



BIRTHS
Santa Cruz County
2018



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Santa Cruz County

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To obtain the report:

Refer to the following link: www.SantaCruzHealth.org/BirthReport2018. Previous birth reports can also be found on our website, www.SantaCruzHealth.org, under "Reports and Statistics".

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INTRODUCTION

This report provides data on live births delivered in 2018. The report was created by the Office of Vital Records, in the Public Health Division of the Santa Cruz County Health Services Agency.

In Summary:

- In 2018, there were 2,442 live births to mothers who resided in Santa Cruz County, which was 213 (8%) fewer births than in 2017.
- The General Fertility Rate in 2018 among Santa Cruz County residents was 45.2 births per 1,000 females of typical childbearing age (15-44 years), compared to 48.9 in 2017 and 51.5 in 2016.
- The 2018 U.S. birth rate was 59.1 per 1,000 women aged 15 to 44, a new record low for the country and 2% below the rate for 2017 (60.3 per 1,000 women) (CDC, *Births in the United States, 2018*).
- An additional 510 births were delivered in Santa Cruz County to mothers who were residents of other counties, primarily Monterey County (82%).

TEEN BIRTHS (19 and Under)

- Births to teens as a percentage of all births was 4% in 2018, and the number of teen births also fell again (89 births, half the number in 2013).
- In 2018, 90% of births to teens were to Latina teens (up from 84% in 2017), and 81% of all teen mothers lived in South Santa Cruz County (up from 72%) (see definition on page 2).
- In 2018, for the first time in three years, there was one birth to a county resident under 15 years old.
- Among teen births in 2018, 12% of mothers were delivering their second (or more) birth, compared to 15% in 2017, and 14% in 2016.

MEDI-CAL

- 46.7% of all deliveries to residents in 2018 were funded by Medi-Cal, continuing the very slow decreasing trend since the peak in 2010 from 54.5%.

DEFINITIONS AND TECHNICAL NOTES

DEFINITIONS

For the purposes of this report, the following terms are defined as shown below:

TERM	MEANING
Residents	All mothers who self-identify as residing in Santa Cruz County, regardless of where they delivered. A small number of women identify as living in Santa Cruz County, but actually live in another county, usually Monterey. They are counted as Santa Cruz County residents, in accordance with the county shown on the birth certificate.
Occurrence	All mothers who delivered in Santa Cruz County, regardless of where they reside
Mid-County	Aptos, Aptos Hills-Larkin Valley, Capitola, Day Valley, La Selva Beach, Rio del Mar, Seacliff, and Soquel
Santa Cruz Mountains	Ben Lomond, Boulder Creek, Brookdale, Felton, Lompico, Los Gatos, Mt. Hermon, and Zayante
Santa Cruz	Bonny Doon, Davenport, Live Oak, Opal Cliffs, Paradise Park, Pasatiempo, Pleasure Point, Santa Cruz, and Twin Lakes.
South County	Amesti, Corralitos, Freedom, Interlaken, Pajaro Dunes, and Watsonville.
Ethnicity (includes Race)	In this report, ethnicity categories combine the concepts of race and ethnicity, which are collected separately on the birth certificate. The combination defines "Latino" to mean Latino ethnicity regardless of race chosen, and the remaining categories reflect a non-Latino ethnicity (e.g., "white" means non-Latino white). All categories are mutually exclusive. Note, "Pac. Isl." or "Pac. Islander" = Pacific Islander and includes Native Hawaiian, but not Filipino.
Low Birthweight	Between 1500 and 2500 grams
Very Low Birthweight	Less than 1500 grams
Preterm	33 to 37 completed weeks of gestation
Very Preterm	Less than 33 completed weeks of gestation
VBAC	Vaginal Birth after Cesarean
General Fertility Rate	The number of live births per 1,000 women ages 15-44 (typical childbearing age)
Non-Hospital	Births that occurred at home, in-transit to a hospital, or a hospital or clinic in Santa Cruz County other than: Dominican, Sutter, or Watsonville.

TECHNICAL NOTES

The term "significant difference," as used in this report, means there is a statistically significant difference, based on 95% confidence intervals (CI). This means, the probability is less than 5% that the difference was due to normal variation, assuming a normal distribution. Statistical significance tests do not necessarily imply *meaningful* significance. Where applicable, Kruskal-Wallis and Chi-Square tests were conducted to determine significance. Missing data are not included in the denominators of proportions, but they are included in totals unless otherwise noted. As missing data increases, the rates become less reliable.

DATA SOURCES

All of the Santa Cruz County birth data in this report (unless otherwise noted) are directly extracted from the Santa Cruz County Automated Vital Statistics System where birth certificate records are created and maintained, and should be considered provisional until they have gone through data cleaning by the State, which often takes two years to complete. The 2018 data were accessed on August 20, 2019.

Population data is from the State of California, Department of Finance, *Report P-3: State and County Population Projections: 2010-2060*. Sacramento, California, May 29, 2019 (<http://www.dof.ca.gov/Forecasting/Demographics/Projections/>).

California birth data is from the California Department of Public Health Vital Statistics Query System (<http://www.apps.cdph.ca.gov/vsq/default.asp>). United States data is from the Centers for Disease Control and Prevention, National Center for Health Statistics (<http://www.cdc.gov/nchs/index.htm>).

1. OVERALL COUNTY DEMOGRAPHICS

The California Department of Finance projected the total population in Santa Cruz County to be 275,221 in 2018 (see Table 1.1). The Department of Finance data was chosen instead of Census data because it provides annual population counts by sex, age, and race/ethnicity, which allows for rate calculations.

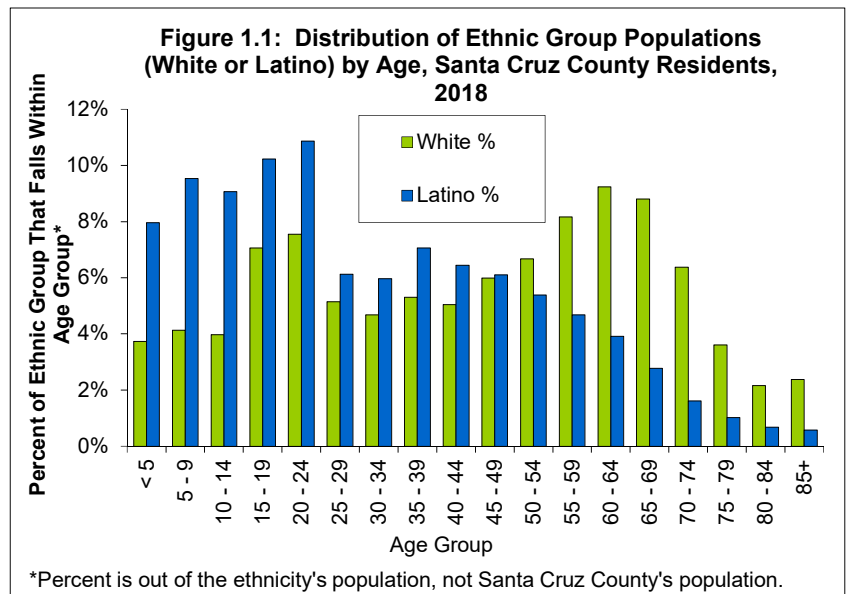
AGE & ETHNICITY

Over 90% of the county's population is either white (57.0%) or Latino (34.7%). The remaining groups (Asians and Pacific Islanders, blacks, American Indians, and multiple ethnicities) account for much smaller fractions of the population (Table 1.1).

In Santa Cruz County, the Latino population is much younger than the white population (Figure 1.1). For example, in 2018, 73% of the Latino population was under age 45, compared to just 47% of the white population. The age distribution of the white population is skewed to the left, while the age distribution of the Latino population is skewed to the right in Figure 1.1.

Table 1.1: Demographics, Santa Cruz County Residents, 2018

	Number	Percent
GENDER		
Female	137,612	50.0%
Male	137,609	50.0%
AGE (Years)		
4 and Under	14,369	5.2%
5 – 19	56,585	20.6%
20 - 44	86,885	31.6%
45 - 64	71,682	26.0%
65 and Over	45,700	16.6%
ETHNICITY		
American Indian	1,041	0.4%
Asian / Pacific Islander	11,877	4.3%
Black	2,482	0.9%
Latino	95,394	34.7%
White	156,961	57.0%
Multiple Races/Ethnicities	7,466	2.7%
TOTAL	275,221	100%



2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

TABLE 2.1: Characteristics of Mothers, by Age Group, Santa Cruz County Residents, 2018

									TOTAL	
	19 and Under		20-24		25-34		35 and Over		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
ETHNICITY^{1,2}										
Asian & Pac. Islander	1	1%	5	2%	58	4%	38	6%	102	4%
Black	1	1%	2	1%	9	1%	2	0.3%	14	1%
Latina	80	90%	272	82%	677	53%	255	39%	1,284	54%
White	5	6%	43	13%	513	40%	336	52%	897	38%
Other	2	2%	9	3%	32	2%	16	2%	59	3%
AREA OF RESIDENCE¹										
Mid-County	4	4%	24	7%	168	13%	116	17%	312	13%
Santa Cruz	11	12%	64	19%	358	27%	240	35%	673	28%
Santa Cruz Mountains	0	0%	8	2%	134	10%	79	12%	221	9%
Scotts Valley	2	2%	7	2%	66	5%	38	6%	113	5%
South County	72	81%	230	69%	614	46%	207	30%	1,123	46%
PARITY										
1st Child	78	88%	199	60%	542	40%	184	27%	1,003	41%
2nd - 3rd Child	11	12%	126	38%	676	50%	366	54%	1,179	48%
4th+ Child	0	0%	8	2%	122	9%	128	19%	258	11%
PRENATAL CARE: INITIATION¹										
Early (1st Trimester)	61	69%	247	76%	1,173	88%	614	91%	2,095	87%
Late (2nd or 3rd Trimester)	26	30%	77	24%	150	11%	55	8%	308	13%
No Prenatal Care	1	1%	2	1%	7	1%	5	1%	15	1%
PRENATAL CARE: UTILIZATION										
At Least 10 Visits	72	84%	275	85%	1,142	86%	602	91%	2,091	87%
Fewer Than 10 Visits	14	16%	50	15%	179	14%	62	9%	305	13%
BIRTH OUTCOMES: WEIGHT³										
Normal Birthweight	82	92%	309	93%	1,267	95%	636	94%	1,658	93%
Low Birthweight	7	8%	22	7%	60	4%	39	6%	128	5%
Very Low Birthweight	0	0%	2	0.6%	13	1%	5	1%	20	0.8%
BIRTH OUTCOMES: GESTATIONAL AGE³										
Normal Gestation	81	91%	307	92%	1,244	93%	624	92%	2,256	92.4%
Preterm	7	8%	24	7%	83	6%	50	7%	164	7%
Very Preterm	1	1%	2	1%	13	1%	6	1%	22	1%
DELIVERY METHOD										
Primary Cesarean	11	12%	44	13%	208	16%	116	17%	379	16%
Repeat Cesarean	0	0%	17	5%	154	11%	116	17%	287	12%
Vaginal	78	88%	266	80%	938	70%	424	62%	1,706	70%
VBAC	0	0%	6	2%	40	3%	24	4%	70	3%
PAYMENT FOR DELIVERY¹										
Medi-Cal	71	80%	259	78%	594	44%	217	32%	1,141	46.7%
Private Insurance	15	17%	69	21%	691	52%	428	63%	1,203	49%
Other Insurance	2	2.2%	1	0.3%	22	1.6%	4	1%	29	1%
No Insurance	1	1%	4	1%	33	2%	30	4%	68	3%
TOTAL	89	4%	333	14%	1,340	55%	680	28%	2,442	100%

¹ The sum of column categories does not equal the overall column total, because of missing information (percentages are out of known data).

² For Race/Ethnicity, the "Other" category includes American Indian/Alaskan Native and Multiple Race Categories.

³ Outcomes are among all births and do not exclude multiple births.

HP2020 Targets: Reduce low birthweight (< 5.5 lbs) to 7.8%; reduce very low birthweight (<3.3 lbs) to 1.4%; reduce preterm (<37 weeks) to 9.4%; reduce very preterm (<32 weeks) to 1.5%

2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

AGE OF MOTHER

Out of all births to Santa Cruz County residents in 2018, women between the ages of 30 and 34 had the highest proportion of births (Table 2.2 and Figure 2.1). This age group also had the highest age-specific birth rate (the number of births per population in a specific age category), 111.6 births per 1,000 women (Table 2.2 and Figure 2.2). The numbers and the birth rates in the 30-34 and 35-39 age groups have been increasing, while teen birth rates have been dropping rapidly. For more information on teen births, go to page 9.

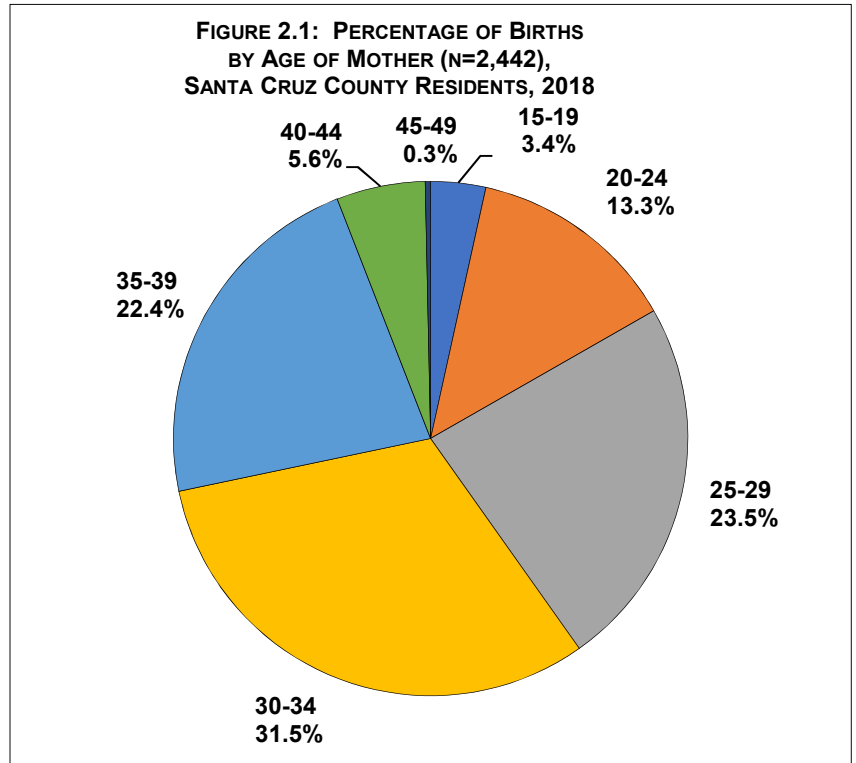
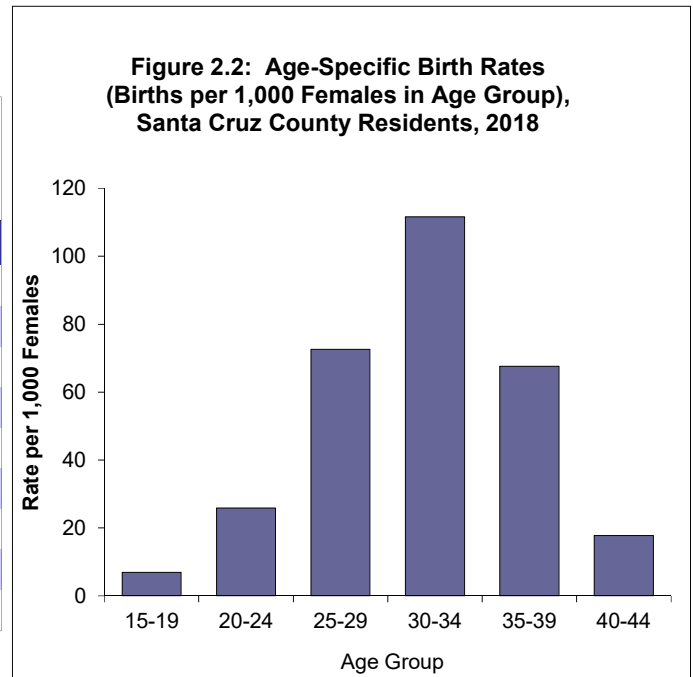


Table 2.2: Births by Mother's Age Group and Age-Specific Birth Rates per 1,000 Females, Santa Cruz County Residents, 2018

Mother's Age Group	Number of Births	Percent of Births	Total Female Population (per age group)	Birth Rate per 1,000 Women	95% Confidence Intervals
10-14 ¹	1	0.0%	7,766	--	--
15-19	88	3.4%	11,826	6.9	(6.0, 9.2)
20-24	333	13.3%	12,190	25.9	(24.5, 30.4)
25-29	570	23.5%	7,682	72.6	(68.4, 80.3)
30-34	770	31.5%	6,719	111.6	(107.1, 122.5)
35-39	538	22.4%	7,863	67.7	(62.9, 74.2)
40-44	134	5.6%	7,488	17.8	(15.0, 21.2)
45 and over	8	0.3%	8,131	--	--
TOTAL²	2,442	100.0%	53,768	45.2	(43.7, 47.2)

¹ Rate excluded due to instability from small numbers.

² Rates are age-specific and are calculated by dividing the total number of births to females in an age group by the total female population in that age group. The "TOTAL" birth rate in this table is also known as the general fertility rate, which is the number of births divided by the Total Female Population for females of "childbearing age," ages 15-44.



2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

ETHNICITY OF MOTHER

Among the “primary childbearing age” population (defined as females ages 15-44) in Santa Cruz County, approximately 40.1% are Latina, and 49.1% are white. However, Latina mothers delivered 52.6% of the babies in 2018, while white mothers delivered only 36.7% of the babies (Table 2.3; Figure 2.3).

The difference by ethnicities can also be seen by comparing ethnicity-specific fertility rates (Table 2.3 and Figure 2.4). The fertility rate (births per 1,000 women ages 15 to 44) was much higher among Latinas (59.5 per 1,000) than among whites (34 per 1,000).

In addition, the fertility rate among mothers with multiple or other ethnicities has increased by 17% from 2017 to 2018 (22.5 and 26.4 respectively). However, mothers with multiple or other ethnicities of "primary childbearing age" remain in the minority (2.4%; Figure 2.3).

Figure 2.4: Fertility Rate (Births per 1,000 Females Age 15-44) by Ethnicity of Mother, Santa Cruz County Residents, 2018

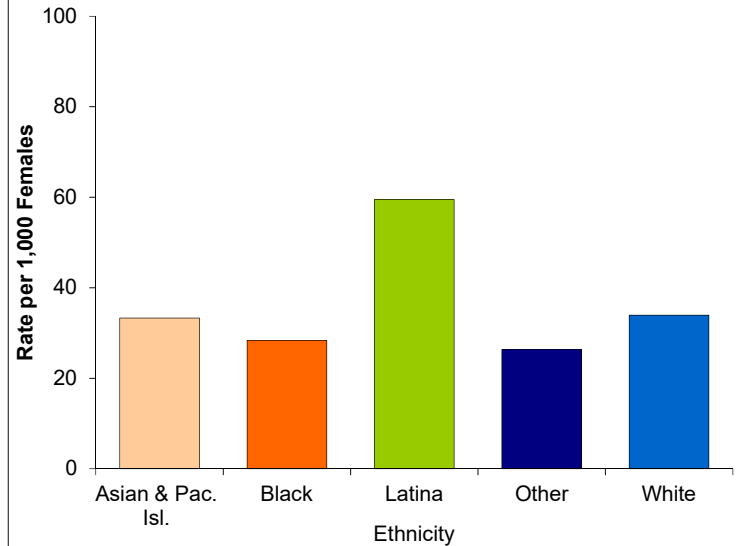
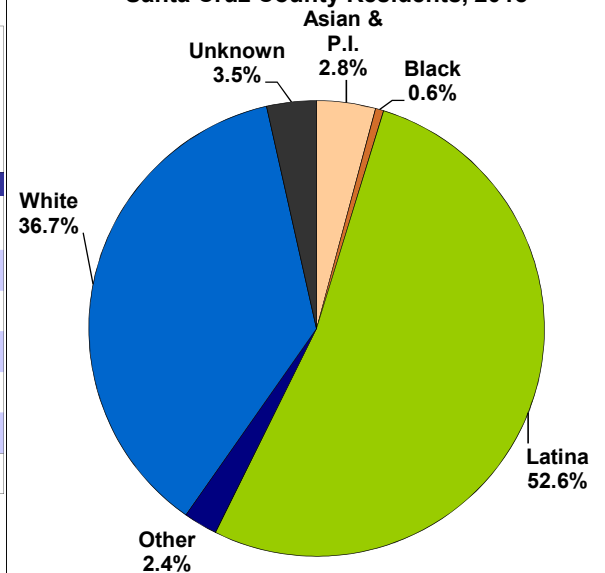


Table 2.3: Births and Fertility Rate, by Ethnicity of Mother, Santa Cruz County Residents, 2018

Ethnicity of Mother	Number of Births	Percent of Births	Total Female Population (Ages 15-44)	Fertility Rate per 1,000 Females (Ages 15-44)	95% Confidence Intervals
Asian & Pac. Isl.	102	4.2%	3,062	33.3	(27.2, 40.3)
Black	14	0.6%	493	28.4	(15.6, 47.2)
Latina	1,284	52.6%	21,583	59.5	(56.4, 62.7)
Other	59	2.4%	2,237	26.4	(20.1, 33.9)
White	897	36.7%	26,393	34.0	(31.8, 36.2)
Unknown	86	3.5%	--	--	--
TOTAL	2,442	100.0%	53,768	45.4	(43.7, 47.2)

"Other" includes American Indian / Alaska Native and Multiple Race Categories. The ethnicity-specific "Fertility Rate" is the number of births per ethnicity divided by the female population (ages 15-44) per ethnicity.

Figure 2.3: Percentage of Births by Ethnicity of Mother (n=2,442), Santa Cruz County Residents, 2018



3. KEY HEALTH MEASURES

AGE OF MOTHER

Mothers ages 19 and under received less prenatal care than their older counterparts, with 16.3% receiving fewer than 10 prenatal care visits (Figure 3.1). This is an improvement compared to the percent of teen mothers receiving less than 10 prenatal care visits in 2016 and 2017 (26.4% and 30% respectively).

Low and very low birthweight data in Figures 3.1 to 3.2 is shown both for all births and for "singletons only" (excluding multiple births, such as twins), because multiple births have significantly higher percentages of low or very low birthweight. In 2018, there were 55 multiple births, and 21 (43%) were low or very low birthweight ($p < .001$).

Preterm and very preterm birth is also known to be strongly associated with multiple births (National Collaborating Centre for Women's and Children's Health. Multiple Pregnancy, 2011). In 2018, there were 55 multiple births and 28 (51%) were preterm or very preterm ($p < .001$).

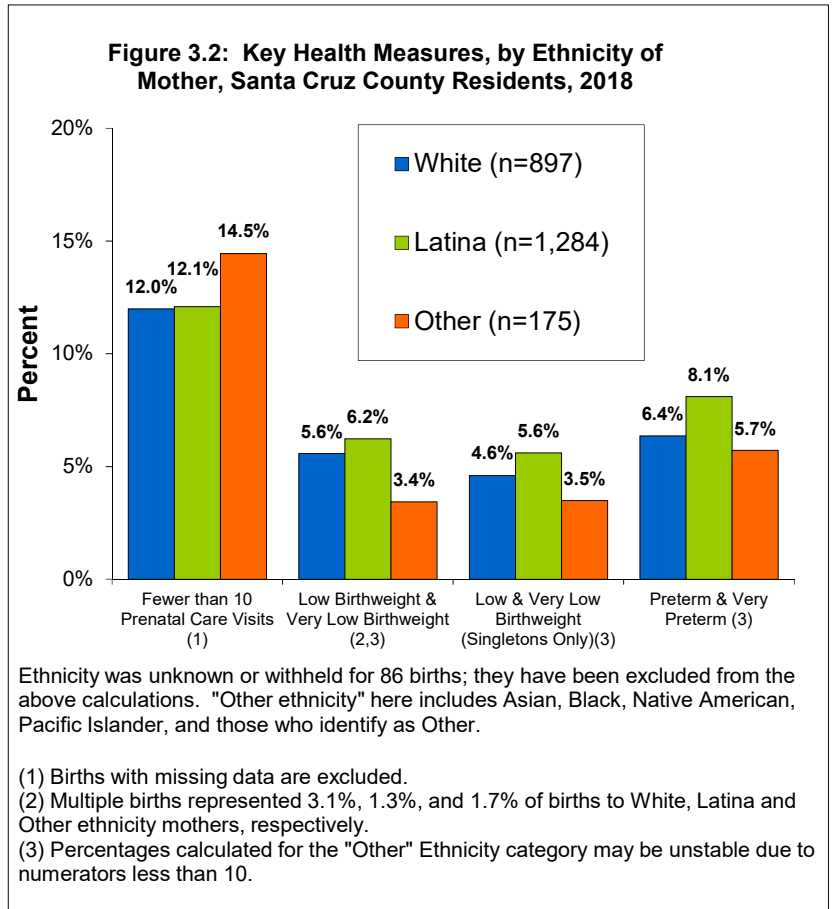
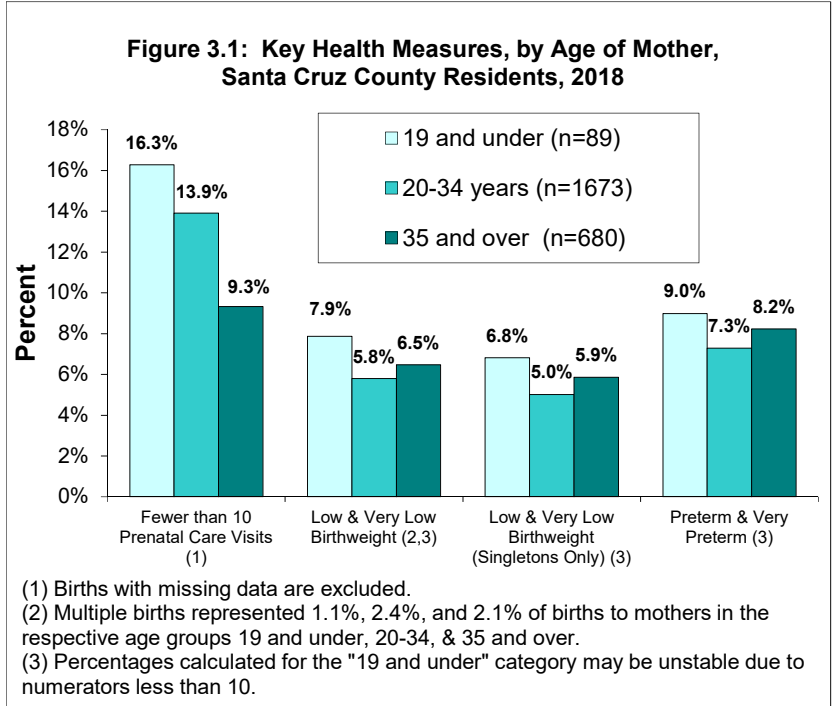
There was not a significant difference in the proportion of multiple births between mothers 20 to 34 years old and mothers over 35 year old ($p = 0.63$).

ETHNICITY OF MOTHER

The number of Latina mothers receiving fewer than 10 prenatal care visits has decreased over the last 3 years: 17.6% in 2016, 15.4% in 2017, and 12.1% in 2018. In 2018, the gap in prenatal care visits between Latina mothers and white mothers was very small and not statistically significantly different by race (Figure 3.2; $p = 0.50$).

Latina mothers had higher rates of low and very low birthweight and preterm and very preterm births compared to white mothers (Figure 3.2), though these percentages were not found to be significantly different by race ($p = 0.31$ and $p = 0.22$ respectively).

The "other" ethnicities group has the lowest birthweight and preterm birth rates in 2018 (Figure 3.2).



3. KEY HEALTH MEASURES

EDUCATION OF MOTHER

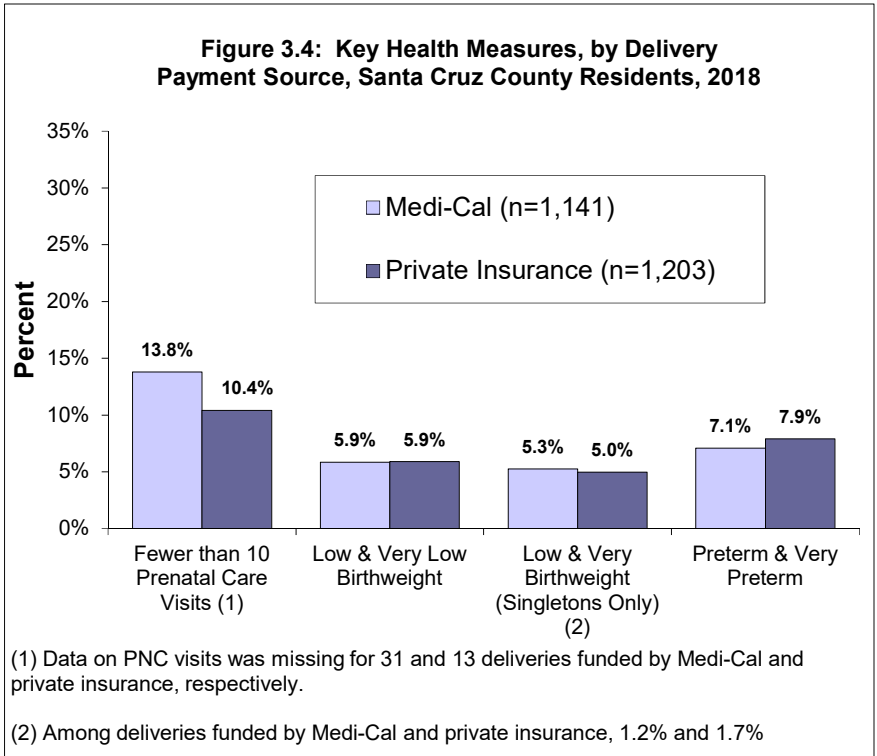
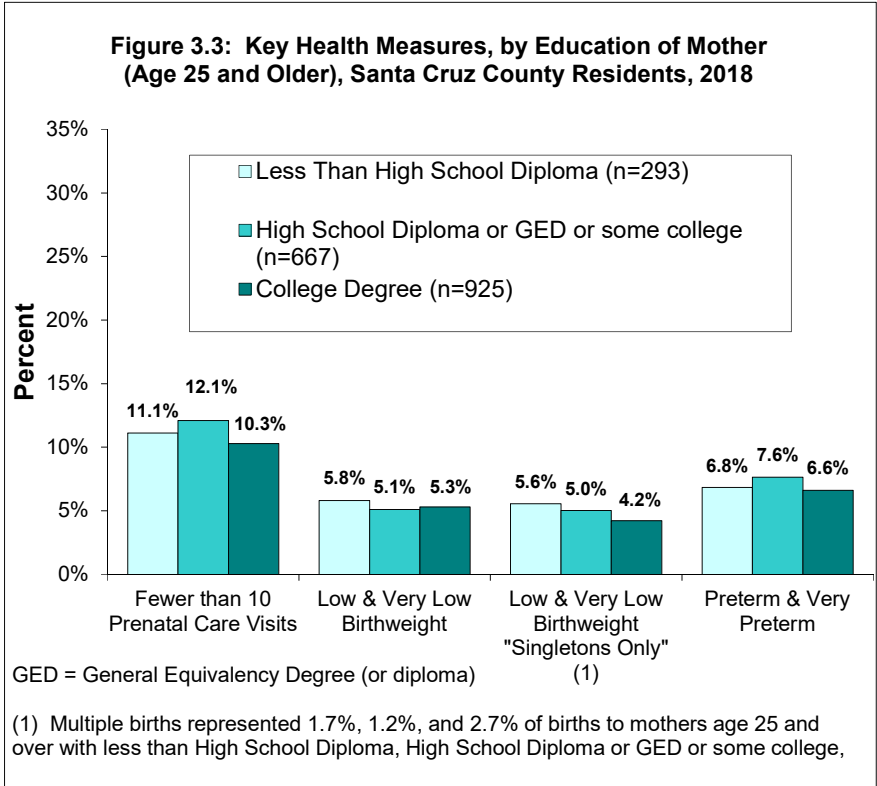
In 2018, 14% of new mothers ages 25 and older did not have a high school diploma or equivalent. This is an 18% improvement compared to the level of education among mothers in 2017 (17%). Only 11.1% of mothers with less than a high school diploma received fewer than 10 prenatal care visits, compared to 12.1% among mothers with a high school diploma and 10.3% among those with a college degree (Figure 3.3). These prenatal care visits are statistically significantly different by education level ($p < .001$).

Low and very low birthweight rates were significantly different across education levels among mothers over the age of 25 with singleton births ($p = 0.02$; Figure 3.3). Meaning, there was an association between level of education and low or very low birthweight.

Preterm and very preterm rates among mothers 25 and older were also significantly different across the education levels for singleton births and all births ($p = 0.048$; Figure 3.3). Meaning, there was an association between the mother's level of education and gestational age of child.

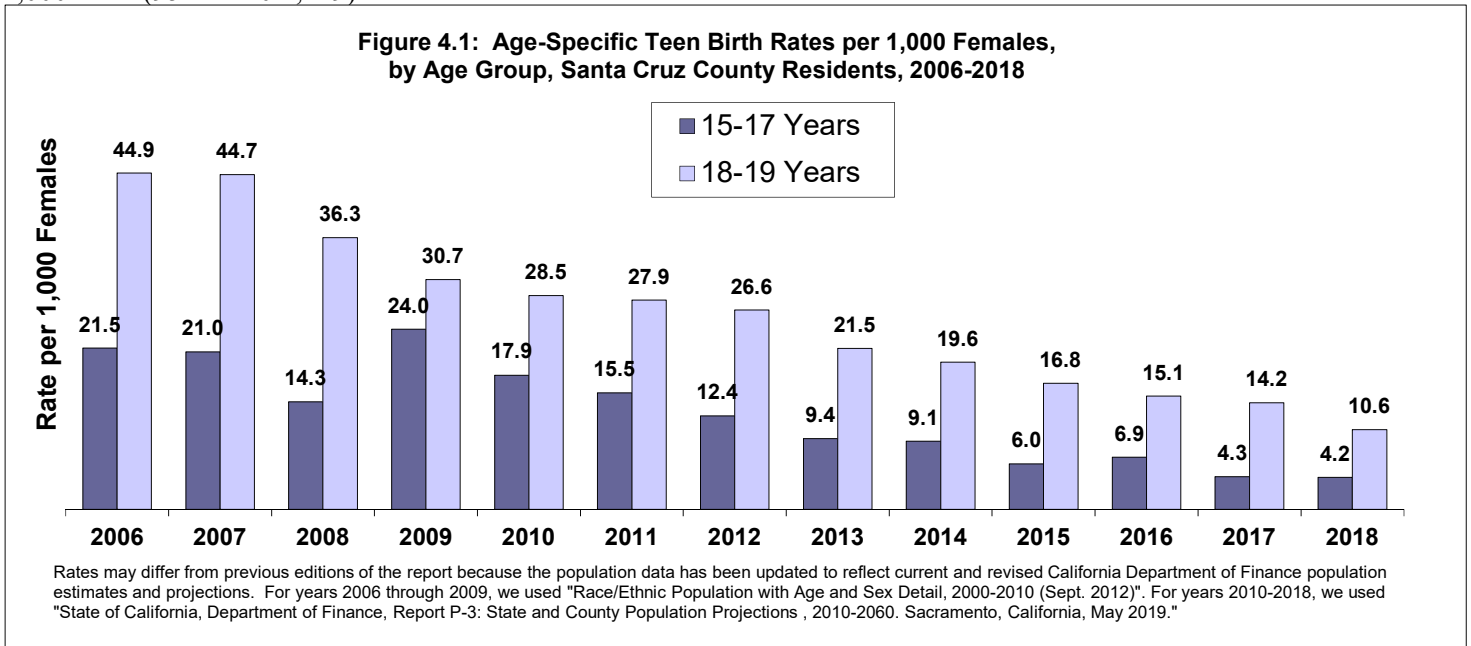
DELIVERY PAYMENT SOURCE

In 2018, Medi-Cal funded 47% of deliveries to county residents, and private insurance funded 49% of deliveries; the remainder were otherwise insured, not insured at all, or did not state their insurance type. Prenatal care utilization was significantly different between mothers with Medi-Cal funded and privately insured deliveries, despite only a 3.4% difference ($p = 0.01$; Figure 3.4). However, the rate of preterm and very preterm births and the rate of low and very low birthweights were not significantly different between Medi-Cal-funded deliveries and deliveries with private insurance ($p = 0.46$ and $p = 0.90$ respectively; Figure 3.4).



4. TEEN BIRTHS (AGE 19 AND UNDER), RESIDENTS

The birth rate among Santa Cruz County teens has dropped continuously over recent years (Figure 4.1), in line with a continuing statewide and nationwide trend of decreasing teen birth rates. In 2018, the birth rate among county women aged 15-19 was 7.4 births per 1,000 women, a 69% reduction of the rate in 2010. However, the Latina teen birth rate in 2018 was significantly higher at 15.5 births per 1,000 teens (95% CI: 12.3, 19.2), compared to the white teen birth rate at 0.8 per 1,000 teens (95% CI: 0.2, 1.9).



AREA OF RESIDENCE

The distribution of births by place of residence for teens often differs from the distribution for all age groups (Table 4.2). In 2018, residents in ZIP Codes 95076-95077 accounted for 67% of all teen births, but only 41% of all births. One notable limitation of this table is that it does not adjust for the differing age distributions within the female populations in different

TABLE 4.1: Teen Births and Overall Births, by Area of Residence, Santa Cruz County Residents, 2018

Mother's Area of Residence	ZIP Code(s)	Teen Births (19 and Under)		Total Births (All Ages) ¹		Percent of Births to Teens
		Number	% of Teen Births in ZIP code	Number	% of Total Births in ZIP code	% of Teen Births among Total Births in ZIP Code
Aptos	95001, 95003	2	2%	149	6%	1.3%
Capitola	95010	1	1%	67	3%	1.5%
Davenport	95017	1	1%	10	0%	10.0%
Freedom	95019	9	10%	107	4%	8.4%
Los Gatos	95033	0	0%	35	1%	0.0%
San Lorenzo Valley	95005-95007, 95018, 95041	0	0%	186	8%	0.0%
Santa Cruz	95060-95065	10	11%	659	27%	1.5%
Scotts Valley	95066	2	2%	116	5%	1.7%
Soquel	95073	1	1%	82	3%	1.2%
Watsonville	95076, 95077	63	71%	1028	42%	6.1%
TOTAL¹		89	100%	2,439	100%	3.5%

¹ Three births are excluded from the table; a zipcode was not on the birth certificate.

4. TEEN BIRTHS (AGE 19 AND UNDER), RESIDENTS

The percentage of total Santa Cruz County births that were teen births was 3.6% in 2018 and 3.5% 2017. The rate of births per 1,000 teen female population (age 15-19 years) has been declining locally, statewide, and nationwide for over 20 years; in 2018, Santa Cruz County's rate dropped to 7.4 per 1,000 population. The national teen birth rate also declined, reaching a new low of 17.4 per 1,000, but still remains about 2-7 times higher than rates in most developed countries.

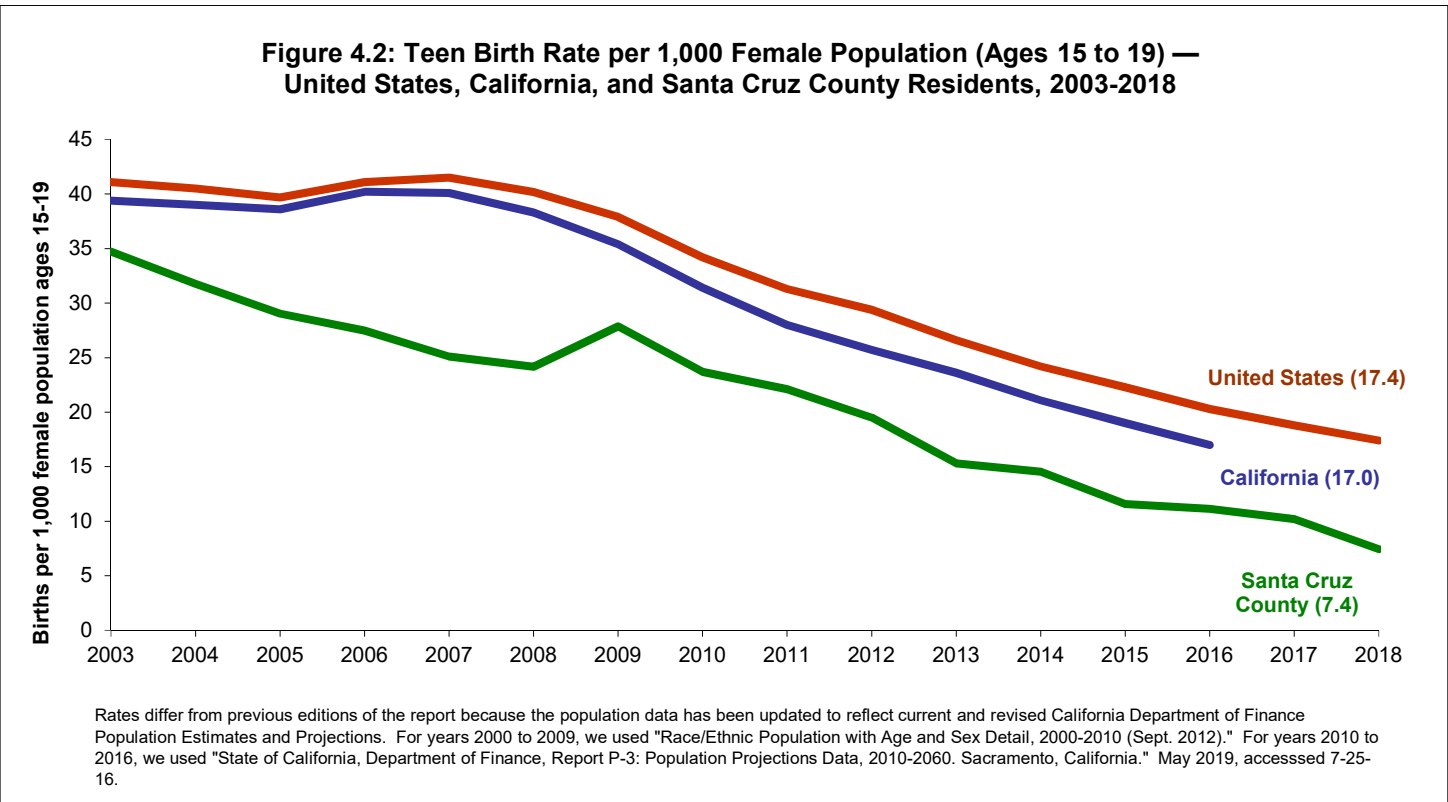
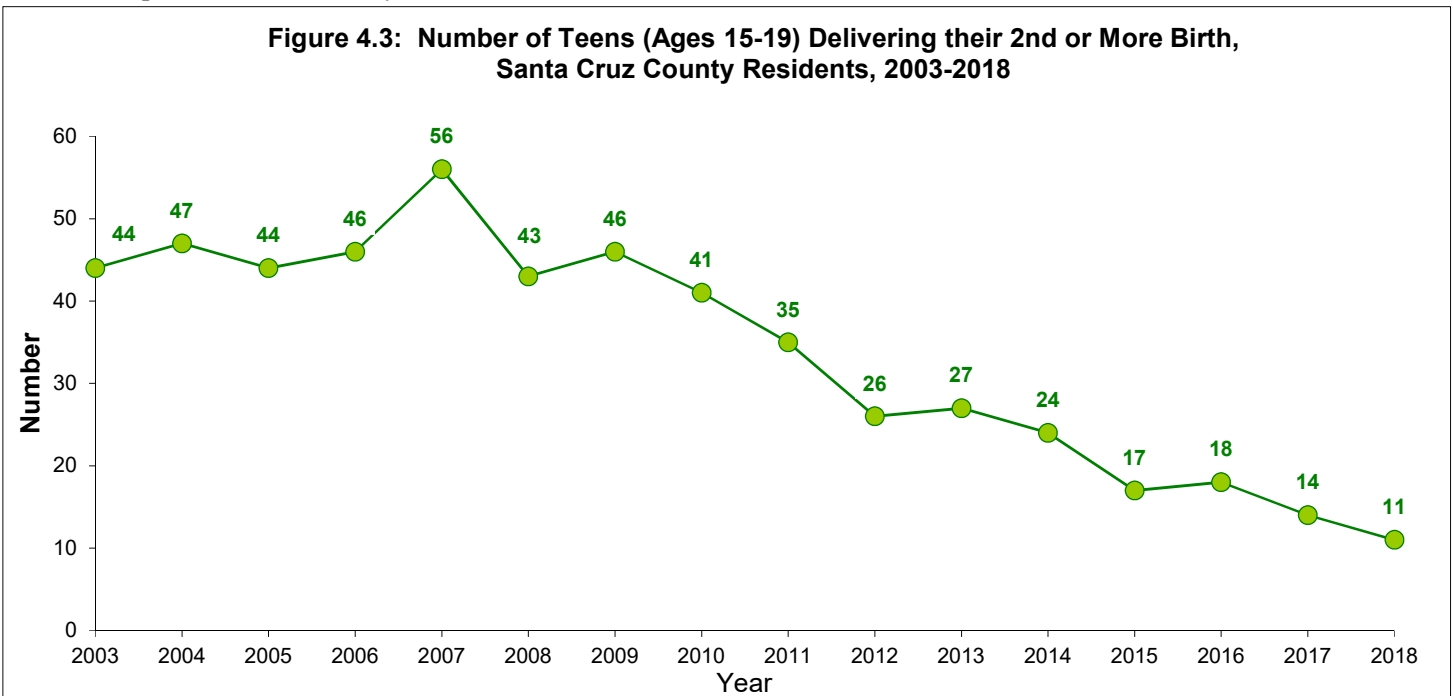


Figure 4.3 shows the number of teen mothers who delivered their second (or more) birth. In 2018, 1 teenage mother delivered their third child, and none her fourth. The 2018 repeat teen birth rate was 12.4% in Santa Cruz County. The 2018 US repeat birth rate is not yet available.

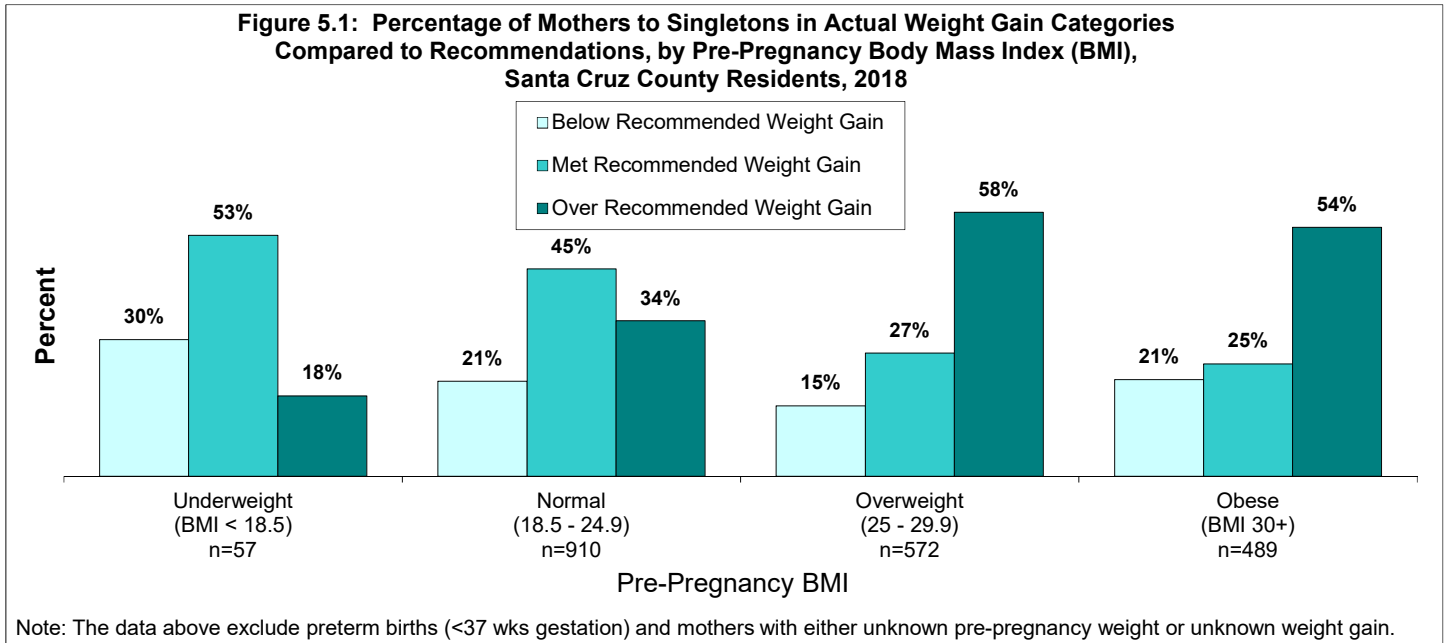


5. MOTHER'S WEIGHT GAIN & SMOKING STATUS

In 2009, the Institute of Medicine released a report recommending new guidelines for weight gain during pregnancy. In 2013, the American College of Obstetricians and Gynecologists added weight gain recommendations for mothers carrying twins. The recommended total weight gain range for each category of pre-pregnancy BMI is as follows:

<u>Pre-pregnancy Weight & BMI (kg/m²)</u>	<u>Weight Gain for Singletons</u>	<u>Weight Gain for Twins</u>
Underweight < 18.5	28 - 40 lbs.	--
Normal 18.5 - 24.9	25 - 35 lbs.	37 - 54 lbs.
Overweight 25.0 - 29.9	15 - 25 lbs.	31 - 50 lbs.
Obese ≥ 30.0	11 - 20 lbs.	25 - 42 lbs.

In 2018, 45% of mothers to singletons gained more weight than recommended during their pregnancy. This calculation excludes mothers with preterm births and mothers with missing pre- or post-pregnancy weight data. A higher proportion of mothers whose pre-pregnancy body mass index (BMI) was categorized as overweight or obese exceeded the weight gain recommendation than mothers with normal or underweight BMI levels (Figure 5.1). In 2018, 52.3% of all mothers began pregnancy as overweight or obese.



SMOKING STATUS

The numbers and percentages of women who self-reported smoking **at least one cigarette a day** during different time periods before and during pregnancy are shown below in Table 5.1. The percentage who said they smoked before pregnancy has varied from 1.4% to 2.5% over the last several years. However, since about 12-15% of California adults are smokers, there is reason to believe that birth certificate data do not accurately capture the percentage of mothers who

TABLE 5.1: Mother's Smoking Status during Pregnancy, by Trimester, Santa Cruz County Residents, 2018

Mother's Smoking Status	3 Months Before Conception		During 1st Trimester		During 2nd Trimester		During 3rd Trimester	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Smoked at least 1 cigarette per day								
Yes	49	2.0%	35	1.4%	32	1.3%	29	1.2%
No	2,380	98.0%	2,395	98.6%	2,398	98.7%	2,401	98.8%
TOTAL	2,429	100%	2,430	100%	2,430	100%	2,430	100%

Note: This table does not include births for whom the mother's cigarette smoking status was missing.

Healthy People 2020 Objective: Increase abstinence from cigarettes to 98.6% or more of all pregnant women (MICH-11.3).

6. BIRTHS BY AGE OF FATHER (RESIDENT MOTHERS)

TABLE 6.1: Characteristics of Fathers, by Age Group, Santa Cruz County Resident Mothers, 2018

	AGE OF FATHER (Years)										TOTAL	
	17 and Under		18-19		20-24		25-34		35 and Over		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
AGE OF MOTHER (Years)												
17 and Under	7	54%	8	30%	6	3%	1	0%	0	0%	22	1%
18 - 19	4	31%	11	41%	31	15%	10	1%	3	0%	59	3%
20 - 24	2	15%	5	19%	130	63%	147	13%	18	2%	302	13%
25 - 34	0	0%	1	4%	37	18%	819	72%	439	46%	1,296	55%
35 and Over	0	0%	2	7%	4	2%	154	14%	503	52%	663	28%
ETHNICITY OF FATHER¹												
Asian & Pacific Islander	0	0%	0	0%	2	1%	29	3%	39	4%	70	3%
Black	0	0%	0	0%	4	2%	11	1%	11	1%	26	1%
Latino	12	92%	24	89%	176	85%	634	56%	341	35%	1,187	51%
White	0	0%	3	11%	21	10%	390	34%	484	50%	898	38%
Other	0	0%	0	0%	4	2%	28	2%	28	3%	60	3%
Unknown	1	8%	0	0%	1	0%	39	3%	60	6%	101	4%
EDUCATION OF FATHER												
8th Grade & Under	0	0%	1	4%	24	12%	109	10%	87	9%	221	9%
Some High School	11	85%	9	33%	22	11%	108	10%	54	6%	204	9%
HS Diploma or GED²	1	8%	16	59%	139	67%	508	45%	317	33%	981	42%
Degree Obtained	0	0%	0	0%	10	5%	325	29%	421	44%	756	32%
Withheld or Unknown	1	8%	1	4%	13	6%	81	7%	84	9%	180	8%
TOTAL	13	1%	27	1%	208	9%	1,131	49%	963	40%	2,342	100%

Note: 100 fathers (4.1% of total) without age information are not included in this table.

¹ For Race/Ethnicity, the "Other" category includes American Indian/Alaskan Native and Multiple Race Categories.

7. BIRTHS BY DELIVERY LOCATION

TABLE 7.1: Characteristics of Births, by Delivery Location, Santa Cruz County Occurrence or Residence, 2018

	DELIVERY LOCATION										TOTAL	
	Dominican		Sutter		Watsonville		Non-Hospital		Out of County		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
AGE OF MOTHER (Years) ¹												
17 and Under	4	1%	6	1%	26	3%	0	0%	0	0%	36	1%
18 - 19	19	2%	13	1%	50	6%	1	1%	5	2%	88	3%
20 - 24	129	16%	81	9%	198	23%	5	7%	19	6%	432	15%
25 - 34	401	50%	535	59%	432	49%	33	49%	192	61%	1,593	54%
35 and Over	243	31%	270	30%	171	19%	28	42%	99	31%	811	27%
ETHNICITY OF MOTHER ^{2,3}												
Asian & Pacific Islander	38	5%	39	4%	8	1%	5	8%	23	9%	113	4%
Black	4	1%	6	1%	1	0.1%	2	3%	1	0.4%	14	0.5%
Latina	421	54%	357	40%	807	92%	12	19%	83	32%	1,680	59%
White	306	39%	451	51%	54	6%	41	66%	137	54%	989	35%
Other	13	2%	37	4%	6	1%	2	3%	12	5%	70	2%
EDUCATION OF MOTHER ^{2,4}												
8th Grade & Under	19	3%	10	1%	274	31%	1	2%	10	4%	314	11%
Some High School	52	7%	11	1%	177	20%	0	0%	16	6%	256	9%
HS Diploma or GED ⁵	388	54%	329	38%	354	40%	11	17%	60	24%	1,142	41%
Degree Obtained	264	37%	526	60%	72	8%	51	81%	168	66%	1,081	39%
PRENATAL CARE: INITIATION ²												
Early (1st Trimester)	681	87%	843	95%	613	70%	54	81%	290	92%	2,481	85%
Late (2nd or 3rd Trimester)	98	12%	45	5%	256	29%	11	16%	23	7%	433	15%
No Prenatal Care	7	1%	1	0.1%	6	1%	2	3%	2	1%	18	1%
PRENATAL CARE: UTILIZATION ²												
At Least 10 Visits	651	85%	832	94%	765	87%	52	78%	222	70%	2,522	86%
Fewer Than 10 Visits	111	15%	55	6%	112	13%	15	22%	93	30%	425	14%
BIRTH OUTCOMES: WEIGHT ⁶												
Normal Birthweight	718	90%	891	98%	842	96%	63	94%	272	86%	2,786	94%
Low Birthweight	67	8%	13	1%	33	4%	4	6%	33	10%	150	5%
Very Low Birthweight	11	1%	1	0.1%	2	0%	0	0%	10	3%	24	1%
BIRTH OUTCOMES: GESTATION AGE ^{2,6}												
Normal Gestation	697	88%	889	98%	824	94%	65	97%	267	85%	2,742	93%
Preterm	87	11%	15	2%	50	6%	2	3%	39	12%	193	7%
Very Preterm	12	2%	1	0.1%	3	0.3%	0	0%	9	3%	25	1%
DELIVERY METHOD												
Primary Cesarean	144	18%	146	16%	106	12%	1	1%	58	18%	455	15%
Repeat Cesarean	109	14%	74	8%	134	15%	0	0%	35	11%	352	12%
Vaginal	507	64%	669	74%	601	69%	61	91%	215	68%	2,053	69%
VBAC	36	5%	16	2%	36	4%	5	7%	7	2%	100	3%
PAYMENT FOR DELIVERY ²												
Medi-Cal	389	49%	250	28%	766	87%	4	6%	39	12%	1,448	49%
Private Insurance	397	50%	648	72%	105	12%	4	6%	250	79%	1,404	47%
Other Insurance	1	0.1%	3	0.3%	2	0.2%	1	1%	23	7%	30	1%
No Insurance	9	1%	3	0.3%	4	0.5%	58	87%	3	1%	77	3%
TOTAL	796	26.9%	905	30.6%	877	29.6%	67	2%	315	11%	2,960	100%

1 All ages have been included in Table 7.1 to describe the entire patient population by delivery location.

2 The sum of column categories does not equal the overall column total, because of missing information (percentages are out of known data).

3 For Race/Ethnicity, the "Other" category includes American Indian/Alaskan Native and Multiple Race Categories.

4 Education categories include mothers of all ages, unlike Figure 2.3 on page 5, which excludes mothers under age 25 years to compare key health measures.

5 GED = General Equivalency Degree (or diploma); includes "some college."

6 Outcomes are among all births and do not exclude multiple births.

7. BIRTHS BY DELIVERY LOCATION

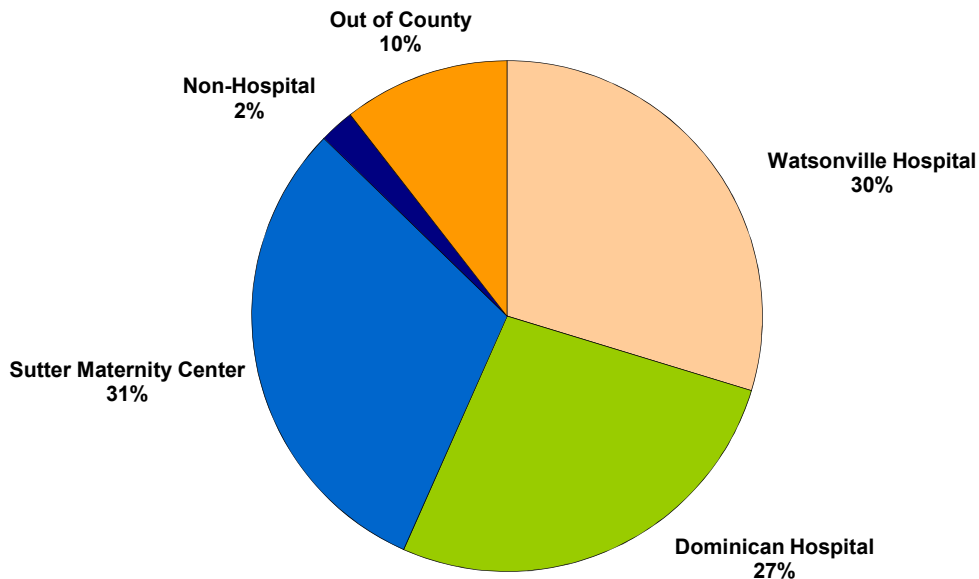
This table provides more details about where Santa Cruz County residents and non-residents deliver. The great majority of non-residents who deliver in Santa Cruz County are residents of Monterey County, and the majority of non-resident births are delivered at Watsonville Community Hospital.

TABLE 7.2: Mother's Area of Residence, by Delivery Location, Santa Cruz County Occurrence or Residence, 2018

AREA OF RESIDENCE	DELIVERY LOCATION										TOTAL	
	Dominican		Sutter		Watsonville		Non-Hospital		Out of County		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
SANTA CRUZ COUNTY	701	88%	768	85%	603	69%	59	91%	311	100%	2,442	83%
Mid-County	88	13%	155	20%	13	2%	7	12%	49	16%	312	13%
Santa Cruz Mountains	55	8%	73	10%	3	0%	8	14%	82	26%	221	9%
Santa Cruz	270	39%	284	37%	22	4%	33	56%	64	21%	673	28%
Scotts Valley	32	5%	40	5%	0	0%	5	8%	36	12%	113	5%
South County	256	37%	216	28%	565	94%	6	10%	80	26%	1,123	46%
MONTEREY COUNTY	63	8%	95	11%	256	29%	3	5%	0	0%	417	14%
SAN BENITO COUNTY	11	1%	16	2%	9	1%	0	0%	0	0%	36	1%
SANTA CLARA COUNTY	7	1%	19	2%	2	0%	3	5%	0	0%	31	1%
OTHER CA COUNTIES	13	2%	6	1%	7	1%	0	0%	0	0%	26	1%
TOTAL¹	795	27%	904	31%	877	30%	65	2%	311	11%	2,952	100%

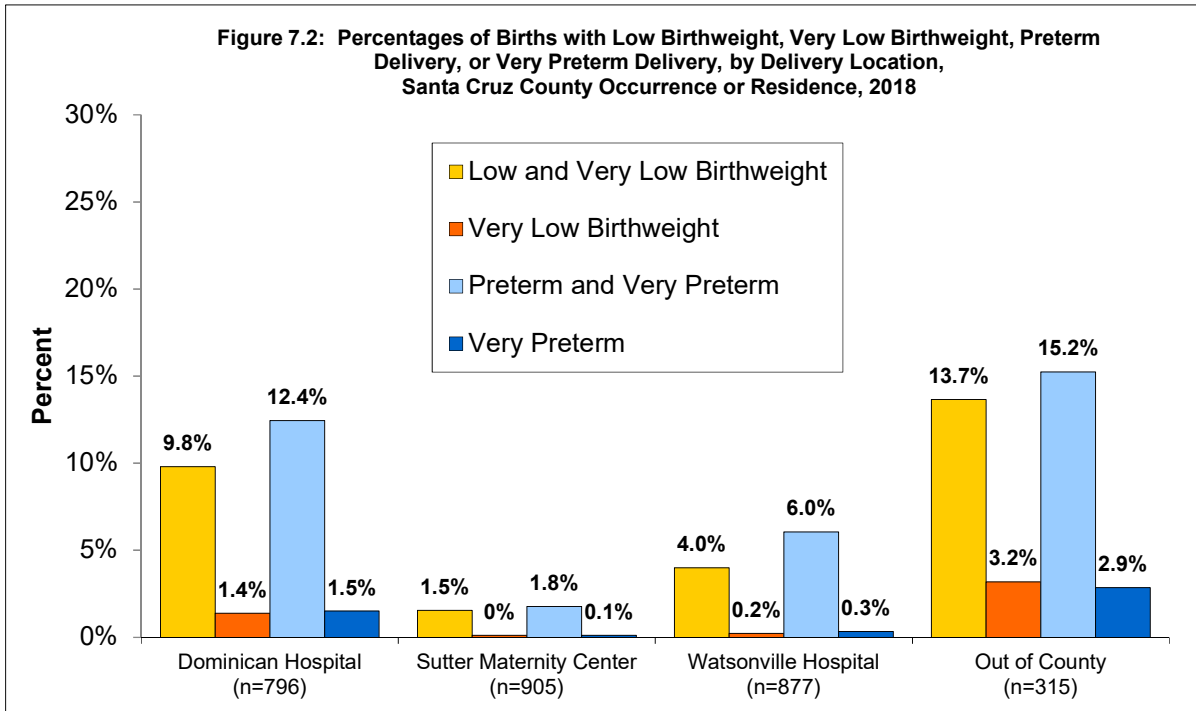
¹ Mothers with an unknown county residence or out of state residence were excluded from the table.

Figure 7.1: Percentage of Births, by Delivery Location, Santa Cruz County Occurrence or Residence, 2018



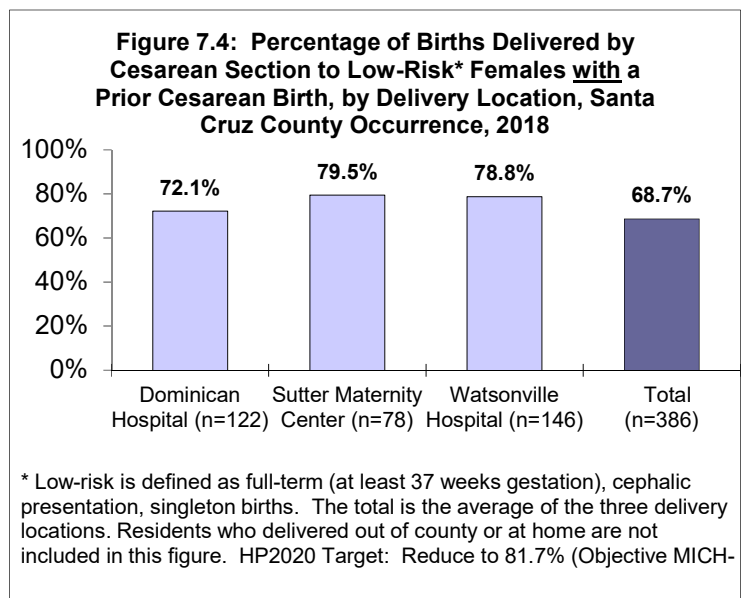
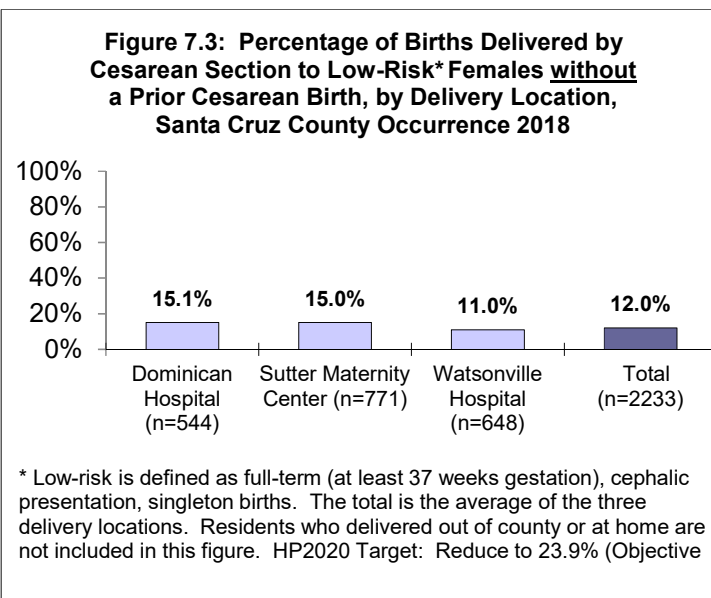
7. BIRTHS BY DELIVERY LOCATION

The medical capability to handle high-risk births varies by hospital. Oftentimes when a resident travels out of county, it is to deliver at a hospital that is designated as having the ability to deliver very high-risk births. In Santa Cruz County, Dominican Hospital has the only Level 3 Neonatal Intensive Care Unit—which greatly influences their outcome data, since other hospitals may send high-risk pregnant women to Dominican Hospital for delivery.



CESAREAN BIRTHS

Below are figures on the percentage of cesarean births among low-risk births to females either without a prior cesarean birth (Figure 7.3) or with a prior cesarean birth (Figure 7.4); low-risk births are defined in the figure notes. Santa Cruz County facilities all easily meet the HP2020 target for first-time cesareans and for repeat cesareans. (These numbers differ from the

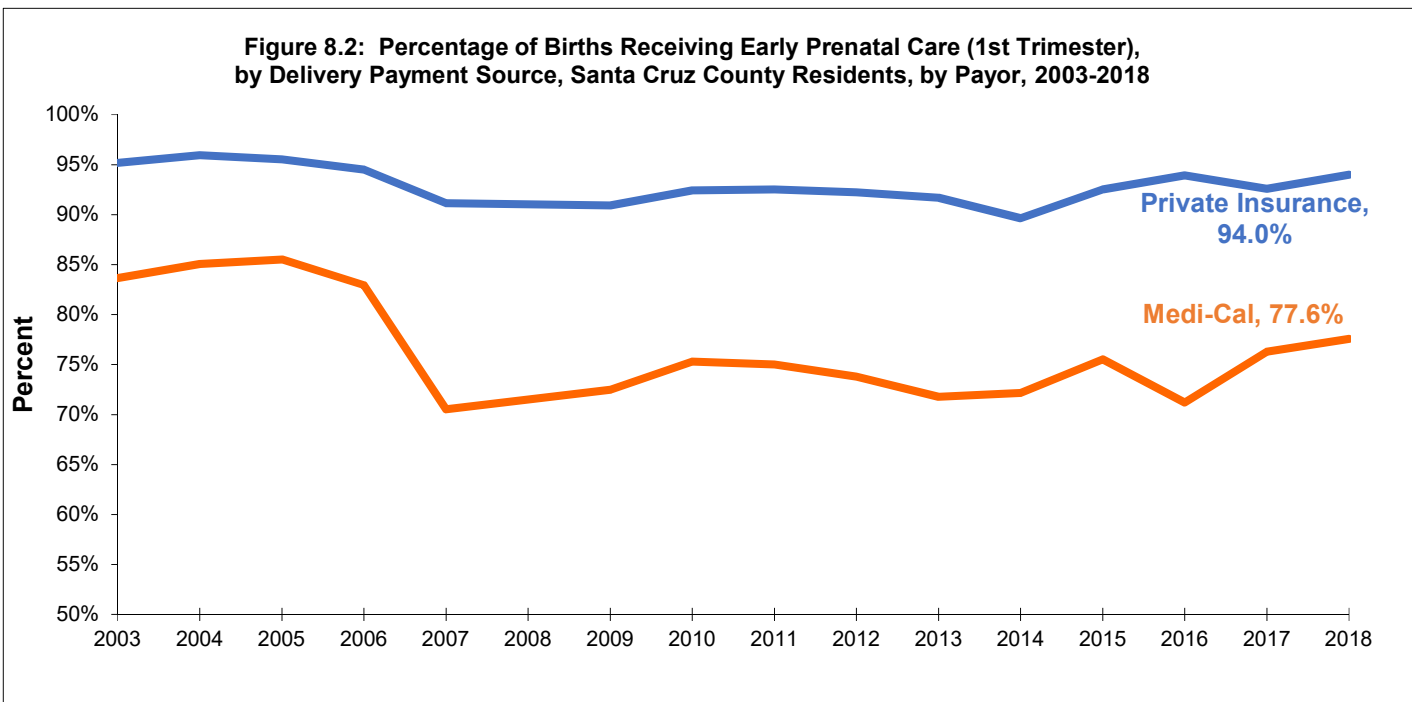
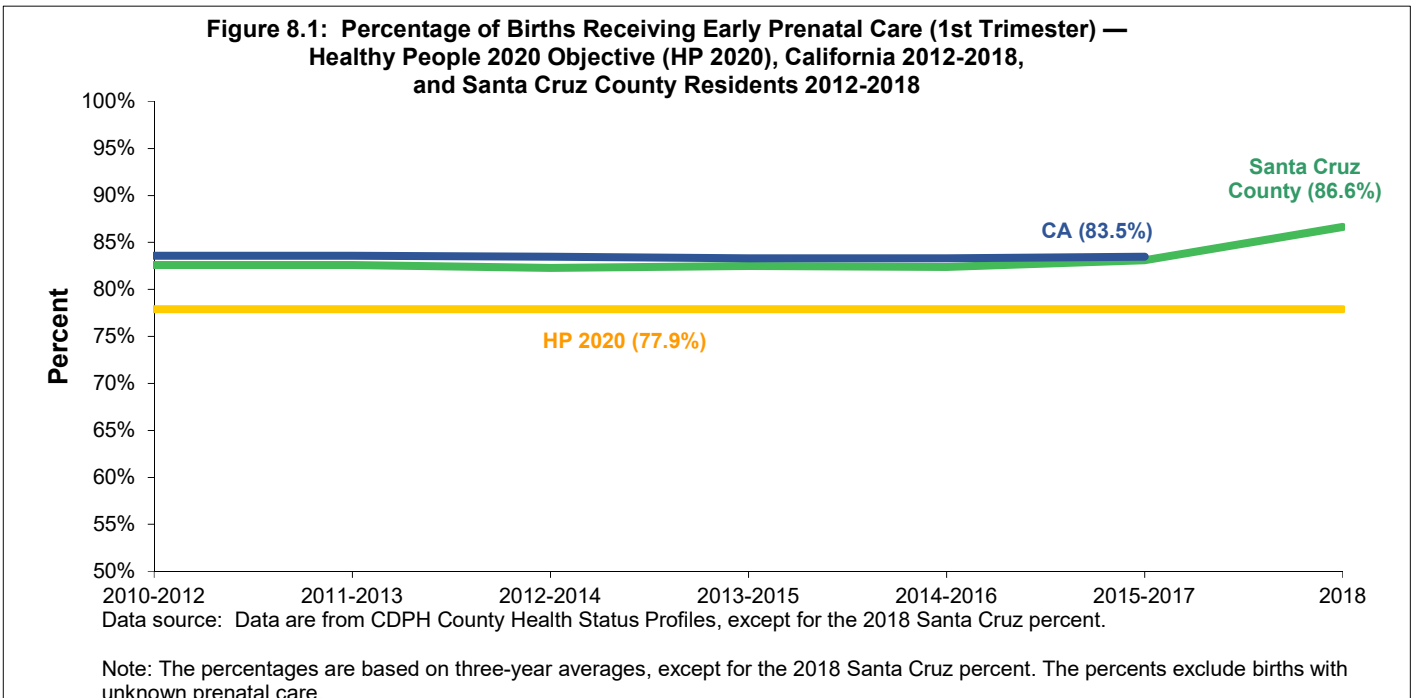


8. TRENDS

EARLY PRENATAL CARE

The percentage of mothers who received early prenatal care (1st trimester) was 86.6% in 2018, an increase from recent years (Figure 8.1). The Healthy People objective was lowered from 90% in 2010 to 77.9% for 2020; the 2010 objective had been met or nearly met countywide and statewide for over ten years.

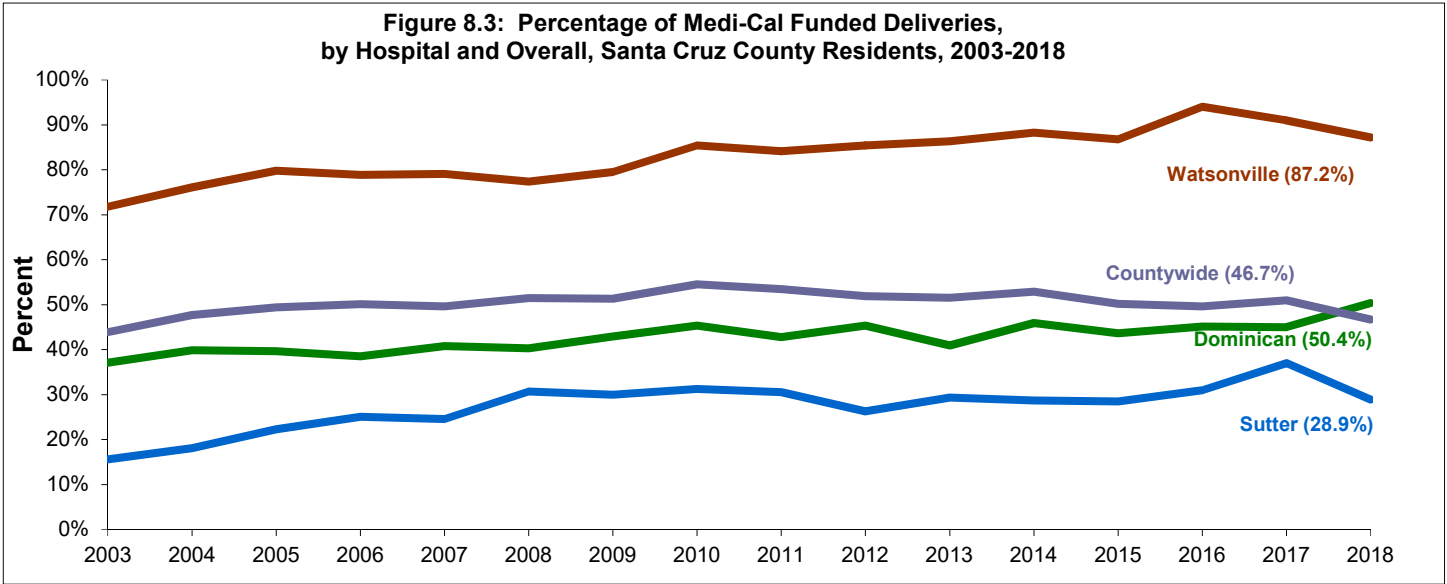
Figure 8.2 compares early prenatal care for deliveries paid by Medi-Cal versus those paid by private insurance. Both Medi-Cal patients and patients with private insurance experienced an increase in early prenatal care.



8. TRENDS

MEDI-CAL FUNDED DELIVERIES

Figure 8.3 shows the trend in the percentage of deliveries funded by Medi-Cal at each facility. In 2018, 46.7% of Santa Cruz County residents' deliveries were funded by Medi-Cal, continuing the very slight decreasing trend since the peak in 2010 (53.4%). Sutter experienced the biggest reduction in Medi-Cal funded deliveries: from 37% in 2017 to 28.9% in 2018. In addition, Dominican saw a 12% increase in Medi-Cal funded deliveries from 2017 (45%) to 2018 (50.4%) and Watsonville saw a 4% decrease in Medi-Cal funded deliveries from 2017 (91%) to 87.2% in 2018.



LOW-RISK PRIMARY CESAREAN RATES

Figure 8.4 shows the trend at each facility in recent years for cesarean birth rates among low-risk births (defined as full-term singleton births where the baby presents in vertex position) where the mother had no prior cesarean. Cesarean rates overall have increased substantially in the last two decades (from about one to five births to about one in three births in California), without any corresponding improvement in birth outcomes. Unnecessary cesareans increase morbidity and mortality among mothers and babies.

