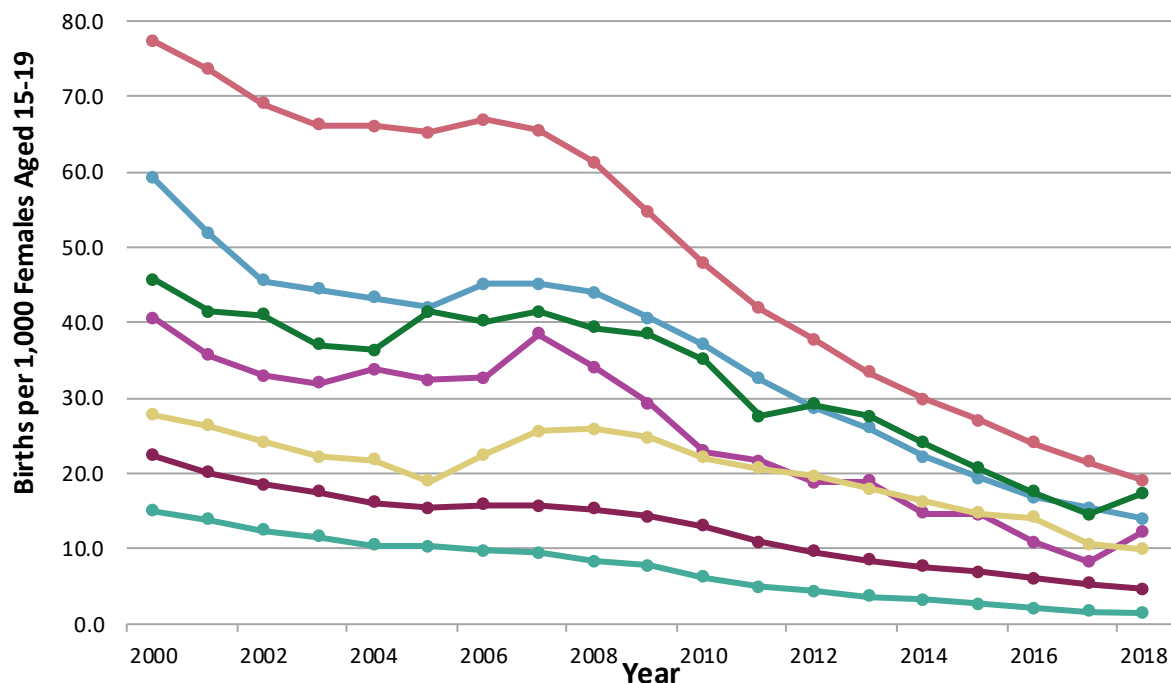
for both groups were more substantial between 2009 and 2018 than those occurring during the previous nine years. The differences in ABR between racial/ethnic groups decreased in absolute terms between 2000 and 2018. The gap between the group with the highest ABR (Hispanic adolescents) and that with the lowest ABR (Asian adolescents) fell from 62.3 births per 1,000 in 2000 to 17.5 in 2018.

Across the seven racial/ethnic groups studied, only AIAN did not see an ABR increase in 2006. All other racial/ethnic groups did experience small increases, with the greatest absolute increases occurring among multiracial and Black adolescents (3.6 and 3.1 births per 1,000, respectively). Between 2017 and 2018, the ABR increased among Native Hawaiian/Pacific Islander (HIPI) and AIAN adolescents. Due to the relatively small population sizes of these

groups (fewer than 5,000 female adolescents) and relatively few births (< 100 births in 2018), annual fluctuations in estimated ABR would be expected. Between 2017 and 2018, the

number of births increased from 82 to 97 among AIAN adolescents and from 42 to 62 among HIPI adolescents.

Figure 5: Adolescent Birth Rate among Females Aged 15-19, by Race and Hispanic Ethnicity, California, 2000-2018

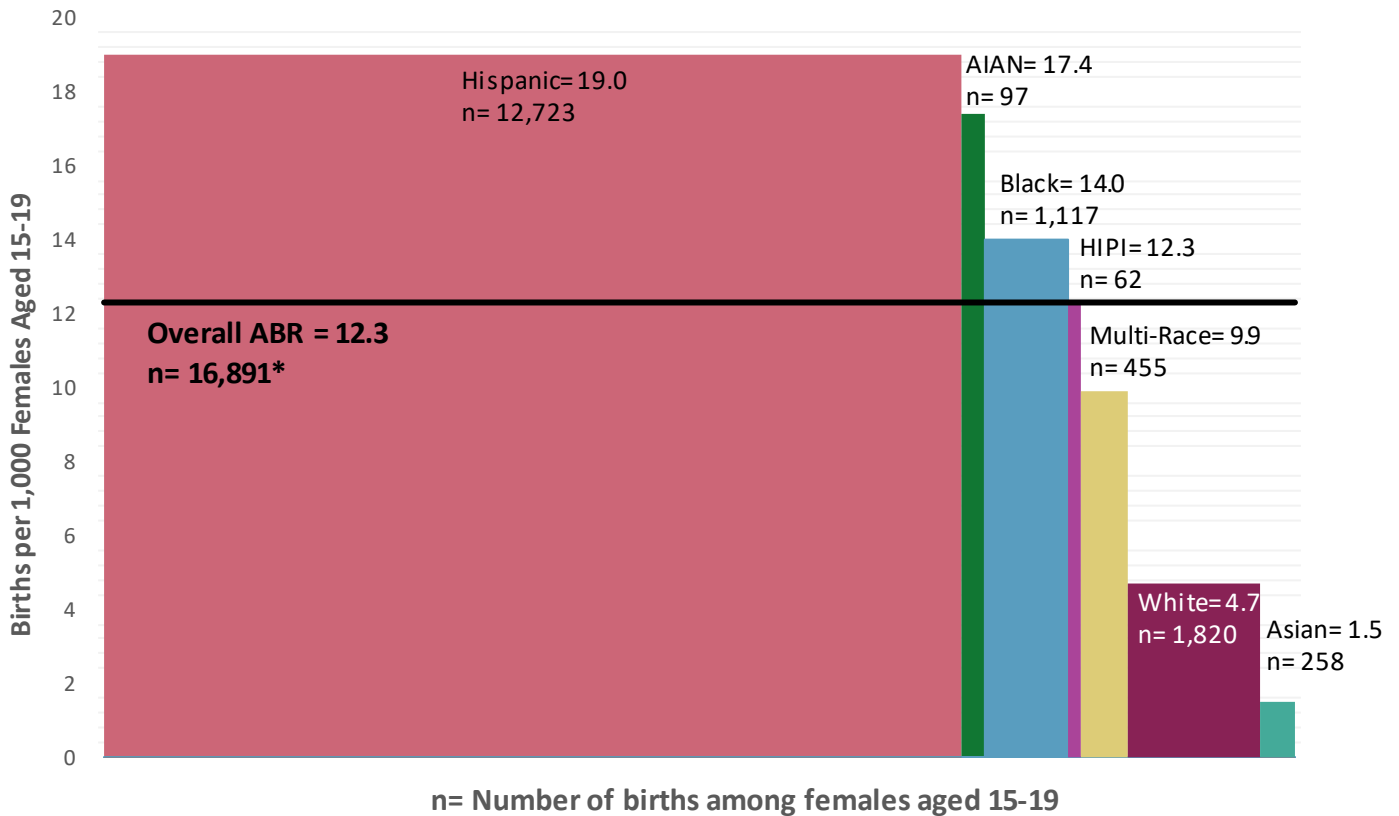


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
White	22.3	20.1	18.5	17.5	16.0	15.4	15.8	15.7	15.3	14.3	13.0	10.8	9.6	8.5	7.6	6.8	6.0	5.3	4.7
Black	59.1	51.8	45.6	44.4	43.3	42.0	45.1	45.0	44.0	40.5	37.0	32.5	28.6	25.9	22.2	19.4	16.9	15.4	14.0
AIAN	45.7	41.5	41.1	37.1	36.3	41.4	40.1	41.4	39.4	38.5	35.0	27.5	29.1	27.5	24.0	20.6	17.6	14.6	17.4
Asian	15.0	13.9	12.5	11.5	10.4	10.3	9.7	9.5	8.3	7.8	6.3	4.9	4.4	3.7	3.2	2.6	2.1	1.6	1.5
HIPI	40.6	35.7	32.9	31.9	33.8	32.4	32.7	38.5	34.0	29.3	22.9	21.6	18.8	19.0	14.6	14.6	10.9	8.3	12.3
Hispanic	77.3	73.6	69.1	66.2	66.1	65.2	66.9	65.4	61.3	54.6	47.8	41.9	37.8	33.4	29.9	27.0	24.1	21.5	19.0
Multi-Race	27.7	26.4	24.1	22.2	21.8	18.9	22.4	25.6	25.8	24.8	22.0	20.6	19.6	18.0	16.3	14.7	14.1	10.6	9.9

In 2018, births to adolescents of Hispanic ethnicity accounted for 77% of all adolescent births for whom race/ethnicity information was available (Figure 6). Births to White adolescents represented 11% of all adolescent

births, followed by Black adolescents at 7% and Multiracial adolescents at 3%. Births to Asian adolescents accounted for less than 2% of all adolescent births and those to AIAN and HIPI adolescents each represented less than 1%.

Figure 6: Adolescent Birth Rate and Number of Total Births among Females Aged 15-19, by Race and Hispanic Ethnicity, California, 2018

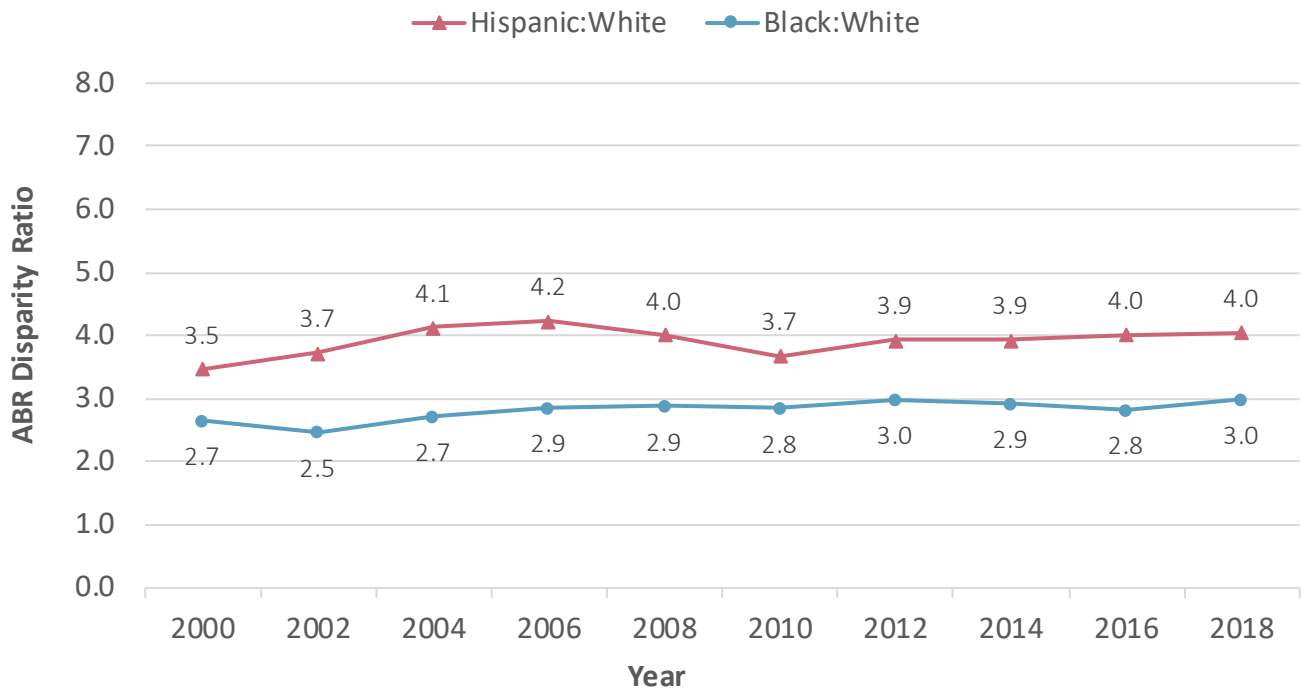


**This number does not total to the number by race/ethnicity as shown in the figure because of missing data and race/ethnicity categorized as "Other."*

Comparing adolescents of the three race/ethnicity groups representing the largest share of adolescent births, ABRs among Hispanic and Black adolescents were substantially higher than those of White adolescents from 2000 to 2018 (Figure 7). The

ABR among Hispanic adolescents was 3.5 and 4.0 times that of White adolescents in 2000 and 2018, respectively. The ABR among Black adolescents was 2.7 and 3.0 times that of White adolescents in 2000 and 2018, respectively.

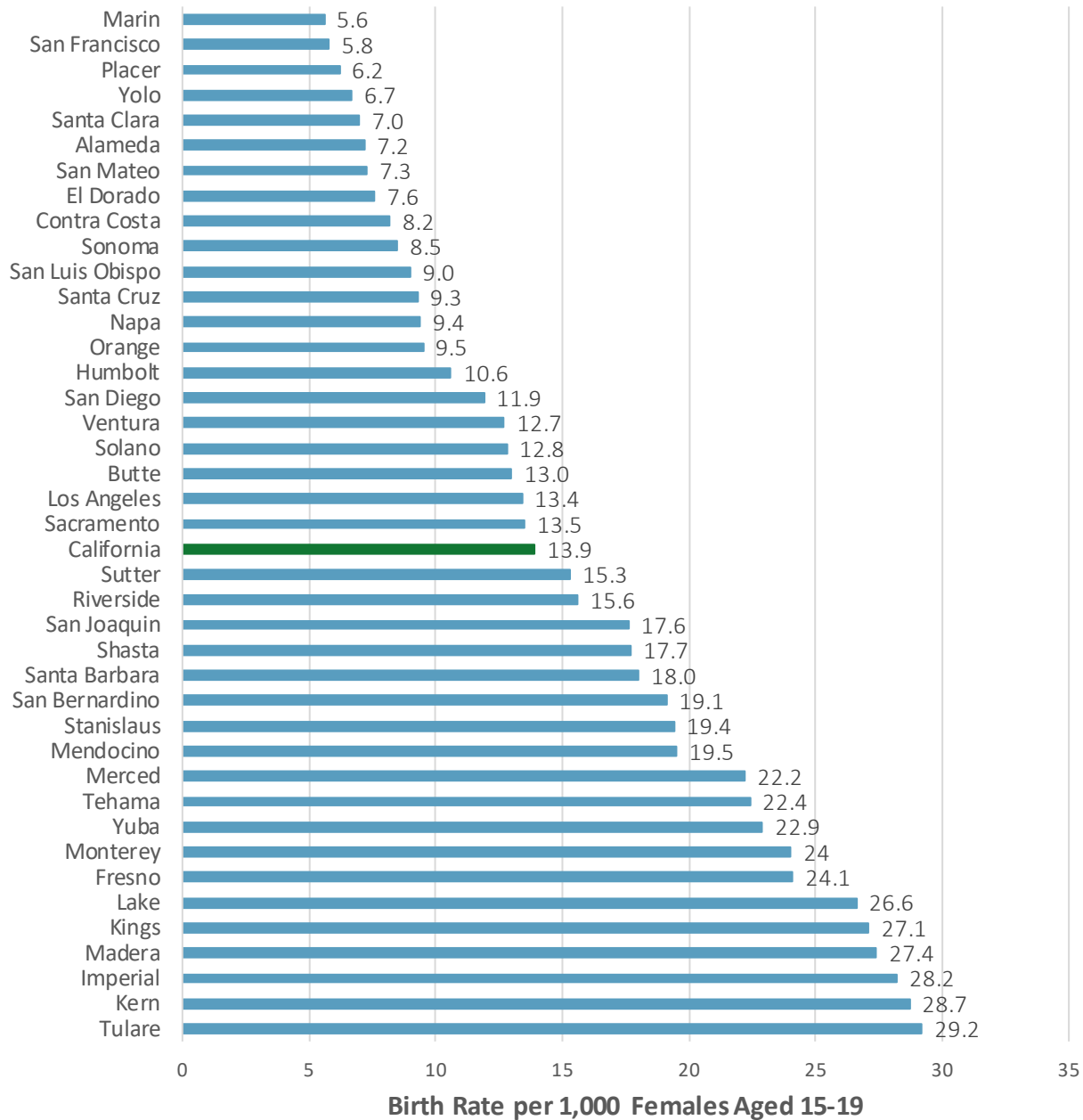
Figure 7: Black-White and Hispanic-White Adolescent Birth Rate Disparity Ratio among Females Aged 15-19, California, 2000-2018



Across California counties in 2016-2018, ABRs varied widely, ranging from 5.6 to 29.2, with an average of 13.9 statewide. The county with the

highest 2016-2018 aggregated ABR (Tulare) had a rate 5.2 times that of the county with the lowest rate (Marin) (Figure 8).

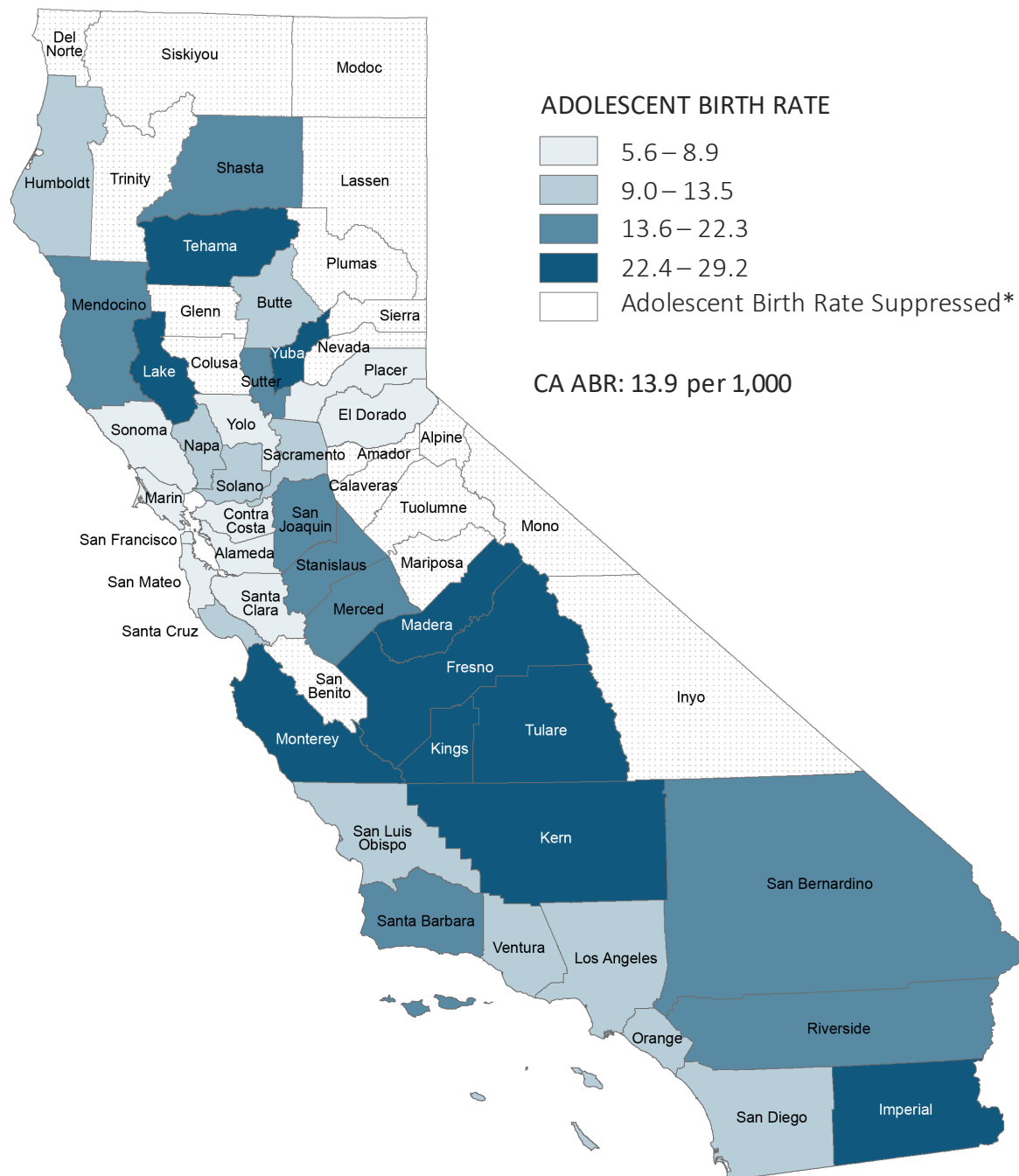
Figure 8: Adolescent Birth Rate among Females Aged 15-19, by County, California, 2016-2018



Mapping California counties’ 2016-2018 aggregated ABRs by quartiles (Figure 9), from the 25% of counties with the lowest ABR (light blue) to the 25% of counties with the highest ABR (dark blue) illustrates regional variations. Central Valley counties, including San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings,

Tulare and Kern, generally had higher ABRs than coastal counties did, with some exceptions (Monterey, Mendocino and Santa Barbara). The ABRs for the more sparsely populated northern and northeastern counties were suppressed due to the small numbers of adolescent births in those counties.

Figure 9: Map of Adolescent Birth Rate Among Females Aged 15-19, by County, California, 2016-2018



Notes: Three years of data (2016-2018) were aggregated to produce stable birth rates.

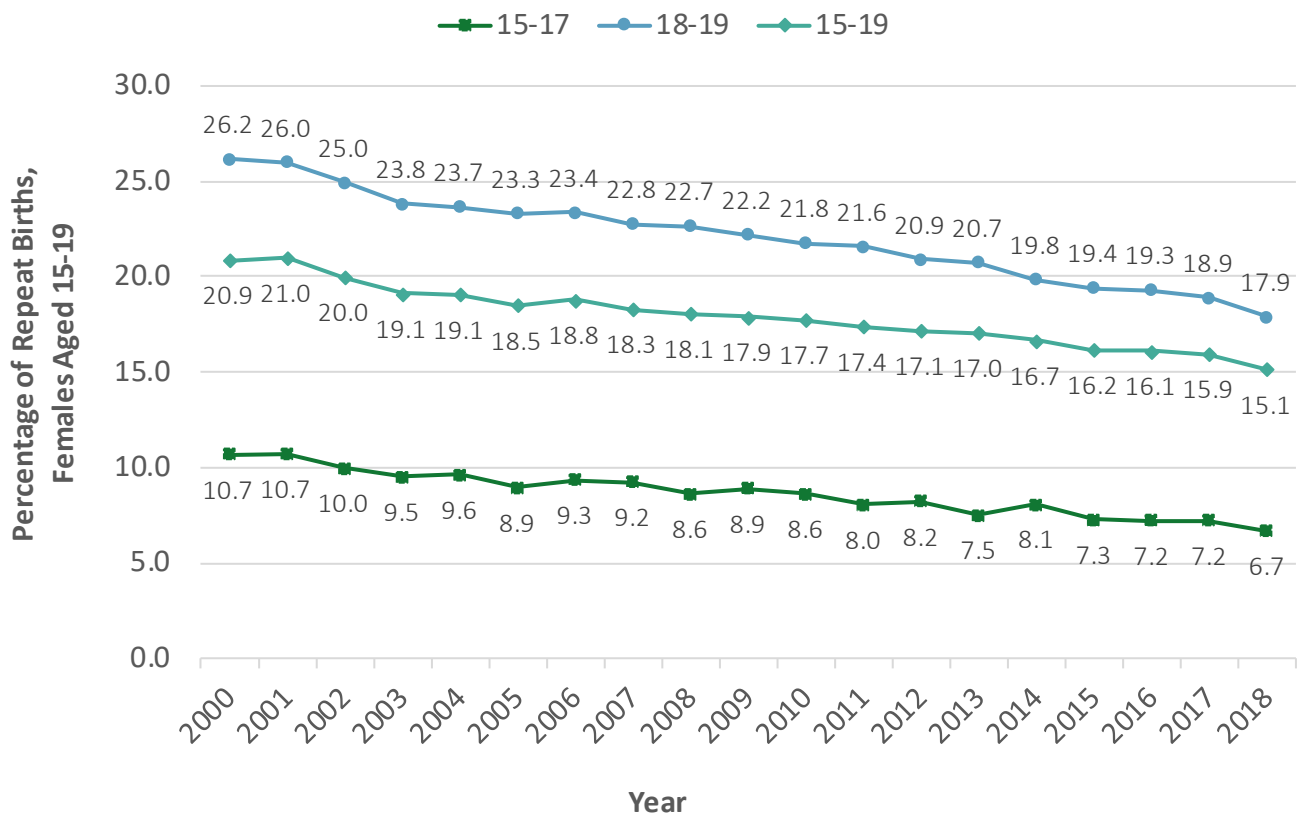
* Data suppression as per Health & Human Services [DDG](#).

Percentage of Repeat Births

While many adolescents still experience repeat births, a decline in PRB from 2000 to 2018 indicates progress in this area (Figure 10). During this period, the PRB among females aged 15-19 dropped from 21% to 15%. Among younger females aged 15-17, the PRB fell from 11% to 7% and older adolescents aged 18-19 saw a decline in PRB from 26% to 18% during this period.

Repeat births among young adolescents under the age of 15 are rare. A total of 126 repeat births occurred to adolescents in this age group from 2000 to 2018. Substantially fewer of these repeat births occurred in the nine years from 2010 to 2018 (n=30) than in the previous 10 years, from 2000 to 2009 (n=96).

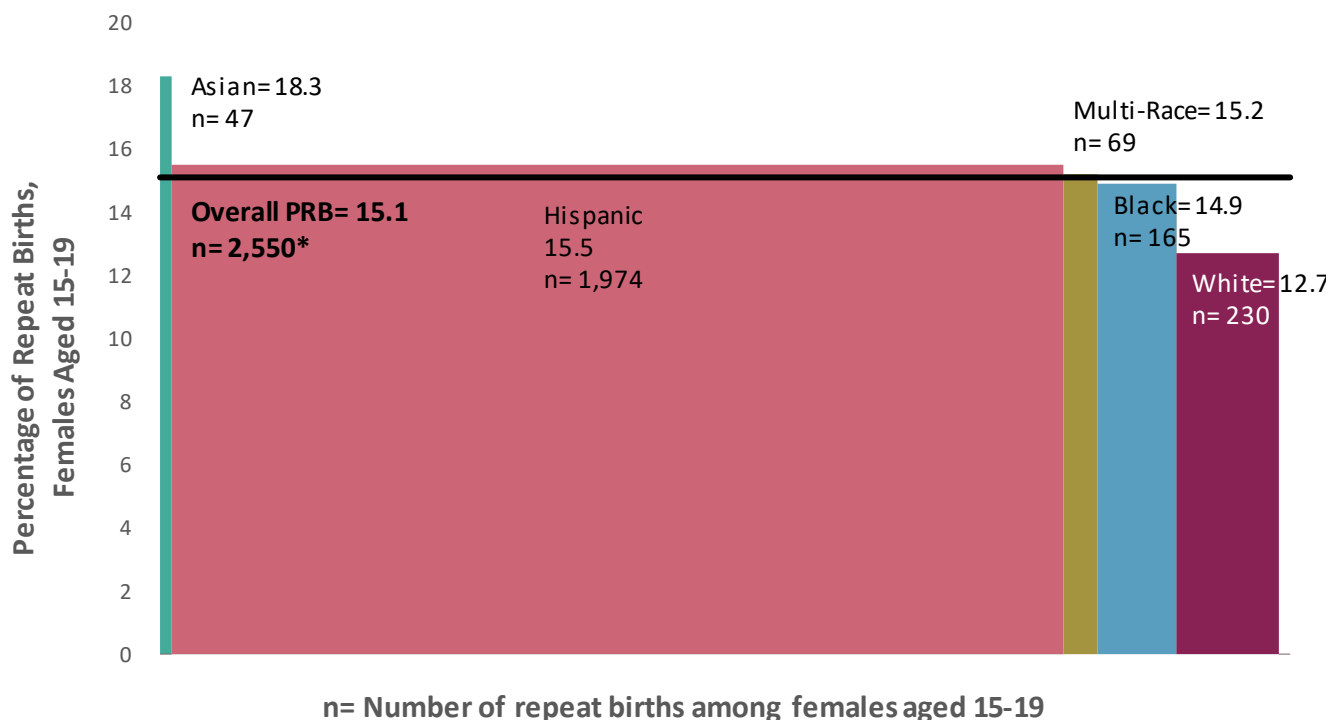
Figure 10: Percentage of Repeat Births among Females Aged 15-19, by Age Group, California, 2000-2018



In 2018, 15% of births to adolescent aged 15-19 were repeat births (Figure 11). Although Asian adolescents who gave birth had the highest PRB (18%), those births accounted for just two percent of all repeat births in 2018. The PRB among Hispanic mothers was 16% and

these births accounted for the largest share of repeat births (79%). White adolescents who gave birth had the lowest PRB (13%). The PRBs for AIAN and NHPI were suppressed due to small numbers of repeat births in these race/ethnicity groups.

Figure 11: Percentage and Number of Repeat Births among Females Aged 15-19, by Race and Hispanic Ethnicity, California, 2018

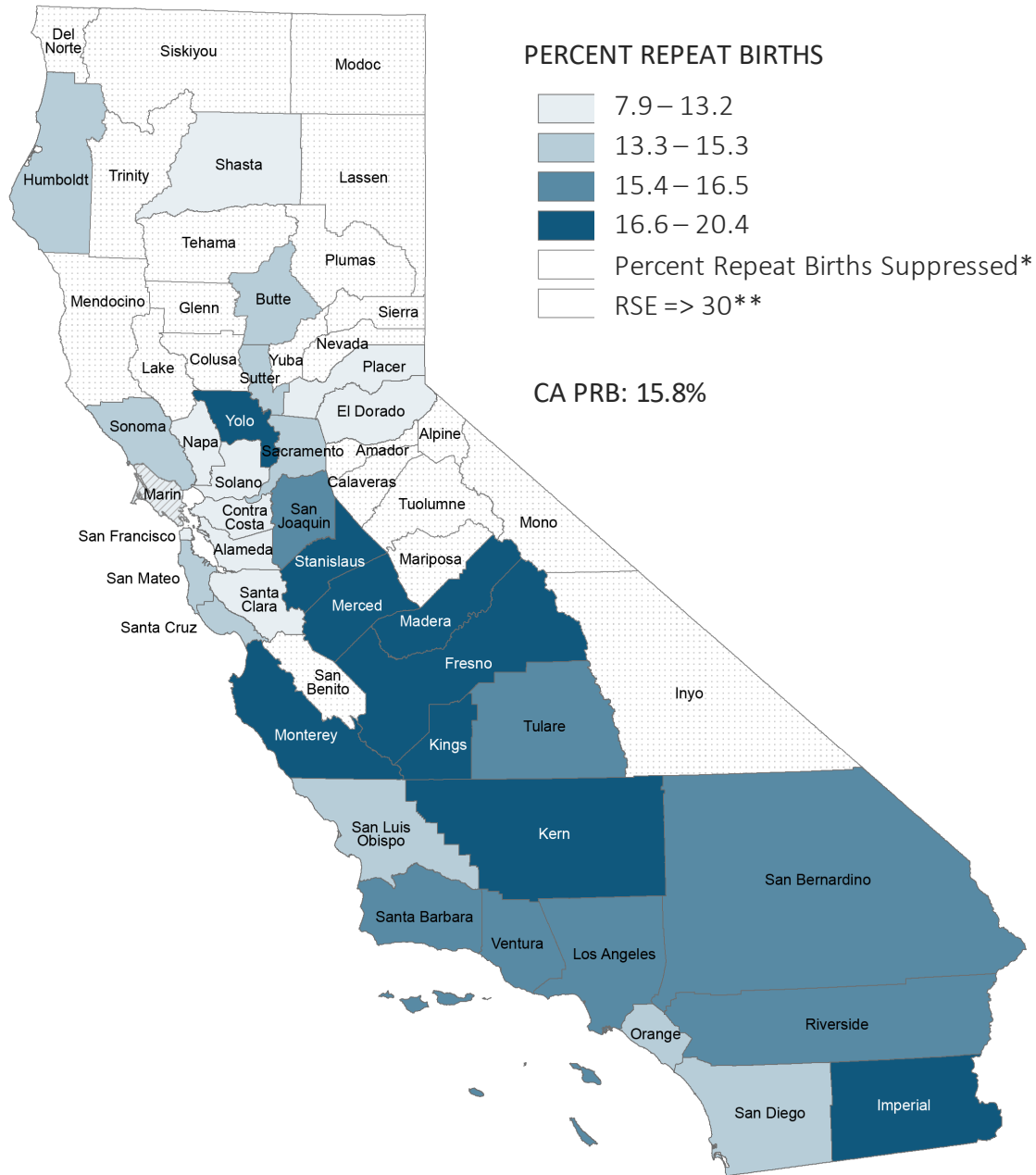


**This number does not total to the number by race/ethnicity as shown in the figure because of missing and suppressed data for AIAN and NHPI.*

Regional variation is shown by mapping California counties’ PRBs by quartile (e.g. the 25% of counties with the lowest PRB are shaded light blue, the 25% of counties with the highest PRB are shaded dark blue) (Figure 12). The PRB for counties with sufficient data available ranged from 8% to 20% of birthing adolescents. Central Valley and southern

counties generally had moderately high to high PRB, except for Orange and San Diego counties, for which PRB was relatively low. PRBs for northern and northeastern counties with relatively small population sizes were suppressed due to small numbers of adolescent births in those counties.

Figure 12: Map of Percentage of Repeat Births among Females Aged 15-19, by County, California, 2016-2018



Notes: Records with unknown birth order, or where the number of previous live births is greater than 6 (less than 1% of births), were excluded from this analysis. Three years of data were aggregated to produce stable percentages of repeat births.

*Data suppression as per Health & Human Services [DDG](#).

**Interpret with caution as the Relative Standard Error (RSE) ≥ 30

Discussion

Over the last two decades, birth rates among adolescents have declined significantly in both California and the U.S. Structural, social, economic and individual factors influence the ABR. On a national level, evidence suggests that the ABR is declining largely because more youth are using contraception, including long-acting reversible contraceptive methods (LARC).¹² Youth also appear to be delaying sexual intercourse, although this accounts for much less of the decline.¹³ These trends are contributing factors for California as well.

California continues to show a greater decline than does the U.S., reflecting the state's considerable progress in reducing the number of births to females 19 years old and under. As demonstrated by the data in this report, the decline in the ABR was evident across population subgroups and geographic areas, although disparities persisted. Younger adolescents aged 15-17 saw a larger relative reduction in the ABR compared to older adolescents aged 18-19. The majority of births to California adolescents occurred among those aged 18-19, reflecting the fact that the majority of sexually active adolescents are in this older age group.¹⁴ Wide variation in the ABR remained across racial/ethnic groups, with Hispanic and Black adolescents having rates 4.0 and 3.0 times that of White adolescents, respectively. The ABR varied substantially by county, with Central Valley and rural counties generally having higher rates than most coastal counties. In 2018, more than 16,000 babies were born to California females 19 years old and under, with 15% of those births being a second or subsequent child born during the mothers' adolescence. From 2000 to 2018, the PRB also declined but with similar racial/ethnic

and geographic disparities. Overall, 66% of females who were 19 years old or younger and had a subsequent birth, experienced a suboptimal interpregnancy interval (less than 18 months between a live birth and the conception of the next live birth), which is known to elevate further the risk of adverse pregnancy and birth outcomes.¹⁵

Adolescent childbearing is associated with many socioeconomic, health and life course challenges, such as decreased educational attainment and reduced likelihood of future employment. While many factors influence early pregnancy and childbearing at both macro and micro levels, research suggests that many of the potential negative associations with early childbearing are not directly caused by having children; rather, they result from other background factors already present in the lives of many young people.^{16,17} An adolescent's sexual and reproductive health often mirrors the social and economic status of their community. Social and community-level factors affect adolescent opportunities and decision-making.¹⁸ In communities where high ABRs persist, there are also high levels of poverty and limited economic opportunities. Early childbearing may exacerbate the challenges as young parents are more likely to face barriers to accessing quality health care and education than are non-parenting youth.^{19,20}

Research has found that ABRs are lower in areas of California where adolescents have greater access to family planning services from the Family Planning, Access, Care and Treatment Program than in areas of lower access, after controlling for other community factors that might influence the ABRs.²¹ In fact, when adolescents are sexually active,

contraceptive use is one of the most important proximate determinants of fertility. The proportion of 18-19-year-olds who reported using LARC methods has increased in recent years, indicating that publicly funded planning services are helping to increase safer sex practices among adolescents.²²

In California there are well-documented, effective strategies to improve sexual and reproductive health outcomes for youth, including comprehensive sexual health education, outreach and engagement around reproductive rights, and increased access to clinical services and home visiting support programs. MCAH provides comprehensive sexual and reproductive health education to high-need youth populations through the California Personal Responsibility Education Program and the Information and Education Program. Both programs use evidence-based and evidence-informed curricula and are skills-focused and culturally responsive. MCAH also serves expectant and parenting youth through the Adolescent Family Life Program, the Black

Conclusion

Sexual and reproductive health is an essential aspect of normal adolescent growth and development.²⁵ Effective public health prevention strategies are important for continuing to support youth. Examples of these include providing comprehensive, medically accurate and inclusive sexual health education; increasing access to clinical services that provide contraception; promoting healthy relationships and communication practices; and supporting expectant and parenting youth. Continued and targeted investments in these services ensure that adolescents and their families have the information and resources to

Infant Health Program and the California Home Visiting Program. These programs provide case management, home visiting and/or group support services to young parents and their families, utilizing strengths-based approaches that build individual and family resiliency.

MCAH and other adolescent-serving programs across the state integrate Positive Youth Development (PYD) and healthy relationship skills building to improve sexual and reproductive health. PYD is a strengths-based framework that emphasizes and establishes protective factors (e.g., caring relationships and meaningful opportunities for youth) that help strengthen resiliency, which contributes to improved health, social and educational outcomes.^{23, 24}

In addition to the ABR trend data, MCAH uses data from the Maternal and Infant Health Assessment to monitor and identify needs of young families and data from the California Adolescent Sexual Health Needs Index to target limited resources to areas of the state with high need.

make informed decisions related to sexual and reproductive health and well-being.

Despite long-term declines in both the ABR and the PRB in California, disparities by race/ethnicity and geographical area persist. The importance of addressing the social determinants of health to achieve sexual and reproductive health equity for all adolescents and eliminate disparities in the ABR has been well established.²⁶ Working as a community to provide California's youth with equitable access to quality schools, community mentoring, job training and clear paths to higher education can effectively reduce some of the obstacles of

young parenthood and improve life course options for Californians.²⁷

Throughout California, a variety of programs, laws and grants provide infrastructure and services to support young people in making informed sexual and reproductive health choices.^{28, 29, 30, 31} These contribute to California’s progress over the last decades in reducing the ABR. The credit for the decline truly goes to young people who continue to

demonstrate strengths and make choices that positively impact their lives, families and communities. It is important to note that adolescents’ sexual and reproductive health statuses are and will continue to be impacted by the COVID-19 pandemic. More than ever, surveillance and monitoring of adolescent births are critical for identifying areas of high need for support and program services for California’s adolescents.

Appendix

Table 1: Adolescent Birth Rate and Percentage of Repeat Births among Females Aged 15-19, by County, California, 2016-2018

LEGEND*:

✓ = Lower than California

✗ = Higher than California

County	Statistical Significance*	ABR	Statistical Significance*	PRB
California		13.9		15.8
Alameda	✓	7.2	✓	12.5
Alpine		**		**
Amador		**		**
Butte		13.0		15.3
Calaveras		**		**
Colusa		**		**
Contra Costa	✓	8.2	✓	11.0
Del Norte		**		**
El Dorado	✓	7.6	✓	9.4
Fresno	✗	24.1	✗	19.8
Glenn		**		**
Humboldt	✓	10.6		14.5
Imperial	✗	28.2	✗	20.4
Inyo		**		**
Kern	✗	28.7	✗	19.4
Kings	✗	27.1		16.7
Lake	✗	26.6		**
Lassen		**		**
Los Angeles	✓	13.4		15.7
Madera	✗	27.4		17.7
Marin	✓	5.6	✓	7.9
Mariposa		**		**
Mendocino	✗	19.5		**
Merced	✗	22.2		17.9
Modoc		**		**
Mono		**		**
Monterey	✗	24.0		16.9
Napa	✓	9.4		11.1
Nevada		**		**

County	Statistical Significance*	ABR	Statistical Significance*	PRB
Orange	✓	9.5		15.3
Placer	✓	6.2	✓	9.4
Plumas		**		**
Riverside	✗	15.6		15.7
Sacramento		13.5		15.2
San Benito		**		**
San Bernardino	✗	19.1		16.4
San Diego	✓	11.9	✓	14.1
San Francisco	✓	5.8		13.2
San Joaquin	✗	17.6		16.1
San Luis Obispo	✓	9.0		13.6
San Mateo	✓	7.3		14.0
Santa Barbara	✗	18.0		16.3
Santa Clara	✓	7.0	✓	11.3
Santa Cruz	✓	9.3		14.4
Shasta	✗	17.7	✓	11.0
Sierra		**		**
Siskiyou		**		**
Solano	✓	12.8		13.2
Sonoma	✓	8.5		13.3
Stanislaus	✗	19.4		16.9
Sutter		15.3		13.7
Tehama	✗	22.4		**
Trinity		**		**
Tulare	✗	29.2		16.4
Tuolumne		**		**
Ventura	✓	12.7		15.6
Yolo	✓	6.7		16.6
Yuba	✗	22.9		**

Notes: Records with unknown birth order, or where the number of previous live births is greater than 6 (less than 1% of births), were excluded from analysis. Three years (2016-2018) of data were aggregated to produce stable birth rates and percentages of repeat births.

*Indicates whether the county estimate is statistically different from that of the state overall (National Center for Health Statistics. User guide to the 2010 natality public use file. Hyattsville, MD. Available from [CDC Vitals online](#)). No annotation signifies no statistical difference.

**suppressed per California Health and Human Services [DDG](#). Suppressed ABR data account for about 1% of the total number of adolescent births and suppressed PRB data account for about 2% of repeat births in this period.

Table 2: Percentage of Medi-Cal Paid Deliveries among Adolescents and All Mothers, by County, California, 2016-2018

LEGEND*:

✓ = Lower than California

✗ = Higher than California

County	Statistical Significance*	Adolescent Mothers	Statistical Significance*	All Mothers
California		77.7		42.7
Alameda	✓	60.7	✓	22.1
Alpine		**		39.1
Amador		**		44.4
Butte	✗	87.6	✗	54.6
Calaveras		**	✗	52.0
Colusa		**	✗	62.6
Contra Costa	✓	43.0	✓	19.4
Del Norte		**	✗	58.0
El Dorado	✓	67.6	✓	34.9
Fresno	✗	89.4	✗	68.8
Glenn		**	✗	64.0
Humboldt	✓	64.2	✓	40.7
Imperial		76.4	✗	63.0
Inyo		**	✗	50.6
Kern	✗	87.0	✗	67.7
Kings		80.9	✗	57.9
Lake	✗	92.1	✗	70.9
Lassen		**		40.9
Los Angeles	✗	79.5	✗	45.3
Madera	✗	90.8	✗	73.0
Marin	✗	87.4	✓	27.9
Mariposa		**		45.7
Mendocino	✗	90.6	✗	68.2
Merced	✓	68.3	✗	57.6
Modoc		**	✓	35.2
Mono		**	✗	47.6
Monterey	✓	64.4	✗	52.4
Napa		76.1	✓	38.4
Nevada		**	✓	37.2
Orange	✓	64.7	✓	29.8
Placer	✓	47.0	✓	20.0
Plumas		**	✗	52.3

County	Statistical Significance*	Adolescent Mothers	Statistical Significance*	All Mothers
Riverside		77.7	x	48.6
Sacramento		78.2	x	47.0
San Benito		**		44.4
San Bernardino	x	79.5	x	51.3
San Diego	✓	71.2	✓	34.3
San Francisco	x	83.1	✓	23.9
San Joaquin	x	81.2	x	54.6
San Luis Obispo		80.2	✓	39.4
San Mateo		78.7	✓	22.8
Santa Barbara	x	91.3	x	58.0
Santa Clara	✓	75.1	✓	23.0
Santa Cruz		82.2	x	49.1
Shasta		82.4	x	55.4
Sierra		**		38.4
Siskiyou		**	x	58.3
Solano	✓	71.1	✓	38.0
Sonoma		79.8	✓	38.5
Stanislaus		79.6	x	54.4
Sutter		78.6	x	57.1
Tehama	x	90.1	x	62.5
Trinity		**	x	63.3
Tulare	x	87.0	x	69.1
Tuolumne		**	x	47.2
Ventura	x	84.2		42.5
Yolo		74.1	✓	39.0
Yuba		79.2	x	51.0

Notes: Medi-Cal, California’s Medicaid program, provides health care services to eligible low-income residents. Excludes births for which mother's age or source of delivery payment is unknown (0.14%). Three years (2016-2018) of data were aggregated to produce stable percentages.

*Indicates whether the county estimate is statistically different from the rest of the state according to methodology outlined in: National Center for Health Statistics. User guide to the 2010 natality public use file. Hyattsville, MD. Available from [CDC Vitals online](https://www.cdc.gov/vitalsonline/). Counties without annotation signify no statistical difference in the percentages.

**Percentage of deliveries paid for by Medi-Cal is suppressed as per California Health and Human Services [DDG](#).

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