BIRTHS

Santa Cruz County

2017

THE GREAT SEAL OF THE COUNTY OF SANTA CRUZ 1850 SINE PRAEJUDICIO

Public Health
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Santa Cruz County

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INTRODUCTION

This report provides data on live births delivered in 2017. 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 2017, there were 2,655 live births to mothers who resided in Santa Cruz County, which was 145 (5.2%) fewer births than in 2016.

- The General Fertility Rate in 2017 among Santa Cruz County residents was 48.9 births per 1,000 females of typical childbearing age (15-44 years), continuing the recent downward trend. The U.S. rate was 60.2 per 1,000 women, another new record low, slightly below the rate for 2016 (CDC, *Births: Provisional Data for 2017*).

- An additional 474 births were delivered in Santa Cruz County to mothers who were residents of other counties, primarily Monterey County (83%).

TEEN BIRTHS (19 and Under)

- Births to teens as a percentage of all births dropped to another new low of 3.5% in 2017, and the number of teen births also fell again (93 births, down almost 30% from 2016, and down almost two thirds since 2011). This is in keeping with statewide and national trends, but the improvement in Santa Cruz County was exceptionally large this year.

- In 2017, 84% of births to teens were to Latina teens (similar to 2016, but down from 93% in 2015); and 72% of all teen mothers (down from 78% in 2016 and 82% in 2015) lived in South Santa Cruz County (see definition on page 2).

- In 2017, for the third consecutive year, there were no births to county residents under 15 years old.

- Among teen births in 2017, 15% of mothers were delivering their second (or more) birth, similar to last year and recent years.

MEDI-CAL

- 51.0% of all deliveries to residents in 2017 were funded by Medi-Cal, slightly more than in 2016 but about average for recent years.

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, Capitola, La Selva Beach, Rio del Mar, Seascape, and Soquel
Santa Cruz Mountains	Ben Lomond, Boulder Creek, Brookdale, Felton, Lompico, Los Gatos, and Mt. Hermon
Santa Cruz	Bonny Doon, Davenport, and Santa Cruz
South County	Aromas, Corralitos, Freedom, Pajaro, Royal Oaks, Watsonville, and Watsonville Junction
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	Less than 2500 grams or 5.5 pounds
Very Low Birthweight	Less than 1500 grams or 3.3 pounds
Preterm	Less than 37 completed weeks of gestation
Very Preterm	Less than 32 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)

TECHNICAL NOTES

The term “significant difference,” as used in this report, means there is a statistically significant difference, based on 95% confidence limits (that is, 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. 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 2017 data were accessed on May 8, 2018.

Population data is from the State of California, Department of Finance, *Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060* . Sacramento, California, accessed April 21, 2015 (http://www.dof.ca.gov/research/demographic/reports/projections/P-3/, no longer available).

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 276,584 in 2017 (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

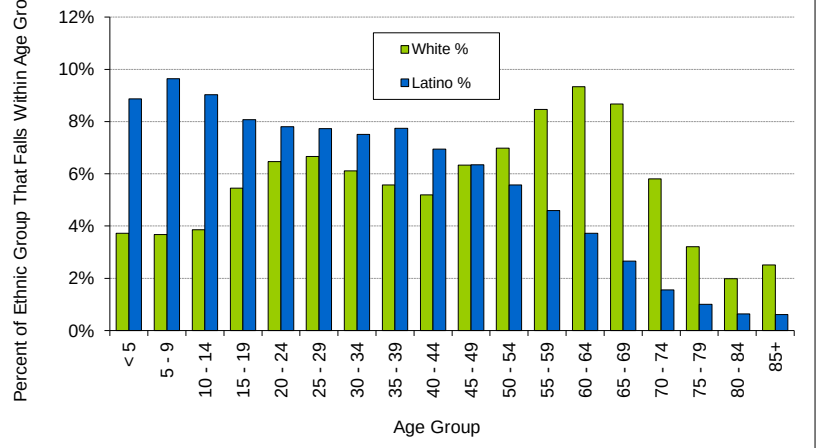
Over 90% of the county's population is either white (56.5%) or Latino (34.9%). The remaining groups (Asians and Pacific Islanders, blacks, American Indians, and multiple ethnicities) account for much smaller fractions of the population (Table 1.1).

In Santa Cruz County, the Latino population is much younger than the White population (Figure 1.1). For example, in 2017, 73% of the Latino population was under age 45, compared to just 47% of the white population.

Table 1.1: Demographics, Santa Cruz County Residents, 2017

	Number	Percent
GENDER		
Female	138,279	50.0%
Male	138,305	50.0%
AGE (Years)		
4 and Under	15,568	5.6%
5 – 19	50,998	18.4%
20 - 44	92,640	33.5%
45 - 64	73,622	26.6%
65 and Over	43,756	15.8%
ETHNICITY		
American Indian	1,039	0.4%
Asian / Pacific Islander	12,658	4.6%
Black	2,381	0.9%
Latino	96,452	34.9%
White	156,264	56.5%
Multiple Races/Ethnicities	7,790	2.8%
TOTAL	**276,584**	**100%**

Figure 1.1: Age Distribution, by White or Latino Ethnicity, Santa Cruz County Residents, 2017



2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

TABLE 2.1: Characteristics of Mothers, by Age Group, Santa Cruz County Residents, 2017

	19 and Under		20-24		25-34		35 and Over		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ETHNICITY										
Asian & Pac. Islander	1	1%	3	1%	43	3%	35	5%	82	3%
Black	0	0%	0	0%	4	0%	2	0%	6	0%
Latina	76	84%	335	87%	726	51%	283	40%	1,420	55%
White	13	14%	45	12%	612	43%	369	53%	1,039	40%
Other	0	0%	3	1%	33	2%	12	2%	48	2%
AREA OF RESIDENCE										
Mid-County	5	5%	15	4%	197	14%	106	15%	323	12%
Santa Cruz Mountains	3	3%	15	4%	154	11%	78	11%	250	9%
Santa Cruz	14	15%	58	15%	373	26%	263	37%	708	27%
Scotts Valley	4	4%	8	2%	77	5%	39	5%	128	5%
South County	67	72%	291	75%	655	45%	233	32%	1,246	47%
PARITY										
1st Child	79	85%	205	53%	570	39%	189	26%	1,043	39%
2nd - 3rd Child	14	15%	172	44%	732	50%	394	55%	1,312	49%
4th+ Child	0	0%	10	3%	154	11%	136	19%	300	11%
PRENATAL CARE INITIATION AND UTILIZATION										
Early (1st Trimester)	49	53%	285	75%	1,225	85%	635	90%	2,194	84%
Late (2nd or 3rd Trimester)	42	45%	92	24%	208	14%	71	10%	413	16%
No Prenatal Care	2	2.2%	1	0.3%	6	0.4%	2	0.3%	11	0.4%
Fewer Than 10 Visits	28	30.1%	62	16.4%	186	13.1%	75	10.5%	351	13.5%
BIRTH OUTCOMES										
Low Birthweight	3	3.2%	21	5.4%	77	5.3%	39	5.4%	140	5.3%
Very Low Birthweight	0	0.0%	3	0.8%	16	1.1%	6	0.8%	25	0.9%
Preterm	6	6.5%	26	6.8%	100	6.9%	52	7.3%	184	6.9%
Very Preterm	0	0.0%	4	1.0%	25	1.7%	11	1.5%	40	1.5%
DELIVERY METHOD										
Primary Cesarean	13	14%	49	13%	201	14%	125	17%	388	15%
Repeat Cesarean	1	1%	34	9%	186	13%	138	19%	359	14%
Vaginal	79	85%	289	75%	1,045	72%	440	61%	1,853	70%
VBAC	0	0%	15	4%	24	2%	16	2%	55	2%
PAYMENT FOR DELIVERY										
Medi-Cal	75	82%	313	81%	687	47%	279	39%	1,354	51%
Private Insurance	15	16%	71	18%	726	50%	413	58%	1,225	46%
Other Insurance	2	2.2%	1	0.3%	6	0.4%	2	0.3%	11	0.4%
No Insurance	0	0%	2	1%	34	2%	23	3%	59	2%
TOTAL	**93**	**4%**	**387**	**15%**	**1,456**	**55%**	**719**	**27%**	**2,655**	**100%**

Note: The sum of column categories does not always equal the overall column total, either because of missing information (percentages are out of known data) or because of the nature of the column, such as "Birth Outcomes," which does not detail the comprehensive list of mutually exclusive categories.

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%

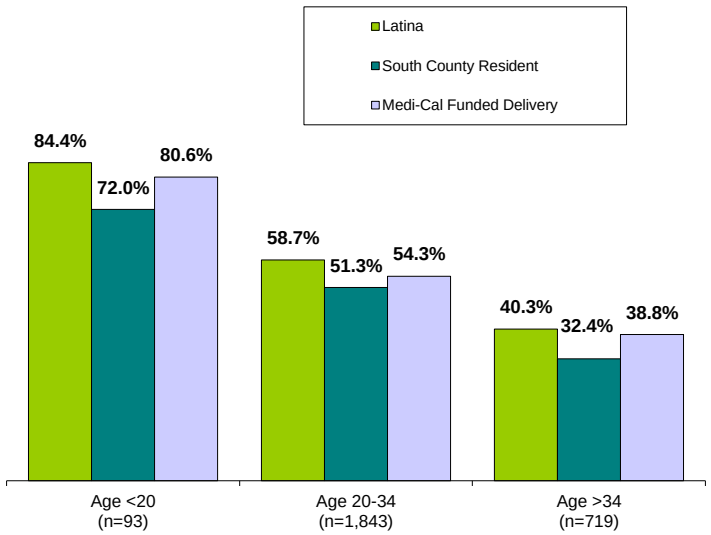
2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

AGE OF MOTHER

The selected demographics shown in Figure 2.1 all differ significantly by age group. The percentages of mothers who were Latinas, who were South County residents, and who had Medi-Cal-funded deliveries were all highest among mothers age 19 and under, and lowest among mothers age 35 and over. The demographics shown here were selected because of their well known associations with age.

The five-year age category with the largest number of births was ages 30-34 years. That age group also had the highest age-specific birth rate (the number of births per population in a specific age category), 95.6 births per 1,000 women (Table 2.2 and Figure 2.2). The numbers of births and the birth rates in the 30-34 and 35-39 age groups had been increasing, but in 2017 the rate dropped in the 30-34 age group. Teen birth rates have been dropping rapidly, and fell even faster in 2017. For more information on teen births, go to page 9.

Figure 2.1: Frequency of Selected Demographic Characteristics among Mothers of Different Age Groups, Santa Cruz County Residents, 2017



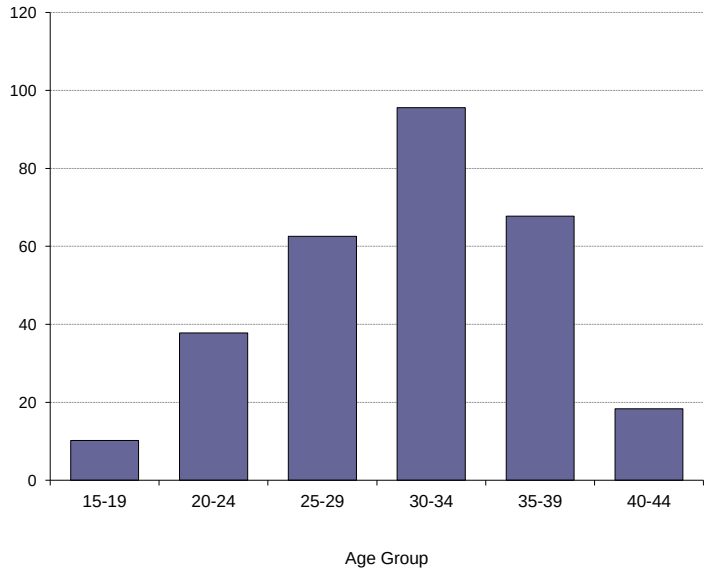
Note: Percentages are calculated from known data. In the <20, 20-34, and >34 age groups, respectively, ethnicity data was missing for 3, 39, and 18 mothers.

Table 2.2: Births by Mother's Age Group and Age-Specific Birth Rates per 1,000 Females, Santa Cruz County Residents, 2017

Mother's Age Group	Number of Births	Percent of Births	Total Female Population (per age group)	Birth Rate per 1,000 Women
10-14	0	0.0%	7,791	0.0
15-19	93	3.5%	9,130	10.2
20-24	387	14.6%	10,239	37.8
25-29	626	23.6%	10,000	62.6
30-34	830	31.3%	8,684	95.6
35-39	570	21.5%	8,416	67.7
40-44	143	5.4%	7,819	18.3
45-49	6	0.2%	8,502	0.7
TOTAL	**2,655**	**100%**	**54,288**	**48.9**

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.

Figure 2.2: Age-Specific Birth Rates (Births per 1,000 Females in Age Group), Santa Cruz County Residents, 2017



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, 39% are Latina and almost 50% are white. However, Latina mothers delivered nearly 54% of the babies in 2017, while white mothers delivered under 40% of the babies.

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 (67.0 per 1,000) than among whites (38.6 per 1,000).

Figure 2.3: Percentage of Births by Ethnicity of Mother (n=2,655), Santa Cruz County Residents, 2017

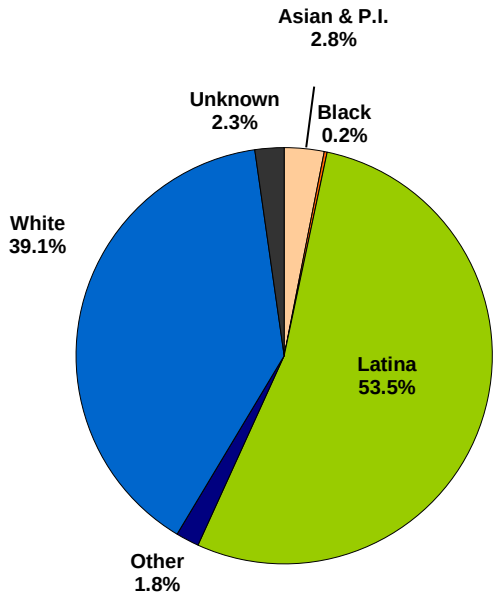
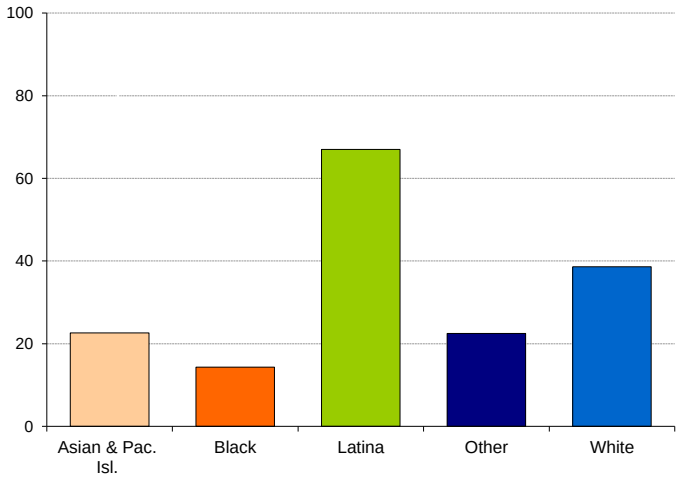


Table 2.3: Births and Fertility Rate, by Ethnicity of Mother, Santa Cruz County Residents, 2017

Ethnicity of Mother	Number of Births	Percent of Births	Total Female Population (Ages 15-44)	Fertility Rate per 1,000 Females (Ages 15-44)
Asian & Pac. Isl.	82	3.1%	3,629	22.6
Black	6	0.2%	419	14.3
Latina	1,420	53.5%	21,195	67.0
Other	48	1.8%	2,136	22.5
White	1,039	39.1%	26,909	38.6
Unknown	60	2.3%	--	--
TOTAL	**2,655**	**100%**	**54,288**	**48.9**

"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 2.4: Fertility Rate (Births per 1,000 Females Age 15-44) by Ethnicity of Mother, Santa Cruz County Residents, 2017



3. KEY HEALTH MEASURES

AGE OF MOTHER

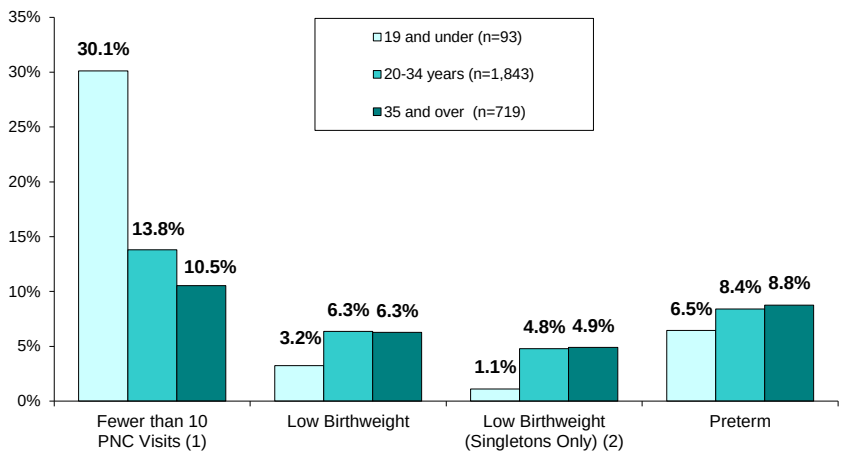
Mothers age 15-19 received much less prenatal care than their older counterparts, with 30% receiving fewer than 10 prenatal care visits (Figure 3.1).

Low birthweight data in Figures 3.1 to 3.4 is shown both for all births and for "singletons only" (excluding multiple births, such as twins), because multiple births have much higher rates of low birthweight. In 2017, there were 77 multiple births, including one set of triplets, and 44 of them (57%) were low birthweight.

Preterm birth is also known to be strongly associated with multiple births.

In most years, a high rate of multiple births among mothers over age 35 contributes to the high rates of premature birth and low birthweight in that age group. In 2017, the multiple birth rate disparity was not so pronounced, and neither were the low birthweight and prematurity rates (Figure 3.1).

Figure 3.1: Key Health Measures, by Age of Mother, Santa Cruz County Residents, 2017



(1) Births with missing data are excluded.
(2) Multiple births represented 2.2%, 2.7%, and 3.6% of births to mothers in the respective age groups <20, 20-34, & 35+.

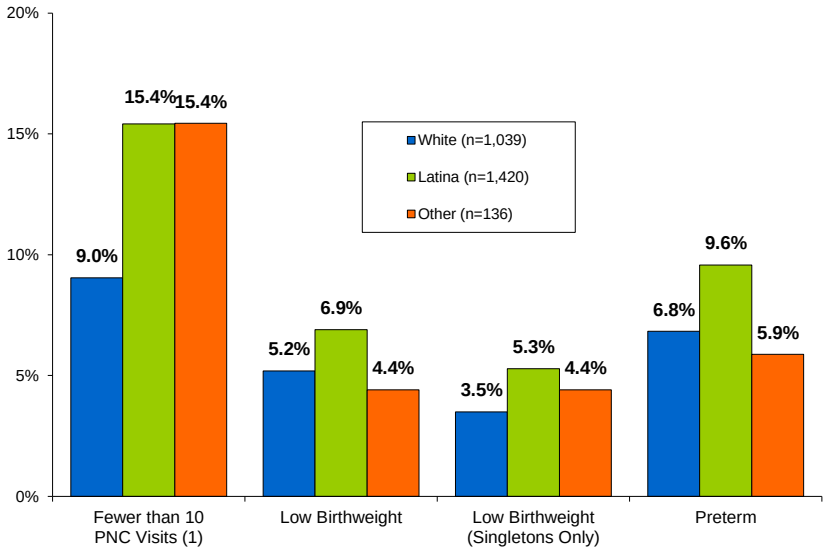
ETHNICITY OF MOTHER

Latina mothers received substantially fewer prenatal care visits than did white mothers (Figure 3.2); in 2017, the "other race-ethnicity" category, which had been intermediate between whites and Latinas in 2016, was equal to the Latina rate.

Low birthweight rates were lower among whites than among Latinas. The "other ethnicities" group is small, so rates vary considerably from year to year; that group had the highest rate of low birthweight in 2013 and 2016, but the lowest rate in 2014, 2015, and 2017.

Preterm birth rates were also lower among whites than among Latinas, and other ethnicities again showed considerable variability due to the small group size.

Figure 3.2: Key Health Measures, by Ethnicity of Mother, Santa Cruz County Residents, 2017



Ethnicity was unknown or withheld for 60 births; they have been excluded from the above calculations. "Other ethnicity" here includes Asian, Black, Native American, Pacific Islander, and those who identify as Other.

(1) Births with missing data are excluded.

(2) Multiple births represented 2.2%, 2.7%, and 3.6% of births to White, Latina and Other ethnicity mothers, respectively.

3. KEY HEALTH MEASURES

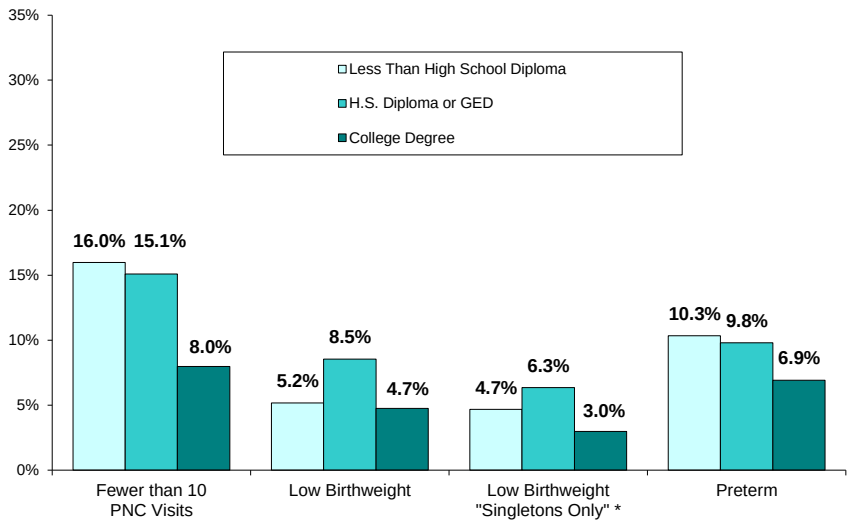
EDUCATION OF MOTHER

In 2017, 17% of new mothers ages 25 and older did not have a high school diploma or equivalent. Of those mothers, 16% received fewer than 10 prenatal care visits, compared to 15% among mothers with a high school diploma and 8% among those with a college degree (Figure 3.3).

In 2017, among mothers ages 25 and older, the percentage of low birthweight babies was highest among mothers with a diploma, and lowest among those with a college degree; this was true both for singleton babies and for all births combined. Rates of low birthweight among different educational groups have varied substantially over the last decade, and provide little evidence of any causal relationship between low birthweight and educational level.

Preterm birth rates among mothers 25 and older went down as educational level went up, continuing the pattern seen in other years.

Figure 3.3: Key Health Measures, by Education of Mother (Age 25 and Older), Santa Cruz County Residents, 2017



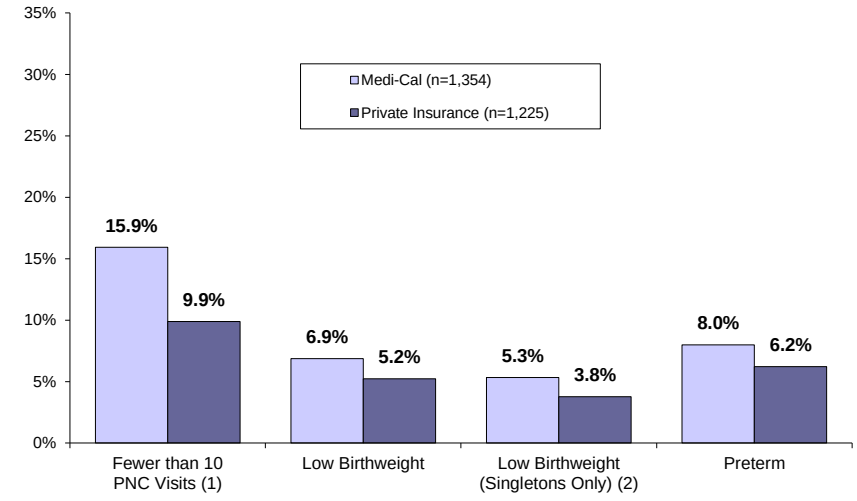
GED = General Equivalency Degree (or diploma)

* Multiple births represented 1.7%, 1.4%, and 3.2% of births to mothers age 25 and over with <H.S. Diploma, H.S./GED (including Some College), and Degree Obtained, respectively.

DELIVERY PAYMENT SOURCE

In 2017, Medi-Cal funded 51% of deliveries to county residents, and private insurance funded 46% of deliveries; the remainder were otherwise insured or not insured at all. Mothers with Medi-Cal-funded deliveries were almost three times as likely as mothers with privately insured deliveries to receive fewer than ten prenatal care visits (Figure 3.4).

Figure 3.4: Key Health Measures, by Delivery Payment Source, Santa Cruz County Residents, 2017



(1) Data on PNC visits was missing for 41 and 11 deliveries funded by Medi-Cal and private insurance, respectively.

(2) Among deliveries funded by Medi-Cal and private insurance, 3.1% and 2.8% respectively were multiple births.

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

TABLE 4.1: Characteristics of Teenage Mothers, by Age Group, Santa Cruz County Residents, 2017

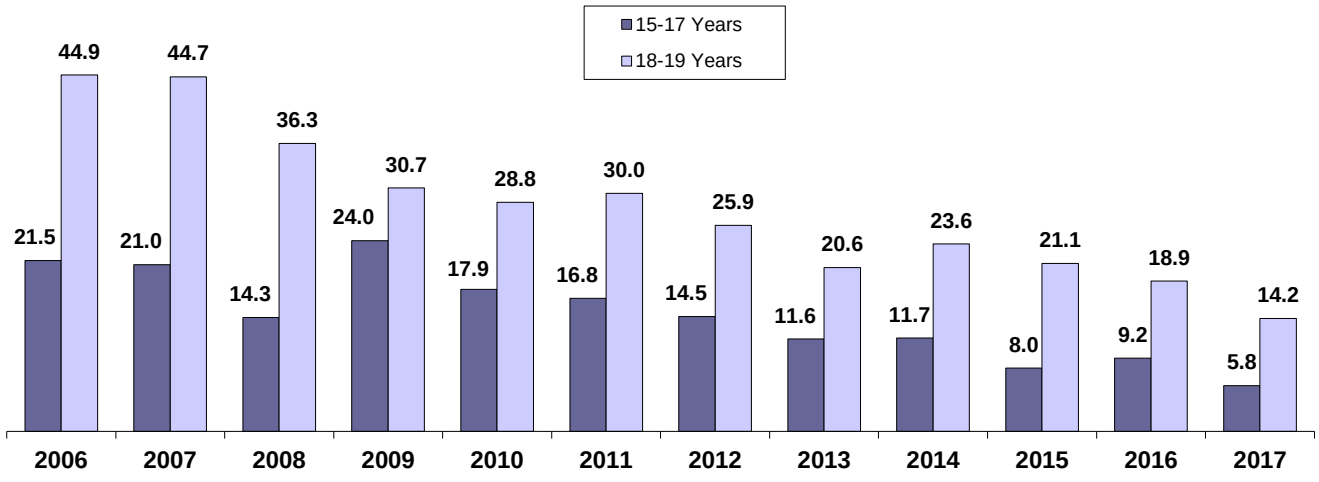
	AGE OF MOTHER (Years)						TOTAL	
	14 and Under		15-17		18-19		Number	Percent
	Number	Percent	Number	Percent	Number	Percent		
ETHNICITY								
Asian & Pacific Islander	0	0%	0	0%	1	2%	1	1%
Black	0	0%	0	0%	0	0%	0	0%
Latina	0	0%	22	92%	54	82%	76	84%
White	0	0%	2	8%	11	17%	13	14%
Other	0	0%	0	0%	0	0%	0	0%
AREA OF RESIDENCE								
Mid-County	0	0%	1	4%	4	6%	5	5%
Santa Cruz Mountains	0	0%	0	0%	3	4%	3	3%
Santa Cruz	0	0%	2	8%	12	18%	14	15%
Scotts Valley	0	0%	0	0%	4	6%	4	4%
South County	0	0%	22	88%	45	66%	67	72%
PARITY								
1st Child	0	0%	23	92%	56	82%	79	85%
2nd Child	0	0%	2	8%	11	16%	13	14%
3rd+ Child	0	0%	0	0%	1	1%	1	1%
PRENATAL CARE INITIATION AND UTILIZATION								
Early (1st Trimester)	0	0%	10	40%	39	57%	49	53%
Late (2nd or 3rd Trimester)	0	0%	15	60%	27	40%	42	45%
No Prenatal Care	0	0%	0	0%	2	3%	2	2%
Fewer than 10 Visits	0	0%	9	38%	19	29%	28	31%
BIRTH OUTCOMES								
Low Birthweight	0	0%	2	8.0%	1	1.5%	3	3.2%
Very Low Birthweight	0	0%	0	0.0%	0	0.0%	0	0.0%
Preterm	0	0%	4	16.0%	2	2.9%	6	6.5%
Very Preterm	0	0%	0	0%	0	0.0%	0	0.0%
METHOD OF DELIVERY								
Primary Cesarean	0	0%	5	20%	8	12%	13	14%
Repeat Cesarean	0	0%	0	0%	1	1%	1	1%
Vaginal	0	0%	20	80%	59	87%	79	85%
VBAC	0	0%	0	0%	0	0%	0	0%
PAYMENT FOR DELIVERY								
Medi-Cal	0	0%	20	80%	55	82%	75	82%
Private Insurance	0	0%	3	12%	12	18%	15	16%
Other Insurance	0	0%	2	8%	0	0%	2	2%
No Insurance	0	0%	0	0%	0	0%	0	0%
TOTAL	**0**	**0%**	**25**	**27%**	**68**	**73%**	**93**	**100%**

Note: The sum of column categories does not always equal the overall column total, either because of missing information (percentages are out of known data) or because of the nature of the column, such as "Birth Outcomes," which does not detail the comprehensive list of mutually exclusive categories.

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

The birth rate among Santa Cruz County teens has dropped very rapidly in recent years (Figure 4.1), in line with a continuing statewide and nationwide trend of decreasing teen birth rates. In 2017, Santa Cruz's rate improved even faster than the state and the nation; the birth rate among county women aged 15-19 was 10.2 births per 1000 women, less than one third the rate just ten years earlier. The drop in the 15-17 age group was even more dramatic. However, the Latina teen birth rate was 18.6 per 1000, compared to just 3.4 per 1000 among white teens.

Figure 4.1: Age-Specific Teen Birth Rates per 1,000 Females, by Age Group, Santa Cruz County Residents, 2006-2017



Rates may differ from previous editions of the report because the population data has been updated to reflect current and revised California Department of Finance population estimates and projections. For years 2003 to 2009, "Race/Ethnic Population with Age and Sex Detail, 2000-2010 (Sept. 2012)" was used. For years 2010 to 2017, we used "State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento, California, December 2014."

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 2017, residents in ZIP Codes 95076-7 accounted for 67% of all teen births, but only 43% of all births. (But that disparity has been shrinking in recent years.) One notable limitation of this table is that it does not adjust for the differing age distributions within the female populations in different ZIP Codes.

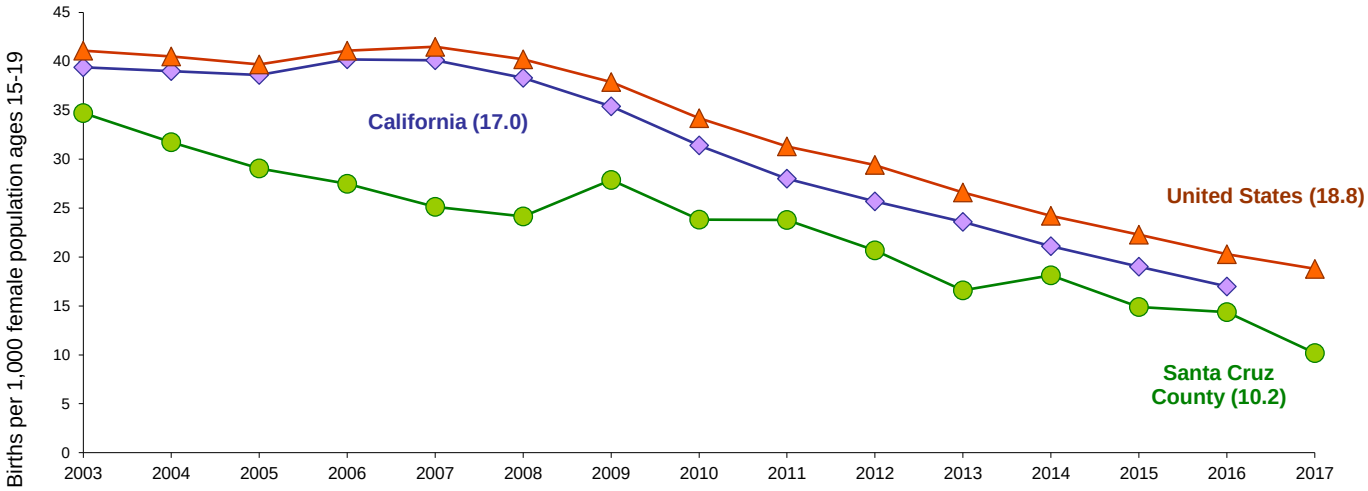
TABLE 4.2: Teen Births and Overall Births, by Area of Residence, Santa Cruz County Residents, 2017

Mother's Area of Residence	ZIP Code(s)	Teen Births (19 and Under)		Total Births (All Ages)		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	95001,3	1	1%	160	6%	0.6%
Capitola	95010	2	2%	72	3%	2.8%
Davenport	95017	0	0%	3	0%	0.0%
Freedom	95019	5	5%	125	5%	4.0%
Los Gatos	95033	1	1%	34	1%	2.9%
San Lorenzo Valley	95005-7,18,41	2	2%	216	8%	0.9%
Santa Cruz	95060-5	14	15%	705	27%	2.0%
Scotts Valley	95066	4	4%	128	5%	3.1%
Soquel	95073	2	2%	81	3%	2.5%
Watsonville	95076,7	62	67%	1,131	43%	5.5%
TOTAL		**93**	**100%**	**2,655**	**100%**	**3.5%**

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

The percentage of total Santa Cruz County births that were births to teens dropped to yet another a new low of 3.5% in 2017. The rate of births per 1,000 teen females (age 15-19 years) has been declining locally, statewide, and nationwide for over 20 years; in 2017, Santa Cruz County's rate dropped almost 30%, to another new low of 10.2 per 1,000 population. The national rate also reached a new low, 18.8 per thousand, but remains about 2-6 times higher than rates in most developed countries.

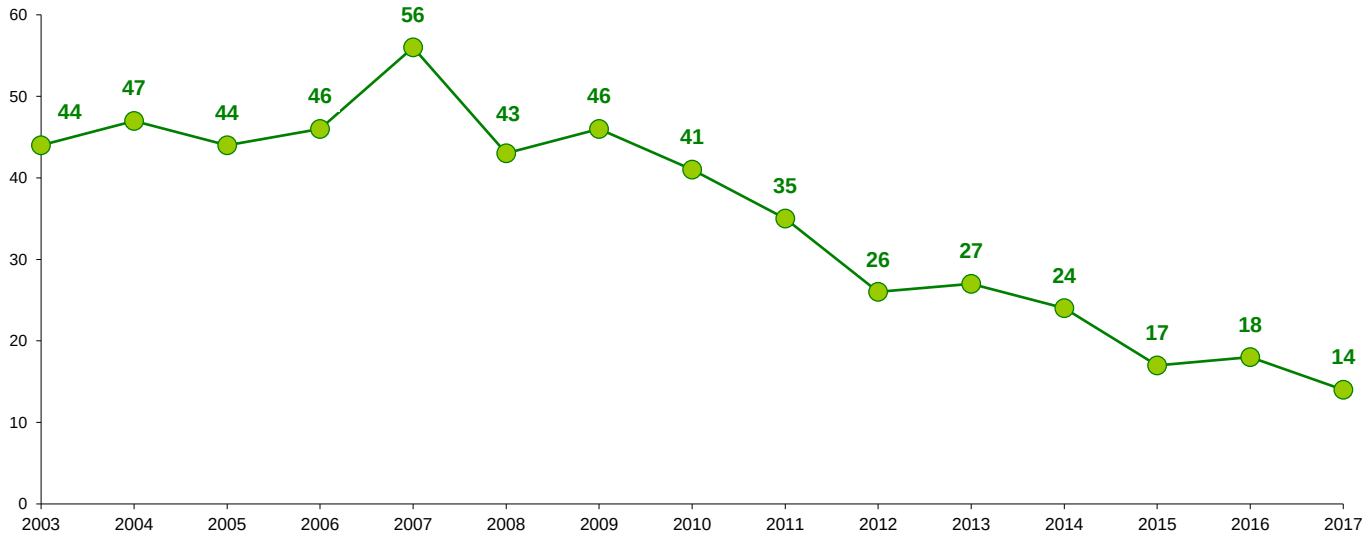
Figure 4.2: Teen Birth Rate per 1,000 Female Population (Ages 15 to 19) — United States, California, and Santa Cruz County Residents, 2003-2017



Rates differ from previous editions of the report because the population data has been updated to reflect current and revised California Department of Finance Population Estimates and Projections. For years 2003 to 2009, we used "Race/Ethnic Population with Age and Sex Detail, 2000-2010 (Sept. 2012)." For years 2010 to 2017, we used "State of California, Department of Finance, Report P-3: State and County Population Projections by

Figure 4.3 shows the number of teen mothers who delivered their second (or more) birth. In 2017, just one teenage mother delivered her third child, and none her fourth. In 2016 (the most recent data available), the repeat teen birth rate was 16.7% in the U.S., compared to 13.6% in Santa Cruz County.

Figure 4.3: Number of Teens (Ages 15-19) Delivering their 2nd or More Birth, Santa Cruz County Residents, 2003-2017



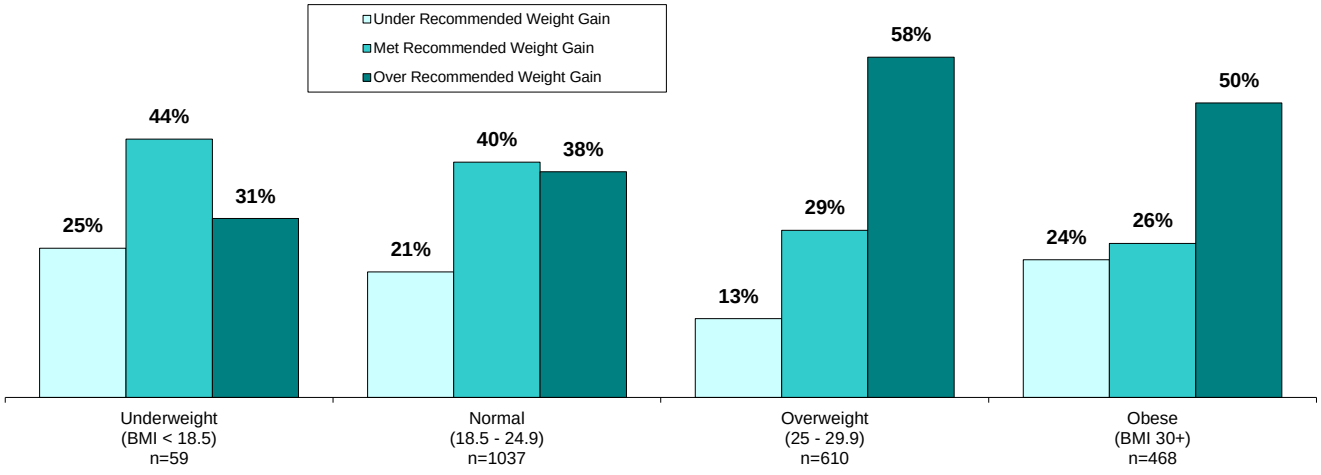
5. MOTHER'S WEIGHT GAIN & SMOKING STATUS

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:

Pre-pregnancy Weight & BMI (kg/m^2)		Weight Gain for Singletons	Weight Gain for Twins
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 2017, 44% 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. Mothers whose pre-pregnancy body mass index (BMI) was categorized as overweight or obese exceeded the weight gain recommendation significantly more often than mothers with normal or underweight BMI levels. In 2017, almost half (49.6%) of all mothers began pregnancy overweight or obese.

Figure 5.1: Percentage of Mothers to Singletons in Actual Weight Gain Categories Compared to Recommendations, by Pre-Pregnancy Body Mass Index (BMI), Santa Cruz County Residents, 2017



Note: The data above exclude preterm births (< 37 weeks gestation) and mothers with either unknown pre-pregnancy weight or unknown weight gain.

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 smoked before, and possibly during, pregnancy.

TABLE 5.1: Mother's Smoking Status during Pregnancy, by Trimester, Santa Cruz County Residents, 2017

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	41	1.6%	32	1.2%	24	0.9%	22	0.8%
No	2,591	98.4%	2,603	98.8%	2,611	99.1%	2,613	99.2%
TOTAL	**2,632**	**100%**	**2,635**	**100%**	**2,635**	**100%**	**2,635**	**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, 2017

	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	3	43%	5	21%	5	2%	2	0%	0	0%	15	1%
18 - 19	4	57%	9	38%	29	11%	9	1%	1	0%	52	2%
20 - 24	0	0%	9	38%	163	63%	170	14%	12	1%	354	14%
25 - 34	0	0%	1	4%	56	22%	935	75%	421	42%	1,413	56%
35 and Over	0	0%	0	0%	5	2%	124	10%	562	56%	691	27%
ETHNICITY OF FATHER												
Asian & Pacific Islander	0	0%	0	0%	1	0%	19	2%	34	3%	54	2%
Black	1	14%	0	0%	5	2%	11	1%	19	2%	36	1%
Latino	5	71%	20	83%	221	86%	716	58%	362	36%	1,324	52%
White	1	14%	3	13%	24	9%	451	36%	522	52%	1,001	40%
Other	0	0%	0	0%	3	1%	20	2%	20	2%	43	2%
Unknown	0	0%	1	4%	4	2%	23	2%	39	4%	67	3%
EDUCATION OF FATHER												
8th Grade & Under	0	0%	2	8%	34	13%	155	13%	104	10%	295	12%
Some High School	4	57%	4	17%	41	16%	108	9%	67	7%	224	9%
HS Diploma or GED(1)	3	43%	16	67%	156	60%	564	45%	305	31%	1,044	41%
Degree Obtained	0	0%	0	0%	12	5%	365	29%	462	46%	839	33%
Withheld or Unknown	0	0%	2	8%	15	6%	48	4%	58	6%	123	5%
TOTAL	**7**	**0%**	**24**	**1%**	**258**	**10%**	**1,240**	**49%**	**996**	**39%**	**2,525**	**100%**

Note: Fathers without age information (130, or 5.3% of the total) are not included in this table.

(1) GED = General Equivalency Degree (or diploma); includes those with some college

7. BIRTHS BY DELIVERY LOCATION

TABLE 7.1: Characteristics of Births, by Delivery Location, Santa Cruz County Occurrence or Residence, 2017

	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)												
17 and Under	6	1%	2	0%	26	3%	0	0%	2	1%	36	1%
18 - 19	24	3%	20	2%	37	4%	0	0%	6	2%	87	3%
20 - 24	117	15%	98	10%	260	26%	2	3%	20	8%	497	16%
25 - 34	430	53%	593	59%	483	49%	38	58%	151	57%	1,695	54%
35 and Over	229	28%	294	29%	180	18%	26	39%	85	32%	814	26%
ETHNICITY OF MOTHER												
Asian & Pacific Islander	25	3%	36	4%	10	1%	1	2%	18	8%	90	3%
Black	1	0%	5	0%	1	0%	0	0%	1	0%	8	0%
Latina	393	50%	349	35%	943	96%	8	13%	82	37%	1,775	58%
White	353	45%	588	59%	28	3%	49	80%	115	52%	1,133	37%
Other	20	3%	25	2%	4	0%	3	5%	6	3%	58	2%
EDUCATION OF MOTHER												
8th Grade & Under	21	3%	10	1%	348	35%	0	0%	9	4%	388	13%
Some High School	44	6%	20	2%	213	22%	0	0%	8	4%	285	10%
HS Diploma or GED (1)	357	47%	383	39%	357	36%	14	24%	67	31%	1,178	39%
Degree Obtained	330	44%	573	58%	68	7%	45	76%	133	61%	1,149	38%
PRENATAL CARE INITIATION AND UTILIZATION												
Early (1st Trimester)	710	89%	903	93%	657	67%	53	80%	224	86%	2,547	83%
Late (2nd or 3rd Trimester)	84	11%	73	7%	323	33%	10	15%	36	14%	526	17%
No Prenatal Care	6	1%	0	0%	2	0%	3	5%	1	0%	12	0%
Fewer Than 10 Visits	97	12%	41	4%	178	18%	15	23%	78	30%	409	13%
BIRTH OUTCOMES (2)												
Low Birthweight	92	11.4%	10	1.0%	36	3.7%	2	3%	47	17.8%	187	6.0%
Very Low Birthweight	8	1.0%	0	0.0%	1	0.1%	1	2%	18	6.8%	28	0.9%
Preterm	124	15.4%	13	1.3%	60	6.1%	3	4.5%	53	20.1%	253	8.1%
Very Preterm	14	1.7%	2	0.2%	2	0.2%	3	4.5%	23	8.7%	44	1.4%
DELIVERY METHOD												
Primary Cesarean	133	17%	129	13%	126	13%	0	0%	66	25%	454	15%
Repeat Cesarean	113	14%	92	9%	199	20%	0	0%	26	10%	430	14%
Vaginal	548	68%	760	75%	634	64%	63	95%	167	63%	2,172	69%
VBAC	12	1%	26	3%	27	3%	3	5%	5	2%	73	2%
PAYMENT FOR DELIVERY												
Medi-Cal	361	45%	364	36%	899	91%	3	5%	48	18%	1,675	54%
Private Insurance	441	55%	641	64%	83	8%	7	11%	203	77%	1,375	44%
Other Insurance	0	0%	0	0%	1	0%	0	0%	11	4%	12	0%
No Insurance	3	0%	0	0%	3	0%	53	84%	2	1%	61	2%
TOTAL	**806**	**26%**	**1,007**	**32%**	**986**	**32%**	**66**	**2%**	**264**	**8%**	**3,129**	**100%**

Note: Mothers with missing data are omitted and are not included in calculations of percentages.
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. All ages have been included in Table 7.1 to describe the entire patient population by delivery location.
Low Birthweight includes Very Low Birthweight. Preterm includes Very Preterm.
(1) GED = General Equivalency Degree (or diploma); includes "some college." (2) Outcomes are among all births and do not exclude multiple births.

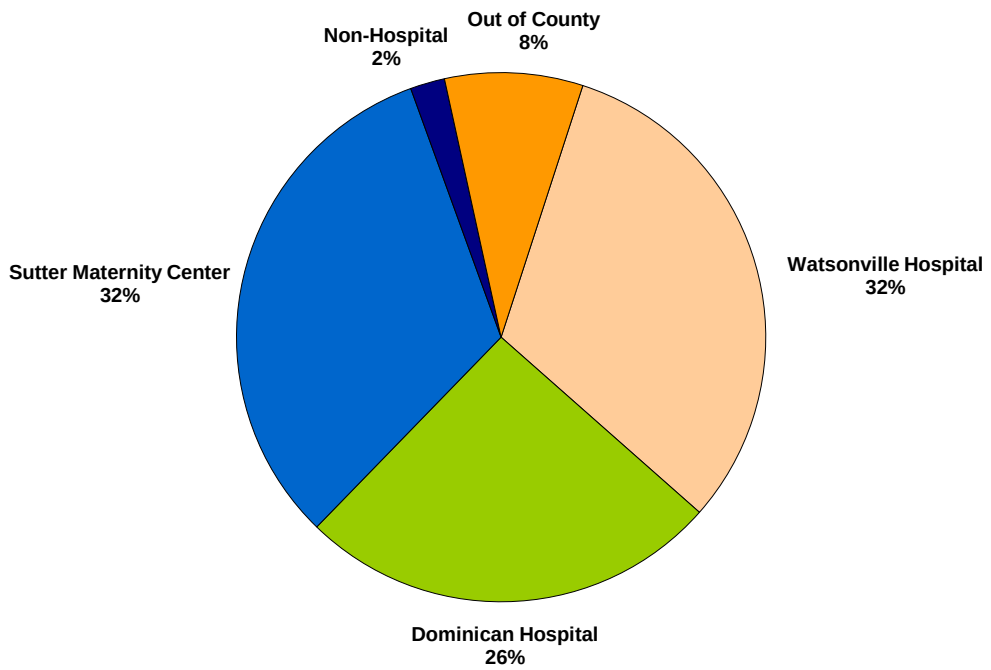
7. BIRTHS BY DELIVERY LOCATION

This table provides more details about where Santa Cruz County residents and non-residents deliver. Most non-residents who deliver in Santa Cruz County are residents of Monterey County (83%), and the majority of non-resident births are delivered at Watsonville Community Hospital (57%).

TABLE 7.2: Mother's Area of Residence, by Delivery Location, Santa Cruz County Occurrence or Residence, 2017

	DELIVERY LOCATION										TOTAL	
	Dominican		Sutter		Watsonville		Non-Hospital		Out of County		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
AREA OF RESIDENCE												
SANTA CRUZ COUNTY	737	91%	876	87%	714	72%	65	98%	263	100%	2,655	85%
Mid-County	119	16%	159	18%	11	2%	8	12%	26	10%	323	12%
Santa Cruz Mountains	75	10%	77	9%	1	0%	14	22%	83	32%	250	9%
Santa Cruz	265	36%	351	40%	12	2%	31	48%	49	19%	708	27%
Scotts Valley	37	5%	61	7%	0	0%	5	8%	25	10%	128	5%
South County	241	33%	228	26%	690	97%	7	11%	80	30%	1,246	47%
MONTEREY COUNTY	48	6.0%	84	8.3%	262	26.6%	0	-	1	-	395	12.6%
SAN BENITO COUNTY	8	1.0%	16	1.6%	3	0.3%	0	-	0	-	27	0.9%
SANTA CLARA COUNTY	6	0.7%	15	1.5%	1	0.1%	0	-	0	-	22	0.7%
OTHER COUNTIES	7	0.9%	16	1.6%	6	0.6%	1	-	0	-	30	1.0%
TOTAL	**806**	**26%**	**1,007**	**32%**	**986**	**32%**	**66**	**2%**	**264**	**8%**	**3,129**	**100%**

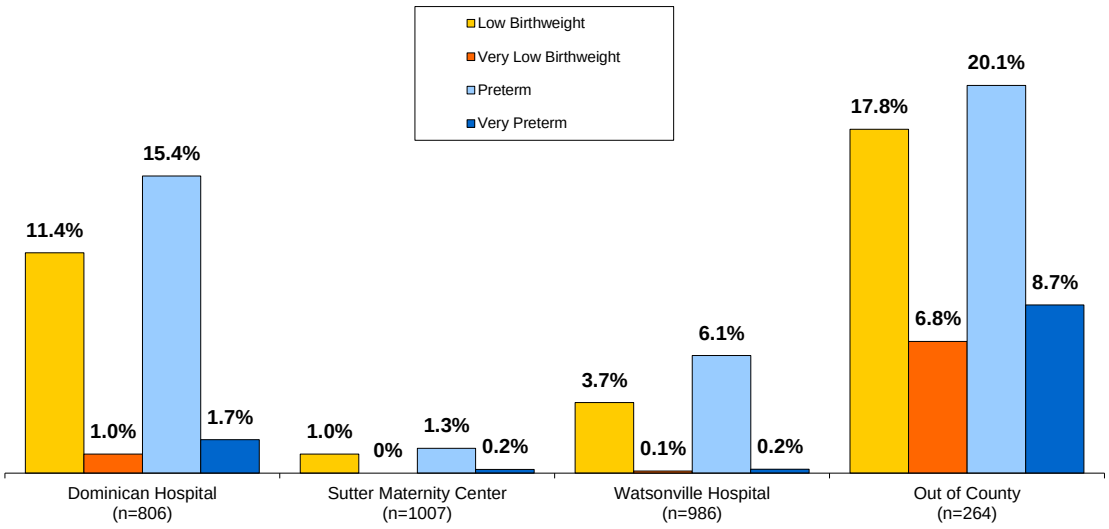
Figure 7.1: Percentage of Births, by Delivery Location, Santa Cruz County Occurrence or Residence, 2017



7. BIRTHS BY DELIVERY LOCATION

The medical capability to handle high-risk births varies by hospital. In Santa Cruz County, Dominican Hospital has the only Level 3 Neonatal Intensive Care Unit. When a high-risk birth is anticipated, the mother is likely to go either to Dominican or out of the county. This is reflected in the birth outcomes data show in Figure 7.2.

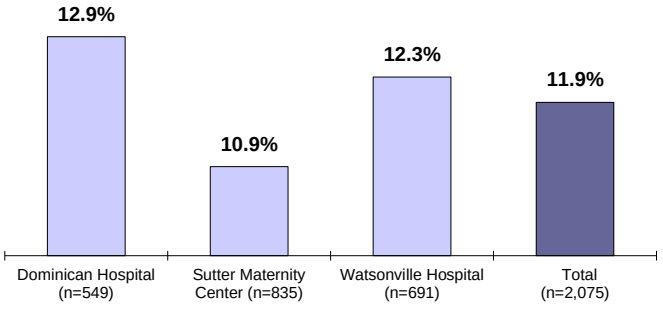
Figure 7.2: Percentages of Births with Low Birthweight, Very Low Birthweight, Preterm Delivery, or Very Preterm Delivery, by Delivery Location, Santa Cruz County Occurrence or Residence, 2017



CESAREAN BIRTHS

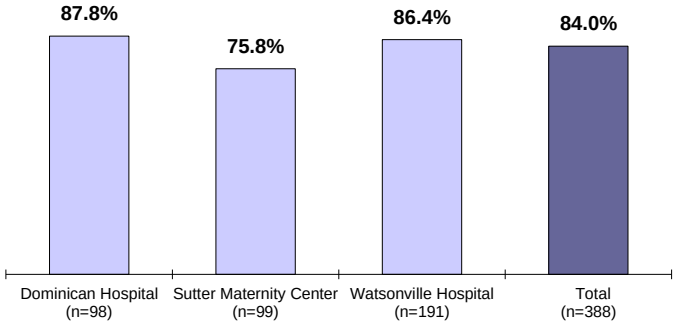
Below are figures on the percentage of cesarean births among low-risk births to females either *without* a prior cesarean birth (Figure 7.3) or *with* a prior cesarean birth (Figure 7.4); low-risk births are defined in the figure notes. Santa Cruz County facilities all easily meet the HP2020 target for first-time cesareans (23.9%), but Watsonville and Dominican Hospitals exceed the target for repeat cesareans (81.7%). In 2017, Santa Cruz County hospitals showed some improvement in primary cesarean rates, but were substantially worse for women with previous a C-section. (The numbers here are different from the numbers on page 14 because these numbers are for low-risk births only.)

Figure 7.3: Percentage of Births Delivered by Cesarean Section to Low-Risk* Females <u>without</u> a Prior Cesarean Birth, by Delivery Location, Santa Cruz County Occurrence 2017



* Low-risk is defined as full-term (at least 37 weeks gestation), cephalic presentation, singleton births. The total is the average of the three delivery locations. Residents who delivered out of county or at home are not included in this figure. HP2020 Target: Reduce to 23.9% (Objective MICH-7.1).

Figure 7.4: Percentage of Births Delivered by Cesarean Section to Low-Risk* Females <u>with</u> a Prior Cesarean Birth, by Delivery Location, Santa Cruz County Occurrence, 2017



* Low-risk is defined as full-term (at least 37 weeks gestation), cephalic presentation, singleton births. The total is the average of the three delivery locations. Residents who delivered out of county or at home are not included in this figure. HP2020 Target: Reduce to 81.7% (Objective MICH-7.2).

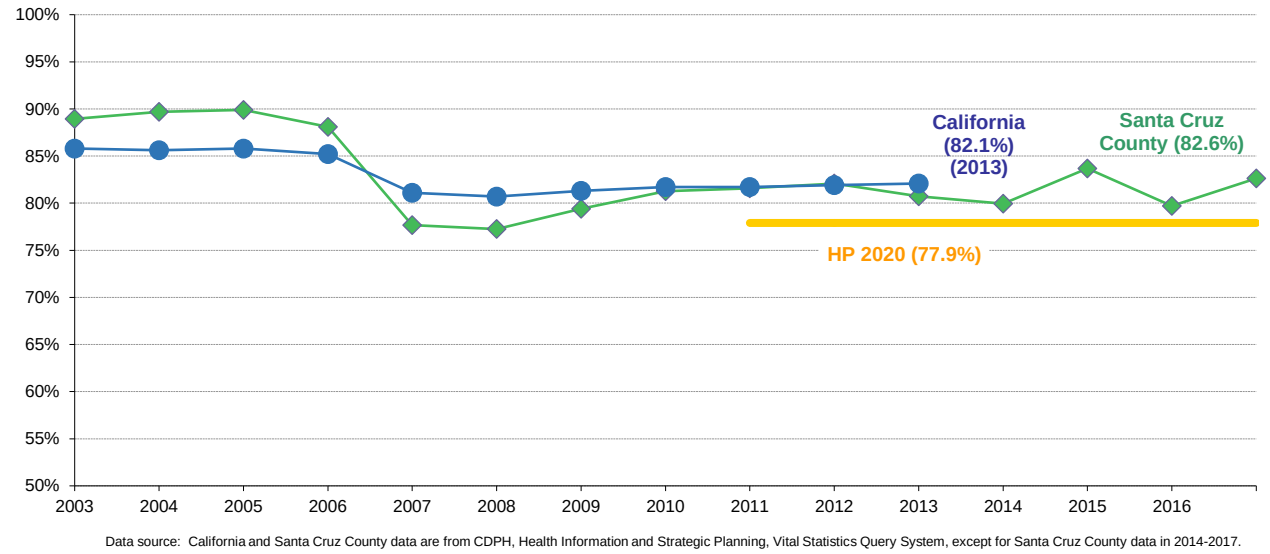
8. TRENDS

EARLY PRENATAL CARE

The percentage of mothers who received early prenatal care (1st trimester) was 82.6% in 2017, the second best rate since 2006 (Figure 8.1). The Healthy People objective was lowered from 90% in 2010 to 77.9% for 2020; Santa Cruz County has met that objective for the last nine years. (The State has not published data since 2013.)

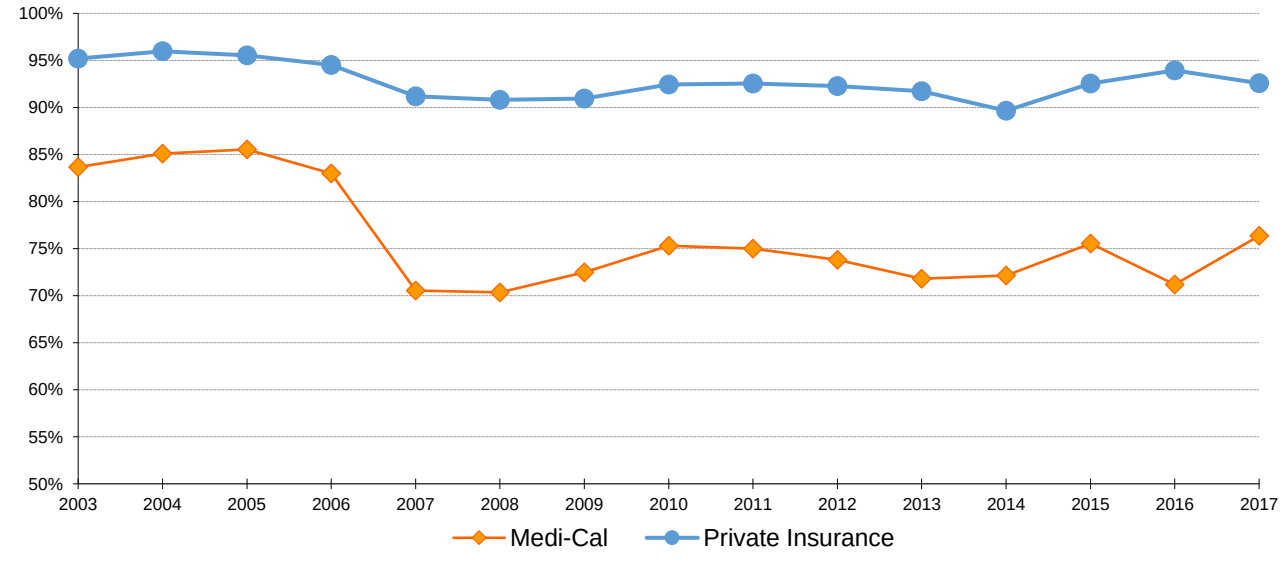
Figure 8.2 compares early prenatal care for deliveries paid by Medi-Cal versus those paid by private insurance. The disparity is large and fairly constant, but the rate for Medi-Cal deliveries was the best since 2006. Medi-Cal patients represented most of the decline that occurred in 2007, when Medi-Cal replaced the in-person application process with a call center and began requiring a birth certificate for mothers who were not born in California.

Figure 8.1: Percentage of Births Receiving Early Prenatal Care (1st Trimester) — Healthy People 2020 Objective (HP 2020), California 2003-2013, and Santa Cruz County Residents 2003-2017



Data source: California and Santa Cruz County data are from CDPH, Health Information and Strategic Planning, Vital Statistics Query System, except for Santa Cruz County data in 2014-2017.

Figure 8.2: Percentage of Births Receiving Early Prenatal Care (1st Trimester), by Delivery Payment Source, Santa Cruz County Residents, by Payor, 2003-2017

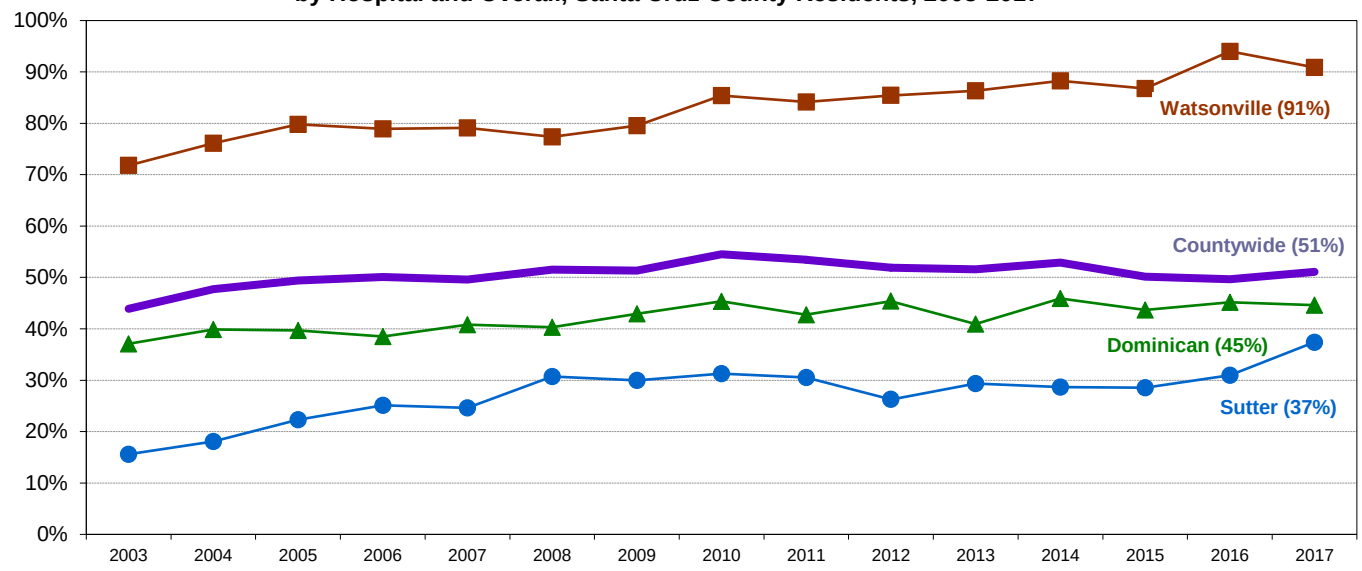


8. TRENDS

MEDI-CAL FUNDED DELIVERIES

Figure 8.3 shows the trend in the percentage of deliveries funded by Medi-Cal at each facility. In 2017, 51.1% of Santa Cruz County residents' deliveries were funded by Medi-Cal, in line with recent years.

Figure 8.3: Percentage of Medi-Cal Funded Deliveries, by Hospital and Overall, Santa Cruz County Residents, 2003-2017



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 where the mother had had no prior cesarean. (Low-risk births are defined as full-term singleton births where the baby presents in vertex position.) Cesarean rates overall have increased substantially in the last two decades (from about one in 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. They also increase future risk;

Figure 8.4: Percentage of Low-risk Pregnancies Ending in Cesarean, Among Women Without a Prior Cesarean, by Hospital and Overall, Santa Cruz County Residents, 2011-2017