

**Public Health**  
Prevent. Promote. Protect.

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# INTRODUCTION

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This report provides data on live births delivered in 2013. The report was created by the Office of Vital Records and the Maternal, Child, and Adolescent Health Unit, two programs in the Public Health Division of the Santa Cruz County Health Services Agency.

## ***In Summary:***

- In 2013, there were 2,866 live births to mothers who reside in Santa Cruz County, which is 210 (6.8%) fewer births than in 2012.
- The General Fertility Rate in 2013 was 51.1 births per 1,000 females of typical childbearing age (15-44 years) among Santa Cruz County residents, compared to 54.8 in 2012. In 2012, the U.S. rate was 63.0 per 1,000 women – the lowest ever reported for the United States (CDC, *Births: Final data for 2012*).
- An additional 484 births were delivered in Santa Cruz County to mothers who are residents of other counties, primarily Monterey County (81%).

## **TEEN BIRTHS (19 and Under)**

- In 2013, 92% of births to teens were to Latina teens, and 78% of all teen mothers lived in South Santa Cruz County (see definition on page 2).
- Births to teens as a percentage of all births decreased from 7.3% in 2012 to 6.3% in 2013, and the number of teen births fell substantially again (179 births, compared to 224 in 2012 and 256 in 2011).
- In 2013 there was 1 birth to a 14-year-old female, compared to 4 in 2011 and 2 in 2012; there were no births to 13-year-old females in 2012 or 2013, compared to 1 birth to a 13-year-old in 2011.
- Among teen births, 15% of mothers were delivering their second (or more) birth in 2013, compared to 12% in 2012.

## **MEDI-CAL**

- 52% of all deliveries to residents were funded by Medi-Cal in 2013, essentially the same as in 2011 and 2012.

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## ***For copies of the report:***

Refer to our website, [www.SantaCruzHealth.org](http://www.SantaCruzHealth.org), and go to the "Reports and Statistics" link.

## ***Suggested Citation:***

Santa Cruz County Health Services Agency, Public Health Division. *Births, Santa Cruz County, 2013*. Santa Cruz County, CA. October 2014.

# 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, Seascapes, 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	Corralitos, Freedom, 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	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)
Adequacy of Prenatal Care Utilization (Kotelchuck Index)	This measure is a ratio of actual prenatal visits compared to the number of visits recommended by the American College of Obstetricians and Gynecologists (i.e., one visit per month through 28 weeks, one visit every 2 weeks through 36 weeks, and one visit per week thereafter, adjusted for date of initiation of prenatal care); "Adequate or Better" is defined as attending 80% or more of recommended prenatal care visits, and "Less than Adequate" is a score of less than 80% of recommended visits. The Kotelchuck Index was defined by Milton Kotelchuck in 1994 in an attempt to measure appropriate utilization of prenatal care.

## 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 remaining rates become increasingly unreliable.

## 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 maintained, and should be considered provisional until they have gone through data cleaning by the State, which often takes two years to complete. The 2013 data were accessed on September 22, 2014.

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 July 21, 2014 (<http://www.dof.ca.gov/research/demographic/reports/projections/P-3/>).

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 estimated the total population in Santa Cruz County to be 268,861 in 2013 (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.

## GENDER

Nearly equal numbers of males and females reside in Santa Cruz County, with slightly more females than males.

## AGE & ETHNICITY

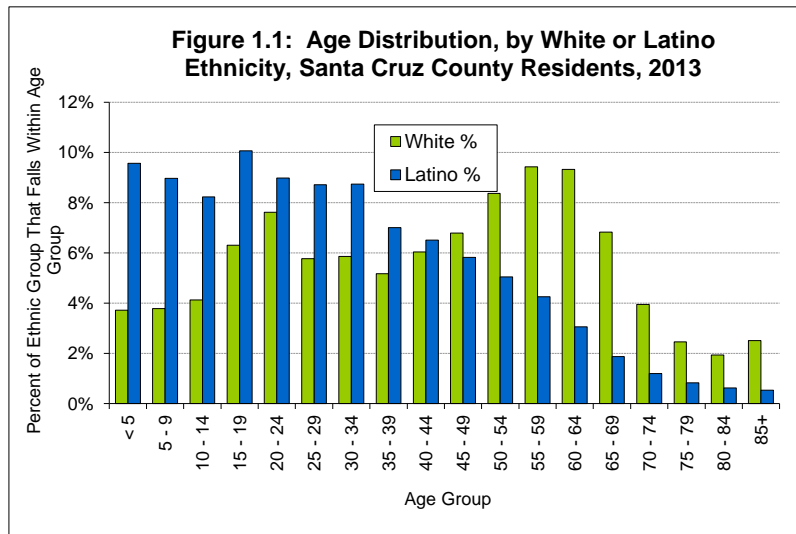
Over 90% of the county's population is either White (57.5%) or Latino (33.9%). The remaining groups (Asians and Pacific Islanders, Blacks, American Indians, and multiple ethnicities) account for much smaller fractions of the population (Table 1.1).

In Santa Cruz County, the Latino population is much younger than the White population (Figure 1.1). For example, in 2013, 70% of the Latino population was under age 40, compared to just 42% of the White population.

**Table 1.1: Demographics, Santa Cruz County Residents, 2013**

	Number	Percent
<b>GENDER</b>		
Female	134,672	50.1%
Male	134,189	49.9%
<b>AGE (Years)</b>		
4 and Under	15,711	5.8%
5 – 19	52,090	19.4%
20 - 44	92,887	34.5%
45 - 64	74,258	27.6%
65 and Over	33,915	12.6%
<b>ETHNICITY</b>		
American Indian	970	0.4%
Asian / Pacific Islander	12,410	4.6%
Black	2,481	0.9%
Latino	91,087	33.9%
White	154,555	57.5%
Multiple Races/Ethnicities	7,359	2.7%
<b>TOTAL</b>	<b>268,861</b>	<b>100%</b>

**Figure 1.1: Age Distribution, by White or Latino Ethnicity, Santa Cruz County Residents, 2013**



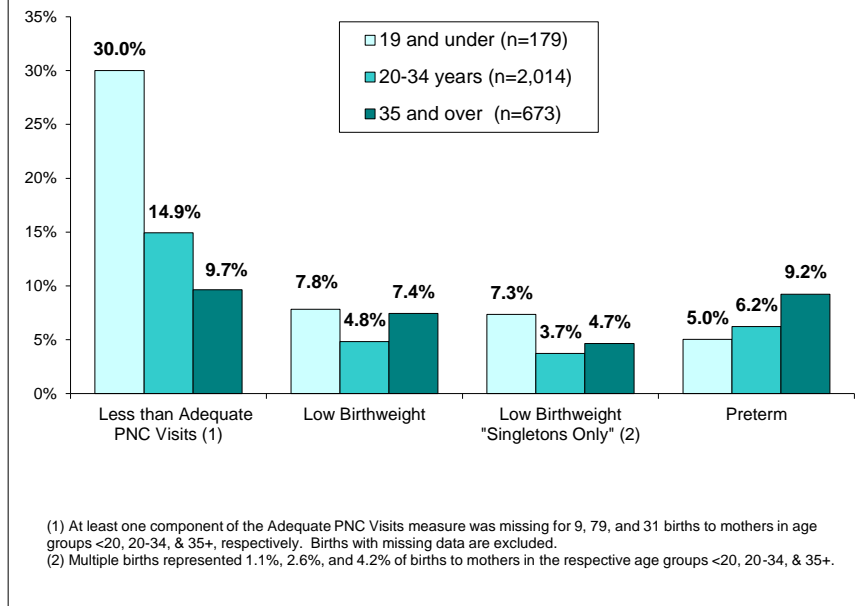
## 2. KEY HEALTH MEASURES

### AGE OF MOTHER

In 2013, younger mothers were significantly more likely to under-utilize prenatal care than their older counterparts (Figure 2.1). Teenage mothers (age 19 and under) had the highest proportion of mothers with less-than-adequate utilization of prenatal care, with 30% receiving a less than adequate number of prenatal care visits.

Low birthweight data is shown both for all births and for "singletons only" (excluding multiple births, such as twins), because multiple births are known to have much higher rates of low birthweight. In 2013, there were 83 multiple births (one twin fetus was registered as a fetal death), and 44 of them, or 53%, were low birthweight. A high rate of multiple births among mothers over age 35 explains the high overall rate of low birthweight in that group.

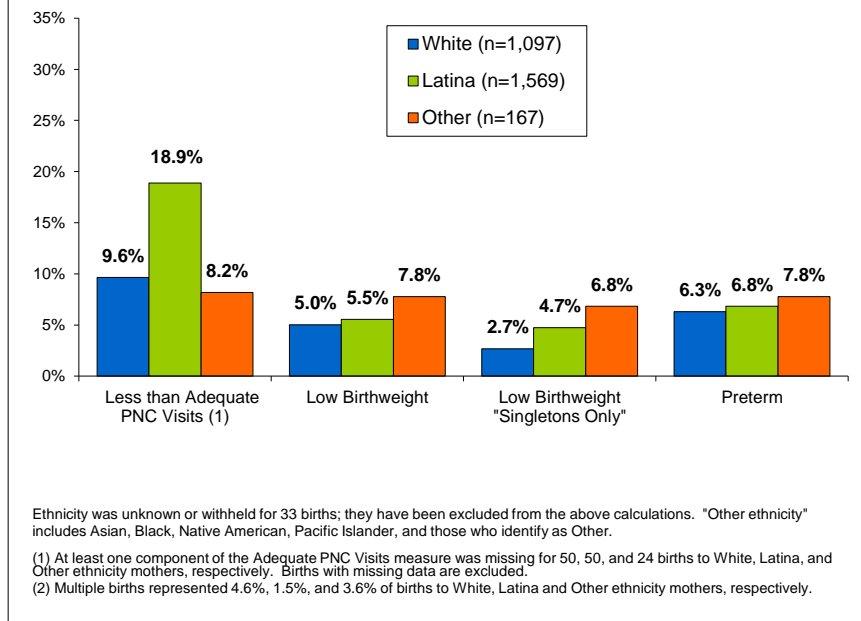
**Figure 2.1: Key Health Measures, by Age of Mother, Santa Cruz County Residents, 2013**



### ETHNICITY OF MOTHER

Latina mothers had significantly higher rates of less-than-adequate prenatal care than did White mothers and mothers of other ethnicity (Figure 2.2). Rates of low birthweight and premature delivery were lowest among Whites and highest among mothers of other ethnicity.

**Figure 2.2: Key Health Measures, by Ethnicity of Mother, Santa Cruz County Residents, 2013**



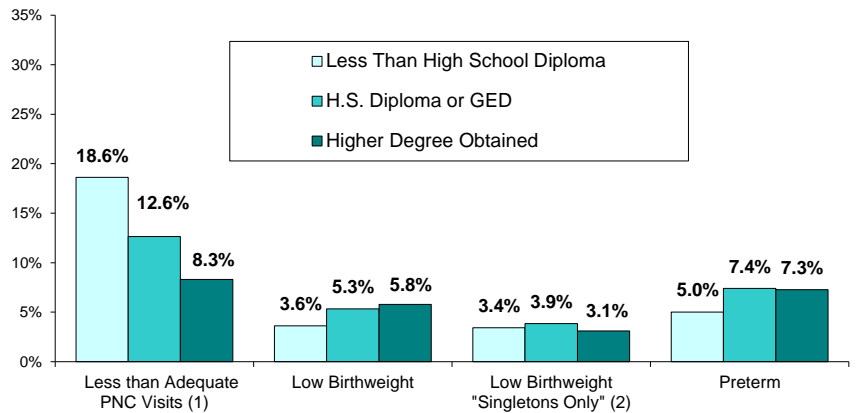
## 2. KEY HEALTH MEASURES

### EDUCATION OF MOTHER

In 2013, 20% of new mothers ages 25 and older did not have a high school diploma or equivalent. Of those mothers, 18.6% utilized a less than adequate number of prenatal care visits, which was significantly worse than the rate among mothers who obtained a high school diploma or a higher degree (Figure 2.3).

Mothers with a higher degree were more likely to have a low birthweight baby compared to mothers who did not complete high school. However, there was no such difference for singleton births, indicating that the difference was due to multiple births, which are more common among mothers with a higher degree.

**Figure 2.3: Key Health Measures, by Education of Mother (Age 25 and Older), Santa Cruz County Residents, 2013**



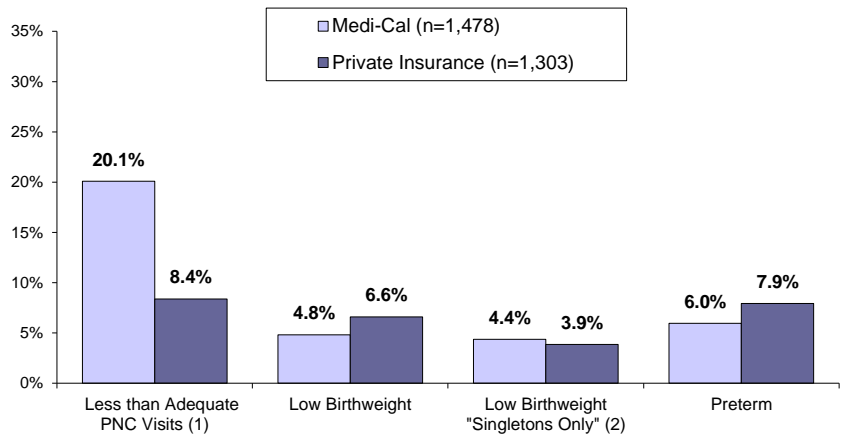
GED = General Equivalency Degree (or diploma)  
 Education status was unknown or withheld for 102 out of 2184 births to mothers age 25 and over; they have been excluded from the above calculations.  
 (1) A component of the Adequate PNC measure was missing for 6, 35, and 36 births to mothers in the <HS Diploma, HS/GED (including some college), and Higher Degree Obtained (including Associate, Bachelor's, Master's, Doctorate, and Professional School) groups, respectively.  
 (2) Multiple births represented 0.5%, 2.5%, and 5.3% of births to mothers age 25 and over with <H.S. Diploma, H.S./GED (including some college), and Higher Degree Obtained, respectively.

### DELIVERY PAYMENT SOURCE

In 2013, Medi-Cal funded 52% of deliveries to county residents and private insurance funded 46% of deliveries; the remainder were otherwise insured or not insured. Mothers with Medi-Cal-funded deliveries were significantly more likely than mothers with privately insured deliveries to utilize less than adequate prenatal care visits.

Privately insured deliveries were more likely to be low birthweight, but this difference disappeared when twin births were excluded.

**Figure 2.4: Key Health Measures, by Delivery Payment Source, Santa Cruz County Residents, 2013**



(1) A component of the Adequate PNC measure was missing for 64 and 50 deliveries funded by Medi-Cal and Private Insurance, respectively.  
 (2) Among deliveries funded by Medi-Cal and Private Insurance, 1.1% and 4.8% respectively were multiple births.



### 3. BIRTHS BY DEMOGRAPHICS OF MOTHERS

TABLE 3.1: Characteristics of Mothers, by Age Group, Santa Cruz County Residents, 2013

									TOTAL	
	19 and Under		20-24		25-34		35 and Over		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>ETHNICITY</b>										
Asian & Pac. Islander	1	1%	4	1%	60	4%	38	6%	103	4%
Black	1	1%	9	2%	11	1%	8	1%	29	1%
Latina	158	88%	394	80%	735	49%	235	36%	1,522	54%
White	13	7%	74	15%	663	44%	372	56%	1,122	40%
Other	6	3%	14	3%	25	2%	8	1%	53	2%
<b>AREA OF RESIDENCE</b>										
Mid-County	7	4%	28	6%	195	13%	120	18%	350	12%
Santa Cruz Mountains	4	2%	22	4%	123	8%	73	11%	222	8%
Santa Cruz	28	16%	91	18%	424	28%	239	36%	782	27%
Scotts Valley	1	1%	5	1%	71	5%	40	6%	117	4%
South County	139	78%	356	71%	697	46%	201	30%	1,393	49%
<b>PARITY</b>										
1st Child	152	85%	256	51%	529	35%	197	29%	1,134	40%
2nd - 3rd Child	27	15%	236	47%	822	54%	365	54%	1,450	51%
4th+ Child	0	0%	11	2%	160	11%	111	16%	282	10%
<b>PRENATAL CARE INITIATION AND UTILIZATION</b>										
Early (1st Trimester)	108	63%	356	72%	1,247	84%	603	91%	2,314	82%
Late (2nd or 3rd Trimester)	63	37%	134	27%	230	16%	55	8%	482	17%
No Prenatal Care	1	0.6%	3	0.6%	3	0.2%	2	0.3%	9	0.3%
Adequate or Better	119	70%	384	79%	1,262	87%	580	90%	2,345	85%
Less than Adequate	51	30%	102	21%	187	13%	62	10%	402	15%
Early <u>and</u> Adequate	98	58%	332	68%	1,158	80%	554	86%	2,142	78%
<b>BIRTH OUTCOMES</b>										
Low Birthweight	14	7.8%	28	5.6%	69	4.6%	50	7.4%	161	5.6%
Very Low Birthweight	2	1.1%	8	1.6%	12	0.8%	8	1.2%	30	1.0%
Preterm	9	5.0%	32	6.4%	94	6.2%	62	9.2%	197	6.9%
Very Preterm	3	1.7%	10	2.0%	16	1.1%	9	1.3%	38	1.3%
<b>DELIVERY METHOD</b>										
Primary Cesarean	34	19%	84	17%	200	13%	132	20%	450	16%
Repeat Cesarean	3	2%	41	8%	203	13%	126	19%	373	13%
Vaginal	142	79%	373	74%	1,082	72%	402	60%	1,999	70%
VBAC	0	0%	5	1%	26	2%	13	2%	44	2%
<b>PAYMENT FOR DELIVERY</b>										
Medi-Cal	163	91%	410	82%	702	46%	202	30%	1,477	52%
Private Insurance	12	7%	77	15%	763	50%	451	67%	1,303	46%
Other Insurance	1	0.6%	4	0.8%	3	0.2%	0	0.0%	8	0.3%
No Insurance	3	2%	11	2%	43	3%	18	3%	75	3%
<b>TOTAL</b>	<b>179</b>	<b>6%</b>	<b>503</b>	<b>18%</b>	<b>1,511</b>	<b>53%</b>	<b>673</b>	<b>23%</b>	<b>2,866</b>	<b>100%</b>

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 11.4%; reduce very preterm (<32 weeks) to 1.8%

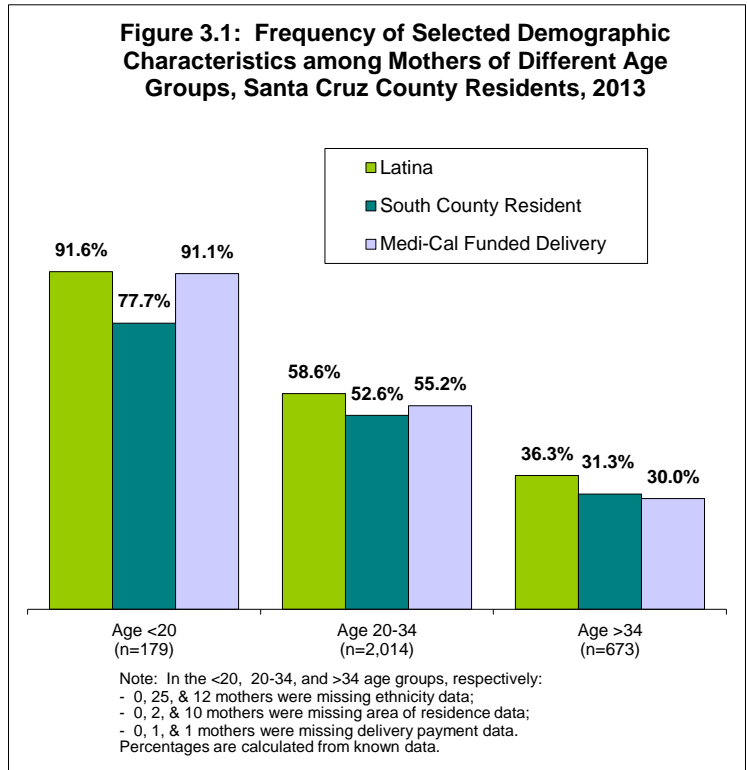


### 3. BIRTHS BY DEMOGRAPHICS OF MOTHERS

#### AGE OF MOTHER

The selected demographics shown in Figure 3.1 differ significantly by age group. For example, a larger proportion of mothers age 19 and under are Latina (91.6%) compared to mothers age 35 and over (36.4%). The demographics shown were selected because of their well-known associations with age.

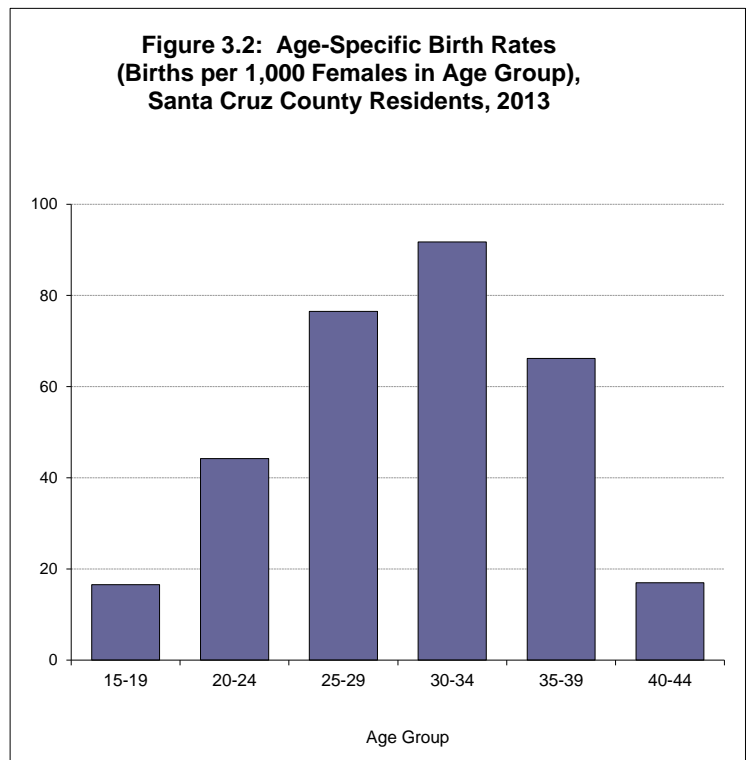
The five-year age category with the largest number of births was ages 30-34 years. That age group also had the highest age-specific birth rate (the number of births per population in a specific age category), 91.7 births per 1,000 women (Table 3.2 and Figure 3.2). For more information on teen births, go to page 9.



**Table 3.2: Births by Mother's Age Group and Age-Specific Birth Rates per 1,000 Females, Santa Cruz County Residents, 2013**

Mother's Age Group	Number of Births	Percent of Births	Total Female Population (per age group)	Birth Rate per 1,000 Popl'n
10-14	1	0.0%	7,309	0.1
15-19	178	6.2%	10,734	16.6
20-24	503	17.6%	11,386	44.2
25-29	657	22.9%	8,587	76.5
30-34	854	29.8%	9,311	91.7
35-39	517	18.0%	7,810	66.2
40-44	139	4.8%	8,193	17.0
45-49	17	0.6%	8,690	2.0
<b>TOTAL</b>	<b>2,866</b>	<b>100%</b>	<b>56,021</b>	<b>51.2</b>

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 ages 15-44 ("childbearing age"). Note that the "TOTAL" Female Population only includes the female population ages 15-44.



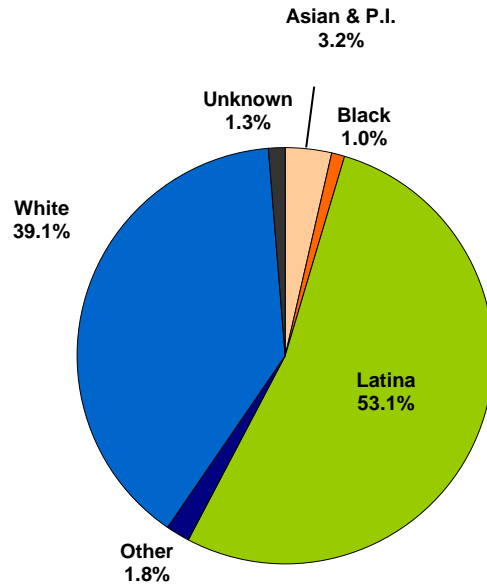
### 3. BIRTHS BY DEMOGRAPHICS OF MOTHERS

#### ETHNICITY OF MOTHER

Among the “primary childbearing age” population (defined as females ages 15-44) in Santa Cruz County, approximately 40% are Latina and 49% are White. However, Latina mothers delivered over 53% of the babies in 2013, while White mothers delivered only 39% of the babies.

The difference by ethnicities can also be seen by comparing ethnicity-specific fertility rates (Table 3.3 and Figure 3.4). The fertility rate (births per 1,000 women ages 15 to 44) was much higher among Latinas (68.7 per 1,000) than among Whites (40.7 per 1,000).

**Figure 3.3: Percentage of Births by Ethnicity of Mother (n=2,866), Santa Cruz County Residents, 2013**

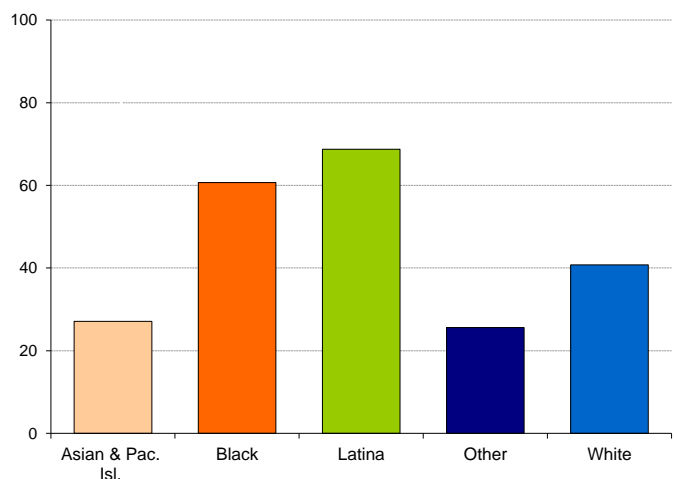


**Table 3.2: Births and Fertility Rate, by Ethnicity of Mother, Santa Cruz County Residents, 2013**

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.	103	3.6%	3,804	27.1
Black	29	1.0%	478	60.7
Latina	1,522	53.1%	22,143	68.7
Other	53	1.8%	2,071	25.6
White	1,122	39.1%	27,525	40.8
Unknown	37	1.3%	--	--
<b>TOTAL</b>	<b>2,866</b>	<b>100%</b>	<b>56,021</b>	<b>51.2</b>

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

**Figure 3.4: Fertility Rate (Births per 1,000 Females Age 15-44) by Ethnicity of Mother, Santa Cruz County Residents, 2013**



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

TABLE 4.1: Characteristics of Teenage Mothers, by Age Group, Santa Cruz County Residents, 2013

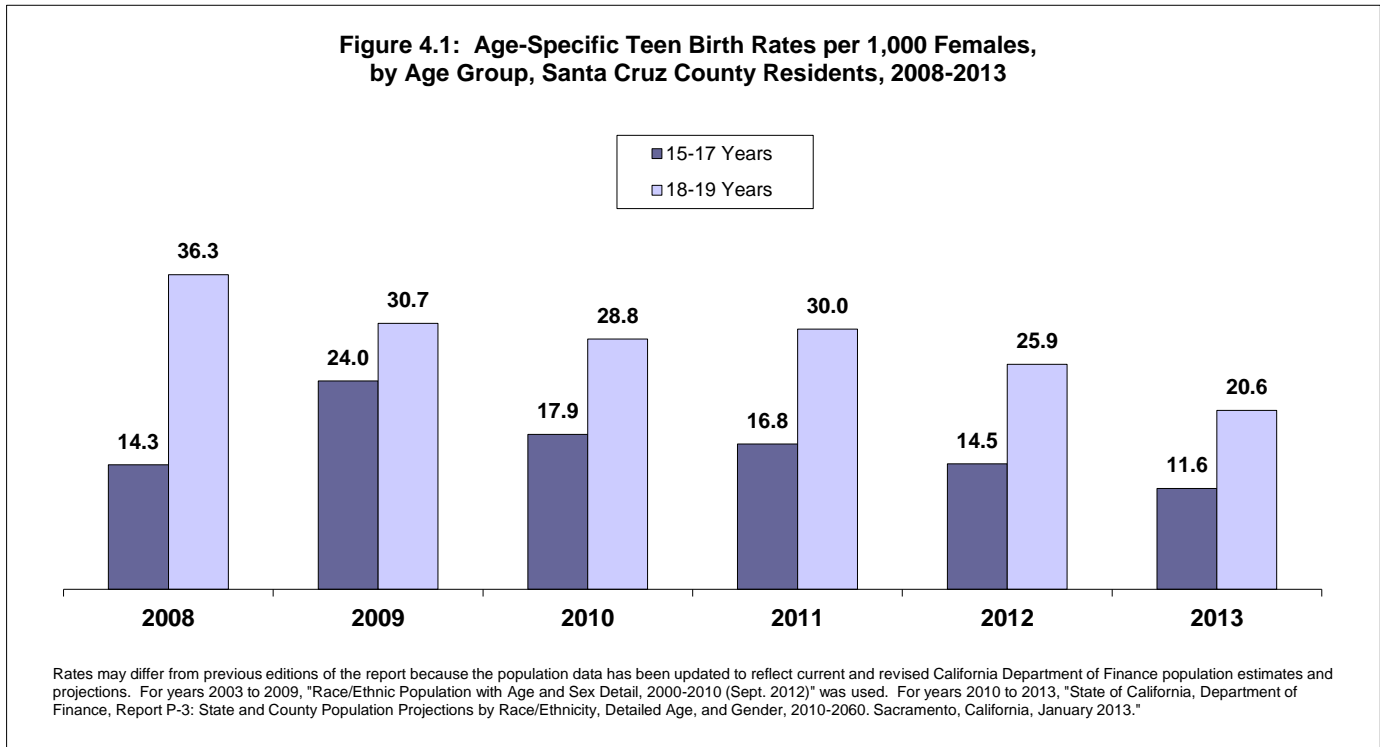
	AGE OF MOTHER (Years)						TOTAL	
	14 and Under		15-17		18-19		Number	Percent
	Number	Percent	Number	Percent	Number	Percent		
<b>ETHNICITY</b>								
Asian & Pacific Islander	0	0%	0	0%	1	1%	1	1%
Black	0	0%	0	0%	0	0%	0	0%
Latina	1	100%	51	91%	112	92%	164	92%
White	0	0%	4	7%	9	7%	13	7%
Other	0	0%	1	2%	0	0%	1	1%
<b>AREA OF RESIDENCE</b>								
Mid-County	0	0%	1	2%	6	5%	7	4%
Santa Cruz Mountains	0	0%	0	0%	4	3%	4	2%
Santa Cruz	0	0%	8	14%	20	16%	28	16%
Scotts Valley	0	0%	0	0%	1	1%	1	1%
South County	1	100%	47	84%	91	75%	139	78%
<b>PRENATAL CARE INITIATION AND UTILIZATION</b>								
Early (1st Trimester)	0	0%	31	61%	77	64%	108	63%
Late (2nd or 3rd Trimester)	1	100%	20	39%	42	35%	63	37%
No Prenatal Care	0	0%	0	0%	1	1%	1	1%
Adequate or Better	0	0%	34	67%	85	72%	119	70%
Less than Adequate	1	100%	17	33%	33	28%	51	30%
Early & Adequate	0	0%	30	59%	68	58%	98	58%
<b>PARITY</b>								
1st Child	1	100%	53	95%	98	80%	152	85%
2nd Child	0	0%	3	5%	21	17%	24	13%
3rd+ Child	0	0%	0	0%	3	2%	3	2%
<b>BIRTH OUTCOMES</b>								
Low Birthweight	0	0%	4	7.1%	10	8.2%	14	7.8%
Very Low Birthweight	0	0%	0	0%	2	1.6%	2	1.1%
Preterm	0	0%	0	0%	9	7.4%	9	5.0%
Very Preterm	0	0%	0	0%	3	2.5%	3	1.7%
<b>METHOD OF DELIVERY</b>								
Primary Cesarean	0	0%	14	25%	20	16%	34	19%
Repeat Cesarean	0	0%	1	2%	2	2%	3	2%
Vaginal	1	100%	41	73%	100	82%	142	79%
VBAC	0	0%	0	0%	0	0%	0	0%
<b>PAYMENT FOR DELIVERY</b>								
Medi-Cal	1	100%	51	93%	111	91%	163	92%
Private Insurance	0	0%	3	5%	9	7%	12	7%
Other Insurance	0	0%	1	2%	0	0%	1	1%
No Insurance	0	0%	0	0%	2	2%	2	1%
<b>TOTAL *</b>	<b>1</b>	<b>1%</b>	<b>56</b>	<b>31%</b>	<b>122</b>	<b>68%</b>	<b>179</b>	<b>100%</b>

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.

\* In 2013 one 15-17-year-old's delivery was unattended.

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

The birth rate among Santa Cruz County teens continues to drop rapidly (Figure 4.1), in line with a continuing statewide and nationwide trend of decreasing teen birth rates. In 2013, the birth rate among county women aged 15-19 was just 16.6 births per 1000 women, down 40% from the rate in 2009.



### AREA OF RESIDENCE

The distribution of births by place of residence often differs for teens compared to all age groups (Table 4.2). For example, in 2013, residents in ZIP Code 95076 accounted for 69% of all teen births, but only 45% 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 ZIP Codes.

**TABLE 4.2: Teen Births and Overall Births, by Area of Residence, Santa Cruz County Residents, 2013**

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	3	2%	170	6%	1.8%
Capitola	95010	3	2%	85	3%	3.5%
Davenport	95017	0	0%	4	0%	0.0%
Freedom	95019	15	8%	128	4%	11.7%
Los Gatos	95033	0	0%	28	1%	0.0%
San Lorenzo Valley	95005-7,18,41	4	2%	195	7%	2.1%
Santa Cruz	95060-5	28	16%	779	27%	3.6%
Scotts Valley	95066	1	1%	117	4%	0.9%
Soquel	95073	1	1%	76	3%	1.3%
Watsonville	95076	124	69%	1,282	45%	9.7%
<b>TOTAL</b>		<b>179</b>	<b>100%</b>	<b>2,866</b>	<b>100%</b>	<b>6.2%</b>

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

The percentage of total births that were births to teens dropped from 7.3% in 2012 to 6.2% in 2013. The rate of births per 1,000 teen female population (age 15-19 years) continued its 20-year decline locally, statewide, and nationwide, although the national rate (26.6 per thousand) remains about 2-15 times higher than rates in almost all developed countries. In Santa Cruz County, the rate dropped from 20.7 per 1,000 population in 2012 to 16.6 per thousand.

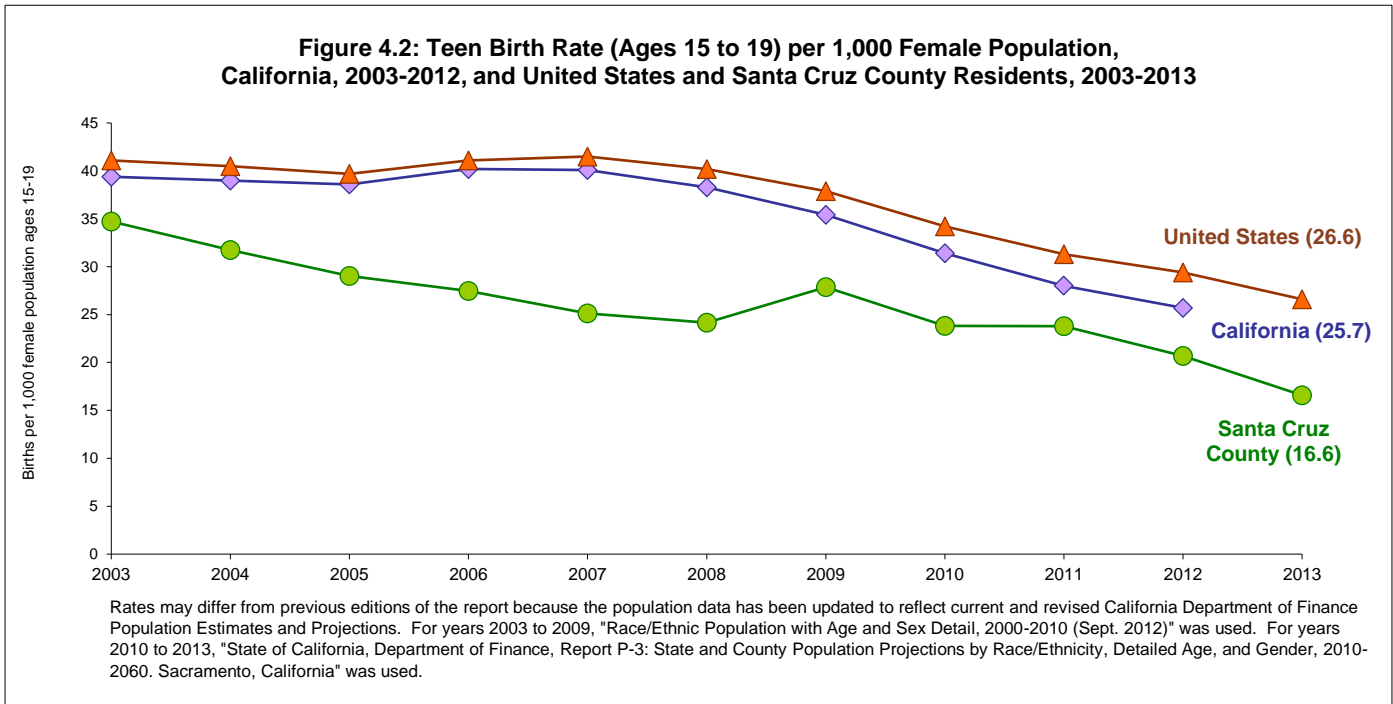
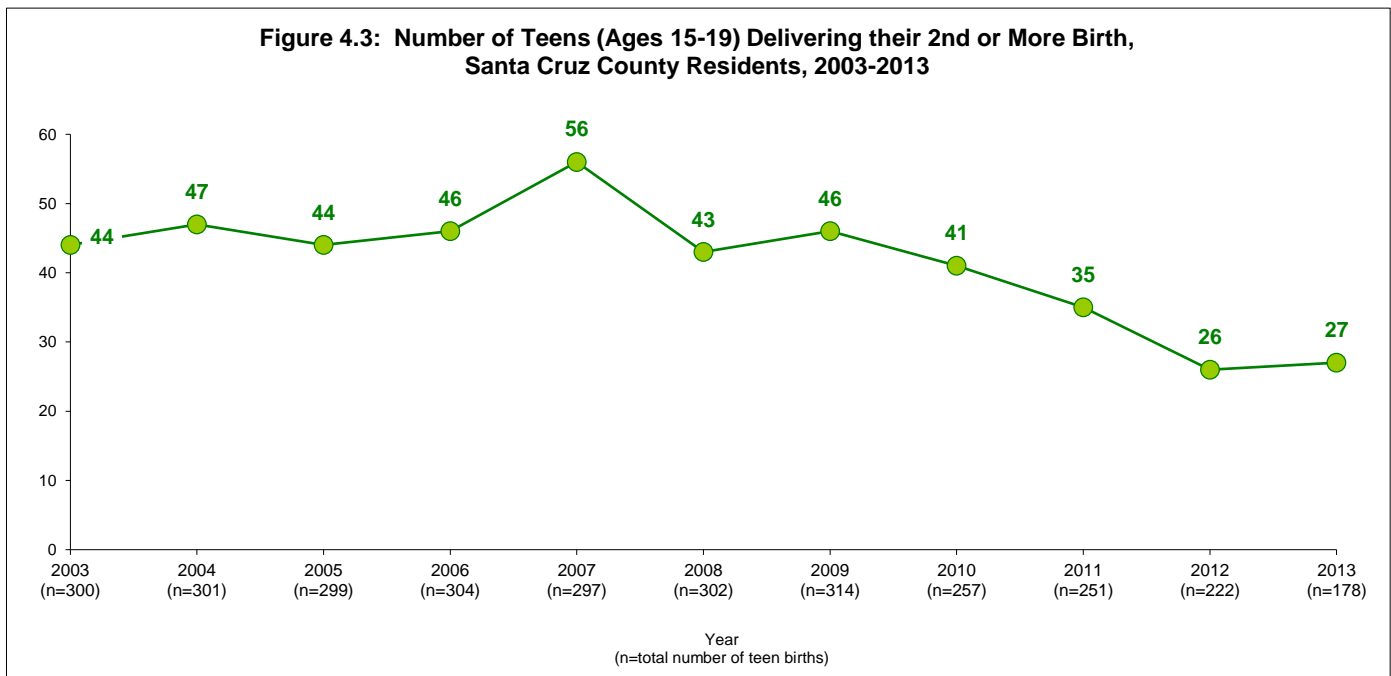


Figure 4.3 shows the number of teen mothers who delivered their second (or more) birth. In 2013, three teenage mothers each delivered their third child. The repeat teen birth rate in the U.S. in 2012 was 17.3%, compared to 11.7% in Santa Cruz County that year. In 2013, the rate in Santa Cruz County was 15.2%.

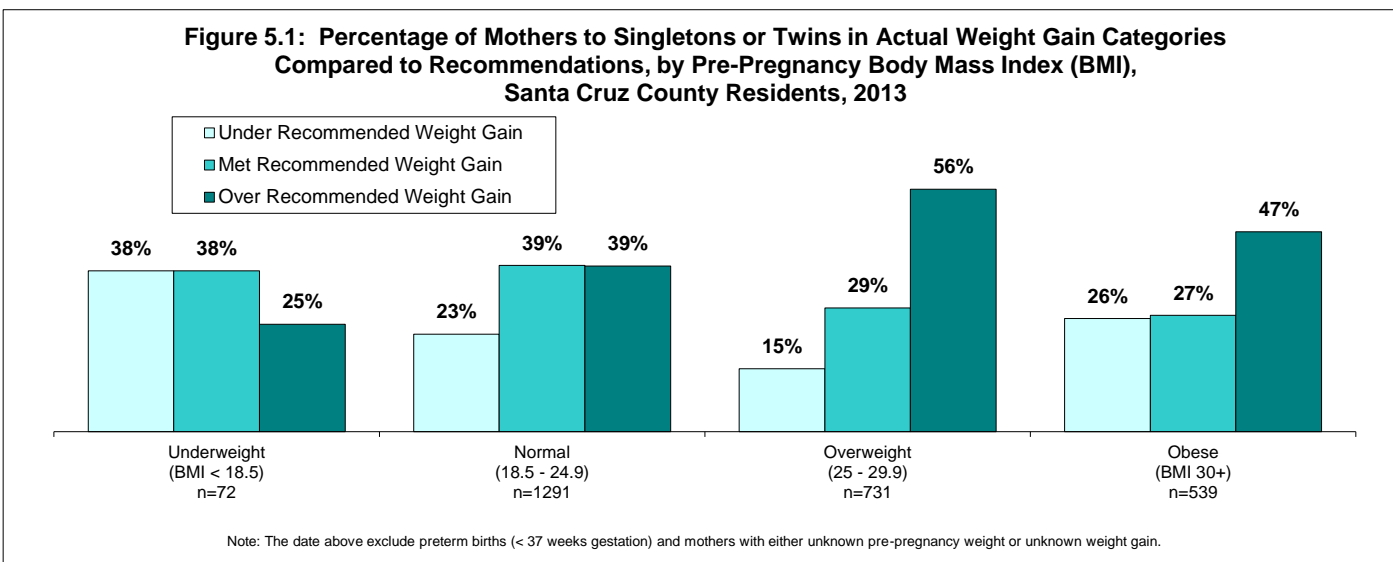


## 5. MOTHER'S WEIGHT GAIN & SMOKING STATUS

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 <sup>2</sup> )	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 2013, 45% of mothers 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, which leaves 2,633 births, or 92% of all births. 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 2013, nearly half (48%) of mothers began pregnancy as overweight or obese.



## SMOKING STATUS

The number and percentage of females 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 decreased from 2.5% in 2011 to 1.4% in 2012 and 2013. However, since about 12-15% of Californians are smokers, there is reason to believe that birth certificate data do not accurately capture the percentage of mothers who smoked before or during pregnancy.

**TABLE 5.1: Mother's Smoking Status during Pregnancy, by Trimester, Santa Cruz County Residents, 2013**

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
<b>Smoked at least 1 cigarette per day</b>								
Yes	41	1.4%	26	0.9%	22	0.8%	21	0.7%
No	2,792	98.6%	2,808	99.1%	2,813	99.2%	2,813	99.3%
<b>TOTAL</b>	<b>2,833</b>	<b>100%</b>	<b>2,834</b>	<b>100%</b>	<b>2,835</b>	<b>100%</b>	<b>2,834</b>	<b>100%</b>

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, 2013

	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		
<b>AGE OF MOTHER (Years)</b>												
17 and Under	16	84%	13	25%	12	4%	2	0%	0	0%	43	2%
18 - 19	2	11%	27	51%	63	20%	14	1%	1	0%	107	4%
20 - 24	1	5%	12	23%	200	62%	215	16%	13	1%	441	16%
25 - 34	0	0%	1	2%	38	12%	963	73%	438	45%	1,440	54%
35 and Over	0	0%	0	0%	9	3%	129	10%	516	53%	654	24%
<b>ETHNICITY OF FATHER</b>												
Asian & Pacific Islander	0	0%	0	0%	0	0%	42	3%	42	9%	84	4%
Black	0	0%	0	0%	7	2%	21	2%	25	5%	53	2%
Latino	19	100%	48	92%	279	87%	760	58%	351	72%	1,457	67%
White	0	0%	4	8%	33	10%	472	36%	55	11%	564	26%
Other	0	0%	0	0%	0	0%	10	1%	5	1%	15	1%
Unknown	0	0%	0	0%	0	0%	5	0%	7	1%	12	1%
<b>EDUCATION OF FATHER</b>												
8th Grade & Under	1	5%	2	4%	45	16%	183	16%	121	14%	352	15%
Some High School	15	79%	15	32%	71	26%	178	16%	69	8%	348	15%
HS Diploma or GED <sup>(1)</sup>	3	16%	29	62%	127	47%	350	31%	172	20%	681	29%
Higher Degree Obtained	0	0%	0	0%	14	5%	367	32%	426	50%	807	35%
Withheld or Unknown	0	0%	1	2%	16	6%	63	6%	61	7%	141	6%
<b>TOTAL</b>	<b>19</b>	<b>1%</b>	<b>53</b>	<b>2%</b>	<b>322</b>	<b>12%</b>	<b>1,323</b>	<b>49%</b>	<b>968</b>	<b>36%</b>	<b>2,685</b>	<b>100%</b>

Note: 181 fathers (6.3%) without age information 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, 2013

	DELIVERY LOCATION										TOTAL	
	Dominican		Sutter		Watsonville		Non-Hospital		Out of County		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>AGE OF MOTHER (Years)</b>												
17 and Under	12	1%	2	0%	50	4%	0	0%	1	0%	65	2%
18 - 19	29	3%	11	1%	103	8%	0	0%	5	2%	148	4%
20 - 24	117	14%	100	11%	359	28%	6	8%	25	12%	607	18%
25 - 34	453	54%	569	62%	610	47%	44	61%	104	49%	1,780	53%
35 and Over	234	28%	240	26%	177	14%	22	31%	77	36%	750	22%
<b>ETHNICITY OF MOTHER</b>												
Asian & Pacific Islander	44	5%	44	5%	14	1%	0	0%	10	5%	112	3%
Black	14	2%	16	2%	4	0%	2	3%	1	1%	37	1%
Latina	320	39%	275	30%	1,228	95%	8	12%	78	39%	1,909	58%
White	448	54%	566	62%	52	4%	53	79%	108	54%	1,227	37%
Other	3	0%	15	2%	0	0%	4	6%	2	1%	24	1%
<b>EDUCATION OF MOTHER</b>												
8th Grade & Under	30	4%	7	1%	380	29%	1	1%	11	6%	429	13%
Some High School	59	8%	13	2%	328	25%	0	0%	11	6%	411	13%
HS Diploma or GED <sup>(1)</sup>	325	42%	351	41%	494	38%	18	26%	65	34%	1,253	39%
Higher Degree Obtained	366	47%	495	57%	95	7%	50	72%	105	55%	1,111	35%
<b>PRENATAL CARE INITIATION AND UTILIZATION</b>												
Early (1st Trimester)	759	91%	775	89%	900	70%	54	76%	184	87%	2,672	81%
Late (2nd or 3rd Trimester)	67	8%	97	11%	388	30%	17	24%	26	12%	595	18%
No Prenatal Care	6	1%	0	0%	4	0%	0	0%	2	1%	12	0%
Adequate or Better	703	88%	797	95%	998	77%	61	86%	168	79%	2,727	85%
Less than Adequate	99	12%	46	5%	291	23%	10	14%	44	21%	490	15%
Early & Adequate	677	84%	744	88%	854	66%	50	70%	156	74%	2,481	77%
<b>BIRTH OUTCOMES <sup>(2)</sup></b>												
Low Birthweight	79	9.3%	17	1.8%	45	3.5%	0	0%	40	18.9%	181	5.4%
Very Low Birthweight	8	0.9%	0	0.0%	4	0.3%	0	0%	19	9.0%	31	0.9%
Preterm	108	12.8%	19	2.1%	87	6.7%	1	1.4%	40	18.9%	255	7.6%
Very Preterm	11	1.3%	0	0%	8	0.6%	0	0%	20	9.4%	39	1.2%
<b>DELIVERY METHOD</b>												
Primary Cesarean	152	18%	134	15%	191	15%	0	0%	43	20%	520	16%
Repeat Cesarean	104	12%	97	11%	213	17%	0	0%	35	17%	449	13%
Vaginal	573	68%	660	72%	877	68%	75	100%	130	62%	2,315	69%
VBAC	15	2%	27	3%	8	1%	0	0%	2	1%	52	2%
<b>PAYMENT FOR DELIVERY</b>												
Medi-Cal	342	41%	259	28%	1,104	85%	2	3%	50	24%	1,757	53%
Private Insurance	490	58%	657	71%	179	14%	15	21%	157	74%	1,498	45%
Other Insurance	2	0%	4	0%	5	0%	0	0%	3	1%	14	0%
No Insurance	4	0%	0	0%	10	1%	55	76%	1	0%	70	2%
<b>TOTAL</b>	<b>845</b>	<b>25%</b>	<b>922</b>	<b>28%</b>	<b>1,299</b>	<b>39%</b>	<b>72</b>	<b>2%</b>	<b>212</b>	<b>6%</b>	<b>3,350</b>	<b>100%</b>

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.

(1) GED = General Equivalency Degree (or diploma), includes some college. (2) Outcomes are among all births and do not exclude multiple births.

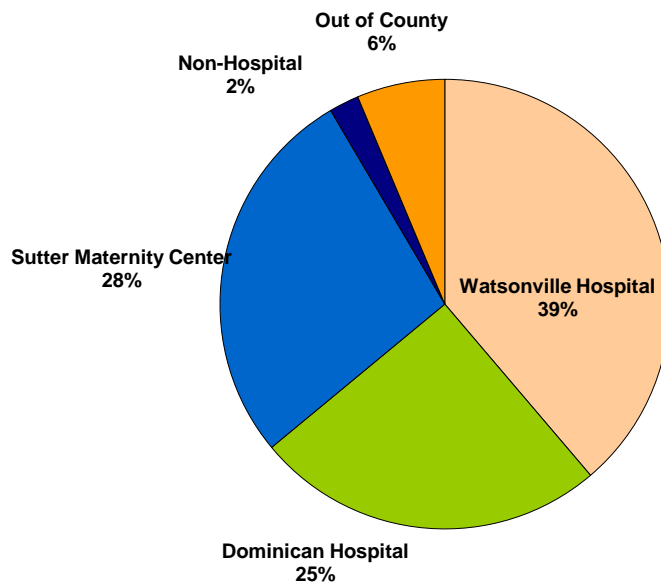
## 7. BIRTHS BY DELIVERY LOCATION

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

**TABLE 7.2: Mother's Area of Residence, by Delivery Location, Santa Cruz County Occurrence or Residence, 2013**

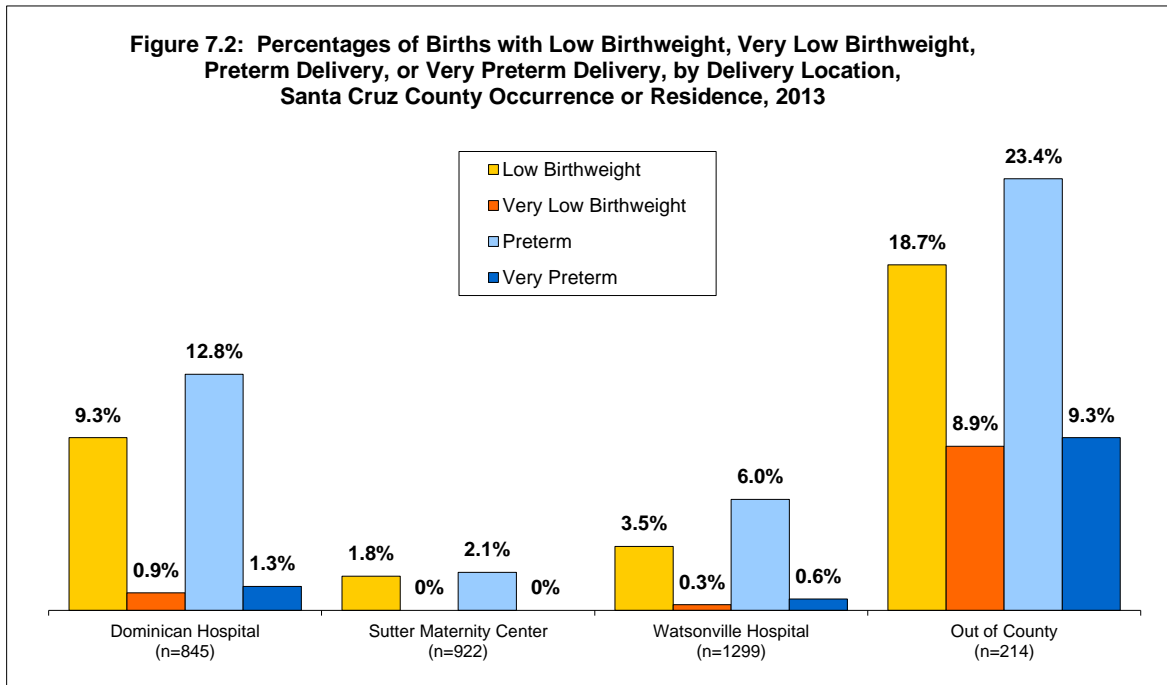
AREA OF RESIDENCE	DELIVERY LOCATION										TOTAL	
	Dominican		Sutter		Watsonville		Non-Hospital		Out of County		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>SANTA CRUZ COUNTY</b>	764	90%	801	87%	1,017	78%	72	100%	212	100%	2,866	86%
Mid-County	143	19%	153	19%	18	2%	13	18%	22	10%	349	12%
Santa Cruz Mountains	74	10%	75	9%	1	0%	14	19%	58	27%	222	8%
Santa Cruz	351	46%	345	43%	5	0%	36	50%	45	21%	782	27%
Scotts Valley	52	7%	52	6%	0	0%	2	3%	11	5%	117	4%
South County	144	19%	174	22%	993	98%	7	10%	76	36%	1,394	49%
<b>MONTEREY COUNTY</b>	53	6.3%	78	8.5%	261	20.1%	-	-	-	-	392	11.7%
<b>SAN BENITO COUNTY</b>	10	1.2%	13	1.4%	18	1.4%	-	-	-	-	41	1.2%
<b>SANTA CLARA COUNTY</b>	14	1.7%	18	2.0%	1	0.1%	-	-	-	-	33	1.0%
<b>OTHER COUNTIES</b>	4	0.5%	12	1.3%	2	0.2%	-	-	-	-	18	0.5%
<b>TOTAL</b>	<b>845</b>	<b>25%</b>	<b>922</b>	<b>28%</b>	<b>1,299</b>	<b>39%</b>	<b>72</b>	<b>2%</b>	<b>212</b>	<b>6%</b>	<b>3,350</b>	<b>100%</b>

**Figure 7.1: Percentage of Births, by Delivery Location, Santa Cruz County Occurrence or Residence, 2013**



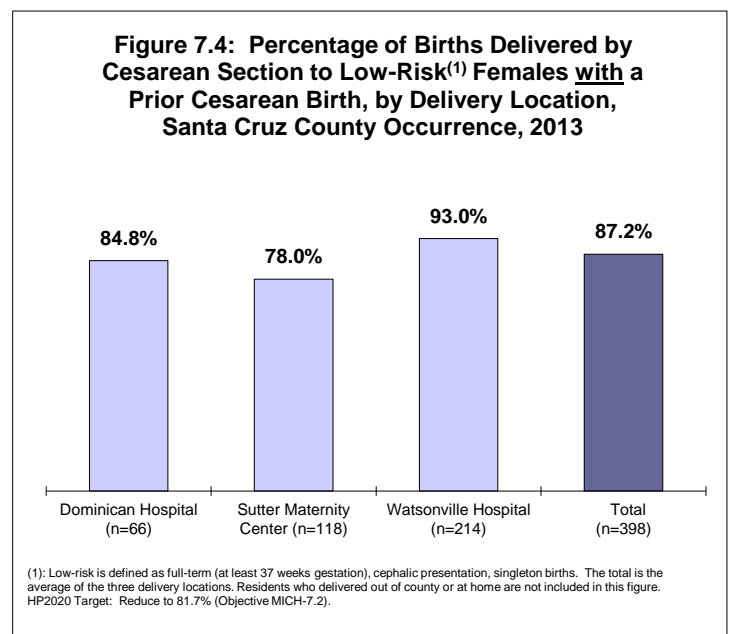
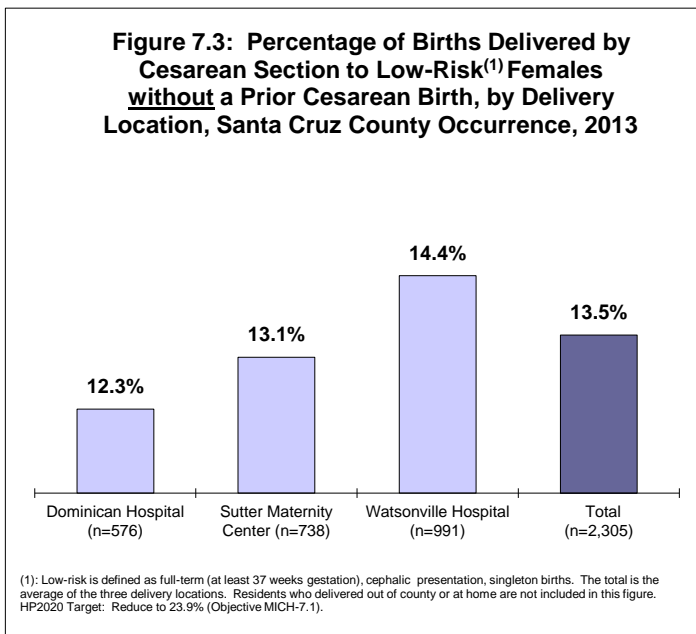
## 7. BIRTHS BY DELIVERY LOCATION

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

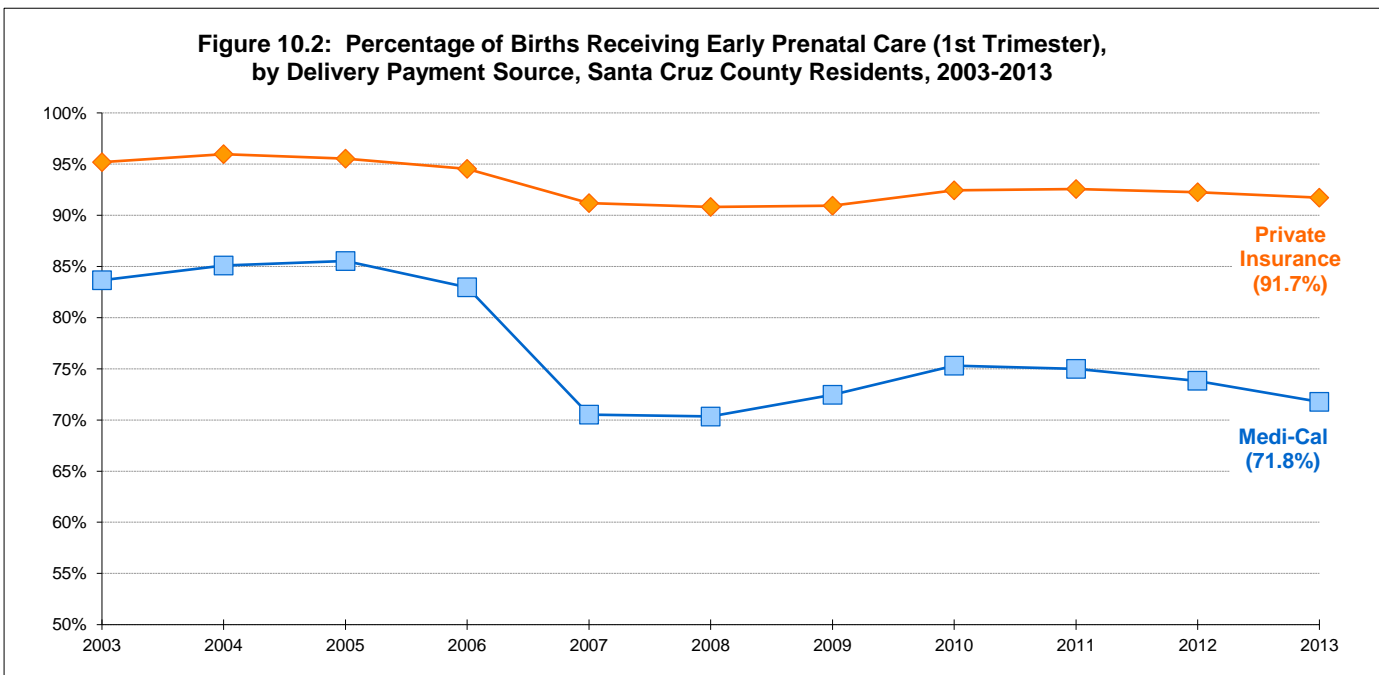
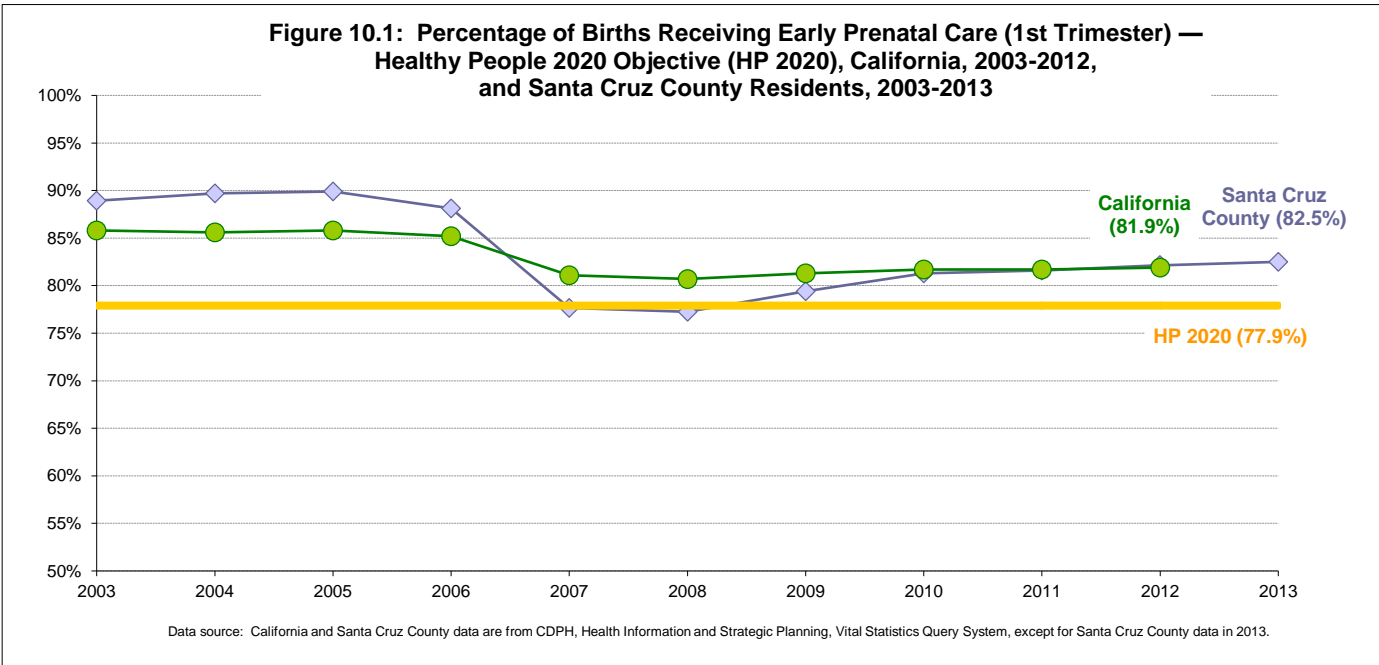
Below are figures on the percentage of cesarean births among low-risk births to females either without a prior cesarean birth (Figure 7.3) or with a prior cesarean birth (Figure 7.4); low-risk births are defined in the figure notes.



# 8. TRENDS

## EARLY PRENATAL CARE

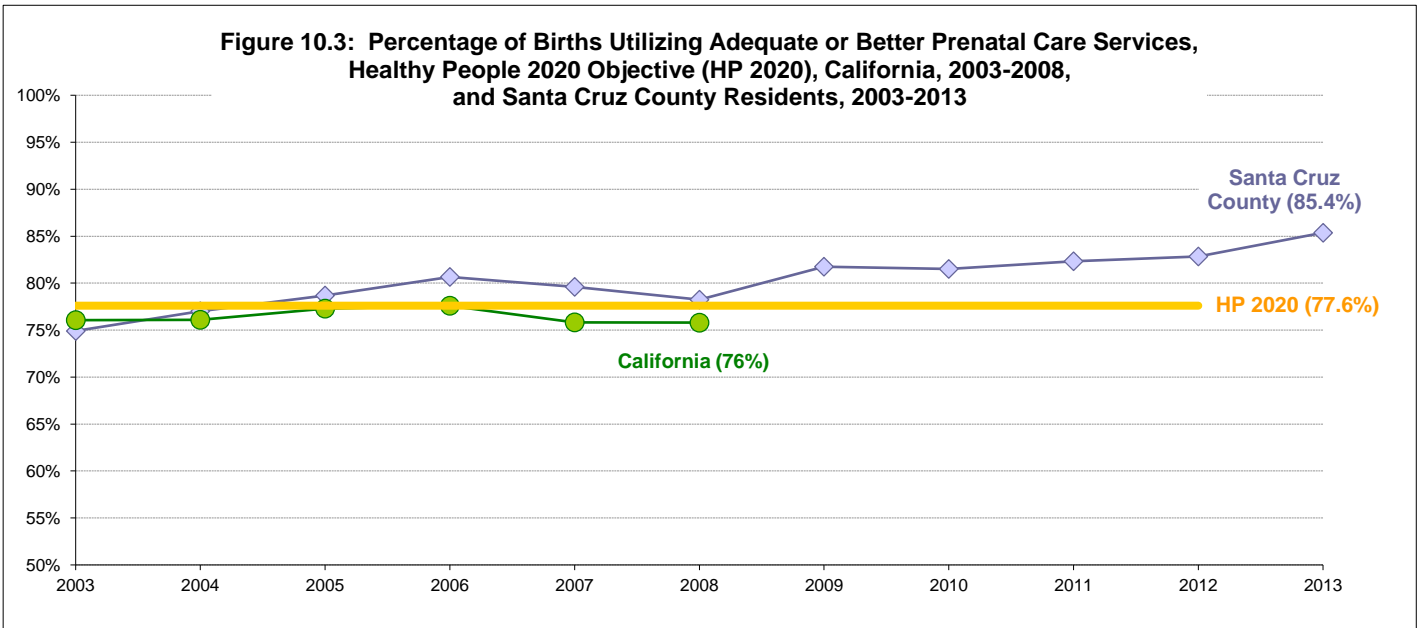
The percentage of mothers who received early prenatal care (1st trimester) was 82.5% in 2013, compared to 82.1% in 2012 (Figure 10.1). The Healthy People objective was lowered to 77.9% for 2020 from 90% in 2010; the 2020 objective has been met or nearly met countywide and statewide for over ten years. Figure 10.2 compares early prenatal care for deliveries paid by Medi-Cal versus those paid by private insurance. Medi-Cal patients represented most of the decline that occurred in 2007. In 2007 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.



# 8. TRENDS

## ADEQUACY OF PRENATAL CARE UTILIZATION

The percentage of mothers who adequately utilized prenatal care (Kotelchuck Index, see Definitions on page 2) was 85.4% in 2013, compared to 74.9% in 2003 (Figure 10.3). The county trend is going in the desired direction, and we have met the Healthy People 2020 target, but there is still room for improvement. The 2008 California data is the most current year that is publicly available.



## MEDI-CAL FUNDED DELIVERIES

Figure 10.4 shows the trend in the percentage of deliveries funded by Medi-Cal. In 2013, 52% of Santa Cruz County residents delivering in the county were funded by Medi-Cal, compared to 44% in 2003.

