

This is a maternal and child health surveillance report for calendar year 2019. This report contains data by district and county for low birth weight, preterm delivery, pre-pregnancy BMI and weight gain during pregnancy, entry into prenatal care, adequacy of prenatal care utilization, smoking before pregnancy and quit rates for smokers during pregnancy, teen birth and pregnancy rates, and new families at risk. Infant mortality data for the state are also included. Following the highlights is a series of charts showing recent data by county and district for each indicator, and a long-term trend plot for the state. Starting on page 17 there are detailed tables for each indicator for the past year by district, and lastly the same tables by county.

If you have any questions or comments, please e-mail Michael.Nyland-Funke@vermont.gov.

Highlights

- The low birth weight (<2500g) rate for 2019 was 6.6%, down from 7.0% in 2018.
- The very low birthweight rate (<1500g) was 0.9% in 2019, down from 1.1% in 2018.
- The 2019 low birthweight rate for singleton births was 5.0%, down from 5.6% in 2018.
- The preterm delivery rate (<37 weeks gestation) is 8.4% for 2019, down slightly from the 2018 rate of 8.5%.
- Among women who gave birth during 2019, 43.7% had a healthy pre-pregnancy body-mass index (BMI), higher than the 2018 rate of 43.1%. In 2019, 2.5% of women giving birth were underweight pre-pregnancy, while 25.4% were overweight and 28.4% were obese (BMI > 30).
- During 2019, 32.1% of women achieved the recommended amount of weight gain during pregnancy, while 20.3% gained less weight than recommended and 47.6% gained more than the recommended amount. [BMI categories and weight gain recommendations defined by the Institute of Medicine. See page 16 for details.]
- The rate for first trimester prenatal care entry was 85.3%, below the 2018 rate of 85.7, and the 2017 rate of 87.1%.
- The percent of women in 2019 with adequate prenatal care utilization (as defined by the Kotelchuck Index) was 88.3%, down from the 2018 rate of 89.2%.
- In 2019, 15.8% of births were to women who smoked before pregnancy, down from the 2018 rate of 16.7%.
- Of the women who smoked before pregnancy or during the first trimester in 2019, 28.7% quit smoking for the second and third trimester, up from the 2018 quit rate of 29.9%.

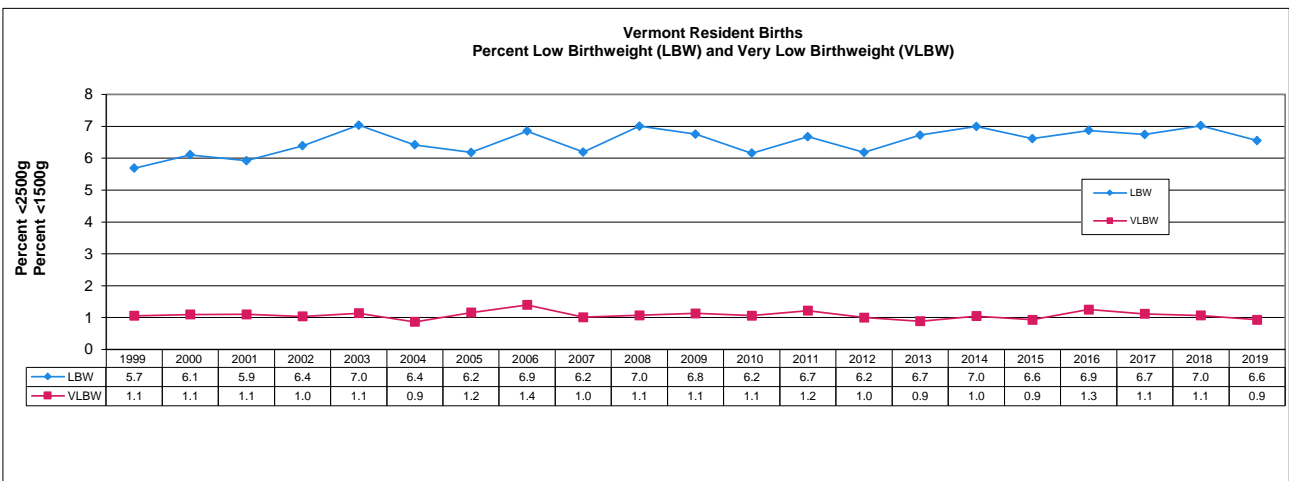
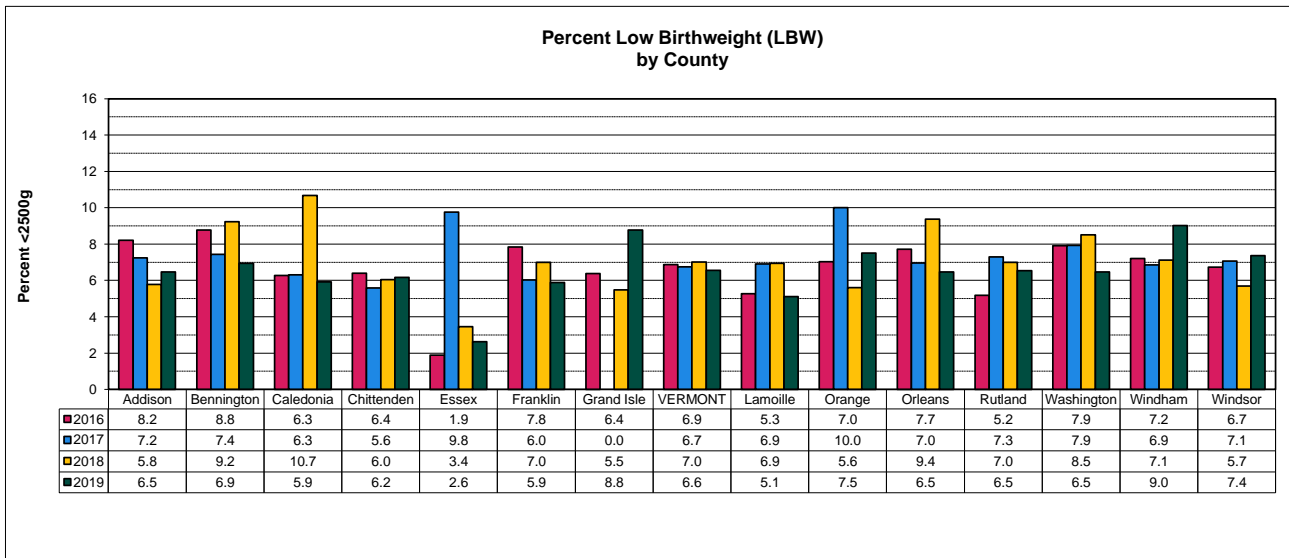
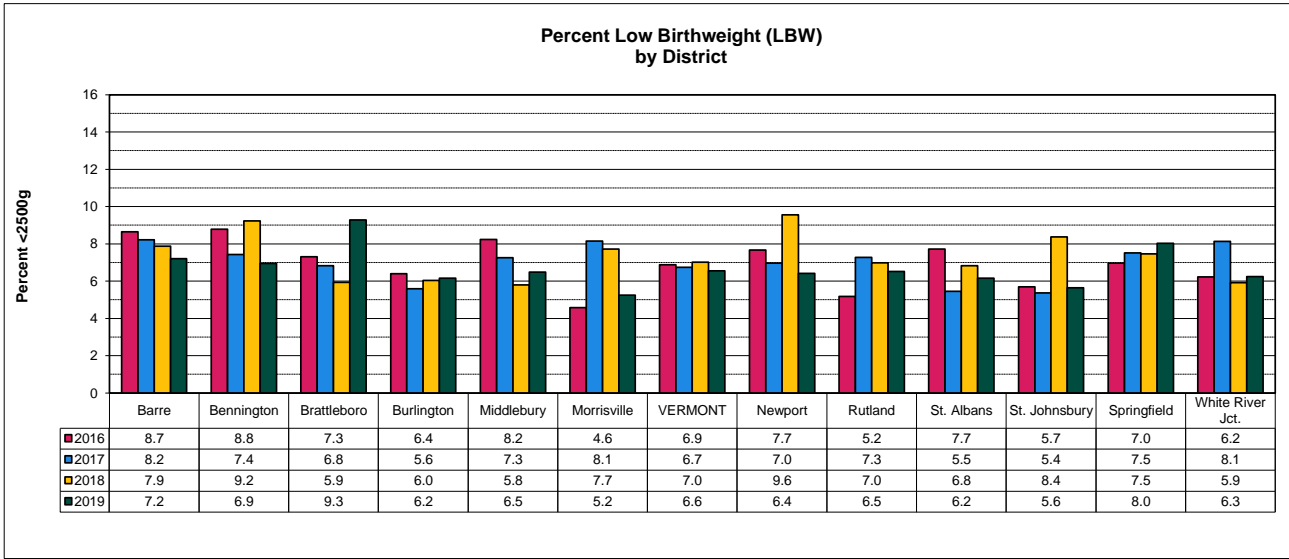
Vermont Maternal and Child Health Annual Report – 2019

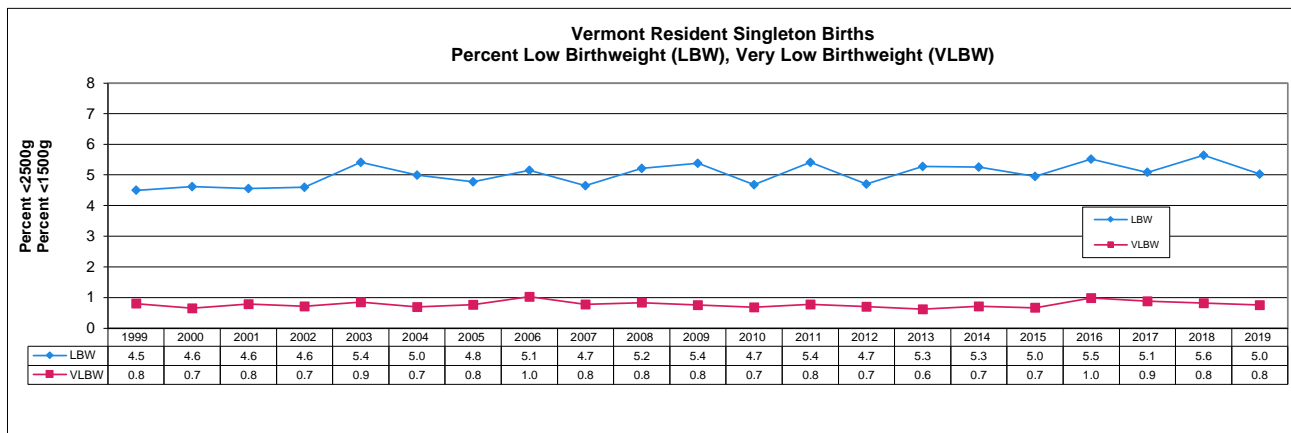
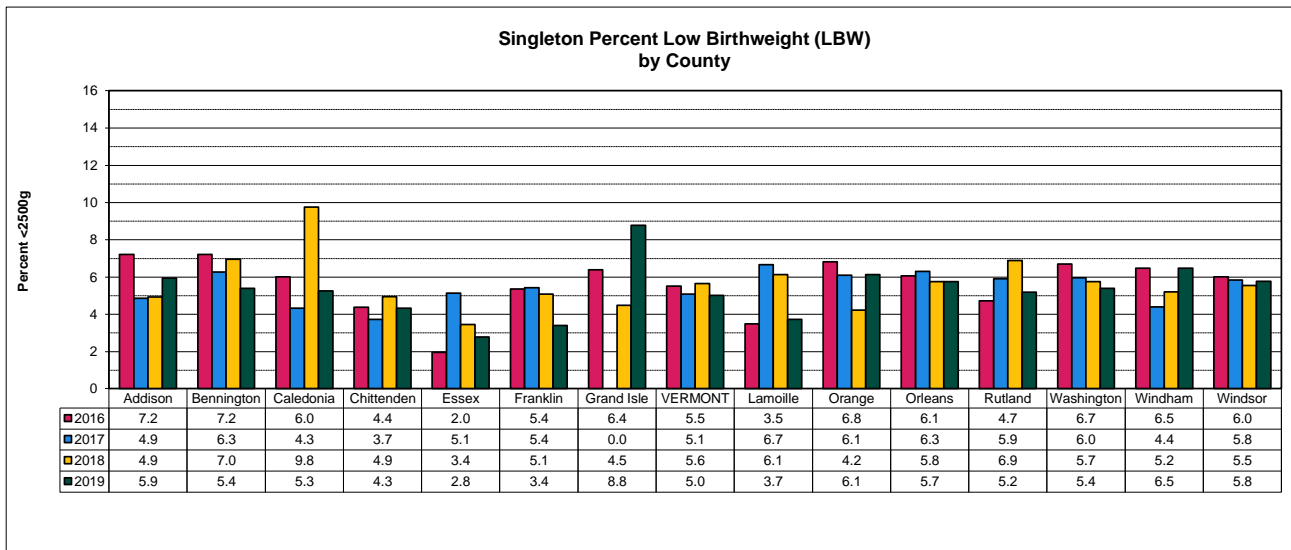
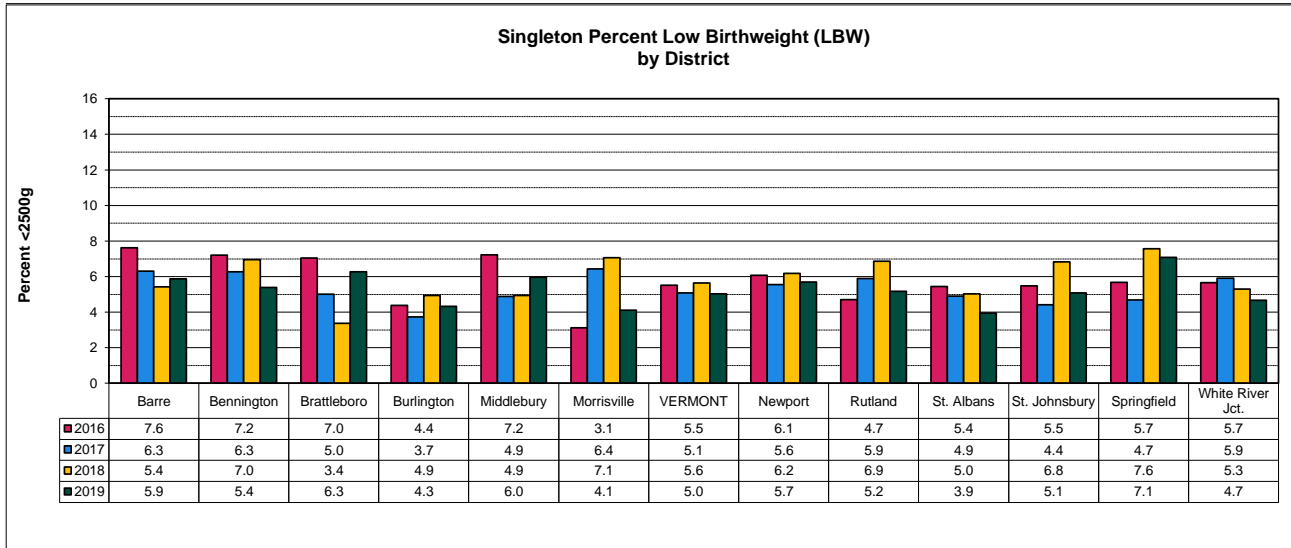
- Births to young teens (age less than 18 years) accounted for 0.6% of total births. There was one birth to a teen less than 15 years of age.
- The birth rate to teens aged 15-17 years was 3.0 per 1,000, higher than the 2018 rate of 2.5. Among mothers aged 18-19 the birth rate was 12.3. The birth rate for teens aged 15-19 was 7.6.
- The pregnancy rate for teens aged 15-17 was 5.7 per 1,000 for 2019, same as 2018. For women aged 18-19, the pregnancy rate was 17.4 per 1,000, lower than the 2018 rate of 20.1. The teen pregnancy rate for ages 15-19 was 11.5 per 1,000, lower than the 2018 rate of 12.8.
- New families at risk, defined as first births to single mothers aged less than 20 years with less than a high school education, accounted for 2.6% of first births for 2019, down from the 2018 rate of 3.3%.
- The infant mortality rate for 2019 was 2.8 infant deaths per 1,000 live births, lower than the 2018 rate of 5.0. Please note that infant deaths are rare events, so fluctuations in the rate should be interpreted with caution.

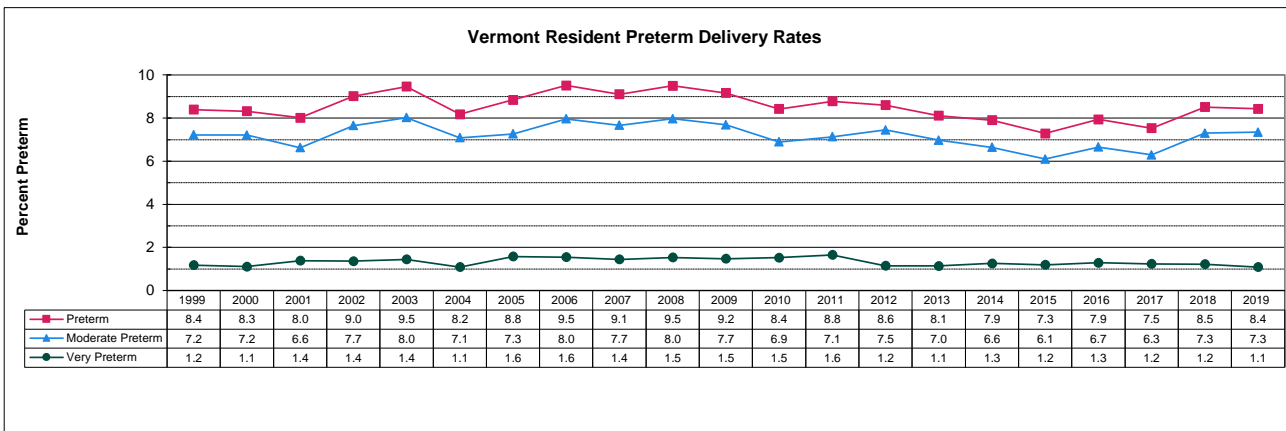
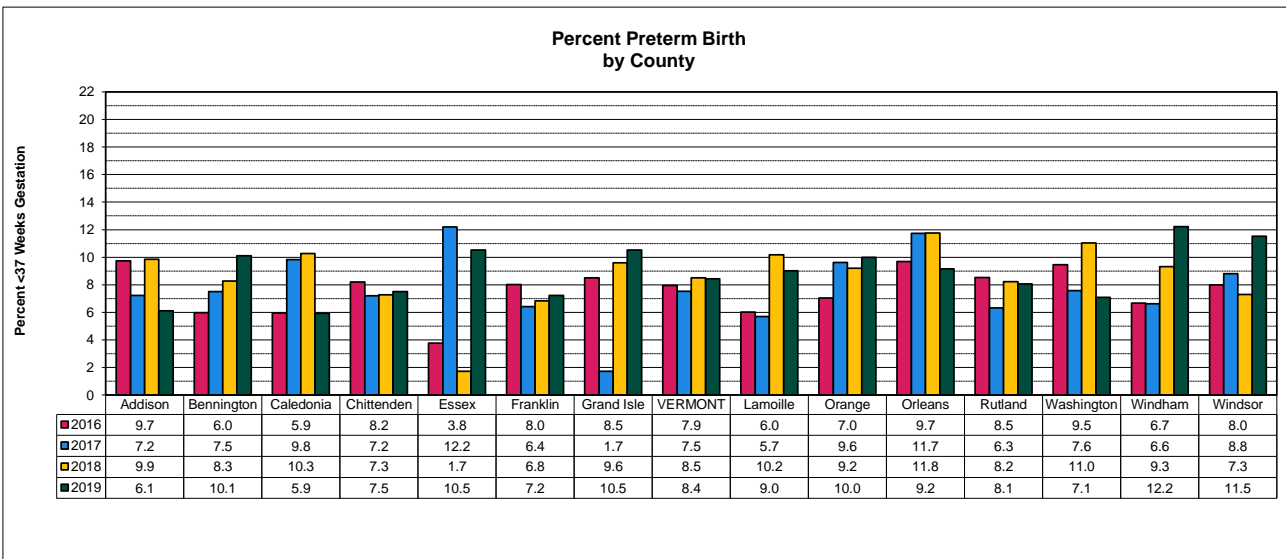
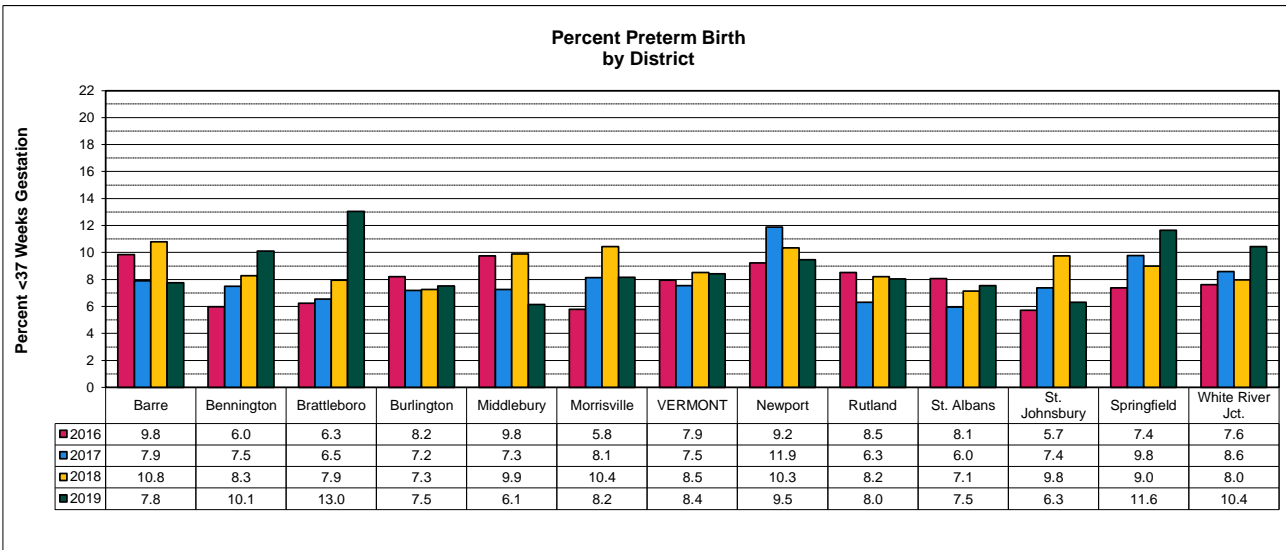
	Births	Infant Deaths	Infant Mortality Rate		Neonatal Deaths	Neonatal Mortality Rate
2016	5756	27	4.7		17	3.0
2017	5655	19	3.4		10	1.8
2018	5432	27	5.0		20	3.7
2019	5361	15	2.8		9	1.7

Rates are Deaths per 1,000 VT Resident Live Births.

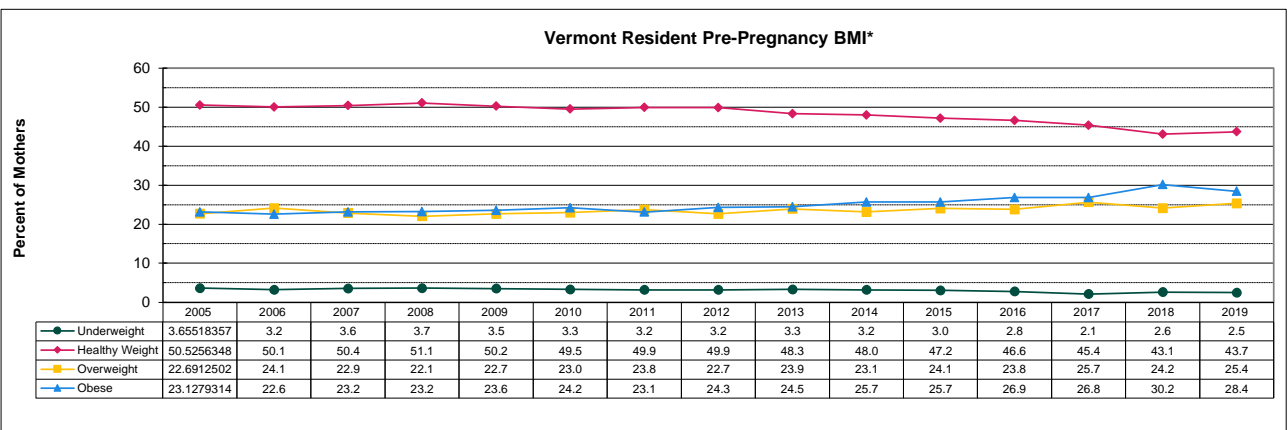
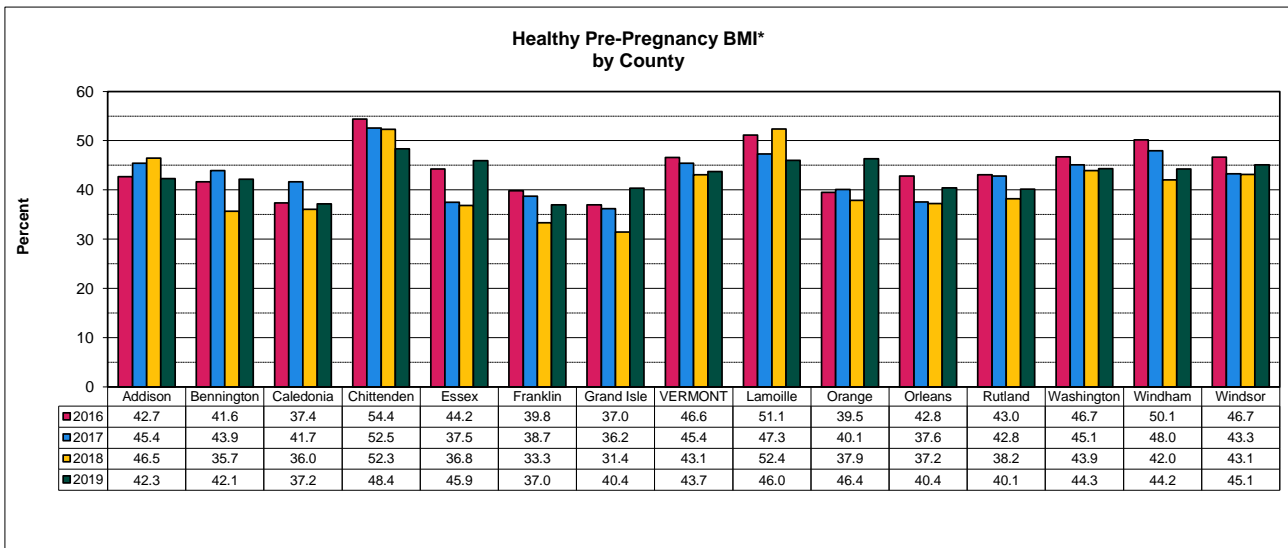
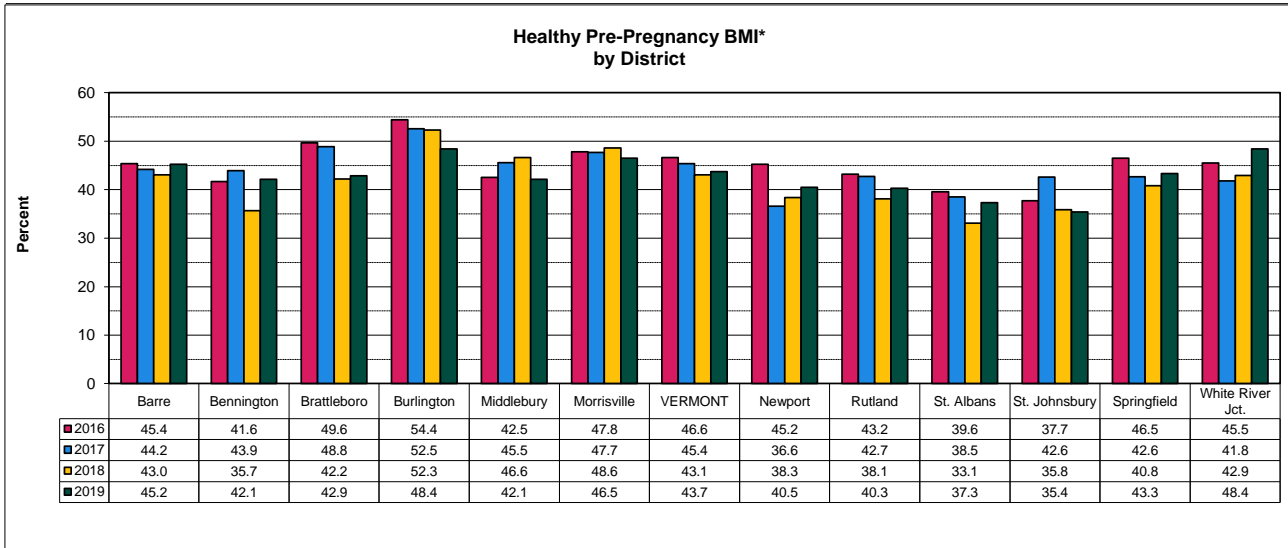
Vermont typically exceeds the Healthy People 2020 targets for related objectives, except for smoking. Related Healthy People 2020 targets are listed on page 16.



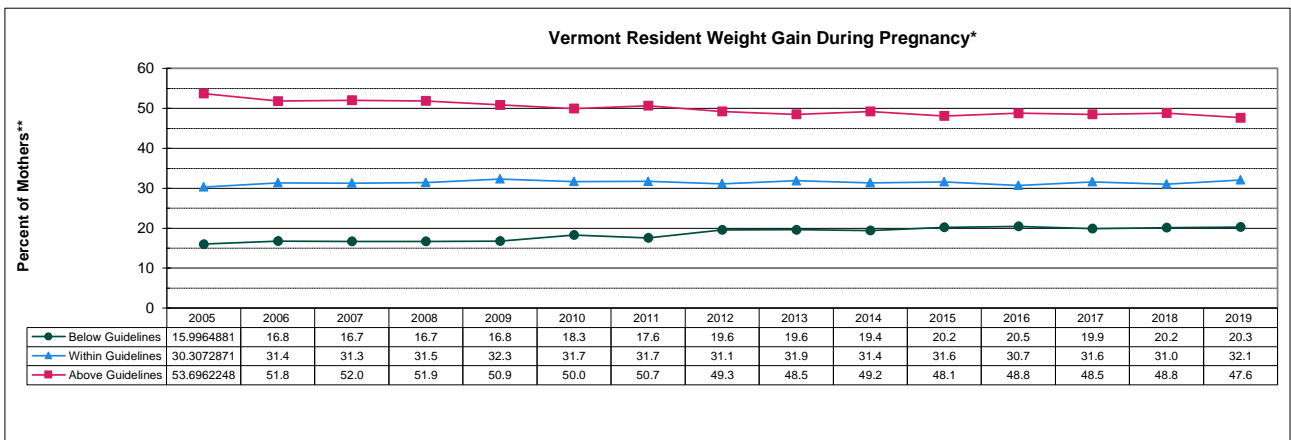
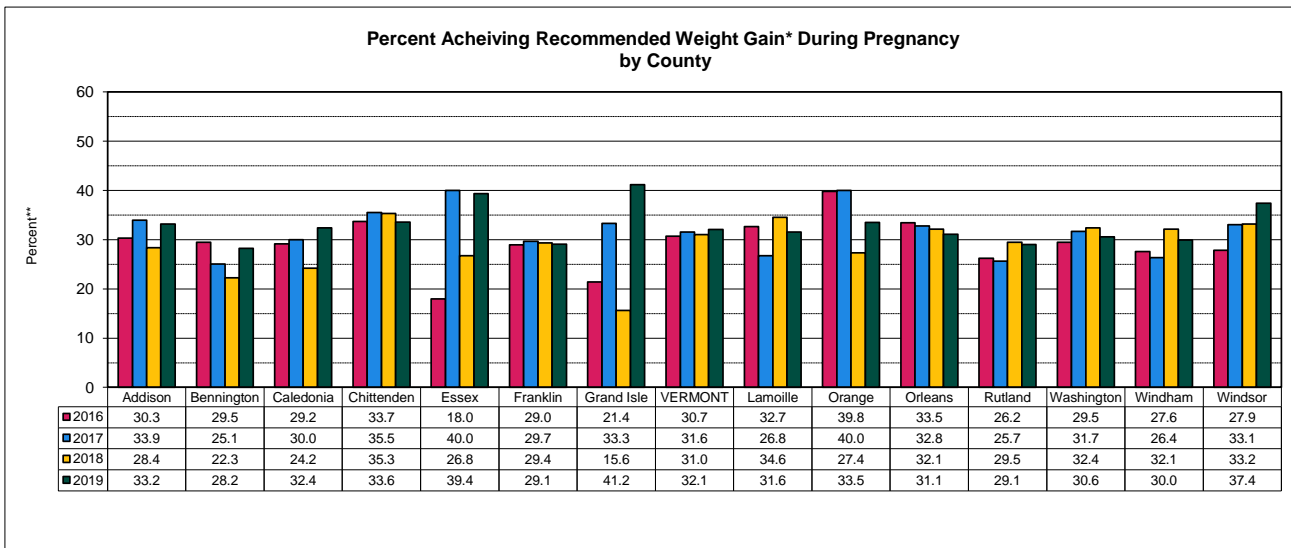
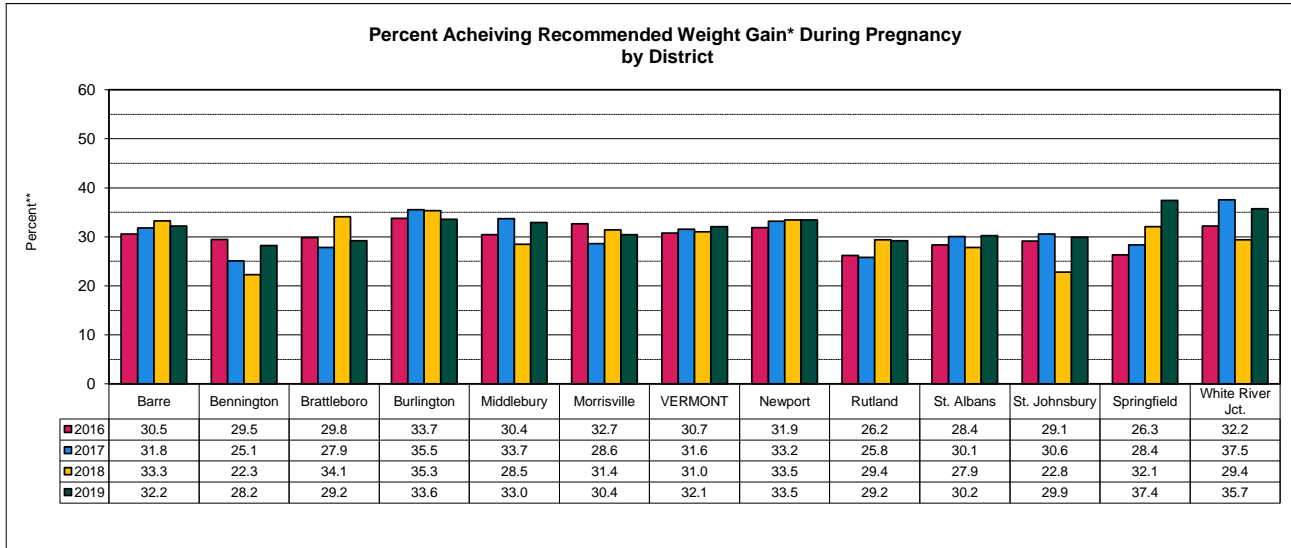




Preterm = <37 weeks gestation
 Moderately Preterm = 32-36 weeks gestation
 Very Preterm = <32 weeks gestation

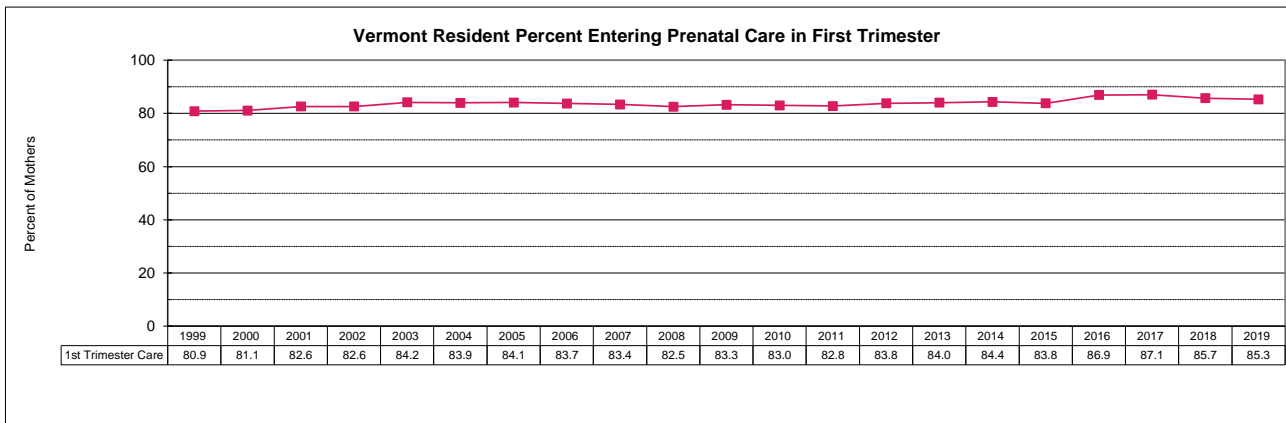
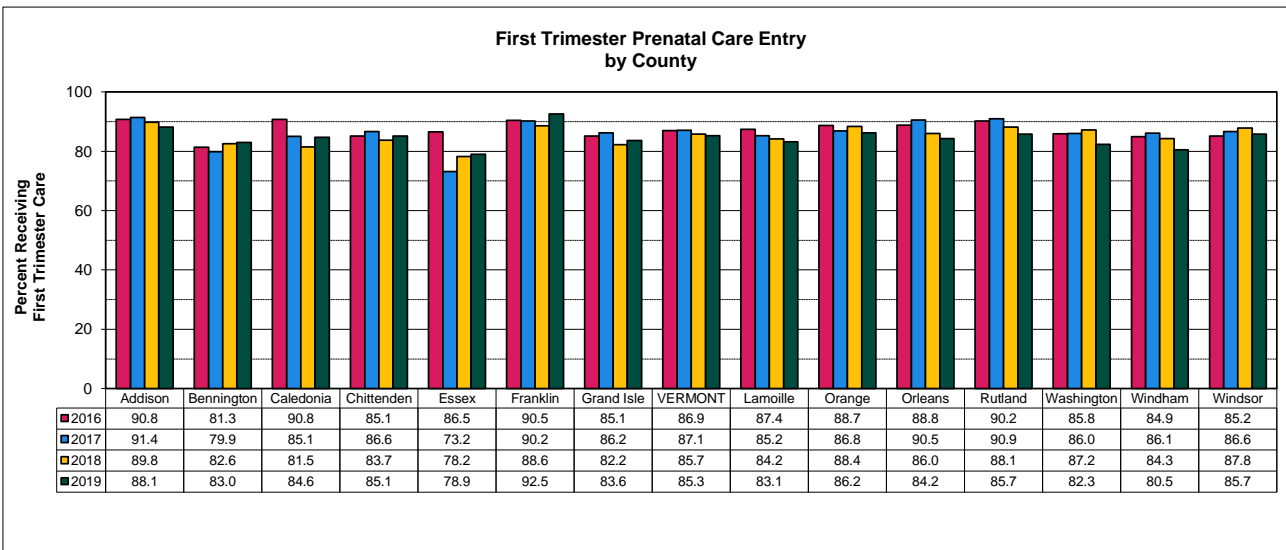
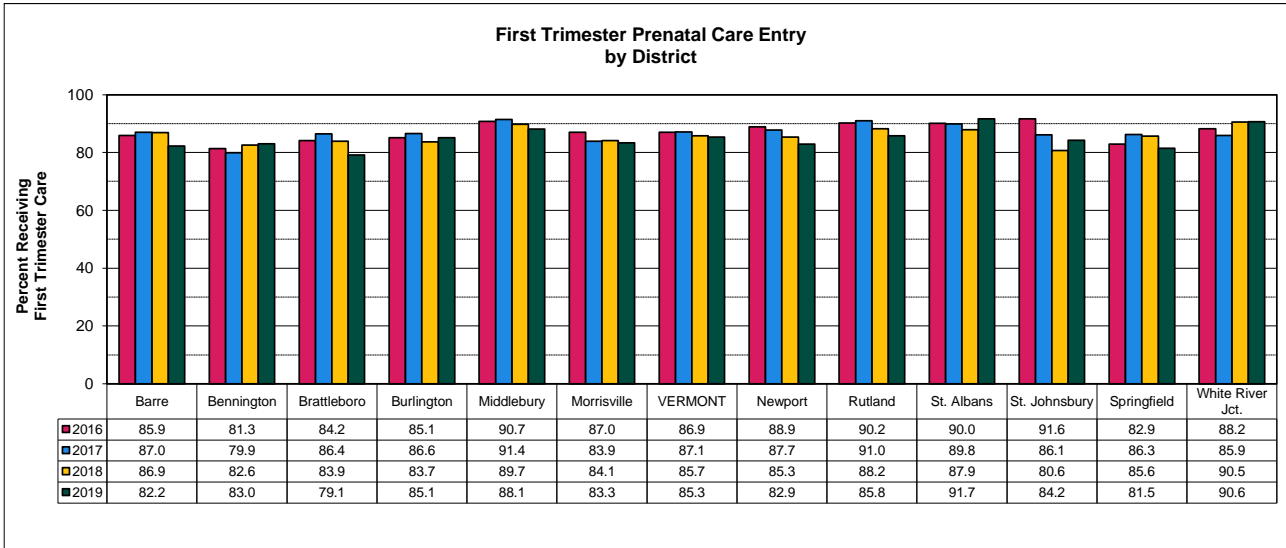


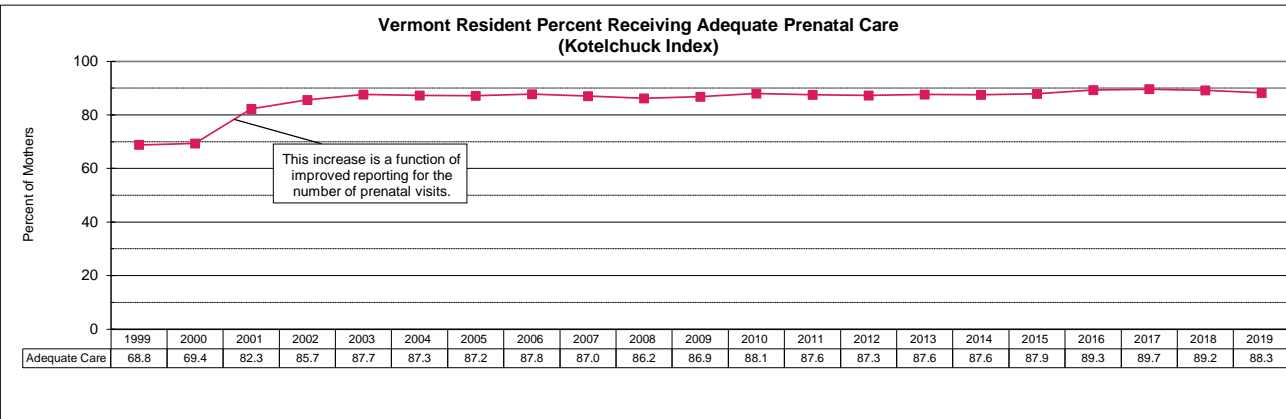
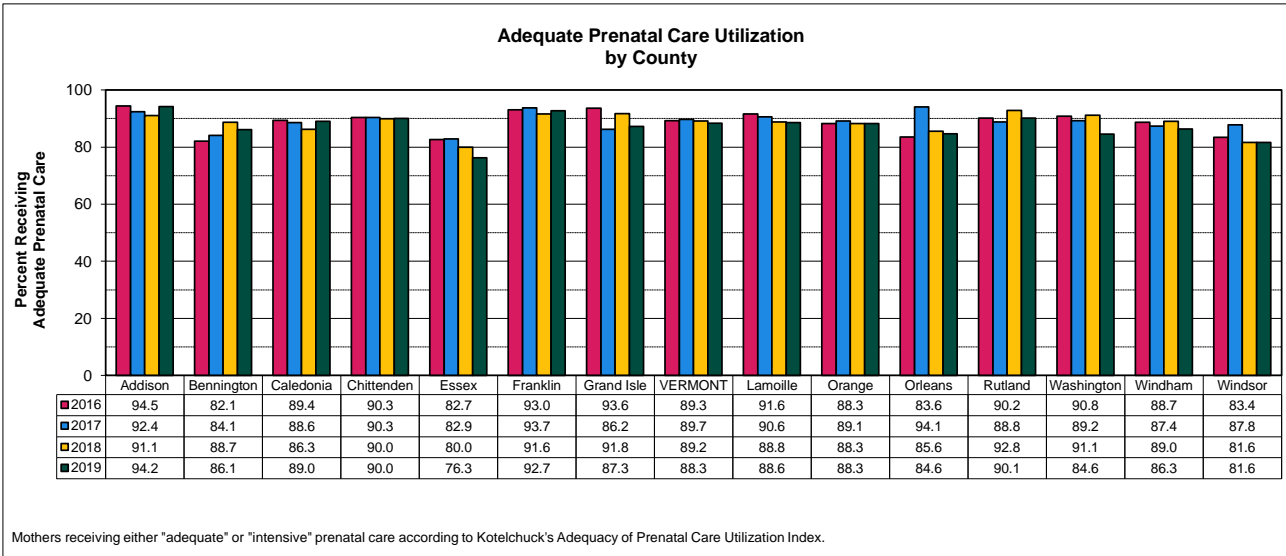
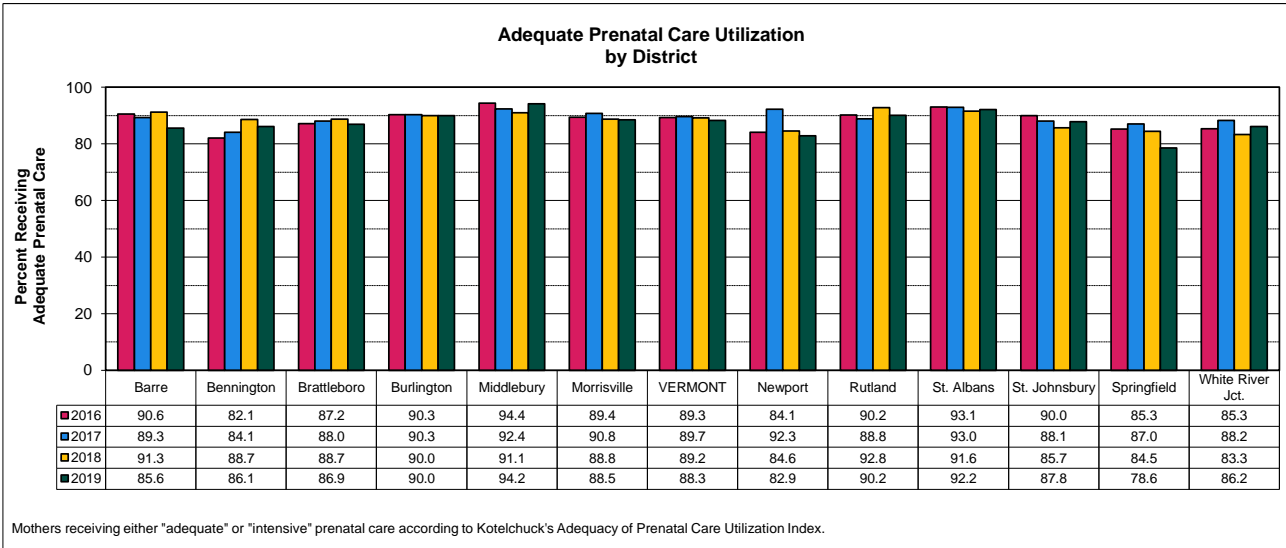
* BMI categories defined by the Institute of Medicine, see page 16.

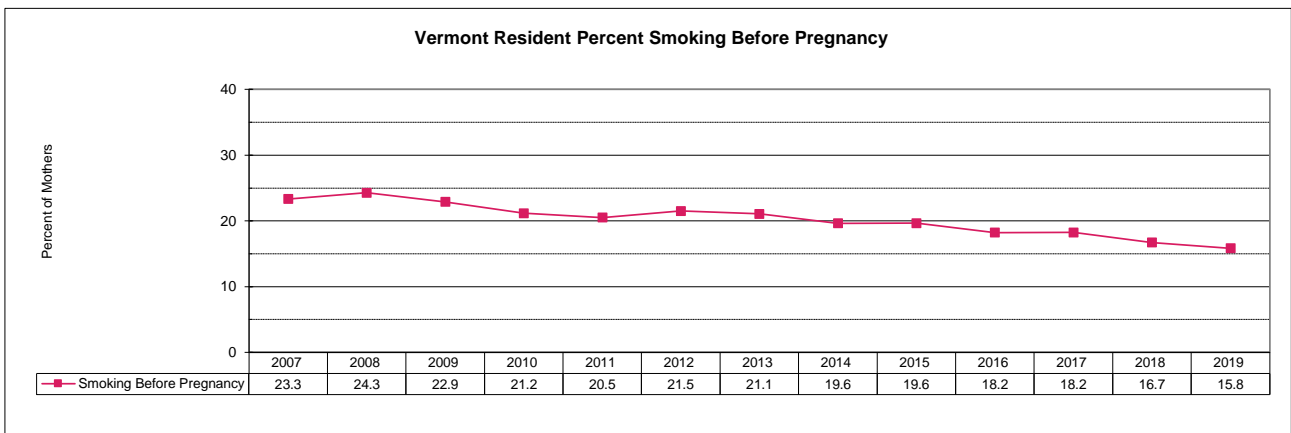
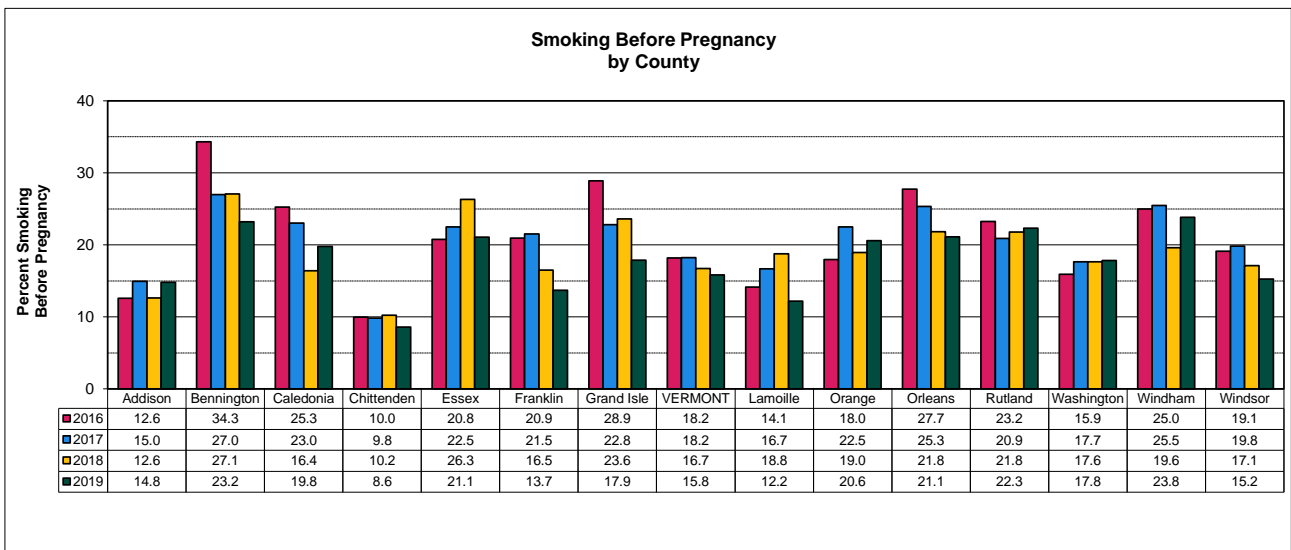
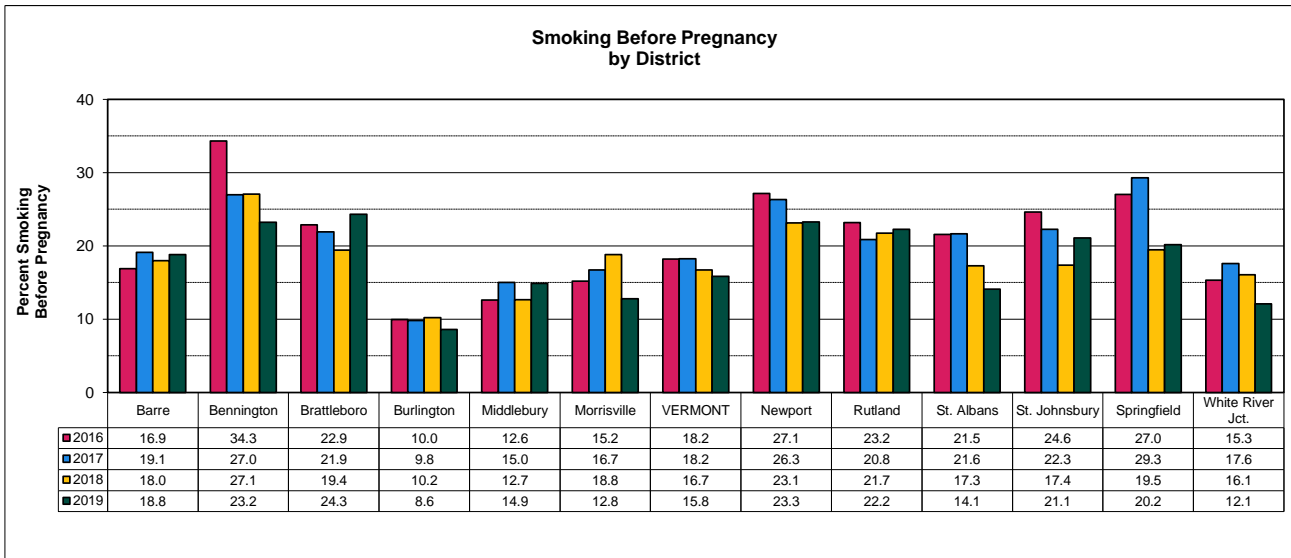


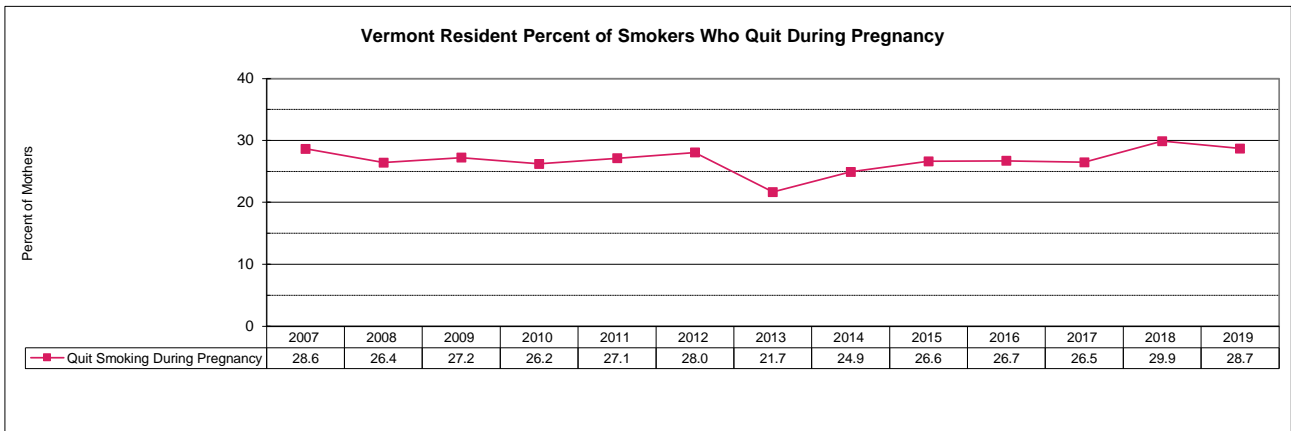
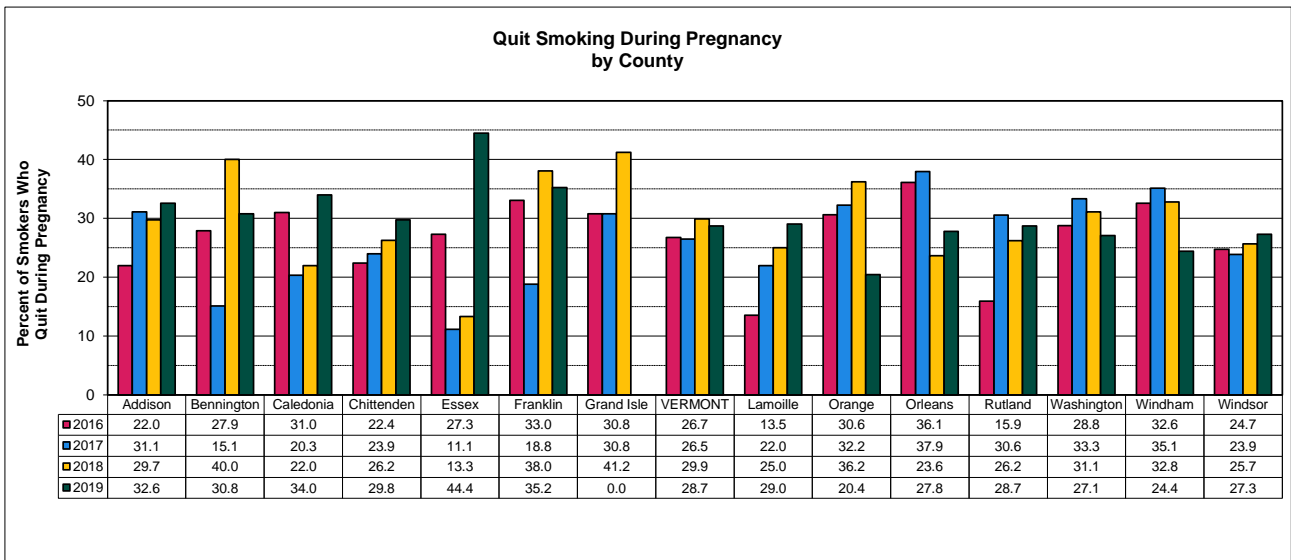
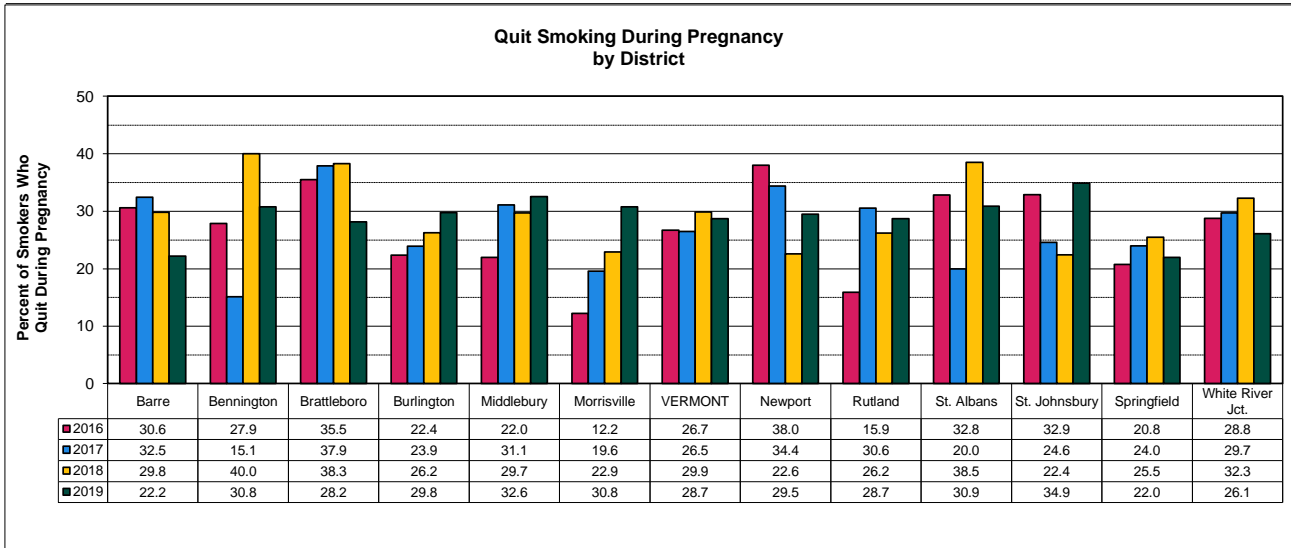
* Weight gain recommendations defined by the Institute of Medicine, see page 16.

** Only includes women who delivered full-term singleton or twin births.

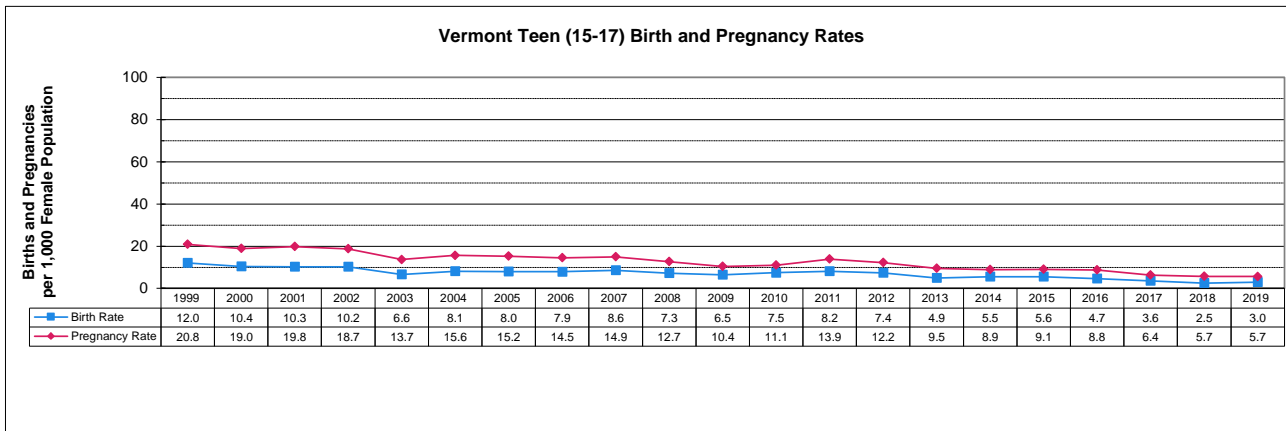
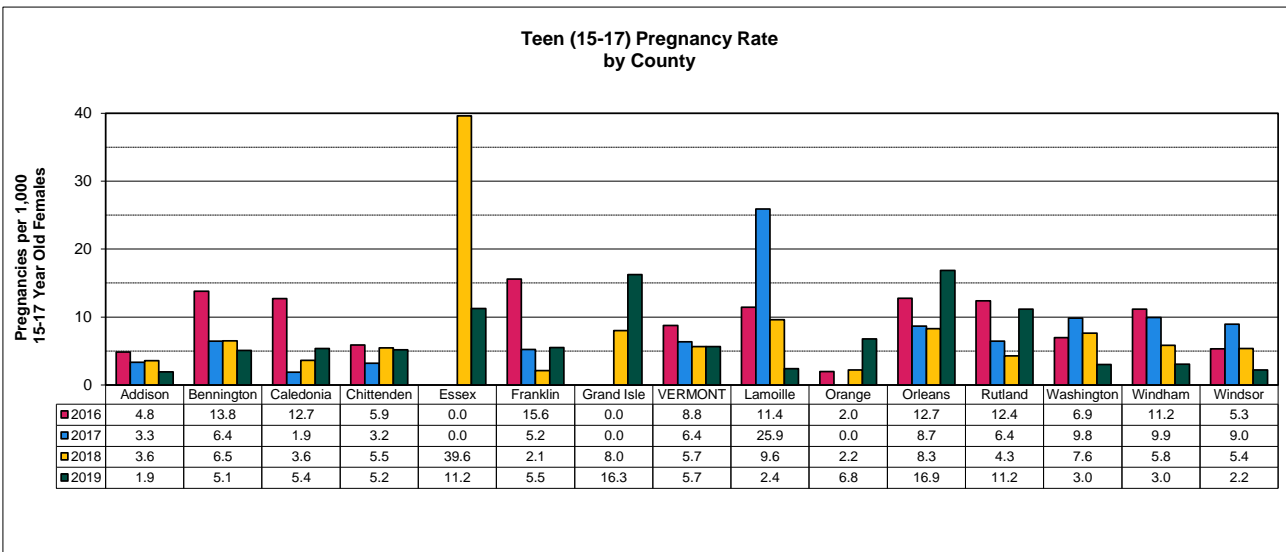
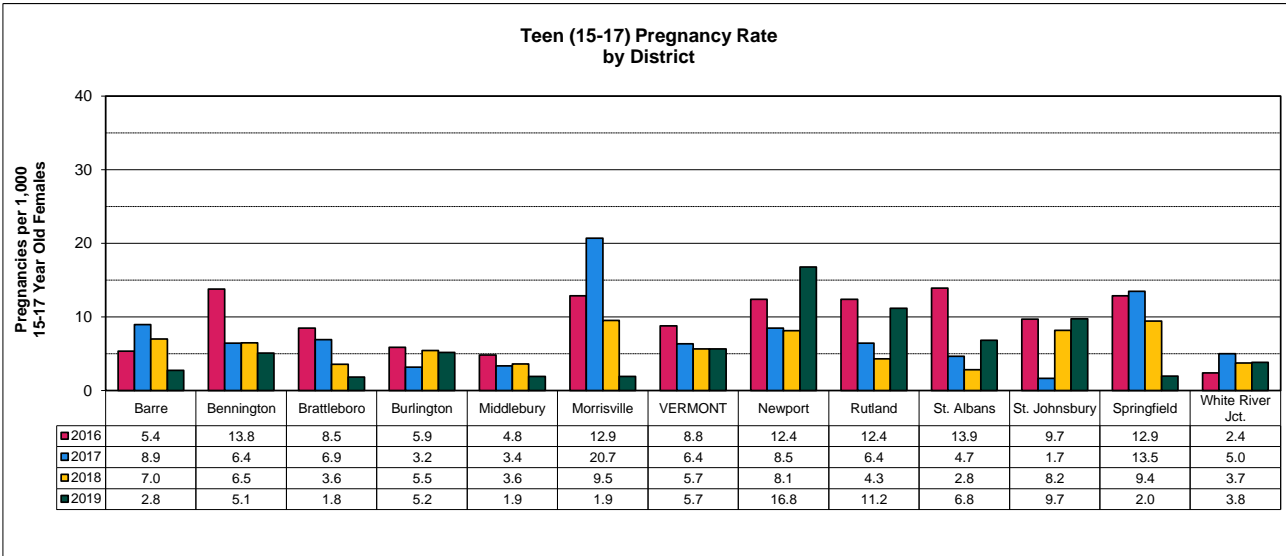




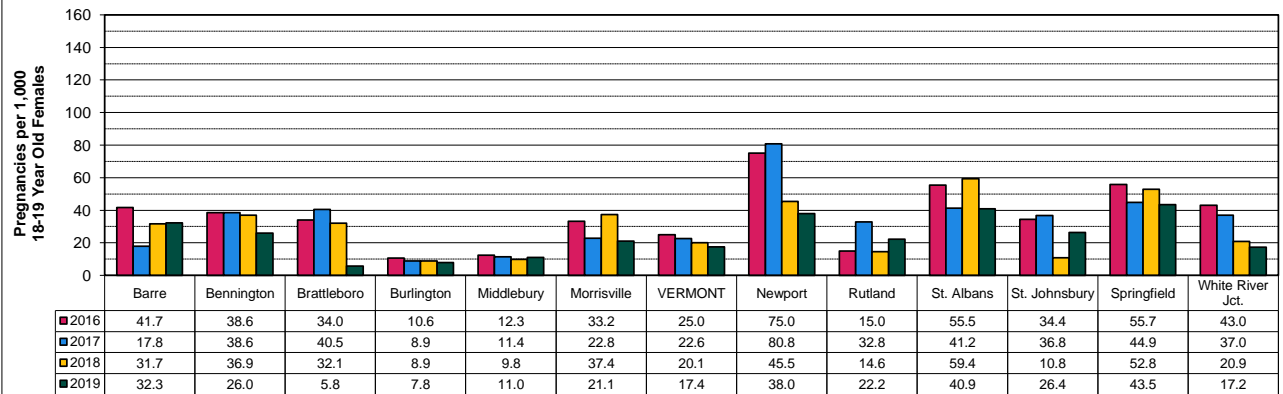




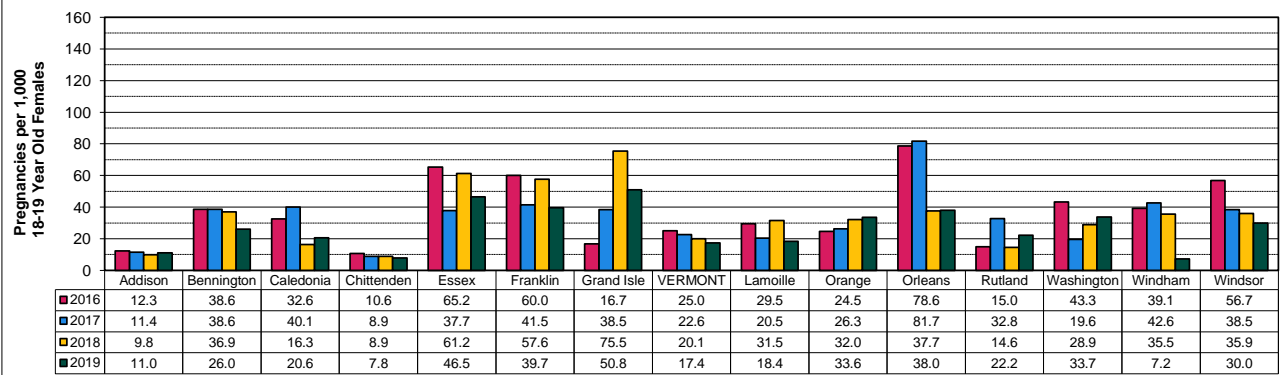
Women were counted as smokers if they smoked before pregnancy or during the first trimester of pregnancy.
 Women were counted as having quit smoking if they did not smoke in the second and third trimesters of pregnancy, after smoking either before pregnancy or during the first trimester.



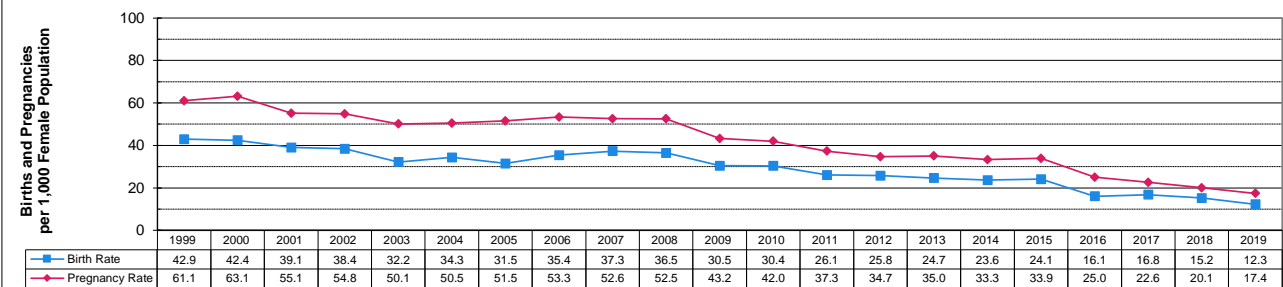
Teen (18-19) Pregnancy Rate by District

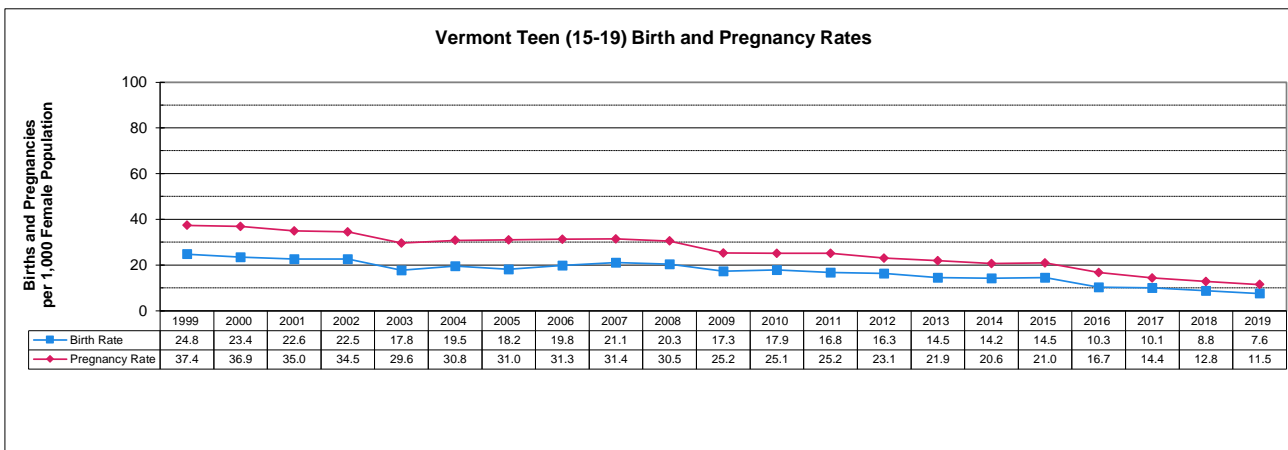
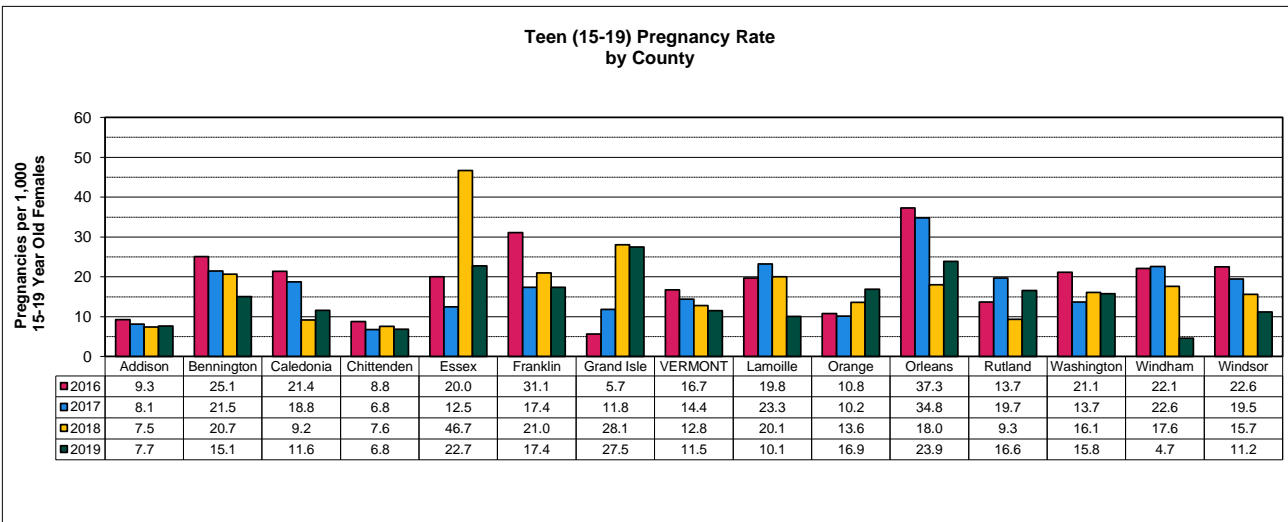
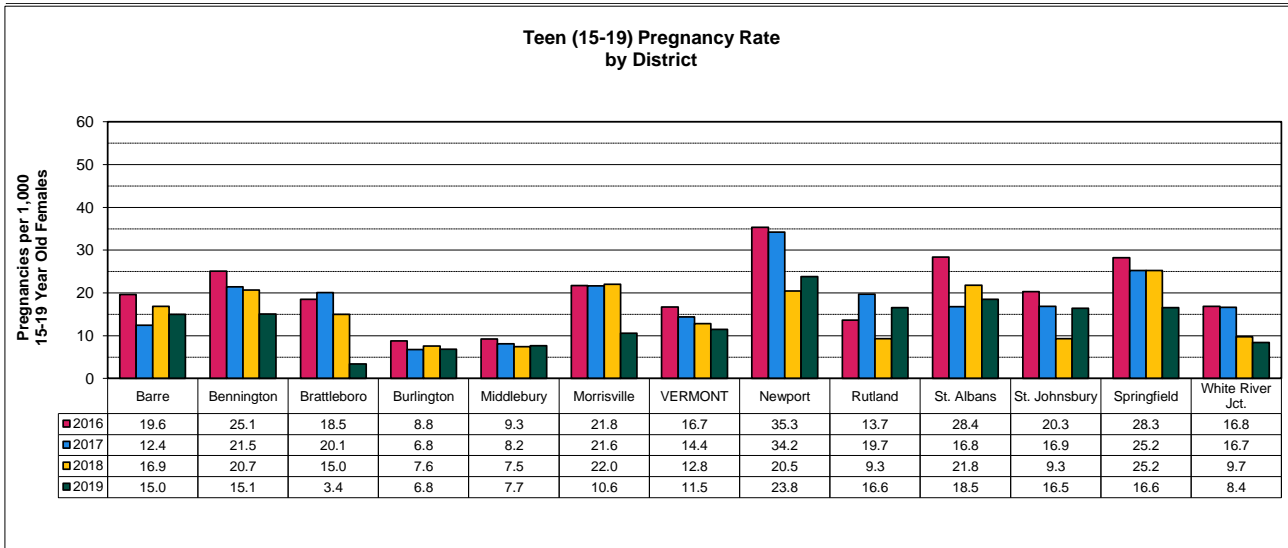


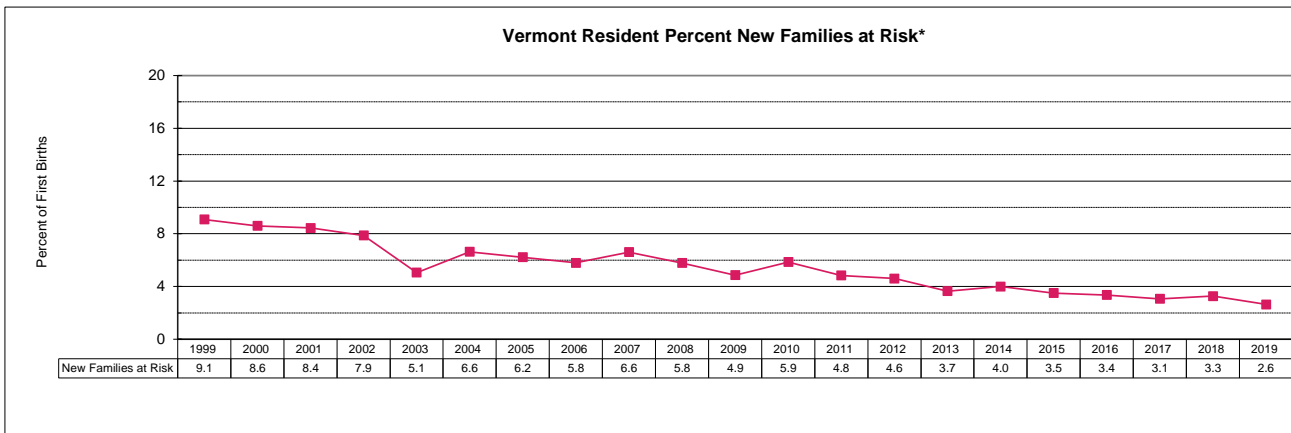
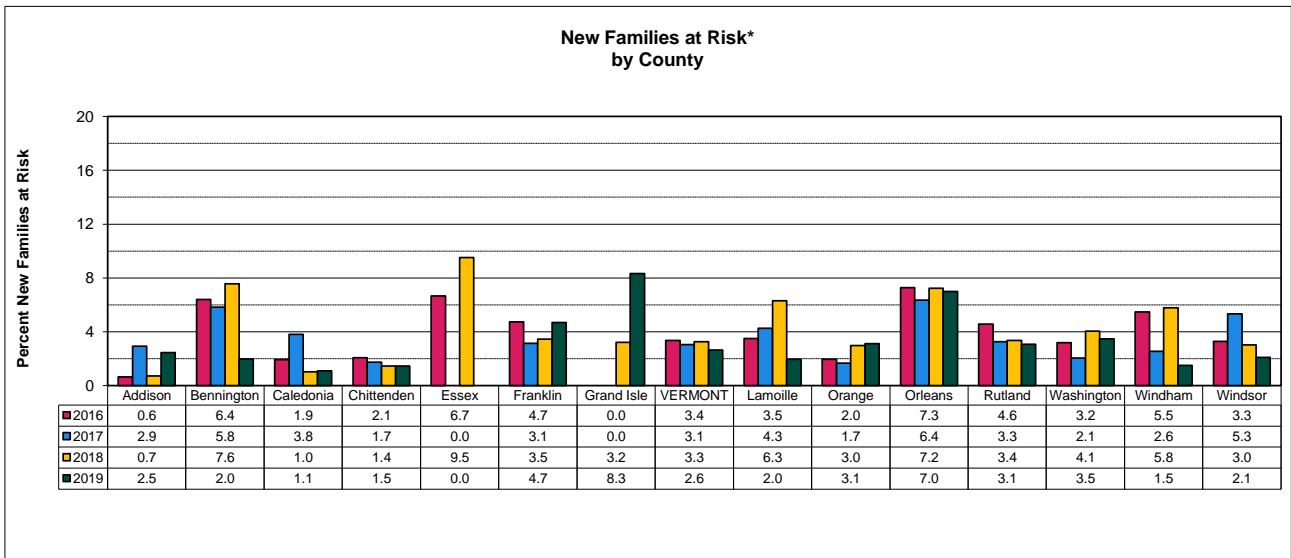
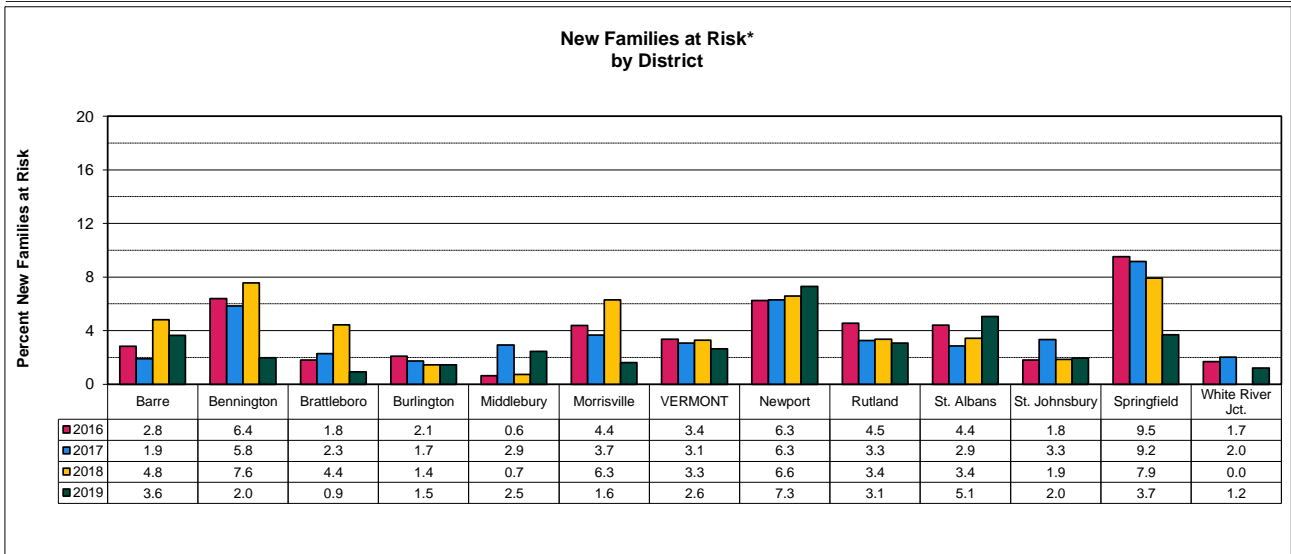
Teen (18-19) Pregnancy Rate by County



Vermont Teen (18-19) Birth and Pregnancy Rates







* Percent New Families at Risk is defined as the percentage of resident first births occurring to unmarried women under 20 years of age with less than a high school education.

Related Healthy People 2020 Targets

Infant Mortality: 6.0 infant deaths per 1,000 live births. (VT 2.8)
 Neonatal Mortality: 4.1 infant deaths per 1,000 live births. (VT 1.7)
 Post-neonatal Mortality: 2.0 infant deaths per 1,000 live births. (VT 1.1)

Low Birthweight (<2500g): 7.8% (VT 6.6%)
 Very Low Birthweight (<1500g): 1.4% (VT 0.9%)

Preterm Births (<37 weeks gestation): 11.4% (VT 8.4%)
 Late Preterm (34-36 weeks) Births: 8.1% (VT 6.1%)
 Births at 32-33 Weeks Gestation: 1.4% (VT 1.2%)
 Very Preterm Births (<32 weeks): 1.8% (VT 1.1%)

First Trimester Prenatal Care: 77.9% (VT 85.3%)
 Early & Adequate Prenatal Care: 77.9% (VT 88.3%)

Did Not Smoke Prior to Pregnancy: 85.4% (VT 84.2%)

Teen Pregnancy Rate
 Age 15-17: 36.2 per 1,000 (VT 5.7)
 Age 18-19: 104.6 per 1,000 (VT 17.4)

Institute of Medicine Recommendations for Weight Gain During Pregnancy by Pre-Pregnancy BMI

Pre-pregnancy BMI	BMI (kg/m ²)	Weight Gain Recommendation	
		Single Gestation	Twin Gestation
Underweight	<18.5	28–40lbs	---
Normal weight	18.5-24.9	25–35lbs	37–54lbs
Overweight	25.0-29.9	15–25lbs	31–50lbs
Obese	≥30.0	11–20lbs	25–42lbs

There are no standard recommendations for underweight women carrying twins, or for higher order multiple gestations.

Details on the IOM guidelines for weight gain can be found here:
<http://iom.edu/About-IOM/Leadership-Staff/Boards/Food-and-Nutrition-Board/HealthyPregnancy.aspx>

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

BIRTHWEIGHT IN GRAMS BY DISTRICT

NUMBER OF EVENTS AND ROW PERCENTS

DISTRICT	BIRTHWEIGHT													TOTAL
	NUMBER OF EVENTS													
	<500g	500-999g	1000-1499g	1500-1999g	2000-2499g	2500-2999g	3000-3499g	3500-3999g	4000-4499g	4500-4999g	5000-5499g	5500g+	UNKNOWN	
BARRE	0	1	3	11	23	92	175	167	51	3	2	0	1	529
BENNINGTON	0	2	2	3	13	46	114	85	21	1	1	0	0	288
BRATTLEBORO	0	3	3	6	16	59	104	79	28	3	1	0	0	302
BURLINGTON	2	1	3	29	51	223	515	423	131	15	3	0	1	1397
MIDDLEBURY	0	0	1	2	16	52	98	83	36	4	1	0	0	293
MORRISVILLE	0	2	4	5	5	46	116	91	31	5	0	0	1	306
NEWPORT	0	0	0	9	8	47	98	84	15	4	0	0	0	265
RUTLAND	0	0	5	4	21	77	167	139	41	5	1	0	0	460
ST. ALBANS	1	1	3	8	23	96	207	173	64	7	1	0	1	585
ST. JOHNSBURY	0	3	1	5	8	54	112	88	28	1	1	0	0	301
SPRINGFIELD	0	2	5	6	7	41	91	78	16	2	1	0	0	249
WHITE RIVER JCT	0	0	2	4	18	70	133	117	36	3	1	0	0	384
TOTAL	3	15	32	92	209	903	1930	1607	498	53	13	0	4	5359

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	<500g	<1000g	<1500g	<2000g	<2500g	<3000g	<3500g	<4000g	<4500g	<5000g	<5500g	5500g+
BARRE	0.0	0.2	0.8	2.8	7.2	24.6	57.8	89.4	99.1	99.6	100.0	100.0
BENNINGTON	0.0	0.7	1.4	2.4	6.9	22.9	62.5	92.0	99.3	99.7	100.0	100.0
BRATTLEBORO	0.0	1.0	2.0	4.0	9.3 +	28.8	63.2	89.4	98.7	99.7	100.0	100.0
BURLINGTON	0.1	0.2	0.4 -	2.5	6.2	22.1	59.0	89.3	98.7	99.8	100.0	100.0
MIDDLEBURY	0.0	0.0	0.3	1.0	6.5	24.2	57.7	86.0	98.3	99.7	100.0	100.0
MORRISVILLE	0.0	0.7	2.0	3.6	5.2	20.3	58.4	88.2	98.4	100.0	100.0	100.0
NEWPORT	0.0	0.0	0.0 -	3.4	6.4	24.2	61.1	92.8	98.5	100.0	100.0	100.0
RUTLAND	0.0	0.0	1.1	2.0	6.5	23.3	59.6	89.8	98.7	99.8	100.0	100.0
ST. ALBANS	0.2	0.3	0.9	2.2	6.2	22.6	58.0	87.7	98.6	99.8	100.0	100.0
ST. JOHNSBURY	0.0	1.0	1.3	3.0	5.6	23.6	60.8	90.0	99.3	99.7	100.0	100.0
SPRINGFIELD	0.0	0.8	2.8 +	5.2	8.0	24.5	61.0	92.4	98.8	99.6	100.0	100.0
WHITE RIVER JCT	0.0	0.0	0.5	1.6	6.3	24.5	59.1	89.6	99.0	99.7	100.0	100.0
TOTAL	0.1	0.3	0.9	2.7	6.6	23.4	59.5	89.5	98.8	99.8	100.0	100.0

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

SINGLETON BIRTHWEIGHT IN GRAMS BY DISTRICT NUMBER OF EVENTS AND ROW PERCENTS

DISTRICT	BIRTHWEIGHT												UNKNOWN	TOTAL
	NUMBER OF EVENTS													
	<500g	500-999g	1000-1499g	1500-1999g	2000-2499g	2500-2999g	3000-3499g	3500-3999g	4000-4499g	4500-4999g	5000-5499g	5500g+		
BARRE	0	1	1	6	22	87	170	167	51	3	2	0	1	511
BENNINGTON	0	2	0	2	11	43	113	84	21	1	1	0	0	278
BRATTLEBORO	0	2	2	2	12	54	104	79	28	3	1	0	0	287
BURLINGTON	2	1	3	17	35	203	509	420	131	15	3	0	1	1340
MIDDLEBURY	0	0	1	2	14	46	98	83	36	4	1	0	0	285
MORRISVILLE	0	2	2	4	4	40	113	91	31	5	0	0	0	292
NEWPORT	0	0	0	7	8	47	98	84	15	4	0	0	0	263
RUTLAND	0	0	4	2	17	70	165	139	41	5	1	0	0	444
ST. ALBANS	1	1	2	2	16	87	204	173	64	7	1	0	1	559
ST. JOHNSBURY	0	3	1	3	8	51	111	88	28	1	1	0	0	295
SPRINGFIELD	0	2	5	3	7	37	90	77	16	2	1	0	0	240
WHITE RIVER JCT	0	0	1	2	14	57	133	117	36	3	1	0	0	364
TOTAL	3	14	22	52	168	822	1908	1602	498	53	13	0	3	5158

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	<500g	<1000g	<1500g	<2000g	<2500g	<3000g	<3500g	<4000g	<4500g	<5000g	<5500g	5500g+
BARRE	0.0	0.2	0.4	1.6	5.9	22.9	56.3	89.0	99.0	99.6	100.0	100.0
BENNINGTON	0.0	0.7	0.7	1.4	5.4	20.9	61.5	91.7	99.3	99.6	100.0	100.0
BRATTLEBORO	0.0	0.7	1.4	2.1	6.3	25.1	61.3	88.9	98.6	99.7	100.0	100.0
BURLINGTON	0.1	0.2	0.4	1.7	4.3	19.5	57.5	88.9	98.7	99.8	100.0	100.0
MIDDLEBURY	0.0	0.0	0.4	1.1	6.0	22.1	56.5	85.6	98.2	99.6	100.0	100.0
MORRISVILLE	0.0	0.7	1.4	2.7	4.1	17.8	56.5	87.7	98.3	100.0	100.0	100.0
NEWPORT	0.0	0.0	0.0 -	2.7	5.7	23.6	60.8	92.8	98.5	100.0	100.0	100.0
RUTLAND	0.0	0.0	0.9	1.4	5.2	20.9	58.1	89.4	98.6	99.8	100.0	100.0
ST. ALBANS	0.2	0.4	0.7	1.1	3.9	19.5	56.1	87.1	98.6	99.8	100.0	100.0
ST. JOHNSBURY	0.0	1.0	1.4	2.4	5.1	22.4	60.0	89.8	99.3	99.7	100.0	100.0
SPRINGFIELD	0.0	0.8	2.9 +	4.2	7.1	22.5	60.0	92.1	98.8	99.6	100.0	100.0
WHITE RIVER JCT	0.0	0.0	0.3	0.8	4.7	20.3	56.9	89.0	98.9	99.7	100.0	100.0
TOTAL	0.1	0.3	0.8	1.8	5.0	21.0	58.0	89.1	98.7	99.7	100.0	100.0

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

WEEKS GESTATION BY DISTRICT NUMBER OF EVENTS AND ROW PERCENTS

DISTRICT	NUMBER OF EVENTS								TOTAL
	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-38 Weeks	39-41 Weeks	42+ Weeks	Unknown Weeks	
BARRE	2	2	5	32	121	360	7	0	529
BENNINGTON	2	1	3	23	50	208	0	1	288
BRATTLEBORO	2	4	5	28	67	192	1	3	302
BURLINGTON	2	7	15	81	341	940	11	0	1397
MIDDLEBURY	0	1	4	13	78	197	0	0	293
MORRISVILLE	2	5	4	14	58	220	3	0	306
NEWPORT	0	2	6	17	64	175	0	1	265
RUTLAND	0	3	6	28	123	300	0	0	460
ST. ALBANS	2	5	8	29	116	423	0	2	585
ST. JOHNSBURY	2	4	0	13	68	211	3	0	301
SPRINGFIELD	2	5	7	15	63	155	2	0	249
WHITE RIVER JCT	0	3	2	35	79	260	4	1	384
TOTAL	16	42	65	328	1228	3641	31	8	5359

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-38 Weeks	39-41 Weeks	42+ Weeks
BARRE	0.4	0.8	1.7	7.8	30.6	98.7	100.0
BENNINGTON	0.7	1.0	2.1	10.1	27.5	100.0	100.0
BRATTLEBORO	0.7	2.0	3.7	13.0 +	35.5	99.7	100.0
BURLINGTON	0.1	0.6	1.7	7.5	31.9	99.2	100.0
MIDDLEBURY	0.0	0.3	1.7	6.1	32.8	100.0	100.0
MORRISVILLE	0.7	2.3	3.6	8.2	27.1	99.0	100.0
NEWPORT	0.0	0.8	3.0	9.5	33.7	100.0	100.0
RUTLAND	0.0	0.7	2.0	8.0	34.8	100.0	100.0
ST. ALBANS	0.3	1.2	2.6	7.5	27.4	100.0	100.0
ST. JOHNSBURY	0.7	2.0	2.0	6.3	28.9	99.0	100.0
SPRINGFIELD	0.8	2.8	5.6 +	11.6 +	36.9	99.2	100.0
WHITE RIVER JCT	0.0	0.8	1.3	10.4	31.1	99.0	100.0
TOTAL	0.3	1.1	2.3	8.4	31.4	99.4	100.0

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

PRE-PREGNANCY BMI and WEIGHT GAIN DURING PREGNANCY by DISTRICT

NUMBER OF MOTHERS AND ROW PERCENTS

NUMBER OF EVENTS

DISTRICT	PRE-PREGNANCY BMI						WEIGHT GAIN DURING PREGNANCY*				
	UNDER-WEIGHT	HEALTHY WEIGHT	OVER-WEIGHT	OBESE	UNKNOWN	TOTAL	BELOW GUIDELINES	WITHIN GUIDELINES	ABOVE GUIDELINES	UNKNOWN	TOTAL
BARRE	13	233	127	142	5	520	100	154	224	5	483
BENNINGTON	9	118	58	95	3	283	68	72	115	3	258
BRATTLEBORO	3	123	79	82	7	294	64	73	113	7	257
BURLINGTON	33	652	348	315	20	1368	240	422	595	20	1277
MIDDLEBURY	12	120	65	88	4	289	50	88	129	4	271
MORRISVILLE	3	139	87	70	0	299	61	84	131	0	276
NEWPORT	7	106	69	80	2	264	49	80	110	2	241
RUTLAND	10	180	107	150	5	452	75	121	218	5	419
ST. ALBANS	17	212	155	184	4	572	105	160	264	4	533
ST. JOHNSBURY	9	103	75	104	7	298	63	82	129	7	281
SPRINGFIELD	4	104	56	76	5	245	30	79	102	5	216
WHITE RIVER JCT	9	179	92	90	4	374	66	120	150	4	340
TOTAL	129	2269	1318	1476	66	5258	971	1535	2280	66	4852

BMI categories and weight gain recommendations defined by the Institute of Medicine, see page 16.

* Only includes women who delivered full-term singleton or twin births.

ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	UNDER-WEIGHT	HEALTHY WEIGHT	OVER-WEIGHT	OBESE	BELOW GUIDELINES	WITHIN GUIDELINES	ABOVE GUIDELINES
BARRE	2.5	45.2	24.7	27.6	20.9	32.2	46.9
BENNINGTON	3.2	42.1	20.7 -	33.9 +	26.7 +	28.2	45.1
BRATTLEBORO	1.0 -	42.9	27.5	28.6	25.6 +	29.2	45.2
BURLINGTON	2.4	48.4 +	25.8	23.4 -	19.1	33.6	47.3
MIDDLEBURY	4.2	42.1	22.8	30.9	18.7	33.0	48.3
MORRISVILLE	1.0 -	46.5	29.1	23.4 -	22.1	30.4	47.5
NEWPORT	2.7	40.5	26.3	30.5	20.5	33.5	46.0
RUTLAND	2.2	40.3	23.9	33.6 +	18.1	29.2	52.7 +
ST. ALBANS	3.0	37.3 -	27.3	32.4 +	19.8	30.2	49.9
ST. JOHNSBURY	3.1	35.4 -	25.8	35.7 +	23.0	29.9	47.1
SPRINGFIELD	1.7	43.3	23.3	31.7	14.2 -	37.4	48.3
WHITE RIVER JCT	2.4	48.4 +	24.9	24.3 -	19.6	35.7	44.6
TOTAL	2.5	43.7	25.4	28.4	20.3	32.1	47.6

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

MONTH PRENATAL CARE BEGAN BY DISTRICT NUMBER OF EVENTS AND CUMULATIVE ROW PERCENTS

MONTH PRENATAL CARE BEGAN

NUMBER OF EVENTS

DISTRICT	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINTH	NONE	UNKNOWN	TOTAL
BARRE	0	184	246	46	16	9	8	9	3	2	6	529
BENNINGTON	12	110	112	33	4	3	2	3	2	1	6	288
BRATTLEBORO	20	149	62	35	7	9	2	2	2	4	10	302
BURLINGTON	9	461	712	143	28	16	6	7	4	3	8	1397
MIDDLEBURY	0	138	120	23	6	4	1	0	1	0	0	293
MORRISVILLE	3	108	143	34	7	5	3	0	0	2	1	306
NEWPORT	10	114	94	18	11	11	1	2	0	2	2	265
RUTLAND	2	125	265	34	16	5	4	2	2	2	3	460
ST. ALBANS	7	327	195	34	6	3	1	2	0	2	8	585
ST. JOHNSBURY	3	77	171	30	10	5	1	0	0	1	3	301
SPRINGFIELD	5	112	85	19	8	9	6	2	0	2	1	249
WHITE RIVER JCT	4	163	181	21	7	4	2	1	0	1	0	384
TOTAL	75	2068	2386	470	126	83	37	30	14	22	48	5359

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINTH	NONE
BARRE	0.0	35.2	82.2	-	91.0	94.1	95.8	97.3	99.0	100.0
BENNINGTON	4.3	43.3	83.0	-	94.7	96.1	97.2	97.9	98.9	100.0
BRATTLEBORO	6.8	57.9	79.1	-	91.1	93.5	96.6	97.3	97.9	98.6
BURLINGTON	0.6	33.8	85.1	-	95.4	97.4	98.6	99.0	99.5	99.8
MIDDLEBURY	0.0	47.1	88.1	-	95.9	98.0	99.3	99.7	99.7	100.0
MORRISVILLE	1.0	36.4	83.3	-	94.4	96.7	98.4	99.3	99.3	99.3
NEWPORT	3.8	47.1	82.9	-	89.7	93.9	98.1	98.5	99.2	99.2
RUTLAND	0.4	27.8	85.8	-	93.2	96.7	97.8	98.7	99.1	99.6
ST. ALBANS	1.2	57.9	91.7	+	97.6	98.6	99.1	99.3	99.7	99.7
ST. JOHNSBURY	1.0	26.8	84.2	-	94.3	97.7	99.3	99.7	99.7	99.7
SPRINGFIELD	2.0	47.2	81.5	-	89.1	92.3	96.0	98.4	99.2	99.2
WHITE RIVER JCT	1.0	43.5	90.6	+	96.1	97.9	99.0	99.5	99.7	99.7
TOTAL	1.4	40.4	85.3	-	94.1	96.5	98.1	98.8	99.3	99.6

+ significantly higher than state percentage of first trimester care entry (95% confidence level); - significantly lower than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

ADEQUACY OF PRENATAL CARE UTILIZATION BY DISTRICT (Kotelchuck Index)

NUMBER OF EVENTS AND ROW PERCENTS

NUMBER OF EVENTS

DISTRICT	Inadequate	Intermediate	Adequate	Intensive	Unknown	TOTAL
BARRE	50	25	217	230	7	529
BENNINGTON	17	22	135	107	7	288
BRATTLEBORO	29	9	78	175	11	302
BURLINGTON	73	65	659	587	13	1397
MIDDLEBURY	14	3	135	141	0	293
MORRISVILLE	20	15	174	96	1	306
NEWPORT	31	14	95	123	2	265
RUTLAND	32	13	172	240	3	460
ST. ALBANS	16	29	265	265	10	585
ST. JOHNSBURY	17	19	124	135	6	301
SPRINGFIELD	29	24	81	114	1	249
WHITE RIVER JCT	18	35	171	160	0	384
TOTAL	346	273	2306	2373	61	5359

DISTRICT	Inadequate	Intermediate	Adequate	Intensive	DISTRICT	PERCENT WITH AT LEAST ADEQUATE CARE UTILIZATION
BARRE	9.6	4.8	41.6	44.1	BARRE	85.6 -
BENNINGTON	6.0	7.8	48.0	38.1	BENNINGTON	86.1
BRATTLEBORO	10.0	3.1	26.8	60.1	BRATTLEBORO	86.9
BURLINGTON	5.3	4.7	47.6	42.4	BURLINGTON	90.0 +
MIDDLEBURY	4.8	1.0	46.1	48.1	MIDDLEBURY	94.2 +
MORRISVILLE	6.6	4.9	57.0	31.5	MORRISVILLE	88.5
NEWPORT	11.8	5.3	36.1	46.8	NEWPORT	82.9 -
RUTLAND	7.0	2.8	37.6	52.5	RUTLAND	90.2
ST. ALBANS	2.8	5.0	46.1	46.1	ST. ALBANS	92.2 +
ST. JOHNSBURY	5.8	6.4	42.0	45.8	ST. JOHNSBURY	87.8
SPRINGFIELD	11.7	9.7	32.7	46.0	SPRINGFIELD	78.6 -
WHITE RIVER JCT	4.7	9.1	44.5	41.7	WHITE RIVER JCT	86.2
TOTAL	6.5	5.2	43.5	44.8	TOTAL	88.3

+ significantly higher than state percentage

- significantly lower than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

SMOKING BEFORE PREGNANCY AND QUIT RATES BY DISTRICT

DISTRICT	Smoked Before Pregnancy	Did Not Smoke Before Pregnancy	Unknown	TOTAL	Smoked Before Pregnancy or During First Trimester [^]	Quit ^{^*}
BARRE	99	427	3	529	99	22
BENNINGTON	65	215	8	288	65	20
BRATTLEBORO	71	221	10	302	71	20
BURLINGTON	119	1266	12	1397	121	36
MIDDLEBURY	43	246	4	293	43	14
MORRISVILLE	39	266	1	306	39	12
NEWPORT	60	198	7	265	61	18
RUTLAND	101	353	6	460	101	29
ST. ALBANS	81	493	11	585	81	25
ST. JOHNSBURY	63	236	2	301	63	22
SPRINGFIELD	50	198	1	249	50	11
WHITE RIVER JCT	46	334	4	384	46	12
TOTAL	837	4453	69	5359	840	241

PERCENTAGES

DISTRICT	Smoked Before Pregnancy	Did Not Smoke Before Pregnancy	DISTRICT	Percent of Smokers Who Quit ^{^*}
BARRE	18.8 +	81.2	BARRE	22.2
BENNINGTON	23.2 +	76.8	BENNINGTON	30.8
BRATTLEBORO	24.3 +	75.7	BRATTLEBORO	28.2
BURLINGTON	8.6 -	91.4	BURLINGTON	29.8
MIDDLEBURY	14.9	85.1	MIDDLEBURY	32.6
MORRISVILLE	12.8	87.2	MORRISVILLE	30.8
NEWPORT	23.3 +	76.7	NEWPORT	29.5
RUTLAND	22.2 +	77.8	RUTLAND	28.7
ST. ALBANS	14.1	85.9	ST. ALBANS	30.9
ST. JOHNSBURY	21.1 +	78.9	ST. JOHNSBURY	34.9
SPRINGFIELD	20.2 +	79.8	SPRINGFIELD	22.0
WHITE RIVER JCT	12.1 -	87.9	WHITE RIVER JCT	26.1
TOTAL	15.8	84.2	TOTAL	28.7

+ significantly higher than state percentage
 - significantly lower than state percentage

+ significantly higher than state percentage
 - significantly lower than state percentage

[^] Excludes mothers with missing smoking data for the 2nd or 3rd trimester.

* Mothers who did not smoke in the 2nd or 3rd trimester after smoking either before pregnancy or in the 1st trimester.

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

AGE OF MOTHER BY DISTRICT NUMBER OF EVENTS AND ROW PERCENTS

DISTRICT	AGE OF MOTHER										TOTAL
	NUMBER OF EVENTS										
	<15 YEARS	15-17 YEARS	18-19 YEARS	20-24 YEARS	25-29 YEARS	30-34 YEARS	35-39 YEARS	40-44 YEARS	45 + YEARS	UNKNOWN	
BARRE	0	2	18	71	138	188	92	19	1	0	529
BENNINGTON	0	1	13	57	83	89	32	10	3	0	288
BRATTLEBORO	0	1	2	51	97	90	48	10	3	0	302
BURLINGTON	0	4	20	126	320	544	309	68	6	0	1397
MIDDLEBURY	0	1	9	46	82	95	45	14	1	0	293
MORRISVILLE	0	1	6	45	94	87	58	15	0	0	306
NEWPORT	1	6	8	69	90	58	27	6	0	0	265
RUTLAND	0	6	12	83	143	153	47	16	0	0	460
ST. ALBANS	0	5	16	109	179	188	75	11	2	0	585
ST. JOHNSBURY	0	1	8	58	104	79	45	6	0	0	301
SPRINGFIELD	0	1	7	40	77	83	30	10	1	0	249
WHITE RIVER JCT	0	1	3	47	96	147	73	14	3	0	384
TOTAL	1	30	122	802	1503	1801	881	199	20	0	5359

DISTRICT	ROW PERCENTS										TOTAL
	<15 YEARS	15-17 YEARS	18-19 YEARS	20-24 YEARS	25-29 YEARS	30-34 YEARS	35-39 YEARS	40-44 YEARS	45 + YEARS	UNKNOWN	
BARRE	0.0	0.4	3.4	13.4	26.1	35.5	17.4	3.6	0.2	0.0	100.0
BENNINGTON	0.0	0.3	4.5 +	19.8	28.8	30.9	11.1	3.5	1.0	0.0	100.0
BRATTLEBORO	0.0	0.3	0.7 -	16.9	32.1	29.8	15.9	3.3	1.0	0.0	100.0
BURLINGTON	0.0	0.3	1.4 -	9.0	22.9	38.9	22.1	4.9	0.4	0.0	100.0
MIDDLEBURY	0.0	0.3	3.1	15.7	28.0	32.4	15.4	4.8	0.3	0.0	100.0
MORRISVILLE	0.0	0.3	2.0	14.7	30.7	28.4	19.0	4.9	0.0	0.0	100.0
NEWPORT	0.4	2.3 +	3.0	26.0	34.0	21.9	10.2	2.3	0.0	0.0	100.0
RUTLAND	0.0	1.3	2.6	18.0	31.1	33.3	10.2	3.5	0.0	0.0	100.0
ST. ALBANS	0.0	0.9	2.7	18.6	30.6	32.1	12.8	1.9	0.3	0.0	100.0
ST. JOHNSBURY	0.0	0.3	2.7	19.3	34.6	26.2	15.0	2.0	0.0	0.0	100.0
SPRINGFIELD	0.0	0.4	2.8	16.1	30.9	33.3	12.0	4.0	0.4	0.0	100.0
WHITE RIVER JCT	0.0	0.3	0.8 -	12.2	25.0	38.3	19.0	3.6	0.8	0.0	100.0
TOTAL	0.0	0.6	2.3	15.0	28.0	33.6	16.4	3.7	0.4	0.0	100.0

+ significantly higher than state percentage (95% confidence level); - significantly lower than state percentage

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Teen Birth and Pregnancy Rates by District 15-17 Year Old Females

2019

District	Population	Births	Rate	Pregnancies	Rate
Barre	1090	2	1.8	3	2.8
Bennington	591	1	1.7	3	5.1
Brattleboro	541	1	1.8	1	1.8
Burlington	2504	4	1.6	13	5.2
Middlebury	524	1	1.9	1	1.9
Morrisville	519	1	1.9	1	1.9
Newport	477	6	12.6 +	8	16.8 +
Rutland	896	6	6.7	10	11.2 +
St. Albans	1027	5	4.9	7	6.8
St. Johnsbury	616	1	1.6	6	9.7
Springfield	508	1	2.0	1	2.0
White River Jct.	786	1	1.3	3	3.8
Vermont	10079	30	3.0	57	5.7

+/- = significantly higher/lower than state average rate.
Rates are events per 1,000 female population.

Teen Birth and Pregnancy Rates by District 18-19 Year Old Females

2019

District	Population	Births	Rate	Pregnancies	Rate
Barre	774	18	23.3 +	25	32.3 +
Bennington	538	13	24.2 +	14	26.0
Brattleboro	344	2	5.8	2	5.8 -
Burlington	4217	20	4.7 -	33	7.8 -
Middlebury	906	9	9.9	10	11.0
Morrisville	426	6	14.1	9	21.1
Newport	237	8	33.8 +	9	38.0 +
Rutland	856	12	14.0	19	22.2
St. Albans	538	16	29.7 +	22	40.9 +
St. Johnsbury	417	8	19.2	11	26.4
Springfield	276	7	25.4	12	43.5 +
White River Jct.	406	3	7.4	7	17.2
Vermont	9935	122	12.3	173	17.4

+/- = significantly higher/lower than state average rate.
Rates are events per 1,000 female population.

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Teen Birth and Pregnancy Rates by District 15-19 Year Old Females

2019

District	Population	Births	Rate	Pregnancies	Rate
Barre	1864	20	10.7	28	15.0
Bennington	1129	14	12.4	17	15.1
Brattleboro	885	3	3.4 -	3	3.4 -
Burlington	6721	24	3.6 -	46	6.8 -
Middlebury	1430	10	7.0	11	7.7
Morrisville	945	7	7.4	10	10.6
Newport	714	14	19.6 +	17	23.8 +
Rutland	1752	18	10.3	29	16.6 +
St. Albans	1565	21	13.4 +	29	18.5 +
St. Johnsbury	1033	9	8.7	17	16.5
Springfield	784	8	10.2	13	16.6
White River Jct.	1192	4	3.4 -	10	8.4
Vermont	20014	152	7.6	230	11.5

+/- = significantly higher/lower than state average rate.
Rates are events per 1,000 female population.

New Families at Risk by District

2019

First Births to Women <20, Unmarried, and <HS Education

District	First Births	Number to Women <20, Single, and < HS Education	Percent
Barre	220	8	3.6%
Bennington	101	2	2.0%
Brattleboro	109	1	0.9%
Burlington	620	9	1.5% -
Middlebury	122	3	2.5%
Morrisville	123	2	1.6%
Newport	96	7	7.3% +
Rutland	195	6	3.1%
St. Albans	237	12	5.1% +
St. Johnsbury	102	2	2.0%
Springfield	108	4	3.7%
White River Jct.	164	2	1.2%
Vermont	2197	58	2.6%

+/- = significantly higher/lower than state average rate.

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

BIRTHWEIGHT IN GRAMS BY COUNTY OF RESIDENCE NUMBER OF EVENTS AND ROW PERCENTS

COUNTY OF RESIDENCE	BIRTHWEIGHT												UNKNOWN	TOTAL
	NUMBER OF EVENTS													
	<500g	500-999g	1000-1499g	1500-1999g	2000-2499g	2500-2999g	3000-3499g	3500-3999g	4000-4499g	4500-4999g	5000-5499g	5500g+		
ADDISON	0	0	1	2	16	52	99	83	36	4	1	0	0	294
BENNINGTON	0	2	2	3	13	46	114	85	21	1	1	0	0	288
CALEDONIA	0	3	0	6	7	45	102	80	25	1	1	0	0	270
CHITTENDEN	2	1	3	29	51	223	515	423	131	15	3	0	1	1397
ESSEX	0	0	1	0	0	9	15	11	2	0	0	0	0	38
FRANKLIN	0	1	3	7	20	87	186	158	57	7	1	0	1	528
GRAND ISLE	1	0	0	1	3	9	21	15	7	0	0	0	0	57
LAMOILLE	0	1	4	3	5	39	99	71	27	5	0	0	1	255
ORANGE	0	1	0	5	12	45	74	73	27	2	1	0	0	240
ORLEANS	0	0	0	9	8	44	95	88	15	4	0	0	0	263
RUTLAND	0	0	5	4	21	77	166	139	41	5	1	0	0	459
WASHINGTON	0	1	3	8	19	88	159	152	45	2	2	0	1	480
WINDHAM	0	3	4	7	18	67	122	96	34	3	1	0	0	355
WINDSOR	0	2	6	8	16	72	163	133	30	4	1	0	0	435
TOTAL	3	15	32	92	209	903	1930	1607	498	53	13	0	4	5359

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY OF RESIDENCE	<500g	<1000g	<1500g	<2000g	<2500g	<3000g	<3500g	<4000g	<4500g	<5000g	<5500g	5500g+
ADDISON	0.0	0.0	0.3	1.0	6.5	24.1	57.8	86.1	98.3	99.7	100.0	100.0
BENNINGTON	0.0	0.7	1.4	2.4	6.9	22.9	62.5	92.0	99.3	99.7	100.0	100.0
CALEDONIA	0.0	1.1	1.1	3.3	5.9	22.6	60.4	90.0	99.3	99.6	100.0	100.0
CHITTENDEN	0.1	0.2	0.4 -	2.5	6.2	22.1	59.0	89.3	98.7	99.8	100.0	100.0
ESSEX	0.0	0.0	2.6	2.6	2.6	26.3	65.8	94.7	100.0	100.0	100.0	100.0
FRANKLIN	0.0	0.2	0.8	2.1	5.9	22.4	57.7	87.7	98.5	99.8	100.0	100.0
GRAND ISLE	1.8	1.8	1.8	3.5	8.8	24.6	61.4	87.7	100.0	100.0	100.0	100.0
LAMOILLE	0.0	0.4	2.0	3.1	5.1	20.5	59.4	87.4	98.0	100.0	100.0	100.0
ORANGE	0.0	0.4	0.4	2.5	7.5	26.3	57.1	87.5	98.8	99.6	100.0	100.0
ORLEANS	0.0	0.0	0.0 -	3.4	6.5	23.2	59.3	92.8	98.5	100.0	100.0	100.0
RUTLAND	0.0	0.0	1.1	2.0	6.5	23.3	59.5	89.8	98.7	99.8	100.0	100.0
WASHINGTON	0.0	0.2	0.8	2.5	6.5	24.8	58.0	89.8	99.2	99.6	100.0	100.0
WINDHAM	0.0	0.8	2.0	3.9	9.0 +	27.9	62.3	89.3	98.9	99.7	100.0	100.0
WINDSOR	0.0	0.5	1.8	3.7	7.4	23.9	61.4	92.0	98.9	99.8	100.0	100.0
TOTAL	0.1	0.3	0.9	2.7	6.6	23.4	59.5	89.5	98.8	99.8	100.0	100.0

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

SINGLETON BIRTHWEIGHT IN GRAMS BY COUNTY OF RESIDENCE NUMBER OF EVENTS AND ROW PERCENTS

COUNTY OF RESIDENCE	BIRTHWEIGHT												UNKNOWN	TOTAL
	NUMBER OF EVENTS													
	<500g	500-999g	1000-1499g	1500-1999g	2000-2499g	2500-2999g	3000-3499g	3500-3999g	4000-4499g	4500-4999g	5000-5499g	5500g+		
ADDISON	0	0	1	2	14	46	99	83	36	4	1	0	0	286
BENNINGTON	0	2	0	2	11	43	113	84	21	1	1	0	0	278
CALEDONIA	0	3	0	4	7	43	102	80	25	1	1	0	0	266
CHITTENDEN	2	1	3	17	35	203	509	420	131	15	3	0	1	1340
ESSEX	0	0	1	0	0	8	14	11	2	0	0	0	0	36
FRANKLIN	0	1	2	1	13	78	183	158	57	7	1	0	1	502
GRAND ISLE	1	0	0	1	3	9	21	15	7	0	0	0	0	57
LAMOILLE	0	1	2	2	4	33	96	71	27	5	0	0	0	241
ORANGE	0	1	0	3	10	37	74	73	27	2	1	0	0	228
ORLEANS	0	0	0	7	8	44	95	88	15	4	0	0	0	261
RUTLAND	0	0	4	2	17	70	164	139	41	5	1	0	0	443
WASHINGTON	0	1	1	5	18	83	154	152	45	2	2	0	1	464
WINDHAM	0	2	3	3	14	62	122	96	34	3	1	0	0	340
WINDSOR	0	2	5	3	14	63	162	132	30	4	1	0	0	416
TOTAL	3	14	22	52	168	822	1908	1602	498	53	13	0	3	5158

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY OF RESIDENCE	<500g	<1000g	<1500g	<2000g	<2500g	<3000g	<3500g	<4000g	<4500g	<5000g	<5500g	5500g+
ADDISON	0.0	0.0	0.3	1.0	5.9	22.0	56.6	85.7	98.3	99.7	100.0	100.0
BENNINGTON	0.0	0.7	0.7	1.4	5.4	20.9	61.5	91.7	99.3	99.6	100.0	100.0
CALEDONIA	0.0	1.1	1.1	2.6	5.3	21.4	59.8	89.8	99.2	99.6	100.0	100.0
CHITTENDEN	0.1	0.2	0.4	1.7	4.3	19.5	57.5	88.9	98.7	99.8	100.0	100.0
ESSEX	0.0	0.0	2.8	2.8	2.8	25.0	63.9	94.4	100.0	100.0	100.0	100.0
FRANKLIN	0.0	0.2	0.6	0.8	3.4 -	19.0	55.5	87.0	98.4	99.8	100.0	100.0
GRAND ISLE	1.8	1.8	1.8	3.5	8.8	24.6	61.4	87.7	100.0	100.0	100.0	100.0
LAMOILLE	0.0	0.4	1.2	2.1	3.7	17.4	57.3	86.7	97.9	100.0	100.0	100.0
ORANGE	0.0	0.4	0.4	1.8	6.1	22.4	54.8	86.8	98.7	99.6	100.0	100.0
ORLEANS	0.0	0.0	0.0 -	2.7	5.7	22.6	59.0	92.7	98.5	100.0	100.0	100.0
RUTLAND	0.0	0.0	0.9	1.4	5.2	21.0	58.0	89.4	98.6	99.8	100.0	100.0
WASHINGTON	0.0	0.2	0.4	1.5	5.4	23.3	56.6	89.4	99.1	99.6	100.0	100.0
WINDHAM	0.0	0.6	1.5	2.4	6.5	24.7	60.6	88.8	98.8	99.7	100.0	100.0
WINDSOR	0.0	0.5	1.7 +	2.4	5.8	20.9	59.9	91.6	98.8	99.8	100.0	100.0
TOTAL	0.1	0.3	0.8	1.8	5.0	21.0	58.0	89.1	98.7	99.7	100.0	100.0

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

WEEKS GESTATION BY COUNTY OF RESIDENCE NUMBER OF EVENTS AND ROW PERCENTS

COUNTY OF RESIDENCE	NUMBER OF EVENTS								TOTAL
	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-38 Weeks	39-41 Weeks	42+ Weeks	Unknown Weeks	
ADDISON	0	1	4	13	78	198	0	0	294
BENNINGTON	2	1	3	23	50	208	0	1	288
CALEDONIA	2	3	1	10	62	191	1	0	270
CHITTENDEN	2	7	15	81	341	940	11	0	1397
ESSEX	0	1	0	3	4	29	1	0	38
FRANKLIN	1	4	8	25	99	389	0	2	528
GRAND ISLE	1	1	0	4	17	34	0	0	57
LAMOILLE	1	5	3	14	46	184	2	0	255
ORANGE	1	2	3	18	54	158	4	0	240
ORLEANS	0	2	6	16	62	175	1	1	263
RUTLAND	0	3	6	28	123	299	0	0	459
WASHINGTON	2	2	2	28	115	324	7	0	480
WINDHAM	2	5	7	29	78	230	1	3	355
WINDSOR	2	5	7	36	99	282	3	1	435
TOTAL	16	42	65	328	1228	3641	31	8	5359

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY OF RESIDENCE	<28 Weeks	28-31 Weeks	32-33 Weeks	34-36 Weeks	37-38 Weeks	39-41 Weeks	42+ Weeks
ADDISON	0.0	0.3	1.7	6.1	32.7	100.0	100.0
BENNINGTON	0.7	1.0	2.1	10.1	27.5	100.0	100.0
CALEDONIA	0.7	1.9	2.2	5.9	28.9	99.6	100.0
CHITTENDEN	0.1	0.6	1.7	7.5	31.9	99.2	100.0
ESSEX	0.0	2.6	2.6	10.5	21.1	97.4	100.0
FRANKLIN	0.2	1.0	2.5	7.2	26.0	100.0	100.0
GRAND ISLE	1.8	3.5	3.5	10.5	40.4	100.0	100.0
LAMOILLE	0.4	2.4	3.5	9.0	27.1	99.2	100.0
ORANGE	0.4	1.3	2.5	10.0	32.5	98.3	100.0
ORLEANS	0.0	0.8	3.1	9.2	32.8	99.6	100.0
RUTLAND	0.0	0.7	2.0	8.1	34.9	100.0	100.0
WASHINGTON	0.4	0.8	1.3	7.1	31.0	98.5	100.0
WINDHAM	0.6	2.0	4.0	12.2	34.4	99.7	100.0
WINDSOR	0.5	1.6	3.2	11.5	34.3	99.3	100.0
TOTAL	0.3	1.1	2.3	8.4	31.4	99.4	100.0

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

PRE-PREGNANCY BMI and WEIGHT GAIN DURING PREGNANCY BY COUNTY NUMBER OF MOTHERS AND ROW PERCENTS

COUNTY	NUMBER OF EVENTS						WEIGHT GAIN DURING PREGNANCY*				
	PRE-PREGNANCY BMI			TOTAL			BELOW	WITHIN	ABOVE	UNKNOWN	TOTAL
	UNDER-WEIGHT	HEALTHY WEIGHT	OVER-WEIGHT	OBESE	UNKNOWN	TOTAL	GUIDELINES	GUIDELINES	GUIDELINES	UNKNOWN	TOTAL
ADDISON	12	121	65	88	1	287	50	89	129	1	269
BENNINGTON	9	118	58	95	6	286	68	72	115	6	261
CALEDONIA	7	97	66	91	0	261	58	80	109	0	247
CHITTENDEN	33	652	348	315	29	1377	240	422	595	29	1286
ESSEX	1	17	10	9	2	39	6	13	14	2	35
FRANKLIN	16	189	137	169	5	516	92	139	247	6	484
GRAND ISLE	1	23	18	15	2	59	13	21	17	2	53
LAMOILLE	3	114	72	59	1	249	46	72	110	1	229
ORANGE	6	108	57	62	8	241	46	71	95	8	220
ORLEANS	7	105	72	76	0	260	53	74	111	0	238
RUTLAND	10	179	107	150	12	458	75	120	218	12	425
WASHINGTON	11	207	117	132	3	470	91	133	211	3	438
WINDHAM	5	150	89	95	2	341	73	89	135	2	299
WINDSOR	8	189	102	120	10	429	60	140	174	10	384
TOTAL	129	2269	1318	1476	81	5273	971	1535	2280	82	4868

BMI categories and weight gain recommendations defined by the Institute of Medicine, see page 16.

* Only includes women who delivered full-term singleton or twin births.

ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY	UNDER-WEIGHT	HEALTHY WEIGHT	OVER-WEIGHT	OBESE	BELOW GUIDELINES	WITHIN GUIDELINES	ABOVE GUIDELINES
ADDISON	4.2	42.3	22.7	30.8	18.7	33.2	48.1
BENNINGTON	3.2	42.1	20.7	33.9 +	26.7 +	28.2	45.1
CALEDONIA	2.7	37.2 -	25.3 -	34.9	23.5	32.4	44.1
CHITTENDEN	2.4	48.4 +	25.8 +	23.4	19.1	33.6	47.3
ESSEX	2.7	45.9	27.0	24.3	18.2	39.4	42.4
FRANKLIN	3.1	37.0 -	26.8 +	33.1	19.2	29.1	51.7 +
GRAND ISLE	1.8	40.4	31.6	26.3	25.5	41.2	33.3 -
LAMOILLE	1.2	46.0	29.0	23.8	20.2	31.6	48.2
ORANGE	2.6	46.4	24.5	26.6	21.7	33.5	44.8
ORLEANS	2.7	40.4	27.7	29.2	22.3	31.1	46.6
RUTLAND	2.2	40.1	24.0	33.6	18.2	29.1	52.8 +
WASHINGTON	2.4	44.3	25.1	28.3	20.9	30.6	48.5
WINDHAM	1.5	44.2	26.3	28.0	24.6 +	30.0	45.5
WINDSOR	1.9	45.1	24.3	28.6	16.0 -	37.4 +	46.5
TOTAL	2.5	43.7	25.4	28.4	20.3	32.1	47.6

- significantly lower than state percentage (95% confidence level); + significantly higher than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

MONTH PRENATAL CARE BEGAN BY COUNTY OF RESIDENCE NUMBER OF EVENTS AND CUMULATIVE ROW PERCENTS

MONTH PRENATAL CARE BEGAN NUMBER OF EVENTS

COUNTY OF RESIDENCE	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINTH	NONE	UNKNOWN	TOTAL
ADDISON	0	138	121	23	6	4	1	0	1	0	0	294
BENNINGTON	12	110	112	33	4	3	2	3	2	1	6	288
CALEDONIA	3	68	155	27	9	4	0	0	0	1	3	270
CHITTENDEN	9	461	712	143	28	16	6	7	4	3	8	1397
ESSEX	2	10	18	4	2	2	0	0	0	0	0	38
FRANKLIN	7	306	170	26	5	3	1	2	0	2	6	528
GRAND ISLE	0	21	25	8	1	0	0	0	0	0	2	57
LAMOILLE	3	91	118	29	6	3	3	0	0	2	0	255
ORANGE	2	89	115	21	5	3	3	0	1	0	1	240
ORLEANS	8	117	94	16	10	10	1	2	0	2	3	263
RUTLAND	2	125	264	34	16	5	4	2	2	2	3	459
WASHINGTON	0	164	227	38	16	9	8	9	2	2	5	480
WINDHAM	22	176	79	36	7	10	5	3	2	4	11	355
WINDSOR	5	192	176	32	11	11	3	2	0	3	0	435
TOTAL	75	2068	2386	470	126	83	37	30	14	22	48	5359

CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY OF RESIDENCE	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINTH	NONE
ADDISON	0.0	46.9	88.1	95.9	98.0	99.3	99.7	99.7	100.0	100.0
BENNINGTON	4.3	43.3	83.0	94.7	96.1	97.2	97.9	98.9	99.6	100.0
CALEDONIA	1.1	26.6	84.6	94.8	98.1	99.6	99.6	99.6	99.6	100.0
CHITTENDEN	0.6	33.8	85.1	95.4	97.4	98.6	99.0	99.5	99.8	100.0
ESSEX	5.3	31.6	78.9	89.5	94.7	100.0	100.0	100.0	100.0	100.0
FRANKLIN	1.3	60.0	92.5 +	97.5	98.5	99.0	99.2	99.6	99.6	100.0
GRAND ISLE	0.0	38.2	83.6	98.2	100.0	100.0	100.0	100.0	100.0	100.0
LAMOILLE	1.2	36.9	83.1	94.5	96.9	98.0	99.2	99.2	99.2	100.0
ORANGE	0.8	38.1	86.2	95.0	97.1	98.3	99.6	99.6	100.0	100.0
ORLEANS	3.1	48.1	84.2	90.4	94.2	98.1	98.5	99.2	99.2	100.0
RUTLAND	0.4	27.9	85.7	93.2	96.7	97.8	98.7	99.1	99.6	100.0
WASHINGTON	0.0	34.5	82.3 -	90.3	93.7	95.6	97.3	99.2	99.6	100.0
WINDHAM	6.4	57.6	80.5 -	91.0	93.0	95.9	97.4	98.3	98.8	100.0
WINDSOR	1.1	45.3	85.7	93.1	95.6	98.2	98.9	99.3	99.3	100.0
TOTAL	1.4	40.4	85.3	94.1	96.5	98.1	98.8	99.3	99.6	100.0

+ significantly higher than state percentage of first trimester care entry (95% confidence level); - significantly lower than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

ADEQUACY OF PRENATAL CARE UTILIZATION BY COUNTY OF RESIDENCE

(Kotelchuck Index)

NUMBER OF EVENTS AND ROW PERCENTS

NUMBER OF EVENTS

COUNTY OF RESIDENCE	Inadequate	Intermediate	Adequate	Intensive	Unknown	TOTAL
ADDISON	14	3	136	141	0	294
BENNINGTON	17	22	135	107	7	288
CALEDONIA	14	15	115	120	6	270
CHITTENDEN	73	65	659	587	13	1397
ESSEX	6	3	12	17	0	38
FRANKLIN	14	24	243	239	8	528
GRAND ISLE	2	5	22	26	2	57
LAMOILLE	17	12	149	77	0	255
ORANGE	14	14	113	98	1	240
ORLEANS	27	13	96	124	3	263
RUTLAND	32	13	171	240	3	459
WASHINGTON	49	24	195	206	6	480
WINDHAM	34	13	92	204	12	355
WINDSOR	33	47	168	187	0	435
TOTAL	346	273	2306	2373	61	5359

ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY OF RESIDENCE	Inadequate	Intermediate	Adequate	Intensive	COUNTY OF RESIDENCE	PERCENT WITH AT LEAST ADEQUATE CARE UTILIZATION
ADDISON	4.8	1.0	46.3	48.0	ADDISON	94.2 +
BENNINGTON	6.0	7.8	48.0	38.1	BENNINGTON	86.1
CALEDONIA	5.3	5.7	43.6	45.5	CALEDONIA	89.0
CHITTENDEN	5.3	4.7	47.6	42.4	CHITTENDEN	90.0 +
ESSEX	15.8	7.9	31.6	44.7	ESSEX	76.3 -
FRANKLIN	2.7	4.6	46.7	46.0	FRANKLIN	92.7 +
GRAND ISLE	3.6	9.1	40.0	47.3	GRAND ISLE	87.3
LAMOILLE	6.7	4.7	58.4	30.2	LAMOILLE	88.6
ORANGE	5.9	5.9	47.3	41.0	ORANGE	88.3
ORLEANS	10.4	5.0	36.9	47.7	ORLEANS	84.6 -
RUTLAND	7.0	2.9	37.5	52.6	RUTLAND	90.1
WASHINGTON	10.3	5.1	41.1	43.5	WASHINGTON	84.6 -
WINDHAM	9.9	3.8	26.8	59.5	WINDHAM	86.3
WINDSOR	7.6	10.8	38.6	43.0	WINDSOR	81.6 -
TOTAL	6.5	5.2	43.5	44.8	TOTAL	88.3

+ significantly higher than state percentage

- significantly lower than state percentage

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

SMOKING BEFORE PREGNANCY AND QUIT RATES BY COUNTY OF RESIDENCE

COUNTY OF RESIDENCE	Smoked Before Pregnancy	Did Not Smoke Before Pregnancy	Unknown	TOTAL	Smoked Before Pregnancy or During First Trimester [^]	Quit ^{^*}
ADDISON	43	247	4	294	43	14
BENNINGTON	65	215	8	288	65	20
CALEDONIA	53	215	2	270	53	18
CHITTENDEN	119	1266	12	1397	121	36
ESSEX	8	30	0	38	9	4
FRANKLIN	71	447	10	528	71	25
GRAND ISLE	10	46	1	57	10	0
LAMOILLE	31	223	1	255	31	9
ORANGE	49	189	2	240	49	10
ORLEANS	54	202	7	263	54	15
RUTLAND	101	352	6	459	101	29
WASHINGTON	85	392	3	480	85	23
WINDHAM	82	262	11	355	82	20
WINDSOR	66	367	2	435	66	18
TOTAL	837	4453	69	5359	840	241

PERCENTAGES

COUNTY OF RESIDENCE	Smoked Before Pregnancy	Did Not Smoke Before Pregnancy	COUNTY OF RESIDENCE	Percent of Smokers Who Quit ^{^*}
ADDISON	14.8	85.2	ADDISON	32.6
BENNINGTON	23.2 +	76.8	BENNINGTON	30.8
CALEDONIA	19.8 +	80.2	CALEDONIA	34.0
CHITTENDEN	8.6 -	91.4	CHITTENDEN	29.8
ESSEX	21.1	78.9	ESSEX	44.4
FRANKLIN	13.7	86.3	FRANKLIN	35.2
GRAND ISLE	17.9	82.1	GRAND ISLE	0.0 -
LAMOILLE	12.2	87.8	LAMOILLE	29.0
ORANGE	20.6 +	79.4	ORANGE	20.4
ORLEANS	21.1 +	78.9	ORLEANS	27.8
RUTLAND	22.3 +	77.7	RUTLAND	28.7
WASHINGTON	17.8	82.2	WASHINGTON	27.1
WINDHAM	23.8 +	76.2	WINDHAM	24.4
WINDSOR	15.2	84.8	WINDSOR	27.3
TOTAL	15.8	84.2	TOTAL	28.7

+ significantly higher than state percentage
 - significantly lower than state percentage

+ significantly higher than state percentage
 - significantly lower than state percentage

[^] Excludes mothers with missing smoking data for the 2nd or 3rd trimester.

* Mothers who did not smoke in the 2nd or 3rd trimester after smoking either before pregnancy or in the 1st trimester.

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2019 and DECEMBER 31, 2019

AGE OF MOTHER BY COUNTY OF RESIDENCE NUMBER OF EVENTS AND ROW PERCENTS

COUNTY OF RESIDENCE	AGE OF MOTHER									UNKNOWN	TOTAL
	<15 YEARS	15-17 YEARS	18-19 YEARS	20-24 YEARS	25-29 YEARS	30-34 YEARS	35-39 YEARS	40-44 YEARS	45 + YEARS		
ADDISON	0	1	9	46	82	96	45	14	1	0	294
BENNINGTON	0	1	13	57	83	89	32	10	3	0	288
CALEDONIA	0	1	5	57	96	62	46	3	0	0	270
CHITTENDEN	0	4	20	126	320	544	309	68	6	0	1397
ESSEX	0	0	1	10	13	10	1	3	0	0	38
FRANKLIN	0	4	14	98	159	170	71	10	2	0	528
GRAND ISLE	0	1	2	11	20	18	4	1	0	0	57
LAMOILLE	0	1	5	35	78	73	49	14	0	0	255
ORANGE	0	1	5	40	67	79	37	10	1	0	240
ORLEANS	1	6	8	62	89	61	29	7	0	0	263
RUTLAND	0	6	12	83	143	152	47	16	0	0	459
WASHINGTON	0	2	17	61	123	175	84	17	1	0	480
WINDHAM	0	2	3	62	110	110	54	11	3	0	355
WINDSOR	0	0	8	54	120	162	73	15	3	0	435
TOTAL	1	30	122	802	1503	1801	881	199	20	0	5359

COUNTY OF RESIDENCE	ROW PERCENTS									UNKNOWN	TOTAL
	<15 YEARS	15-17 YEARS	18-19 YEARS	20-24 YEARS	25-29 YEARS	30-34 YEARS	35-39 YEARS	40-44 YEARS	45 + YEARS		
ADDISON	0.0	0.3	3.1	15.6	27.9	32.7	15.3	4.8	0.3	0.0	100.0
BENNINGTON	0.0	0.3	4.5 +	19.8	28.8	30.9	11.1	3.5	1.0	0.0	100.0
CALEDONIA	0.0	0.4	1.9	21.1	35.6	23.0	17.0	1.1	0.0	0.0	100.0
CHITTENDEN	0.0	0.3	1.4 -	9.0	22.9	38.9	22.1	4.9	0.4	0.0	100.0
ESSEX	0.0	0.0	2.6	26.3	34.2	26.3	2.6	7.9	0.0	0.0	100.0
FRANKLIN	0.0	0.8	2.7	18.6	30.1	32.2	13.4	1.9	0.4	0.0	100.0
GRAND ISLE	0.0	1.8	3.5	19.3	35.1	31.6	7.0	1.8	0.0	0.0	100.0
LAMOILLE	0.0	0.4	2.0	13.7	30.6	28.6	19.2	5.5	0.0	0.0	100.0
ORANGE	0.0	0.4	2.1	16.7	27.9	32.9	15.4	4.2	0.4	0.0	100.0
ORLEANS	0.4	2.3 +	3.0	23.6	33.8	23.2	11.0	2.7	0.0	0.0	100.0
RUTLAND	0.0	1.3	2.6	18.1	31.2	33.1	10.2	3.5	0.0	0.0	100.0
WASHINGTON	0.0	0.4	3.5	12.7	25.6	36.5	17.5	3.5	0.2	0.0	100.0
WINDHAM	0.0	0.6	0.8 -	17.5	31.0	31.0	15.2	3.1	0.8	0.0	100.0
WINDSOR	0.0	0.0 -	1.8	12.4	27.6	37.2	16.8	3.4	0.7	0.0	100.0
TOTAL	0.0	0.6	2.3	15.0	28.0	33.6	16.4	3.7	0.4	0.0	100.0

+ significantly higher than state percentage (95% confidence level); - significantly lower than state percentage

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Teen Birth and Pregnancy Rates by County[^]

2019

15-17 Year Old Females

County	Population	Births	Rate	Pregnancies	Rate
Addison	525	1	1.9	1	1.9
Bennington	591	1	1.7	3	5.1
Caledonia	559	1	1.8	3	5.4
Chittenden	2504	4	1.6	13	5.2
Essex	89	0	0.0	1	11.2
Franklin	904	4	4.4	5	5.5
Grand Isle	123	1	8.1	2	16.3
Lamoille	413	1	2.4	1	2.4
Orange	441	1	2.3	3	6.8
Orleans	474	6	12.7 +	8	16.9 +
Rutland	895	6	6.7	10	11.2 +
Washington	997	2	2.0	3	3.0
Windham	658	2	3.0	2	3.0
Windsor	906	0	0.0 -	2	2.2
Vermont	10079	30	3.0	57	5.7

+/- = significantly higher/lower than state average rate.

Rates are events per 1,000 female population.

Teen Birth and Pregnancy Rates by County[^]

2019

18-19 Year Old Females

County	Population	Births	Rate	Pregnancies	Rate
Addison	907	9	9.9	10	11.0
Bennington	538	13	24.2 +	14	26.0
Caledonia	388	5	12.9	8	20.6
Chittenden	4217	20	4.7 -	33	7.8 -
Essex	43	1	23.3	2	46.5
Franklin	479	14	29.2 +	19	39.7 +
Grand Isle	59	2	33.9	3	50.8
Lamoille	381	5	13.1	7	18.4
Orange	268	5	18.7	9	33.6 +
Orleans	237	8	33.8 +	9	38.0 +
Rutland	855	12	14.0	19	22.2
Washington	713	17	23.8 +	24	33.7 +
Windham	416	3	7.2	3	7.2 -
Windsor	434	8	18.4	13	30.0 +
Vermont	9935	122	12.3	173	17.4

+/- = significantly higher/lower than state average rate.

Rates are events per 1,000 female population.

Vermont Maternal and Child Health Annual Report - 2019

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Teen Birth and Pregnancy Rates by County 15-19 Year Old Females

2019

County	Population	Births	Rate	Pregnancies	Rate
Addison	1432	10	7.0	11	7.7
Bennington	1129	14	12.4	17	15.1
Caledonia	947	6	6.3	11	11.6
Chittenden	6721	24	3.6 -	46	6.8 -
Essex	132	1	7.6	3	22.7
Franklin	1383	18	13.0 +	24	17.4 +
Grand Isle	182	3	16.5	5	27.5
Lamoille	794	6	7.6	8	10.1
Orange	709	6	8.5	12	16.9
Orleans	711	14	19.7 +	17	23.9 +
Rutland	1750	18	10.3	29	16.6 +
Washington	1710	19	11.1	27	15.8
Windham	1074	5	4.7	5	4.7 -
Windsor	1340	8	6.0	15	11.2
Vermont	20014	152	7.6	230	11.5

+/- = significantly higher/lower than state average rate.

Rates are events per 1,000 female population.

New Families at Risk

2019

First Births to Women <20, Unmarried, and <HS Education

County	First Births	Number to Women	
		<20, Single, and < HS Education	Percent
Addison	122	3	2.5%
Bennington	101	2	2.0%
Caledonia	91	1	1.1%
Chittenden	620	9	1.5% -
Essex	10	0	0.0%
Franklin	213	10	4.7%
Grand Isle	24	2	8.3%
Lamoille	102	2	2.0%
Orange	96	3	3.1%
Orleans	100	7	7.0% +
Rutland	195	6	3.1%
Washington	201	7	3.5%
Windham	132	2	1.5%
Windsor	190	4	2.1%
Vermont	2197	58	2.6%

+/- = significantly higher/lower than state average rate.