

This is a maternal and child health surveillance report for calendar year 2020. 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 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](mailto:Michael.Nyland-Funke@vermont.gov).

### Highlights

- The low birth weight (<2500g) rate for 2020 was 7.0%, up from 6.6% in 2019.
- The very low birthweight rate (<1500g) was 0.8% in 2020, down from 0.9% in 2019.
- The 2020 low birthweight rate for singleton births was 5.8%, up from 5.0% in 2019.
- The preterm delivery rate (<37 weeks gestation) is 7.6% for 2019, down from the 2019 rate of 8.4%.
- Among women who gave birth during 2020, 42.0% had a healthy pre-pregnancy body-mass index (BMI), lower than the 2019 rate of 43.7%. In 2020, 2.4% of women giving birth were underweight pre-pregnancy, while 24.3% were overweight and 31.4% were obese (BMI > 30).
- During 2020, 30.0% of women achieved the recommended amount of weight gain during pregnancy, while 23.2% gained less weight than recommended and 46.9% 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 84.4%, below the 2019 rate of 85.3, and the 2018 rate of 85.7%.
- The percent of women in 2020 with adequate prenatal care utilization (as defined by the Kotelchuck Index) was 85.0%, down from the 2019 rate of 88.3%.
- In 2020, 15.9% of births were to women who smoked before pregnancy, close to the 2019 rate of 15.8%.
- Of the women who smoked before pregnancy or during the first trimester in 2020, 25.7% quit smoking for the second and third trimester, down from the 2019 quit rate of 28.7%.

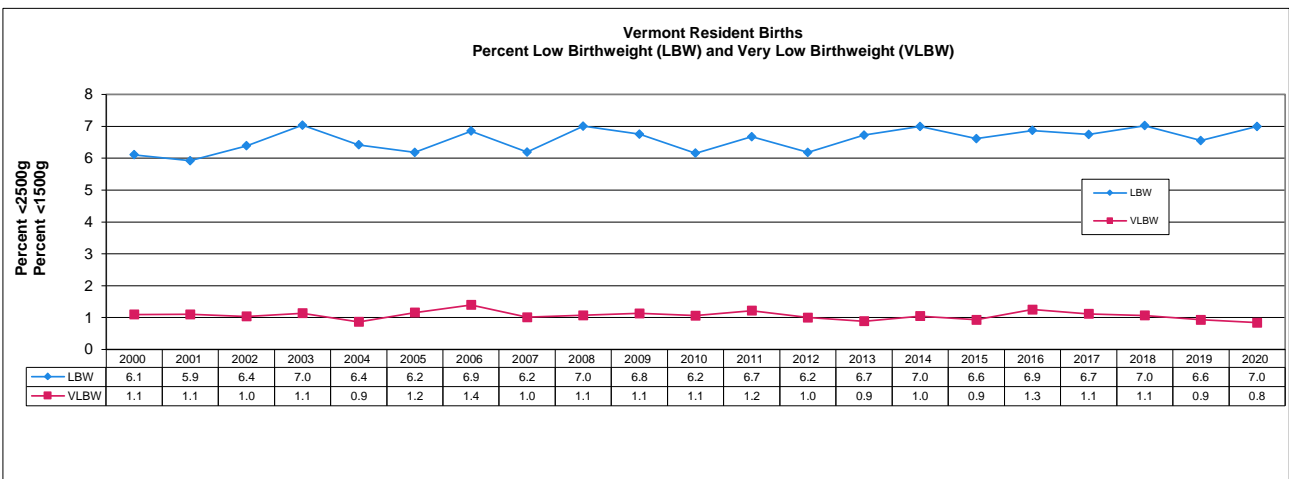
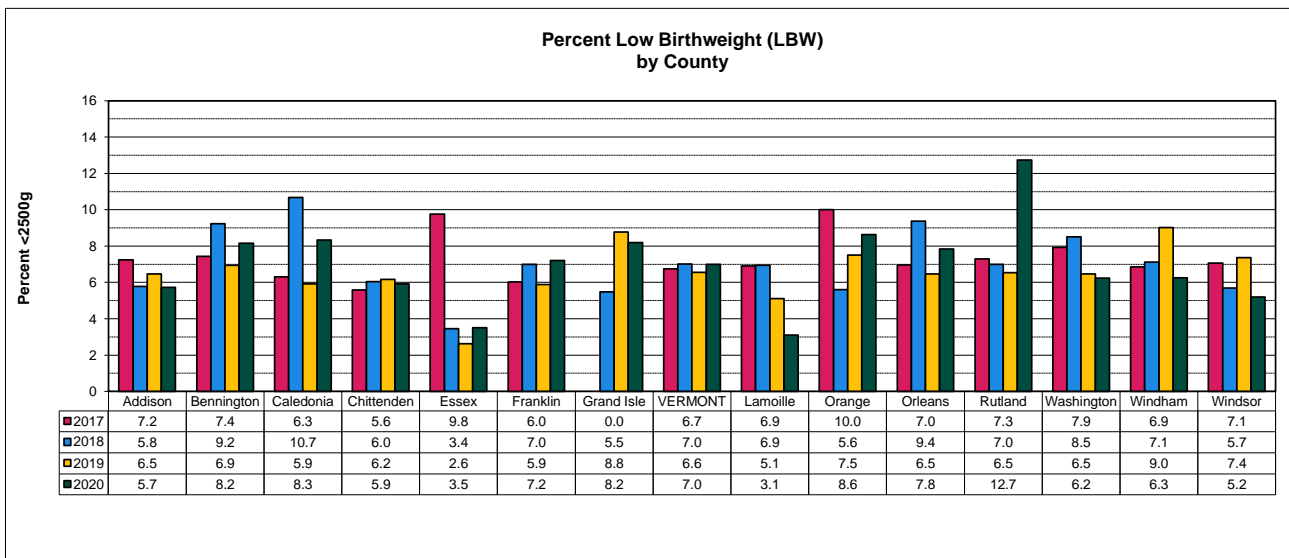
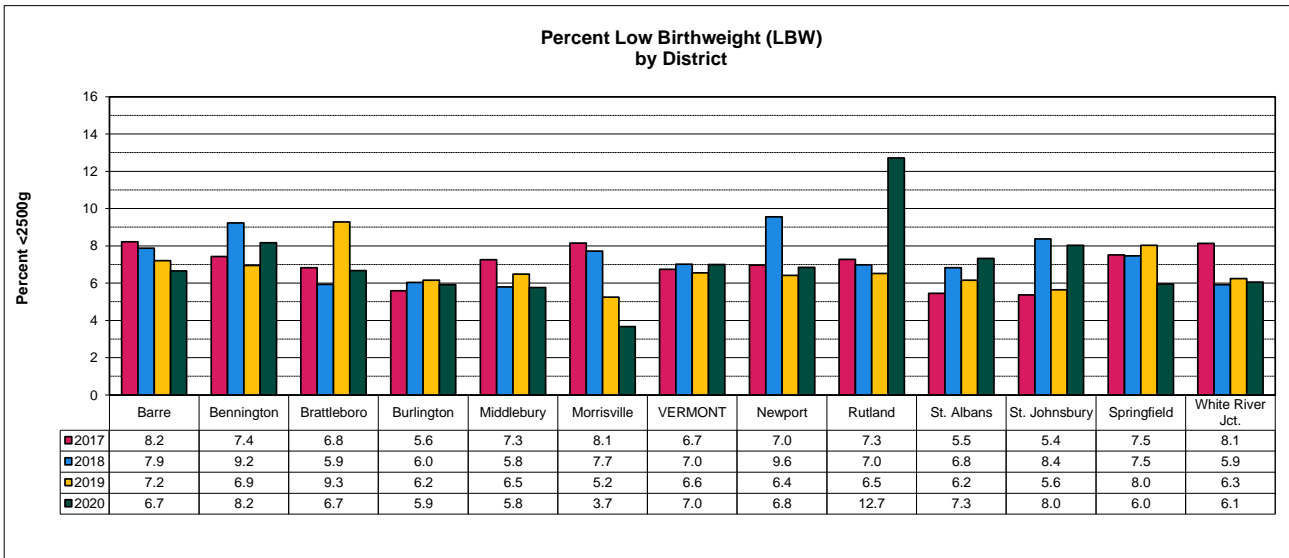
## Vermont Maternal and Child Health Annual Report – 2020

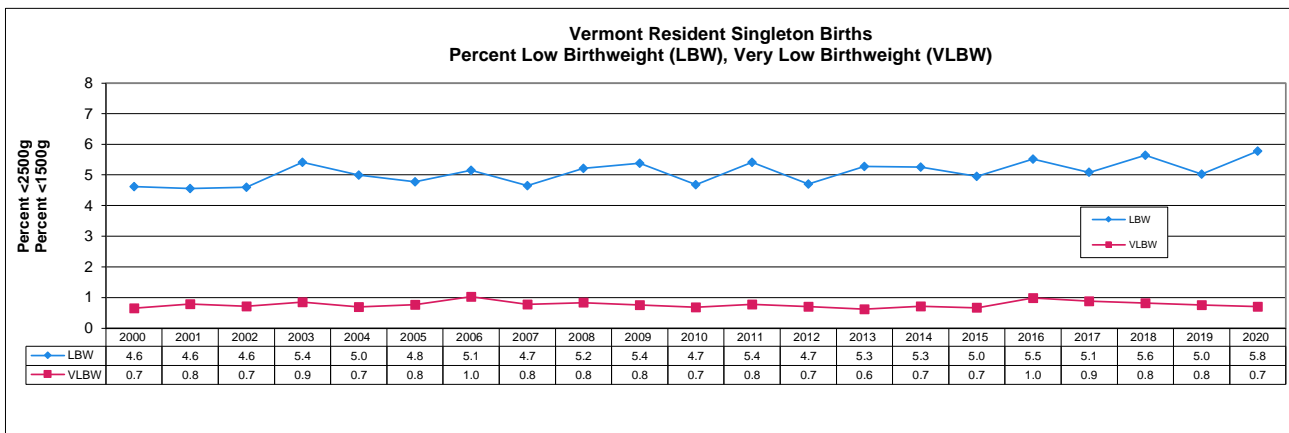
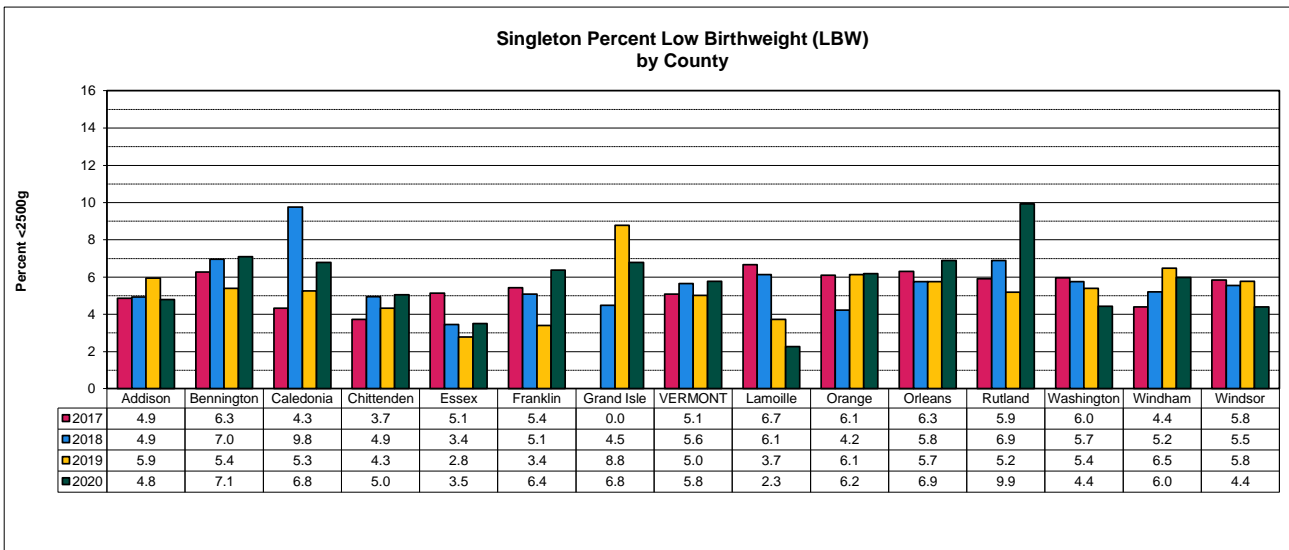
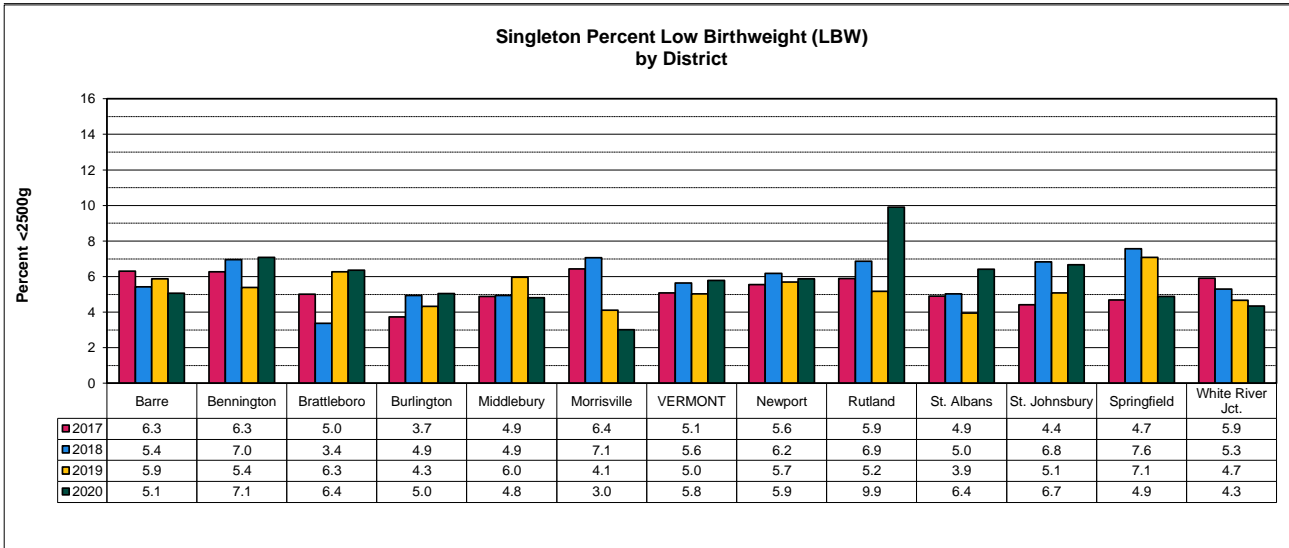
- Births to young teen (age less than 18 years) accounted for 0.5% of total births and there were no births to teens less than 15 years of age.
- The birth rate to teens aged 15-17 years was 2.8 per 1,000, lower than the 2019 rate of 3.0. Among mothers aged 18-19 the birth rate was 11.2. The birth rate for teens aged 15-19 was 6.9.
- The pregnancy rate for teens aged 15-17 was 4.5 per 1,000 for 2020, lower than the 2019 rate of 5.7. For women aged 18-19, the pregnancy rate was 15.0 per 1,000, lower than the 2019 rate of 17.4. The teen pregnancy rate for ages 15-19 was 9.7 per 1,000, lower than the 2019 rate of 11.5.
- 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 2020, same as the 2019 rate.
- The infant mortality rate for 2020 was 3.5 infant deaths per 1,000 live births, higher than the 2019 rate of 2.8. Please note that infant deaths are rare events, so fluctuations in the rate should be interpreted with caution.

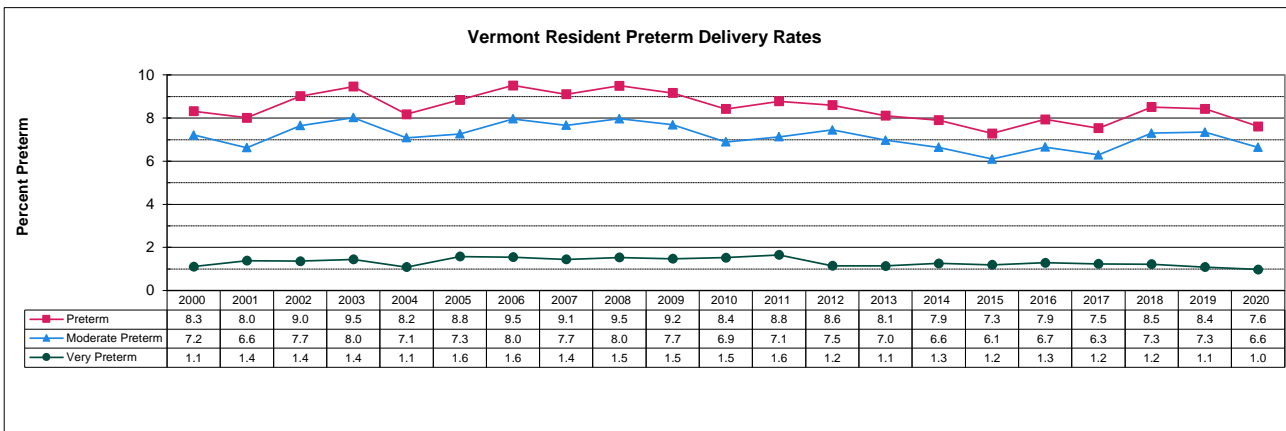
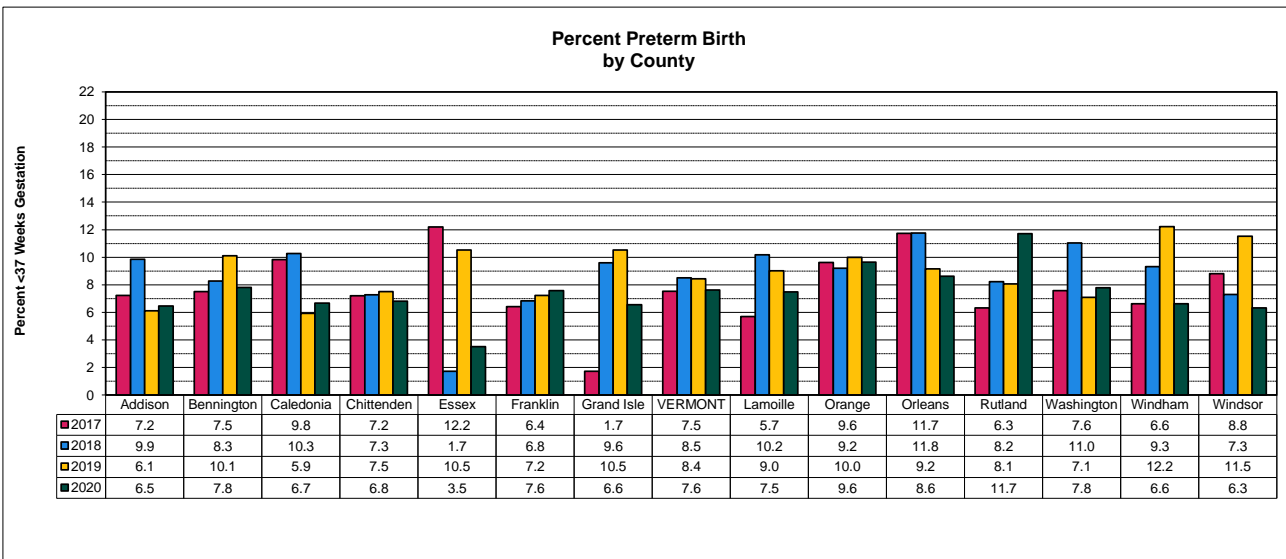
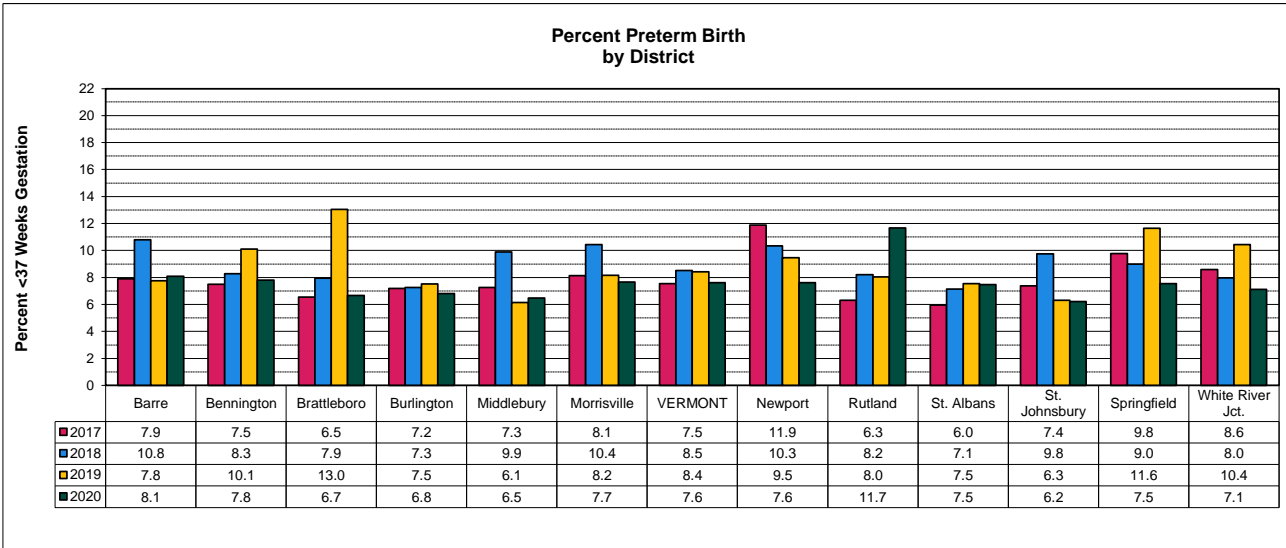
	VT Resident Births	Infant Deaths	Infant Mortality Rate		Neonatal Deaths	Neonatal Mortality Rate
2017	5655	27	4.8		20	3.5
2018	5432	35	6.4		17	3.1
2019	5361	15	2.8		9	1.7
2020	5127	18	3.5		11	2.1

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

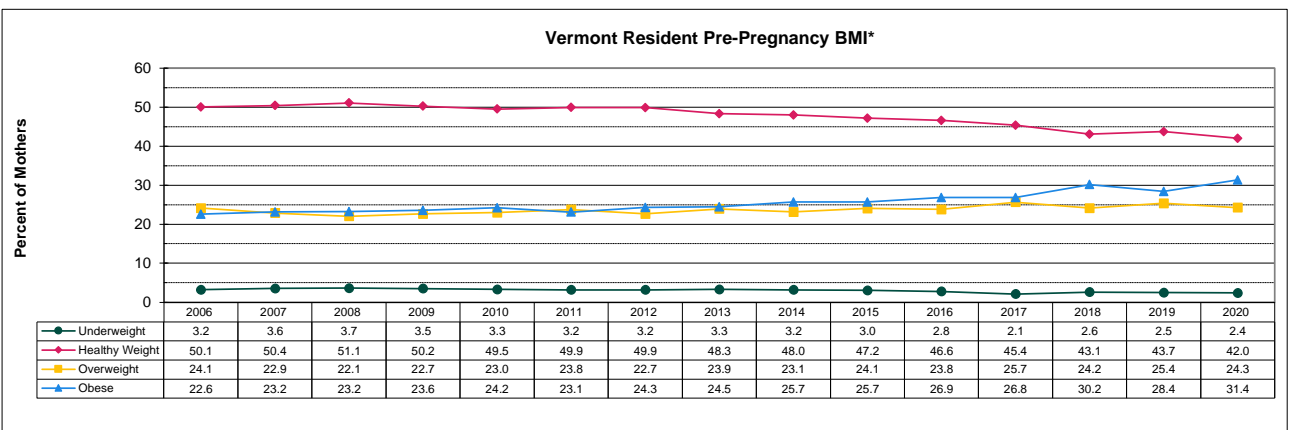
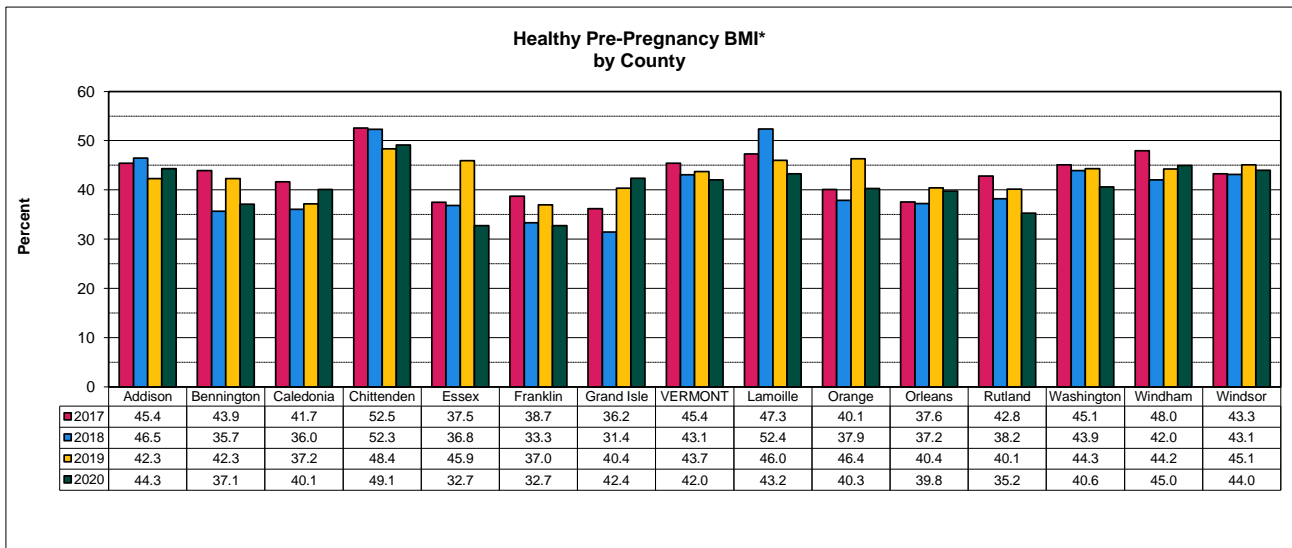
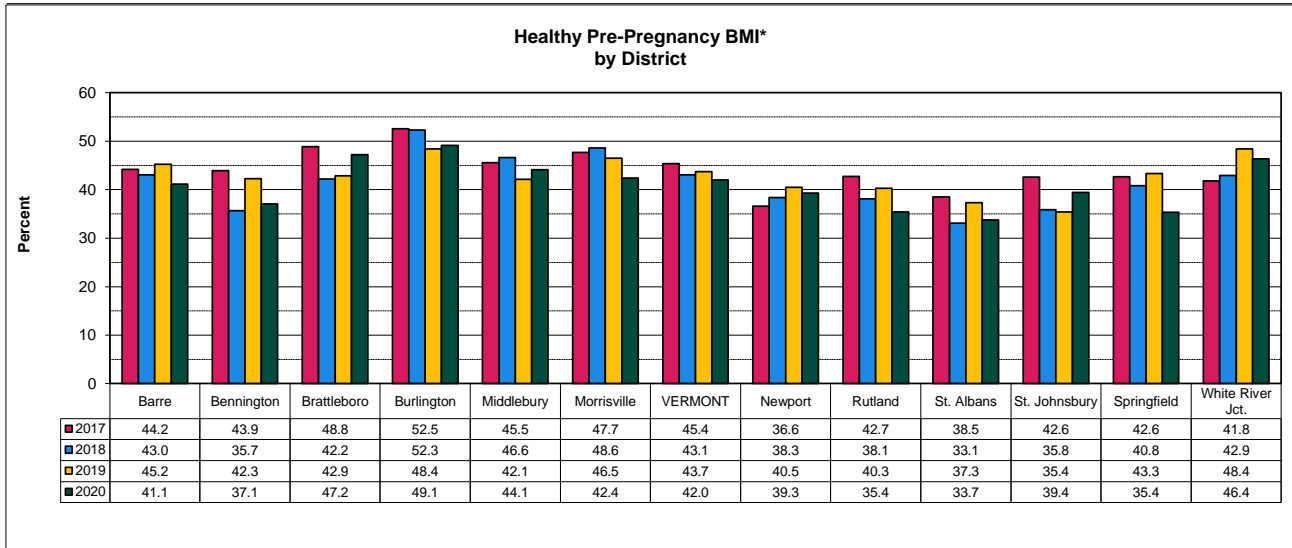
Vermont typically exceeds the Healthy People 2020 targets for related objectives, except for smoking. Related Healthy People 2020 targets are listed on page 16.



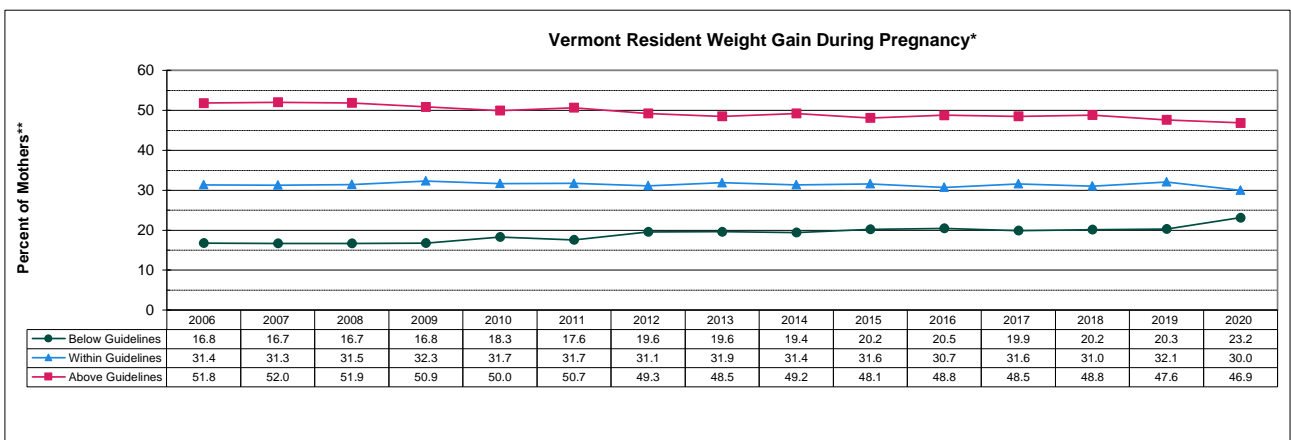
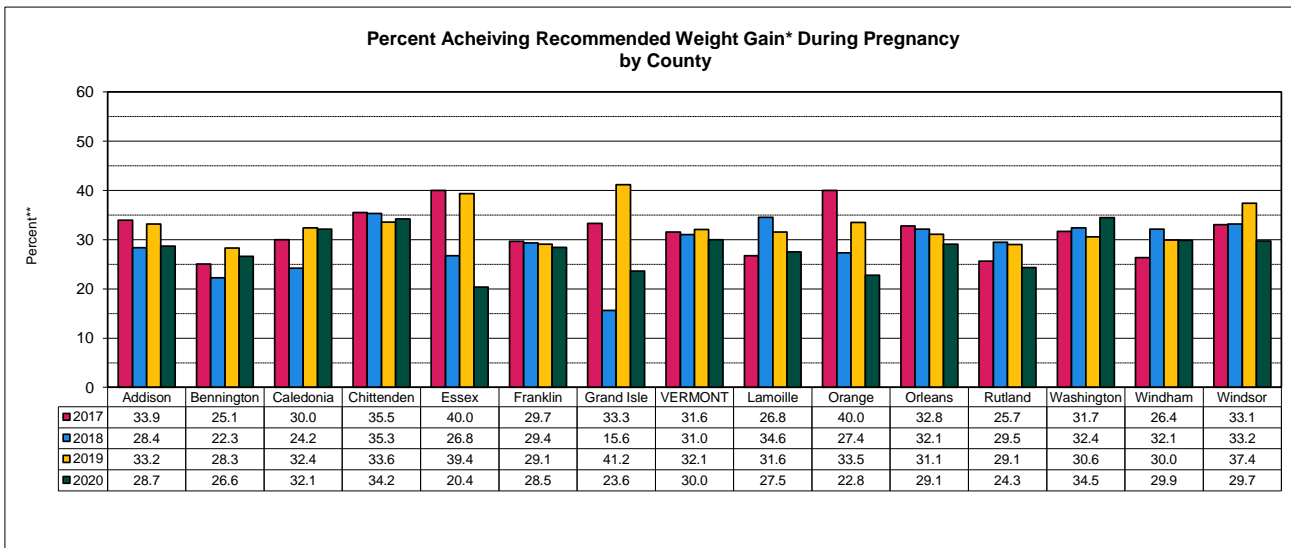
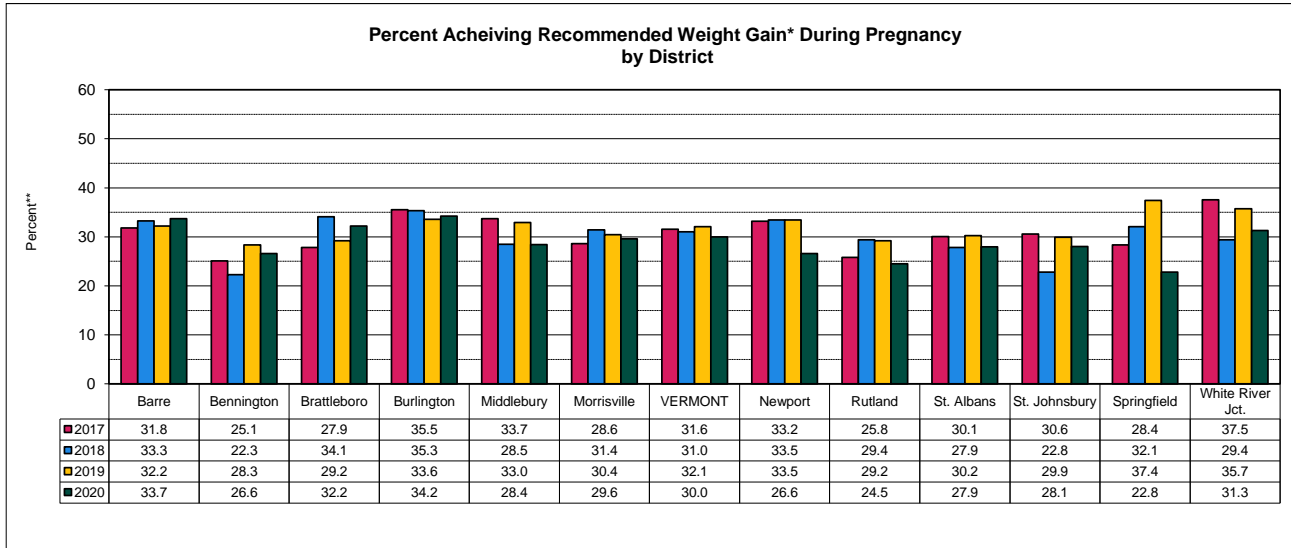




Preterm = <37 weeks gestation  
 Moderately Preterm = 32-36 weeks gestation  
 Very Preterm = <32 weeks gestation

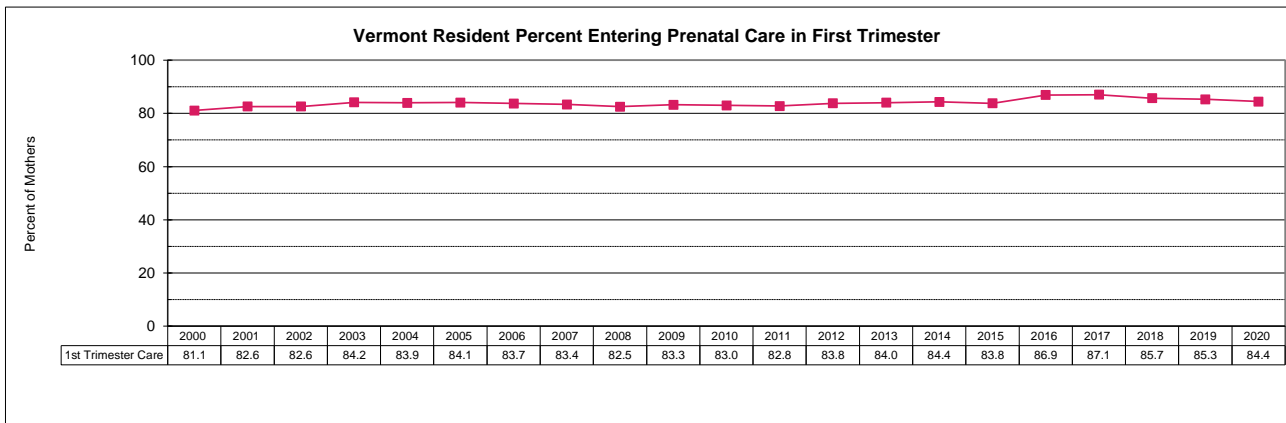
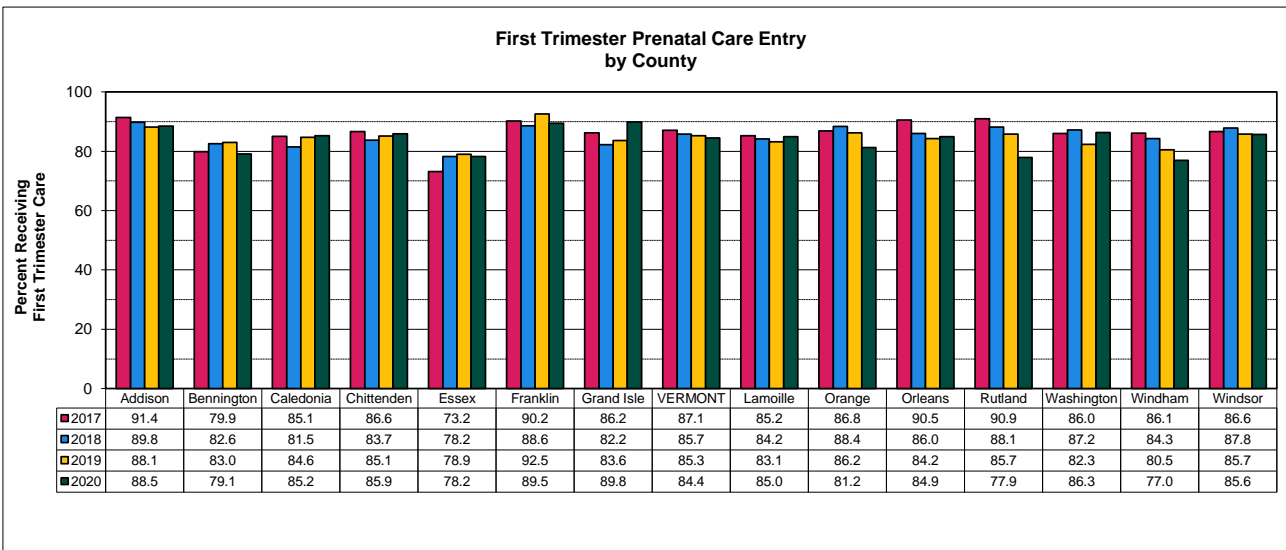
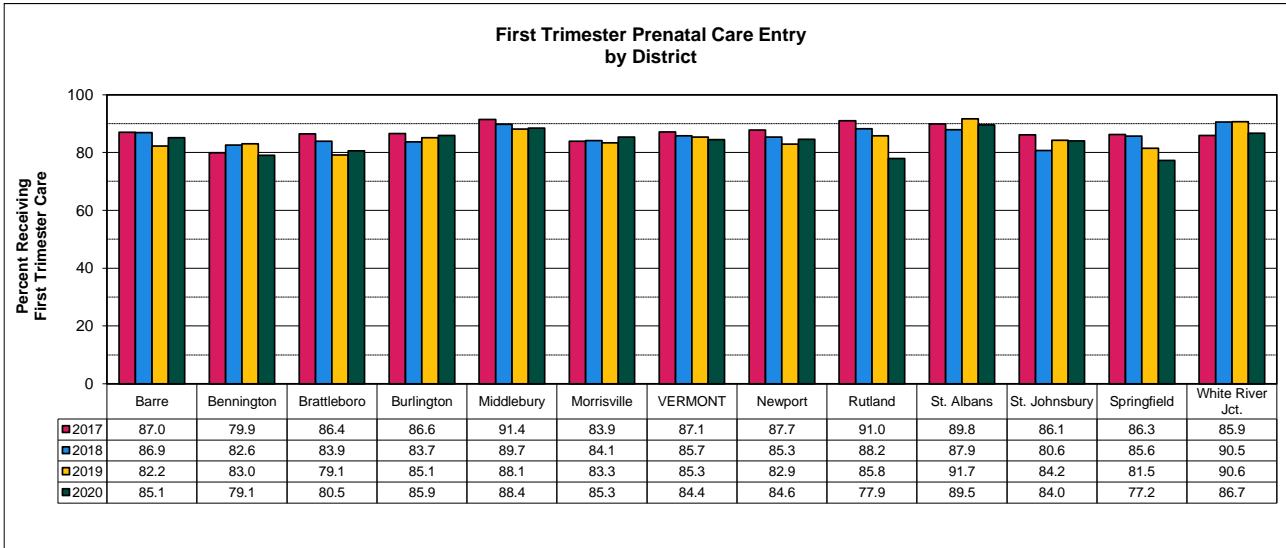


\* BMI categories defined by the Institute of Medicine, see page 16.

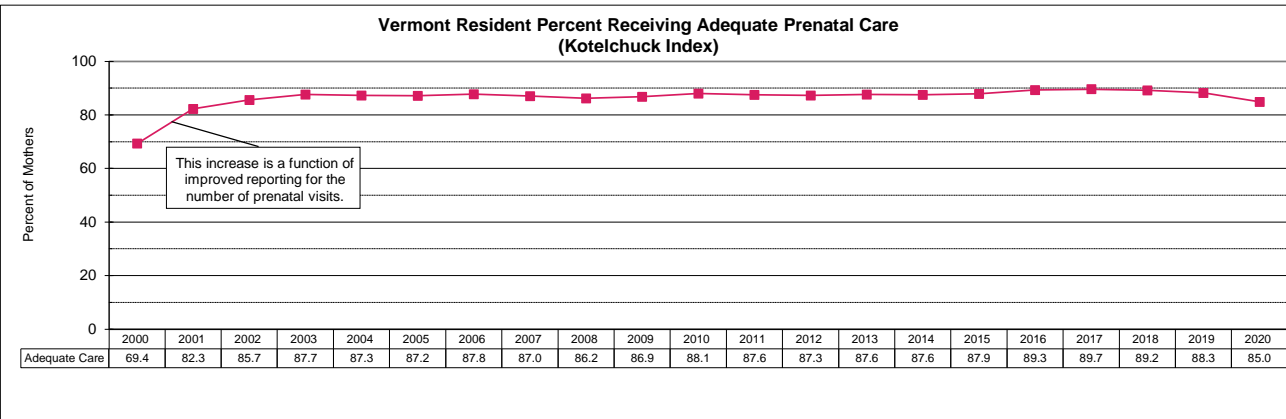
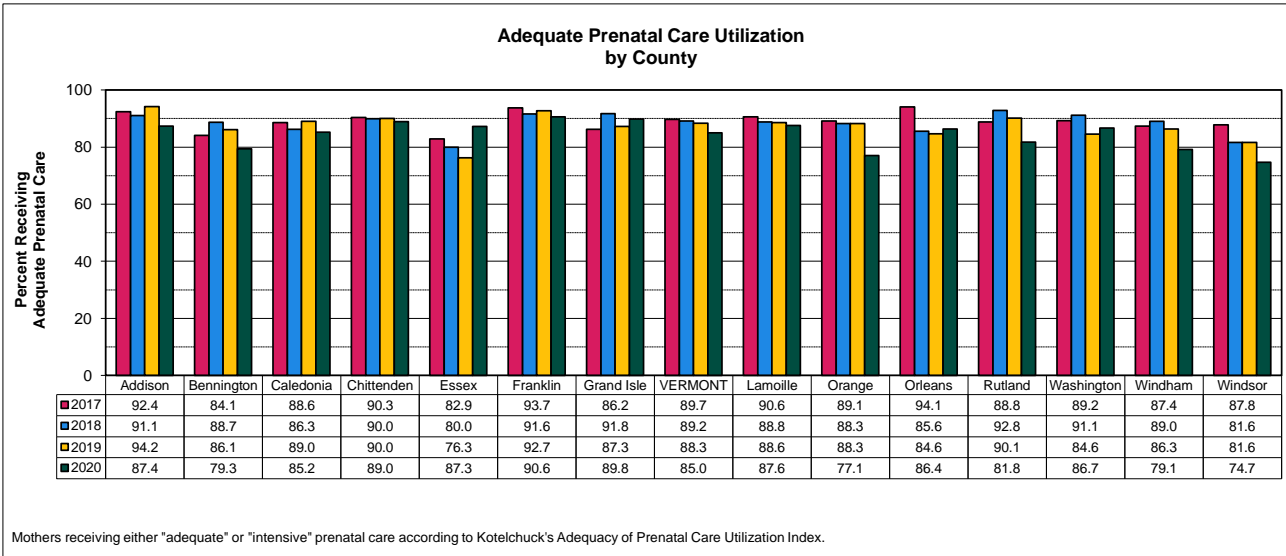
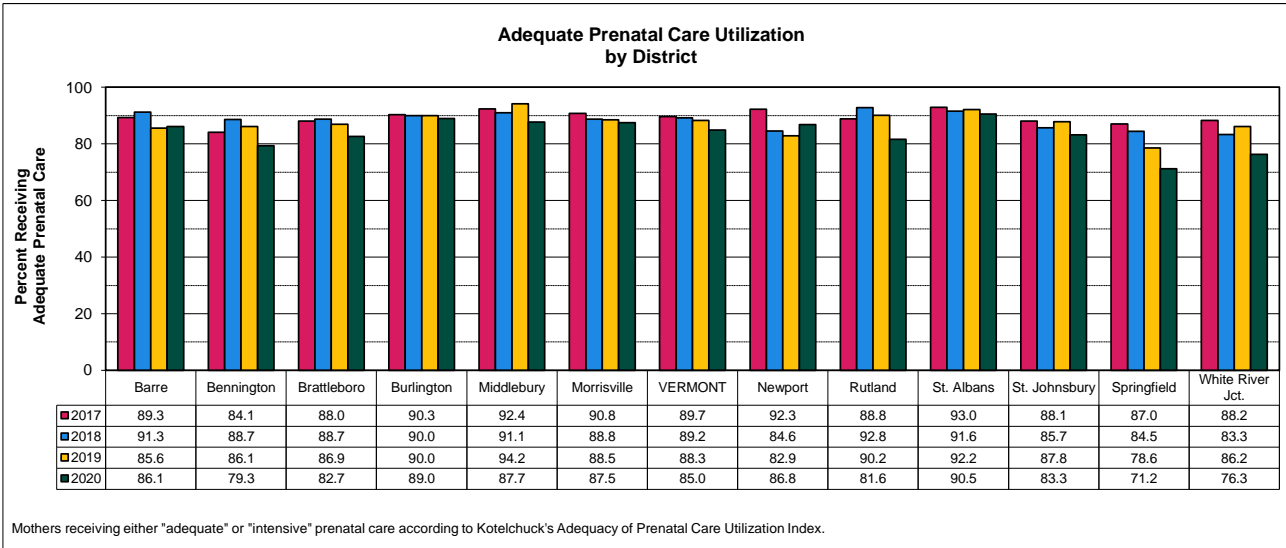


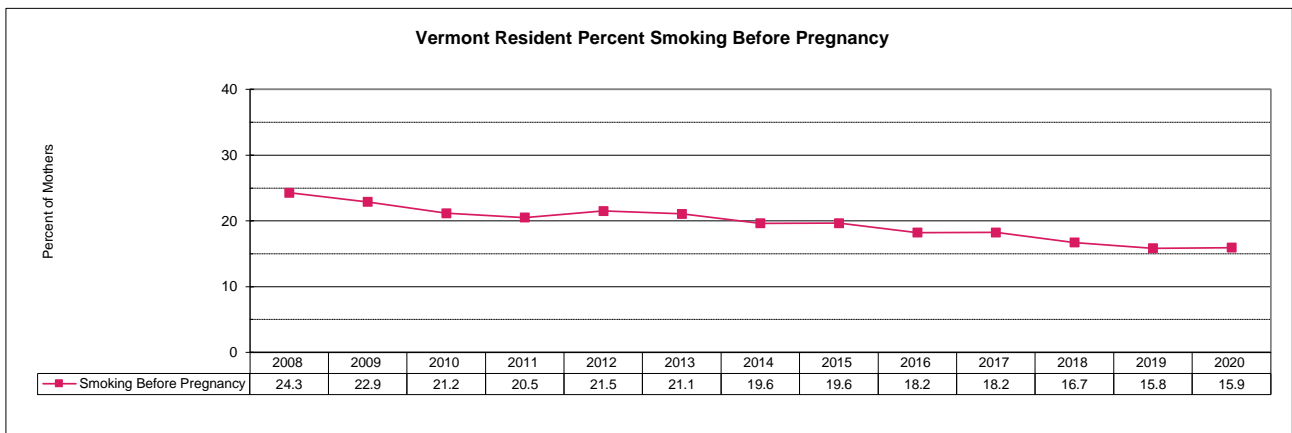
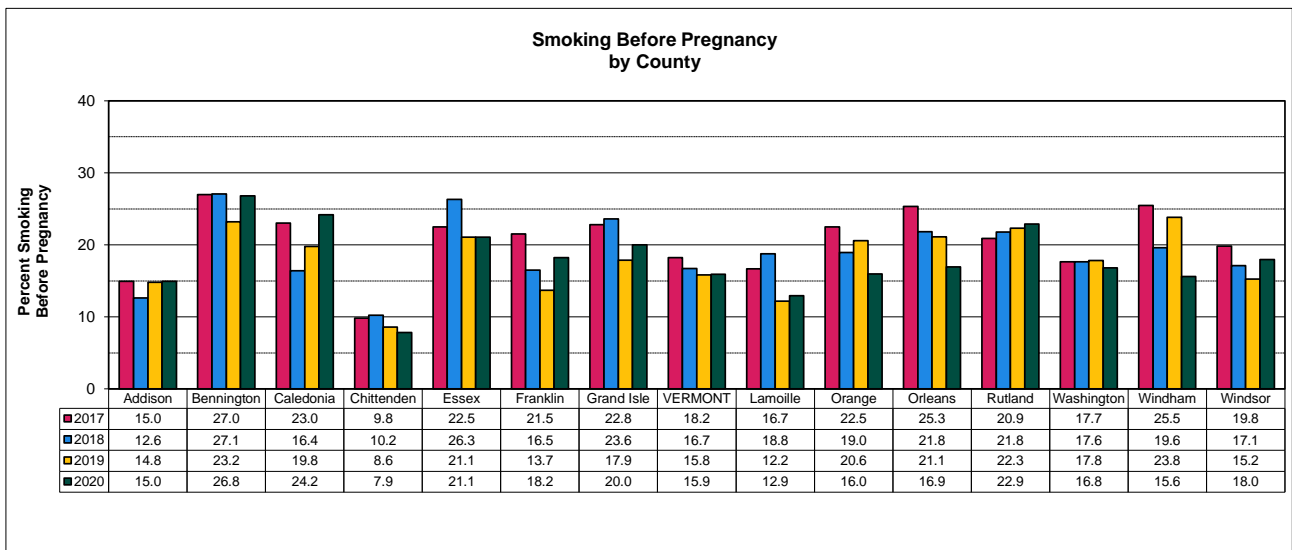
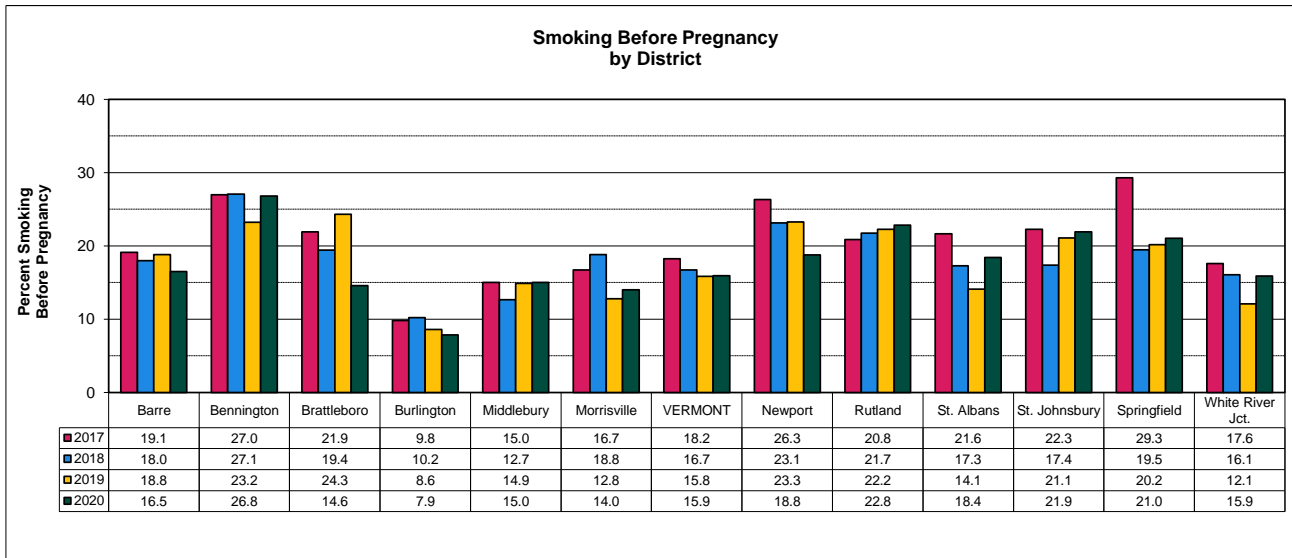
\* Weight gain recommendations defined by the Institute of Medicine, see page 16.

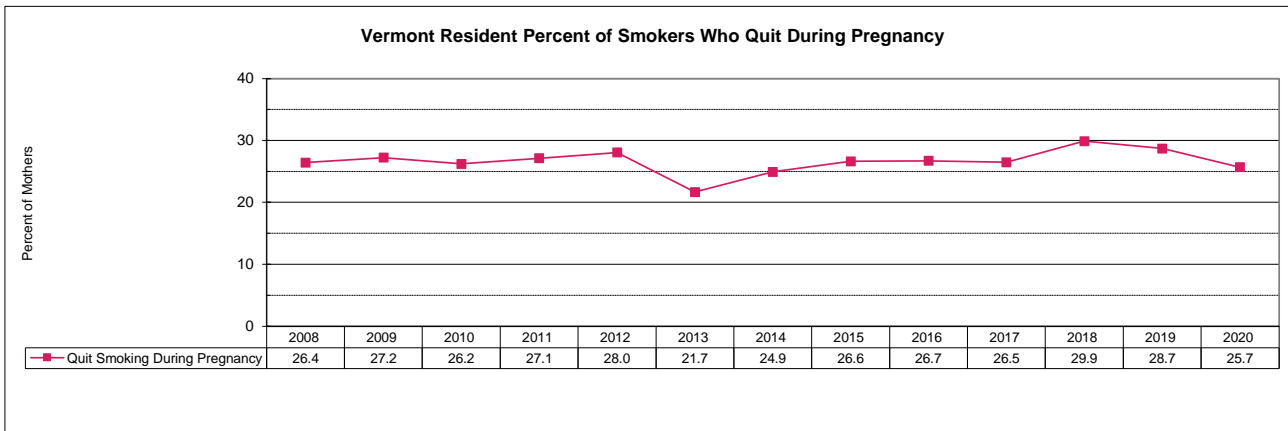
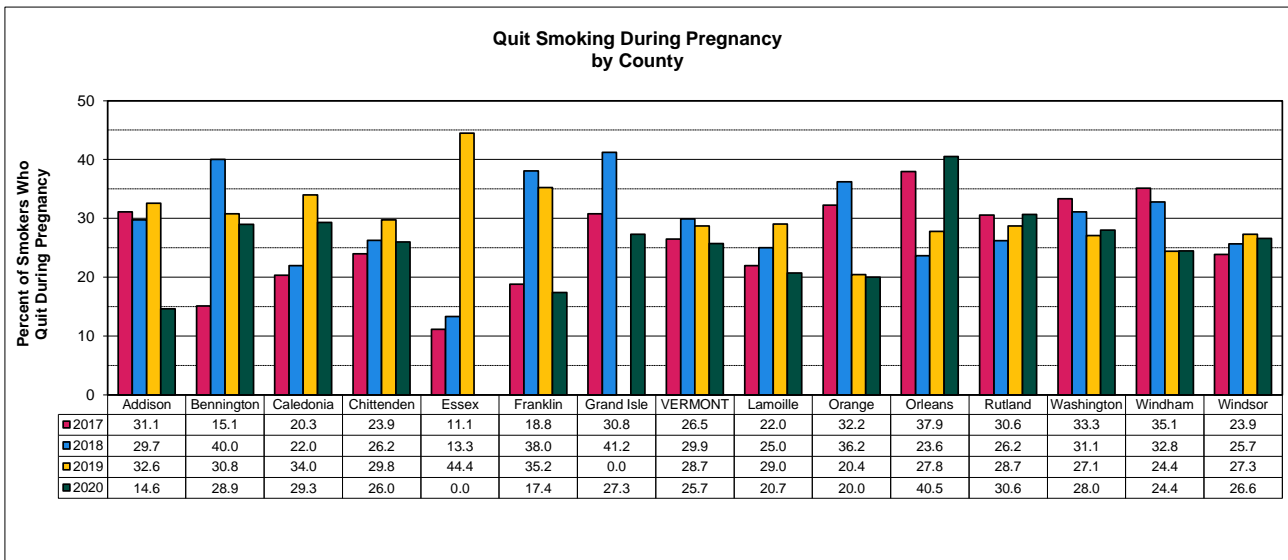
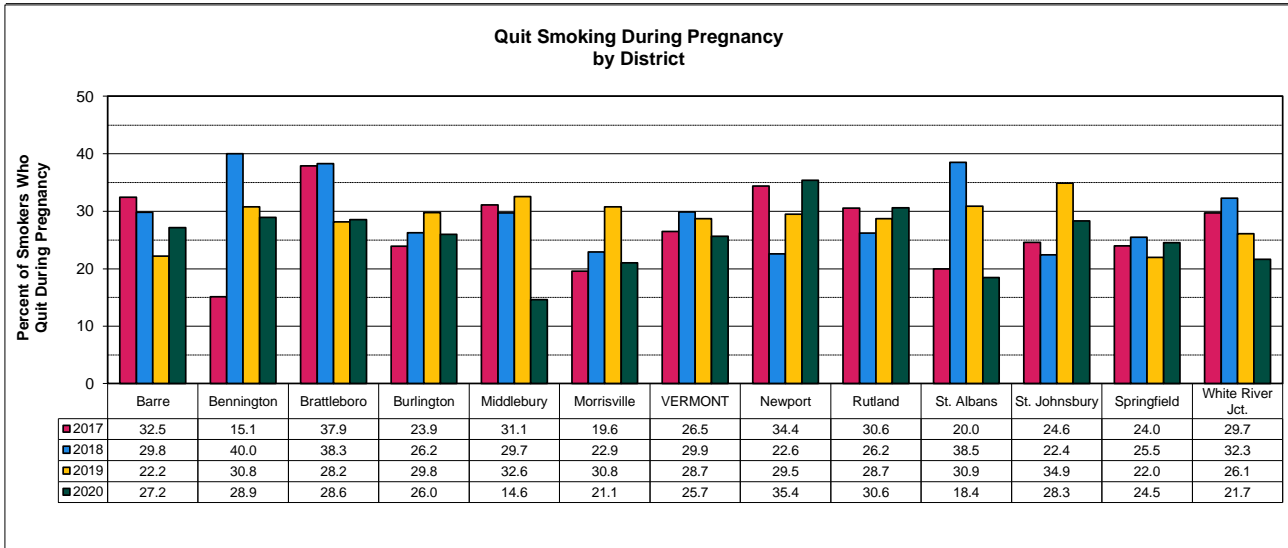
\*\* Only includes women who delivered full-term singleton or twin births.



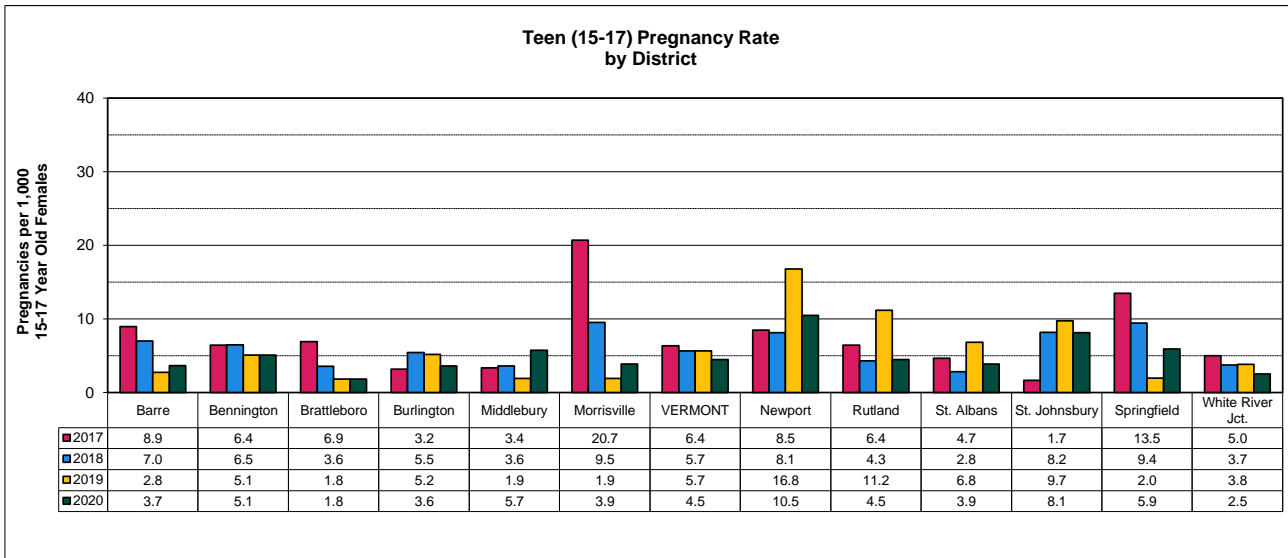




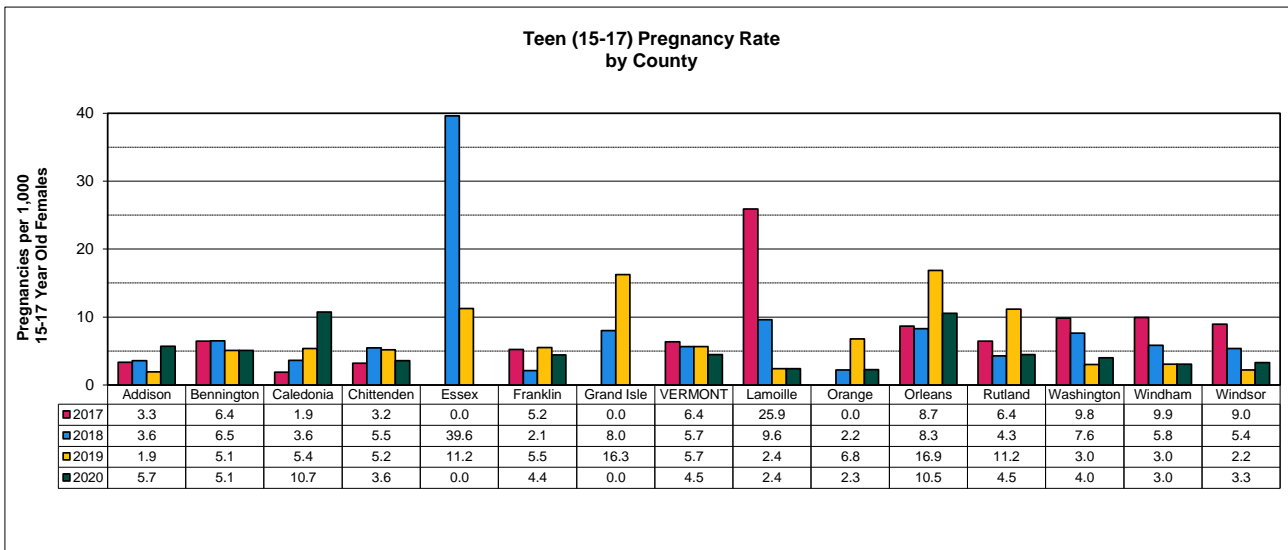




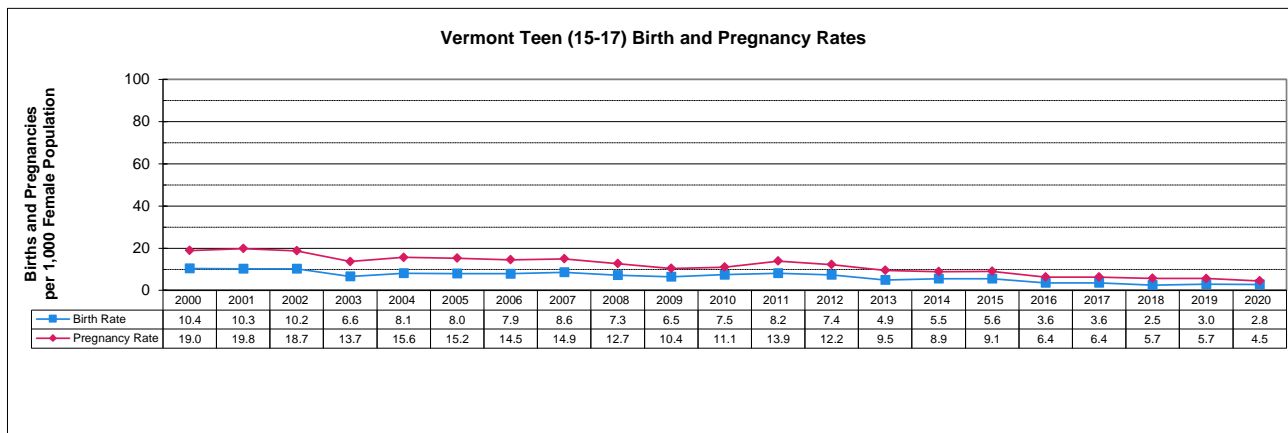
Women were counted as smokers if they smoked before pregnancy or during the first trimester of pregnancy.  
 Women were counted as having quit smoking if they did not smoke in the second and third trimesters of pregnancy, after smoking either before pregnancy or during the first trimester.



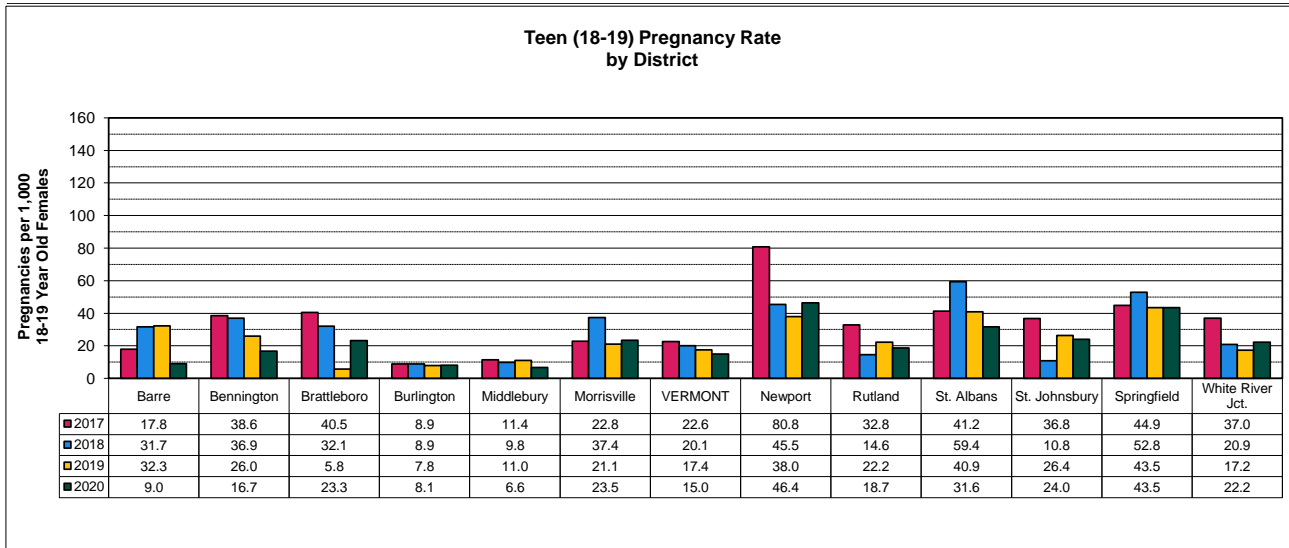
2020 rates are calculated using 2019 population estimates.



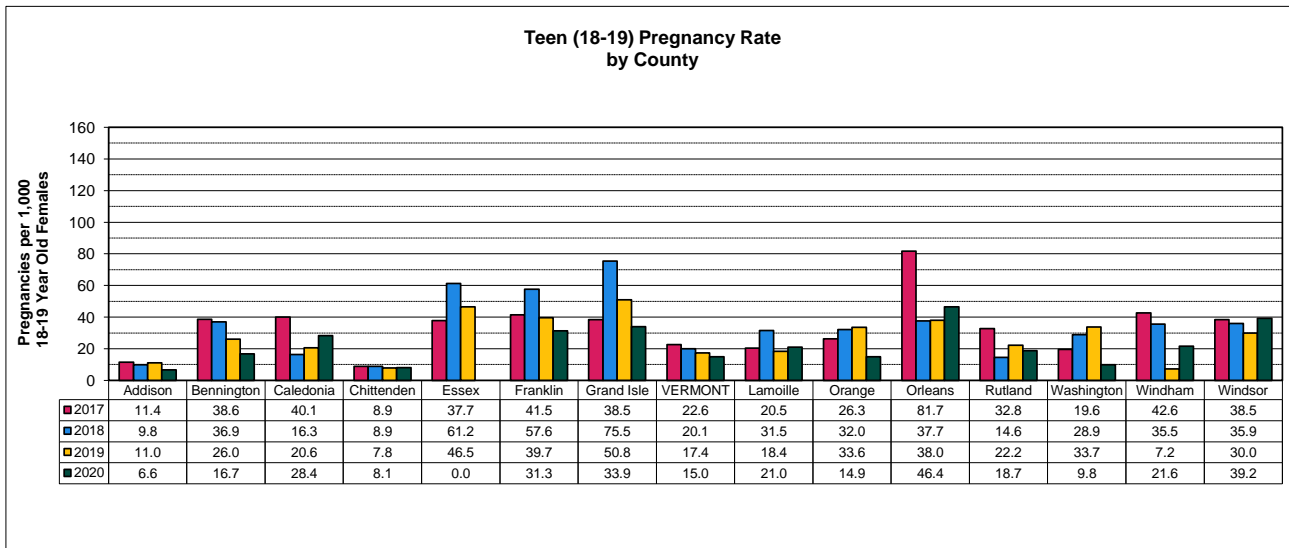
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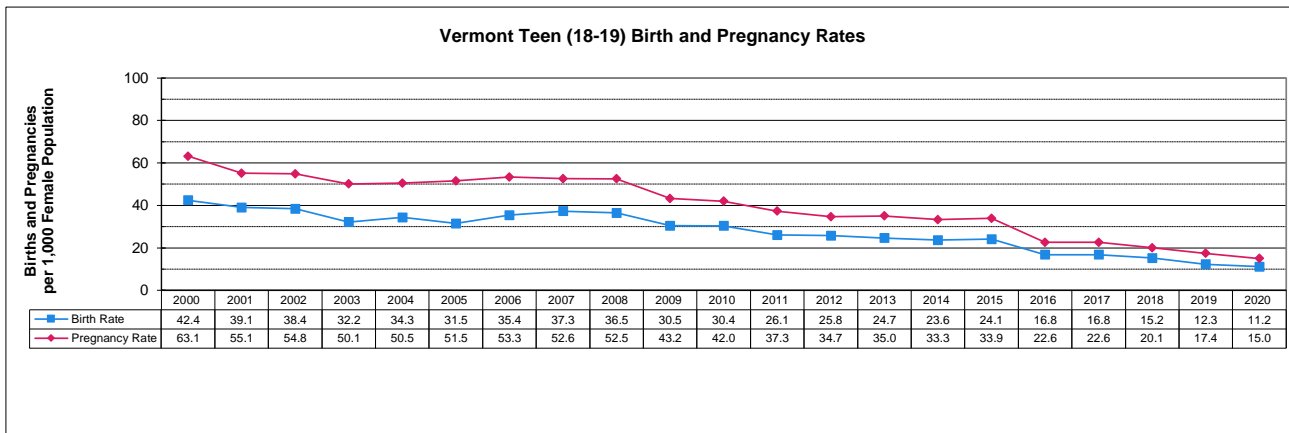
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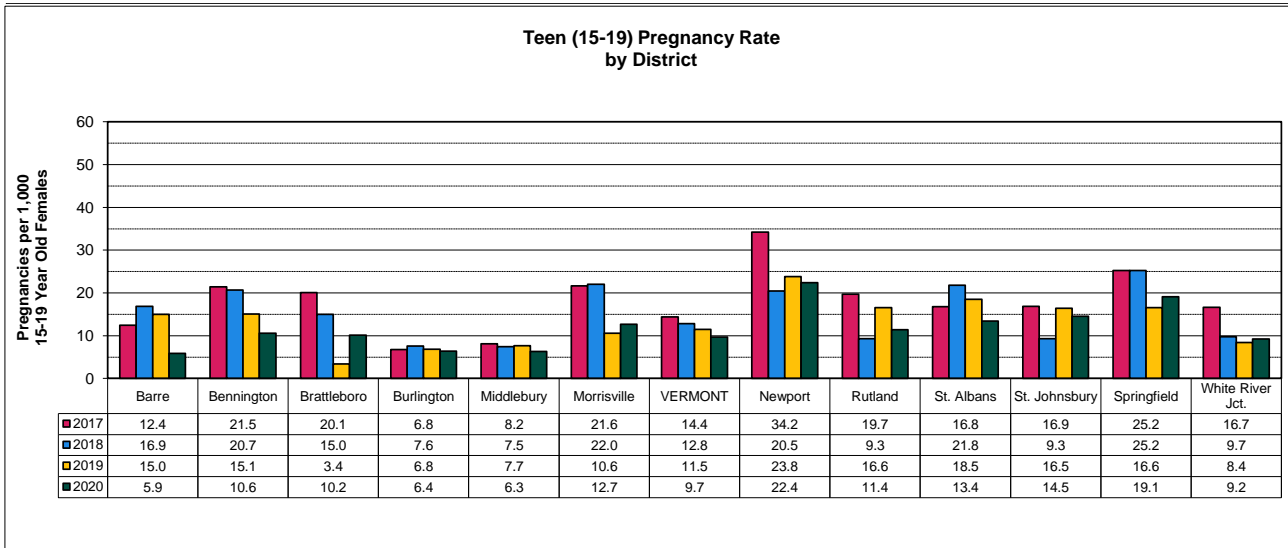
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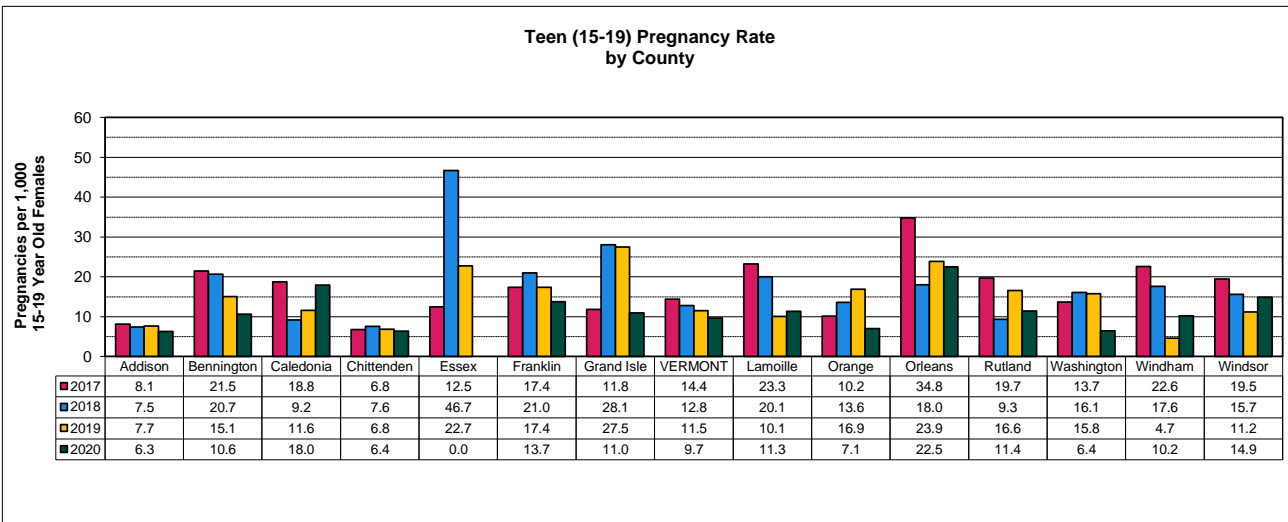
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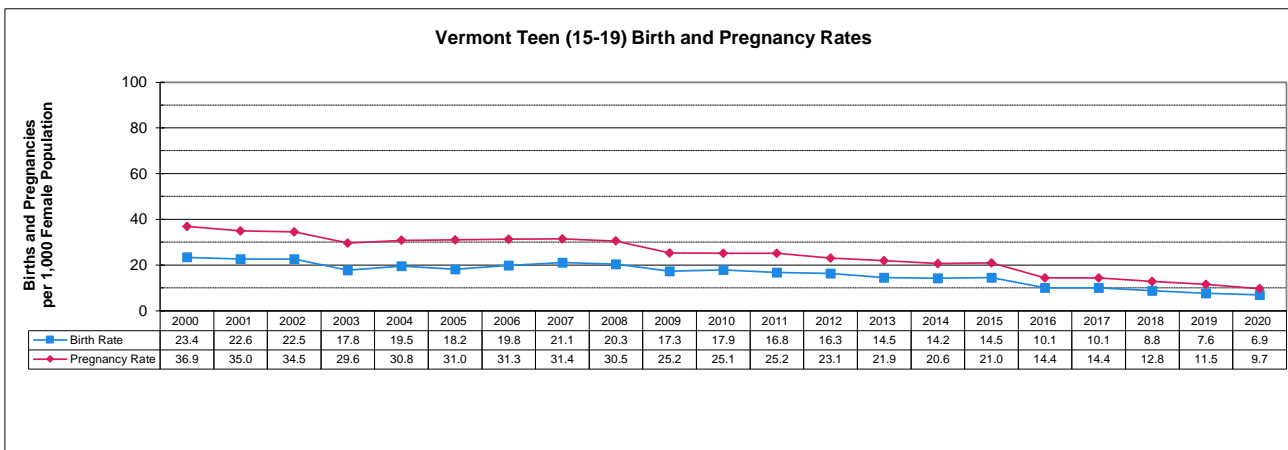
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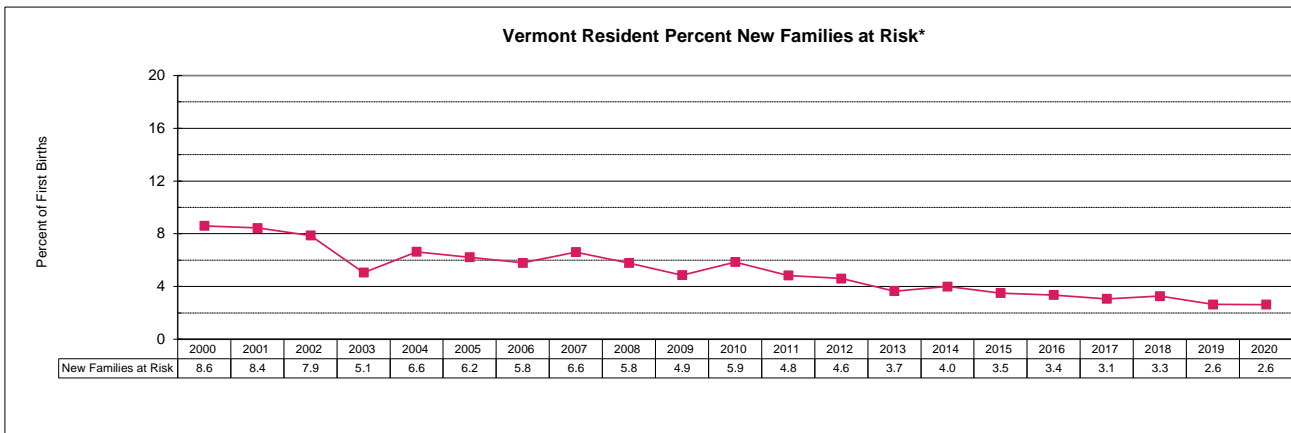
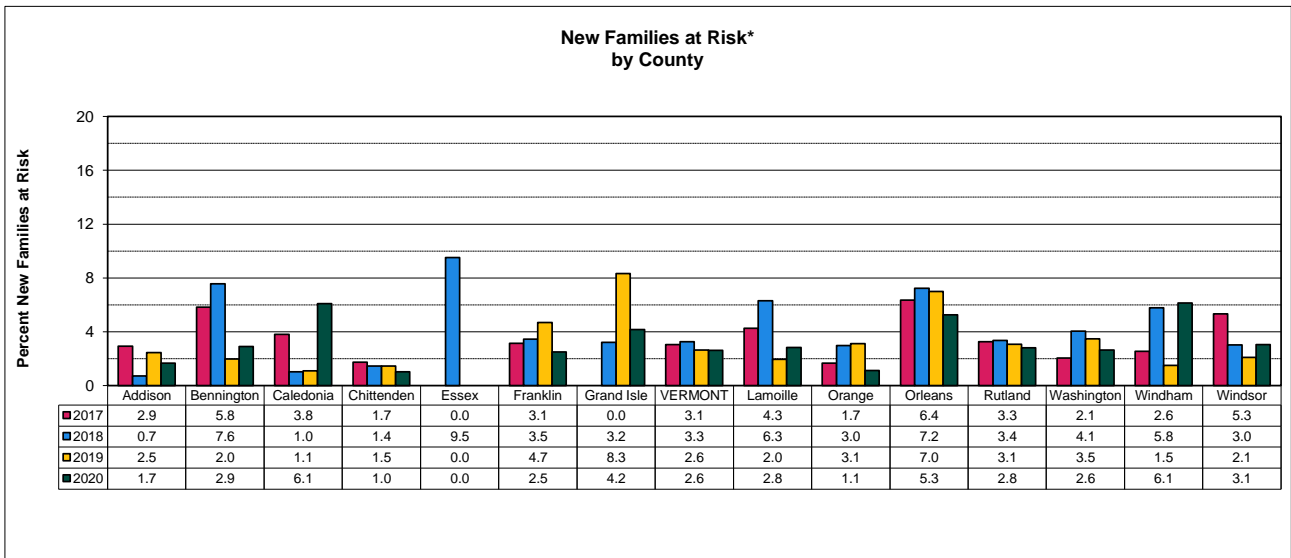
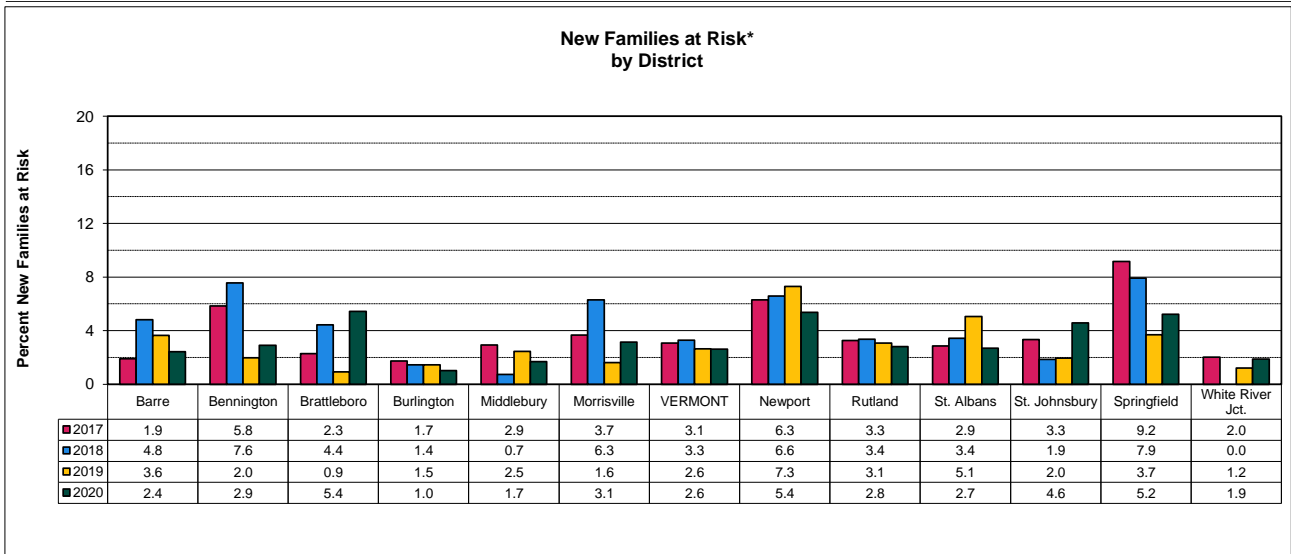
2020 rates are calculated using 2019 population estimates.



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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 3.5)  
 Neonatal Mortality: 4.1 infant deaths per 1,000 live births. (VT 2.1)  
 Post-neonatal Mortality: 2.0 infant deaths per 1,000 live births. (VT 1.4)

Low Birthweight (<2500g): 7.8% (VT 7.0%)  
 Very Low Birthweight (<1500g): 1.4% (VT 0.8%)

Preterm Births (<37 weeks gestation): 11.4% (VT 7.6%)  
 Late Preterm (34-36 weeks) Births: 8.1% (VT 5.6%)  
 Births at 32-33 Weeks Gestation: 1.4% (VT 1.0%)  
 Very Preterm Births (<32 weeks): 1.8% (VT 1.0%)

First Trimester Prenatal Care: 77.9% (VT 84.4%)  
 Early & Adequate Prenatal Care: 77.9% (VT 85.0%)

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

### Teen Pregnancy Rate

Age 15-17: 36.2 per 1,000 (VT 4.5)  
 Age 18-19: 104.6 per 1,000 (VT 15.0)

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

Pre-pregnancy BMI	BMI (kg/m <sup>2</sup> )	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>



# Vermont Maternal and Child Health Annual Report - 2020

March 28, 2022

VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

## 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	1	1	2	3	26	90	169	157	42	5	0	0	0	496
BENNINGTON	0	1	2	5	15	44	100	88	23	3	1	0	0	282
BRATTLEBORO	0	2	4	3	7	38	97	63	24	2	0	0	0	240
BURLINGTON	0	1	3	14	60	230	478	398	116	19	0	0	3	1322
MIDDLEBURY	0	0	0	2	14	41	101	94	22	3	1	0	0	278
MORRISVILLE	0	0	0	3	7	45	123	72	22	0	0	0	2	274
NEWPORT	0	0	2	8	8	48	103	70	20	3	0	1	0	263
RUTLAND	0	4	2	12	44	89	175	129	32	1	0	0	1	489
ST. ALBANS	2	4	2	7	27	78	221	160	57	16	0	0	2	576
ST. JOHNSBURY	0	1	2	2	17	46	104	69	29	3	1	0	0	274
SPRINGFIELD	1	0	1	3	10	41	101	69	24	2	0	0	1	253
WHITE RIVER JCT	0	2	3	2	16	66	139	110	34	7	1	0	0	380
TOTAL	4	16	23	64	251	856	1911	1479	445	64	4	1	9	5127

## CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	<500g	<1000g	<1500g	<2000g	<2500g	<3000g	<3500g	<4000g	<4500g	<5000g	<5500g	5500g+
BARRE	0.2	0.4	0.8	1.4	6.7	24.8	58.9	90.5	99.0	100.0	100.0	100.0
BENNINGTON	0.0	0.4	1.1	2.8	8.2	23.8	59.2	90.4	98.6	99.6	100.0	100.0
BRATTLEBORO	0.0	0.8	2.5 +	3.8	6.7	22.5	62.9	89.2	99.2	100.0	100.0	100.0
BURLINGTON	0.0	0.1	0.3 -	1.4	5.9	23.4	59.6	89.8	98.6	100.0	100.0	100.0
MIDDLEBURY	0.0	0.0	0.0 -	0.7	5.8	20.5	56.8	90.6	98.6	99.6	100.0	100.0
MORRISVILLE	0.0	0.0	0.0 -	1.1	3.7 -	20.2	65.4	91.9	100.0	100.0	100.0	100.0
NEWPORT	0.0	0.0	0.8	3.8	6.8	25.1	64.3	90.9	98.5	99.6	99.6	100.0
RUTLAND	0.0	0.8	1.2	3.7	12.7 +	30.9	66.8	93.2	99.8	100.0	100.0	100.0
ST. ALBANS	0.3	1.0	1.4	2.6	7.3	20.9	59.4	87.3	97.2	100.0	100.0	100.0
ST. JOHNSBURY	0.0	0.4	1.1	1.8	8.0	24.8	62.8	88.0	98.5	99.6	100.0	100.0
SPRINGFIELD	0.4	0.4	0.8	2.0	6.0	22.2	62.3	89.7	99.2	100.0	100.0	100.0
WHITE RIVER JCT	0.0	0.5	1.3	1.8	6.1	23.4	60.0	88.9	97.9	99.7	100.0	100.0
TOTAL	0.1	0.4	0.8	2.1	7.0	23.7	61.1	90.0	98.7	99.9	100.0	100.0

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

# Vermont Maternal and Child Health Annual Report - 2020

March 28, 2022  
VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

## 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	1	1	1	2	19	85	164	154	42	5	0	0	0	474
BENNINGTON	0	1	0	3	15	35	99	88	23	3	1	0	0	268
BRATTLEBORO	0	2	4	3	6	36	96	63	24	2	0	0	0	236
BURLINGTON	0	1	1	13	50	220	470	398	116	19	0	0	2	1290
MIDDLEBURY	0	0	0	2	11	36	101	94	22	3	1	0	0	270
MORRISVILLE	0	0	0	3	5	41	123	72	22	0	0	0	2	268
NEWPORT	0	0	2	7	6	45	101	70	20	3	0	1	0	255
RUTLAND	0	4	1	8	33	83	174	128	32	1	0	0	1	465
ST. ALBANS	2	4	2	6	22	73	219	160	57	16	0	0	2	563
ST. JOHNSBURY	0	1	2	2	13	46	104	69	29	3	1	0	0	270
SPRINGFIELD	1	0	1	2	8	38	101	69	24	2	0	0	1	247
WHITE RIVER JCT	0	2	1	2	11	63	138	109	34	7	1	0	0	368
TOTAL	4	16	15	53	199	801	1890	1474	445	64	4	1	8	4974

## CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	<500g	<1000g	<1500g	<2000g	<2500g	<3000g	<3500g	<4000g	<4500g	<5000g	<5500g	5500g+
BARRE	0.2	0.4	0.6	1.1	5.1	23.0	57.6	90.1	98.9	100.0	100.0	100.0
BENNINGTON	0.0	0.4	0.4	1.5	7.1	20.1	57.1	89.9	98.5	99.6	100.0	100.0
BRATTLEBORO	0.0	0.8	2.5 +	3.8	6.4	21.6	62.3	89.0	99.2	100.0	100.0	100.0
BURLINGTON	0.0	0.1	0.2 -	1.2	5.0	22.1	58.6	89.5	98.5	100.0	100.0	100.0
MIDDLEBURY	0.0	0.0	0.0 -	0.7	4.8	18.1	55.6	90.4	98.5	99.6	100.0	100.0
MORRISVILLE	0.0	0.0	0.0 -	1.1	3.0 -	18.4	64.7	91.7	100.0	100.0	100.0	100.0
NEWPORT	0.0	0.0	0.8	3.5	5.9	23.5	63.1	90.6	98.4	99.6	99.6	100.0
RUTLAND	0.0	0.9	1.1	2.8	9.9 +	27.8	65.3	92.9	99.8	100.0	100.0	100.0
ST. ALBANS	0.4	1.1	1.4	2.5	6.4	19.4	58.5	87.0	97.1	100.0	100.0	100.0
ST. JOHNSBURY	0.0	0.4	1.1	1.9	6.7	23.7	62.2	87.8	98.5	99.6	100.0	100.0
SPRINGFIELD	0.4	0.4	0.8	1.6	4.9	20.3	61.4	89.4	99.2	100.0	100.0	100.0
WHITE RIVER JCT	0.0	0.5	0.8	1.4	4.3	21.5	59.0	88.6	97.8	99.7	100.0	100.0
TOTAL	0.1	0.4	0.7	1.8	5.8	21.9	60.0	89.6	98.6	99.9	100.0	100.0

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

## Vermont Maternal and Child Health Annual Report - 2020

March 28, 2022

VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

### 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	1	4	3	32	119	329	7	1	496
BENNINGTON	0	3	3	16	72	187	1	0	282
BRATTLEBORO	1	6	0	9	55	168	1	0	240
BURLINGTON	1	2	7	80	307	920	4	1	1322
MIDDLEBURY	0	0	1	17	77	183	0	0	278
MORRISVILLE	0	0	3	18	69	182	2	0	274
NEWPORT	0	4	3	13	73	170	0	0	263
RUTLAND	3	6	9	39	136	294	1	1	489
ST. ALBANS	5	2	9	27	123	406	4	0	576
ST. JOHNSBURY	1	2	3	11	70	186	1	0	274
SPRINGFIELD	2	1	4	12	60	173	0	1	253
WHITE RIVER JCT	1	5	6	15	81	268	3	1	380
TOTAL	15	35	51	289	1242	3466	24	5	5127

### 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	0.2	1.0	1.6	8.1	32.1	98.6	100.0
BENNINGTON	0.0	1.1	2.1	7.8	33.3	99.6	100.0
BRATTLEBORO	0.4	2.9	2.9	6.7	29.6	99.6	100.0
BURLINGTON	0.1	0.2	0.8	6.8	30.1	99.7	100.0
MIDDLEBURY	0.0	0.0	0.4	6.5	34.2	100.0	100.0
MORRISVILLE	0.0	0.0	1.1	7.7	32.8	99.3	100.0
NEWPORT	0.0	1.5	2.7	7.6	35.4	100.0	100.0
RUTLAND	0.6	1.8	3.7	11.7	39.5	99.8	100.0
ST. ALBANS	0.9	1.2	2.8	7.5	28.8	99.3	100.0
ST. JOHNSBURY	0.4	1.1	2.2	6.2	31.8	99.6	100.0
SPRINGFIELD	0.8	1.2	2.8	7.5	31.3	100.0	100.0
WHITE RIVER JCT	0.3	1.6	3.2	7.1	28.5	99.2	100.0
TOTAL	0.3	1.0	2.0	7.6	31.9	99.5	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, 2020 and DECEMBER 31, 2020

PRE-PREGNANCY BMI and WEIGHT GAIN DURING PREGNANCY by DISTRICT

NUMBER OF MOTHERS AND ROW PERCENTS

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	14	197	114	154	6	485	89	150	206	6	451
BENNINGTON	8	99	71	89	8	275	62	66	120	8	256
BRATTLEBORO	8	109	49	65	7	238	54	67	87	7	215
BURLINGTON	35	626	313	301	31	1306	261	405	517	31	1214
MIDDLEBURY	5	120	69	78	2	274	59	73	125	2	259
MORRISVILLE	6	114	61	88	2	271	53	74	123	2	252
NEWPORT	5	101	64	87	2	259	59	63	115	2	239
RUTLAND	7	167	108	190	5	477	125	103	192	5	425
ST. ALBANS	10	190	141	222	7	570	109	147	270	7	533
ST. JOHNSBURY	6	106	67	90	3	272	63	71	119	3	256
SPRINGFIELD	6	87	65	88	4	250	61	52	115	4	232
WHITE RIVER JCT	8	172	84	107	3	374	70	108	167	3	348
TOTAL	118	2088	1206	1559	80	5051	1065	1379	2156	80	4680

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	2.9	41.1	23.8	32.2	20.0	33.7	46.3
BENNINGTON	3.0	37.1	26.6	33.3	25.0	26.6	48.4
BRATTLEBORO	3.5	47.2	21.2	28.1	26.0	32.2	41.8
BURLINGTON	2.7	49.1 +	24.5	23.6 -	22.1	34.2 +	43.7 -
MIDDLEBURY	1.8	44.1	25.4	28.7	23.0	28.4	48.6
MORRISVILLE	2.2	42.4	22.7	32.7	21.2	29.6	49.2
NEWPORT	1.9	39.3	24.9	33.9	24.9	26.6	48.5
RUTLAND	1.5	35.4 -	22.9	40.3 +	29.8 +	24.5 -	45.7
ST. ALBANS	1.8	33.7 -	25.0	39.4 +	20.7	27.9	51.3 +
ST. JOHNSBURY	2.2	39.4	24.9	33.5	24.9	28.1	47.0
SPRINGFIELD	2.4	35.4 -	26.4	35.8	26.8	22.8 -	50.4
WHITE RIVER JCT	2.2	46.4	22.6	28.8	20.3	31.3	48.4
TOTAL	2.4	42.0	24.3	31.4	23.2	30.0	46.9

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

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

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

DISTRICT	MONTH PRENATAL CARE BEGAN											TOTAL
	NUMBER OF EVENTS											
	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINTH	NONE	UNKNOWN	
BARRE	4	179	235	38	16	10	2	0	3	4	5	496
BENNINGTON	8	81	130	31	11	4	6	1	2	3	5	282
BRATTLEBORO	12	108	66	22	6	4	6	3	3	1	9	240
BURLINGTON	7	372	737	135	19	10	12	2	3	2	23	1322
MIDDLEBURY	4	119	122	16	10	4	2	0	0	0	1	278
MORRISVILLE	4	70	159	24	7	3	4	0	1	1	1	274
NEWPORT	12	121	86	16	8	7	5	2	0	2	4	263
RUTLAND	4	103	267	55	16	12	9	5	2	7	9	489
ST. ALBANS	12	324	176	38	12	6	1	1	1	1	4	576
ST. JOHNSBURY	3	93	130	20	11	1	5	2	4	0	5	274
SPRINGFIELD	4	106	83	29	11	5	4	1	2	5	3	253
WHITE RIVER JCT	2	155	169	31	7	3	4	2	2	1	4	380
TOTAL	76	1831	2360	455	134	69	60	19	23	27	73	5127

## CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

DISTRICT	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINTH	NONE
BARRE	0.8	37.3	85.1	92.9	96.1	98.2	98.6	98.6	99.2	100.0
BENNINGTON	2.9	32.1	79.1 -	90.3	94.2	95.7	97.8	98.2	98.9	100.0
BRATTLEBORO	5.2	51.9	80.5	90.0	92.6	94.4	97.0	98.3	99.6	100.0
BURLINGTON	0.5	29.2	85.9	96.3	97.8	98.5	99.5	99.6	99.8	100.0
MIDDLEBURY	1.4	44.4	88.4 +	94.2	97.8	99.3	100.0	100.0	100.0	100.0
MORRISVILLE	1.5	27.1	85.3	94.1	96.7	97.8	99.3	99.3	99.6	100.0
NEWPORT	4.6	51.4	84.6	90.7	93.8	96.5	98.5	99.2	99.2	100.0
RUTLAND	0.8	22.3	77.9 -	89.4	92.7	95.2	97.1	98.1	98.5	100.0
ST. ALBANS	2.1	58.7	89.5 +	96.2	98.3	99.3	99.5	99.7	99.8	100.0
ST. JOHNSBURY	1.1	35.7	84.0	91.4	95.5	95.9	97.8	98.5	100.0	100.0
SPRINGFIELD	1.6	44.0	77.2 -	88.8	93.2	95.2	96.8	97.2	98.0	100.0
WHITE RIVER JCT	0.5	41.8	86.7	94.9	96.8	97.6	98.7	99.2	99.7	100.0
TOTAL	1.5	37.7	84.4	93.4	96.1	97.4	98.6	99.0	99.5	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, 2020 and DECEMBER 31, 2020

## 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	35	33	247	175	6	496
BENNINGTON	29	28	129	90	6	282
BRATTLEBORO	27	13	72	119	9	240
BURLINGTON	53	89	629	515	36	1322
MIDDLEBURY	19	15	135	108	1	278
MORRISVILLE	17	17	152	87	1	274
NEWPORT	25	9	119	105	5	263
RUTLAND	56	32	216	175	10	489
ST. ALBANS	24	30	303	213	6	576
ST. JOHNSBURY	24	21	126	98	5	274
SPRINGFIELD	30	42	105	73	3	253
WHITE RIVER JCT	20	69	191	96	4	380
TOTAL	359	398	2424	1854	92	5127

DISTRICT	Inadequate	Intermediate	Adequate	Intensive	DISTRICT	PERCENT WITH AT LEAST ADEQUATE CARE UTILIZATION
BARRE	7.1	6.7	50.4	35.7	BARRE	86.1
BENNINGTON	10.5	10.1	46.7	32.6	BENNINGTON	79.3 -
BRATTLEBORO	11.7	5.6	31.2	51.5	BRATTLEBORO	82.7
BURLINGTON	4.1	6.9	48.9	40.0	BURLINGTON	89.0 +
MIDDLEBURY	6.9	5.4	48.7	39.0	MIDDLEBURY	87.7
MORRISVILLE	6.2	6.2	55.7	31.9	MORRISVILLE	87.5
NEWPORT	9.7	3.5	46.1	40.7	NEWPORT	86.8
RUTLAND	11.7	6.7	45.1	36.5	RUTLAND	81.6 -
ST. ALBANS	4.2	5.3	53.2	37.4	ST. ALBANS	90.5 +
ST. JOHNSBURY	8.9	7.8	46.8	36.4	ST. JOHNSBURY	83.3
SPRINGFIELD	12.0	16.8	42.0	29.2	SPRINGFIELD	71.2 -
WHITE RIVER JCT	5.3	18.4	50.8	25.5	WHITE RIVER JCT	76.3 -
TOTAL	7.1	7.9	48.1	36.8	TOTAL	85.0

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

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

## 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	80	405	11	496	81	22
BENNINGTON	75	205	2	282	76	22
BRATTLEBORO	35	205	0	240	35	10
BURLINGTON	103	1209	10	1322	104	27
MIDDLEBURY	41	232	5	278	41	6
MORRISVILLE	38	233	3	274	38	8
NEWPORT	48	208	7	263	48	17
RUTLAND	111	375	3	489	111	34
ST. ALBANS	104	461	11	576	103	19
ST. JOHNSBURY	60	214	0	274	60	17
SPRINGFIELD	53	199	1	253	53	13
WHITE RIVER JCT	60	318	2	380	60	13
TOTAL	808	4264	55	5127	810	208

### PERCENTAGES

DISTRICT	Smoked Before Pregnancy	Did Not Smoke Before Pregnancy	DISTRICT	Percent of Smokers Who Quit^*
BARRE	16.5	83.5	BARRE	27.2
BENNINGTON	26.8 +	73.2	BENNINGTON	28.9
BRATTLEBORO	14.6	85.4	BRATTLEBORO	28.6
BURLINGTON	7.9 -	92.1	BURLINGTON	26.0
MIDDLEBURY	15.0	85.0	MIDDLEBURY	14.6 -
MORRISVILLE	14.0	86.0	MORRISVILLE	21.1
NEWPORT	18.8	81.3	NEWPORT	35.4
RUTLAND	22.8 +	77.2	RUTLAND	30.6
ST. ALBANS	18.4	81.6	ST. ALBANS	18.4 -
ST. JOHNSBURY	21.9 +	78.1	ST. JOHNSBURY	28.3
SPRINGFIELD	21.0 +	79.0	SPRINGFIELD	24.5
WHITE RIVER JCT	15.9	84.1	WHITE RIVER JCT	21.7
TOTAL	15.9	84.1	TOTAL	25.7

+ 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, 2020 and DECEMBER 31, 2020

## 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	3	6	63	123	175	98	28	0	0	496
BENNINGTON	0	2	8	53	72	93	46	7	1	0	282
BRATTLEBORO	0	1	7	41	61	66	49	15	0	0	240
BURLINGTON	0	3	19	104	279	507	344	59	7	0	1322
MIDDLEBURY	0	2	4	34	81	91	55	11	0	0	278
MORRISVILLE	0	2	8	46	72	89	47	8	2	0	274
NEWPORT	0	3	8	72	89	55	31	5	0	0	263
RUTLAND	0	2	12	88	136	148	82	19	2	0	489
ST. ALBANS	0	2	13	106	199	174	66	15	1	0	576
ST. JOHNSBURY	0	3	8	51	95	67	37	13	0	0	274
SPRINGFIELD	0	3	10	53	72	67	39	9	0	0	253
WHITE RIVER JCT	0	2	8	48	84	126	93	18	1	0	380
TOTAL	0	28	111	759	1363	1658	987	207	14	0	5127

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	0.6	1.2	12.7	24.8	35.3	19.8	5.6	0.0	0.0	100.0
BENNINGTON	0.0	0.7	2.8	18.8	25.5	33.0	16.3	2.5	0.4	0.0	100.0
BRATTLEBORO	0.0	0.4	2.9	17.1	25.4	27.5	20.4	6.3	0.0	0.0	100.0
BURLINGTON	0.0	0.2 -	1.4 -	7.9	21.1	38.4	26.0	4.5	0.5	0.0	100.0
MIDDLEBURY	0.0	0.7	1.4	12.2	29.1	32.7	19.8	4.0	0.0	0.0	100.0
MORRISVILLE	0.0	0.7	2.9	16.8	26.3	32.5	17.2	2.9	0.7	0.0	100.0
NEWPORT	0.0	1.1	3.0	27.4	33.8	20.9	11.8	1.9	0.0	0.0	100.0
RUTLAND	0.0	0.4	2.5	18.0	27.8	30.3	16.8	3.9	0.4	0.0	100.0
ST. ALBANS	0.0	0.3	2.3	18.4	34.5	30.2	11.5	2.6	0.2	0.0	100.0
ST. JOHNSBURY	0.0	1.1	2.9	18.6	34.7	24.5	13.5	4.7	0.0	0.0	100.0
SPRINGFIELD	0.0	1.2	4.0	20.9	28.5	26.5	15.4	3.6	0.0	0.0	100.0
WHITE RIVER JCT	0.0	0.5	2.1	12.6	22.1	33.2	24.5	4.7	0.3	0.0	100.0
TOTAL	0.0	0.5	2.2	14.8	26.6	32.3	19.3	4.0	0.3	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

2020

District	Population	Births	Rate	Pregnancies	Rate
Barre	1090	3	2.8	4	3.7
Bennington	591	2	3.4	3	5.1
Brattleboro	541	1	1.8	1	1.8
Burlington	2504	3	1.2	9	3.6
Middlebury	524	2	3.8	3	5.7
Morrisville	519	2	3.9	2	3.9
Newport	477	3	6.3	5	10.5
Rutland	896	2	2.2	4	4.5
St. Albans	1027	2	1.9	4	3.9
St. Johnsbury	616	3	4.9	5	8.1
Springfield	508	3	5.9	3	5.9
White River Jct.	786	2	2.5	2	2.5
Vermont	10079	28	2.8	45	4.5

+/- = significantly higher/lower than state average rate.  
Rates are events per 1,000 female 2019 population.

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

2020

District	Population	Births	Rate	Pregnancies	Rate
Barre	774	6	7.8	7	9.0
Bennington	538	8	14.9	9	16.7
Brattleboro	344	7	20.3	8	23.3
Burlington	4217	19	4.5 -	34	8.1 -
Middlebury	906	4	4.4 -	6	6.6 -
Morrisville	426	8	18.8	10	23.5
Newport	237	8	33.8 +	11	46.4 +
Rutland	856	12	14.0	16	18.7
St. Albans	538	13	24.2 +	17	31.6 +
St. Johnsbury	417	8	19.2	10	24.0
Springfield	276	10	36.2 +	12	43.5 +
White River Jct.	406	8	19.7	9	22.2
Vermont	9935	111	11.2	149	15.0

+/- = significantly higher/lower than state average rate.  
Rates are events per 1,000 female 2019 population.

## Vermont Maternal and Child Health Annual Report - 2020

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

2020

District	Population	Births	Rate	Pregnancies	Rate
Barre	1864	9	4.8	11	5.9 -
Bennington	1129	10	8.9	12	10.6
Brattleboro	885	8	9.0	9	10.2
Burlington	6721	22	3.3 -	43	6.4 -
Middlebury	1430	6	4.2	9	6.3
Morrisville	945	10	10.6	12	12.7
Newport	714	11	15.4 +	16	22.4 +
Rutland	1752	14	8.0	20	11.4
St. Albans	1565	15	9.6	21	13.4
St. Johnsbury	1033	11	10.6	15	14.5
Springfield	784	13	16.6 +	15	19.1 +
White River Jct.	1192	10	8.4	11	9.2
Vermont	20014	139	6.9	194	9.7

+/- = significantly higher/lower than state average rate.  
Rates are events per 1,000 female 2019 population.

### New Families at Risk by District

2020

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

District	First Births	Number to Women	
		<20, Single, and < HS Education	Percent
Barre	206	5	2.4%
Bennington	103	3	2.9%
Brattleboro	92	5	5.4%
Burlington	584	6	1.0% -
Middlebury	119	2	1.7%
Morrisville	127	4	3.1%
Newport	93	5	5.4%
Rutland	178	5	2.8%
St. Albans	223	6	2.7%
St. Johnsbury	131	6	4.6%
Springfield	115	6	5.2%
White River Jct.	159	3	1.9%
Vermont	2130	56	2.6%

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

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

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

COUNTY OF RESIDENCE	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
ADDISON	0	0	0	2	14	41	102	94	22	3	1	0	0	279
BENNINGTON	0	1	2	5	15	44	100	88	23	3	1	0	0	282
CALEDONIA	0	1	2	2	15	44	95	57	20	3	1	0	0	240
CHITTENDEN	0	1	3	14	60	230	478	398	116	19	0	0	3	1322
ESSEX	0	0	0	0	2	8	25	13	8	1	0	0	0	57
FRANKLIN	2	2	1	7	25	69	199	141	52	15	0	0	2	515
GRAND ISLE	0	2	1	0	2	9	22	19	5	1	0	0	0	61
LAMOILLE	0	0	0	2	5	37	100	65	17	0	0	0	1	227
ORANGE	0	1	2	1	15	34	80	60	23	3	1	0	0	220
ORLEANS	0	0	2	9	9	47	97	67	21	2	0	1	0	255
RUTLAND	0	4	2	12	44	89	174	129	32	1	0	0	1	488
WASHINGTON	1	1	2	2	22	84	160	134	38	5	0	0	1	450
WINDHAM	0	2	4	3	9	44	115	79	29	3	0	0	0	288
WINDSOR	1	1	2	5	14	76	164	135	39	5	0	0	1	443
<b>TOTAL</b>	<b>4</b>	<b>16</b>	<b>23</b>	<b>64</b>	<b>251</b>	<b>856</b>	<b>1911</b>	<b>1479</b>	<b>445</b>	<b>64</b>	<b>4</b>	<b>1</b>	<b>9</b>	<b>5127</b>

## 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	0.0 -	0.7	5.7	20.4	57.0	90.7	98.6	99.6	100.0	100.0
BENNINGTON	0.0	0.4	1.1	2.8	8.2	23.8	59.2	90.4	98.6	99.6	100.0	100.0
CALEDONIA	0.0	0.4	1.3	2.1	8.3	26.7	66.3	90.0	98.3	99.6	100.0	100.0
CHITTENDEN	0.0	0.1	0.3 -	1.4	5.9	23.4	59.6	89.8	98.6	100.0	100.0	100.0
ESSEX	0.0	0.0	0.0	0.0	3.5	17.5	61.4	84.2	98.2	100.0	100.0	100.0
FRANKLIN	0.4	0.8	1.0	2.3	7.2	20.7	59.5	86.9	97.1	100.0	100.0	100.0
GRAND ISLE	0.0	3.3	4.9 +	4.9	8.2	23.0	59.0	90.2	98.4	100.0	100.0	100.0
LAMOILLE	0.0	0.0	0.0 -	0.9	3.1 -	19.5	63.7	92.5	100.0	100.0	100.0	100.0
ORANGE	0.0	0.5	1.4	1.8	8.6	24.1	60.5	87.7	98.2	99.5	100.0	100.0
ORLEANS	0.0	0.0	0.8	4.3	7.8	26.3	64.3	90.6	98.8	99.6	99.6	100.0
RUTLAND	0.0	0.8	1.2	3.7	12.7 +	31.0	66.7	93.2	99.8	100.0	100.0	100.0
WASHINGTON	0.2	0.4	0.9	1.3	6.2	24.9	60.6	90.4	98.9	100.0	100.0	100.0
WINDHAM	0.0	0.7	2.1 +	3.1	6.3	21.5	61.5	88.9	99.0	100.0	100.0	100.0
WINDSOR	0.2	0.5	0.9	2.0	5.2	22.4	59.5	90.0	98.9	100.0	100.0	100.0
<b>TOTAL</b>	<b>0.1</b>	<b>0.4</b>	<b>0.8</b>	<b>2.1</b>	<b>7.0</b>	<b>23.7</b>	<b>61.1</b>	<b>90.0</b>	<b>98.7</b>	<b>99.9</b>	<b>100.0</b>	<b>100.0</b>

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

# Vermont Maternal and Child Health Annual Report - 2020

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

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

COUNTY OF RESIDENCE	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
ADDISON	0	0	0	2	11	36	102	94	22	3	1	0	0	271
BENNINGTON	0	1	0	3	15	35	99	88	23	3	1	0	0	268
CALEDONIA	0	1	2	2	11	44	95	57	20	3	1	0	0	236
CHITTENDEN	0	1	1	13	50	220	470	398	116	19	0	0	2	1290
ESSEX	0	0	0	0	2	8	25	13	8	1	0	0	0	57
FRANKLIN	2	2	1	6	21	64	198	141	52	15	0	0	2	504
GRAND ISLE	0	2	1	0	1	9	21	19	5	1	0	0	0	59
LAMOILLE	0	0	0	2	3	33	100	65	17	0	0	0	1	221
ORANGE	0	1	0	1	11	31	80	59	23	3	1	0	0	210
ORLEANS	0	0	2	8	7	44	95	67	21	2	0	1	0	247
RUTLAND	0	4	1	8	33	83	173	128	32	1	0	0	1	464
WASHINGTON	1	1	1	1	15	80	155	132	38	5	0	0	1	430
WINDHAM	0	2	4	3	8	42	114	79	29	3	0	0	0	284
WINDSOR	1	1	2	4	11	72	163	134	39	5	0	0	1	433
<b>TOTAL</b>	<b>4</b>	<b>16</b>	<b>15</b>	<b>53</b>	<b>199</b>	<b>801</b>	<b>1890</b>	<b>1474</b>	<b>445</b>	<b>64</b>	<b>4</b>	<b>1</b>	<b>8</b>	<b>4974</b>

## 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	0.0 -	0.7	4.8	18.1	55.7	90.4	98.5	99.6	100.0	100.0
BENNINGTON	0.0	0.4	0.4	1.5	7.1	20.1	57.1	89.9	98.5	99.6	100.0	100.0
CALEDONIA	0.0	0.4	1.3	2.1	6.8	25.4	65.7	89.8	98.3	99.6	100.0	100.0
CHITTENDEN	0.0	0.1	0.2 -	1.2	5.0	22.1	58.6	89.5	98.5	100.0	100.0	100.0
ESSEX	0.0	0.0	0.0	0.0	3.5	17.5	61.4	84.2	98.2	100.0	100.0	100.0
FRANKLIN	0.4	0.8	1.0	2.2	6.4	19.1	58.6	86.7	97.0	100.0	100.0	100.0
GRAND ISLE	0.0	3.4	5.1 +	5.1	6.8	22.0	57.6	89.8	98.3	100.0	100.0	100.0
LAMOILLE	0.0	0.0	0.0 -	0.9	2.3 -	17.3	62.7	92.3	100.0	100.0	100.0	100.0
ORANGE	0.0	0.5	0.5	1.0	6.2	21.0	59.0	87.1	98.1	99.5	100.0	100.0
ORLEANS	0.0	0.0	0.8	4.0	6.9	24.7	63.2	90.3	98.8	99.6	99.6	100.0
RUTLAND	0.0	0.9	1.1	2.8	9.9 +	27.9	65.2	92.9	99.8	100.0	100.0	100.0
WASHINGTON	0.2	0.5	0.7	0.9	4.4	23.1	59.2	90.0	98.8	100.0	100.0	100.0
WINDHAM	0.0	0.7	2.1 +	3.2	6.0	20.8	60.9	88.7	98.9	100.0	100.0	100.0
WINDSOR	0.2	0.5	0.9	1.9	4.4	21.1	58.8	89.8	98.8	100.0	100.0	100.0
<b>TOTAL</b>	<b>0.1</b>	<b>0.4</b>	<b>0.7</b>	<b>1.8</b>	<b>5.8</b>	<b>21.9</b>	<b>60.0</b>	<b>89.6</b>	<b>98.6</b>	<b>99.9</b>	<b>100.0</b>	<b>100.0</b>

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

# Vermont Maternal and Child Health Annual Report - 2020

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

## 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	0	1	17	77	184	0	0	279
BENNINGTON	0	3	3	16	72	187	1	0	282
CALEDONIA	1	2	3	10	65	158	1	0	240
CHITTENDEN	1	2	7	80	307	920	4	1	1322
ESSEX	0	0	0	2	12	43	0	0	57
FRANKLIN	3	2	9	25	105	367	4	0	515
GRAND ISLE	2	0	0	2	18	39	0	0	61
LAMOILLE	0	0	3	14	58	150	2	0	227
ORANGE	0	6	3	12	45	150	2	2	220
ORLEANS	0	4	3	15	70	163	0	0	255
RUTLAND	3	6	9	39	136	293	1	1	488
WASHINGTON	1	2	3	29	111	298	6	0	450
WINDHAM	2	6	1	10	67	200	1	1	288
WINDSOR	2	2	6	18	99	314	2	0	443
TOTAL	15	35	51	289	1242	3466	24	5	5127

## 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	0.0	0.4 -	6.5	34.1	100.0	100.0
BENNINGTON	0.0	1.1	2.1	7.8	33.3	99.6	100.0
CALEDONIA	0.4	1.3	2.5	6.7	33.8	99.6	100.0
CHITTENDEN	0.1	0.2	0.8 -	6.8	30.1	99.7	100.0
ESSEX	0.0	0.0	0.0 -	3.5	24.6	100.0	100.0
FRANKLIN	0.6	1.0	2.7	7.6	28.0	99.2	100.0
GRAND ISLE	3.3	3.3	3.3	6.6	36.1	100.0	100.0
LAMOILLE	0.0	0.0	1.3	7.5	33.0	99.1	100.0
ORANGE	0.0	2.8	4.1 +	9.6	30.3	99.1	100.0
ORLEANS	0.0	1.6	2.7	8.6	36.1	100.0	100.0
RUTLAND	0.6	1.8	3.7 +	11.7 +	39.6	99.8	100.0
WASHINGTON	0.2	0.7	1.3	7.8	32.4	98.7	100.0
WINDHAM	0.7	2.8	3.1	6.6	30.0	99.7	100.0
WINDSOR	0.5	0.9	2.3	6.3	28.7	99.5	100.0
TOTAL	0.3	1.0	2.0	7.6	31.9	99.5	100.0

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

# Vermont Maternal and Child Health Annual Report - 2020

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

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

COUNTY	PRE-PREGNANCY BMI						WEIGHT GAIN DURING PREGNANCY*				
	UNDER-WEIGHT	HEALTHY WEIGHT	OVER-WEIGHT	OBESE	UNKNOWN	TOTAL	NUMBER OF EVENTS				TOTAL
							BELOW GUIDELINES	WITHIN GUIDELINES	ABOVE GUIDELINES	UNKNOWN	
ADDISON	5	121	69	78	1	274	59	74	125	1	259
BENNINGTON	8	99	71	89	6	273	62	66	120	6	254
CALEDONIA	6	95	60	76	0	237	52	71	98	0	221
CHITTENDEN	35	626	313	301	29	1304	261	405	517	29	1212
ESSEX	0	18	12	25	2	57	16	11	27	2	56
FRANKLIN	7	165	128	204	5	509	95	134	242	6	477
GRAND ISLE	3	25	13	18	2	61	14	13	28	2	57
LAMOILLE	5	96	49	72	1	223	40	57	110	1	208
ORANGE	2	85	44	80	8	219	59	44	90	8	201
ORLEANS	6	99	65	79	0	249	53	66	108	0	227
RUTLAND	7	166	108	190	12	483	125	102	192	12	431
WASHINGTON	13	177	106	140	3	439	77	140	189	3	409
WINDHAM	9	125	63	81	2	280	66	75	110	2	253
WINDSOR	12	191	105	126	10	444	86	121	200	10	417
TOTAL	118	2088	1206	1559	81	5052	1065	1379	2156	82	4682

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	ROW PERCENTS		
					BELOW GUIDELINES	WITHIN GUIDELINES	ABOVE GUIDELINES
ADDISON	1.8	44.3	25.3	28.6	22.9	28.7	48.4
BENNINGTON	3.0	37.1	26.6	33.3	25.0	26.6	48.4
CALEDONIA	2.5	40.1	25.3	32.1	23.5	32.1	44.3
CHITTENDEN	2.7	49.1 +	24.5 +	23.6	22.1	34.2 +	43.7 -
ESSEX	0.0 -	32.7	21.8	45.5	29.6	20.4	50.0
FRANKLIN	1.4	32.7 -	25.4 +	40.5	20.2	28.5	51.4 +
GRAND ISLE	5.1	42.4	22.0	30.5	25.5	23.6	50.9
LAMOILLE	2.3	43.2	22.1	32.4	19.3	27.5	53.1 +
ORANGE	0.9	40.3	20.9	37.9	30.6 +	22.8 -	46.6
ORLEANS	2.4	39.8	26.1	31.7	23.3	29.1	47.6
RUTLAND	1.5	35.2 -	22.9 -	40.3	29.8 +	24.3 -	45.8
WASHINGTON	3.0	40.6	24.3	32.1	19.0 -	34.5 +	46.6
WINDHAM	3.2	45.0	22.7	29.1	26.3	29.9	43.8
WINDSOR	2.8	44.0	24.2	29.0	21.1	29.7	49.1
TOTAL	2.4	42.0	24.3	31.4	23.2	30.0	46.9

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

# Vermont Maternal and Child Health Annual Report - 2020

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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

## 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	4	120	122	16	10	4	2	0	0	0	1	279
BENNINGTON	8	81	130	31	11	4	6	1	2	3	5	282
CALEDONIA	2	82	118	17	10	1	4	1	2	0	3	240
CHITTENDEN	7	372	737	135	19	10	12	2	3	2	23	1322
ESSEX	0	15	28	6	1	1	0	2	2	0	2	57
FRANKLIN	12	293	154	34	11	5	1	1	1	1	2	515
GRAND ISLE	0	31	22	4	1	1	0	0	0	0	2	61
LAMOILLE	4	58	130	20	5	3	4	0	1	1	1	227
ORANGE	3	79	95	22	8	3	3	1	2	2	2	220
ORLEANS	12	118	83	15	9	6	5	1	0	2	4	255
RUTLAND	4	102	267	55	16	12	9	5	2	7	9	488
WASHINGTON	4	159	221	33	13	8	2	0	2	3	5	450
WINDHAM	13	118	83	30	8	6	9	3	4	4	10	288
WINDSOR	3	203	170	37	12	5	3	2	2	2	4	443
TOTAL	76	1831	2360	455	134	69	60	19	23	27	73	5127

### CUMULATIVE ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY OF RESIDENCE	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINTH	NONE
ADDISON	1.4	44.6	88.5 +	94.2	97.8	99.3	100.0	100.0	100.0	100.0
BENNINGTON	2.9	32.1	79.1 -	90.3	94.2	95.7	97.8	98.2	98.9	100.0
CALEDONIA	0.8	35.4	85.2	92.4	96.6	97.0	98.7	99.2	100.0	100.0
CHITTENDEN	0.5	29.2	85.9	96.3	97.8	98.5	99.5	99.6	99.8	100.0
ESSEX	0.0	27.3	78.2	89.1	90.9	92.7	92.7	96.4	100.0	100.0
FRANKLIN	2.3	59.5	89.5 +	96.1	98.2	99.2	99.4	99.6	99.8	100.0
GRAND ISLE	0.0	52.5	89.8	96.6	98.3	100.0	100.0	100.0	100.0	100.0
LAMOILLE	1.8	27.4	85.0	93.8	96.0	97.3	99.1	99.1	99.6	100.0
ORANGE	1.4	37.6	81.2	91.3	95.0	96.3	97.7	98.2	99.1	100.0
ORLEANS	4.8	51.8	84.9	90.8	94.4	96.8	98.8	99.2	99.2	100.0
RUTLAND	0.8	22.1	77.9 -	89.4	92.7	95.2	97.1	98.1	98.5	100.0
WASHINGTON	0.9	36.6	86.3	93.7	96.6	98.4	98.9	98.9	99.3	100.0
WINDHAM	4.7	47.1	77.0 -	87.8	90.6	92.8	96.0	97.1	98.6	100.0
WINDSOR	0.7	46.9	85.6	94.1	96.8	97.9	98.6	99.1	99.5	100.0
TOTAL	1.5	37.7	84.4	93.4	96.1	97.4	98.6	99.0	99.5	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, 2020 and DECEMBER 31, 2020

## 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	19	16	135	108	1	279
BENNINGTON	29	28	129	90	6	282
CALEDONIA	19	16	116	86	3	240
CHITTENDEN	53	89	629	515	36	1322
ESSEX	6	1	33	15	2	57
FRANKLIN	22	26	271	192	4	515
GRAND ISLE	2	4	32	21	2	61
LAMOILLE	15	13	122	76	1	227
ORANGE	20	30	107	61	2	220
ORLEANS	24	10	114	102	5	255
RUTLAND	56	31	216	175	10	488
WASHINGTON	28	31	226	159	6	450
WINDHAM	38	20	89	131	10	288
WINDSOR	28	83	205	123	4	443
TOTAL	359	398	2424	1854	92	5127

#### ROW PERCENTS - EXCLUDING UNKNOWNNS

COUNTY OF RESIDENCE	Inadequate	Intermediate	Adequate	Intensive	COUNTY OF RESIDENCE	PERCENT WITH AT LEAST ADEQUATE CARE UTILIZATION
ADDISON	6.8	5.8	48.6	38.8	ADDISON	87.4
BENNINGTON	10.5	10.1	46.7	32.6	BENNINGTON	79.3 -
CALEDONIA	8.0	6.8	48.9	36.3	CALEDONIA	85.2
CHITTENDEN	4.1	6.9	48.9	40.0	CHITTENDEN	89.0 +
ESSEX	10.9	1.8	60.0	27.3	ESSEX	87.3
FRANKLIN	4.3	5.1	53.0	37.6	FRANKLIN	90.6 +
GRAND ISLE	3.4	6.8	54.2	35.6	GRAND ISLE	89.8
LAMOILLE	6.6	5.8	54.0	33.6	LAMOILLE	87.6
ORANGE	9.2	13.8	49.1	28.0	ORANGE	77.1 -
ORLEANS	9.6	4.0	45.6	40.8	ORLEANS	86.4
RUTLAND	11.7	6.5	45.2	36.6	RUTLAND	81.8 -
WASHINGTON	6.3	7.0	50.9	35.8	WASHINGTON	86.7
WINDHAM	13.7	7.2	32.0	47.1	WINDHAM	79.1 -
WINDSOR	6.4	18.9	46.7	28.0	WINDSOR	74.7 -
TOTAL	7.1	7.9	48.1	36.8	TOTAL	85.0

+ significantly higher than state percentage

- significantly lower than state percentage



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VT RESIDENT BIRTHS BETWEEN JANUARY 1, 2020 and DECEMBER 31, 2020

## 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 <sup>^</sup>	Quit <sup>^*</sup>
ADDISON	41	233	5	279	41	6
BENNINGTON	75	205	2	282	76	22
CALEDONIA	58	182	0	240	58	17
CHITTENDEN	103	1209	10	1322	104	27
ESSEX	12	45	0	57	12	0
FRANKLIN	92	413	10	515	92	16
GRAND ISLE	12	48	1	61	11	3
LAMOILLE	29	195	3	227	29	6
ORANGE	35	184	1	220	35	7
ORLEANS	42	206	7	255	42	17
RUTLAND	111	374	3	488	111	34
WASHINGTON	74	366	10	450	75	21
WINDHAM	45	243	0	288	45	11
WINDSOR	79	361	3	443	79	21
TOTAL	808	4264	55	5127	810	208

### PERCENTAGES

COUNTY OF RESIDENCE	Smoked Before Pregnancy	Did Not Smoke Before Pregnancy	COUNTY OF RESIDENCE	Percent of Smokers Who Quit <sup>^*</sup>
ADDISON	15.0	85.0	ADDISON	14.6 -
BENNINGTON	26.8 +	73.2	BENNINGTON	28.9
CALEDONIA	24.2 +	75.8	CALEDONIA	29.3
CHITTENDEN	7.9 -	92.1	CHITTENDEN	26.0
ESSEX	21.1	78.9	ESSEX	0.0 -
FRANKLIN	18.2	81.8	FRANKLIN	17.4 -
GRAND ISLE	20.0	80.0	GRAND ISLE	27.3
LAMOILLE	12.9	87.1	LAMOILLE	20.7
ORANGE	16.0	84.0	ORANGE	20.0
ORLEANS	16.9	83.1	ORLEANS	40.5 +
RUTLAND	22.9 +	77.1	RUTLAND	30.6
WASHINGTON	16.8	83.2	WASHINGTON	28.0
WINDHAM	15.6	84.4	WINDHAM	24.4
WINDSOR	18.0	82.0	WINDSOR	26.6
TOTAL	15.9	84.1	TOTAL	25.7

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

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

<sup>^</sup> 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, 2020 and DECEMBER 31, 2020

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

COUNTY OF RESIDENCE	AGE OF MOTHER									UNKNOWN	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		
ADDISON	0	2	4	34	81	92	55	11	0	0	279
BENNINGTON	0	2	8	53	72	93	46	7	1	0	282
CALEDONIA	0	4	10	49	86	49	31	11	0	0	240
CHITTENDEN	0	3	19	104	279	507	344	59	7	0	1322
ESSEX	0	0	0	9	19	20	6	3	0	0	57
FRANKLIN	0	2	11	99	175	157	56	14	1	0	515
GRAND ISLE	0	0	2	7	24	17	10	1	0	0	61
LAMOILLE	0	1	6	35	55	80	41	7	2	0	227
ORANGE	0	1	3	39	55	67	43	11	1	0	220
ORLEANS	0	3	8	70	86	53	31	4	0	0	255
RUTLAND	0	2	12	88	136	147	82	19	2	0	488
WASHINGTON	0	3	6	53	112	164	86	26	0	0	450
WINDHAM	0	2	8	55	74	77	56	16	0	0	288
WINDSOR	0	3	14	64	109	135	100	18	0	0	443
TOTAL	0	28	111	759	1363	1658	987	207	14	0	5127

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	0.7	1.4	12.2	29.0	33.0	19.7	3.9	0.0	0.0	100.0
BENNINGTON	0.0	0.7	2.8	18.8	25.5	33.0	16.3	2.5	0.4	0.0	100.0
CALEDONIA	0.0	1.7 +	4.2 +	20.4	35.8	20.4	12.9	4.6	0.0	0.0	100.0
CHITTENDEN	0.0	0.2 -	1.4 -	7.9	21.1	38.4	26.0	4.5	0.5	0.0	100.0
ESSEX	0.0	0.0	0.0 -	15.8	33.3	35.1	10.5	5.3	0.0	0.0	100.0
FRANKLIN	0.0	0.4	2.1	19.2	34.0	30.5	10.9	2.7	0.2	0.0	100.0
GRAND ISLE	0.0	0.0	3.3	11.5	39.3	27.9	16.4	1.6	0.0	0.0	100.0
LAMOILLE	0.0	0.4	2.6	15.4	24.2	35.2	18.1	3.1	0.9	0.0	100.0
ORANGE	0.0	0.5	1.4	17.7	25.0	30.5	19.5	5.0	0.5	0.0	100.0
ORLEANS	0.0	1.2	3.1	27.5	33.7	20.8	12.2	1.6	0.0	0.0	100.0
RUTLAND	0.0	0.4	2.5	18.0	27.9	30.1	16.8	3.9	0.4	0.0	100.0
WASHINGTON	0.0	0.7	1.3	11.8	24.9	36.4	19.1	5.8	0.0	0.0	100.0
WINDHAM	0.0	0.7	2.8	19.1	25.7	26.7	19.4	5.6	0.0	0.0	100.0
WINDSOR	0.0	0.7	3.2	14.4	24.6	30.5	22.6	4.1	0.0	0.0	100.0
TOTAL	0.0	0.5	2.2	14.8	26.6	32.3	19.3	4.0	0.3	0.0	100.0

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

## Vermont Maternal and Child Health Annual Report - 2020

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### Teen Birth and Pregnancy Rates by County<sup>^</sup> 15-17 Year Old Females

2020

County	Population	Births	Rate	Pregnancies	Rate
Addison	525	2	3.8	3	5.7
Bennington	591	2	3.4	3	5.1
Caledonia	559	4	7.2	6	10.7 +
Chittenden	2504	3	1.2	9	3.6
Essex	89	0	0.0	0	0.0
Franklin	904	2	2.2	4	4.4
Grand Isle	123	0	0.0	0	0.0
Lamoille	413	1	2.4	1	2.4
Orange	441	1	2.3	1	2.3
Orleans	474	3	6.3	5	10.5
Rutland	895	2	2.2	4	4.5
Washington	997	3	3.0	4	4.0
Windham	658	2	3.0	2	3.0
Windsor	906	3	3.3	3	3.3
Vermont	10079	28	2.8	45	4.5

+/- = significantly higher/lower than state average rate.  
Rates are events per 1,000 female 2019 population.

### Teen Birth and Pregnancy Rates by County<sup>^</sup> 18-19 Year Old Females

2020

County	Population	Births	Rate	Pregnancies	Rate
Addison	907	4	4.4 -	6	6.6 -
Bennington	538	8	14.9	9	16.7
Caledonia	388	10	25.8 +	11	28.4 +
Chittenden	4217	19	4.5 -	34	8.1 -
Essex	43	0	0.0	0	0.0
Franklin	479	11	23.0 +	15	31.3 +
Grand Isle	59	2	33.9	2	33.9
Lamoille	381	6	15.7	8	21.0
Orange	268	3	11.2	4	14.9
Orleans	237	8	33.8 +	11	46.4 +
Rutland	855	12	14.0	16	18.7
Washington	713	6	8.4	7	9.8
Windham	416	8	19.2	9	21.6
Windsor	434	14	32.3 +	17	39.2 +
Vermont	9935	111	11.2	149	15.0

+/- = significantly higher/lower than state average rate.  
Rates are events per 1,000 female 2019 population.

## Vermont Maternal and Child Health Annual Report - 2020

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

2020

County	Population	Births	Rate	Pregnancies	Rate
Addison	1432	6	4.2	9	6.3
Bennington	1129	10	8.9	12	10.6
Caledonia	947	14	14.8 +	17	18.0 +
Chittenden	6721	22	3.3 -	43	6.4 -
Essex	132	0	0.0 -	0	0.0 -
Franklin	1383	13	9.4	19	13.7
Grand Isle	182	2	11.0	2	11.0
Lamoille	794	7	8.8	9	11.3
Orange	709	4	5.6	5	7.1
Orleans	711	11	15.5 +	16	22.5 +
Rutland	1750	14	8.0	20	11.4
Washington	1710	9	5.3	11	6.4
Windham	1074	10	9.3	11	10.2
Windsor	1340	17	12.7 +	20	14.9 +
Vermont	20014	139	6.9	194	9.7

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

Rates are events per 1,000 female 2019 population.

### New Families at Risk

2020

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

County	First Births	Number to Women	
		<20, Single, and < HS Education	Percent
Addison	119	2	1.7%
Bennington	103	3	2.9%
Caledonia	115	7	6.1% +
Chittenden	584	6	1.0% -
Essex	20	0	0.0%
Franklin	199	5	2.5%
Grand Isle	24	1	4.2%
Lamoille	106	3	2.8%
Orange	88	1	1.1%
Orleans	95	5	5.3%
Rutland	178	5	2.8%
Washington	189	5	2.6%
Windham	114	7	6.1% +
Windsor	196	6	3.1%
Vermont	2130	56	2.6%

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