



BIRTHS
Santa Cruz County
2014



Public Health
Prevent. Promote. Protect.

TABLE OF CONTENTS

	Page
INTRODUCTION	1
DEFINITIONS AND TECHNICAL NOTES	2
1. OVERALL COUNTY DEMOGRAPHICS	3
2 BIRTHS BY DEMOGRAPHICS OF MOTHER	4
AGE	
ETHNICITY	
3 KEY HEALTH MEASURES	7
Adequacy of Prenatal Care Utilization, Low Birthweight & Preterm Births by:	
AGE OF MOTHER	
ETHNICITY OF MOTHER	
EDUCATION OF MOTHER	
DELIVERY PAYMENT METHOD	
4. TEEN BIRTHS	9
5. MOTHER'S WEIGHT GAIN & SMOKING STATUS	12
6. BIRTHS BY AGE OF FATHER	13
7. BIRTHS BY DELIVERY LOCATION	14
8. TRENDS	17

For more information, contact:

Will Forest, MPH Will.Forest@santacruzcounty.us (831) 454-4482, or
Jessica Oltmanns, MPH Jessica.Oltmanns@santacruzcounty.us (831) 454-4647

For copies of the report:

Refer to our website, 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, 2014*.
Santa Cruz County, CA. October 2015.

INTRODUCTION

This report provides data on live births delivered in 2014. 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 2014, there were 3,069 live births to mothers who reside in Santa Cruz County, which is 203 (7.1%) more births than in 2013.
- The General Fertility Rate in 2014 was 55.9 births per 1,000 females of typical childbearing age (15-44 years) among Santa Cruz County residents, compared to 51.1 in 2013. The U.S. rate was 62.9 per 1,000 women – the first increase for the United States since 2007 (CDC, *Births: Preliminary Data for 2014*).
- An additional 477 births were delivered in Santa Cruz County to mothers who are residents of other counties, primarily Monterey County (81%).

TEEN BIRTHS (19 and Under)

- Births to teens as a percentage of all births decreased from 6.3% in 2013 to 5.6% in 2014, and the number of teen births fell again (171 births, compared to 179 in 2013, 224 in 2012, and 256 in 2011).
- In 2014, 88% of births to teens were to Latina teens, and 75% of all teen mothers lived in South Santa Cruz County (see definition on page 2).
- In 2014 there were 2 births to 14-year-old females, similar to recent years; there have been no births to county residents under 14 years old since 2011.
- Among teen births in 2014, 15% of mothers were delivering their second (or more) birth, the same as in 2013.

MEDI-CAL

- 53% of all deliveries to residents in 2014 were funded by Medi-Cal, essentially the same as in 2011-2013.

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 2014 data were accessed on March 8, 2015.

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 272,210 in 2014 (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

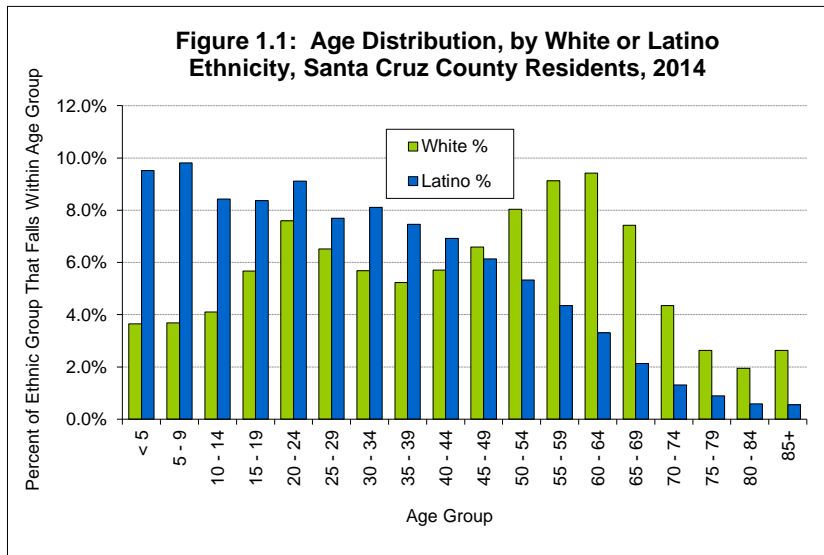
Over 90% of the county's population is either White (57.8%) or Latino (33.7%). The remaining groups (Asians and Pacific Islanders, Blacks, American Indians, and multiple ethnicities) account for much smaller fractions of the population (Table 1.1).

In Santa Cruz County, the Latino population is much younger than the White population (Figure 1.1). For example, in 2014, 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, 2014

	Number	Percent
GENDER		
Female	136,133	50.0%
Male	136,077	50.0%
AGE (Years)		
4 and Under	15,636	5.7%
5 – 19	50,580	18.6%
20 - 44	93,596	34.4%
45 - 64	75,177	27.6%
65 and Over	37,221	13.7%
ETHNICITY		
American Indian	1,027	0.4%
Asian / Pacific Islander	12,194	4.5%
Black	2,355	0.9%
Latino	91,785	33.7%
White	157,453	57.8%
Multiple Races/Ethnicities	7,396	2.7%
TOTAL	272,210	100%

Figure 1.1: Age Distribution, by White or Latino Ethnicity, Santa Cruz County Residents, 2014



2. BIRTHS BY DEMOGRAPHICS OF MOTHERS

TABLE 2.1: Characteristics of Mothers, by Age Group, Santa Cruz County Residents, 2014

									TOTAL	
	19 and Under		20-24		25-34		35 and Over		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
ETHNICITY										
Asian & Pac. Islander	0	0%	8	2%	48	3%	39	5%	95	3%
Black	1	1%	1	0%	9	1%	3	0%	14	0%
Latina	150	88%	407	81%	838	51%	293	40%	1,688	56%
White	17	10%	69	14%	687	42%	371	51%	1,144	38%
Other	3	2%	15	3%	49	3%	27	4%	94	3%
AREA OF RESIDENCE										
Mid-County	12	7%	40	8%	216	13%	111	15%	379	12%
Santa Cruz Mountains	3	2%	19	4%	157	10%	74	10%	253	8%
Santa Cruz	26	15%	104	21%	431	26%	290	39%	851	28%
Scotts Valley	1	1%	4	1%	74	4%	34	5%	113	4%
South County	129	75%	337	67%	772	47%	235	32%	1,473	48%
PARITY										
1st Child	147	86%	253	50%	613	37%	204	27%	1,217	40%
2nd - 3rd Child	23	13%	236	47%	834	51%	390	52%	1,483	48%
4th+ Child	1	1%	14	3%	201	12%	150	20%	366	12%
PRENATAL CARE INITIATION AND UTILIZATION										
Early (1st Trimester)	99	60%	357	72%	1,379	85%	619	85%	2,454	82%
Late (2nd or 3rd Trimester)	63	38%	137	28%	233	14%	111	15%	544	18%
No Prenatal Care	2	1.2%	2	0.4%	6	0.4%	1	0.1%	11	0.4%
Adequate or Better	110	68%	383	79%	1,417	89%	649	90%	2,559	86%
Less than Adequate	52	32%	101	21%	182	11%	71	10%	406	14%
Early <u>and</u> Adequate	88	54%	329	68%	1,295	81%	587	82%	2,299	78%
BIRTH OUTCOMES										
Low Birthweight	10	5.8%	17	3.4%	78	4.7%	47	6.3%	152	5.0%
Very Low Birthweight	0	0.0%	2	0.4%	15	0.9%	15	2.0%	32	1.0%
Preterm	13	7.6%	18	3.6%	111	6.7%	56	7.5%	198	6.5%
Very Preterm	2	1.2%	2	0.4%	22	1.3%	15	2.0%	41	1.3%
DELIVERY METHOD										
Primary Cesarean	31	18%	66	13%	242	15%	143	19%	482	16%
Repeat Cesarean	3	2%	51	10%	258	16%	141	19%	453	15%
Vaginal	137	80%	385	76%	1,131	69%	447	60%	2,100	68%
VBAC	0	0%	2	0%	19	1%	13	2%	34	1%
PAYMENT FOR DELIVERY										
Medi-Cal	147	86%	416	83%	786	48%	274	37%	1,623	53%
Private Insurance	20	12%	81	16%	826	50%	445	60%	1,372	45%
Other Insurance	1	0.6%	2	0.4%	3	0.2%	3	0.4%	9	0.3%
No Insurance	3	2%	5	1%	35	2%	22	3%	65	2%
TOTAL	171	6%	504	16%	1,650	54%	744	24%	3,069	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 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 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), 109.3 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, 2014

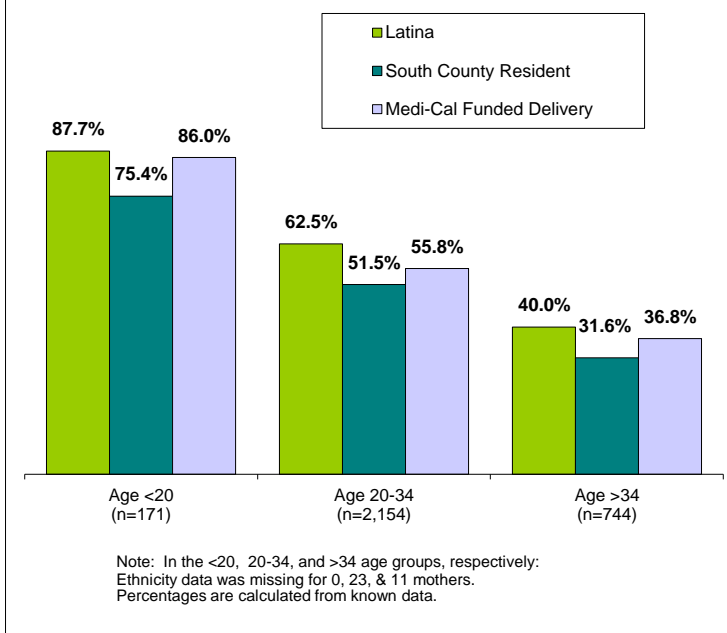
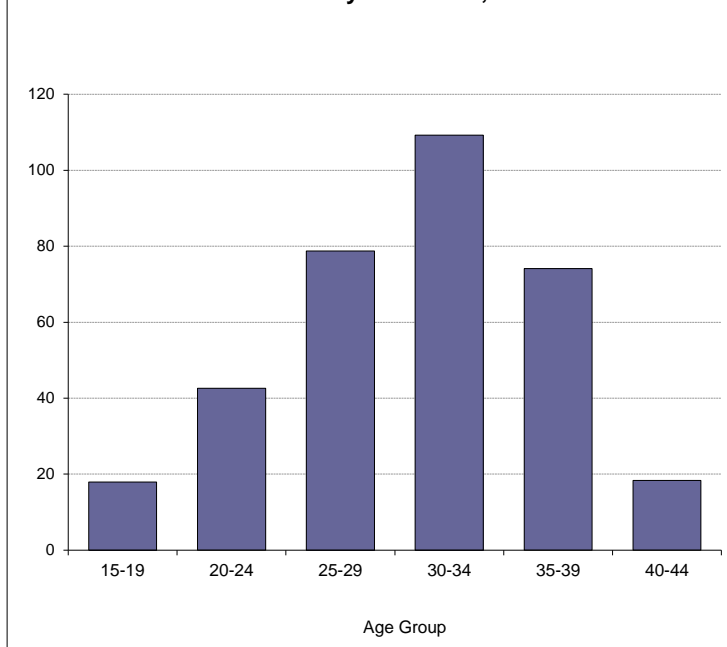


Table 2.2: Births by Mother's Age Group and Age-Specific Birth Rates per 1,000 Females, Santa Cruz County Residents, 2014

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	2	0.1%	7,445	0.3
15-19	169	5.5%	9,427	17.9
20-24	504	16.4%	11,820	42.6
25-29	722	23.5%	9,172	78.7
30-34	928	30.2%	8,492	109.3
35-39	589	19.2%	7,943	74.2
40-44	148	4.8%	8,059	18.4
45-49	7	0.2%	8,703	0.8
TOTAL	3,069	100%	54,913	55.9

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 (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, 2014



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 51% are White. However, Latina mothers delivered 55% of the babies in 2014, while White mothers delivered only 37% 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 (80.6 per 1,000) than among Whites (41.1 per 1,000).

Figure 2.3: Percentage of Births by Ethnicity of Mother (n=3,069), Santa Cruz County Residents, 2014

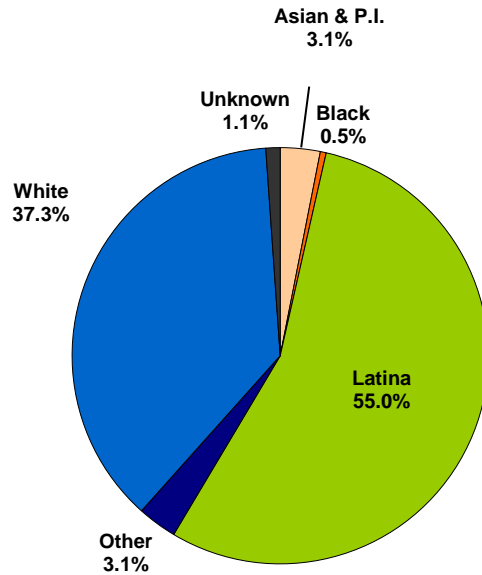
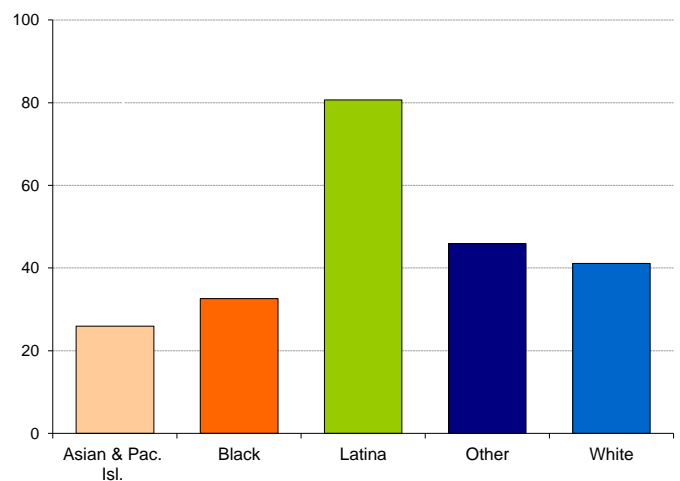


Table 2.3: Births and Fertility Rate, by Ethnicity of Mother, Santa Cruz County Residents, 2014

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.	95	3.1%	3,663	25.9
Black	14	0.5%	430	32.6
Latina	1,688	55.0%	20,934	80.6
Other	94	3.1%	2,046	45.9
White	1,144	37.3%	27,840	41.1
Unknown	34	1.1%	--	--
TOTAL	3,069	100%	54,913	55.9

"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, 2014



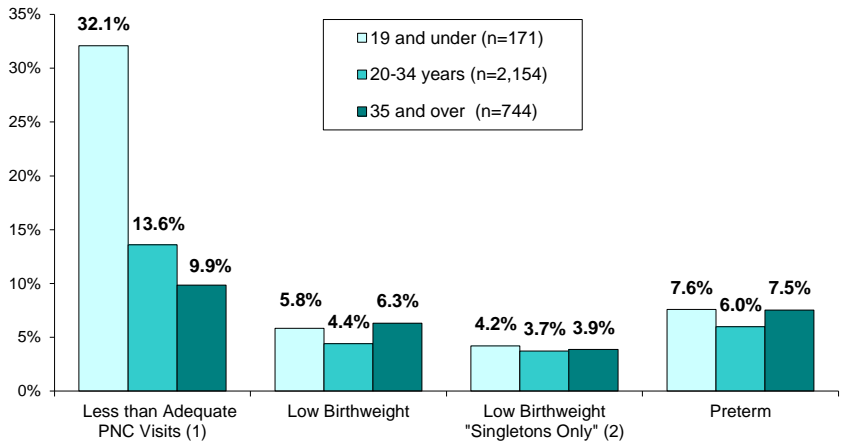
3. KEY HEALTH MEASURES

AGE OF MOTHER

In 2014, 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 32% receiving a less than adequate number of prenatal care visits.

Low birthweight data in Figures 2.1-2.4 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 2014, there were 81 multiple births, and 39 of them (48%) were low birthweight. A high rate of multiple births among mothers over age 35 largely explains 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, 2014

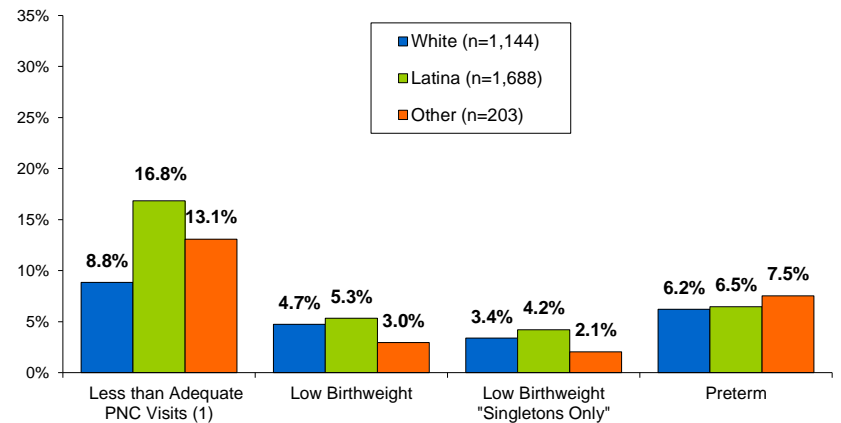


(1) At least one component of the Adequate PNC Visits measure was missing for 9, 71, and 24 births to mothers in age groups <20, 20-34, & 35+, respectively. Births with missing data are excluded.
 (2) Multiple births represented 2.3%, 1.4%, and 6.2% of births to mothers in the respective age groups <20, 20-34, & 35+.

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 (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, after having had the highest rate in 2013.

Figure 3.2: Key Health Measures, by Ethnicity of Mother, Santa Cruz County Residents, 2014



Ethnicity was unknown or withheld for 34 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) At least one component of the Adequate PNC Visits measure was missing for 46, 44, and 12 births to White, Latina, and Other ethnicity mothers, respectively. Births with missing data are excluded.
 (2) Multiple births represented 4.3%, 1.4%, and 3.9% of births to White, Latina and Other ethnicity mothers, respectively.

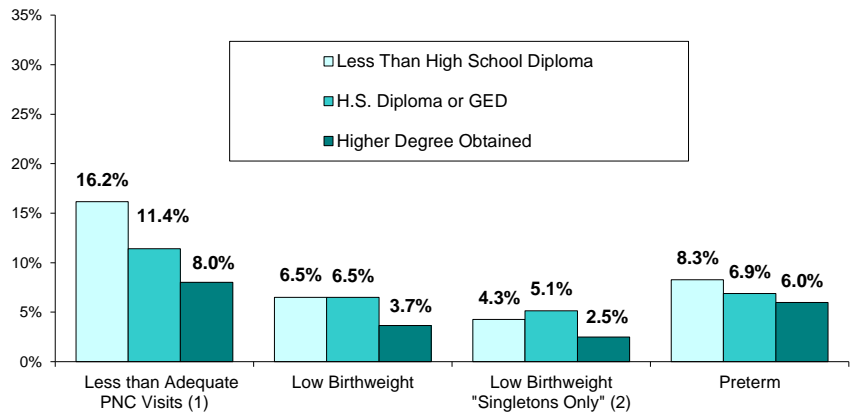
2. KEY HEALTH MEASURES

EDUCATION OF MOTHER

In 2014, 21% of new mothers ages 25 and older did not have a high school diploma or equivalent. Of those mothers, 16.2% 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 higher degree (Figure 2.3).

In 2014, mothers with a higher degree were significantly less likely to have a low birthweight baby than mothers with only a high school diploma or no diploma – unlike 2013, when the more educated mothers had a *higher* rate of low birthweight. These rates 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, 2014



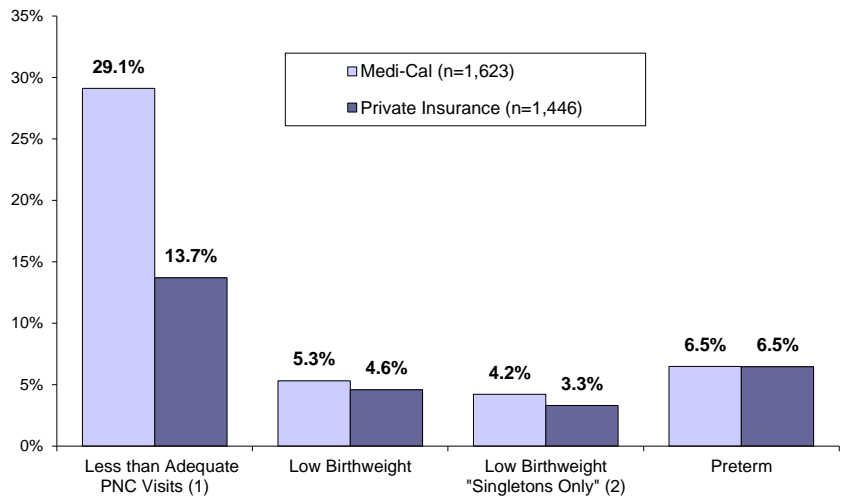
GED = General Equivalency Degree (or diploma)
 Education status was unknown or withheld for 110 out of 2394 births to mothers age 25 and over; they have been excluded from the above calculations.
 (1) A component of the Adequate PNC measure was missing for 12, 30, and 28 births to mothers in the <HS Diploma, HS/GED (including some college), and Higher Degree Obtained (including Associate, Bachelor's, Master's, Doctorate, and Professional School) groups, respectively; they have been excluded from the above calculations.
 (2) Multiple births represented 2.8%, 2.7%, and 3.6% 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 2014, Medi-Cal funded 53% of deliveries to county residents and private insurance funded 45% of deliveries; the remainder were otherwise insured or not insured at all. Mothers with Medi-Cal-funded deliveries were more than twice as likely as mothers with privately insured deliveries to utilize less than adequate prenatal care visits (Figure 2.4).

Privately insured deliveries were somewhat less likely than Medi-Cal deliveries to be low birthweight.

Figure 2.4: Key Health Measures, by Delivery Payment Source, Santa Cruz County Residents, 2014



(1) A component of the Adequate PNC measure was missing for 60 and 42 deliveries funded by Medi-Cal and Private Insurance, respectively.
 (2) Among deliveries funded by Medi-Cal and Private Insurance, 1.7% and 3.9% respectively were multiple births.

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

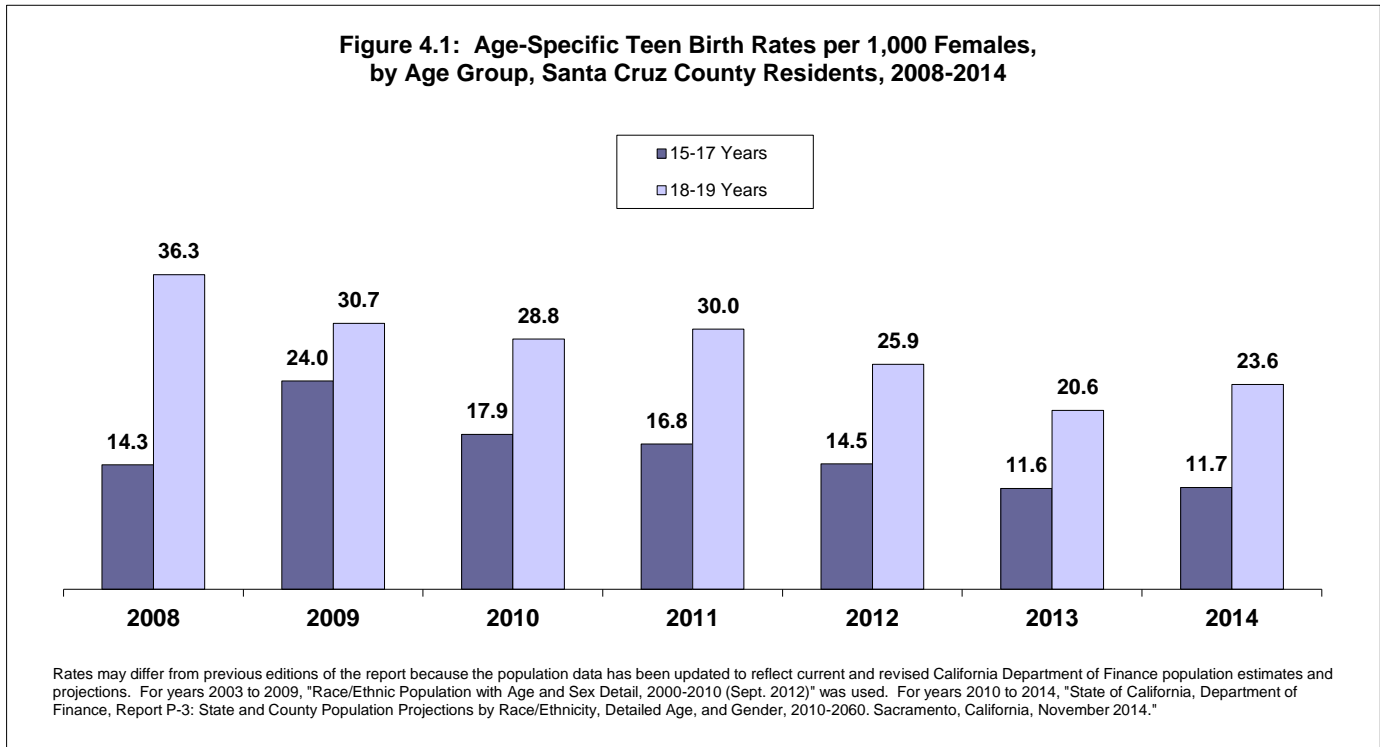
TABLE 4.1: Characteristics of Teenage Mothers, by Age Group, Santa Cruz County Residents, 2014

	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%	0	0%	0	0%
Black	0	0%	0	0%	1	1%	1	1%
Latina	2	100%	49	92%	99	85%	150	88%
White	0	0%	2	4%	15	13%	17	10%
Other	0	0%	2	4%	1	1%	3	2%
AREA OF RESIDENCE								
Mid-County	0	0%	5	9%	7	6%	12	7%
Santa Cruz Mountains	0	0%	1	2%	2	2%	3	2%
Santa Cruz	0	0%	6	11%	20	17%	26	15%
Scotts Valley	0	0%	0	0%	1	1%	1	1%
South County	2	100%	41	77%	86	74%	129	75%
PRENATAL CARE INITIATION AND UTILIZATION								
Early (1st Trimester)	1	50%	27	54%	71	63%	99	60%
Late (2nd or 3rd Trimester)	1	50%	22	44%	40	36%	63	38%
No Prenatal Care	0	0%	1	2%	1	1%	2	1%
Adequate or Better	1	50%	29	58%	80	73%	110	68%
Less than Adequate	1	50%	21	42%	30	27%	52	32%
Early & Adequate	1	50%	23	46%	64	58%	88	54%
PARITY								
1st Child	2	100%	49	92%	96	83%	147	86%
2nd Child	0	0%	4	8%	14	12%	18	11%
3rd+ Child	0	0%	0	0%	6	5%	6	4%
BIRTH OUTCOMES								
Low Birthweight	0	0%	1	1.9%	9	7.8%	10	5.8%
Very Low Birthweight	0	0%	0	0%	0	0.0%	0	0.0%
Preterm	0	0%	4	7.5%	7	6.0%	11	6.4%
Very Preterm	0	0%	0	0%	2	1.7%	2	1.2%
METHOD OF DELIVERY								
Primary Cesarean	1	50%	11	21%	19	16%	31	18%
Repeat Cesarean	0	0%	0	0%	3	3%	3	2%
Vaginal	1	50%	42	79%	94	81%	137	80%
VBAC	0	0%	0	0%	0	0%	0	0%
PAYMENT FOR DELIVERY								
Medi-Cal	2	100%	45	85%	100	86%	147	86%
Private Insurance	0	0%	5	9%	15	13%	20	12%
Other Insurance	0	0%	3	6%	1	1%	4	2%
No Insurance	0	0%	0	0%	0	0%	0	0%
TOTAL	2	1%	53	31%	116	68%	171	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 rapidly in recent years (Figure 4.1), in line with a continuing statewide and nationwide trend of decreasing teen birth rates. However, the birth rate in 2014 among county women aged 15-19 was 17.9 births per 1000 women, slightly higher than the 16.6/1000 rate in 2013.



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 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, 2014

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	7	4%	202	7%	3.5%
Capitola	95010	3	2%	73	2%	4.1%
Davenport	95017	1	1%	7	0%	14.3%
Freedom	95019	9	5%	127	4%	7.1%
Los Gatos	95033	0	0%	25	1%	0.0%
San Lorenzo Valley	95005-7,18,41	3	2%	228	7%	1.3%
Santa Cruz	95060-5	25	15%	842	27%	3.0%
Scotts Valley	95066	1	1%	114	4%	0.9%
Soquel	95073	2	1%	92	3%	2.2%
Watsonville	95076,7	120	70%	1,359	44%	8.8%
TOTAL		171	100%	3,069	100%	5.6%

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

The percentage of total births that were births to teens dropped from 6.2% in 2013 to 5.6% in 2014. 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, although Santa Cruz County's rate rose from 16.6 per 1,000 population in 2013 to 18.1 per thousand. The national rate (24.2 per thousand) remains about 2-15 times higher than rates in most developed countries.

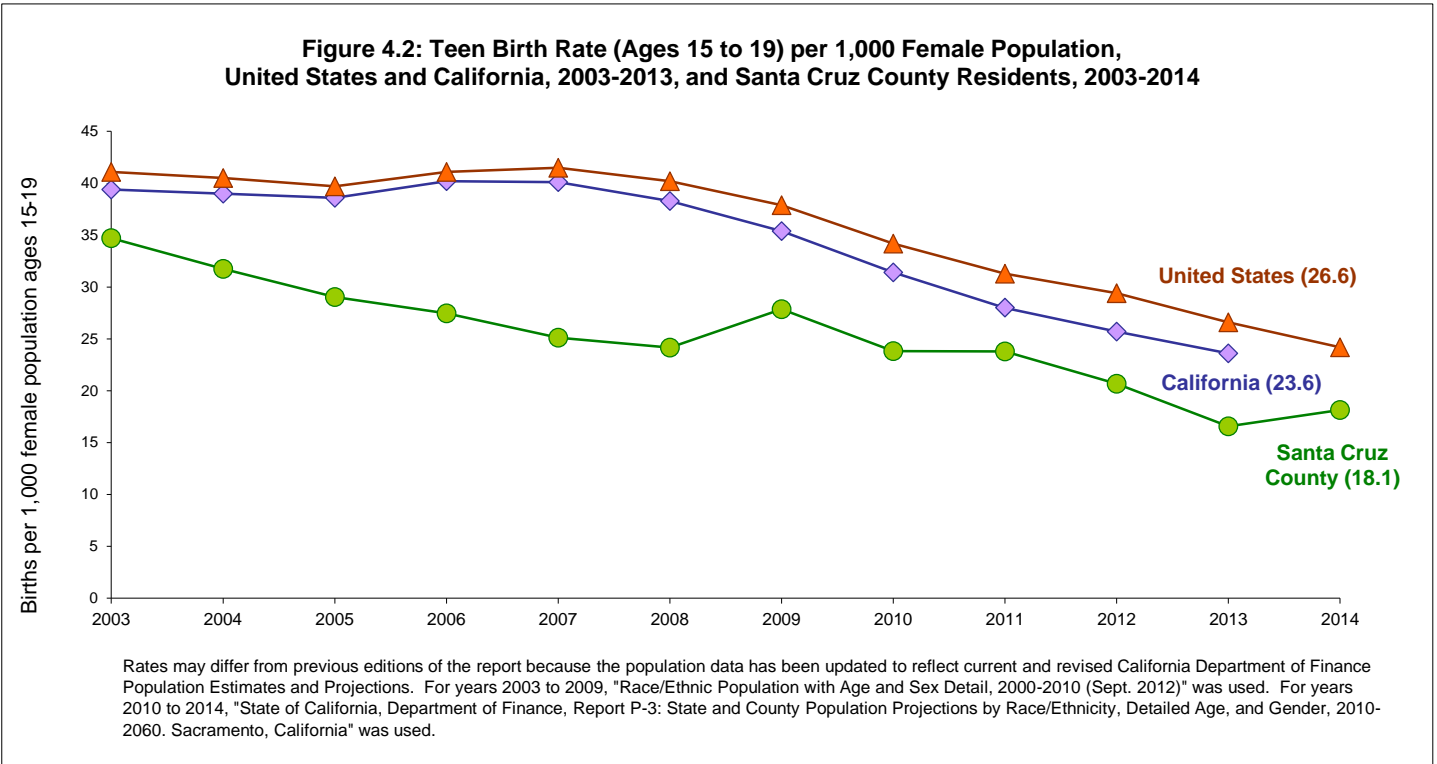
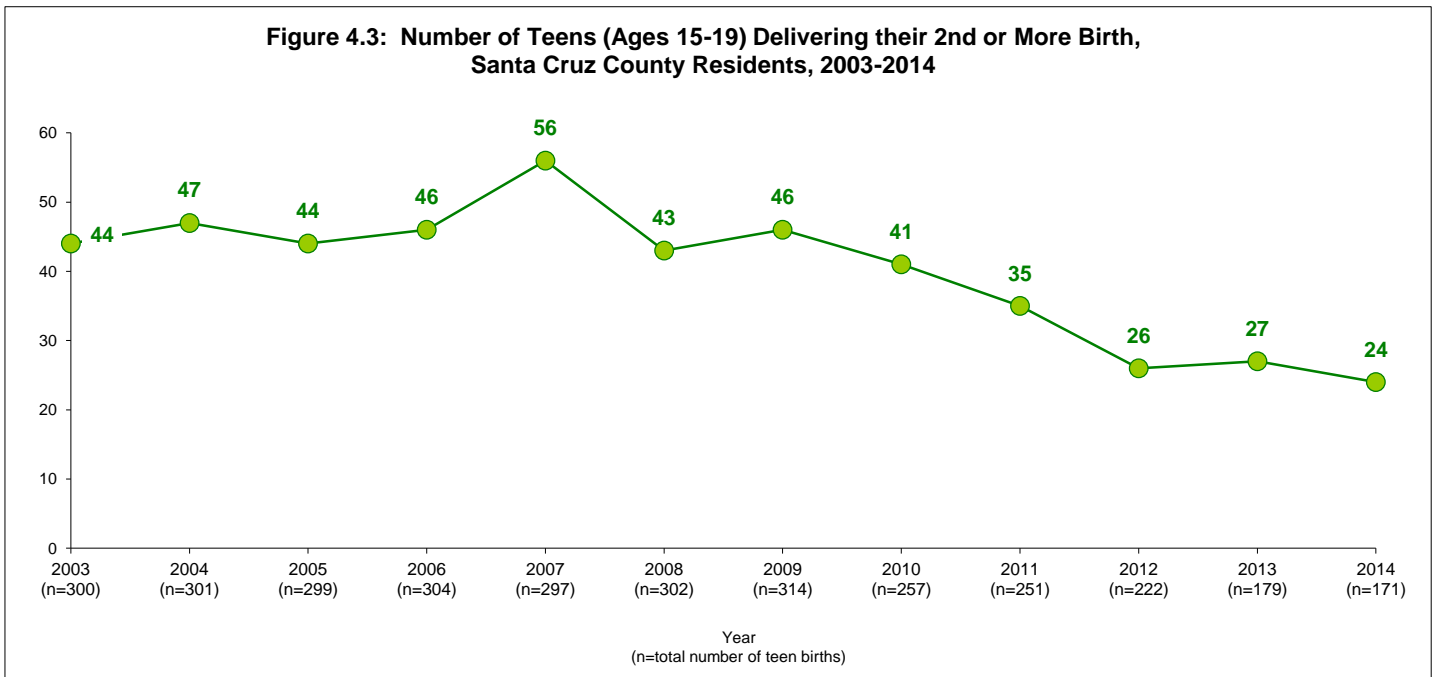


Figure 4.3 shows the number of teen mothers who delivered their second (or more) birth. In 2014, five teenage mothers each delivered their third child, and one her fourth. In 2013 the repeat teen birth rate was 17.0% in the U.S., compared to 11.7% in Santa Cruz County. In 2014, the rate in Santa Cruz County rose slightly to 14.0%.

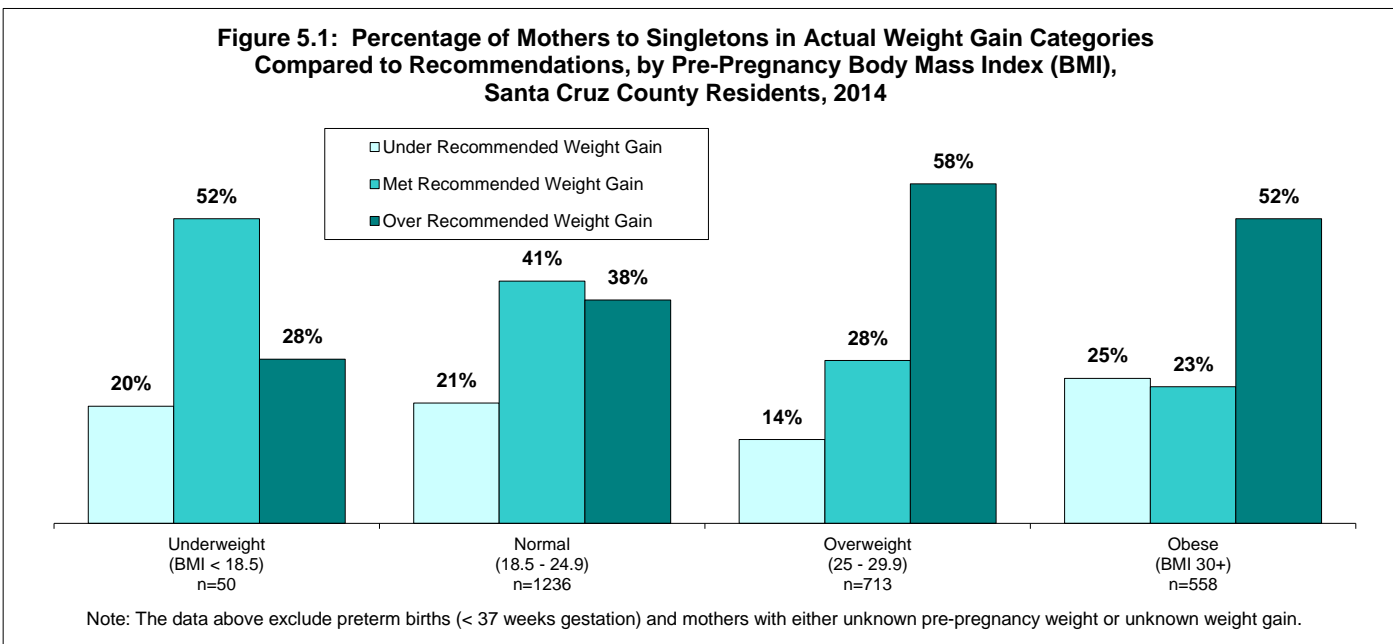


5. MOTHER'S WEIGHT GAIN & SMOKING STATUS

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

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

In 2014, 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 2014, nearly half (49.7%) of all 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 had dropped from 2.5% in 2011 to 1.4% in 2012 and 2013, but in 2014 the rate rebounded to 2.6%. 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 or during pregnancy.

TABLE 5.1: Mother's Smoking Status during Pregnancy, by Trimester, Santa Cruz County Residents, 2014

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	80	2.6%	69	2.2%	62	2.0%	57	1.9%
No	2,989	97.4%	3,000	97.8%	3,007	98.0%	3,012	98.1%
TOTAL	3,069	100%	3,069	100%	3,069	100%	3,069	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, 2014

	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	12	60%	16	31%	9	3%	1	0%	1	0%	39	1%
18 - 19	5	25%	29	56%	49	14%	16	1%	3	0%	102	4%
20 - 24	2	10%	6	12%	224	64%	217	16%	13	1%	462	16%
25 - 34	1	5%	1	2%	65	19%	1,018	74%	491	45%	1,576	54%
35 and Over	0	0%	0	0%	3	1%	133	10%	584	53%	720	25%
ETHNICITY OF FATHER												
Asian & Pacific Islander	0	0%	0	0%	3	1%	37	3%	54	5%	94	3%
Black	0	0%	0	0%	1	0%	16	1%	20	2%	37	1%
Latino	18	90%	47	90%	298	85%	790	57%	438	40%	1,591	55%
White	2	10%	5	10%	40	11%	528	38%	553	51%	1,128	39%
Other	0	0%	0	0%	4	1%	4	0%	8	1%	16	1%
Unknown	0	0%	0	0%	4	1%	10	1%	19	2%	33	1%
EDUCATION OF FATHER												
8th Grade & Under	2	10%	7	13%	55	16%	185	13%	164	15%	413	14%
Some High School	13	65%	15	29%	84	24%	169	12%	82	8%	363	13%
HS Diploma or GED ⁽¹⁾	5	25%	28	54%	173	49%	598	43%	321	29%	1,125	39%
Higher Degree Obtained	0	0%	1	2%	23	7%	360	26%	467	43%	851	29%
Withheld or Unknown	0	0%	1	2%	15	4%	73	5%	58	5%	147	5%
TOTAL	20	1%	52	2%	350	12%	1,385	48%	1,092	38%	2,899	100%

Note: 170 fathers (5.5%) 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, 2014

	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	12	1%	8	1%	41	3%	0	0%	2	1%	63	2%
18 - 19	22	2%	24	2%	95	7%	0	0%	2	1%	143	4%
20 - 24	141	16%	96	9%	335	25%	5	7%	23	10%	600	17%
25 - 34	477	53%	630	61%	637	48%	43	61%	126	55%	1,913	54%
35 and Over	243	27%	276	27%	210	16%	23	32%	75	33%	827	23%
ETHNICITY OF MOTHER												
Asian & Pacific Islander	34	4%	35	3%	9	1%	3	4%	22	10%	103	3%
Black	7	1%	5	0%	3	0%	0	0%	0	0%	15	0%
Latina	373	43%	298	29%	1,255	95%	7	10%	85	38%	2,018	58%
White	434	50%	634	62%	45	3%	52	76%	110	50%	1,275	36%
Other	27	3%	54	5%	5	0%	6	9%	4	2%	96	3%
EDUCATION OF MOTHER												
8th Grade & Under	32	4%	11	1%	386	29%	0	0%	15	7%	444	13%
Some High School	71	9%	18	2%	336	26%	0	0%	18	8%	443	13%
HS Diploma or GED ⁽¹⁾	367	45%	398	41%	445	34%	15	22%	57	26%	1,282	38%
Higher Degree Obtained	352	43%	542	56%	150	11%	52	78%	127	59%	1,223	36%
PRENATAL CARE INITIATION AND UTILIZATION												
Early (1st Trimester)	779	88%	889	88%	889	69%	51	72%	204	90%	2,812	81%
Late (2nd or 3rd Trimester)	96	11%	116	12%	402	31%	19	27%	23	10%	656	19%
No Prenatal Care	7	1%	0	0%	5	0%	1	1%	0	0%	13	0%
Adequate or Better	739	87%	933	95%	1,032	80%	55	79%	180	80%	2,939	86%
Less than Adequate	108	13%	53	5%	262	20%	15	21%	46	20%	484	14%
Early & Adequate	688	81%	866	88%	864	67%	46	66%	171	76%	2,635	77%
BIRTH OUTCOMES ⁽²⁾												
Low Birthweight	67	7.5%	12	1.2%	59	4.5%	1	1%	42	18.4%	181	5.1%
Very Low Birthweight	13	1.5%	0	0.0%	6	0.5%	1	1%	16	7.0%	36	1.0%
Preterm	79	8.8%	23	2.2%	47	3.6%	0	0.0%	33	14.5%	182	5.1%
Very Preterm	16	1.8%	0	0%	10	0.8%	1	1%	19	8.3%	46	1.3%
DELIVERY METHOD												
Primary Cesarean	138	15%	127	12%	215	16%	0	0%	64	28%	544	15%
Repeat Cesarean	128	14%	99	9%	254	19%	0	0%	33	14%	514	14%
Vaginal	629	69%	808	76%	849	64%	71	100%	131	57%	2,488	69%
VBAC	15	2%	26	2%	11	1%	0	0%	1	0%	53	1%
PAYMENT FOR DELIVERY												
Medi-Cal	395	44%	289	28%	1,156	88%	4	6%	57	25%	1,901	54%
Private Insurance	489	55%	740	72%	152	12%	19	27%	164	72%	1,564	44%
Other Insurance	3	0%	4	0%	0	0%	2	3%	3	1%	12	0%
No Insurance	8	1%	1	0%	10	1%	46	65%	4	2%	69	2%
TOTAL	895	25%	1,034	29%	1,318	37%	71	2%	228	6%	3,546	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.

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

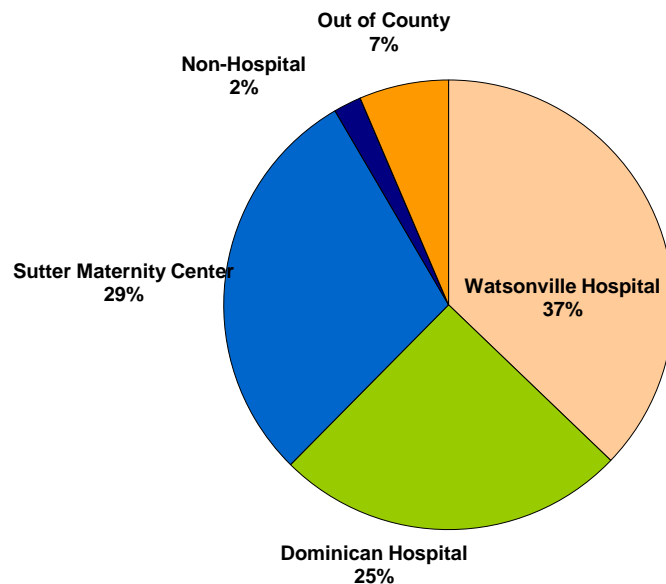
7. BIRTHS BY DELIVERY LOCATION

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, 2014

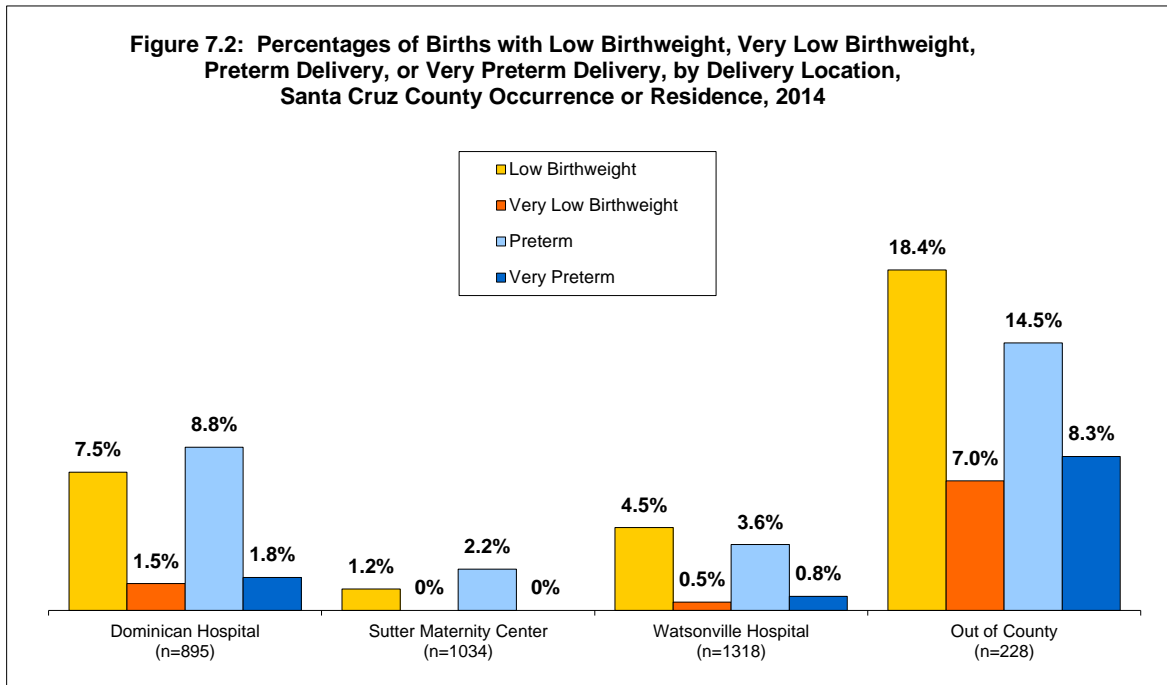
	DELIVERY LOCATION										TOTAL	
	Dominican		Sutter		Watsonville		Non-Hospital		Out of County		Number	Percent
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
AREA OF RESIDENCE												
SANTA CRUZ COUNTY	819	92%	906	88%	1,050	80%	66	93%	228	100%	3,069	87%
Mid-County	137	17%	185	20%	16	2%	10	15%	31	14%	379	12%
Santa Cruz Mountains	90	11%	93	10%	3	0%	17	26%	50	22%	253	8%
Santa Cruz	383	47%	377	42%	6	1%	35	53%	50	22%	851	28%
Scotts Valley	39	5%	55	6%	1	0%	1	2%	17	7%	113	4%
South County	170	21%	196	22%	1,024	98%	3	5%	80	35%	1,473	48%
MONTEREY COUNTY	44	4.9%	91	8.8%	252	19.1%	1	-	-	-	388	10.9%
SAN BENITO COUNTY	7	0.8%	15	1.5%	12	0.9%	-	-	-	-	34	1.0%
SANTA CLARA COUNTY	13	1.5%	13	1.3%	2	0.2%	1	-	-	-	29	0.8%
OTHER COUNTIES	12	1.3%	9	0.9%	2	0.2%	3	-	-	-	26	0.7%
TOTAL	895	25%	1,034	29%	1,318	37%	71	2%	228	6%	3,546	100%

Figure 7.1: Percentage of Births, by Delivery Location, Santa Cruz County Occurrence or Residence, 2014



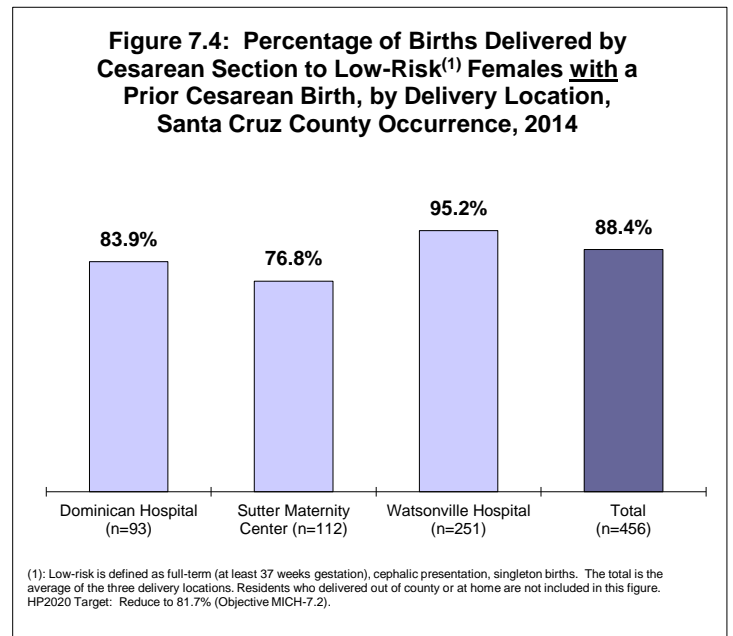
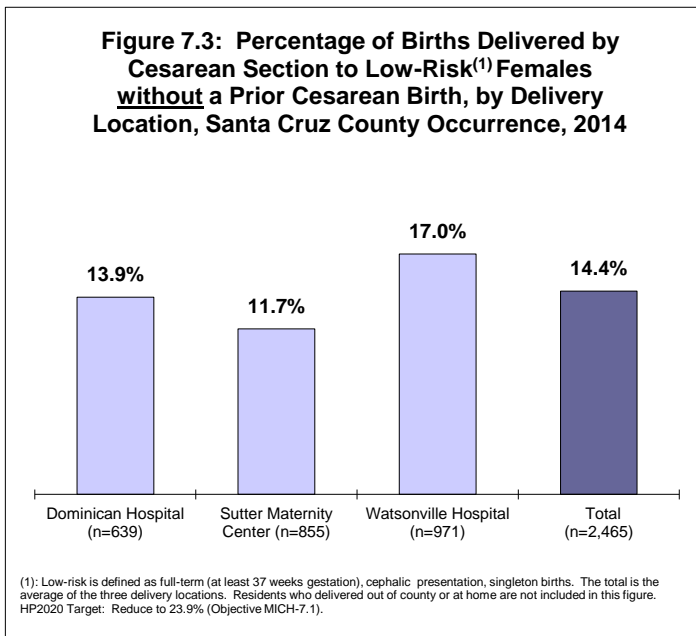
7. BIRTHS BY DELIVERY LOCATION

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

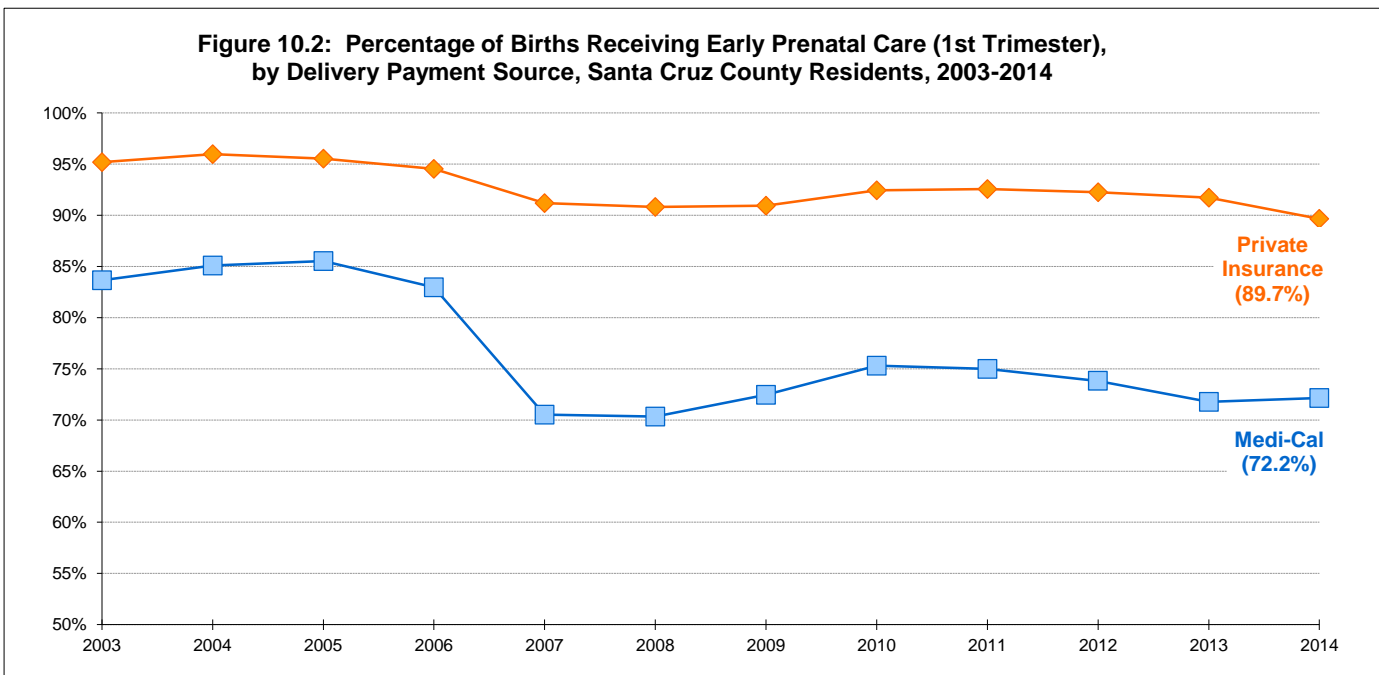
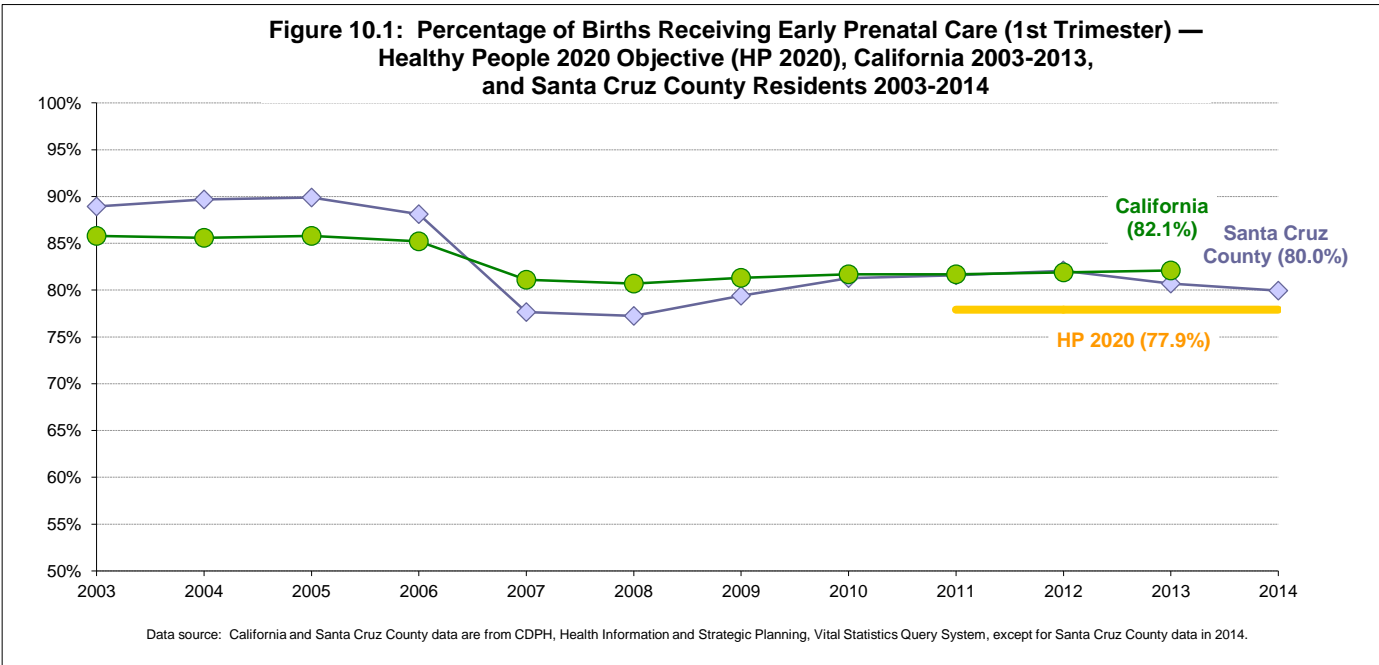
Below are figures on the percentage of cesarean births among low-risk births to females either without a prior cesarean birth (Figure 7.3) or with a prior cesarean birth (Figure 7.4); low-risk births are defined in the figure notes.



8. TRENDS

EARLY PRENATAL CARE

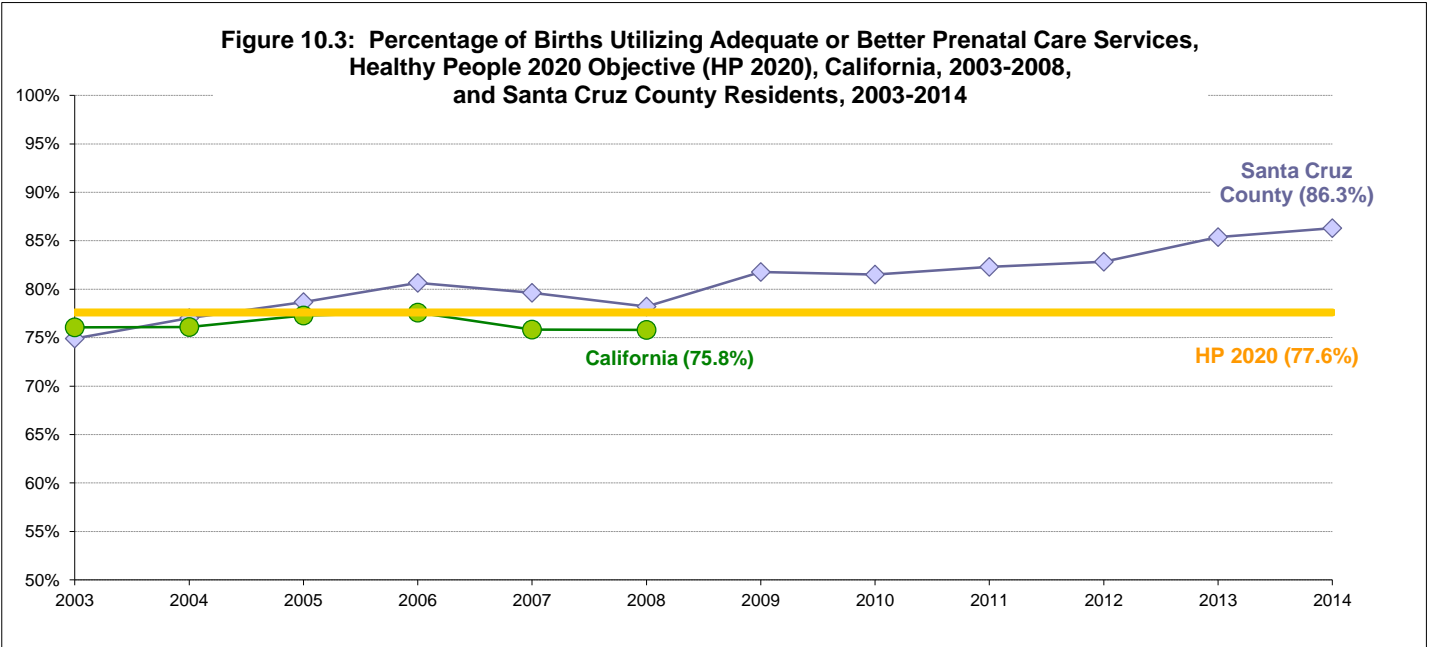
The percentage of mothers who received early prenatal care (1st trimester) was 80.0% in 2014, compared to 80.7% in 2013 (Figure 10.1). The Healthy People objective was lowered from 90% in 2010 to 77.9% for 2020; the 2020 objective has been met or nearly met countywide and statewide for over ten years. 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. 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 86.3% in 2014, compared to 74.9% in 2003 (Figure 10.3). The county trend is improving, and we have met the Healthy People 2020 target, but there is still room for improvement. Publicly available California data more recent than 2008 is not comparable to this Santa Cruz County data. However, similar data in the County Health Status Profiles 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. In 2014, 53% of Santa Cruz County residents' deliveries were funded by Medi-Cal, compared to 44% in 2003.

