



**BIRTHS**  
Santa Cruz County  
**2015**



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

**Santa Cruz County**

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***To obtain the report:***

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

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# **INTRODUCTION**

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This report provides data on live births delivered in 2015. The report was created by the Office of Vital Records, in the Public Health Division of the Santa Cruz County Health Services Agency, with assistance from the Maternal, Child, and Adolescent Health Unit.

## ***In Summary:***

- In 2015, there were 2,833 live births to mothers who resided in Santa Cruz County, which was 236 (7.7%) fewer births than in 2014.
- The General Fertility Rate in 2015 was 51.9 births per 1,000 females of typical childbearing age (15-44 years) among Santa Cruz County residents, compared to 55.9 in 2014. The U.S. rate was 62.5 per 1,000 women, slightly below the rate for 2014 (CDC, *Births: Preliminary Data for 2015*).
- An additional 484 births were delivered in Santa Cruz County to mothers who were residents of other counties, primarily Monterey County (81%).

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

- Births to teens as a percentage of all births dropped to another new low of 4.9% in 2015, and the number of teen births also fell again (138 births, little more than half the number in 2011).
- In 2015, 93% of births to teens were to Latina teens, and 82% of all teen mothers lived in South Santa Cruz County (see definition on page 2).
- In 2015, for the first time in many years, there were no births to county residents under 15 years old.
- Among teen births in 2015, 12% of mothers were delivering their second (or more) birth, compared to 15% in 2013 and 2014.

## **MEDI-CAL**

- 50% of all deliveries to residents in 2015 were funded by Medi-Cal, somewhat lower than the percentages in 2011-2014.

# 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	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)
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 2015 data were accessed on April 4, 2016.

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/>).

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 273,695 in 2015 (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

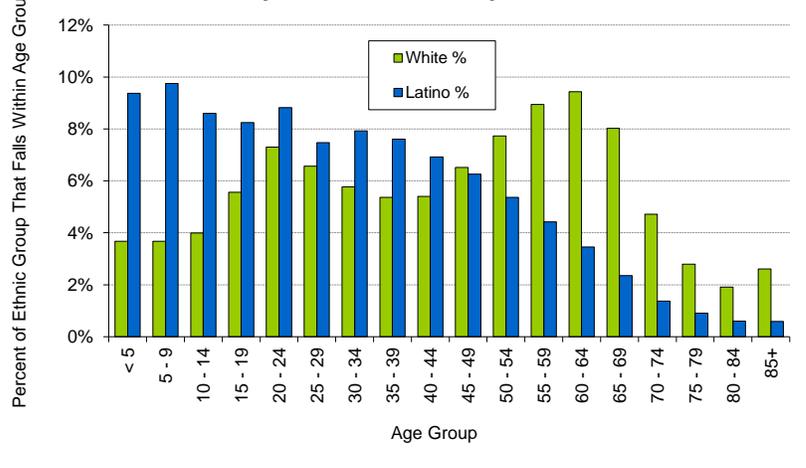
Over 90% of the county’s population is either White (57.4%) or Latino (34.1%). The remaining groups (Asians and Pacific Islanders, Blacks, American Indians, and multiple ethnicities) account for much smaller fractions of the population (Table 1.1).

In Santa Cruz County, the Latino population is much younger than the White population (Figure 1.1). For example, in 2015, 68% of the Latino population was under age 40, compared to just 42% of the White population.

**Table 1.1: Demographics, Santa Cruz County Residents, 2015**

	Number	Percent
<b>GENDER</b>		
Female	136,856	50.0%
Male	136,839	50.0%
<b>AGE (Years)</b>		
4 and Under	15,694	5.7%
5 – 19	50,564	18.5%
20 - 44	93,142	34.0%
45 - 64	74,896	27.4%
65 and Over	39,399	14.4%
<b>ETHNICITY</b>		
American Indian	1,031	0.4%
Asian / Pacific Islander	12,351	4.5%
Black	2,364	0.9%
Latino	93,355	34.1%
White	157,041	57.4%
Multiple Races/Ethnicities	7,523	2.7%
<b>TOTAL</b>	<b>273,695</b>	<b>100%</b>

**Figure 1.1: Age Distribution, by White or Latino Ethnicity, Santa Cruz County Residents, 2015**



## 2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

TABLE 2.1: Characteristics of Mothers, by Age Group, Santa Cruz County Residents, 2015

									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	0	0%	10	2%	32	2%	38	5%	80	3%
Black	1	1%	6	1%	13	1%	2	0%	22	1%
Latina	128	93%	386	81%	762	51%	284	41%	1,560	56%
White	8	6%	71	15%	666	45%	366	52%	1,111	40%
Other	0	0%	2	0%	11	1%	8	1%	21	1%
<b>AREA OF RESIDENCE</b>										
Mid-County	3	2%	31	7%	194	13%	109	15%	337	12%
Santa Cruz Mountains	1	1%	19	4%	143	9%	80	11%	243	9%
Santa Cruz	20	14%	82	17%	432	29%	255	36%	789	28%
Scotts Valley	1	1%	11	2%	60	4%	34	5%	106	4%
South County	113	82%	333	70%	678	45%	234	33%	1,358	48%
<b>PARITY</b>										
1st Child	121	88%	261	55%	565	38%	209	29%	1,156	41%
2nd - 3rd Child	17	12%	205	43%	772	51%	368	52%	1,362	48%
4th+ Child	0	0%	10	2%	169	11%	134	19%	313	11%
<b>PRENATAL CARE INITIATION AND UTILIZATION</b>										
Early (1st Trimester)	92	69%	345	73%	1,287	87%	608	87%	2,332	84%
Late (2nd or 3rd Trimester)	41	31%	124	26%	190	13%	86	12%	441	16%
No Prenatal Care	1	0.7%	3	0.6%	7	0.5%	3	0.4%	14	0.5%
Adequate or Better	99	74%	353	75%	1,289	88%	617	90%	2,358	86%
Less than Adequate	34	26%	116	25%	174	12%	67	10%	391	14%
Early <u>and</u> Adequate	85	64%	313	67%	1,203	82%	568	83%	2,169	79%
<b>BIRTH OUTCOMES</b>										
Low Birthweight	9	6.5%	30	6.3%	93	6.2%	59	8.3%	191	6.7%
Very Low Birthweight	4	2.9%	3	0.6%	16	1.1%	13	1.8%	36	1.3%
Preterm	11	8.0%	36	7.6%	114	7.6%	80	11.3%	241	8.5%
Very Preterm	5	3.6%	3	0.6%	24	1.6%	15	2.1%	47	1.7%
<b>DELIVERY METHOD</b>										
Primary Cesarean	21	15%	83	17%	232	15%	151	21%	487	17%
Repeat Cesarean	0	0%	38	8%	194	13%	130	18%	362	13%
Vaginal	117	85%	355	75%	1,081	72%	431	61%	1,984	70%
VBAC	0	0%	3	1%	32	2%	18	3%	53	2%
<b>PAYMENT FOR DELIVERY</b>										
Medi-Cal	123	89%	363	76%	702	47%	233	33%	1,421	50%
Private Insurance	12	9%	109	23%	755	50%	462	65%	1,338	47%
Other Insurance	1	0.7%	1	0.2%	3	0.2%	2	0.3%	7	0.2%
No Insurance	2	1%	3	1%	46	3%	15	2%	66	2%
<b>TOTAL</b>	<b>138</b>	<b>5%</b>	<b>476</b>	<b>17%</b>	<b>1,507</b>	<b>53%</b>	<b>712</b>	<b>25%</b>	<b>2,833</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%

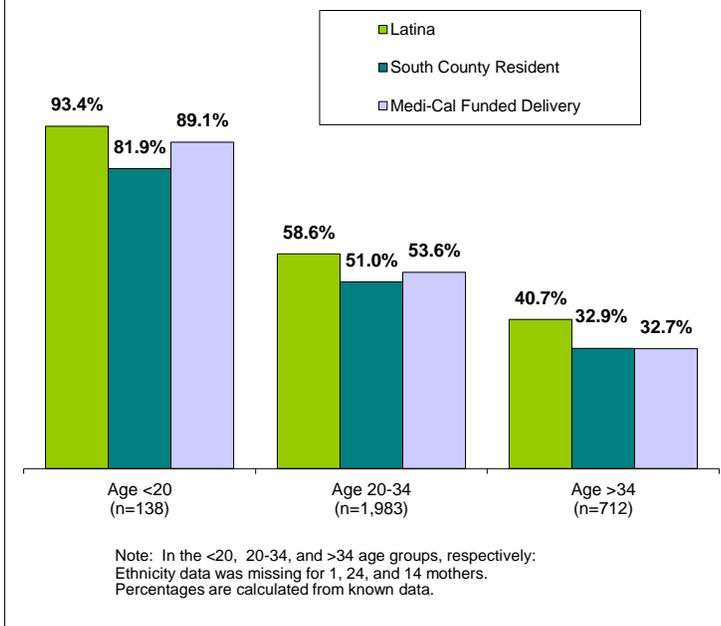
## 2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

### 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), 96.1 births per 1,000 women (Table 2.2 and Figure 2.2). 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, 2015**

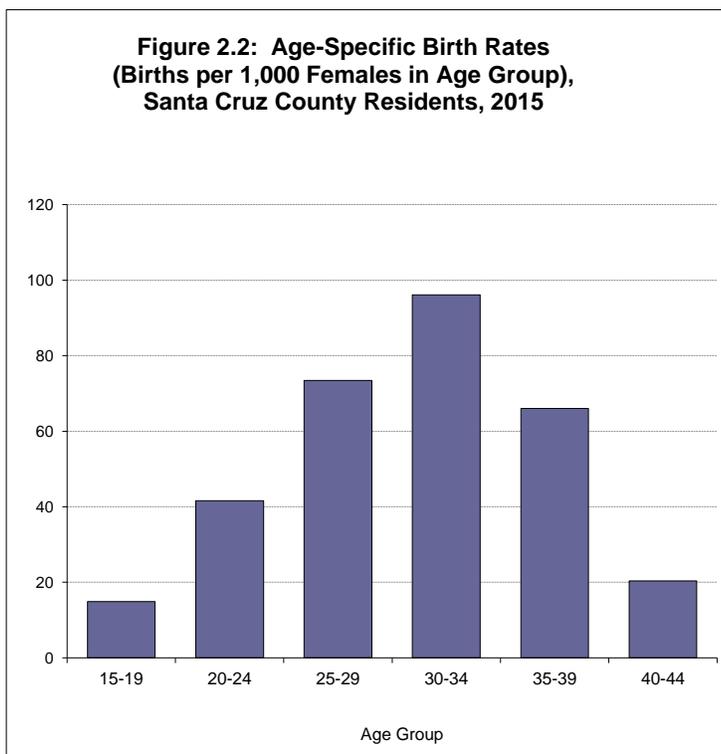


**Table 2.2: Births by Mother's Age Group and Age-Specific Birth Rates per 1,000 Females, Santa Cruz County Residents, 2015**

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%	7,569	0.0
15-19	138	4.9%	9,257	14.9
20-24	476	16.8%	11,447	41.6
25-29	687	24.2%	9,355	73.4
30-34	820	28.9%	8,530	96.1
35-39	537	19.0%	8,131	66.0
40-44	160	5.6%	7,851	20.4
45-49	13	0.5%	8,658	1.5
<b>TOTAL *</b>	<b>2,833</b>	<b>100%</b>	<b>54,571</b>	<b>51.9</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 (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, 2015**



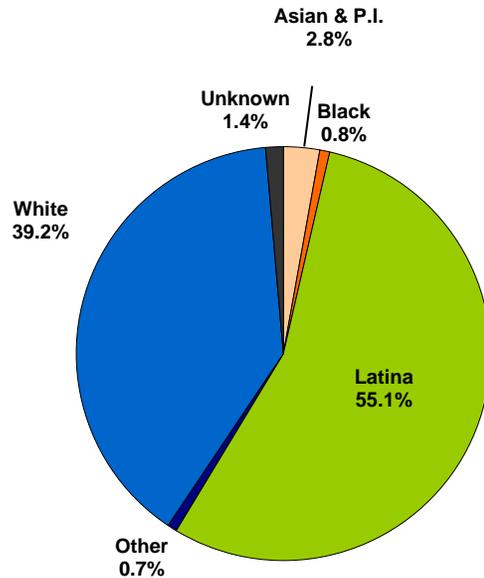
## 2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

### ETHNICITY OF MOTHER

Among the “primary childbearing age” population (defined as females ages 15-44) in Santa Cruz County, approximately 38% are Latina and 50% are White. However, Latina mothers delivered 55% of the babies in 2015, while White mothers delivered only 39% 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 (74.3 per 1,000) than among Whites (40.5 per 1,000).

**Figure 2.3: Percentage of Births by Ethnicity of Mother (n=2,833), Santa Cruz County Residents, 2015**

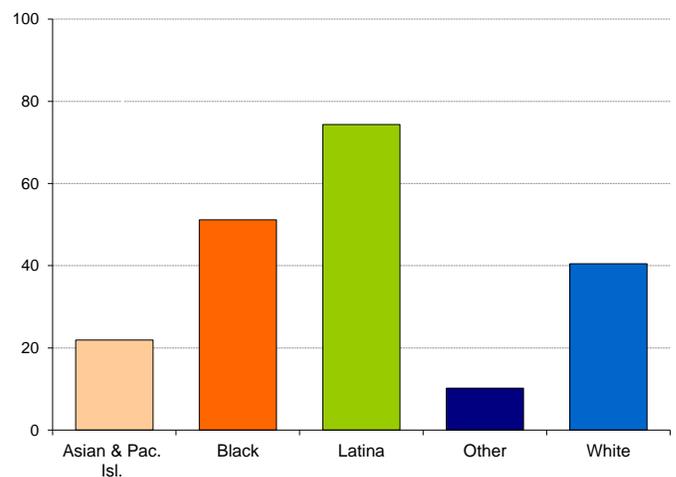


**Table 2.3: Births and Fertility Rate, by Ethnicity of Mother, Santa Cruz County Residents, 2015**

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.	80	2.8%	3,650	21.9
Black	22	0.8%	430	51.2
Latina	1,560	55.1%	20,982	74.3
Other	21	0.7%	2,059	10.2
White	1,111	39.2%	27,450	40.5
Unknown	39	1.4%	--	--
<b>TOTAL</b>	<b>2,833</b>	<b>100%</b>	<b>54,571</b>	<b>51.9</b>

\*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, 2015**



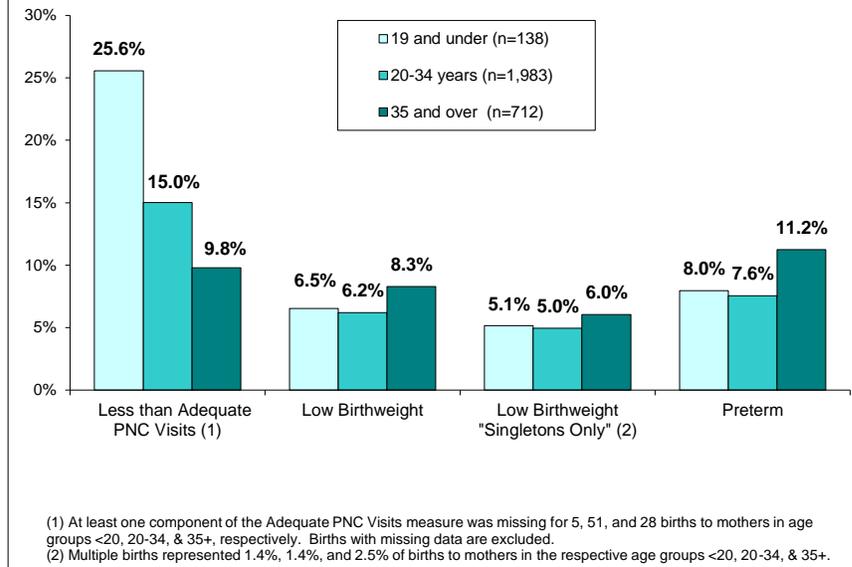
# 3. KEY HEALTH MEASURES

## AGE OF MOTHER

In 2015, younger mothers were significantly more likely to under-utilize prenatal care than their older counterparts (Figure 3.1). Teenage mothers (age 19 and under) had the highest proportion of mothers with less-than-adequate utilization of prenatal care, with 26% receiving a less than adequate number of prenatal care visits.

Low birthweight data in Figures 3.1-3-4 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 2015, there were 80 multiple births, and 47 of them (59%) were low birthweight. A high rate of multiple births among mothers over age 35 contributes to the high rate of low birthweight in that age group (Table 3.1).

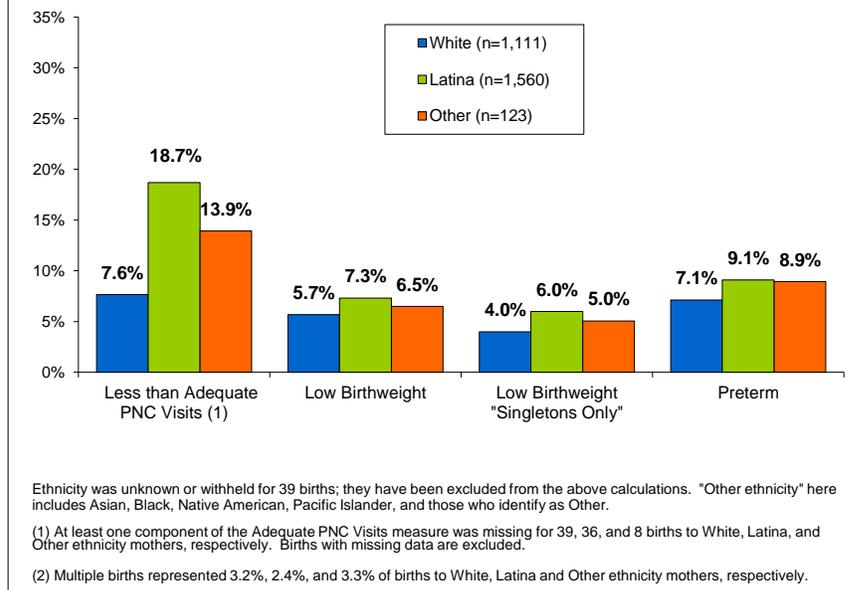
**Figure 3.1: Key Health Measures, by Age of Mother, Santa Cruz County Residents, 2015**



## ETHNICITY OF MOTHER

Rates of less-than-adequate prenatal care were significantly higher among Latina mothers than among White mothers; the rate for mothers of other ethnicities was intermediate but also higher than among Whites (Figure 3.2). Preterm delivery rates were also lowest among Whites. The "other ethnicities" group is small, so rates vary considerably from year to year; for example, that group had the lowest rate of low birthweight in 2014 and 2015, after having had the highest rate in 2013.

**Figure 3.2: Key Health Measures, by Ethnicity of Mother, Santa Cruz County Residents, 2015**



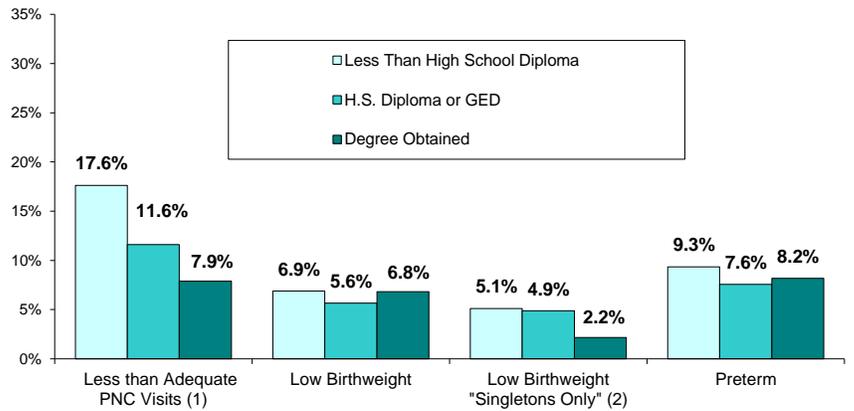
# 3. KEY HEALTH MEASURES

## EDUCATION OF MOTHER

In 2015, 19% of new mothers ages 25 and older did not have a high school diploma or equivalent. Of those mothers, 17.6% received 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 college degree (Figure 2.3).

In 2015, among mothers with a degree, the percentage of low birthweight babies was significantly low for singleton babies, but not for multiple births and singleton births combined. Rates of low birthweight among different educational groups have varied substantially over the last decade.

**Figure 2.3: Key Health Measures, by Education of Mother (Age 25 and Older), Santa Cruz County Residents, 2015**

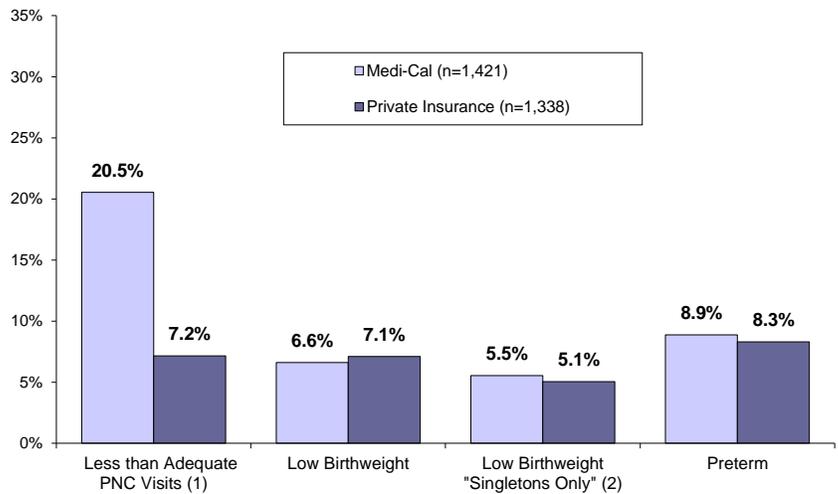


GED = General Equivalency Degree (or diploma)  
 Education status was unknown or withheld for 119 out of 2219 births to mothers age 25 and over; they have been excluded from the above calculations.  
 (1) A component of the Adequate PNC measure was missing for 10, 29, and 29 births to mothers in the <HS Diploma, HS/GED (including some college), and Degree Obtained (including Associate, Bachelor's, Master's, Doctorate, and Professional School) groups, respectively; they have been excluded from the above calculations.  
 (2) Multiple births represented 3.7%, 1.0%, and 4.3% 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 2015, Medi-Cal funded 50% of deliveries to county residents, and private insurance funded 47% 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 utilize less than adequate prenatal care visits (Figure 2.4).

**Figure 2.4: Key Health Measures, by Delivery Payment Source, Santa Cruz County Residents, 2015**



(1) A component of the Adequate PNC measure was missing for 57 and 25 deliveries funded by Medi-Cal and Private Insurance, respectively.  
 (2) Among deliveries funded by Medi-Cal and Private Insurance, 1.9% and 3.8% 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, 2015

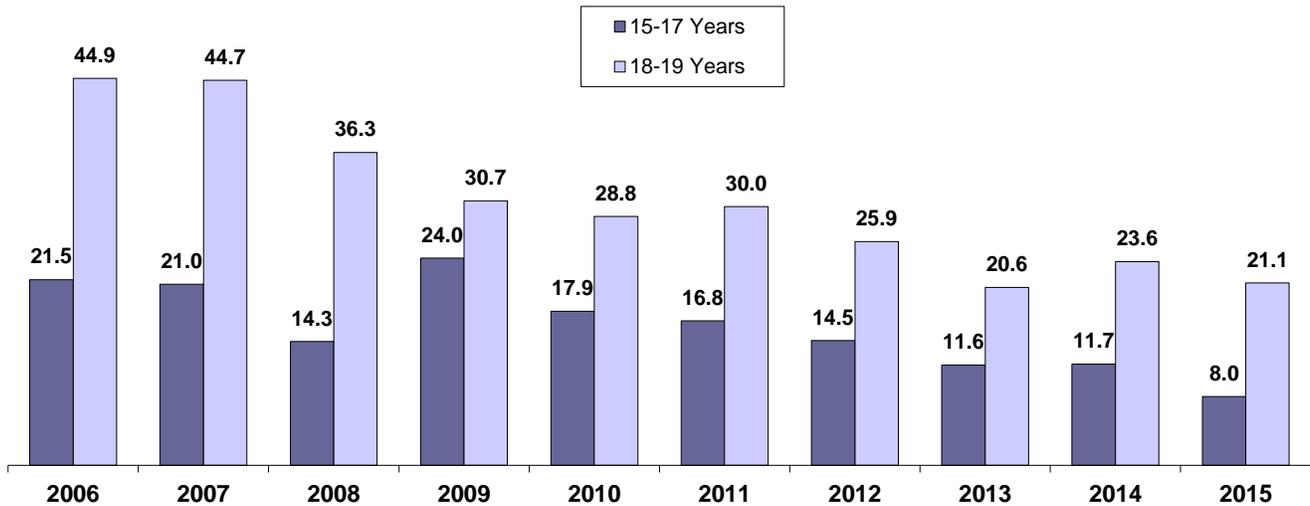
	AGE OF MOTHER (Years)						TOTAL	
	14 and Under		15-17		18-19		Number	Percent
	Number	Percent	Number	Percent	Number	Percent		
<b>ETHNICITY</b>								
Asian & Pacific Islander	0	0%	0	0%	0	0%	0	0%
Black	0	0%	0	0%	1	1%	1	1%
Latina	0	0%	34	100%	94	91%	128	93%
White	0	0%	0	0%	8	8%	8	6%
Other	0	0%	0	0%	0	0%	0	0%
<b>AREA OF RESIDENCE</b>								
Mid-County	0	0%	0	0%	3	3%	3	2%
Santa Cruz Mountains	0	0%	0	0%	1	1%	1	1%
Santa Cruz	0	0%	5	14%	15	15%	20	14%
Scotts Valley	0	0%	0	0%	1	1%	1	1%
South County	0	0%	30	86%	83	81%	113	82%
<b>PRENATAL CARE INITIATION AND UTILIZATION</b>								
Early (1st Trimester)	0	0%	25	71%	67	68%	92	69%
Late (2nd or 3rd Trimester)	0	0%	9	26%	32	32%	41	31%
No Prenatal Care	0	0%	1	3%	0	0%	1	1%
Adequate or Better	0	0%	24	69%	75	73%	99	72%
Less than Adequate	0	0%	11	31%	28	27%	39	28%
Early & Adequate	0	0%	22	63%	63	61%	85	62%
<b>PARITY</b>								
1st Child	0	0%	33	94%	88	85%	121	88%
2nd Child	0	0%	2	6%	14	14%	16	12%
3rd+ Child	0	0%	0	0%	1	1%	1	1%
<b>BIRTH OUTCOMES</b>								
Low Birthweight	0	0%	3	8.6%	6	5.8%	9	6.5%
Very Low Birthweight	0	0%	1	2.9%	3	2.9%	4	2.9%
Preterm	0	0%	3	8.6%	8	7.8%	11	8.0%
Very Preterm	0	0%	1	3%	4	3.9%	5	3.6%
<b>METHOD OF DELIVERY</b>								
Primary Cesarean	0	0%	6	17%	15	15%	21	15%
Repeat Cesarean	0	0%	0	0%	0	0%	0	0%
Vaginal	0	0%	29	83%	88	85%	117	85%
VBAC	0	0%	0	0%	0	0%	0	0%
<b>PAYMENT FOR DELIVERY</b>								
Medi-Cal	0	0%	30	86%	93	90%	123	89%
Private Insurance	0	0%	3	9%	9	9%	12	9%
Other Insurance	0	0%	0	0%	1	1%	1	1%
No Insurance	0	0%	2	6%	0	0%	2	1%
<b>TOTAL</b>	<b>0</b>	<b>0%</b>	<b>35</b>	<b>25%</b>	<b>103</b>	<b>75%</b>	<b>138</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.

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

The birth rate among Santa Cruz County teens has dropped rapidly in recent years (Figure 4.1), in line with a continuing statewide and nationwide trend of decreasing teen birth rates. In 2015, the birth rate among county women aged 15-19 was 14.9 births per 1000 women, less than half the rate just eight years earlier.

**Figure 4.1: Age-Specific Teen Birth Rates per 1,000 Females, by Age Group, Santa Cruz County Residents, 2006-2015**



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 2015, 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). For example, in 2014, residents in ZIP Codes 95076-7 accounted for 69% of all teen births, but only 44% 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, 2015**

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%	162	6%	0.6%
Capitola	95010	1	1%	84	3%	1.2%
Davenport	95017	0	0%	5	0%	0.0%
Freedom	95019	9	7%	133	5%	6.8%
Los Gatos	95033	0	0%	32	1%	0.0%
San Lorenzo Valley	95005-7,18,41	1	1%	211	7%	0.5%
Santa Cruz	95060-5	20	14%	782	28%	2.6%
Scotts Valley	95066	1	1%	108	4%	0.9%
Soquel	95073	1	1%	84	3%	1.2%
Watsonville	95076,7	104	75%	1,232	43%	8.4%
<b>TOTAL</b>		<b>138</b>	<b>100%</b>	<b>2,833</b>	<b>100%</b>	<b>4.9%</b>

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

The percentage of total Santa Cruz County births that were births to teens dropped to a new low of 4.9% in 2015. 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 2015, Santa Cruz County's rate dropped to another new low of 14.9 per 1,000 population. The national rate also reached a new low, 22.3 per thousand, but remains about 2-15 times higher than rates in most developed countries.

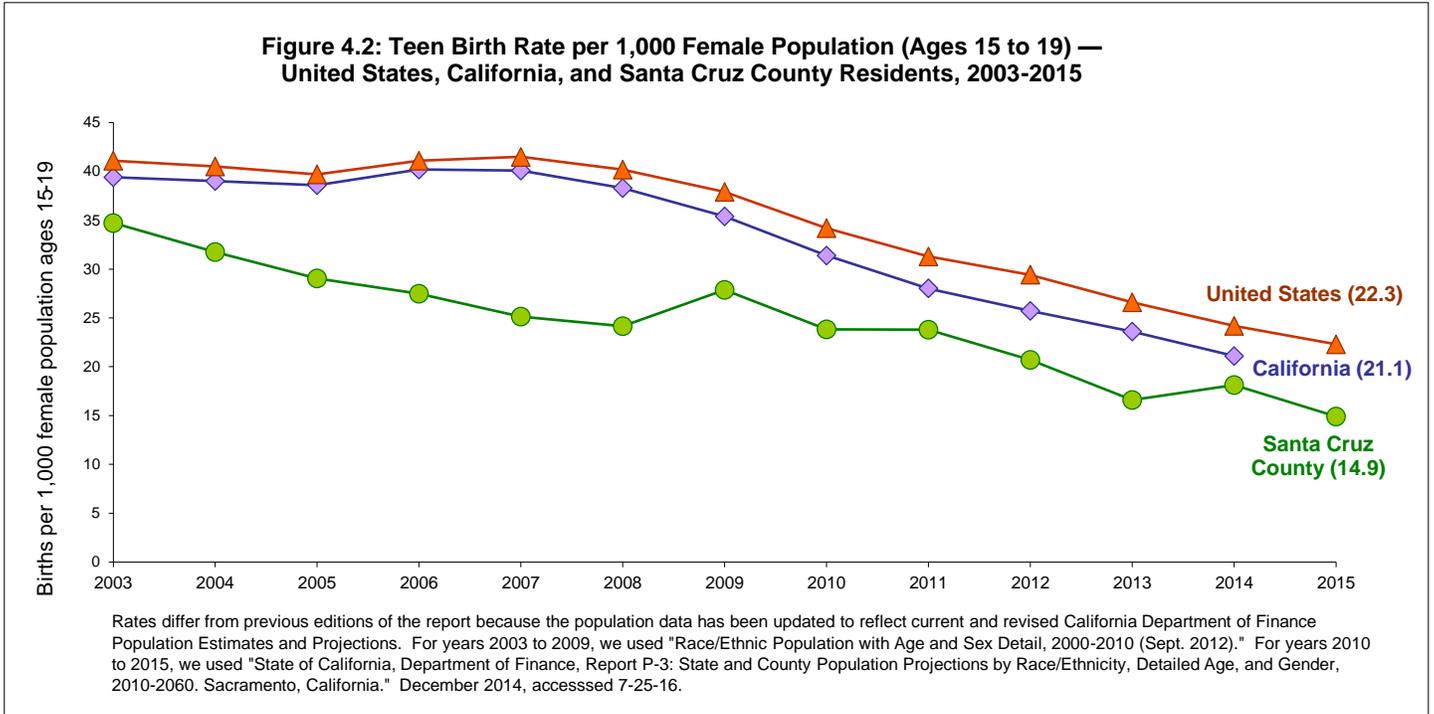
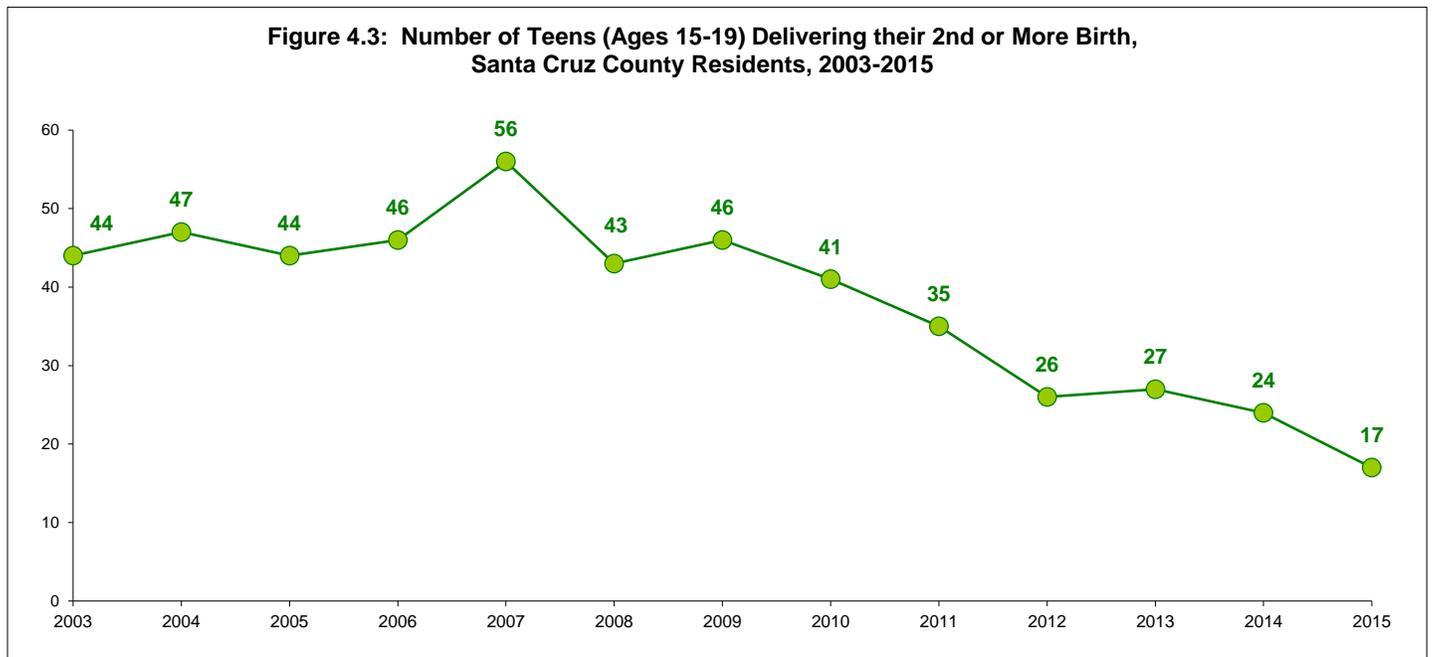


Figure 4.3 shows the number of teen mothers who delivered their second (or more) birth. In 2015, only one teenage mother delivered her third child, and none her fourth. In 2014, the repeat teen birth rate was 17.0% in the U.S., compared to 12.3% in Santa Cruz County.

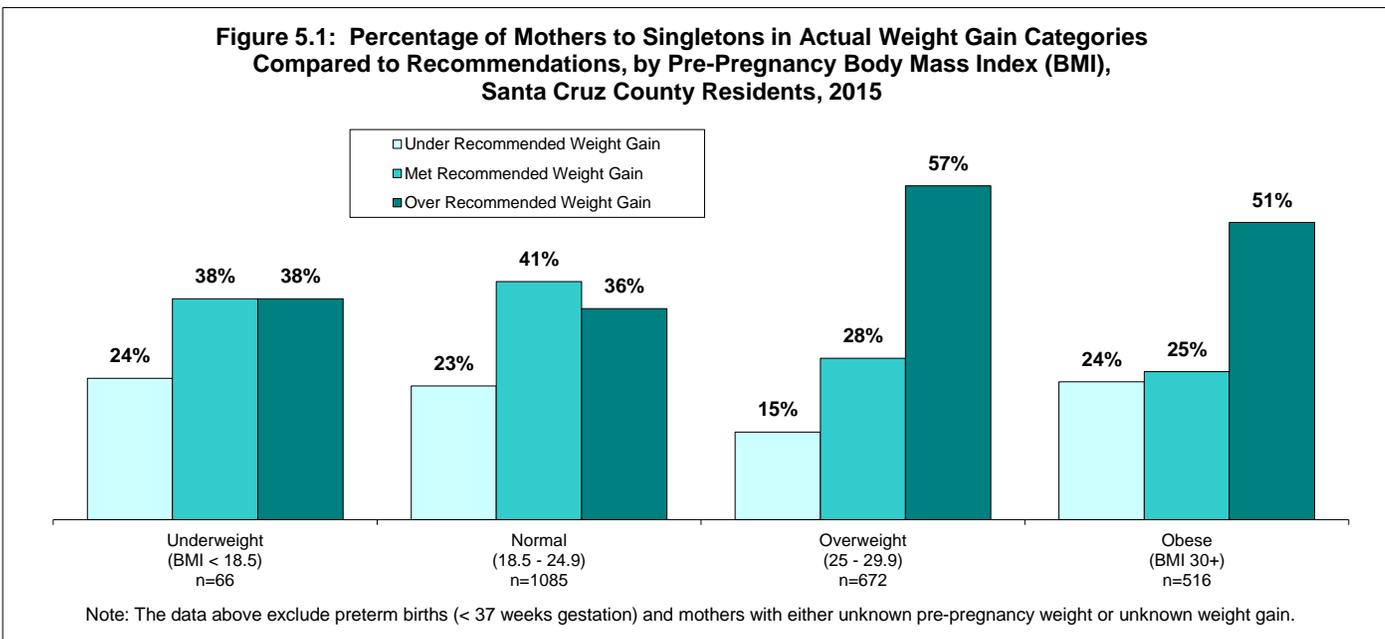


## 5. MOTHER'S WEIGHT GAIN & SMOKING STATUS

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 &amp; BMI (kg/m<sup>2</sup>)</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 2015, 46% 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 2015, over half (50.8%) 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 smoked before, and possibly during, pregnancy.

**TABLE 5.1: Mother's Smoking Status during Pregnancy, by Trimester, Santa Cruz County Residents, 2015**

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	53	1.9%	38	1.4%	22	0.8%	22	0.8%
No	2,761	98.1%	2,776	98.6%	2,793	99.2%	2,793	99.2%
<b>TOTAL</b>	<b>2,814</b>	<b>100%</b>	<b>2,814</b>	<b>100%</b>	<b>2,815</b>	<b>100%</b>	<b>2,815</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, 2015

	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	10	77%	7	19%	4	1%	1	0%	0	0%	22	1%
18 - 19	2	15%	19	53%	42	15%	18	1%	0	0%	81	3%
20 - 24	1	8%	7	19%	188	65%	211	16%	27	3%	434	16%
25 - 34	0	0%	3	8%	50	17%	975	73%	420	42%	1,448	54%
35 and Over	0	0%	0	0%	4	1%	125	9%	553	55%	682	26%
<b>ETHNICITY OF FATHER</b>												
Asian & Pacific Islander	0	0%	0	0%	1	0%	21	2%	43	4%	65	2%
Black	0	0%	0	0%	7	2%	14	1%	9	1%	30	1%
Latino	12	92%	34	94%	249	86%	765	58%	375	38%	1,435	54%
White	0	0%	2	6%	30	10%	509	38%	540	54%	1,081	41%
Other	0	0%	0	0%	0	0%	7	1%	11	1%	18	1%
Unknown	1	8%	0	0%	1	0%	14	1%	22	2%	38	1%
<b>EDUCATION OF FATHER</b>												
8th Grade & Under	2	15%	4	11%	50	17%	196	15%	120	12%	372	14%
Some High School	9	69%	17	47%	31	11%	133	10%	69	7%	259	10%
HS Diploma or GED <sup>(1)</sup>	2	15%	15	42%	179	62%	582	44%	338	34%	1,116	42%
Degree Obtained	0	0%	0	0%	14	5%	347	26%	408	41%	769	29%
Withheld or Unknown	0	0%	0	0%	14	5%	72	5%	65	7%	151	6%
<b>TOTAL</b>	<b>13</b>	<b>0%</b>	<b>36</b>	<b>1%</b>	<b>288</b>	<b>11%</b>	<b>1,330</b>	<b>50%</b>	<b>1,000</b>	<b>37%</b>	<b>2,667</b>	<b>100%</b>

Note: 166 fathers (5.9%) 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, 2015

	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	3	0%	3	0%	32	3%	0	0%	2	1%	40	1%
18 - 19	18	2%	14	1%	89	8%	0	0%	7	3%	128	4%
20 - 24	120	14%	112	11%	314	27%	4	5%	29	12%	579	17%
25 - 34	451	53%	598	61%	532	46%	48	62%	133	53%	1,762	53%
35 and Over	253	30%	253	26%	197	17%	26	33%	79	32%	808	24%
<b>ETHNICITY OF MOTHER</b>												
Asian & Pacific Islander	35	4%	38	4%	5	0%	1	1%	10	4%	89	3%
Black	8	1%	12	1%	3	0%	1	1%	2	1%	26	1%
Latina	377	45%	293	30%	1,111	96%	15	19%	94	42%	1,890	58%
White	408	49%	621	64%	41	4%	60	78%	116	52%	1,246	38%
Other	9	1%	9	1%	3	0%	0	0%	2	1%	23	1%
<b>EDUCATION OF MOTHER</b>												
8th Grade & Under	34	4%	9	1%	340	29%	3	4%	19	9%	405	13%
Some High School	32	4%	28	3%	260	22%	2	3%	12	6%	334	11%
HS Diploma or GED <sup>(1)</sup>	354	46%	372	39%	470	40%	21	27%	59	27%	1,276	40%
Degree Obtained	348	45%	536	57%	91	8%	51	66%	125	58%	1,151	36%
<b>PRENATAL CARE INITIATION AND UTILIZATION</b>												
Early (1st Trimester)	754	91%	864	90%	812	71%	56	73%	214	86%	2,700	83%
Late (2nd or 3rd Trimester)	66	8%	95	10%	334	29%	20	26%	34	14%	549	17%
No Prenatal Care	11	1%	0	0%	2	0%	1	1%	1	0%	15	0%
Adequate or Better	725	89%	874	93%	899	79%	63	83%	193	78%	2,754	86%
Less than Adequate	86	11%	63	7%	246	21%	13	17%	56	22%	464	14%
Early & Adequate	772	95%	846	90%	892	78%	74	97%	249	100%	2,833	88%
<b>BIRTH OUTCOMES <sup>(2)</sup></b>												
Low Birthweight	82	9.7%	16	1.6%	69	5.9%	1	1%	57	22.8%	225	6.8%
Very Low Birthweight	7	0.8%	0	0.0%	2	0.2%	0	0%	29	11.6%	38	1.1%
Preterm	119	14.1%	16	1.6%	72	6.2%	3	3.8%	69	27.6%	279	8.4%
Very Preterm	8	0.9%	0	0%	7	0.6%	0	0%	34	13.6%	49	1.5%
<b>DELIVERY METHOD</b>												
Primary Cesarean	155	18%	126	13%	201	17%	0	0%	77	31%	559	17%
Repeat Cesarean	99	12%	81	8%	221	19%	0	0%	36	14%	437	13%
Vaginal	573	68%	738	75%	731	63%	78	100%	130	52%	2,250	68%
VBAC	18	2%	35	4%	11	1%	0	0%	7	3%	71	2%
<b>PAYMENT FOR DELIVERY</b>												
Medi-Cal	357	42%	267	27%	996	86%	7	9%	65	26%	1,692	51%
Private Insurance	484	57%	707	72%	163	14%	14	18%	178	71%	1,546	47%
Other Insurance	0	0%	4	0%	0	0%	0	0%	5	2%	9	0%
No Insurance	4	0%	1	0%	5	0%	57	73%	2	1%	69	2%
<b>TOTAL</b>	<b>845</b>	<b>25%</b>	<b>980</b>	<b>30%</b>	<b>1,164</b>	<b>35%</b>	<b>78</b>	<b>2%</b>	<b>250</b>	<b>8%</b>	<b>3,317</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. 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.

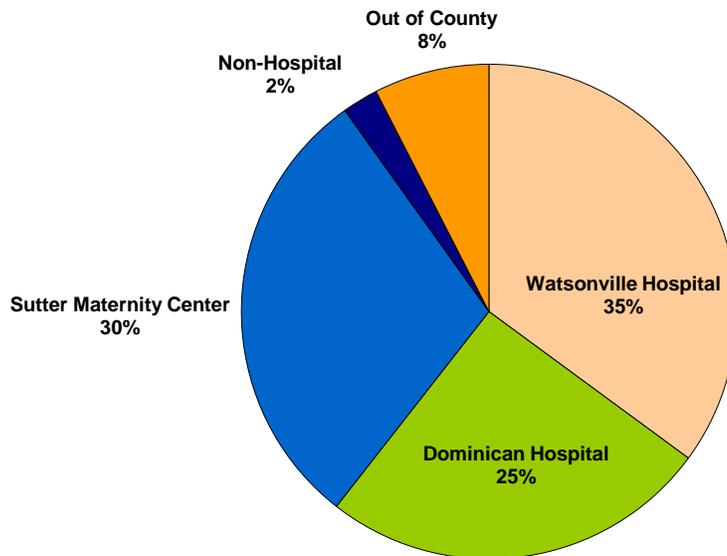
## 7. BIRTHS BY DELIVERY LOCATION

This table provides more details about where Santa Cruz County residents and non-residents deliver. 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, 2015**

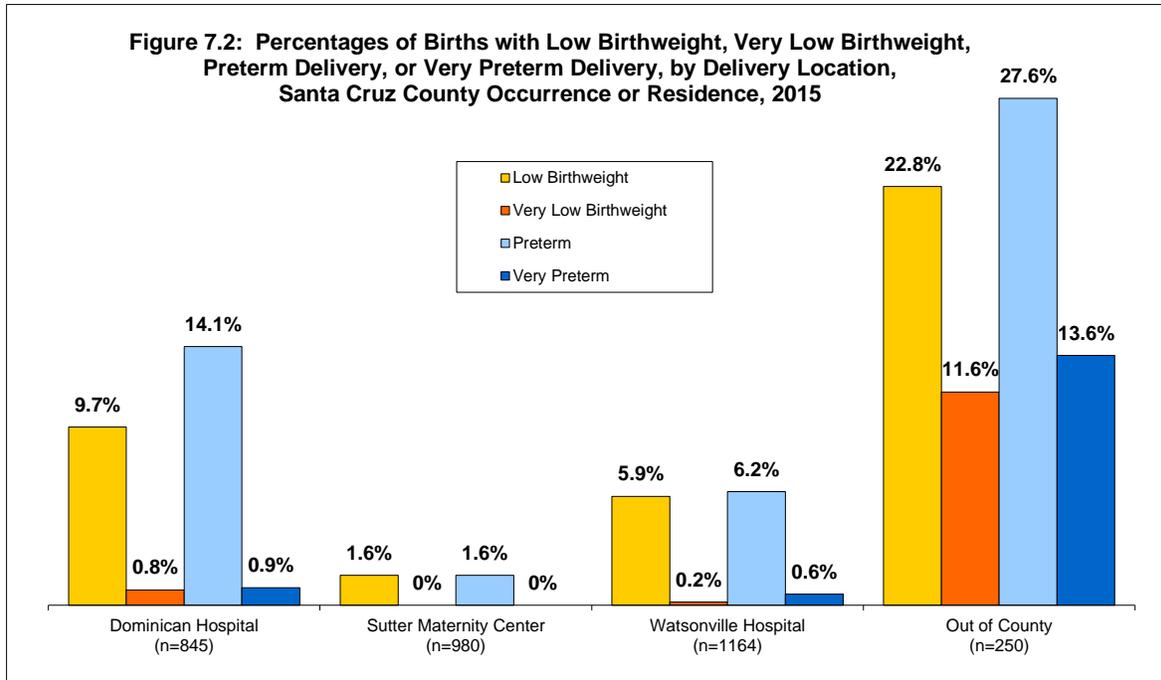
AREA OF RESIDENCE	DELIVERY LOCATION										TOTAL	
	Dominican		Sutter		Watsonville		Non-Hospital		Out of County		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>SANTA CRUZ COUNTY</b>	772	91%	846	86%	892	77%	74	95%	249	100%	2,833	85%
Mid-County	153	20%	140	17%	7	1%	15	20%	22	9%	337	12%
Santa Cruz Mountains	81	10%	87	10%	1	0%	18	24%	56	22%	243	9%
Santa Cruz	330	43%	360	43%	8	1%	33	45%	58	23%	789	28%
Scotts Valley	32	4%	52	6%	0	0%	3	4%	19	8%	106	4%
South County	176	23%	207	24%	876	98%	5	7%	94	38%	1,358	48%
<b>MONTEREY COUNTY</b>	39	4.6%	100	10.2%	250	21.5%	2	-	1	-	392	11.8%
<b>SAN BENITO COUNTY</b>	9	1.1%	6	0.6%	16	1.4%	0	-	0	-	31	0.9%
<b>SANTA CLARA COUNTY</b>	11	1.3%	17	1.7%	2	0.2%	0	-	0	-	30	0.9%
<b>OTHER COUNTIES</b>	14	1.7%	11	1.1%	4	0.3%	2	-	0	-	31	0.9%
<b>TOTAL</b>	<b>845</b>	<b>25%</b>	<b>980</b>	<b>30%</b>	<b>1,164</b>	<b>35%</b>	<b>78</b>	<b>2%</b>	<b>250</b>	<b>8%</b>	<b>3,317</b>	<b>100%</b>

**Figure 7.1: Percentage of Births, by Delivery Location, Santa Cruz County Occurrence or Residence, 2015**



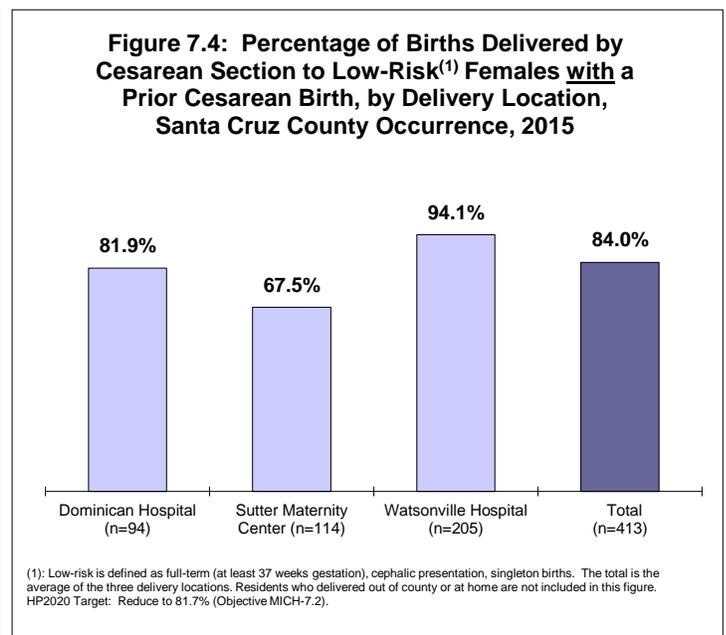
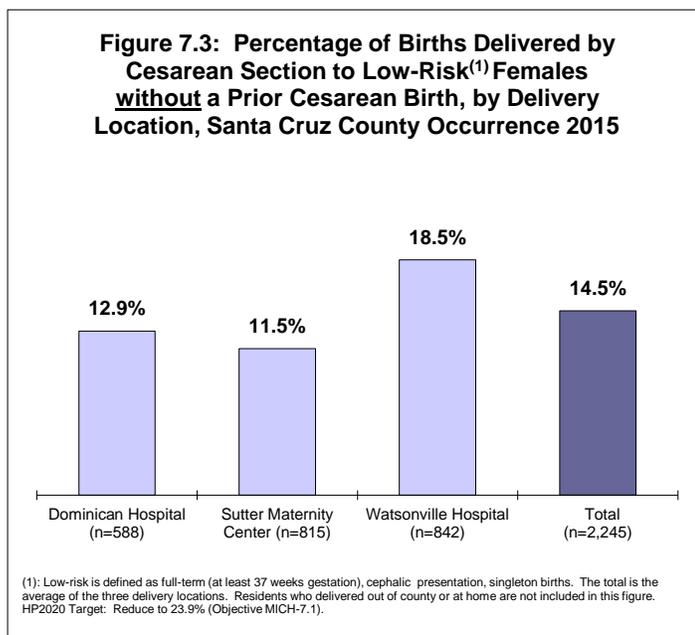
## 7. BIRTHS BY DELIVERY LOCATION

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

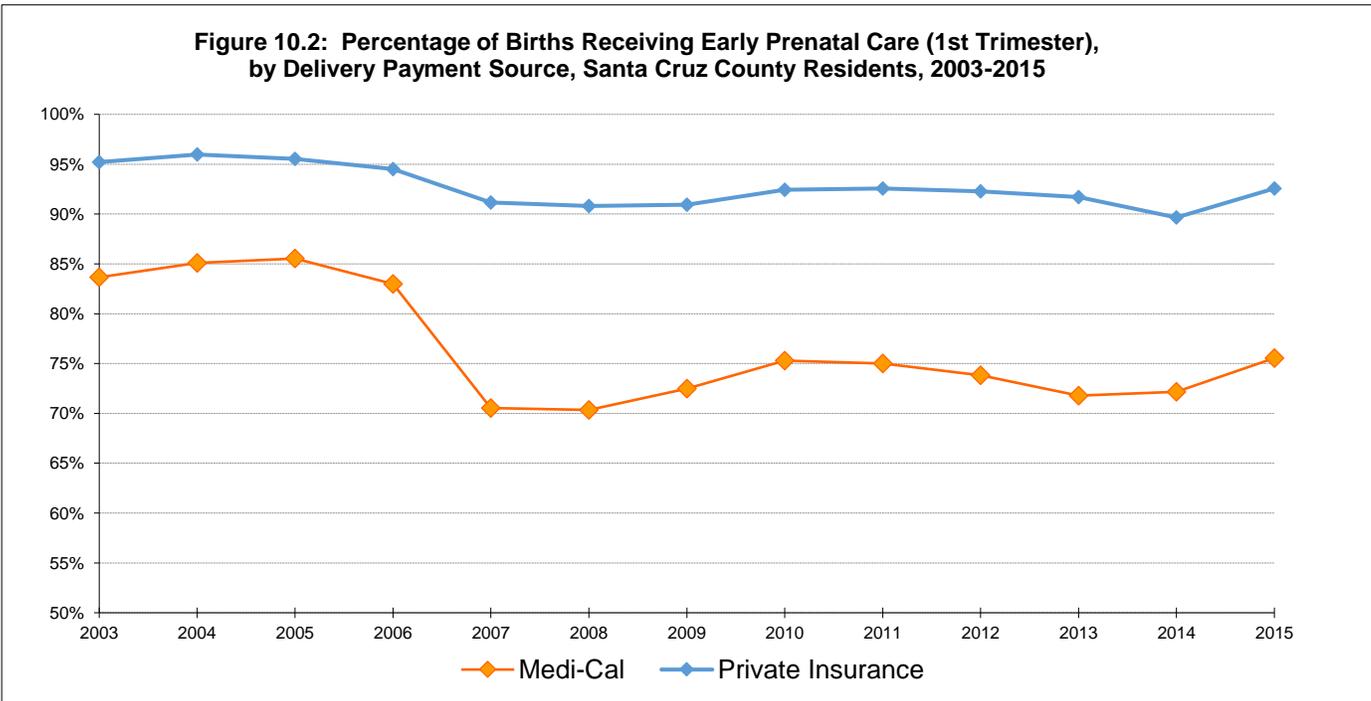
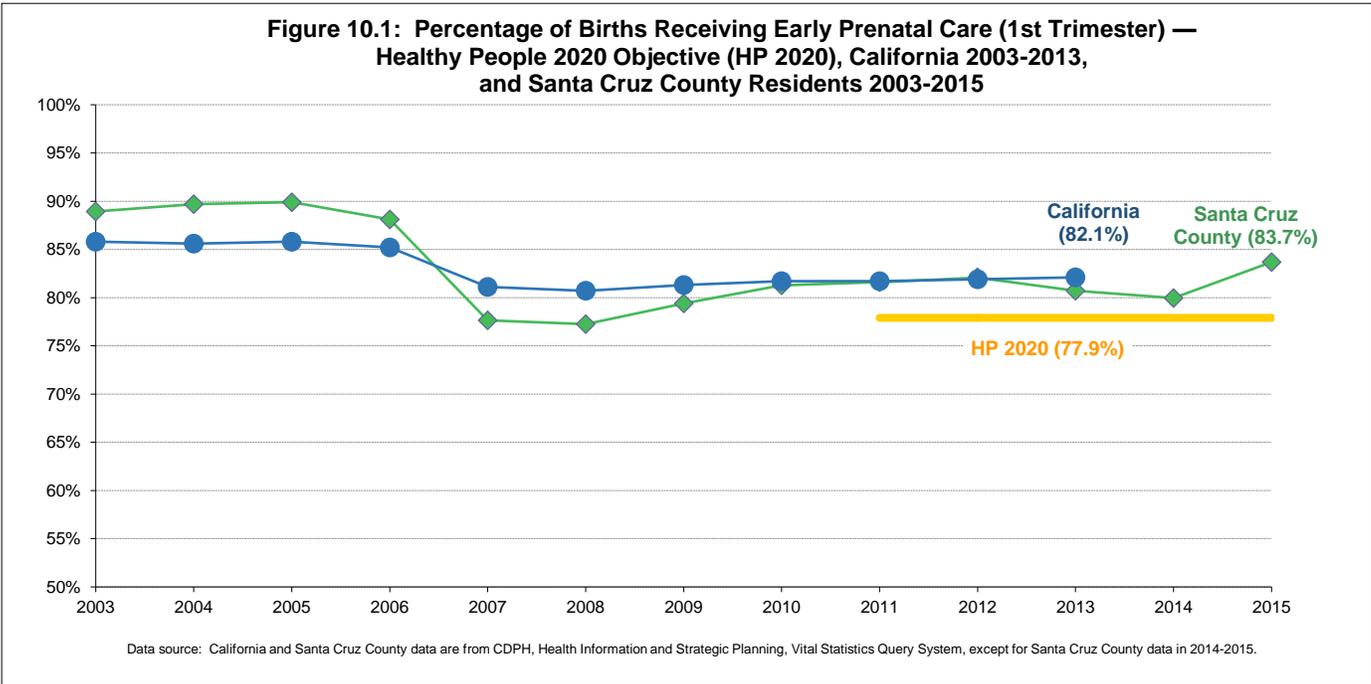
Below are figures on the percentage of cesarean births among low-risk births to females either without a prior cesarean birth (Figure 7.3) or with a prior cesarean birth (Figure 7.4); low-risk births are defined in the figure notes. Santa Cruz County hospitals all meet the HP2020 target for first-time cesareans, but Watsonville Hospital falls substantially short of the target for repeat cesareans.



# 8. TRENDS

## EARLY PRENATAL CARE

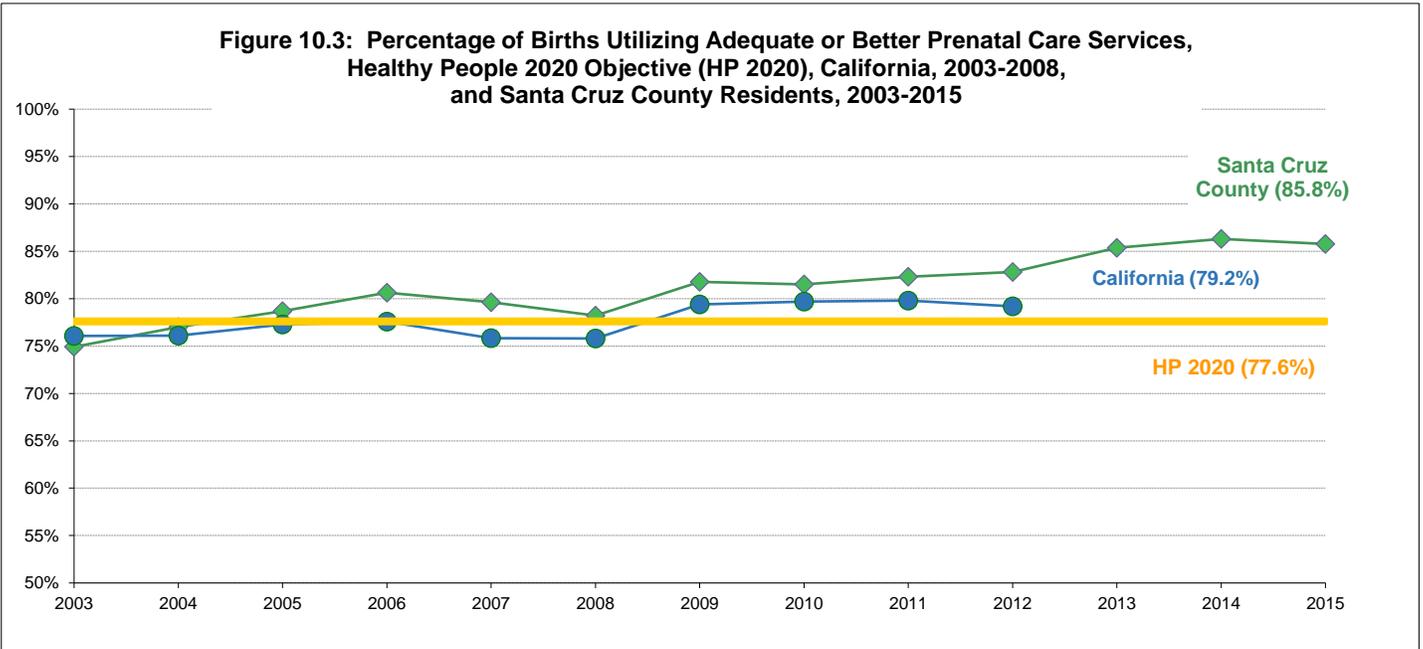
The percentage of mothers who received early prenatal care (1st trimester) was 83.7% in 2015, a noticeable improvement over recent years (Figure 10.1). The Healthy People objective was lowered from 90% in 2010 to 77.9% for 2020; the 2020 objective has been met or nearly met countywide and statewide for 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, 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.



# 8. TRENDS

## ADEQUACY OF PRENATAL CARE UTILIZATION

The percentage of mothers who adequately utilized prenatal care (Kotelchuck Index, see Definitions on page 2) was 85.8% in 2015, compared to 74.9% in 2003 (Figure 10.3). The county trend is improving, and we have surpassed the Healthy People 2020 target, but there is still room for improvement. California data below from 2009-2012 is from the County Health Status Profiles (CHSP) and is not comparable to the Santa Cruz County data. However, CHSP data consistently shows Santa Cruz County rates to be among the ten best county rates in the state.



## MEDI-CAL FUNDED DELIVERIES

Figure 10.4 shows the trend in the percentage of deliveries funded by Medi-Cal at each facility. In 2015, 50% of Santa Cruz County residents' deliveries were funded by Medi-Cal, the lowest percentage since 2007.

