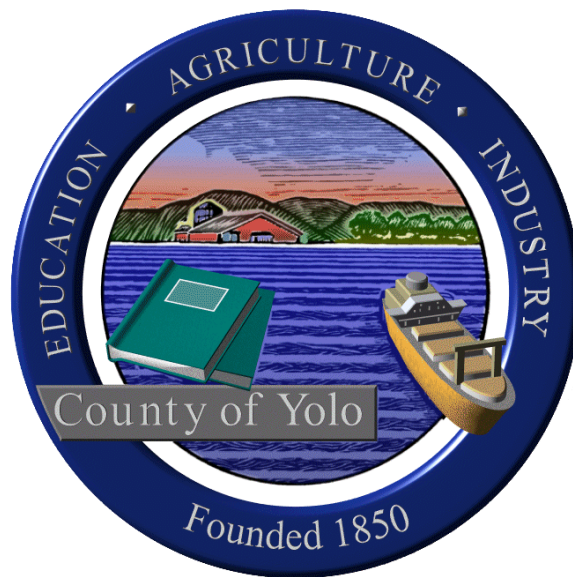


LIVE BIRTH PROFILE

FOR YOLO COUNTY 2016 BIRTHS



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LIVE BIRTH PROFILE, YOLO COUNTY, 2016

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Executive Summary

The number of live births to Yolo County mothers (n=2,420) in 2016 rose by about 100 births (5%) compared to 2015, reversing decreases seen in the past two years. Seventeen births were to mothers aged 45 years and up, a new highpoint. Early entry into prenatal care (PNC), i.e., in the first trimester of pregnancy, fell from 82% to 80%, although it continues to exceed the Healthy People (HP) 2020 target of 77.9%. For women on MediCal, PNC in the first trimester dropped from 76% in 2015 to 71% in 2016. Countywide 39% of births were to mothers receiving MediCal.

The teen birth rate was similar to last year's rate at 8.5 births per 1,000 females aged 15 to 19 years in 2016, compared to 8.6 births per 1,000 in 2015. It is significantly lower than the state rate of 18.9 births per 1,000 in 2015. However, at 36.9 births per 1,000 in 2016, the Hispanic teen birth rate in West Sacramento is about twice the state rate. There has been a significant decreasing linear trend in Yolo County's teen birth rates for both Hispanic and White teen mothers since 2007, when the overall rate was 16.9 births per 1,000 females. The largest number of teen births once again occurred in Woodland (n=35) followed by West Sacramento (n=31). Sixteen percent of teen births (about one out of six) were to mothers who had at least one prior live birth, which is the same as the statewide percentage (16.0%) in 2015.

The percentage of preterm births (<37 weeks gestation), at 7.7% of live births in 2016, was higher than in 2015 (6.5%). In 2016, mothers residing in the city of West Sacramento had the highest percentage of preterm births (9.2%) and low birth weight births (7.7%), compared to other geographic areas of the county. The Yolo County C-section rate of 25% was unchanged compared to 2014 and 2015, and significantly lower than the statewide rate of 32% in 2015. It remained even lower (at 21%) for resident births occurring at the two in-county delivery hospitals, Sutter Davis Hospital and Woodland Memorial Hospital.

Maternal obesity during pregnancy continued its rise, increasing significantly for both obese (BMI ≥ 30) and morbidly obese (BMI ≥ 40) mothers since 2007 ($p^2=0.90$ and $p^2=0.84$, respectively). Twenty-seven percent (more than 1 in 4 mothers) were obese at the start of pregnancy in 2016. The prevalence of gestational diabetes mellitus has fluctuated between 7.6% and 10.5% since 2012, and stood at 9.3% in 2016. The prevalence of gestational hypertension has also increased by one percentage point from 3.2% of mothers in 2009 to 4.2% in 2016. These conditions are more likely to occur in pregnancy if mothers are obese at the start of the pregnancy.

Table 1. Selected Birth Outcomes for Resident Live Births, 2016.

Variable	Classification	% Early EPNC	% Adequate PNC	% LBW	% Preterm	% Medi- Cal	% 1st Birth	% Teen
Maternal race/ethnicity (non-Hispanic unless specified otherwise)	African American/Black	80.3%	80.3%	12.7%	12.7%	47.9%	32.4%	4.2%
	Asian/Pacific Islander	83.8%	83.8%	8.3%	7.9%	21.9%	45.6%	0.9%
	Hispanic	77.4%	77.2%	5.0%	6.7%	58.9%	30.3%	6.3%
	White	83.3%	83.3%	5.8%	7.8%	22.0%	40.7%	1.4%
Maternal age group (years)	15 to 19	71.1%	71.1%	0.0%	4.8%	71.1%	84.3%	
	20 to 24	70.8%	70.8%	4.7%	6.1%	63.2%	52.1%	
	25 and older	82.5%	82.4%	6.9%	8.1%	33.0%	31.5%	
Maternal education	0-8 yr	70.6%	70.6%	1.5%	7.4%	94.1%	16.2%	2.9%
	9-12 yr (no HS diploma/GED)	68.4%	67.7%	7.6%	12.0%	76.6%	28.5%	19.0%
	HS diploma/GED	76.8%	76.8%	6.3%	8.1%	58.3%	29.5%	5.8%
	College (no degree)	82.9%	85.4%	7.1%	6.6%	40.6%	34.7%	1.9%
	College degree	86.1%	86.1%	6.3%	7.0%	10.9%	46.7%	0.0%
Maternal residence	Davis	80.6%	80.6%	5.1%	6.5%	21.1%	47.2%	1.2%
	West Sacramento	85.0%	84.9%	7.7%	9.2%	35.6%	35.1%	4.0%
	Winters	73.4%	73.4%	5.0%	7.2%	49.6%	34.5%	2.9%
	Woodland	77.4%	77.3%	6.2%	7.1%	48.3%	32.4%	4.0%
	Other cities	77.0%	77.0%	5.2%	7.4%	54.1%	34.1%	5.2%
Payment source for delivery	Medi-Cal	71.0%	70.8%	5.0%	5.7%		31.3%	6.3%
	Private Insurance	87.1%	87.1%	6.9%	8.3%		40.4%	1.5%
	Self-Pay (Uninsured)	79.2%	79.2%	0.0%	8.3%		20.8%	0.0%
	Unattended birth	0.0%	0.0%	46.2%	76.9%		15.4%	7.7%
	Other	100.0%	100.0%	28.6%	14.3%		71.4%	0.0%
Yolo County Totals		80.2%	80.2%	6.3%	7.7%	39.3%	36.5%	3.4%
California Totals (2015)		81.2%	n/a	6.7%	8.8%	n/a	39.1%	6.2%

% **Early EPNC** = Percent mothers entering prenatal care in the first trimester.

% **Adequate PNC** = Percent mothers receiving Adequate (or Adequate Plus) prenatal care according to the Kotelchuck Index (APNCU Index) derived from month of entry into prenatal care, number of prenatal visits and gestational age.

% **LBW** = Percent live births weighing less than 2,500 grams at time of birth.

% **Preterm** = Percent live births with gestational age less than 37 weeks (obstetrical estimate).

% **MC** = Percent live births with Medi-Cal as payment source for delivery.

% **1st Birth** = Percent primiparous live births.

% **Teen** = Percent live births to mothers age 15-19.

Data Sources: Yolo County Community Health Branch, Vital Records. California data: CDC Wonder (<https://wonder.cdc.gov>)

N/A Data not available from California Department of Public Health.

Teen Births

Table 2-A. Teen Birth Rates by Maternal Race/Ethnicity, Yolo County Residents, 2016.

	Number of Births to Females Age 15-19	Yolo County Teen Birth Rate per 1,000*	California Teen Birth Rate (2015)
African American/Black	<5	**	26.0
American Indian/Alaska Native	<5	**	32.0
Asian	<5	**	4.4†
Hispanic	61	18.7	27.0
Pacific Islander	<5	**	N/A
White	14	3.8	11.4
More Than One Race	0	0.0	N/A
Missing	0	N/A	N/A
All Teen Births	83	8.5	18.9
All Non-White	69	11.4	21.8

†Includes Pacific Islanders.

Table 2-B. Teen Birth Rates by Maternal City of Residence, Yolo County Residents, 2016.

Jurisdiction	Number of Births to Females Age 15-19	Teen Birth Rate per 1,000*	Hispanic Teen Birth Rate per 1,000	Non-Hispanic White Teen Birth Rate per 1,000
Davis	<10	**	**	**
West Sacramento	31	19.0	36.9	9.1
Woodland	35	16.2	26.4	6.7
Winters & Unincorporated Areas	11	3.4	9.8	0.0
Winters	<5	**	**	**
Yolo County Total	83	8.5	19.5	2.9

Teen birth rate = number of live births to mothers age 15-19 per 1,000 females aged 15-19.

* Rates based on fewer than 20 live births may be unstable or unreliable.

** Rates not calculated for fewer than 10 live births.

Data Sources: Yolo County Community Health Branch, Vital Records. California Data: California Department of Public Health, Office of Health Information & Research; denominator data: California Department of Finance, Table E-1 at <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php>; US Census Bureau, American Community Survey 2015 (5-year estimates).

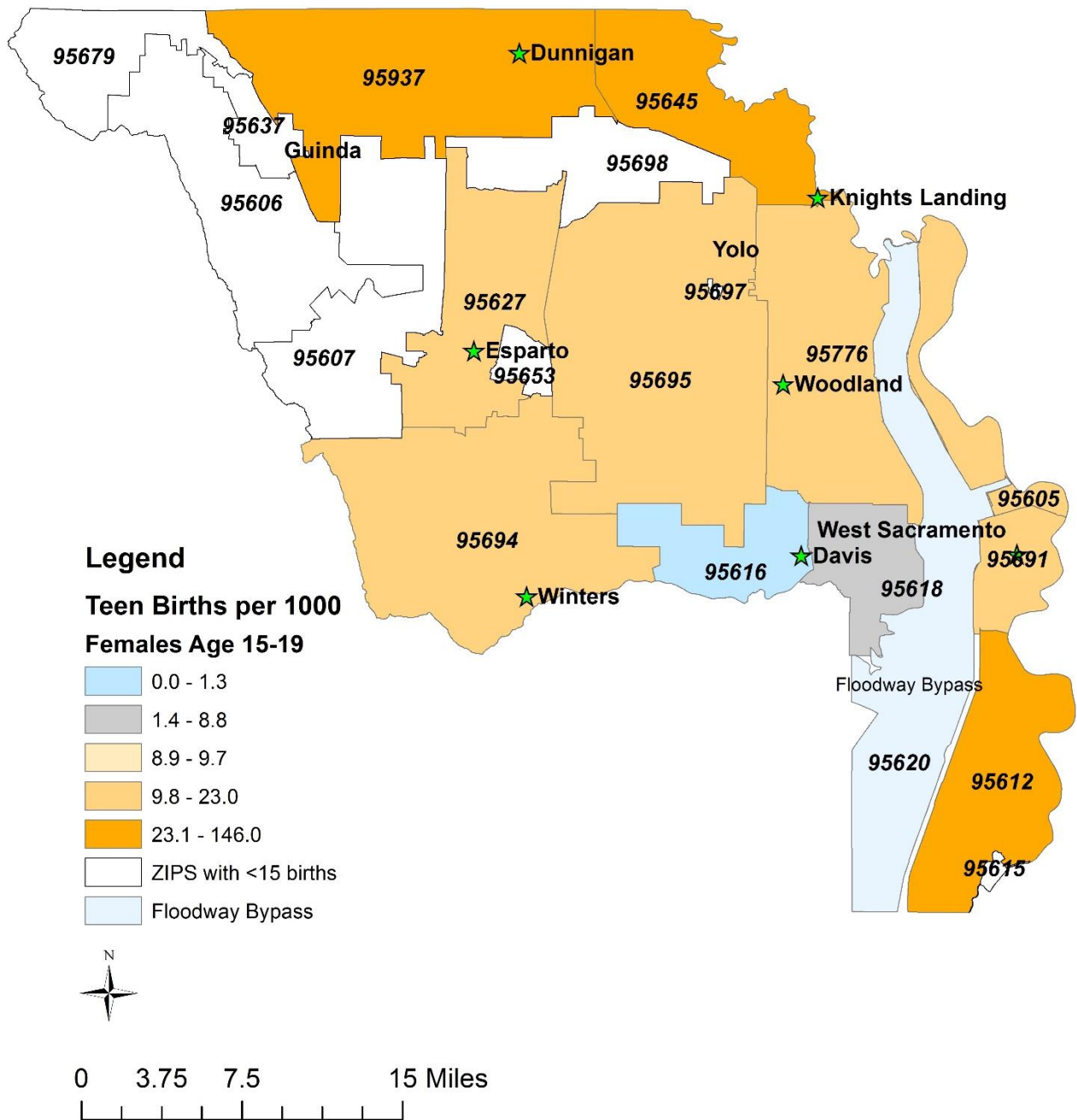


Figure 1. Teen Live Birth Rates (per 1000 Females aged 15 to 19) by ZIP code, Yolo County, 2016.

Table 2-C. Teen Births by Age Group, Yolo County, 2009 to 2016.

Maternal Age	2009	2010	2011	2012	2013	2014	2015	2016
15 to 17	51	66	54	35	31	22	25	22
18 to 19	129	108	109	109	85	75	68	61
Total	180	174	163	144	116	97	93	83

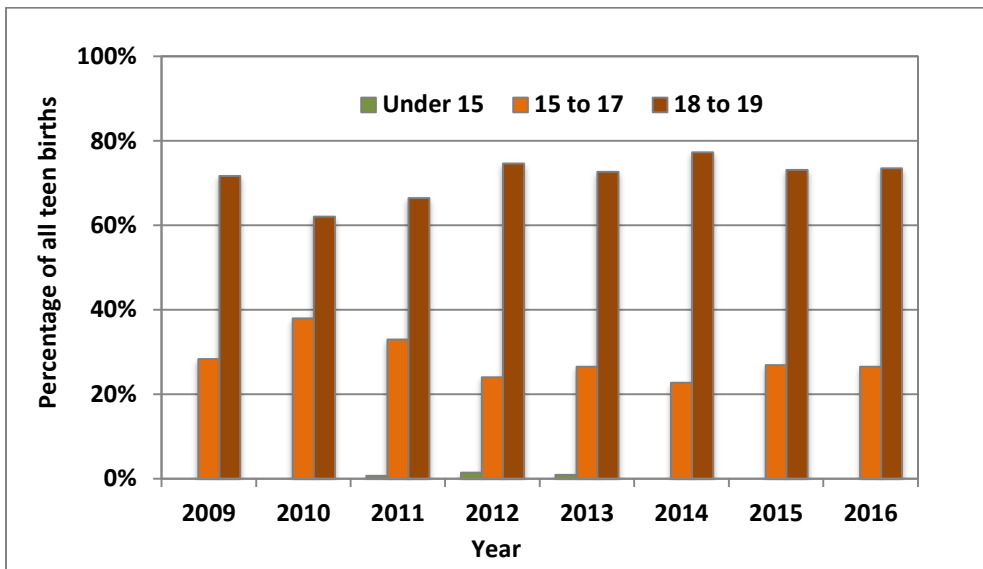


Figure 2. Percentage of Yolo County Live Births to Teens by Age Group, 2009 to 2016.

Table 3. Summary Statistics of Resident Live Births, Yolo County 2013 to 2016.

Variable	Classification	2013	2014	2015	2016
Maternal race/ ethnicity (non- Hispanic unless specified otherwise)	African American/Black	69	67	70	71
	American Indian/Alaska Native	16	19	10	15
	Asian	179	193	185	193
	Hispanic	994	952	932	974
	Pacific Islander	42	54	49	35
	White	1092	994	942	976
	Other/More Than One Race	70	85	64	69
	Unknown/declined	51	45	63	87
Maternal Age Group (years)	Under 15	<5	0	0	0
	15 to 17	31	22	25	22
	18 to 19	85	75	68	61
	20 to 24	429	405	410	380
	25 to 34	1477	1401	1338	1412
	35 to 44	483	499	468	528
	45 & Older	<10	7	6	17
Maternal education	0-8 years	85	96	72	68
	9-11 years	176	188	116	138
	12 or more years	2122	1986	1988	2039
	Unknown/declined	130	139	139	175
Entry into Prenatal Care	First trimester	2042	2003	1895	1942
	After first trimester	444	370	398	425
	Never	7	10	14	13
Adequacy of PNC Utilization	Adequate or better	2041	1882	1894	1940
	Intermediate or Inadequate	451	519	398	437
Payment Source for Delivery	Medi-Cal	1074	1025	952	944
	Private Insurance	1390	1338	1315	1428
	Self-pay (uninsured)	29	25	27	24
	Medically unattended birth	7	10	<15	13
	Other	12	5	<5	7
Method of Delivery	Vaginal Delivery	1867	1823	1743	1814
	C-Section	646	586	572	606
Birth Weight (grams)	Less than 1,500	24	28	26	23
	1,500 to 2,499	132	100	100	130
	2,500 to 3,999	2047	1951	1957	1996
	4,000 & Above	310	325	232	271
Multiple Gestation	Singleton	2430	2319	2240	2331
	Twin or more	83	90	75	89
Gestational Age	Preterm (less than 37 weeks)	201	176	151	186
	Near-Term, Full-Term or Overdue	2312	2233	2164	2234
Total Live Births		2513	2409	2315	2420

Counts <5 suppressed, resulting in suppression of other cells in the same column.

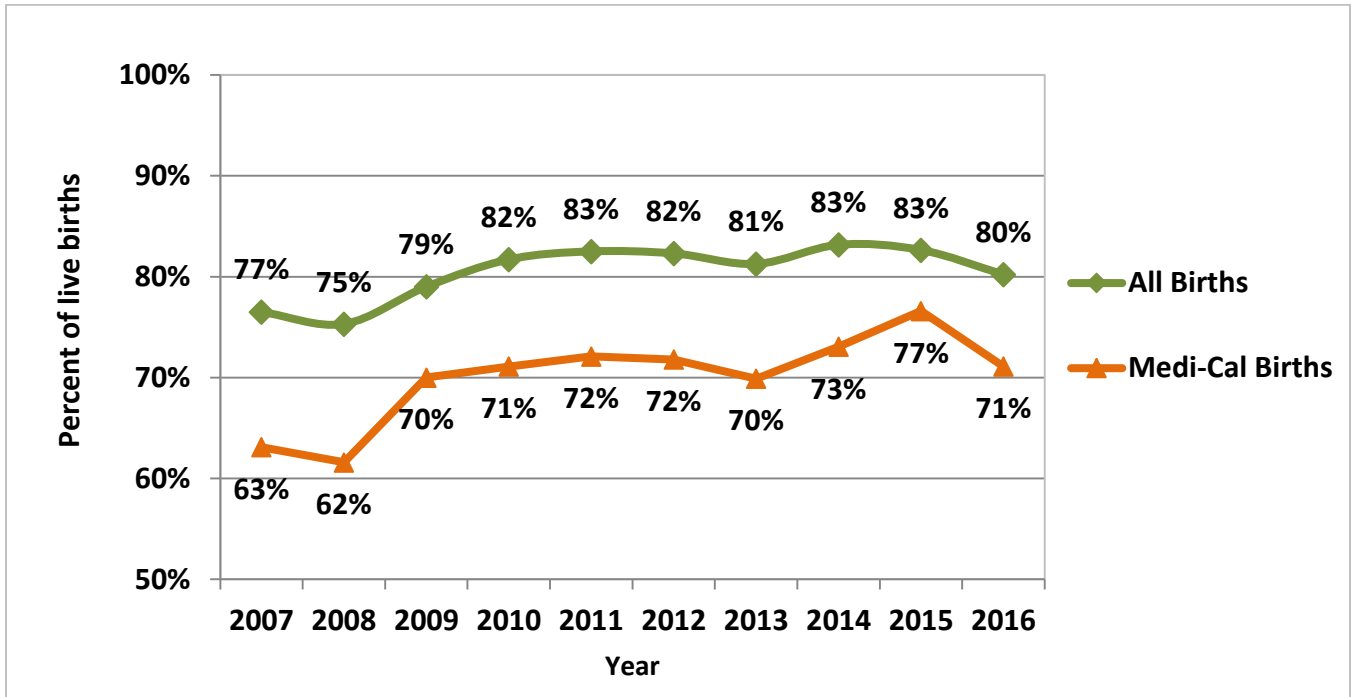


Figure 3. Percentage of Yolo County Live Births with 1st-Trimester Prenatal Care, 2007 to 2016.

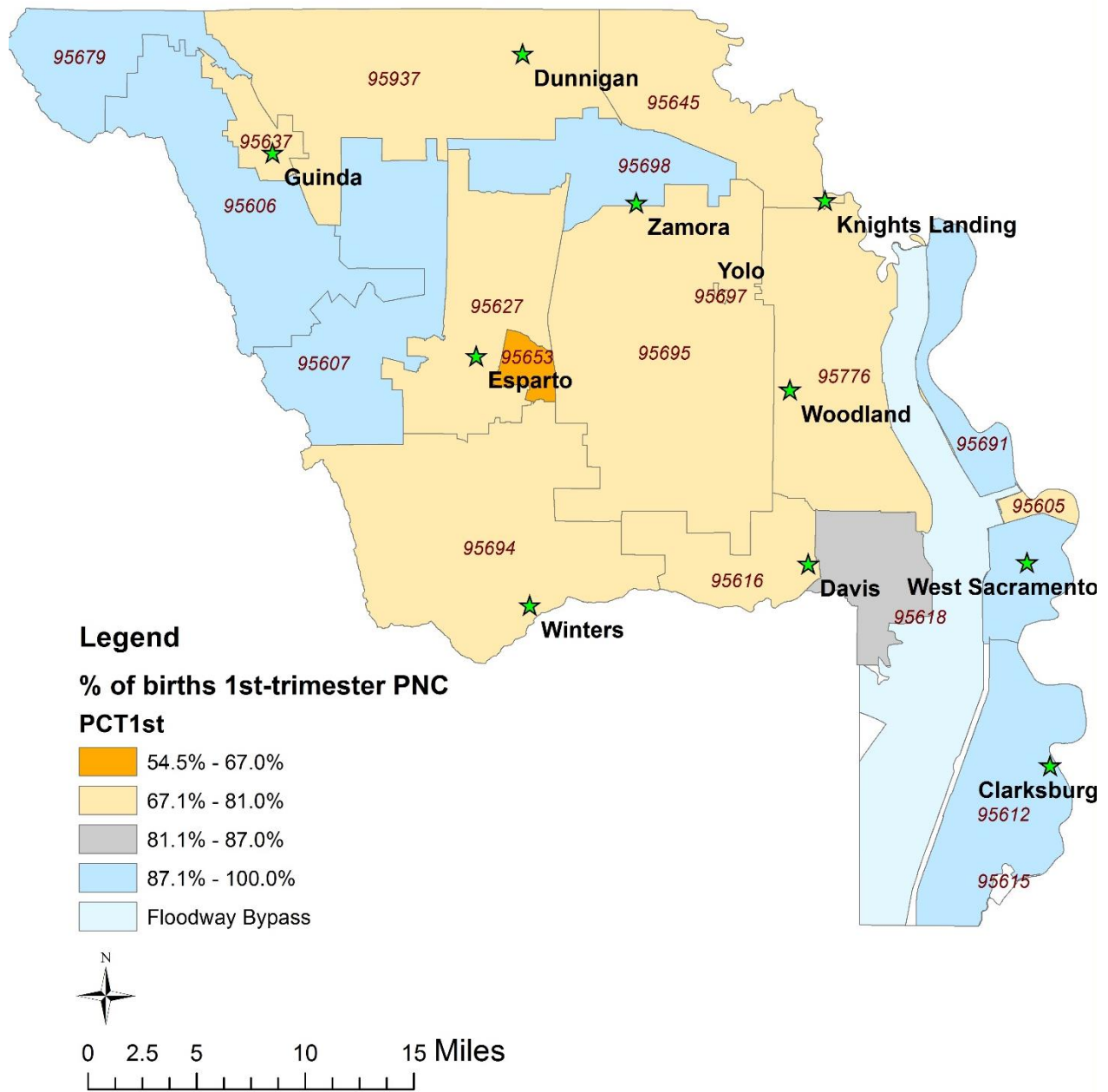


Figure 4. Percentage of Live Births with 1st-Trimester Prenatal Care by ZIP code, Yolo County 2016.

Table 4. Resident Live Births by Maternal Age Group (years) for Mothers <25, Yolo County, 2016.

Variable	Classification	<15	15-17	18-19	20-24	All Live Births
Maternal race/ ethnicity (non- Non-Hispanic unless specified otherwise)	African American/Black		<5	<5	17	71
	American Indian/Alaska Native			<5	<5	15
	Asian			<5	14	193
	Hispanic		18	43	220	974
	Pacific Islander			<5	<5	35
	White		<5	12	107	976
	Other/More Than One Race				<5	69
	Unknown/declined				13	87
Parity	Primiparous (first birth)		22	48	198	885
	Primiparous receiving Medi-Cal		15	35	113	300
	Multiparous (more than one birth)			13	181	1534
Maternal education	0-8 yr		<5		8	68
	9-12 yr (no HS diploma/GED)		15	15	43	158
	HS diploma/GED		<5	30	163	556
	College (no degree)		<5	10	111	574
	College degree				24	889
	Unknown/declined		17	18	74	175
Entry into Prenatal Care	First trimester		13	46	269	1942
	After first trimester		<10	<15	95	425
	Never			<5	<5	13
	Unknown		<5		<15	40
Adequacy of PNC Utilization	Adequate or better		13	46	269	1940
	Intermediate or Inadequate		<10	15	98	437
	Unknown		<5		13	43
Payment Source for Delivery	Medi-Cal		15	44	241	944
	Private Insurance		7	15	130	1428
	Medically unattended birth			<5	<5	13
	Self-pay (uninsured)				<5	24
	Other/Unknown			<5	<5	11
Medi-Cal Payment Source	Kaiser-Roseville				<5	22
	Kaiser-So Sacramento				<5	12
	Kaiser-Vacaville			<5	7	24
	Sutter-Davis		6	31	137	445
	Sutter-Sacramento				14	44
	UC-Davis Med Ctr			<5	7	23
	Woodland Memorial		7	13	75	319

Variable	Classification	<15	15-17	18-19	20-24	All Live Births
Medi-Cal Payment Source	Davis		<5	<5	38	107
	West Sacramento		6	25	134	277
	Winters			<5	20	71
	Woodland		11	24	161	423
	All other cities		<5	<5	27	72
Method of Delivery	Vaginal Delivery		20	52	307	1814
	C-Section		<5	9	73	606
Birth Weight (grams)	Less than 1,500				3	23
	1,500 to 2,499				15	130
	2,500 to 3,999		21	54	334	1996
	4,000 & Above		<5	7	28	271
Gestational Age	Preterm (less than 37 weeks)		<5	<5	23	186
	Near-Term, Full-Term or Overdue		21	58	357	2234
Total Live Births		0	<25	61	380	2420

Counts <5 suppressed, resulting in suppression of other cells in the same column.

Table 5. Resident Live Births by Maternal City of Residence, Yolo County, 2016.

Variable	Classification	Davis (ZIPs 95616, 95617, 95618)	West Sacramento (ZIPs 95605, 95691, 95798, 95799)	Winters (ZIP 95694)	Woodland (ZIPs 95695 & 95776)	All Other Cities
Maternal race/ ethnicity (non- Hispanic unless specified otherwise)	African American/Black	15	38	<5	13	<5
	American Indian/Alaska Native	<5	9		<5	<5
	Asian	100	52		40	<5
	Hispanic	97	246	77	468	86
	Pacific Islander	<5	24		<10	
	White	251	346	54	284	41
	Other/More Than One Race	13	25	<5	29	<5
	Unknown/Declined	24	29	6	26	<5
Parity	Primiparous (first birth)	239	270	48	282	46
	Multiparous (more than one birth)	267	499	91	589	89
Maternal education (excludes unknown/ declined)	0-8 yr	6	10	10	32	10
	9-12 yr (no HS diploma/GED)	7	55	16	66	14
	HS diploma/GED	36	187	35	256	42
	College (no degree)	51	204	24	257	38
	College degree	379	245	37	183	26
Entry into Prenatal Care (excludes missing)	First trimester	408	654	102	674	104
	After first trimester	93	98	35	172	29
	Never	<5	5	<5	<5	<5
Adequacy of PNC Utilization	Adequate or better	408	653	102	673	104
	Intermediate or Inadequate	93	102	37	176	29
Payment Source for Delivery	Medi-Cal	107	274	69	421	73
	Private Insurance	388	483	63	438	56
	Medically unattended birth	<5	5	<5	<5	
	Self-pay (uninsured)	<10	<5	<5	6	6
	Other		<5	<5	<5	
Method of Delivery	Vaginal Delivery	396	570	108	643	97
	C-Section	110	199	31	228	38
Birth Weight (grams)	Less than 1,500	<5	10	<5	8	<5
	1,500 to 2,499	23	49	<10	46	<10
	2,500 to 3,999	422	626	113	720	115
	4,000 & Above	58	84	19	97	13
Gestational Age	Preterm (<37 wks)	33	71	10	62	10
	Near-Term, Full-Term or Overdue	473	698	129	809	125
Total Live Births		506	769	139	871	135

Table 6. Trends in Selected Maternal Health Conditions Present during Pregnancy, Yolo County, 2009-2016.

Condition/Illness	2009	2010	2011	2012	2013	2014	2015	2016	Trend
Gestational diabetes mellitus	8.4%	6.9%	8.8%	10.5%	8.9%	7.6%	8.1%	9.3%	No
Gestational hypertension	3.2%	2.8%	3.1%	2.7%	3.9%	4.2%	3.7%	4.2%	No
Smoking	2.7%	2.8%	2.0%	2.2%	2.6%	2.1%	2.0%	1.8%	No
Obesity (BMI>30)	19.6%	20.2%	20.4%	21.3%	24.2%	22.8%	24.5%	26.8%	Yes
Morbid obesity (BMI>40)	2.9%	3.5%	3.1%	3.6%	4.1%	3.9%	5.1%	4.8%	Yes

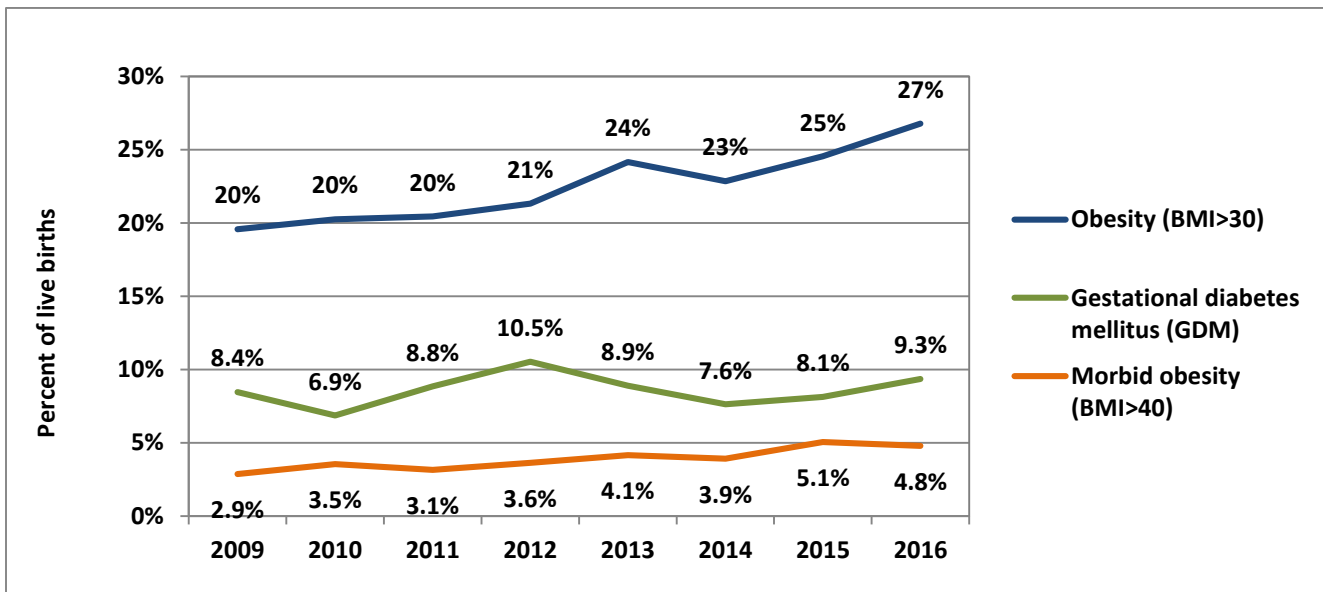


Figure 5. Percentage of Live Births with Maternal Obesity, Morbid Obesity or GDM, Yolo County, 2009-2016.

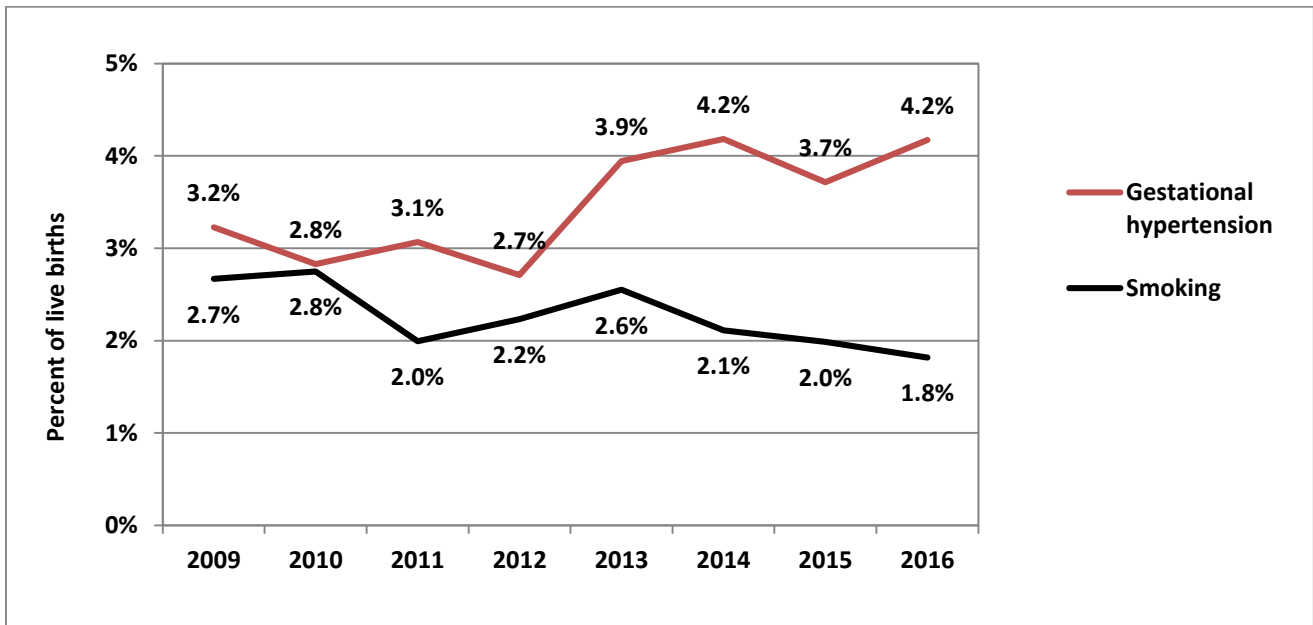


Figure 6. Percentage of Live Births with Gestational Hypertension or Smoking, Yolo County, 2009-2016.