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November 8, 2019

Steven T. James
House Clerk
State House Room 145
Boston, MA 02133

Michael D. Hurley
Senate Clerk
State House Room 335
Boston, MA 02133

Dear Mr. Clerk,

Pursuant to Section 2 of Chapter 111 of the Massachusetts General Laws, the attached report summarizes birth data and statistics for the 2017 calendar year.

Sincerely,

Monica Bharel, MD, MPH
Commissioner
Department of Public Health

Charles D. Baker
Governor

Karyn Polito
Lieutenant Governor



Marylou Sudders
Secretary

Monica Bharel, MD, MPH
Commissioner

Massachusetts Births 2017

November 2019



Massachusetts Births 2017



Massachusetts Department of Public Health
Registry of Vital Records and Statistics
November 2019
Updated June 16, 2020

Massachusetts Births 2017

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Marylou Sudders, Secretary of Health and Human Services
Monica Bharel, MD, MPH, Commissioner of Public Health
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Registry of Vital Records and Statistics

Massachusetts Department of Public Health

November 2019

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Data in this report have been collected through the efforts of the Registry of Vital Records and Statistics staff, including: Tara Andrews, Michael Baker, June Deloney, Alex Forman, Marta Mercado, Margaret Riley, and Carina Veliz.

To obtain additional copies of this report, contact:

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To obtain more information on births in Massachusetts and other Department of Public Health data please visit the Department's free, Internet-based public health information reports at: <http://www.mass.gov/dph/phit> or email DPH.PHIT@state.ma.us

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Note to Readers

As required by Chapter 111, Section 2 of the General Laws, this report satisfies the requirement of the annual report of statistics on births for calendar year 2017 (Annual Report Vital Statistics of Massachusetts-Births, Public Document #1 2017). Public Document #1 information on 2017 deaths, marriages, and divorces is covered in separate reports.

1. **Population Sources.** We have used two population files based upon the 2010 Census for denominators in rate calculations:
 - The 2017 Modified Age, Race/Ethnicity, and Sex file (MARS), which is a bridged population file produced by the National Center for Health Statistics (NCHS) and the Census Bureau Population Estimates Program was used to calculate state rates by race and Hispanic ethnicity, e.g., teen birth rates. This file has data by single years of age, sex, race and Hispanic ethnicity in the five mutually exclusive categories used by the Department: White Non-Hispanic, Black Non-Hispanic, Asian Non-Hispanic, American Indian/Alaska Native Non-Hispanic, and Hispanic.
 - The Massachusetts Department of Public Health Race Allocated Census 2010 Estimates file, which contains population estimates based upon the Census 2010 Summary File 1, was used to calculate city, town, and other substate rates. In this file, the Census 2010 race categories, “Two or more races” and “Some other race” are redistributed to the MDPH standard race categories: White Non-Hispanic, Black Non-Hispanic, Asian Non-Hispanic, and American Indian/Alaska Native Non-Hispanic. All persons in the Census 2010 Hispanic ethnicity category are counted as “Hispanic” race in the MDPH estimates. **Please note:** If the population in your community increased from 2010 to 2017, the rates listed may **overestimate** the actual rate. If the population in your community declined from 2010 to 2017, the rates given in the publication may **underestimate** the actual rate.
2. **Resident births.** All data in this publication are resident data unless otherwise stated. Resident data include all events that occur to residents of the Commonwealth, including resident births that occur in other U.S. States and territories.
3. **Race and Ethnicity.** In the text, the race categories, White, Black, American Indian/Alaska Native, Asian, and Hispanic are mutually exclusive. For example, when we refer to White mothers, this means White Non-Hispanic mothers. See “Technical Notes” for detailed information on the multiple-race reporting area and methods used to bridge responses for those who report more than one race to a single race. Please note that trend data on minority groups such as Native Americans, Hispanics, Blacks, and Asians may not be comparable as these groups will show increases in the number of births solely related to the methods used for re-classification of multiple races into single race categories. **Please use caution in interpreting these numbers.**
4. **Adjusted Adequacy of Prenatal Care Utilization Index.** In 2017, there were continued reporting issues for the number of prenatal visits in three hospitals: Newton Wellesley Hospital, Saint Vincent Hospital, and Winchester Hospital. Adjusted Prenatal Care Utilization Index (APCUI) presents adequate prenatal care without these three hospitals since their data are considered to be unreliable.
5. **Breastfeeding.** Beginning in 2016, statistics on breastfeeding indicate whether the infant was being breastfed during the hospital stay. In earlier birth reports, statistics on breastfeeding reported on breastfeeding at the time of discharge. **Please use caution when comparing breastfeeding data before and after 2016.**
6. **Tables/Figures Based on Mothers.** Please note that Tables 18-19 and Figures 7-11 are based on mothers and not births.

Suggested Citation

Massachusetts Births 2017 Boston, MA: Registry of Vital Records and Statistics, Massachusetts Department of Public Health. November 2019.

Selected Takeaways

- In 2017, there were 70,704 births to Massachusetts resident mothers, a decline of 0.9% from 71,319 in 2016 and a decline of 23.5% since 1990 (Table 1). The number of births to mothers age 30 and older increased (for the 8th year in a row) by 0.7% percent (2016: 43,377; 2017: 43,669). Similarly, the number of births to mothers under 30 decreased by 3.2% percent (2016: 27,942; 2017: 27,035) (Figure 1).
- Between 2016 and 2017, the number of births to White Non-Hispanic and Asian Non-Hispanic mothers decreased by 3.4% and 4.6%, respectively, while the number of births to Black Non-Hispanic and Hispanic mothers increased by 2.2% and 3.2%, respectively (Table 1).
- In 2017, the Massachusetts teen birth rate decreased for the tenth year in a row. The teen birth rate was 22.0 births per 1,000 women age 15-19 in 2007, while in 2017 the rate was 8.1 births per 1,000 women age 15-19 (Table 1). Between 2016 and 2017, the percentage of births to mothers less than 20 years old decreased for all races/ethnicities besides American Indian Non-Hispanic. However, disparities persisted, and the percentage of teen births to Hispanic women remained over five times higher than the percentage of teen births to White Non-Hispanic women (Table 2).
- In 2017, 31.6% of births were cesarean deliveries (Table 1). Among White Non-Hispanic, Black Non-Hispanic, Hispanic, and Asian Non-Hispanic births, Black Non-Hispanics had the highest percentage of cesarean deliveries (34.9%), while Asian Non-Hispanics had the lowest percentage (29.2%) (Table 2).
- In 2017, the percentage of births to mothers affected by gestational diabetes increased to 6.5% from 5.6% in 2016 (Table 1).
- For the fourth year in a row, the percentage of low birthweight infants (less than 2,500 grams or 5.5 pounds) remained unchanged (2014: 7.5%; 2015: 7.5%; 2016: 7.5%; 2017: 7.5%) (Table 1).
- From 2016 to 2017, the percentage of preterm births (births occurring at less than 37 weeks of gestation) increased slightly from 8.7% to 8.9% (Table 1). The percentage of White Non-Hispanic and Black Non-Hispanic preterm births remained the same from 2016 to 2017 at 8.0% and 11.2%, respectively. In contrast, this percentage increased for Asian Non-Hispanics from 7.5% to 8.3% and for Hispanics from 9.6% to 10.0% (Table 10).
- From 2016 to 2017, the percentage of births to mothers who received adequate prenatal care reversed course and dropped from 82.3% to 80.5% (Table 1). In 2017, the percentage of births with adequate prenatal care was higher among those with private insurance (87.0%) than public insurance (73.5%) (Table 16).
- The percentage of births to mothers whose prenatal care was covered through public insurance increased slightly from 2016 (38.6%) to 2017 (39.2%) (Table 1).
- The percentage of multiple births decreased slightly from 3.7% in 2016 to 3.6% in 2017. The percentage of multiple births to mothers under 35 years old increased slightly from 3.1% to 3.2%, and the corresponding percentage for multiple births to mothers 35 and older decreased from 5.7% to 5.1% (Table 4).
- Smoking during pregnancy continued to decline in 2017. The percentage of infants whose mothers reported smoking during pregnancy decreased from 5.3% in 2016 to 4.9% in 2017 (Figure 11).
- In Massachusetts 3,421 women used fertility treatment in 2017. The percentage of mothers who used assisted reproductive technology (ART) among all mothers who used infertility treatment increased from 68.9% in 2016 to 70.7% in 2017. The percentage of mothers who used ART fertility treatment was much higher among White Non-Hispanic mothers at 77.6% than among Black Non-Hispanic, Asian Non-Hispanic, and Hispanic mothers at 4.2%, 11.3%, and 6.4%, respectively (Table 21).

Table 1. Trends in Birth Characteristics, Massachusetts: 1990, 2003-2017

Characteristic		1990	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Births¹	n²	92,461	80,167	78,460	76,824	77,670	77,934	76,969	74,966	72,835	73,169	72,457	71,618	71,867	71,484	71,319	70,704
	Rate³	62.1	56.8	56.2	55.6	56.9	57.2	56.5	55.1	53.7	54.1	53.3	52.5	52.1	52.0	52.0	51.2
Race of Mother																	
White Non-Hispanic	n	72,483	57,604	55,322	53,469	52,975	52,620	51,760	49,759	48,466	45,973	45,032	44,432	44,128	43,255	42,448	40,989
	%⁴	78.4	71.9	70.5	69.6	68.2	67.5	67.2	66.4	66.5	62.8	62.1	62.0	61.4	60.5	59.5	58.0
Black Non-Hispanic	n	7,158	5,902	6,053	6,077	6,452	6,462	6,652	6,945	6,794	6,999	6,892	7,016	7,071	6,949	7,095	7,251
	%⁴	7.7	7.4	7.7	7.9	8.3	8.3	8.6	9.3	9.3	9.6	9.5	9.8	9.8	9.7	9.9	10.3
Asian Non-Hispanic	n	3,349	5,224	5,454	5,251	5,469	5,758	5,958	5,939	5,817	6,022	6,530	6,220	6,426	6,473	6,647	6,338
	%⁴	3.6	6.5	7.0	6.8	7.0	7.4	7.7	7.9	8.0	8.2	9.0	8.7	8.9	9.1	9.3	9.0
Hispanic	n	8,406	9,764	9,798	10,061	10,696	10,861	10,895	10,986	10,588	12,777	13,088	12,315	12,670	12,927	13,100	13,516
	%⁴	9.1	12.2	12.5	13.1	13.8	13.9	14.2	14.7	14.5	17.5	18.1	17.2	17.6	18.1	18.4	19.1
Teen Births (Ages 15-19)	n	7,258	4,639	4,559	4,539	4,722	4,944	4,583	4,477	3,907	3,480	3,219	2,732	2,402	2,140	1,931	1,827
	Rate³	35.4	23.0	22.2	21.7	21.3	22.0	20.1	19.5	17.1	15.4	14.0	12.0	10.6	9.4	8.5	8.1
Births to Unmarried	n	22,837	22,262	22,376	23,170	24,977	26,010	26,146	26,029	25,220	25,349	24,900	24,014	23,853	23,913	23,566	23,309
	%	24.7	27.8	28.5	30.2	32.2	33.4	34.0	34.7	34.6	34.8	34.5	33.7	33.3	33.6	33.2	33.1
Cesarean Deliveries	n	20,615	23,392	24,295	24,732	25,901	26,240	26,240	25,067	24,244	23,062	22,900	22,508	22,691	22,431	22,302	22,290
	%	22.3	29.2	31.0	32.3	33.4	33.7	34.3	33.6	33.3	32.5	31.7	31.5	31.6	31.4	31.3	31.6
Gestational Diabetes⁵	n		2,693	2,741	2,666	2,925	3,279	3,086	3,445	3,368	3,698	4,070	3,784	3,867	4,287	4,005	4,575
	%		3.4	3.5	3.5	3.8	4.2	4.0	4.7	4.7	5.1	5.6	5.3	5.4	6.0	5.6	6.5
Low Birthweight⁶	n	5,388	6,115	6,125	6,073	6,150	6,147	5,955	5,804	5,650	5,458	5,491	5,495	5,394	5,321	5,341	5,261
	%	5.8	7.6	7.8	7.9	7.9	7.9	7.8	7.8	7.8	7.6	7.6	7.7	7.5	7.5	7.5	7.5
Preterm⁷	n	5,899	6,963	7,222	6,925	6,954	6,980	6,750	6,516	6,234	5,992	6,107	6,300	6,161	6,001	6,167	6,272
	%	6.5	8.7	9.2	9.0	9.0	9.0	8.8	8.7	8.6	8.4	8.6	8.8	8.6	8.4	8.7	8.9
Late Preterm⁸	n	3,977	4,800	5,016	4,808	4,918	4,945	4,753	4,602	4,361	4,206	4,422	4,518	4,394	4,305	4,492	4,680
	%	4.4	6.0	6.4	6.3	6.3	6.4	6.2	6.2	6.0	5.9	6.2	6.3	6.1	6.0	6.3	6.6
Prenatal Care																	
Public Pay Prenatal Care ⁹	%	25.1	28.3	29.9	31.9	33.5	34.9	34.5	35.3	35.8	38.8	39.8	38.9	42.9	38.3	38.6	39.2
APNCU Index ¹⁰	%		84.5	84.2	84.0	83.1	82.8	82.1	84.3	84.9	82.8	83.4	83.7	82.6	81.8	82.1	80.6
Adjusted APNCU Index ¹¹	%										85.3	85.4	84.5	83.1	81.8	82.3	80.5

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated. 1. Births presented in all tables are resident live births unless otherwise specified. 2. Differences in numbers of births from previous publications are the result of updated files. 3. Birth rates represent the total number of births to women ages 15-44 years per 1,000 females ages 15-44; teen birth rates refer to number of births per 1,000 females ages 15-19. Population data for computing 2017 birth rates at the state level were provided by the US Census Bureau. See the "Population Denominators" section of the "Technical Notes" for further information. 4. Percentages are calculated based on births, including those to mothers of unknown race. 5. Gestational diabetes is defined as glucose intolerance found during pregnancy for the first time. It excludes cases with pre-existing diabetes. 6. Low birthweight: less than 2,500 grams or 5.5 pounds. 7. Preterm: <37 weeks gestation. 8. Late preterm: 34-36 weeks gestation. 9. Government programs including Commonwealth, Healthy Start, Medicaid/MassHealth, and Medicare (may also be HMO or managed care), or free care. 10. Beginning with Births 2001, the APNCU Index has replaced the Kessner Index as the standard measurement of adequacy of prenatal care (see Technical Notes for more information). 11. Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems.

Table 2. Birth Characteristics by Maternal Race/Hispanic Ethnicity and Birthplace, Massachusetts: 2017

Race and Hispanic Ethnicity (by mother's birthplace)	Births		Teen Births				Birthweight				Prenatal Care				Cesarean Deliveries		Breastfeeding ⁵	
	n	% ¹	<18 Years		<20 Years		Very Low ²		Low ³		Adequate ⁴		1 st Trimester		n	%	n	%
State Total	70,704	100.0	471	0.7	1,843	2.6	774	1.1	5,261	7.5	49,523	80.5	55,171	79.1	22,290	31.6	60,277	85.5
US inc. DC	47,150	66.7	313	0.7	1,259	2.7	508	1.1	3,432	7.3	33,558	83.5	38,241	82.3	14,742	31.3	39,045	83.1
US Territories ⁷	1,726	2.4	43	2.5	163	9.4	33	1.9	199	11.5	1,271	77.6	1,292	75.7	558	32.3	1,373	80.1
Non-US-born ⁸	21,821	30.9	115	0.5	420	1.9	230	1.1	1,627	7.5	14,691	74.6	15,634	72.6	6,990	32.1	19,857	91.2
White Non-Hispanic	40,989	58.0	111	0.3	548	1.3	333	0.8	2,565	6.3	29,029	84.2	33,640	83.1	12,870	31.4	34,670	84.7
US inc. DC	36,263	88.5	103	0.3	509	1.4	291	0.8	2,299	6.3	25,816	85.2	30,049	83.9	11,424	31.5	30,309	83.7
US Territories ⁷	13	0.0	0	0.0	-- ⁶	-- ⁶	-- ⁶	-- ⁶	-- ⁶	-- ⁶	10	83.3	11	84.6	-- ⁶	-- ⁶	11	84.6
Non-US-born ⁸	4,712	11.5	8	0.2	38	0.8	40	0.8	263	5.6	3,202	77.3	3,579	76.8	1,443	30.6	4,350	92.5
Black Non-Hispanic	7,251	10.3	68	0.9	232	3.2	164	2.3	768	10.6	4,601	68.8	4,795	67.3	2,534	34.9	6,298	87.2
US inc. DC	3,016	41.6	55	1.8	175	5.8	90	3.0	404	13.4	2,060	73.8	2,177	73.2	1,016	33.7	2,414	80.5
US Territories ⁷	-- ⁶	-- ⁶	0	0.0	0	0.0	0	0.0	0	0.0	-- ⁶	-- ⁶	-- ⁶	-- ⁶	0	0.0	-- ⁶	-- ⁶
Non-US-born ⁸	4,234	58.4	13	0.3	57	1.3	74	1.7	364	8.6	2,540	65.1	2,617	63.0	1,518	35.9	3,883	92.0
Hispanic	13,516	19.1	269	2.0	972	7.2	185	1.4	1,145	8.5	9,629	75.6	9,715	72.8	4,223	31.2	11,334	84.1
US inc. DC	5,111	37.8	138	2.7	511	10.0	88	1.7	482	9.4	3,682	78.2	3,834	76.0	1,531	30.0	4,030	79.0
US Territories ⁷	1,689	12.5	43	2.5	162	9.6	32	1.9	194	11.5	1,246	77.7	1,263	75.6	547	32.4	1,343	80.0
Non-US-born ⁸	6,714	49.7	88	1.3	298	4.4	65	1.0	469	7.0	4,701	73.3	4,617	69.7	2,145	31.9	5,960	88.9
Asian Non-Hispanic	6,338	9.0	10	0.2	31	0.5	40	0.6	526	8.3	4,334	81.9	5,029	80.2	1,851	29.2	5,773	91.2
US inc. DC	1,207	19.0	8	0.7	20	1.7	9	0.7	103	8.5	831	82.9	969	81.4	310	25.7	1,034	85.7
US Territories ⁷	5	0.1	0	0.0	0	0.0	0	0.0	-- ⁶	-- ⁶	-- ⁶	-- ⁶	5	100.0	-- ⁶	-- ⁶	5	100.0
Non-US-born ⁸	5,126	80.9	-- ⁶	-- ⁶	11	0.2	31	0.6	421	8.2	3,499	81.7	4,055	79.9	1,540	30.0	4,734	92.4
American Indian Non-Hispanic⁹	246	0.3	5	2.0	19	7.7	-- ⁶	-- ⁶	19	7.8	165	76.7	170	71.4	83	33.7	184	74.8
US inc. DC	236	95.9	5	2.1	19	8.1	-- ⁶	-- ⁶	19	8.1	157	76.6	164	71.9	81	34.3	175	74.2
US Territories ⁷	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Non-US-born ⁸	10	4.1	0	0.0	0	0.0	0	0.0	0	0.0	8	80.0	6	60.0	-- ⁶	-- ⁶	9	90.0
Other Non-Hispanic¹⁰	438	0.6	-- ⁶	-- ⁶	5	1.1	6	1.4	38	8.7	289	70.3	286	66.7	139	31.7	389	88.8
US inc. DC	90	20.5	-- ⁶	-- ⁶	10	11.1	72	81.8	70	77.8	31	34.4	68	75.6				
US Territories ⁷	-- ⁶	-- ⁶	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-- ⁶	-- ⁶	0	0.0	0	0.0
Non-US-born ⁸	347	79.2	0	0.0	-- ⁶	-- ⁶	5	1.4	28	8.1	217	67.4	215	63.6	108	31.1	321	92.5
Unknown	1,926	2.7	7	0.4	36	1.9	42	2.2	200	10.7	1,476	86.1	1,536	85.0	590	32.0	1,629	88.3

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated.

1. In the column "Births %," the percentages of the race/Hispanic groups (bolded) are based on the state total (including births of unknown race/ethnicity), and the birthplace percentage for the race/ethnicities are based on the total number in race/Hispanic ethnicity category. For all other categories, percentages are based on row totals. 2. Very low birthweight: less than 1,500 grams or 3.3 pounds. 3. Low birthweight: less than 2,500 grams or 5.5 pounds. 4. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 5. Infant was being breastfed during the hospital stay. 6. Calculations based on 1-4 events are excluded. 7. The category "US Territories" includes women born in Puerto Rico, the US Virgin Islands, and Guam. Approximately 95% of the births in this category were to women born in Puerto Rico. 8. The category "Non-US-born" includes women born outside of the 50 US states, District of Columbia, and the US territories. 9. Mothers who selected American Indian/Alaska Native as their race. 10. Mothers who indicated "Other" as their race.

Table 3. Birth Characteristics by Maternal Ancestry, Massachusetts: 2017

Maternal Ancestry	Births ¹		Teen Births				Low Birthweight ²		Prenatal Care				Late Preterm ⁴		Cesarean Section		Breast-feeding ⁵		Gestational Diabetes ⁶	
			<18 years		<20 Years				Adequate ³		1 st Trimester									
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
State Total	70,704	100.0	471	0.7	1,843	2.6	5,261	7.5	49,523	80.5	55,171	79.1	4,680	6.6	22,290	31.6	60,277	85.5	4,575	6.5
American	32,580	46.1	141	0.4	638	2.0	2,110	6.5	23,605	84.4	26,773	83.0	2,141	6.6	10,182	31.3	27,653	85.0	1,924	5.9
European	8,797	12.4	14	0.2	69	0.8	468	5.3	5,804	85.9	7,396	84.8	471	5.4	2,687	30.5	8,085	92.0	479	5.4
Puerto Rican	4,746	6.7	141	3.0	496	10.5	496	10.5	3,438	77.8	3,551	75.8	380	8.0	1,491	31.4	3,633	76.8	303	6.4
African American	3,167	4.5	49	1.5	176	5.6	419	13.3	2,156	73.6	2,275	72.9	275	8.7	1,062	33.5	2,546	80.8	161	5.1
Dominican	3,140	4.4	51	1.6	198	6.3	260	8.3	2,303	76.4	2,275	73.5	193	6.1	1,154	36.8	2,744	87.7	155	4.9
African	2,112	3.0	-- ⁷	-- ⁷	11	0.5	145	6.9	1,307	68.6	1,340	64.3	120	5.7	770	36.5	1,953	92.7	150	7.1
Portuguese	2,084	2.9	18	0.9	85	4.1	155	7.4	1,572	81.2	1,640	79.5	122	5.9	723	34.7	1,486	71.3	131	6.3
Asian Indian	2,053	2.9	0	0.0	6	0.3	210	10.2	1,263	80.8	1,635	80.2	136	6.6	767	37.4	1,960	95.5	312	15.2
Brazilian	1,958	2.8	12	0.6	48	2.5	137	7.0	1,332	72.7	1,397	72.5	119	6.1	806	41.2	1,834	93.8	113	5.8
Other	1,927	2.7	7	0.4	24	1.2	163	8.5	1,351	82.7	1,490	80.5	136	7.1	607	31.5	933	48.6	119	6.2
Chinese	1,896	2.7	-- ⁷	-- ⁷	6	0.3	121	6.4	1,370	84.9	1,603	85.3	101	5.3	430	22.7	1,770	93.5	188	9.9
Haitian	1,537	2.2	6	0.4	22	1.4	148	9.7	902	63.7	947	62.8	110	7.2	541	35.2	1,382	90.4	100	6.5
Cape Verdean	1,460	2.1	22	1.5	83	5.7	139	9.5	1,009	70.8	981	68.1	105	7.2	433	29.7	1,237	85.0	91	6.2
Salvadoran	1,293	1.8	23	1.8	80	6.2	91	7.0	873	69.1	852	66.3	78	6.0	282	21.8	1,129	87.4	76	5.9
Middle Eastern	1,128	1.6	-- ⁷	-- ⁷	5	0.4	84	7.5	735	73.7	808	72.1	63	5.6	345	30.6	1,028	91.5	85	7.5
Guatemalan	1,106	1.6	30	2.7	88	8.0	74	6.7	748	70.7	694	63.9	78	7.1	268	24.2	891	80.6	86	7.8
Russian	694	1.0	-- ⁷	-- ⁷	9	1.3	29	4.2	449	79.8	541	78.5	33	4.8	170	24.5	659	95.1	38	5.5
Vietnamese	647	0.9	0	0.0	6	0.9	43	6.7	442	78.8	474	74.9	46	7.1	165	25.5	563	87.0	76	11.7
Cambodian	599	0.8	-- ⁷	-- ⁷	13	2.2	45	7.5	426	77.9	437	74.1	46	7.7	143	23.9	432	72.1	49	8.2
West Indian Caribbean	546	0.8	-- ⁷	-- ⁷	20	3.7	66	12.1	361	73.4	386	72.4	41	7.5	199	36.4	499	91.6	44	8.1
Other South American	545	0.8	6	1.1	20	3.7	22	4.1	382	79.1	404	75.8	52	9.5	152	27.9	517	94.9	26	4.8
Mexican	523	0.7	7	1.3	26	5.0	36	6.9	358	76.0	362	70.3	43	8.2	138	26.4	465	88.9	41	7.8
Honduran	428	0.6	10	2.3	36	8.4	37	8.7	289	69.1	282	66.4	27	6.3	100	23.4	364	85.4	30	7.0
Native American	405	0.6	6	1.5	23	5.7	33	8.2	274	77.2	290	72.7	28	6.9	134	33.1	321	79.3	25	6.2
Colombian	389	0.6	-- ⁷	-- ⁷	10	2.6	24	6.2	266	75.4	298	77.4	36	9.3	122	31.4	351	90.5	20	5.1
Korean	352	0.5	0	0.0	-- ⁷	-- ⁷	29	8.2	262	86.8	291	83.1	28	8.0	105	29.8	332	94.6	36	10.2

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated. Since 2009, certain ancestry groups were combined: Lebanese, Iranian, Israeli, and Other Middle Eastern ancestries were combined into "Middle Eastern"; and Nigerian and Other African were combined into "African." 1. In the column "Births," percentages are based on column total (state total of births, including births for which maternal ethnicity is unknown and other). For all other categories, percentages are based on row totals. 2. Low birthweight: less than 2,500 grams or 5.5 pounds. 3. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 4. Late preterm: 34-36 weeks gestation. 5. Infant was being breastfed during the hospital stay. 6. Gestational diabetes is defined as glucose intolerance found during pregnancy for the first time. It excludes cases with pre-existing diabetes. 7. Calculations based on 1-4 events are excluded.

Figure 1. Trends in the Number of Births by Mother's Age Group, Massachusetts: 1981-2017

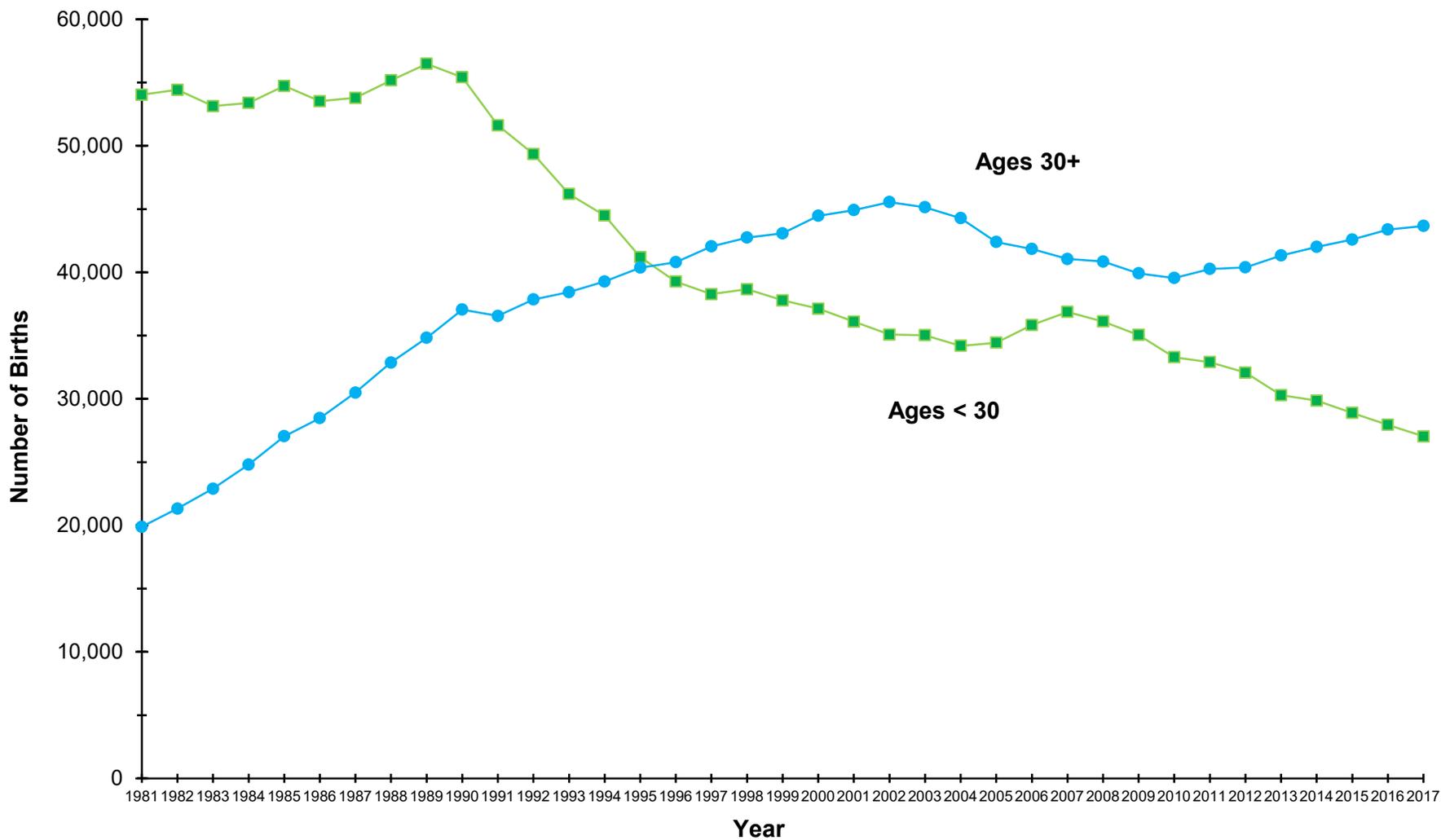


Table 4. Trends in Number and Percent Distribution of Births by Plurality and Maternal Age, Massachusetts: 2003-2017

Age Group	Year	Singletons		Multiples ¹						Total births ²	
		n	%	Twins		Triplets or more		Total Multiples		n	%
		n	%	n	%	n	%	n	%	n	%
All Ages											
	2003	76,367	95.3	3,551	4.4	249	0.3	3,800	4.7	80,167	100.0
	2004	74,677	95.2	3,538	4.5	245	0.3	3,783	4.8	78,460	100.0
	2005	73,258	95.4	3,375	4.4	190	0.2	3,565	4.6	76,824	100.0
	2006	74,146	95.5	3,375	4.3	149	0.2	3,524	4.5	77,670	100.0
	2007	74,498	95.6	3,310	4.2	126	0.2	3,436	4.4	77,934	100.0
	2008	73,475	95.5	3,365	4.4	129	0.2	3,494	4.5	76,969	100.0
	2009	71,423	95.3	3,386	4.5	157	0.2	3,543	4.7	74,966	100.0
	2010	69,508	95.4	3,220	4.4	107	0.1	3,327	4.6	72,835	100.0
	2011	69,933	95.6	3,135	4.3	100	0.1	3,235	4.4	73,169	100.0
	2012	69,272	95.6	3,093	4.3	90	0.1	3,183	4.4	72,457	100.0
	2013	68,363	95.5	3,164	4.4	91	0.1	3,255	4.5	71,618	100.0
	2014	68,800	95.7	2,984	4.2	83	0.1	3,067	4.3	71,867	100.0
	2015	68,756	96.2	2,671	3.7	57	0.1	2,728	3.8	71,484	100.0
	2016	68,660	96.3	2,569	3.6	90	0.1	2,659	3.7	71,319	100.0
	2017	68,134	96.4	2,523	3.6	47	0.1	2,570	3.6	70,704	100.0
Ages <35											
	2003	59,347	95.9	2,389	3.9	118	0.2	2,507	4.1	61,854	100.0
	2004	57,618	96.0	2,229	3.7	142	0.2	2,371	4.0	59,989	100.0
	2005	56,380	96.3	2,086	3.6	102	0.2	2,188	3.7	58,569	100.0
	2006	57,237	96.3	2,116	3.6	89	0.1	2,205	3.7	59,442	100.0
	2007	57,977	96.3	2,144	3.6	87	0.1	2,231	3.7	60,208	100.0
	2008	57,080	96.3	2,111	3.6	78	0.1	2,189	3.7	59,269	100.0
	2009	55,906	96.1	2,202	3.8	80	0.1	2,282	3.9	58,188	100.0
	2010	54,369	96.3	2,018	3.6	58	0.1	2,076	3.7	56,445	100.0
	2011	54,837	96.4	2,014	3.5	59	0.1	2,073	3.6	56,910	100.0
	2012	54,069	96.4	1,961	3.5	57	0.1	2,018	3.6	56,089	100.0
	2013	52,995	96.2	2,025	3.7	54	0.1	2,079	3.8	55,074	100.0
	2014	53,166	96.5	1,890	3.4	50	0.1	1,940	3.5	55,106	100.0
	2015	52,640	96.9	1,665	3.1	45	0.1	1,710	3.1	54,350	100.0
	2016	52,043	96.9	1,601	3.0	47	0.1	1,648	3.1	53,691	100.0
	2017	51,258	96.8	1,653	3.1	18	0.0	1,671	3.2	52,929	100.0
Ages 35+											
	2003	17,015	92.9	1,162	6.3	131	0.7	1,293	7.1	18,308	100.0
	2004	17,055	92.4	1,309	7.1	103	0.6	1,412	7.6	18,467	100.0
	2005	16,874	92.5	1,289	7.1	88	0.5	1,377	7.5	18,251	100.0
	2006	16,901	92.8	1,257	6.9	60	0.3	1,317	7.2	18,218	100.0
	2007	16,519	93.2	1,166	6.6	39	0.2	1,205	6.8	17,724	100.0
	2008	16,392	92.6	1,254	7.1	51	0.3	1,305	7.4	17,697	100.0
	2009	15,513	92.5	1,184	7.1	77	0.5	1,261	7.5	16,774	100.0
	2010	15,136	92.4	1,200	7.3	49	0.3	1,249	7.6	16,385	100.0
	2011	15,092	92.8	1,121	6.9	41	0.3	1,162	7.1	16,255	100.0
	2012	15,202	92.9	1,132	6.9	33	0.2	1,165	7.1	16,367	100.0
	2013	15,367	92.9	1,139	6.9	37	0.2	1,176	7.1	16,543	100.0
	2014	15,634	93.3	1,094	6.5	33	0.2	1,127	6.7	16,761	100.0
	2015	16,115	94.1	1,005	5.9	12	0.1	1,017	5.9	17,132	100.0
	2016	16,617	94.3	968	5.5	43	0.2	1,011	5.7	17,628	100.0
	2017	16,875	94.9	870	4.9	29	0.2	899	5.1	17,774	100.0

1. Numbers of multiples (n) represent individual infants rather than sets of infants. 2. Differences in the number of births from previous publications are the result of updated files.

Table 5. Summary of Selected Teen Birth Characteristics, Massachusetts: 2017

	Ages 15-17		Ages 18-19		Combined Ages 15-19	
	N	% ^{1,2}	N	% ^{1,2}	N	% ^{1,2}
State Total	444	25.2%	1,321	74.8%	1,765	100.0%
White Non-Hispanic	99	22.7%	409	31.6%	508	29.3%
Black Non-Hispanic	64	14.6%	159	12.3%	223	12.9%
Asian Non-Hispanic	10	2.3%	20	1.5%	30	1.7%
Hispanic	258	59.0%	688	53.2%	946	54.7%
Other Non-Hispanic	6	1.4%	18	1.4%	24	1.4%
Birthplace						
US States / D.C.	291	65.5%	897	67.9%	1,188	67.3%
Puerto Rico / US Terr.	42	9.5%	119	9.0%	161	9.1%
Non-US-born	111	25.0%	305	23.1%	416	23.6%
Prenatal Care Funding						
Public	373	85.4%	1,063	81.5%	1,436	82.4%
Private, other	64	14.6%	242	18.5%	306	17.6%
Pregnancy-Related Factors						
Adequacy of Prenatal Care³						
Adequate Total ⁴	247	55.6%	866	65.6%	1,113	63.1%
Adequate Intensive	131	29.5%	438	33.2%	569	32.2%
Adequate Basic	116	26.1%	428	32.4%	544	30.8%
Intermediate	46	10.4%	137	10.4%	183	10.4%
Inadequate/None	146	32.9%	279	21.1%	425	24.1%
Unknown	5	1.1%	39	3.0%	44	2.5%
Parity⁵						
1	419	94.4%	1,141	86.4%	1,560	88.4%
2	24	5.4%	152	11.5%	176	10.0%
3+	-- ⁶	-- ⁶	27	2.0%	28	1.6%
Smoking during Pregnancy						
Yes	13	3.0%	96	7.6%	109	6.4%
No	421	97.0%	1,165	92.4%	1,586	93.6%
Birth Outcomes						
Birthweight						
< 500 g	0	0.0%	-- ⁶	-- ⁶	-- ⁶	-- ⁶
500-1,499 g	9	2.0%	20	1.5%	29	1.6%
1,500-2,499 g	41	9.2%	102	7.7%	143	8.1%
LBW (<2,499 g)	50	11.3%	123	9.3%	173	9.8%
2,500-3,999 g	372	83.8%	1,118	84.8%	1,490	84.6%
4000+ g	22	5.0%	77	5.8%	99	5.6%
Gestational Age						
< 28 weeks	5	1.1%	8	0.6%	13	0.7%
Preterm (< 37 weeks)	41	9.3%	120	9.1%	161	9.1%
37-42 weeks	402	90.7%	1,200	90.9%	1,602	90.9%
Plurality						
Singleton	436	98.2%	1,305	98.8%	1,741	98.6%
Multiple birth	8	1.8%	16	1.2%	24	1.4%

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated.

1. For state total row, percentages are based on total births to females ages 15-19. For the rest of the table, percentages are based on births for a given age group and characteristic. 2. Percentages are based on state total of the age group. 3. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. Does not include data from Newton Wellesley, Saint Vincent, and Winchester hospitals because of reporting problems. 4. Adequate Total = Adequate Basic + Adequate Intensive. 5. Number of live births including the current birth. 6. Calculations based on 1-4 events are excluded.

Table 6. Number and Teen Birth Rates by Race/Hispanic Ethnicity for Selected Communities, Massachusetts: 2017

Municipality ¹	Teen Births		White Non-Hispanic		Black Non-Hispanic		Hispanic	
	N	Rate (95%CI) ^{2,3}	N	Rate (95%CI) ^{2,3}	N	Rate (95%CI) ^{2,3}	N	Rate (95%CI) ^{2,3}
State Total	1,827	8.1 (7.7, 8.4)	543	3.5 (3.2, 3.8)	229	11.4 (10, 12.9)	964	27.8 (26.1, 29.6)
Chelsea	44	36.8 (25.8, 49.6)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	41	46.4 (34, 60.6)
Lawrence	117	34.5 (28.2, 40.7)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	113	39.5 (32.2, 46.8)
New Bedford	92	30.3 (20.5, 42)	26	12.8 (6.8, 20.7)	14	57.6 (43.7, 73.4)	49	68.1 (52.9, 85.1)
Springfield	195	28.5 (24.5, 32.5)	14	7.3 (3, 13.5)	27	17.9 (10.6, 27.1)	148	46.1 (38.7, 53.6)
Lynn	91	28.2 (18.8, 39.6)	15	13.3 (7.1, 21.3)	-- ⁴	-- ⁴	65	48.5 (35.9, 63.1)
Holyoke	40	26.5 (17.4, 37.6)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	33	31.2 (21.2, 43.1)
Southbridge	14	24.5 (15.8, 35.1)	5	15.2 (8.6, 23.8)	-- ⁴	-- ⁴	9	41.1 (29.5, 54.6)
Fall River	67	24.1 (15.5, 34.6)	31	14.1 (7.7, 22.4)	9	58.1 (44.1, 73.9)	22	71.7 (56, 89.2)
Fitchburg	35	19.7 (12, 29.3)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	28	60 (45.7, 76.1)
Brockton	60	17.9 (10.6, 27.1)	8	5.8 (2.1, 11.4)	29	19.7 (12, 29.4)	22	53.9 (40.5, 69.2)
Chicopee	31	16.5 (9.5, 25.3)	9	6.8 (2.7, 12.8)	-- ⁴	-- ⁴	18	41.1 (29.5, 54.6)
Lowell	65	15.8 (9, 24.5)	20	10.5 (5.2, 17.8)	7	24.4 (15.7, 35)	29	29.4 (19.7, 40.9)
Pittsfield	21	15.7 (8.9, 24.3)	12	10.8 (5.4, 18.1)	7	77.8 (61.5, 96)	-- ⁴	-- ⁴
Haverhill	28	15.6 (8.9, 24.3)	11	8.3 (3.7, 14.9)	-- ⁴	-- ⁴	16	41.3 (29.7, 54.9)
Worcester	110	14.2 (11.6, 16.9)	32	7.1 (2.9, 13.3)	9	11.7 (6, 19.3)	66	33.3 (22.9, 45.5)
Everett	18	13.7 (7.4, 21.8)	5	7.5 (3.1, 13.7)	-- ⁴	-- ⁴	11	33.6 (23.2, 45.9)
Marlborough	13	12.6 (6.7, 20.5)	6	7.6 (3.2, 13.9)	-- ⁴	-- ⁴	5	27.3 (18.1, 38.5)
Revere	17	11.9 (6.1, 19.5)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	11	21 (13, 30.9)
Barnstable	14	11 (5.5, 18.3)	-- ⁴	-- ⁴	7	98.6 (80.1, 119)	-- ⁴	-- ⁴
Taunton	18	10.3 (5, 17.5)	12	8.1 (3.5, 14.5)	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Methuen	14	8.6 (3.9, 15.3)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	13	29.1 (19.5, 40.6)
Framingham	19	8.1 (3.5, 14.5)	-- ⁴	-- ⁴	-- ⁴	-- ⁴	13	30.4 (20.6, 42.2)
Boston	202	7.8 (6.7, 8.8)	10	0.9 (0, 3.4)	72	11 (5.5, 18.4)	115	22.1 (18.1, 26.2)
Quincy	15	7.6 (3.2, 13.8)	5	4.1 (1.1, 8.9)	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Waltham	14	5.9 (2.2, 11.6)	1	-- ⁴	-- ⁴	-- ⁴	10	31.9 (21.8, 43.9)

NOTE: The total number of Asian Non-Hispanic teen births in MA in 2017 was 31 for a rate of 1.7/1,000 significantly lower than the state rate of 8.1. Lowell had the largest number of Asian Non-Hispanic teen births at 8 births. The Asian Non-Hispanic teen birth rate in this community was slightly higher than the state.

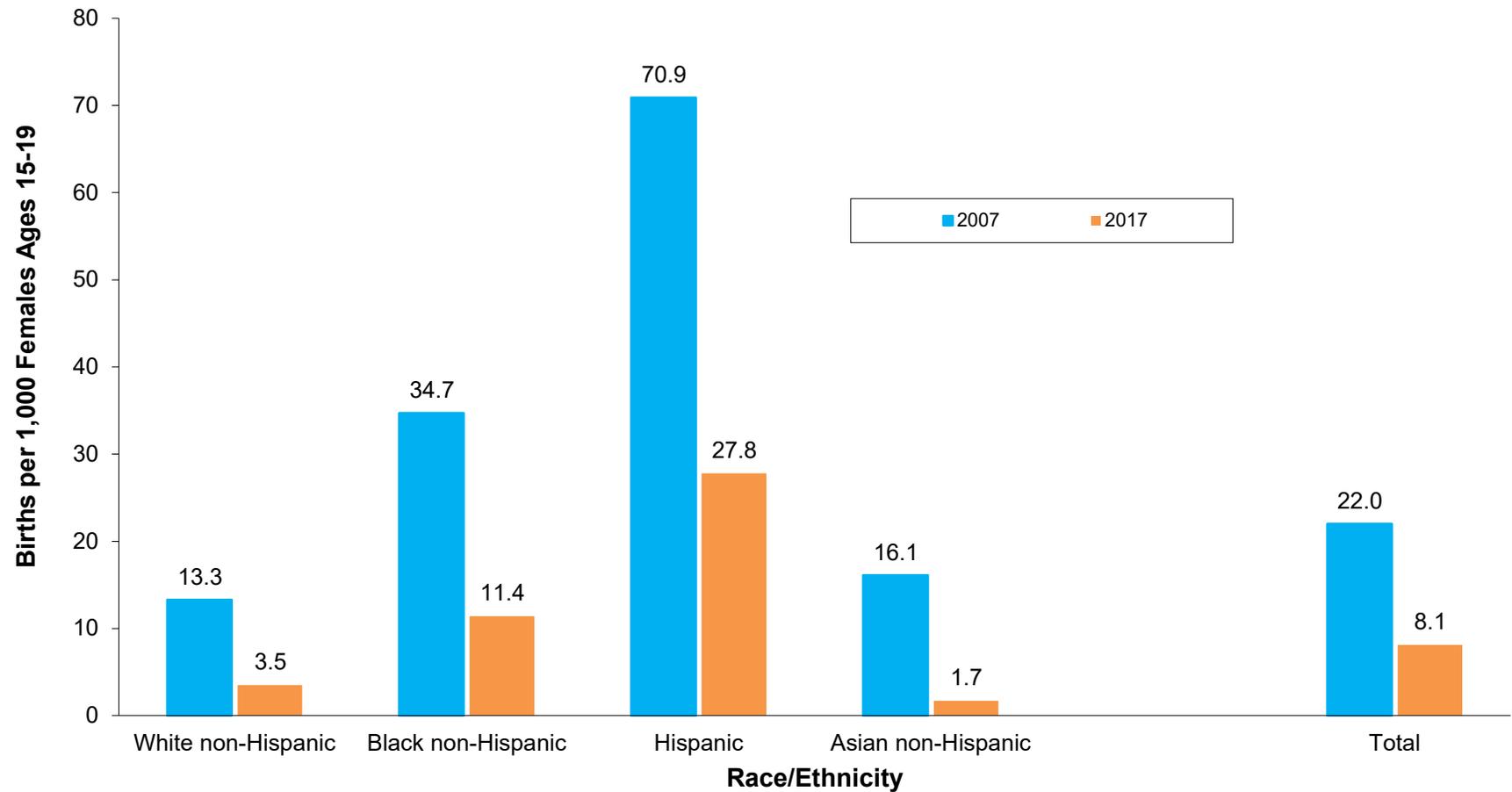
1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births. 2. Rates are per 1,000 females ages 15-19 per city/town. 3. Birth rates for cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2010 Estimates file (MRACE 2010), which is the most up-to-date information available on the number of persons by age, race, and sex at the sub-state level. **If the population in your community increased from 2010 to 2017, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2017, the rates given in the publication may underestimate the actual rate.** 4. Counts and rates based on counts of 1-4 births are excluded.

Table 7. Trends in Teen Birth Rates for Selected Communities, Ranked by 2017 Teen Birth Rate, Massachusetts: 2007, 2016-2017

2017 Rank	Municipality ¹	2007		2016		2017	
		Number of Teen Births	Teen Birth Rate ²	Number of Teen Births	Teen Birth Rate ^{2,3}	Number of Teen Births	Teen Birth Rate ^{2,3}
	State Total	4,944	22.0	1,931	8.5	1,827	8.1
1	Chelsea	82	82.0	39	32.6	44	36.8
2	Lawrence	230	76.0	117	34.5	117	34.5
3	New Bedford	197	66.7	96	31.6	92	30.3
4	Springfield	512	84.3	172	25.2	195	28.5
5	Lynn	175	56.7	94	29.2	91	28.2
6	Holyoke	144	95.4	48	31.9	40	26.5
7	Southbridge	43	77.1	17	29.8	14	24.5
8	Fall River	167	59.0	70	25.2	67	24.1
9	Fitchburg	71	45.4	42	23.6	35	19.7
10	Brockton	171	47.0	82	24.4	60	17.9
11	Chicopee	76	43.7	26	13.8	31	16.5
12	Lowell	244	80.6	54	13.1	65	15.8
13	Pittsfield	215	54.2	23	17.2	21	15.7
14	Haverhill	67	35.1	31	17.3	28	15.6
15	Worcester	251	35.7	102	13.2	110	14.2
16	Everett	43	40.6	25	19.0	18	13.7
17	Marlborough ⁴	22	24.9	23	22.4	13	12.6
18	Revere	48	45.6	20	13.9	17	11.9
19	Barnstable ⁴	26	19.3	12	9.4	14	11.0
20	Taunton	55	33.7	23	13.2	18	10.3
21	Methuen	39	29.4	15	9.2	14	8.6
22	Framingham	40	20.5	19	8.1	19	8.1
23	Boston	588	29.7	198	7.6	202	7.8
24	Quincy	38	18.3	12	6.0	15	7.6
25	Waltham ⁴	31	13.5	14	5.9	14	5.9

1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births in 2017. Ranking is by 2017 teen birth rate.
 2. Rates are per 1,000 females ages 15-19 per city/town. 3. Birth rates for cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2010 Estimates file (MRACE 2010), which is the most up-to-date information available on the number of persons by age, race, and sex at the sub-state level. **If the population in your community increased from 2010 to 2017, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2017, the rates given in the publication may underestimate the actual rate.** 4. Birth rates for select cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2004 Estimates file (MRACE 2004), which is the most up-to-date information available prior to 2010 on the number of persons by age, race, and sex at the sub-state level.

Figure 2. Teen Birth Rates among Females Ages 15-19 Years by Mother's Race/Hispanic Ethnicity, Massachusetts: 2007 and 2017



NOTE: Teen birth rate is number of births to females ages 15-19 per 1,000 females ages 15-19. 2007 birth rates are based upon the 2007 population estimates from the National Center for Health Statistics. 2017 birth rates are based upon the postcensal estimates of the resident population of the United States for July 1, 2010-July 1, 2017, by year, county, single-year of age (0, 1, 2, ..., 85 years and over), bridged race, Hispanic origin, and sex (Vintage 2017).

Table 8. Births by Birthweight, Race/Hispanic Ethnicity, Massachusetts: 2017

Birthweight (in grams)	Total		White Non-Hispanic		Black Non-Hispanic		Hispanic		Asian Non-Hispanic		Other Non-Hispanic		Unknown Race/Ethnicity	
	n	% ¹	n	% ¹	n	% ¹	n	% ¹	n	% ¹	n	% ¹	n	% ¹
State Total	70,704	100.0	40,989	100.0	7,251	100.0	13,516	100.0	6,338	100.0	684	100.0	1,926	100.0
<500	73	0.1	22	0.1	19	0.3	23	0.2	-- ²	-- ²	-- ²	-- ²	5	0.3
500-999	257	0.4	112	0.3	62	0.9	64	0.5	8	0.1	-- ²	-- ²	10	0.5
1,000-1,499	444	0.6	199	0.5	83	1.1	98	0.7	28	0.4	9	1.3	27	1.4
1,500-1,999	1,039	1.5	525	1.3	142	2.0	220	1.6	100	1.6	10	1.5	42	2.2
2,000-2,499	3,448	4.9	1,707	4.2	462	6.4	740	5.5	386	6.1	37	5.4	116	6.2
2,500-2,999	12,447	17.6	6,216	15.2	1,566	21.6	2,700	20.0	1,492	23.6	134	19.6	339	18.1
3,000-3,499	26,667	37.8	15,042	36.8	2,674	36.9	5,390	39.9	2,608	41.2	260	38.1	693	37.1
3,500-3,999	19,722	27.9	12,554	30.7	1,707	23.6	3,392	25.1	1,415	22.3	187	27.4	467	25.0
4,000-4,499	5,603	7.9	3,963	9.7	431	6.0	759	5.6	261	4.1	37	5.4	152	8.1
4,500-4,999	794	1.1	556	1.4	77	1.1	106	0.8	31	0.5	8	1.2	16	0.9
>=5,000	74	0.1	47	0.1	15	0.2	8	0.1	-- ²	-- ²	-- ²	-- ²	-- ²	-- ²
Unknown birthweight	136	0.2	46	0.1	13	0.2	16	0.1	-- ²	-- ²	-- ²	-- ²	56	2.9
VLBW³ (0-1,499 g)	774	1.1	333	0.8	164	2.3	185	1.4	40	0.6	10	1.5	42	2.2
LBW⁴ (0-2,499 g)	5,261	7.5	2,565	6.3	768	10.6	1,145	8.5	526	8.3	57	8.3	200	10.7

NOTE: Percentages for detailed birthweight rows (“<500” through “Unknown birthweight”) are calculated based on births including those with unknown birthweight. Percentages for VLBW and LBW rows are calculated based on births with known birthweight only.

1. Percentages are based on column totals. 2. Calculations based on values of 1-4 are excluded. 3. Very Low Birthweight (VLBW): less than 1,500 grams (3.3 lbs.). 4. Low Birthweight (LBW): less than 2,500 grams (5.5 lbs.).

Table 9. Low Birthweight by Plurality and Maternal Age, Massachusetts: 2007-2017

Maternal Age Group (years)	Year	Singleton				Twin				Multiples				Total Births							
		VLBW ¹		LBW ²		VLBW ¹		LBW ²		Triplets or more		Total Multiples		VLBW ¹		LBW ²					
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
All Ages	2007	693	0.9	4,258	5.7	306	9.2	1,772	53.6	54	42.9	117	92.9	360	10.5	1,889	55.0	1,053	1.4	6,147	7.9
	2008	627	0.9	4,039	5.5	324	9.7	1,803	53.8	55	42.6	113	87.6	379	10.9	1,916	55.1	1,006	1.3	5,955	7.8
	2009	677	1.0	3,886	5.5	276	8.2	1,771	52.7	61	38.9	147	93.6	337	9.6	1,918	54.5	1,014	1.4	5,804	7.8
	2010	643	0.9	3,882	5.6	288	8.9	1,668	51.8	30	28.8	100	96.2	318	9.6	1,768	53.2	961	1.3	5,650	7.8
	2011	629	0.9	3,824	5.6	286	9.2	1,541	49.8	41	41.0	93	93.0	327	10.2	1,634	51.2	956	1.3	5,458	7.6
	2012	585	0.8	3,810	5.5	252	8.2	1,592	51.6	41	45.6	89	98.9	300	7.5	1,731	43.5	878	1.2	5,491	7.6
	2013	596	0.9	3,727	5.5	318	10.1	1,686	53.5	23	25.8	82	92.1	351	8.6	1,825	45.0	937	1.3	5,495	7.7
	2014	605	0.9	3,690	5.4	270	9.1	1,624	54.5	19	22.9	80	96.4	297	7.6	1,763	45.2	894	1.2	5,394	7.5
	2015	627	0.9	3,849	5.6	219	8.2	1,419	53.4	19	34.5	53	96.4	241	6.8	1,528	43.2	865	1.2	5,321	7.5
	2016	596	0.9	3,904	5.7	208	8.1	1,351	52.7	38	42.2	86	95.6	258	6.8	1,514	39.7	842	1.2	5,341	7.5
2017	575	0.8	3,878	5.7	183	7.3	1,342	53.4	16	34	41	87.2	206	5.9	1,443	41.2	774	1.1	5,261	7.5	
Ages < 35	2007	533	0.9	3,317	5.7	223	10.4	1,191	55.6	45	51.7	85	97.7	268	12.0	1,276	57.2	801	1.3	4,593	7.6
	2008	492	0.9	3,134	5.5	218	10.4	1,181	56.2	34	43.6	70	89.7	252	11.6	1,251	57.4	744	1.3	4,385	7.4
	2009	525	0.9	3,093	5.6	174	7.9	1,187	54.2	36	45.0	76	95.0	210	9.2	1,263	55.6	735	1.3	4,356	7.5
	2010	489	0.9	3,071	5.7	206	10.2	1,059	52.5	22	40.0	51	92.7	228	11.0	1,110	53.5	717	1.3	4,181	7.4
	2011	475	0.9	2,964	5.5	189	9.5	1,034	52.0	31	52.5	54	91.5	220	10.8	1,088	53.2	695	1.2	4,052	7.2
	2012	437	0.8	2,964	5.5	185	9.5	1,066	54.6	34	59.6	57	100	226	8.4	1,168	43.5	656	1.2	4,087	7.3
	2013	433	0.8	2,852	5.4	225	11.2	1,101	54.6	17	32.7	48	92.3	250	9.1	1,202	43.7	675	1.2	4,001	7.3
	2014	460	0.9	2,828	5.3	186	9.8	1,076	57.0	14	28.0	48	96.0	207	7.9	1,173	44.7	660	1.2	3,952	7.2
	2015	476	0.9	2,922	5.6	142	8.6	902	54.5	16	36.4	43	97.7	160	6.7	990	41.8	634	1.2	3,867	7.1
	2016	443	0.9	2,952	5.7	145	9.1	865	54.1	22	46.8	47	100.0	178	6.9	977	37.8	610	1.1	3,864	7.2
2017	446	0.9	2,920	5.7	122	7.4	924	56.1	3	16.7	14	77.8	132	5.4	992	40.9	571	1.1	3,858	7.3	
Ages 35+	2007	160	1.0	941	5.7	83	7.1	581	49.8	9	23.1	32	82.1	92	7.6	613	50.9	252	1.4	1,554	8.8
	2008	135	0.8	905	5.6	106	8.5	622	49.8	21	41.2	43	84.3	127	9.8	665	51.2	262	1.5	1,570	8.9
	2009	152	1.0	792	5.1	102	8.7	584	49.9	25	32.5	71	92.2	127	10.2	655	52.5	279	1.7	1,447	8.7
	2010	154	1.0	810	5.4	82	6.8	609	50.8	8	16.3	49	100	90	7.2	658	52.8	244	1.5	1,468	9.0
	2011	154	1.0	860	5.8	97	8.8	507	45.9	10	24.4	39	95.1	107	9.3	546	47.6	261	1.6	1,406	8.8
	2012	148	1.0	846	5.6	67	5.9	526	46.5	7	21.2	32	97.0	74	5.7	563	43.5	222	1.4	1,404	8.6
	2013	163	1.1	875	5.7	93	8.2	585	51.6	6	16.2	34	91.9	101	7.7	623	47.6	262	1.6	1,494	9.1
	2014	145	0.9	862	5.5	84	7.7	548	50.2	5	15.2	32	97.0	90	7.1	590	46.3	234	1.4	1,442	8.6
	2015	151	0.9	927	5.8	77	7.7	517	51.7	3	27.3	10	90.9	81	7.0	538	46.3	231	1.4	1,454	8.5
	2016	153	0.9	952	5.7	63	6.5	486	50.3	16	37.2	39	90.7	80	6.5	537	43.8	232	1.3	1,477	8.4
2017	129	0.8	958	5.7	61	7	418	48.3	13	44.8	27	93.1	74	6.9	451	41.8	203	1.1	1,403	7.9	

NOTE: Very Low Birthweight (VLBW) births are a subset of Low Birthweight (LBW) births. All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated. 1. Very Low Birthweight (VLBW): less than 1,500 grams (3.3 lbs.). 2. Low Birthweight (LBW): less than 2,500 grams (5.5 lbs.).

Table 10. Births by Gestational Age, Race/Hispanic Ethnicity, Massachusetts: 2017

Gestational Age ¹ (weeks completed)	Total		White Non-Hispanic		Black Non-Hispanic		Hispanic		Asian Non-Hispanic		Other Non-Hispanic ³		Unknown
	n	% ²	n	% ²	n	% ²	n	% ²	n	% ²	n	% ²	n
State Total	70,704	100.0	40,989	100.0	7,251	100.0	13,516	100.0	6,338	100.0	684	100.0	1,926
<20	10	0.01	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0	0.0	2
20-23	82	0.12	28	0.1	27	0.4	23	0.2	-- ⁴	-- ⁴	0	0.0	3
24-27	248	0.32	117	0.3	52	0.7	59	0.4	10	0.2	-- ⁴	-- ⁴	7
28-31	546	0.71	266	0.6	91	1.3	119	0.9	31	0.5	9	1.3	30
32-33	706	0.91	337	0.8	91	1.3	171	1.3	61	1.0	7	1.0	39
34-36	4,680	5.74	2,536	6.2	550	7.6	971	7.2	419	6.6	52	7.6	152
37-38	16,368	21.30	8,821	21.5	1,847	25.5	3,491	25.8	1,625	25.6	154	22.6	430
39	23,796	19.07	13,817	33.7	2,278	31.4	4,644	34.4	2,275	35.9	240	35.2	542
40	16,537	14.09	10,148	24.8	1,598	22.0	2,808	20.8	1,383	21.8	163	23.9	437
41	7,324	4.93	4,682	11.4	687	9.5	1,198	8.9	515	8.1	52	7.6	190
42	268	0.19	193	0.5	23	0.3	27	0.2	13	0.2	-- ⁴	-- ⁴	11
43	10	0.01	6	0.0	-- ⁴	-- ⁴	0	0.0	-- ⁴	-- ⁴	0	0.0	0
44+	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0	0.0	0	0.0	0	0.0	0	0.0	0
Preterm⁵ (<37)	6,272	8.9	3,285	8.0	812	11.2	1,347	10.0	524	8.3	71	10.4	233
Very Early ⁶ (<28)	340	0.5	146	0.4	80	1.1	86	0.6	13	0.2	-- ⁴	-- ⁴	12
(28-33)	1,252	1.8	603	1.5	182	2.5	290	2.1	92	1.5	16	2.3	69
Late (34-36)	4,680	6.6	2,536	6.2	550	7.6	971	7.2	419	6.6	52	7.6	152
Term (≥37)	64,304	91.1	37,668	92.0	6,436	88.8	12,168	90.0	5,812	91.7	610	89.6	1,610
Early Term (37-38)	16,368	23.2	8,821	21.5	1,847	25.5	3,491	25.8	1,625	25.6	154	22.6	430
(39-41)	47,657	67.4	28,647	70.0	4,563	63.0	8,650	64.0	4,173	65.9	455	66.8	1,169
(>=42)	279	0.4	200	0.5	26	0.4	27	0.2	14	0.2	-- ⁴	-- ⁴	11
Unknown ⁷	128		36		-- ⁴		-- ⁴		-- ⁴		-- ⁴		83

NOTE: Percentages are calculated based on births with known gestational age only.

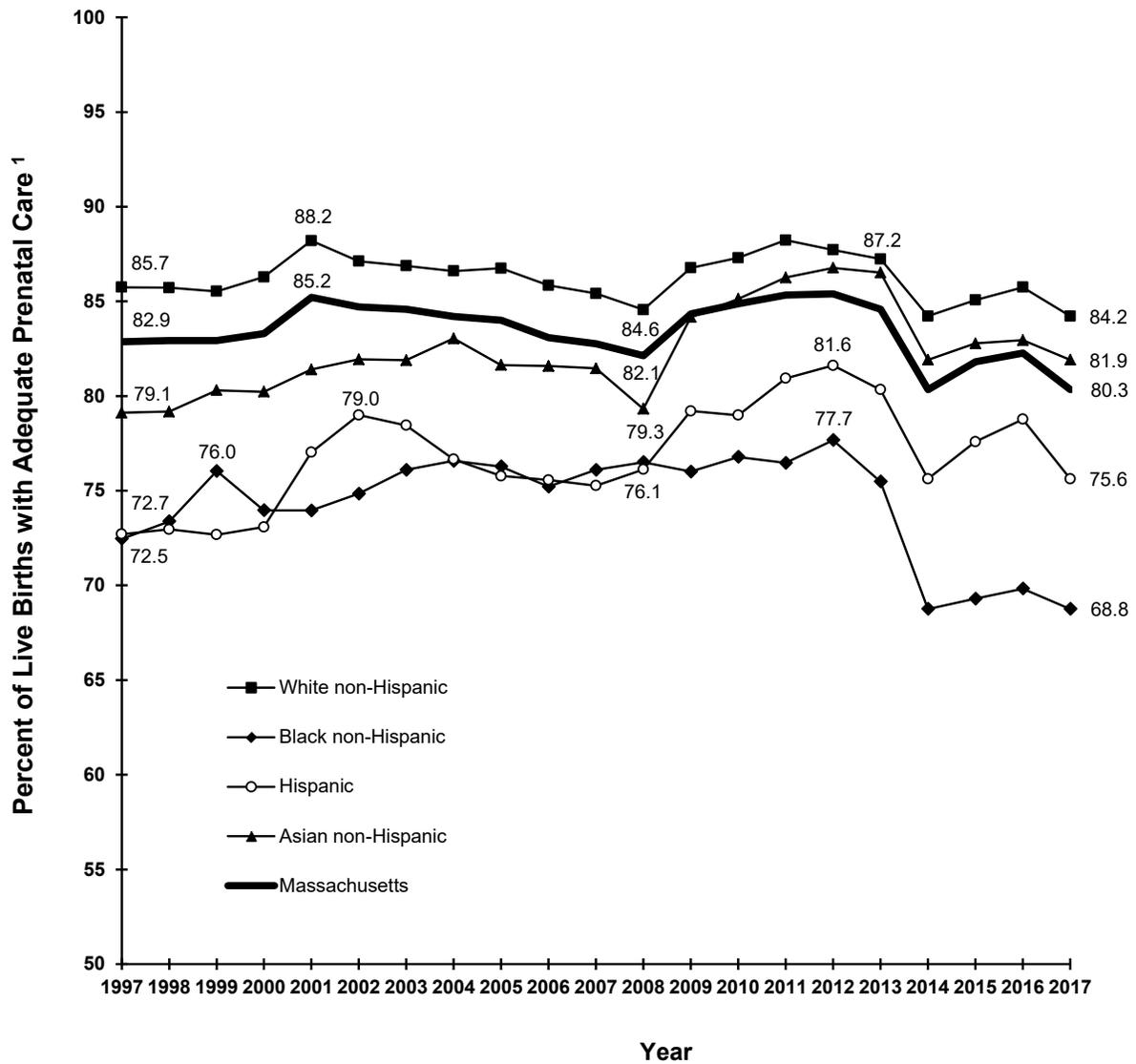
1. A clinical estimate of the number of weeks of pregnancy completed; as estimated by the attendant at birth or the postnatal physician. 2. Percentages are based on column total. 3. Other races include American Indian and others not specified. 4. Calculations based on values of 1-4 are excluded. 5. Also known as early gestational age, premature delivery, or preterm delivery. 6. Also known as extremely premature delivery or extremely preterm delivery. 7. Estimate of gestational age not provided and excluded from percentage calculations.

Table 11. Percent Preterm and Term Births by Gestational Age Category, Massachusetts: 2001-2017

	Preterm ¹			Term ²	
Year	Very Early Preterm (<28 wks)	Moderate Preterm (28-33 wks)	Late Preterm (34-36 wks)	Early Term (37-38 wks)	Full Term (37+ wks)
2001	0.6	1.9	5.5	18.8	92.0
2002	0.6	1.9	5.9	20.0	91.5
2003	0.7	2.1	6.0	20.8	91.3
2004	0.6	2.2	6.4	22.3	90.8
2005	0.6	2.1	6.3	22.3	91.0
2006	0.6	2.0	6.3	22.7	91.0
2007	0.6	2.0	6.4	22.6	91.0
2008	0.6	2.0	6.2	22.6	91.2
2009	0.7	1.9	6.2	20.8	91.3
2010	0.6	2.0	6.0	21.1	91.4
2011	0.6	1.9	5.9	21.8	91.6
2012	0.6	1.7	6.2	21.5	91.4
2013	0.6	1.9	6.3	21.0	91.2
2014	0.6	1.9	6.1	21.7	91.4
2015	0.6	1.8	6.0	22.5	91.6
2016	0.6	1.8	6.3	22.8	91.3
2017	0.5	1.8	6.6	23.2	91.1

1. Also known as early gestational age, premature delivery, or preterm delivery. Preterm: <37 weeks gestation. 2. Full term and early term are not mutually exclusive.

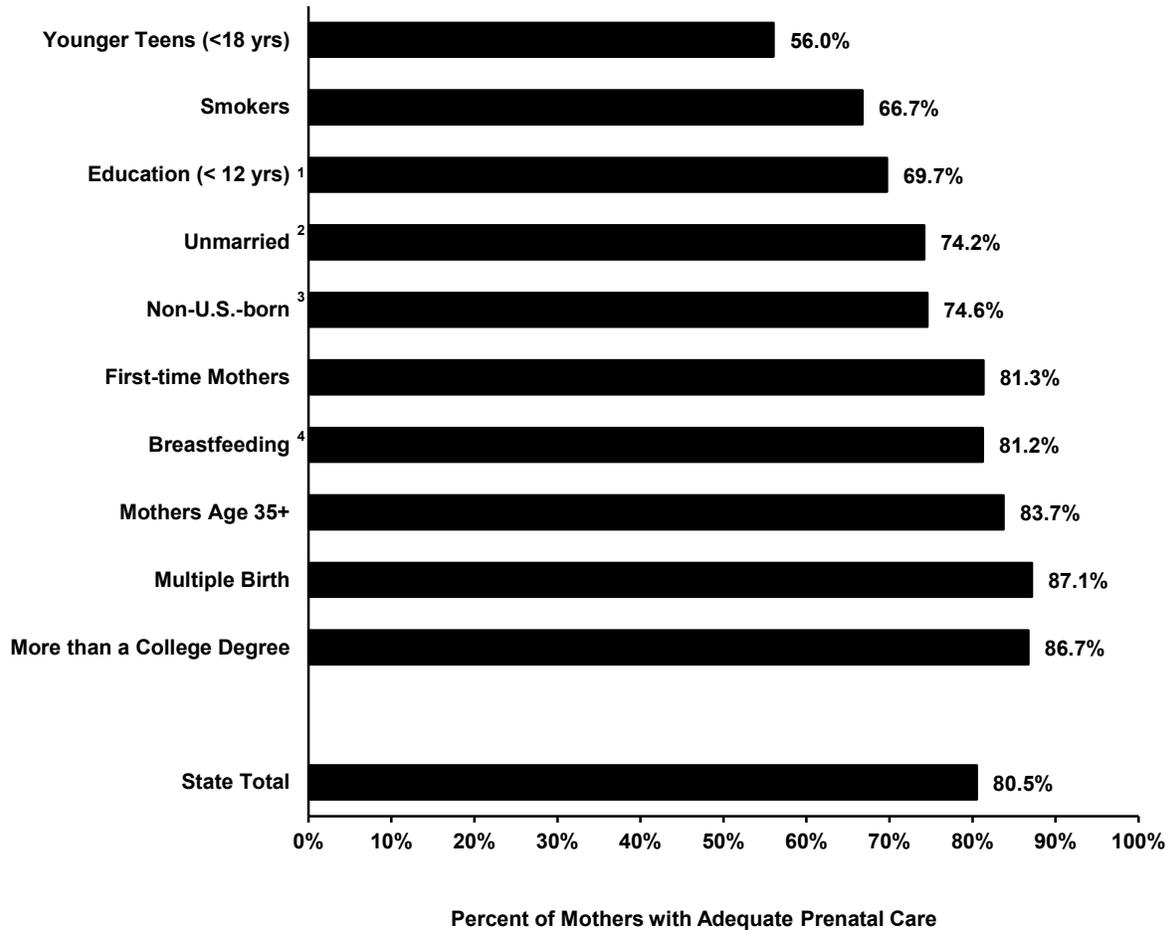
Figure 3. Trends in Adequacy of Prenatal Care^{2,3} by Race/Hispanic Ethnicity, Massachusetts: 1997-2017



NOTE: FOR PURPOSES OF VISUAL REPRESENTATION THE VERTICAL SCALE OF GRAPH REPRESENTS A SMALL INTERVAL (from 50% to 100%).

1. All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated.
2. Adequacy of Prenatal Care Utilization (APNCU) Index is an assessment of the timing and number of prenatal care visits and not an evaluation of the quality of care delivered. Years 2011 and 2012 do not include data from Metro West, Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. Years 2013 - 2017 do not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems.
3. Please use caution in interpreting this figure. The birth facility is responsible for collecting prenatal care data reported on the birth certificate. If prenatal care was obtained at a different location, the birth facility may be unable to obtain complete prenatal care data. Missing prenatal care data will impact the APNCU Index.

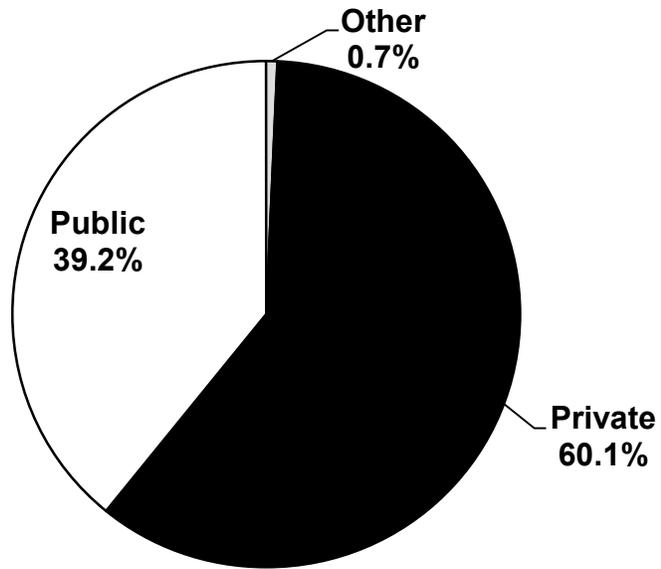
Figure 4. Adequacy of Prenatal Care by Selected Maternal Characteristics, Massachusetts: 2017



NOTE: All percentages are calculated based on the Adequacy of Prenatal Care Utilization (APNCU) Index. Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. Characteristics of interest are not mutually exclusive, except as noted.

1. Women 20 years of age and older. 2. Marital status at time of birth. 3. Non-US-born includes women born outside of the 50 U.S. states, District of Columbia, and U.S. territories (Puerto Rico, U.S. Virgin Islands, Guam). 4. Infant was being breastfed during the hospital stay.

Figure 5. Distribution of Prenatal Care Payment Source, Massachusetts: 2017



NOTE: Sources of Prenatal Care Payment include private: Commercial indemnity plan, commercial managed care (HMO, PPO, IPP, IPA, and other), or other private insurance; public: Government programs including CommonHealth, Healthy Start, Medicaid/MassHealth, and Medicare (may also be HMO or managed care), or free care; and other: self-pay.

Table 12. Resident Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2017

Municipality ¹	Rank ²	Population	Crude Birth Rate ³	Mother's Race/Ethnicity				Birthweight		Gestational Diabetes
				White Non-Hispanic % ⁴	Black Non-Hispanic % ⁴	Hispanic % ⁴	Asian or Other ⁵ % ⁴	Very Low (<1500 g) %	Low (<2500 g) %	
STATE TOTAL		6,859,819	10.8	58.0	10.3	19.1	9.9	1.1	7.5	6.5
Arlington	30	42839	11.7	64.1	2.4	4.6	25.3	1.0	6.6	4.4
Attleboro	29	43585	11.8	75.0	5.2	10.1	8.0	1.2	9.9	6.2
Barnstable	27	45185	9.0	64.4	14.0	15.0	5.9	1.0	7.9	1.0
Boston	1	617594	12.5	36.7	23.7	24.9	9.8	1.3	8.7	4.6
Brockton	7	93802	15.7	19.8	61.3	13.6	3.5	2.0	9.2	6.2
Brookline	18	58730	10.1	59.3	3.7	6.1	25.1	0.2	6.1	4.4
Cambridge	5	105157	10.2	53.1	10.2	8.1	23.6	1.1	6.0	5.0
Chicopee	22	55295	10.5	57.3	6.6	33.7	1.7	2.1	9.2	9.5
Fall River	10	88844	12.5	62.8	9.9	19.4	7.9	0.7	9.0	8.7
Framingham	14	68314	13.8	41.3	8.9	28.7	14.4	0.7	7.8	9.7
Haverhill	15	60876	12.5	58.0	5.3	32.5	3.4	0.9	8.9	4.8
Lawrence	12	76368	19.0	6.6	2.3	89.0	1.7	1.7	8.9	5.7
Lowell	4	106517	14.1	31.8	12.0	26.8	28.6	0.9	8.5	8.4
Lynn	9	90328	17.6	20.8	11.5	53.2	9.4	1.6	7.9	5.1
Malden	17	59447	13.9	33.2	19.6	14.0	27.7	1.7	9.2	5.8
Medford	20	56171	11.9	61.9	10.2	8.7	15.8	0.8	6.5	3.9
Methuen	26	47252	11.9	47.9	4.6	42.5	4.1	0.7	7.1	5.0
New Bedford	6	95071	13.8	44.5	15.3	34.8	3.7	1.4	11.5	7.1
Newton	11	85142	8.2	64.8	4.3	5.6	21.3	1.2	6.6	8.2
Peabody	25	51253	10.8	63.5	5.2	18.7	6.7	0.5	6.5	5.4
Pittsfield	28	44728	9.5	73.3	13.1	10.3	3.3	1.6	8.7	3.3
Plymouth	19	56455	8.9	87.6	3.0	6.8	1.6	0.6	8.4	4.6
Quincy	8	92275	13.0	47.1	6.6	5.6	36.1	1.3	6.4	6.4
Revere	24	51744	15.3	37.2	7.2	39.7	11.3	0.5	5.5	5.0
Somerville	13	75748	11.1	59.8	5.8	16.3	15.5	0.7	7.5	4.6
Springfield	3	153057	13.9	19.3	20.1	55.7	4.3	1.7	10.1	7.6
Taunton	21	55869	11.2	70.2	13.4	11.2	3.2	1.6	9.8	7.8
Waltham	16	60621	12.8	50.2	9.2	23.4	15.9	1.0	6.6	6.6
Weymouth	23	53736	11.7	75.1	6.7	4.8	11.6	1.6	10.0	9.5
Worcester	2	181041	13.5	41.8	20.8	29.9	7.0	1.5	8.0	7.8

Table 12 (cont'd). Resident Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2017

Municipality ¹	Adequate Prenatal Care ⁷	Public Payment ⁸ for Prenatal Care	Unmarried	Teen Mothers 15-19 years ⁹	
	%	%	%	n	Rate
STATE TOTAL	80.5	39.2	33.1	1,827	8.1
Arlington	87.1	9.5	5.4	-- ⁶	-- ⁶
Attleboro	82.3	21.8	31.8	7	5.2
Barnstable	71.3	59.5	42.0	14	11.0
Boston	77.6	44.9	37.1	202	7.8
Brockton	70.4	72.2	56.4	60	17.9
Brookline	82.9	8.1	5.9	-- ⁶	-- ⁶
Cambridge	83.5	18.1	11.7	5	1.4
Chicopee	82.5	60.3	54.7	31	16.5
Fall River	76.1	59.6	62.6	67	24.1
Framingham	54.2	49.5	28.0	19	8.1
Haverhill	80.0	50.3	47.9	28	15.6
Lawrence	74.7	85.0	62.4	117	34.5
Lowell	77.1	67.5	53.1	65	15.8
Lynn	72.4	69.2	51.5	91	28.2
Malden	81.5	49.6	25.1	7	4.5
Medford	87.5	22.8	16.5	6	3.6
Methuen	79.6	48.4	40.1	14	8.6
New Bedford	77.5	73.4	63.4	92	30.3
Newton	82.6	11.8	8.2	-- ⁶	-- ⁶
Peabody	84.4	33.9	30.8	6	4.3
Pittsfield	81.1	54.5	60.8	21	15.7
Plymouth	86.3	34.9	31.7	8	4.9
Quincy	83.7	36.0	22.4	15	7.6
Revere	76.4	63.0	33.4	17	11.9
Somerville	86.1	27.7	19.3	10	5.8
Springfield	78.2	79.9	68.8	195	28.5
Taunton	74.8	48.5	49.7	18	10.3
Waltham	82.9	29.8	23.2	14	5.9
Weymouth	83.5	26.1	23.8	5	3.5
Worcester	74.0	50.6	48.1	110	14.2

1. The 30 largest municipalities are the cities/ towns in Massachusetts with the largest populations. 2. Crude birth rates represent the number of births per 1,000 residents (male and female). 3. Rank is by population size. 4. For the category of Mother's Race/Ethnicity, percentages are calculated based on the state total of resident births, including births for which mother's race/Hispanic ethnicity is unknown. 5. Mothers who designated themselves as Non-Hispanic Asian, American Indian, or Other. 6. Counts and calculations based on 1-4 events are excluded. 7. Based on the Adequacy of Prenatal Care Utilization (APNCU) Index. The State Total does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 8. Public payment sources include CommonHealth, Healthy Start, Medicaid/MassHealth, and Medicare (may be HMO or managed care), or free care. 9. Births per 1,000 female residents ages 15-19; rates for cities and towns were calculated using MDPH population estimates for 2010.

Table 13. Birth Characteristics by Facility/Location, Massachusetts: 2017

Hospital ⁽¹⁾	Location	(2) Occurrence Births (n)	(3) Low Birthweight (%)	(4) Public Pay for PNC (%)	(5) Adequate Prenatal Care (%)	(6) Early Term (%)	(7) Late Preterm (%)
State Total		71,427	7.4	38.9	80.6	23.1	6.6
Anna Jaques Hospital	Newburyport	684	4.5	22.6	88.1	23.0	5.4
Baystate Franklin Medical Center	Greenfield	435	2.8	47.5	81.8	12.6	5.1
Baystate Medical Center	Springfield	3,920	11.7	56.4	82.3	26.1	9.1
Berkshire Medical Center	Pittsfield	736	7.2	47.8	82.1	18.2	5.8
Beth Israel Deaconess Hospital - Plymouth	Plymouth	784	5.5	39.1	86.3	20.3	6.8
Beth Israel Deaconess Medical Center	Boston	5,111	10.8	23.0	93.2	23.9	9.0
Beverly Hospital	Beverly	2,249	4.7	30.2	86.3	22.2	5.7
Boston Medical Center	Boston	2,883	9.2	87.8	50.9	26.1	6.9
Brigham And Women's Hospital	Boston	6,403	9.6	27.0	83.4	26.7	8.3
Brockton Hospital	Brockton	970	5.7	60.0	83.5	25.1	8.4
Cambridge Birth Center	Cambridge	100	-- ⁸	15.0	87.0	16.0	-- ⁸
Cambridge Hospital	Cambridge	1,086	4.1	67.7	82.0	23.1	3.7
Cape Cod Hospital	Barnstable	828	4.1	59.5	71.3	24.2	5.9
Charlton Memorial Hospital	Fall River	1,471	6.7	46.7	79.8	20.0	6.5
Cooley Dickinson Hospital	Northampton	575	2.3	45.1	91.6	17.6	2.8
Emerson Hospital	Concord	1,246	3.5	12.3	86.9	21.8	3.8
Fairview Hospital	Great Barrington	116	-- ⁸	15.7	91.3	20.7	-- ⁸
Falmouth Hospital	Falmouth	370	3.5	47.3	80.9	20.8	3.2
Good Samaritan Medical Center	Brockton	1,044	5.5	74.0	60.5	23.1	5.7
Harrington Memorial Hospital	Southbridge	155	3.9	61.3	91.0	13.5	-- ⁸
HealthAlliance Hospital	Leominster	762	4.1	64.7	81.1	19.3	2.4
Heywood Hospital	Gardner	390	4.4	54.9	80.5	20.3	3.6
Holy Family Hospital and Medical Center	Methuen	1,135	4.8	52.3	78.0	18.2	4.6
Holyoke Medical Center	Holyoke	463	4.8	48.1	67.0	23.1	3.9
Lawrence General Hospital	Lawrence	1,441	6.4	75.6	78.4	21.7	6.2
Lowell General Hospital	Lowell	2,336	6.5	54.3	81.0	25.0	7.2
Martha's Vineyard Hospital	Oak Bluffs	145	-- ⁸	57.6	90.4	17.9	-- ⁸
Massachusetts General Hospital	Boston	3,789	9.4	29.1	86.5	22.4	7.2
Melrose-Wakefield Hospital	Melrose	851	3.8	32.3	89.1	23.1	5.5
Mercy Medical Center	Springfield	1,293	3.8	66.2	85.6	22.5	4.2
Metro West Medical Center	Framingham	1,097	5.6	60.9	35.0	26.5	6.6
Milford Regional Medical Center	Milford	962	5.5	38.8	91.8	22.8	4.8
Morton Hospital	Taunton	273	6.2	49.8	70.3	19.8	6.6
Mt. Auburn Hospital	Cambridge	2,645	3.4	17.3	83.2	17.9	4.8
Nantucket Cottage Hospital	Nantucket	120	-- ⁸	58.8	77.5	27.5	-- ⁸
Newton-Wellesley Hospital ⁹	Newton	3,772	5.3	3.8	80.9	24.0	6.0
North Shore Birth Center	Beverly	84	-- ⁸	29.8	92.9	14.3	-- ⁸
North Shore Medical Center - Salem Hospital	Salem	1,284	6.9	59.1	69.1	23.8	5.9
Norwood Hospital	Norwood	463	4.5	28.6	79.0	25.3	3.2
Saint Vincent Hospital ⁹	Worcester	1,769	3.2	35.6	85.2	22.5	4.6
South Shore Hospital	Weymouth	3,403	6.3	22.9	85.1	21.6	6.2
St. Elizabeth's Medical Center	Boston	923	15.4	37.2	81.8	25.0	9.1
St. Luke's Hospital	New Bedford	1,540	8.5	67.7	77.4	23.0	7.7

Table 13 (cont'd). Birth Characteristics by Facility/Location, Massachusetts: 2017

Hospital ⁽¹⁾	Location	(2) Occurrence Births (n)	(3) Low Birthweight (%)	(4) Public Pay for PNC (%)	(5) Adequate Prenatal Care (%)	(6) Early Term (%)	(7) Late Preterm (%)
Sturdy Memorial Hospital	Attleboro	683	4.2	11.5	74.5	16.3	2.5
Tobey Hospital	Wareham	406	2.7	49.3	86.4	20.7	3.5
Tufts Medical Center	Boston	1,342	21.0	48.5	81.1	26.5	12.8
UMass Memorial Medical Center	Worcester	4,226	10.1	35.0	76.9	24.3	7.5
Winchester Hospital ⁹	Winchester	2,194	6.2	8.3	80.8	21.4	6.2
Other Hospitals		16	-- ⁸	55.6	50.0	-- ⁸	-- ⁸
Home, Enroute & Dr. Off.		454	7.1	31.3	65.1	20.2	3.4

NOTE: All percentages are calculated based on only those occurrence births with known values for the characteristic(s) of interest.

1. A licensed maternity facility is a medical unit licensed by the Commonwealth for the care of women during pregnancy and childbirth.
2. Occurrence births are births that occurred at the facility, regardless of where the mother was a resident.
3. Less than 2,500 grams (5.5 lbs.)
4. Public payment for prenatal care (PNC) includes Medicaid/MassHealth, CommonHealth, Medicare, Healthy Start, other government programs, and free care.
5. Based on the APNCU Index.
6. Birth at 37 or 38 weeks of gestation.
7. Birth at 34 to 36 weeks of gestation.
8. Calculations based on 1-4 events are excluded.
9. Percent should be interpreted with caution as this is a facility that was identified as having reporting problems for prenatal care.

Table 14. Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2017

Municipality ¹	Total Population Rank	Female Population, ages 15-19	Number of Teen Births (Ages 15-19)	Teen Birth Rate ²	Mother's Race/Hispanic Ethnicity (% of teen births)			
					White Non-Hispanic	Black Non-Hispanic	Hispanic	Asian or Other Non-Hispanic ³
State Total		226,569	1,827	8.1	30.3	12.8	53.8	3.1
Arlington	30	867	-- ⁴	-- ⁴	-- ⁴	0.0	0.0	-- ⁴
Attleboro	29	1,344	7	5.2	-- ⁴	-- ⁴	-- ⁴	0.0
Barnstable	27	1,278	14	11.0	-- ⁴	50.0	-- ⁴	-- ⁴
Boston	1	25,988	202	7.8	-- ⁴	36.2	57.8	-- ⁴
Brockton	7	3,354	60	17.9	-- ⁴	48.3	36.7	-- ⁴
Brookline	18	1,469	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Cambridge	5	3,550	5	1.4	-- ⁴	-- ⁴	-- ⁴	0.0
Chicopee	22	1,881	31	16.5	30.0	-- ⁴	60.0	-- ⁴
Fall River	10	2,781	67	24.1	46.3	13.4	32.8	7.5
Framingham	14	2,351	19	8.1	-- ⁴	-- ⁴	72.2	0.0
Haverhill	15	1,791	28	15.6	39.3	-- ⁴	57.1	-- ⁴
Lawrence	12	3,395	117	34.5	-- ⁴	-- ⁴	97.4	-- ⁴
Lowell	4	4,118	65	15.8	31.3	10.9	45.3	12.5
Lynn	9	3,223	91	28.2	17.4	-- ⁴	75.6	-- ⁴
Malden	17	1,548	7	4.5	-- ⁴	0.0	-- ⁴	0.0
Medford	20	1,683	6	3.6	-- ⁴	-- ⁴	-- ⁴	0.0
Methuen	26	1,624	14	8.6	-- ⁴	-- ⁴	92.9	-- ⁴
New Bedford	6	3,037	92	30.3	28.6	-- ⁴	53.8	-- ⁴
Newton	11	4,195	-- ⁴	-- ⁴	0.0	0.0	-- ⁴	0.0
Peabody	25	1,405	6	4.3	-- ⁴	0.0	-- ⁴	0.0
Pittsfield	28	1,339	21	15.7	57.1	33.3	-- ⁴	-- ⁴
Plymouth	19	1,641	8	4.9	62.5	-- ⁴	-- ⁴	-- ⁴
Quincy	8	1,984	15	7.6	41.7	-- ⁴	-- ⁴	-- ⁴
Revere	24	1,434	17	11.9	-- ⁴	-- ⁴	68.8	-- ⁴
Somerville	13	1,711	10	5.8	-- ⁴	0.0	50.0	-- ⁴
Springfield	3	6,836	195	28.5	7.2	13.9	76.3	2.6
Taunton	21	1,744	18	10.3	66.7	-- ⁴	-- ⁴	0.0
Waltham	16	2,356	14	5.9	-- ⁴	-- ⁴	71.4	-- ⁴
Weymouth	23	1,444	5	3.5	-- ⁴	0.0	-- ⁴	0.0
Worcester	2	7,726	110	14.2	29.4	-- ⁴	60.6	-- ⁴

Table 14 (cont'd). Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2017

Municipality ¹	Public Payment for Prenatal Care ⁵ (%)	Unmarried (%)	Low Birthweight ⁶ (%)	Preterm ⁷ (%)	Adequacy of Prenatal Care ⁸ (% of teen births)			
					Adequate Intensive	Adequate Basic	Intermediate	Inadequate ⁹
State Total	82.0	92.3	9.6	9.0	33.1	31.6	10.6	24.7
Arlington	-- ⁴	-- ⁴	0.0	0.0	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Attleboro	71.4	100.0	0.0	0.0	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Barnstable	92.9	85.7	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Boston	86.1	96.0	8.9	7.9	30.3	27.3	9.1	33.3
Brockton	90.0	93.3	-- ⁴	8.3	44.1	-- ⁴	-- ⁴	28.8
Brookline	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Cambridge	-- ⁴	100.0	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0.0	0.0
Chicopee	87.1	90.0	16.1	-- ⁴	44.8	17.2	20.7	17.2
Fall River	73.1	93.9	14.9	11.9	37.3	22.4	10.4	29.9
Framingham	89.5	84.2	-- ⁴	-- ⁴	31.3	-- ⁴	-- ⁴	43.8
Haverhill	60.7	100.0	-- ⁴	-- ⁴	36.0	32.0	-- ⁴	-- ⁴
Lawrence	91.4	94.0	6.9	4.3	16.5	51.3	13.9	18.3
Lowell	82.5	92.3	7.7	16.9	32.8	23.4	14.1	29.7
Lynn	88.9	89.0	8.8	6.6	31.1	21.1	12.2	35.6
Malden	-- ⁴	85.7	0.0	0.0	-- ⁴	-- ⁴	0.0	-- ⁴
Medford	-- ⁴	100.0	-- ⁴	-- ⁴	-- ⁴	0.0	0.0	-- ⁴
Methuen	84.6	92.9	0.0	-- ⁴	-- ⁴	50.0	-- ⁴	-- ⁴
New Bedford	91.3	94.4	17.6	12.0	36.7	32.2	15.6	15.6
Newton	-- ⁴	-- ⁴	0.0	0.0	-- ⁴	0.0	0.0	-- ⁴
Peabody	-- ⁴	83.3	0.0	0.0	-- ⁴	-- ⁴	0.0	0.0
Pittsfield	85.7	95.2	0.0	-- ⁴	33.3	38.1	-- ⁴	-- ⁴
Plymouth	62.5	87.5	0.0	0.0	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Quincy	66.7	73.3	-- ⁴	-- ⁴	33.3	33.3	-- ⁴	-- ⁴
Revere	94.1	88.2	0.0	0.0	37.5	-- ⁴	-- ⁴	31.3
Somerville	70.0	100.0	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0.0	-- ⁴
Springfield	93.3	92.2	10.3	9.7	35.4	35.4	9.5	19.6
Taunton	82.4	88.9	-- ⁴	-- ⁴	-- ⁴	33.3	-- ⁴	-- ⁴
Waltham	78.6	92.9	0.0	0.0	-- ⁴	-- ⁴	-- ⁴	41.7
Weymouth	100.0	100.0	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0.0	-- ⁴
Worcester	75.0	90.9	7.3	5.5	22.4	35.3	21.2	21.2

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated.

1. The 30 largest municipalities are the cities and towns in Massachusetts with the largest populations according to the 2010 Census. 2. Birth rates represent the number of births per 1,000 females ages 15-19. Birth rates for cities and towns were calculated using MDPH population estimates for 2010. 3. Mothers who designated themselves as Non-Hispanic Asian, American Indian, or Other. 4. Counts and calculations based on values of 1-4 are excluded. 5. Government programs including CommonHealth, Healthy Start, Medicaid/MassHealth, and Medicare (may also be HMO or managed care), or free care; other: Worker's Compensation and other sources. 6. Less than 2,500 grams or 5.5 pounds. 7. Less than 37 weeks of gestational age. 8. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. State total does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 9. Inadequate includes those mothers with no prenatal care.

Table 15. Adequacy of Prenatal Care Utilization: Summary and Component Indices, Massachusetts: 2017

	Adequate Total ¹		Adequate Intensive		Adequate Basic		Intermediate		Inadequate		Unknown
	n	%	n	%	n	%	n	%	n	%	n
<u>Summary Index</u>											
Adequacy of Prenatal Care Utilization	49,523	80.5	25,891	42.1	23,632	38.4	3,807	6.2	8,192	13.3	1,616
<u>Component Indices</u>											
Adequacy of Initiation	53,976	87.7	19,404	31.5	34,572	56.2	3,937	6.4	3,609	5.9	1,616
Adequacy of Received Services (Visits)	55,965	91.0	31,099	50.5	24,866	40.4	4,351	7.1	1,206	2.0	1,616

NOTE: All percentages are calculated based on the Adequacy of Prenatal Care Utilization (APNCU) Index. **Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems.**

1. Adequate Total is the sum of Adequate Intensive and Adequate Basic categories.

Table 16. Birth Characteristics by Race/Hispanic Ethnicity and Source of Prenatal Care Payment, Massachusetts: 2017

Race/Ethnicity and Payment Source	Births ¹		Teen Births ²				Birthweight			
	n	%	<18 Years		<20 Years		Very Low ³		Low ⁴	
			n	%	n	%	n	%	n	%
STATE TOTAL⁵	70,704	100.0	471	0.7	1,843	2.6	774	1.1	5,261	7.5
Public	27,435	38.9	393	1.4	1,490	5.4	357	1.3	2,349	8.6
Medicaid ⁶	24,225	34.4	359	1.5	1,397	5.8	323	1.3	2,087	8.6
Other Public ⁷	3,210	4.6	34	1.1	93	2.9	34	1.1	262	8.2
Private⁸	42,143	59.8	68	0.2	314	0.7	375	0.9	2,761	6.6
White Non-Hispanic	40,989	100.0	111	0.3	548	1.3	333	0.8	2,565	6.3
Public	9,962	24.4	72	0.7	359	3.6	108	1.1	784	7.9
Medicaid ⁶	8,477	20.7	65	0.8	341	4.0	98	1.2	669	7.9
Other Public ⁷	1,485	3.6	7	0.5	18	1.2	10	0.7	115	7.7
Private⁸	30,554	74.7	37	0.1	178	0.6	207	0.7	1,722	5.6
Black Non-Hispanic	7,251	100.0	68	0.9	232	3.2	164	2.3	768	10.6
Public	4,752	65.7	60	1.3	194	4.1	99	2.1	486	10.2
Medicaid ⁶	4,228	58.5	54	1.3	176	4.2	90	2.1	431	10.2
Other Public ⁷	524	7.2	6	1.1	18	3.4	9	1.7	55	10.5
Private⁸	2,261	31.3	6	0.3	29	1.3	54	2.4	238	10.5
Hispanic	13,516	100.0	269	2.0	972	7.2	185	1.4	1,145	8.5
Public	10,008	74.2	245	2.4	864	8.6	120	1.2	847	8.5
Medicaid ⁶	9,194	68.1	228	2.5	816	8.9	111	1.2	794	8.6
Other Public ⁷	814	6.0	17	2.1	48	5.9	9	1.1	53	6.5
Private⁸	3,329	24.7	20	0.6	92	2.8	55	1.7	263	7.9
Asian Non-Hispanic	6,338	100.0	10	0.2	31	0.5	40	0.6	526	8.3
Public	1,723	27.2	7	0.4	26	1.5	-- ⁹	-- ⁹	135	7.8
Medicaid ⁶	1,534	24.2	6	0.4	25	1.6	-- ⁹	-- ⁹	121	7.9
Other Public ⁷	189	3.0	-- ⁹	-- ⁹	-- ⁹	-- ⁹	0	0.0	14	7.4
Private⁸	4,535	71.7	-- ⁹	-- ⁹	5	0.1	35	0.8	386	8.5
Other Non-Hispanic⁹	684	100.0	6	0.9	24	3.5	10	1.5	57	8.3
Public	374	55.2	-- ⁹	-- ⁹	19	5.1	8	2.1	29	7.8
Medicaid ⁶	322	47.5	-- ⁹	-- ⁹	16	5.0	8	2.5	27	8.4
Other Public ⁷	52	7.7	-- ⁹	-- ⁹	-- ⁹	-- ⁹	0	0.0	-- ⁹	-- ⁹
Private⁸	286	42.2	-- ⁹	-- ⁹	5	1.7	-- ⁹	-- ⁹	26	9.1

Table 16 (cont'd). Birth Characteristics by Race/Hispanic Ethnicity and Source of Prenatal Care Payment, Massachusetts: 2017

Race/Ethnicity and Payment Source	Prenatal Care									
	Adequate ¹¹		Began 1st Trimester		Cesarean Delivery		Breastfeeding ¹²		Smoking ¹³	
	n	%	n	%	n	%	n	%	n	%
STATE TOTAL⁵	49,523	80.5	55,171	79.1	22,290	31.6	60,277	85.5	3,347	4.9
Public	19,038	73.5	19,161	70.8	8,539	31.1	22,090	80.7	2,405	9.1
Medicaid ⁶	16,890	73.6	16,905	70.7	7,518	31.0	19,407	80.3	2,155	9.2
Other Public ⁷	2,148	72.5	2,256	71.4	1,021	31.8	2,683	83.8	250	8.1
Private⁸	30,207	87.0	35,736	85.6	13,495	32.0	37,431	88.9	835	2.0
White Non-Hispanic	29,029	84.2	33,640	83.1	12,870	31.4	34,670	84.7	2,552	6.3
Public	7,036	76.3	7,252	73.7	3,121	31.3	7,470	75.2	1,755	18.2
Medicaid ⁶	5,989	76.1	6,137	73.3	2,650	31.3	6,292	74.4	1,560	19.0
Other Public ⁷	1,047	77.6	1,115	76.0	471	31.7	1,178	79.5	195	13.5
Private⁸	21,854	87.9	26,245	86.7	9,648	31.6	26,873	88.0	722	2.4
Black Non-Hispanic	4,601	68.8	4,795	67.3	2,534	34.9	6,298	87.2	222	3.1
Public	2,947	65.3	2,976	63.6	1,566	33.0	4,060	85.7	181	3.9
Medicaid ⁶	2,642	65.7	2,656	63.8	1,391	32.9	3,596	85.4	159	3.8
Other Public ⁷	305	61.6	320	62.3	175	33.4	464	88.9	22	4.3
Private⁸	1,621	82.5	1,787	79.9	881	39.0	2,053	91.2	27	1.2
Hispanic	9,629	75.6	9,715	72.8	4,223	31.2	11,334	84.1	458	3.5
Public	7,099	73.8	6,989	70.7	3,084	30.8	8,280	82.9	390	4.0
Medicaid ⁶	6,587	74.4	6,460	71.0	2,824	30.7	7,583	82.7	362	4.1
Other Public ⁷	512	67.2	529	66.5	260	31.9	697	85.7	28	3.6
Private⁸	2,479	83.7	2,679	81.4	1,100	33.0	2,931	88.3	56	1.7
Asian Non-Hispanic	4,334	81.9	5,029	80.2	1,851	29.2	5,773	91.2	58	0.9
Public	1,268	78.3	1,244	73.5	446	25.9	1,468	85.2	36	2.1
Medicaid ⁶	1,140	78.5	1,103	73.2	402	26.2	1,293	84.3	36	2.4
Other Public ⁷	128	76.6	141	75.8	44	23.3	175	92.6	0	0.0
Private⁸	3,038	84.3	3,758	83.4	1,387	30.6	4,238	93.5	19	0.4
Other Non-Hispanic¹⁰	454	72.5	456	68.4	222	32.5	573	83.8	47	7.3
Public	245	69.0	238	64.9	120	32.1	310	82.9	34	9.8
Medicaid ⁶	211	69.4	210	66.5	102	31.7	267	82.9	29	9.8
Other Public ⁷	34	66.7	28	54.9	18	34.6	43	82.7	5	10.0
Private⁸	203	80.6	212	75.4	98	34.3	243	85.0	10	3.6

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated.
1. In the "Births" column, percentages are based on race/ethnicity category totals (in column). For all other characteristics, percentages are based on the total number of births for the race/ethnicity by payment source for the row. 2. Teen births include births to female ages less than 20, not just those ages 15-19. 3. Very low birthweight: less than 1,500 grams or 3.3 pounds. 4. Low Birthweight: less than 2,500 grams or 5.5 pounds. 5. Total births do not equal Public + Private because Workers' Compensation, self-paid, and other are in the state total but not shown in the table. 6. Medicaid/MassHealth. 7. Other Public: CommonHealth, Healthy Start, Medicare, other government programs, and free care. 8. Private: commercial indemnity plans or commercial managed care organizations (HMO, PPO, IPP, or IPA). It does not include Self-Paid/Other. 9. Calculations based on values of 1-4 are excluded. 10. Other: Mothers who designated their race as American Indian or "Other." 11. Based on the Adequacy of Prenatal Care Utilization (APNCU) Index. Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 12. Infant was being breastfed during the hospital stay. 13. Mother reported smoking during pregnancy.

**Table 17. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2017**

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
STATE TOTAL	71,427	70,704	5,261	6,272	1,827
Abington	2	187	10	22	--
Acton	2	184	13	14	--
Acushnet	0	85	6	6	--
Adams	0	65	13	9	--
Agawam	0	246	9	16	8
Alford	0	1	0	0	0
Amesbury	2	159	20	15	--
Amherst	2	130	10	11	--
Andover	0	245	19	15	--
Aquinnah (Formerly Gay Head)	0	1	0	0	0
Arlington	7	502	33	41	--
Ashburnham	0	43	--	--	0
Ashby	0	29	--	--	0
Ashfield	2	14	0	--	0
Ashland	0	205	12	9	--
Athol	3	125	7	11	9
Attleboro	687	515	51	47	7
Auburn	3	150	--	9	--
Avon	2	56	--	--	5
Ayer	1	101	10	7	--
Barnstable	831	407	32	37	14
Barre	1	53	--	--	--
Becket	0	11	0	--	0
Bedford	1	113	--	5	0
Belchertown	0	115	10	--	0
Bellingham	2	171	18	20	--
Belmont	0	252	7	10	--
Berkley	0	53	--	8	--
Berlin	0	23	0	0	0
Bernardston	2	12	--	--	0
Beverly	2334	410	18	28	--
Billerica	0	421	40	53	5
Blackstone	1	82	6	9	--
Blandford	0	11	0	0	0
Bolton	1	48	--	--	--
Boston	20495	7730	670	765	202
Bourne	1	153	10	17	6
Boxborough	0	41	--	--	--
Boxford	1	60	--	0	0
Boylston	0	44	--	--	0
Braintree	1	374	22	35	0
Brewster	0	58	--	--	0
Bridgewater	0	230	13	13	--
Brimfield	1	22	--	0	--
Brockton	2025	1473	136	153	60
Brookfield	0	29	--	--	--
Brookline	0	594	36	48	--
Buckland	0	11	0	--	0

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2017**

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Burlington	3	288	27	33	0
Cambridge	3840	1077	65	88	5
Canton	1	228	16	23	0
Carlisle	0	30	--	--	0
Carver	1	99	8	11	--
Charlemont	0	8	--	--	--
Charlton	0	109	--	8	--
Chatham	1	26	--	--	--
Chelmsford	0	316	14	20	--
Chelsea	2	638	39	56	44
Cheshire	0	19	--	--	0
Chester	0	9	--	0	0
Chesterfield	0	7	--	--	--
Chicopee	2	578	53	66	31
Chilmark	1	6	--	0	0
Clarksburg	1	14	--	--	0
Clinton	1	150	6	14	7
Cohasset	0	78	--	--	0
Colrain	1	14	--	0	--
Concord	1249	111	--	8	0
Conway	0	10	--	--	0
Cummington	0	2	0	0	0
Dalton	0	47	--	--	--
Danvers	0	269	17	20	0
Dartmouth	2	210	15	16	--
Dedham	1	271	19	25	--
Deerfield	2	37	--	0	0
Dennis	2	91	9	11	--
Dighton	1	86	--	--	0
Douglas	0	69	--	--	--
Dover	0	33	--	5	0
Dracut	0	341	24	31	0
Dudley	0	78	6	8	0
Dunstable	1	26	--	--	0
Duxbury	1	123	7	11	0
East Bridgewater	0	118	--	5	--
East Brookfield	0	24	--	--	0
East Longmeadow	0	119	8	9	--
Eastham	0	22	--	--	0
Easthampton	3	125	9	10	--
Easton	3	191	9	13	--
Edgartown	1	49	0	--	0
Egremont	0	9	0	0	0
Erving	0	17	--	0	--
Essex	0	40	7	8	0
Everett	3	655	55	64	18
Fairhaven	0	118	8	11	--
Fall River	1472	1113	100	116	67
Falmouth	371	205	13	10	5
Fitchburg	4	500	33	39	35

Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2017

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Florida	0	2	--	0	--
Foxborough	2	178	13	17	--
Framingham	1099	940	73	93	19
Franklin	3	275	20	24	--
Freetown	1	67	--	6	--
Gardner	394	216	10	13	--
Georgetown	0	82	6	--	--
Gill	0	10	0	0	0
Gloucester	2	241	17	25	11
Goshen	0	11	0	0	0
Gosnold	0	0	0	0	0
Grafton	3	195	15	23	--
Granby	0	42	--	6	--
Granville	0	9	--	--	0
Great Barrington	117	42	--	--	0
Greenfield	438	163	10	16	6
Groton	0	89	10	7	--
Groveland	0	62	7	8	--
Hadley	0	34	0	--	0
Halifax	0	83	10	13	--
Hamilton	0	101	6	7	--
Hampden	0	21	0	0	0
Hancock	0	6	--	0	--
Hanover	1	124	5	8	0
Hanson	0	107	11	13	--
Hardwick	0	15	--	--	0
Harvard	1	32	--	--	0
Harwich	1	88	6	11	0
Hatfield	1	20	--	--	0
Haverhill	5	758	67	78	28
Hawley	0	3	0	0	0
Heath	1	6	--	--	0
Hingham	2	217	13	17	--
Hinsdale	0	15	0	0	--
Holbrook	0	139	9	13	--
Holden	2	201	14	20	0
Holland	1	16	--	--	0
Holliston	2	133	5	9	0
Holyoke	467	493	49	56	40
Hopedale	0	65	--	8	0
Hopkinton	0	176	14	17	0
Hubbardston	0	41	--	--	--
Hudson	2	204	12	19	0
Hull	1	73	7	--	--
Huntington	0	20	--	--	--
Ipswich	1	111	12	9	--
Kingston	0	140	14	13	0
Lakeville	1	90	6	8	--
Lancaster	2	49	--	--	--
Lanesborough	2	26	--	--	--

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2017**

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Lawrence	1445	1451	129	135	117
Lee	1	41	--	--	--
Leicester	1	89	9	11	--
Lenox	0	23	0	0	0
Leominster	765	439	27	35	12
Leverett	0	7	--	--	0
Lexington	1	177	14	15	0
Leyden	0	1	0	0	0
Lincoln	1	74	--	--	--
Littleton	0	86	5	--	--
Longmeadow	0	123	8	9	0
Lowell	2344	1499	128	147	65
Ludlow	0	131	7	8	--
Lunenburg	2	100	8	--	0
Lynn	11	1589	126	142	91
Lynnfield	0	142	11	14	0
Malden	5	826	76	85	7
Manchester	0	22	--	--	0
Mansfield	1	209	12	15	--
Marblehead	1	138	5	8	0
Marion	0	27	--	--	--
Marlborough	3	484	26	41	13
Marshfield	1	215	11	25	--
Mashpee	1	111	8	8	--
Mattapoisett	0	33	--	--	0
Maynard	1	118	11	10	--
Medfield	1	92	--	5	0
Medford	1	666	43	58	6
Medway	0	113	7	--	0
Melrose	854	381	33	39	--
Mendon	0	34	5	5	0
Merrimac	0	50	--	--	--
Methuen	1137	560	40	65	14
Middleborough	0	215	15	21	--
Middlefield	0	1	0	0	0
Middleton	0	64	5	5	--
Milford	963	387	32	34	13
Millbury	2	126	7	10	0
Millis	1	84	--	7	0
Millville	2	31	--	--	--
Milton	2	272	13	15	0
Monroe	0	2	0	0	0
Monson	0	46	--	--	--
Montague	2	65	--	9	--
Monterey	1	3	0	0	0
Montgomery	1	6	0	0	0
Mount Washington	1	2	0	0	0
Nahant	0	27	--	--	--
Nantucket	122	136	7	7	5
Natick	3	390	30	47	--

Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2017

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Needham	1	249	11	16	--
New Ashford	0	0	0	0	0
New Bedford	1545	1311	150	144	92
New Braintree	0	6	0	0	0
New Marlborough	0	2	0	0	0
New Salem	1	8	0	0	0
Newbury	0	57	0	--	--
Newburyport	685	113	--	12	--
Newton	3779	696	46	57	--
Norfolk	2	115	5	5	0
North Adams	3	124	14	18	13
North Andover	0	290	17	22	--
North Attleborough	0	260	17	19	--
North Brookfield	0	49	--	5	--
North Reading	0	152	9	9	0
Northampton	578	200	13	11	--
Northborough	0	123	6	14	--
Northbridge	1	161	12	8	--
Northfield	0	13	--	0	--
Norton	0	181	12	16	--
Norwell	1	105	9	8	0
Norwood	465	385	32	38	7
Oak Bluffs	146	53	--	--	--
Oakham	0	14	0	0	0
Orange	1	59	--	8	--
Orleans	0	16	--	--	0
Otis	0	14	--	--	0
Oxford	3	117	5	--	0
Palmer	3	115	11	11	6
Paxton	0	36	--	--	0
Peabody	1	556	36	53	6
Pelham	0	8	0	0	0
Pembroke	0	165	11	17	--
Pepperell	2	111	7	10	--
Peru	0	6	--	--	0
Petersham	0	11	0	0	0
Phillipston	0	21	--	0	0
Pittsfield	740	427	37	38	21
Plainfield	0	4	0	0	0
Plainville	0	95	--	9	--
Plymouth	788	502	42	45	8
Plympton	0	40	--	--	0
Princeton	0	20	--	--	--
Provincetown	0	9	0	0	0
Quincy	5	1195	77	82	15
Randolph	1	415	46	56	5
Raynham	0	138	6	15	5
Reading	0	239	6	8	0
Rehoboth	0	86	--	--	--
Revere	6	794	44	63	17

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2017**

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Richmond	1	7	0	0	0
Rochester	1	36	--	--	--
Rockland	1	170	10	16	--
Rockport	0	26	0	0	0
Rowe	0	3	0	0	0
Rowley	0	62	--	--	0
Royalston	0	6	--	0	0
Russell	4	22	--	--	--
Rutland	1	67	5	5	--
Salem	1287	448	42	52	6
Salisbury	0	56	--	5	--
Sandisfield	0	4	0	0	0
Sandwich	0	127	--	8	0
Saugus	1	223	10	19	--
Savoy	0	3	0	0	--
Scituate	1	187	5	6	0
Seekonk	1	116	--	--	--
Sharon	2	151	14	12	0
Sheffield	1	19	--	--	--
Shelburne	0	14	0	0	0
Sherborn	0	28	--	--	0
Shirley	0	51	--	--	0
Shrewsbury	0	315	23	20	--
Shutesbury	0	17	--	--	0
Somerset	1	125	6	7	--
Somerville	10	841	63	63	10
South Hadley	3	131	10	15	--
Southampton	2	43	--	5	0
Southborough	0	77	5	--	0
Southbridge	156	190	12	12	14
Southwick	1	65	--	--	--
Spencer	2	96	6	9	--
Springfield	5234	2134	215	240	195
Sterling	1	41	--	0	0
Stockbridge	0	7	0	0	0
Stoneham	2	227	12	13	--
Stoughton	2	292	34	27	--
Stow	0	62	--	--	0
Sturbridge	1	90	7	8	--
Sudbury	2	138	10	16	0
Sunderland	0	33	--	5	--
Sutton	3	78	--	6	--
Swampscott	0	141	--	5	0
Swansea	0	126	--	8	--
Taunton	274	625	61	75	18
Templeton	1	69	6	7	--
Tewksbury	0	285	28	28	--
Tisbury	0	37	--	5	--
Tolland	0	0	0	0	0
Topsfield	1	38	--	--	0

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2017**

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Townsend	2	90	--	5	--
Truro	0	7	0	--	0
Tyngsborough	0	97	7	11	--
Tyringham	0	3	0	0	0
Upton	0	78	--	5	--
Uxbridge	4	132	14	13	--
Wakefield	1	315	16	26	0
Wales	0	20	--	--	0
Walpole	0	243	8	21	0
Waltham	3	773	51	69	14
Ware	2	81	7	7	--
Wareham	407	209	18	16	7
Warren	0	36	--	--	--
Warwick	1	5	0	0	0
Washington	0	2	--	0	0
Watertown	1	447	25	28	--
Wayland	0	94	6	7	0
Webster	0	184	14	14	10
Wellesley	2	165	5	8	0
Wellfleet	0	16	--	--	0
Wendell	2	6	0	--	0
Wenham	0	28	0	--	0
West Boylston	0	52	--	--	--
West Bridgewater	1	78	--	5	--
West Brookfield	0	28	--	0	--
West Newbury	0	36	0	--	--
West Springfield	2	314	18	27	5
West Stockbridge	1	10	0	0	0
West Tisbury	0	27	--	--	--
Westborough	1	254	23	37	0
Westfield	4	369	24	30	8
Westford	2	169	16	15	0
Westhampton	1	8	0	0	0
Westminster	2	54	--	--	--
Weston	1	63	--	--	0
Westport	0	120	8	7	--
Westwood	0	121	9	12	0
Weymouth	3405	631	63	64	5
Whately	1	19	0	0	--
Whitman	3	145	10	12	--
Wilbraham	1	107	9	11	0
Williamsburg	0	14	--	--	0
Williamstown	0	34	--	--	0
Wilmington	0	234	18	18	--
Winchendon	3	110	8	10	--
Winchester	2194	186	13	7	0
Windsor	1	4	--	--	0
Winthrop	0	197	8	15	--
Woburn	1	496	39	49	--
Worcester	6014	2451	197	215	110

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2017**

Community	Occurrence Births ¹	Resident Births ²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Worthington	1	9	0	--	0
Wrentham	0	121	5	--	--
Yarmouth	1	211	14	23	6

1. Births occurring in a geographical place (state, city/town) regardless of the residency of the mother. 2. Births to mothers who report their usual place of residence as a particular geographical place (state, or city/town). See "Note to Readers" for more details.
-- Due to small numbers (n=1-4), exact count not provided. This table was updated on June 16, 2020.

**Table 18. Birth Characteristics: Occurrence and Resident Births by County,
Massachusetts: 2017**

County	Occurrence Births ¹	Number of Births	Resident Births ²		
			Low Birthweight ³	Preterm ⁴	Teen Births (15-19 Years)
STATE TOTAL	71,427	70,704	5,261	6,272	1,827
BARNSTABLE	1,209	1,547	101	136	38
BERKSHIRE	868	992	91	89	50
BRISTOL	3,988	5,735	482	540	214
DUKES	148	173	9	11	-- ⁵
ESSEX	6,914	8,655	638	767	298
FRANKLIN	454	557	34	52	18
HAMPDEN	5,721	4,976	424	495	302
HAMPSHIRE	593	1,005	72	80	13
MIDDLESEX	15,423	16,729	1,178	1,432	202
NANTUCKET	122	136	7	7	5
NORFOLK	3,901	7,136	499	598	54
PLYMOUTH	3,238	5,191	379	471	95
SUFFOLK	20,503	9,359	761	899	264
WORCESTER	8,344	8,513	586	695	270

1. Births occurring in a geographical place (state, city/town) regardless of the residency of the mother. 2. Births to mothers who report their usual place of residence as a particular geographical place (state, or city/town). See "Note to Readers" for more details. 3. Less than 2,500 grams (5.5 lbs.). 4. Less than 37 weeks gestation 5. Due to small numbers (n=1-4), exact count not provided.

Table 19. Birth Characteristics: Occurrence and Resident Births, Massachusetts Community Health Network Areas (CHNAs), Massachusetts: 2017

Community Health Network Area	Occurrence Births ¹	Number of Births	LBW ³	Resident Births ²	
				Preterm ⁴	Teen Births (15-19 Years)
STATE TOTAL	71,427	70,704	5,261	6,272	1,827
1. Community Health Network of Berkshire County	868	992	91	89	50
2. Upper Valley Health Web (Franklin County)	457	720	43	63	27
3. Partnership for Health in Hampshire County (Northampton)	593	985	70	78	12
4. The Community Health Connection (Springfield)	5,246	3,338	285	331	220
5. Community Health Network of Southern Worcester County	164	1,088	69	81	42
6. Community Partners for Health (Milford)	979	1,676	128	138	30
7. Community Health Network of Greater Metro West (Framingham)	1,119	4,354	277	394	44
8. Community Wellness Coalition (Worcester)	6,025	3,659	275	317	120
9. Fitchburg/Gardner Community Health Network	1,184	2,561	154	176	82
10. Greater Lowell Community Health Network	2,347	3,154	259	308	77
11. Greater Lawrence Community Health Network	2,582	2,610	210	242	135
12. Greater Haverhill Community Health Network	693	1,495	113	128	40
13. Community Health Network North (Beverly/Gloucester)	2,338	1,017	62	81	18
14. North Shore Community Health Network	1,301	3,533	253	316	105
15. Greater Woburn/Concord/Littleton Community Health Network	3,452	2,020	143	160	6
16. North Suburban Health Alliance (Medford/Malden/Melrose)	866	3,461	250	302	33
17. Greater Cambridge/Somerville Community Health Network	3,858	3,119	193	230	21
18. West Suburban Health Network (Newton/Waltham)	3,787	2,371	143	194	18
19. Alliance for Community Health (Boston/Chelsea/Revere/Winthrop)	20,503	9,953	797	947	265
20. Blue Hills Community Health Alliance (Greater Quincy)	3,887	4,311	318	363	34
21. Four (For) Communities (Holyoke, Chicopee, Ludlow, Westfield)	473	1,600	137	162	82
22. Greater Brockton Community Health Network	2,038	2,909	228	265	80
23. South Shore Community Partners in Prevention (Plymouth)	793	1,768	131	173	16
24. Greater Attleboro-Taunton Health & Education Response	965	2,574	193	235	42
25. Partners for a Healthier Community (Fall River)	1,473	1,484	118	138	71
26. Greater New Bedford Health & Human Services Coalition	1,956	2,096	204	207	110
27. Cape and Islands Community Health Network	1,479	1,856	117	154	47

1. Births occurring in a geographical place (state, city/town) regardless of the residency of the mother. 2. Births to mothers who report their usual place of residence as a particular geographical place (state, city/town). See "Note to Readers" for more details. 3. Less than 2,500 grams (5.5 lbs.). 4. Less than 37 weeks gestation.

Figure 6. Percent of Infants whose Mother Smoked During Pregnancy, Massachusetts: 1990 - 2017

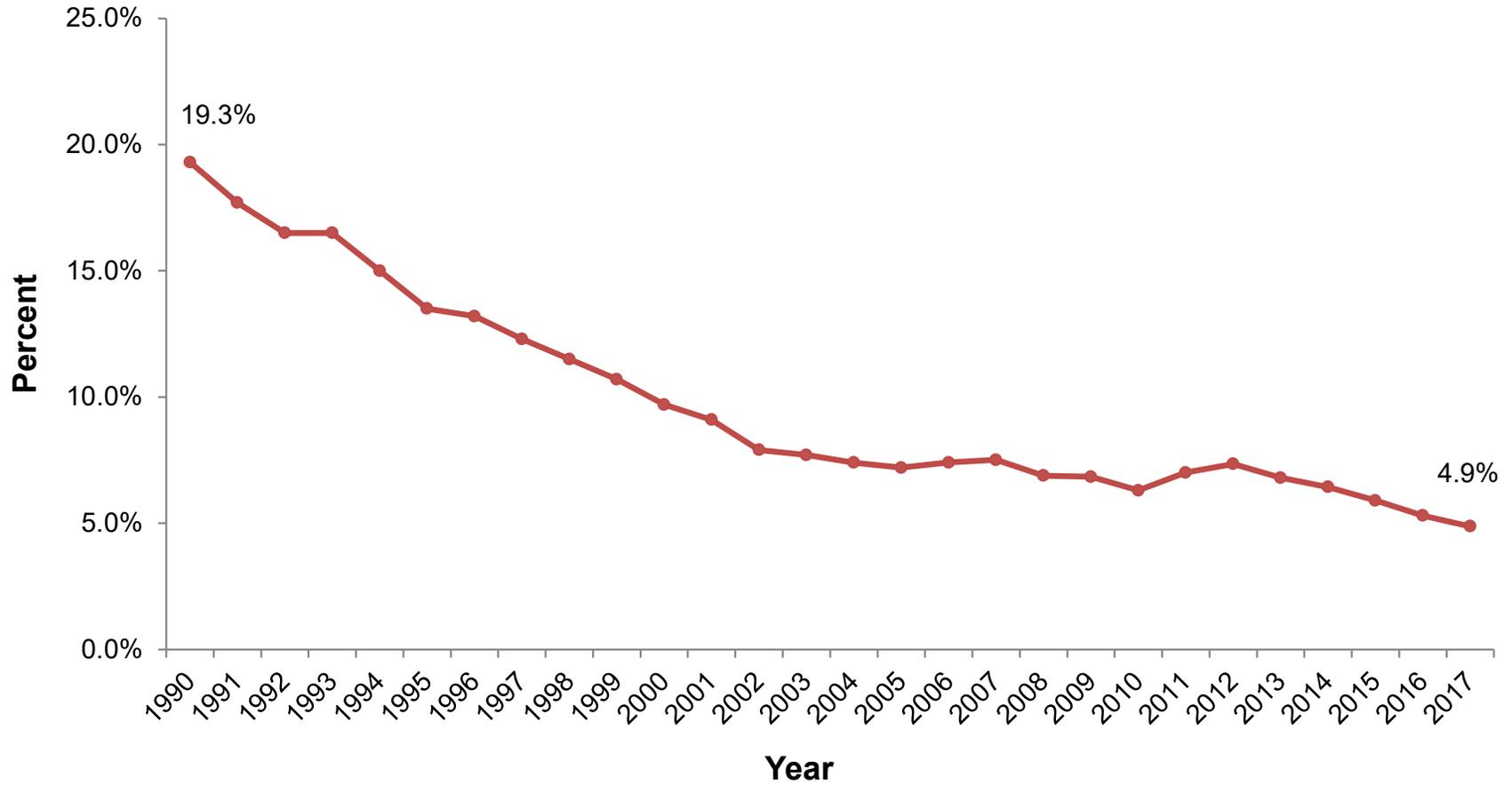


Table 20. Cesarean Deliveries and Vaginal Births after Cesarean (VBACs) by Licensed Maternity Facility¹, All Mothers, Massachusetts: 2017

Facility ²	Occurrence Deliveries ³	Total Cesareans		Primary Cesareans ³		Repeat Cesareans ³		VBACs ³	
		N	% ⁴	N	%	N	%	N	%
State Total	70,116	21,639	30.9	12,057	20.5	9,582	85.7	1,596	14.3
Anna Jaques Hospital	676	202	29.9	115	20.0	87	85.3	15	14.7
Baystate Franklin Medical Center	432	120	27.8	77	20.2	43	86.0	7	14.0
Baystate Medical Center	3,810	1,328	34.9	733	23.7	595	83.5	118	16.5
Berkshire Medical Center	722	158	21.9	93	14.6	65	78.3	18	21.7
Beth Israel Deaconess Hospital - Plymouth	775	237	30.6	135	20.5	102	87.9	14	12.1
Beth Israel Deaconess Medical Center	4,983	1,503	30.2	913	21.4	590	83.2	119	16.8
Beverly Hospital	2,222	627	28.2	329	17.5	298	86.4	47	13.6
Boston Medical Center	2,841	887	31.2	516	21.8	371	78.9	99	21.1
Brigham And Women's Hospital	6,213	2,049	33.0	1,304	24.3	745	87.3	108	12.7
Brockton Hospital	964	232	24.1	107	13.2	125	81.2	29	18.8
Cambridge Hospital	1,080	275	25.5	147	16.0	128	79.0	34	21.0
Cape Cod Hospital	821	247	30.1	135	19.4	112	88.9	14	11.1
Charlton Memorial Hospital	1,448	474	32.7	202	17.2	272	98.9	-- ⁵	-- ⁵
Cooley Dickinson Hospital	571	154	27.0	89	18.4	65	73.9	23	26.1
Emerson Hospital	1,231	428	34.8	228	22.9	200	85.5	34	14.5
Fairview Hospital	115	27	23.5	18	17.0	9	100.0	0	0.0
Falmouth Hospital	366	143	39.1	77	25.8	66	98.5	-- ⁵	-- ⁵
Good Samaritan Medical Center	1,032	366	35.5	165	20.6	201	86.6	31	13.4
Harrington Memorial Hospital	155	57	36.8	41	29.5	16	100.0	0	0.0
HealthAlliance Hospital	759	197	26.0	119	17.6	78	94.0	5	6.0
Heywood Hospital	389	68	17.5	34	9.8	34	82.9	7	17.1
Holy Family Hospital and Medical Center	1,115	466	41.8	238	27.0	228	97.9	5	2.1
Holyoke Medical Center	461	111	24.1	53	13.5	58	84.1	11	15.9
Lawrence General Hospital	1,422	466	32.8	187	16.6	279	95.2	14	4.8
Lowell General Hospital	2,304	761	33.0	391	20.7	370	88.7	47	11.3
Martha's Vineyard Hospital	143	54	37.8	31	25.8	23	100.0	0	0.0
Massachusetts General Hospital	3,683	1,044	28.3	613	19.6	431	78.4	119	21.6
Melrose-Wakefield Hospital	833	260	31.2	130	18.6	130	97.7	-- ⁵	-- ⁵
Mercy Medical Center	1,282	388	30.3	208	19.3	180	89.1	22	10.9
Metro West Medical Center	1,086	379	34.9	185	21.1	194	93.3	14	6.7
Milford Regional Medical Center	955	329	34.5	166	21.2	163	94.8	9	5.2
Morton Hospital	270	103	38.1	59	26.1	44	100.0	0	0.0
Mt. Auburn Hospital	2,617	612	23.4	413	17.7	199	70.6	83	29.4
Nantucket Cottage Hospital	120	39	32.5	24	22.9	15	100.0	0	0.0
Newton-Wellesley Hospital	3,711	1,151	31.0	716	22.3	435	85.8	72	14.2

Table 20 (cont'd). Cesarean Deliveries and Vaginal Births after Cesarean (VBACs) by Licensed Maternity Facility¹, All Mothers, Massachusetts: 2017

North Shore Medical Center - Salem Hospital	1,265	369	29.2	197	18.5	172	84.7	31	15.3
Norwood Hospital	460	153	33.3	74	20.2	79	84.0	15	16.0
Saint Vincent Hospital	1,756	589	33.5	339	23.3	250	83.6	49	16.4
South Shore Hospital	3,326	1,116	33.6	590	21.7	526	86.4	83	13.6
St. Elizabeth's Medical Center	895	326	36.4	185	25.3	141	86.5	22	13.5
St. Luke's Hospital	1,517	463	30.5	214	17.0	249	97.3	7	2.7
Sturdy Memorial Hospital	675	215	31.9	101	18.5	114	87.7	16	12.3
Tobey Hospital	400	73	18.3	43	11.6	30	100.0	0	0.0
Tufts Medical Center	1,293	443	34.3	259	24.8	184	74.5	63	25.5
UMass Memorial Medical Center	4,121	1,249	30.3	669	19.6	580	81.5	132	18.5
Winchester Hospital	2,150	701	32.6	395	21.8	306	89.5	36	10.5

NOTE: This table is based on mothers and not births. All percentages are calculated based on only those mothers with known values for the characteristic(s) of interest

1. Birth centers are not included in this table. 2. A licensed maternity facility is a medical unit licensed by the Commonwealth for the care of women during pregnancy and childbirth. 3. The percentages provided in this table are based on occurrence births, and may differ from data that are based on resident births presented elsewhere in this book. 4. The percentage of Cesarean births reported is not adjusted for risk factors such as mother's age, birthweight, or complications of labor and delivery, which would influence the number of procedures in a particular facility. Caution should be used when comparing unadjusted percentages. 5. Calculations based on values of 1-4 are excluded.

Figure 7. Maternal Body Mass Index (BMI) Prior to Pregnancy, All Mothers, Massachusetts: 2017

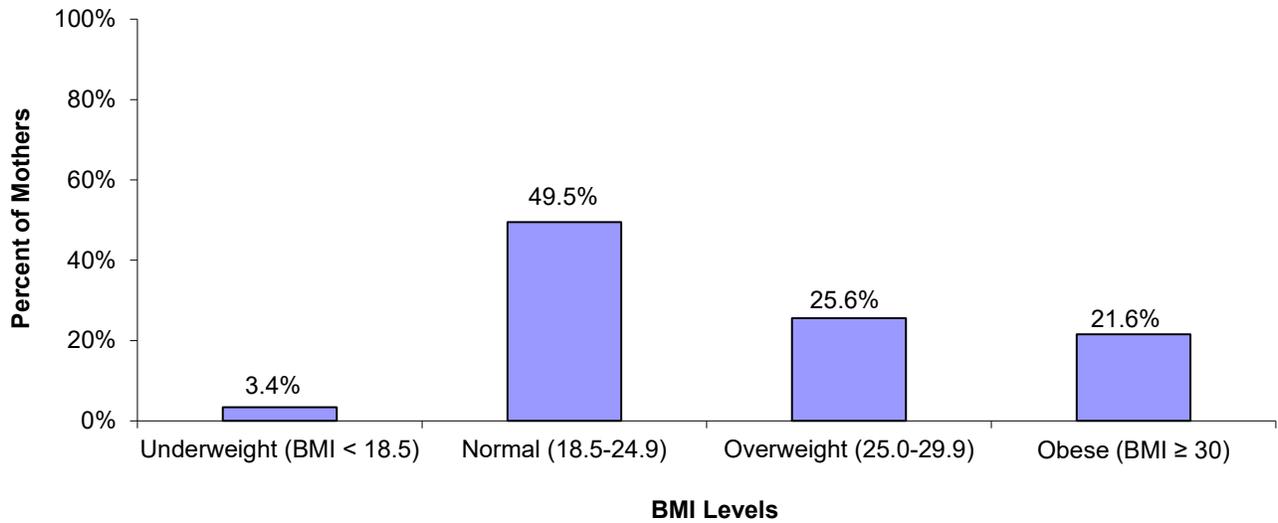
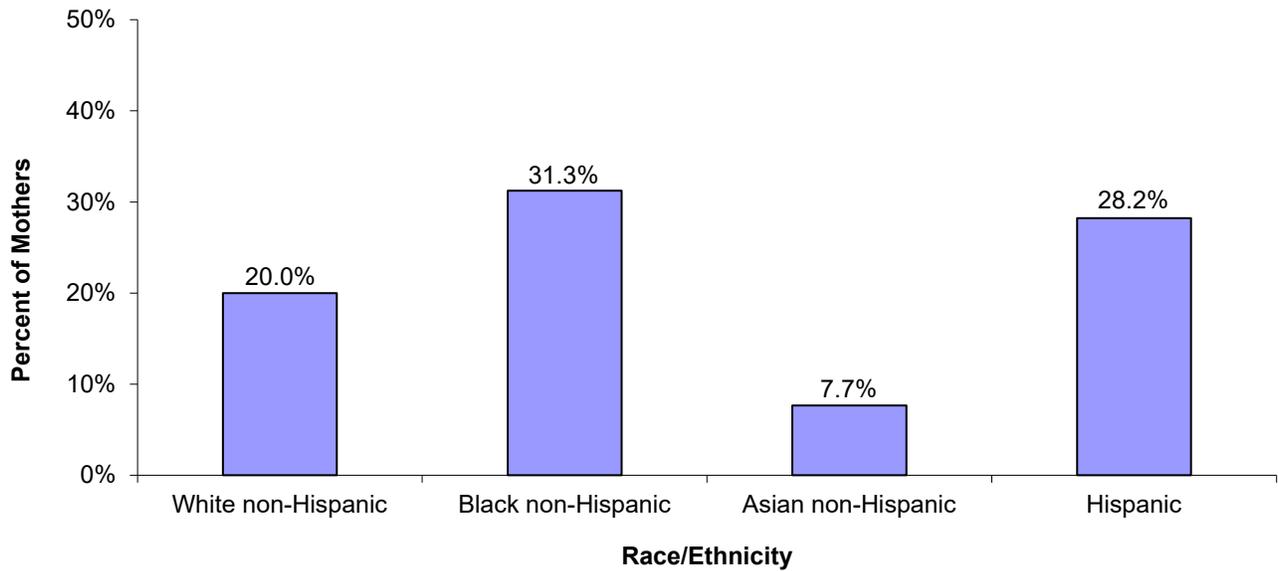


Figure 8. Obesity Prior to Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2017



NOTE: These figures are based on mothers and not births.

Figure 9. Mothers Who Reported Having Their Teeth Cleaned During Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2017

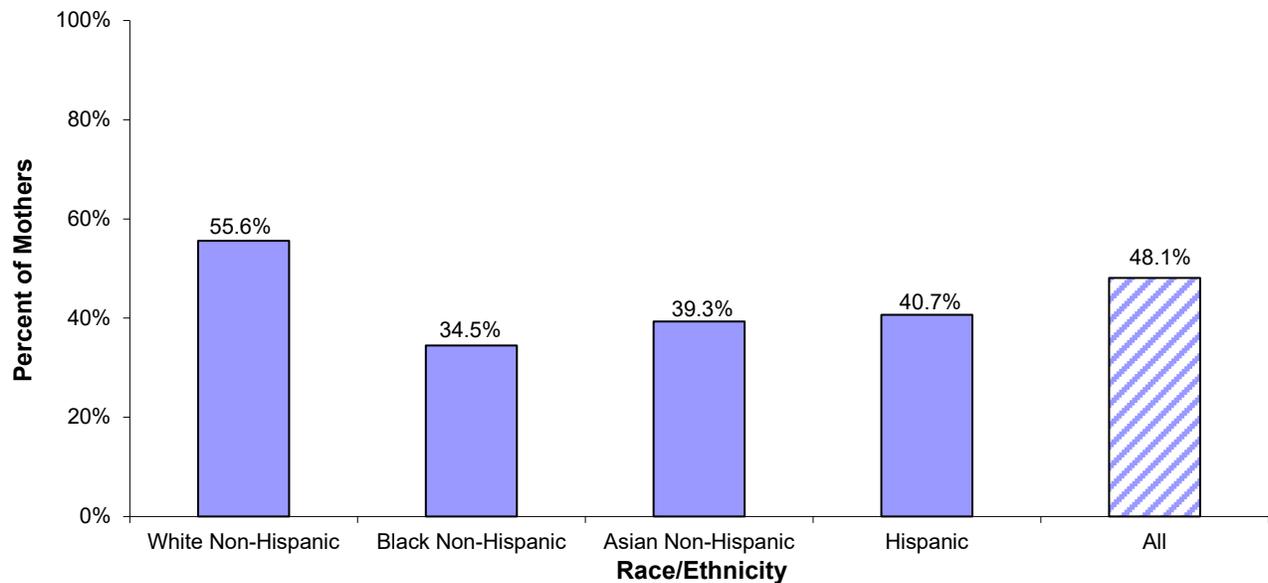
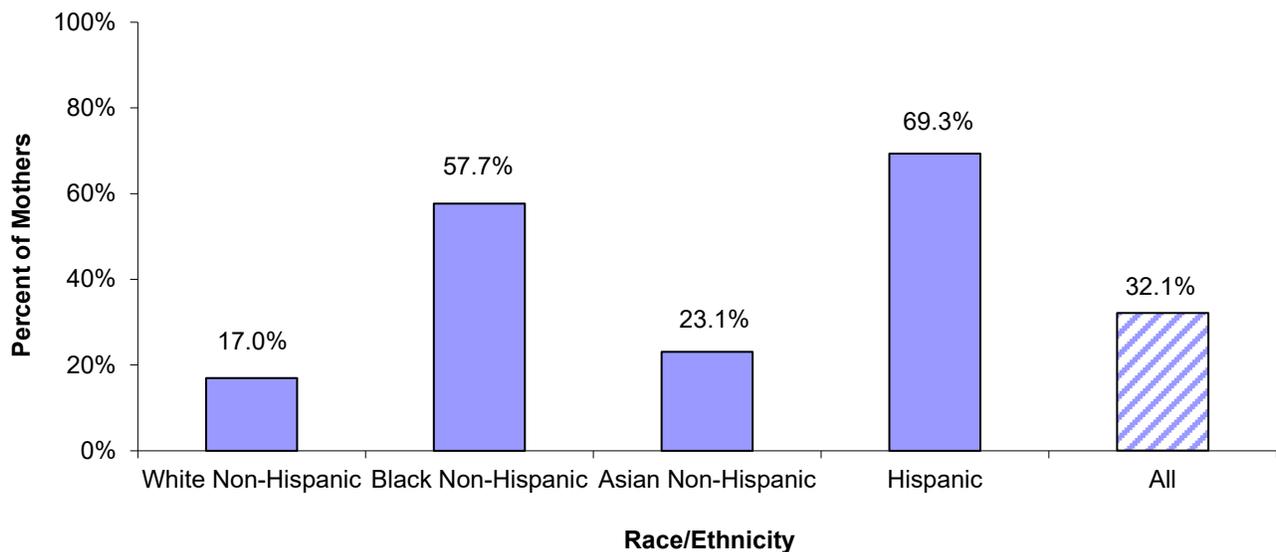
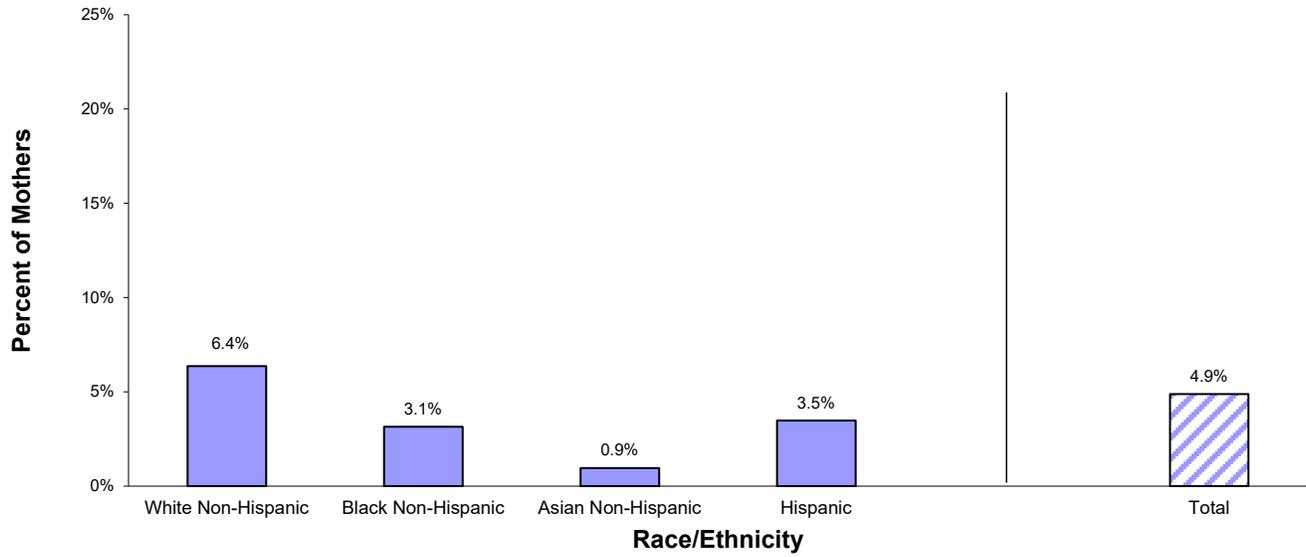


Figure 10. Mothers Who Reported Having Received WIC Food During Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2017



NOTE: These figures are based on mothers and not births.

Figure 11. Mothers Who Reported Smoking During Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2017



NOTE: This figure is based on mothers and not births.

Table 21. Mothers Who Used Infertility Treatments, Massachusetts: 2017

	Assisted Reproductive Technology (ART) with or without Artificial Insemination and/or Fertility Drugs ¹		Artificial Insemination with or without Fertility Drugs ²		Fertility Enhancing Drugs Only ³	
	N	% ⁴	N	% ⁴	N	% ⁴
State total	2,419	70.7%	547	16.0%	457	13.4%
Maternal Demographics						
Race/Hispanic Ethnicity	N	%⁵	N	%⁵	N	%⁵
White Non-Hispanic	1,848	77.6%	416	76.9%	343	75.9%
Black Non-Hispanic	100	4.2%	21	3.9%	19	4.2%
Asian Non-Hispanic	269	11.3%	62	11.5%	57	12.6%
Hispanic	152	6.4%	41	7.6%	31	6.9%
Other Non-Hispanic	13	0.5%	-- ⁹	-- ⁹	-- ⁹	-- ⁹
Birthplace						
US States / D.C. / US Terr.	1,854	76.6%	426	77.9%	348	76.1%
Non-US-born	565	23.4%	121	22.1%	109	23.9%
Prenatal care funding						
Public	165	6.8%	48	8.8%	56	12.4%
Private, other	2,252	93.2%	497	91.2%	397	87.6%
Age						
20-29	170	7.0%	69	12.6%	86	18.8%
30-34	779	32.2%	215	39.3%	222	48.6%
35-39	975	40.3%	209	38.2%	116	25.4%
40+	494	20.4%	54	9.9%	33	7.2%
Pregnancy-Related Factors						
Adequacy of Prenatal Care⁶						
Adequate Total ⁷	1,753	88.9%	411	89.2%	322	86.6%
Adequate Intensive	1,126	57.1%	259	56.2%	191	51.3%
Adequate Basic	627	31.8%	152	33.0%	131	35.2%
Intermediate	76	3.9%	14	3.0%	16	4.3%
Inadequate/None	143	7.3%	36	7.8%	34	9.1%
Parity⁸						
1	1,485	61.5%	388	70.9%	298	65.2%
2	737	30.5%	119	21.8%	117	25.6%
3+	191	7.9%	40	7.3%	42	9.2%
Birth Outcomes						
Gestational age						
<28 weeks (extremely preterm) ¹⁰	21	0.9%	-- ⁹	-- ⁹	5	1.1%
<37 weeks (preterm) ¹⁰	368	15.2%	85	15.5%	60	13.1%
37+	2,051	84.8%	462	84.5%	397	86.9%
Plurality						
Singleton	2,150	88.9%	504	92.1%	411	89.9%
Multiple birth	269	11.1%	43	7.9%	46	10.1%

NOTE: Beginning in 2014, questions about fertility assistance were asked on both the hospital and mother's worksheets. This table shows combined data from both sources. While asking mothers has increased reporting, it is known that these treatments are still underreported. As such, these numbers should be interpreted with caution. All percentages are calculated based only on mothers with known values for the characteristic(s) of interest, unless otherwise stated. Often women use more than one method of treatment, and the categories presented are mutually exclusive.

NOTE: This table is based on unique mothers and not births.

1. This category includes all women who used ART (typically IVF) and those who used any additional treatments. 2. This category includes women who used artificial insemination (including intrauterine insemination) and those who used fertility drugs in addition. 3. This category includes women who only used fertility drugs. 4. For state total row, percentages are based on total births where infertility treatment was present. 5. Percent is based on state total of the treatment methods. 6. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 7. Adequate Total = Adequate Basic + Adequate Intensive. 8. Number of live births including the current birth. 9. Numbers and calculations based on 1-4 events are excluded. 10. Categories are not mutually exclusive so percent will add to more than 100%.

Technical Notes

Data Cautions

Limitations of small numbers:

Cells in some tables in this publication, and particularly those tables specific to individual cities and towns, contain small numbers. Rates and proportions based on fewer than five observations are suppressed, and trends based upon small numbers should be interpreted cautiously.

Differences with previously published data:

Numbers and rates in this publication may differ from those in previous reports because of updated birth data, or release of the most up-to-date population estimates for a given year (see Population Denominators for details on population files).

Self-reported data:

Many statistics reported in this publication, such as maternal smoking, education, and race/ethnicity are *self-reported*, and are subject to the usual limitations of this type of information.

Changes in the Collection of Race/Ethnicity Information

The 2003 revision of the Standard Certificate of Live Birth allows the reporting of more than one race (multiple races) for each parent in accordance with the revised standards issued by the Office of Management and Budget (OMB) in 1997.

The revised standards incorporated two major changes designed to reflect the changing racial and ethnic profile of the United States. First, the revision increased from five to twelve the minimum set of categories to be used for identification of race. The twelve categories for race specified in the 1997 standards are: American Indian or Alaska Native, Asian, Black, Guamanian or Chamorro, Hispanic/Latino/Black, Hispanic/Latino/White, Hispanic/Latino/Other, Native Hawaiian, Samoan, White, Other Pacific Islander and Other. The revised standards called for reporting of Asians separately from Native Hawaiians, Samoan or Other Pacific Islanders.

The revised standards require federal data collection programs to allow respondents to select *one or more race categories*. In order to provide uniformity and comparability of the data during the transition period, before multiple-race data are available for all reporting areas, it is necessary to “bridge” the responses of those who reported more than one race to a single-race. The method used to bridge responses for those who report more than one race to a single race is based on a procedure whereby multiple races are assigned to the smallest minority group first (i.e. Asian and White becomes Asian or Black and Native American becomes Native American). All multiple races that include Hispanic will be assigned as Hispanic and this group also includes all respondents who reported Hispanic ethnicities as well.

The revised standards also require federal data collection programs to allow respondents to select *one or more ancestry categories*. The method used to bridge responses for those who report more than one ancestry is based on a procedure whereby multiple ancestries are assigned to each of the ancestries listed.

The following table is from the Parent Worksheet for the birth certificate, which is the self-reported information we use to report on mother’s race and ancestry.

2003 Revision

Mother/Parent Race

Please indicate your race(s). *You may choose more than one.*

<input type="checkbox"/> American Indian/Alaska Native (specify tribal nation): _____	<input type="checkbox"/> Hispanic/Latina/Other (specify): _____
<input type="checkbox"/> Asian	<input type="checkbox"/> Native Hawaiian
<input type="checkbox"/> Black	<input type="checkbox"/> Samoan
<input type="checkbox"/> Guamanian or Chamorro	<input type="checkbox"/> White
<input type="checkbox"/> Hispanic/Latina/Black	<input type="checkbox"/> Other Pacific Islander (specify): _____
<input type="checkbox"/> Hispanic/Latina/White	<input type="checkbox"/> Other race not listed (specify): _____

Mother/Parent Ethnicity

Please indicate your ethnic background(s). *You may choose more than one.*

<input type="checkbox"/> African (specify): _____	<input type="checkbox"/> Japanese
<input type="checkbox"/> African-American	<input type="checkbox"/> Korean
<input type="checkbox"/> American	<input type="checkbox"/> Laotian
<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Mexican, Mexican American, Chicano
<input type="checkbox"/> Brazilian	<input type="checkbox"/> Middle Eastern (specify): _____
<input type="checkbox"/> Cambodian	<input type="checkbox"/> Native American (specify tribal nation(s)): _____
<input type="checkbox"/> Cape Verdean	<input type="checkbox"/> Portuguese
<input type="checkbox"/> Caribbean Islander (specify): _____	<input type="checkbox"/> Puerto Rican
<input type="checkbox"/> Chinese	<input type="checkbox"/> Russian
<input type="checkbox"/> Colombian	<input type="checkbox"/> Salvadoran
<input type="checkbox"/> Cuban	<input type="checkbox"/> Vietnamese
<input type="checkbox"/> Dominican	<input type="checkbox"/> Other Asian (specify): _____
<input type="checkbox"/> European (specify): _____	<input type="checkbox"/> Other Central American (specify): _____
<input type="checkbox"/> Filipino	<input type="checkbox"/> Other Pacific Islander (specify): _____
<input type="checkbox"/> Guatemalan	<input type="checkbox"/> Other Portuguese (specify): _____
<input type="checkbox"/> Haitian	<input type="checkbox"/> Other South American (specify): _____
<input type="checkbox"/> Honduran	<input type="checkbox"/> Other ethnicity (ies) not listed (specify): _____

1989 Revision

MOTHER'S RACE Please mark the *one* category that *best describes* the mother's race:

- White
 Black
 Asian/Pacific Islander
 American Indian
 Other (specify)

MOTHER'S ANCESTRY Please mark the *one* category that *best describes* the mother's ancestry of ethnic heritage:

HISPANIC/LATINA	AFRICAN/AFRICAN AMERICAN
1 <input type="checkbox"/> Puerto Rican 7 <input type="checkbox"/> Other Central American (specify) 2 <input type="checkbox"/> Dominican 3 <input type="checkbox"/> Mexican 8 <input type="checkbox"/> Other South American (specify) 4 <input type="checkbox"/> Cuban 5 <input type="checkbox"/> Colombian 9 <input type="checkbox"/> Other Hispanic/Latina (specify): 6 <input type="checkbox"/> Salvadoran	29 <input type="checkbox"/> African-American/ Afro-American 30 <input type="checkbox"/> Nigerian 31 <input type="checkbox"/> Other African (specify): _____
ASIAN/PACIFIC ISLANDER	MIDDLE EASTERN
10 <input type="checkbox"/> Chinese 17 <input type="checkbox"/> Laotian 11 <input type="checkbox"/> Vietnamese 18 <input type="checkbox"/> Pakistani 12 <input type="checkbox"/> Cambodian 19 <input type="checkbox"/> Thai 13 <input type="checkbox"/> Asian Indian 20 <input type="checkbox"/> Hawaiian 14 <input type="checkbox"/> Korean 21 <input type="checkbox"/> Other Asian/Pacific Islander (specify) 15 <input type="checkbox"/> Filipino _____ 16 <input type="checkbox"/> Japanese	32 <input type="checkbox"/> Lebanese 33 <input type="checkbox"/> Iranian 34 <input type="checkbox"/> Israeli 35 <input type="checkbox"/> Other Middle Eastern (specify): _____
PORTUGUESE SPEAKING	AMERICAN ANCESTRY
22 <input type="checkbox"/> Cape Verdean 24 <input type="checkbox"/> Other Portuguese (specify): 23 <input type="checkbox"/> Brazilian _____	36 <input type="checkbox"/> Native American/ American Indian (specify tribe/affiliation): _____ 37 <input type="checkbox"/> American
WEST INDIAN/CARIBBEAN ISLANDER	EUROPEAN and OTHER ancestries
25 <input type="checkbox"/> Haitian 28 <input type="checkbox"/> Other West Indian/Caribbean Islander (specify): _____ 26 <input type="checkbox"/> Jamaican 27 <input type="checkbox"/> Barbadian	38 <input type="checkbox"/> European (specify): _____ 39 <input type="checkbox"/> Other (specify): _____

Table A1. 2017 Massachusetts Population Estimates by Age Group, Gender, Race/Hispanic Ethnicity (mutually exclusive)

Age Group	Total ¹	White Non-Hispanic	Black Non-Hispanic	Native American Non-Hispanic	Asian Non-Hispanic	Hispanic ²
Female						
0 to 4	176,589	107,664	17,650	406	13,832	37,037
5 to 9	180,974	114,131	17,935	477	14,137	34,294
10 to 14	191,473	125,803	17,836	463	14,043	33,328
15 to 19	226,569	153,315	20,015	533	18,054	34,652
20 to 24	247,031	165,430	22,387	602	22,815	35,797
25 to 29	247,423	163,836	22,383	614	25,039	35,551
30 to 34	237,813	160,352	19,856	496	25,212	31,897
35 to 39	218,232	146,011	18,353	426	22,223	31,219
40 to 44	204,744	139,885	16,997	388	19,727	27,747
45 to 49	234,305	172,835	17,732	515	17,962	25,261
50+	1,364,301	1,140,261	77,763	2,783	60,673	82,821
All Females	3,529,454	2,589,523	268,907	7,703	253,717	409,604
Male						
0 to 4	183,999	112,563	18,463	419	14,525	38,029
5 to 9	189,325	119,473	19,295	460	14,759	35,338
10 to 14	198,877	131,709	18,785	483	14,126	33,774
15 to 19	228,388	154,478	20,491	511	16,452	36,456
20 to 24	247,129	164,514	22,770	650	20,331	38,864
25 to 29	252,198	165,970	23,316	687	23,435	38,790
30 to 34	236,497	159,572	19,480	519	22,635	34,291
35 to 39	212,403	142,376	17,750	436	19,844	31,997
40 to 44	195,122	135,097	16,026	411	17,944	25,644
45 to 49	220,837	165,058	15,860	503	16,558	22,858
50+	1,165,590	979,600	63,358	2,587	52,331	67,714
All Males	3,330,365	2,430,410	255,594	7,666	232,940	403,755
0 to 4	360,588	220,227	36,113	825	28,357	75,066
5 to 9	370,299	233,604	37,230	937	28,896	69,632
10 to 14	390,350	257,512	36,621	946	28,169	67,102
15 to 19	454,957	307,793	40,506	1,044	34,506	71,108
20 to 24	494,160	329,944	45,157	1,252	43,146	74,661
25 to 29	499,621	329,806	45,699	1,301	48,474	74,341
30 to 34	474,310	319,924	39,336	1,015	47,847	66,188
35 to 39	430,635	288,387	36,103	862	42,067	63,216
40 to 44	399,866	274,982	33,023	799	37,671	53,391
45 to 49	455,142	337,893	33,592	1,018	34,520	48,119
50+	2,529,891	2,119,861	141,121	5,370	113,004	150,535
State Total	6,859,819	5,019,933	524,501	15,369	486,657	813,359

1. National Center for Health Statistics. Postcensal estimates of the resident population of the United States for July 1, 2010-July 1, 2017, by year, county, single-year of age (0, 1, 2, ..., 85 years and over), bridged race, Hispanic origin, and sex (Vintage 2016). Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: https://www.cdc.gov/nchs/nvss/bridged_race.htm as of June 2018, following release by the U.S. Census Bureau of the unbridged Vintage 2016 postcensal estimates by 5-year age.

2. Persons of Hispanic ethnicity are NOT included in the race categories.

These estimates are used to calculate *statewide population based rates* published in this report.