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March 7, 2022

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 2019 calendar year.

Sincerely,

A handwritten signature in black ink, appearing to read "Margret R. Cooke", written over a horizontal line.

Margret R. Cooke
Commissioner
Department of Public Health

CHARLES D. BAKER
GOVERNOR

KARYN POLITO
LT. GOVERNOR



MARYLOU SUDDERS
SECRETARY

MARGRET R. COOKE
COMMISSIONER

Massachusetts Births 2019

February 2022

Massachusetts Births 2019



Massachusetts Department of Public Health
Registry of Vital Records and Statistics

February 2022

Massachusetts Births 2019

Charles D. Baker, Governor
Marylou Sudders, Secretary of Health and Human Services
Margret R Cooke, Commissioner of Public Health
Abigail R. Averbach, MSc, Assistant Commissioner

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Registry of Vital Records and Statistics

Massachusetts Department of Public Health

February 2022

Acknowledgments

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An additional thank you to: Kevin Foster, Office of Data Management and Outcomes Assessment.

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, and Margaret Riley.

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:
 - Population estimates from 2000-2009 were created using straight line interpolation of data from the U.S. Census.
 - Population estimates from 2011-present were created by the UMASS Donahue Institute (UMDI). The same categorizations were applied to the 2010 census data to make a consistent dataset from 2010-present. Data are updated annually with summary census files that incorporate lagging birth data. These more accurate and up-to-date rates may differ somewhat from previously released rates. UMDI estimates were created by a team of expert demographers using novel modifications of an existing and well-accepted methodology. UMDI created estimates by sex, age, race, and ethnicity at the census tract and community levels. These estimates are controlled to the annual county level Census estimates¹ on a yearly basis, so they become more accurate over time. To read the full methodology, please refer to the report created by UMDI: Strate, S., Renski, H., Peake, T., Murphy, J.J., Zaldonis, P. (2016). Small area population estimates for 2011 through 2020. [White Paper]. Population Estimates Program, Economic and Public Policy Research, University of Massachusetts Donahue Institute.
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. **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.**
5. **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 2019 Boston, MA: Registry of Vital Records and Statistics, Massachusetts Department of Public Health. February 2022.

Selected Takeaways

- In 2019, there were 69,117 births to Massachusetts resident mothers, an increase of 0.02% from 69,098 in 2018 and a decline of 25.3% since 1990 (Table 1). The number of births to mothers age 30 and older increased (for the 9th year in a row) by 13.0% (2010: 39,548; 2019: 44,670). Since 2008, the number of births to mothers under 30 decreased by 32.3% percent (2008: 36,117; 2019: 24,447) (Figure 1).
- Between 2018 and 2019, the number of births to Black Non-Hispanic, Asian Non-Hispanic and Hispanic mothers increased by 0.5%, 0.7%, and 2.3% respectively while births to White Non-Hispanic mothers decreased by 1.2%, (Table 1).
- In 2019, the Massachusetts teen birth rate remained the same after declining for 10 years in a row. The teen birth rate was 20.1 births per 1,000 women age 15-19 in 2008, while in 2019 the rate was 7.1 births per 1,000 women age 15-19 (Table 1). Between 2018 and 2019, the percentage of births to mothers less than 20 years old decreased for all races/ethnicities. 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 and the percentage of teen births to American Indian Non-Hispanic over three times higher than that of White Non-Hispanic (Table 2, Figure 2).
- In 2019, 31.4% 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 (34.8%), while Asian Non-Hispanics had the lowest percentage (28.6%) (Table 2).
- In 2019, the percentage of births to mothers affected by gestational diabetes increased to 7.1% from 7.0% in 2018 (Table 1).
- For the second year in a row the percentage of low birthweight infants (less than 2,500 grams or 5.5 pounds) has increased. The percentage of low birthweight infants increased in 2019 to 7.7% from 7.6% in 2018 (Table 1).
- From 2018 to 2019, the percentage of preterm births (births occurring at less than 37 weeks of gestation) increased slightly from 8.9% to 9.0% (Table 1). The percentage of preterm births from 2018 to 2019 increased for Asian Non-Hispanics from 7.8% to 8.3%, and for Hispanics from 9.8% to 10.1%. In contrast, this percentage decreased for White Non-Hispanic from 8.3% to 8.2% while percentages for Black Non-Hispanic remained the same (Table 10).
- From 2018 to 2019, the percentage of births to mothers who received adequate prenatal care increased from 86.1% to 82.7% (Table 1, Figure 3). In 2019, the percentage of births with adequate prenatal care was higher among those with private insurance (88.3%) than public insurance (74.9%) (Table 16p2).
- The percentage of births to mothers whose prenatal care was covered through public insurance decreased slightly from 38.5% in 2018 to 38.1% in 2019 (Table 1).
- The percentage of multiple births in 2019 remained the same at 3.5%. The percentage of multiple births to mothers under 35 years old decreased slightly from 3.1% in 2018 to 3.0% in 2019, and the corresponding percentage for multiple births to mothers 35 and older increased from 4.8% to 4.9% (Table 4).
- Smoking during pregnancy continued to decline in 2019. The percentage of infants whose mothers reported smoking during pregnancy decreased from 4.4% in 2018 to 4.1% in 2019 (Figure 11).

- In Massachusetts, the number of women who used fertility treatment in 2019 increased to 3,802 from 3,570 in 2018. The percentage of mothers who used assisted reproductive technology (ART) among all mothers who used infertility treatment increased from 73.5% in 2018 to 74.9% in 2019. The percentage of mothers who used ART fertility treatment was much higher among White Non-Hispanic mothers at 77.9% than among Black Non-Hispanic, Asian Non-Hispanic, and Hispanic mothers at 3.6%, 11.8%, and 6.1%, respectively (Table 21).

Table 1. Trends in Birth Characteristics, Massachusetts: 1990, 2005-2019

Characteristic		1990	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Births¹	n²	92,461	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	69,098	69,117
	Rate³	62.1	55.6	56.9	57.2	56.5	55.1	53.7	54.1	53.3	52.5	52.1	52	52	51.2	48.8	48.9
Race of Mother																	
White Non-Hispanic	n	72,483	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	39,956	39,461
	%⁴	78.4	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	57.8	57.1
Black Non-Hispanic	n	7,158	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	7,142	7,181
	%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	10.3	10.4
Asian Non-Hispanic	n	3,349	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	6,411	6,457
	%⁴	3.6	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	9.3	9.3
Hispanic	n	8,406	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	13,748	14,067
	%⁴	9.1	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	19.9	20.4
Teen Births (Ages 15-19)	n	7,258	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	1,639	1,538
	Rate³	35.4	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	7.1	7.1
Births to Unmarried	n	22,837	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	22,467	22,386
	%	24.7	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	32.6	32.5
Cesarean Deliveries	n	20,615	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	21,710	21,656
	%	22.3	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	31.5	31.4
Gestational Diabetes⁵	n		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	4,812	4,885
	%		3.5	3.8	4.2	4.0	4.7	4.7	5.1	5.6	5.3	5.4	6	5.6	6.5	7.0	7.1
Low Birthweight⁶	n	5,388	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	5,243	5,273
	%	5.8	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	7.6	7.7
Preterm⁷	n	5,899	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	6,167	6,200
	%	6.5	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	8.9	9.0
Late Preterm⁸	n	3,977	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	4,489	4,570
	%	4.4	6.3	6.3	6.4	6.2	6.2	6.0	5.9	6.2	6.3	6.1	6	6.3	6.6	6.5	6.6
Prenatal Care																	
Public Pay Prenatal Care ⁹	%	25.1	31.9	33.5	34.9	34.5	35.3	35.8	38.8	39.7	38.9	42.9	38.3	38.6	39.2	38.5	38.1
APNCU Index ¹⁰	%		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	76.1	81.6
Adjusted APNCU Index ¹⁰	%								85.3	85.4	84.5	83.1	81.8	82.3	80.5	76.1	82.7

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 2008 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; other: Worker's Compensation and other sources. 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).

Table 2. Birth Characteristics by Maternal Race/Hispanic Ethnicity and Birthplace, Massachusetts: 2019

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	69,117	100.0	381	0.6	1,559	2.3	785	1.1	5,273	7.7	55,705	82.7	54,386	80.1	21,656	31.4	59,733	86.7
US inc. DC	46,032	66.6	236	0.5	1,020	2.2	464	1.0	3,407	7.4	38,201	85.3	37,689	83.4	14,098	30.7	38,693	84.4
US Territories ⁷	1,375	2.0	24	1.7	96	7.0	27	2.0	155	11.3	1,070	79.3	1,036	75.8	418	30.4	1,137	83.1
Non-US-born ⁸	21,657	31.3	116	0.5	436	2.0	288	1.3	1,697	7.8	16,404	77.2	15,625	73.2	7,129	32.9	19,881	92.1
White Non-Hispanic	39,461	57.1	64	0.2	389	1.0	316	0.8	2,535	6.4	33,227	86.3	32,899	84.7	12,281	31.1	33,879	86.0
US inc. DC	34,994	88.7	59	0.2	353	1.0	280	0.8	2,249	6.4	29,728	87.2	29,448	85.5	10,845	31.0	29,690	85.0
US Territories ⁷	10	0.0	0	0.0	--6	--6	0	0.0	--6	--6	9	90.0	7	70.0	--6	--6	10	100.0
Non-US-born ⁸	4,445	11.3	5	0.1	35	0.8	35	0.8	281	6.3	3,483	79.6	3,435	78.0	1,433	32.2	4,178	94.1
Black Non-Hispanic	7,181	10.4	41	0.6	187	2.6	156	2.2	800	11.2	5,059	72.2	4,776	67.6	2,497	34.8	6,360	88.9
US inc. DC	3,073	42.8	33	1.1	144	4.7	72	2.4	420	13.7	2,308	76.7	2,237	73.6	975	31.7	2,552	83.4
US Territories ⁷	6	0.1	0	0.0	0	0.0	0	0.0	0	0.0	5	83.3	5	83.3	0	0.0	5	83.3
Non-US-born ⁸	4,099	57.1	8	0.2	43	1.0	82	2.0	377	9.2	2,745	68.8	2,532	63.1	1,522	37.1	3,802	93.0
Hispanic	14,067	20.4	260	1.8	917	6.5	209	1.5	1,199	8.5	10,688	77.6	10,167	73.3	4,454	31.7	12,092	86.2
US inc. DC	5,654	40.2	133	2.4	483	8.5	80	1.4	506	9.0	4,379	79.2	4,264	76.4	1,669	29.5	4,575	81.1
US Territories ⁷	1,351	9.6	24	1.8	95	7.0	27	2.0	153	11.3	1,050	79.2	1,017	75.8	415	30.7	1,115	82.9
Non-US-born ⁸	7,031	50.0	100	1.4	334	4.8	102	1.5	536	7.6	5,238	76.0	4,863	70.4	2,363	33.6	6,382	91.0
Asian Non-Hispanic	6,457	9.3	6	0.1	26	0.4	63	1.0	542	8.4	5,410	84.7	5,248	81.8	1,846	28.6	5,860	90.9
US inc. DC	1,276	19.8	5	0.4	17	1.3	12	0.9	119	9.4	1,099	87.6	1,060	83.9	336	26.3	1,103	86.6
US Territories ⁷	--6	--6	0	0.0	0	0.0	0	0.0	--6	--6	--6	--6	--6	--6	0	0.0	--6	--6
Non-US-born ⁸	5,178	80.2	--6	--6	9	0.2	51	1.0	422	8.2	4,309	84.0	4,186	81.3	1,510	29.2	4,754	92.0
American Indian Non-Hispanic⁹	232	0.3	0	0.0	5	2.2	--6	--6	14	6.0	179	78.5	176	76.5	70	30.2	182	78.4
US inc. DC	215	92.7	0	0.0	5	2.3	--6	--6	13	6.0	167	79.1	162	76.1	64	29.8	165	76.7
US Territories ⁷	0	0.0	0	0.0	--6	--6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Non-US-born ⁸	17	7.3	0	0.0	0	0.0	0	0.0	--6	--6	12	70.6	14	82.4	6	35.3	17	100.0
Other Non-Hispanic¹⁰	600	0.9	11	1.8	11	1.8	9	1.5	57	9.5	407	71.2	397	68.4	223	37.2	521	87.3
US inc. DC	129	21.5	--6	--6	5	3.9	--6	--6	15	11.7	91	75.2	93	76.2	38	29.7	112	87.5
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	471	78.5	0	0.0	6	1.3	7	1.5	42	8.9	316	70.1	304	66.4	185	39.3	409	87.2
Unknown	1,119	1.6	9	0.8	24	2.1	30	3.0	126	12.4	735	79.5	723	77.3	285	28.1	839	83.5

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. 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: 2019

Maternal Ancestry	Births ¹		Teen Births				Low Birthweight ²		Prenatal Care				Late Preterm ⁴		Cesarean Section		Breast-feeding ⁵		Gestational Diabetes ⁶	
	N	%	<18 years		<20 Years				Adequate ³		1 st Trimester									
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
State Total	69,117	100.0	381	0.6	1,559	2.3	5,273	7.7	54,000	81.6	54,386	80.1	4,570	6.6	2,165	3.1	59,733	86.7	4,885	7.1
American	31,766	46.0	97	0.3	493	1.6	2,040	6.4	26,958	86.6	26,546	84.8	2,025	6.4	9,786	30.8	27,429	86.5	2,073	6.5
European	8,748	12.7	7	0.1	53	0.6	510	5.8	7,521	87.3	7,451	86.1	540	6.2	2,589	29.6	8,090	92.6	541	61.9
Puerto Rican	4,630	6.7	110	2.4	412	8.9	468	10.1	3,566	78.7	3,441	75.1	391	8.4	1,418	30.6	3,620	78.5	335	7.2
Dominican	3,308	4.8	45	1.4	195	5.9	289	8.8	2,521	77.9	2,395	73.7	241	7.3	1,238	37.4	2,916	88.4	219	6.6
African American	3,304	4.8	42	1.3	157	4.8	439	13.3	2,458	76.2	2,367	72.6	292	8.8	1,074	32.5	2,720	82.6	189	5.7
Brazilian	2,313	3.3	17	0.7	51	2.2	171	7.4	1,723	75.6	1,662	72.7	143	6.2	992	42.9	2,146	92.9	157	6.8
African	1,995	2.9	--7	--7	9	0.5	154	7.7	1,396	71.5	1,275	65.0	112	5.6	743	37.2	1,872	94.1	156	7.8
Chinese	1,992	2.9	--7	--7	--7	--7	129	6.5	1,711	86.4	1,671	84.2	100	5.0	409	20.5	1,833	92.2	183	9.2
Asian Indian	1,988	2.9	0	0.0	--7	--7	205	10.3	1,658	84.6	1,625	82.4	166	8.4	725	36.5	1,884	94.8	279	14.0
Portuguese	1,911	2.8	13	0.7	70	3.7	137	7.2	1,601	85.2	1,525	80.6	115	6.0	634	33.2	1,399	73.3	158	8.3
Haitian	1,548	2.2	--7	--7	24	1.6	166	10.8	1,012	66.9	952	62.9	97	6.3	557	36.0	1,412	91.5	126	8.1
Cape Verdean	1,426	2.1	13	0.9	75	5.3	132	9.3	1,045	74.5	998	70.9	93	6.5	422	29.6	1,289	90.4	95	6.7
Salvadoran	1,236	1.8	21	1.7	73	5.9	84	6.8	980	80.6	882	72.3	77	6.2	299	24.2	1,132	91.9	74	6.0
Guatemalan	1,235	1.8	41	3.3	121	9.8	93	7.5	849	70.9	759	63.1	92	7.4	289	23.4	1,047	84.9	78	63.4
Other	1,101	1.6	--7	--7	11	1.0	81	7.4	894	82.5	852	78.4	69	6.3	366	33.3	973	88.5	72	6.5
Middle Eastern	1,100	1.6	--7	--7	9	0.8	84	7.7	836	77.0	835	76.7	78	7.1	357	32.5	1,026	93.4	85	7.7
Vietnamese	698	1.0	0	0.0	6	0.9	48	6.9	574	83.3	538	78.0	42	6.0	194	27.8	603	86.6	107	15.3
Russian	644	0.9	0	0.0	6	0.9	42	6.5	520	82.1	520	81.6	34	5.3	162	25.2	615	95.5	61	9.5
Mexican	614	0.9	--7	--7	19	3.1	48	7.8	473	78.2	442	72.7	42	6.9	174	28.3	564	92.0	44	7.2
Other South American	566	0.8	6	1.1	19	3.4	26	4.6	428	77.0	421	75.7	32	5.7	172	30.4	541	95.6	29	5.1
West Indian Caribbean	565	0.8	--7	--7	9	1.6	62	11.0	393	70.8	387	69.4	46	8.1	170	30.1	528	93.6	37	6.5
Cambodian	558	0.8	--7	--7	13	2.3	59	10.6	445	82.4	426	77.0	36	6.5	153	27.4	358	64.4	55	9.9
Honduran	512	0.7	14	2.7	39	7.6	50	9.8	346	68.9	323	64.2	42	8.2	125	24.4	470	92.5	25	4.9
Colombian	468	0.7	--7	--7	9	1.9	35	7.5	384	82.9	366	78.4	44	9.4	140	29.9	432	92.5	20	4.3
Korean	353	0.5	0	0.0	--7	--7	18	5.1	295	84.5	282	80.6	15	4.2	94	26.6	332	94.1	29	8.2
Native American	350	0.5	0	0.0	12	3.4	27	7.7	262	77.1	257	74.9	23	6.6	104	29.7	282	80.6	23	6.6

NOTE: All percentages are calculated based on only those births with known values for the characteristic(s) of interest, unless otherwise stated. Women may select more than one ancestry groups, therefore totals of all ancestries is greater than the number of births. 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. 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: 1981-2019

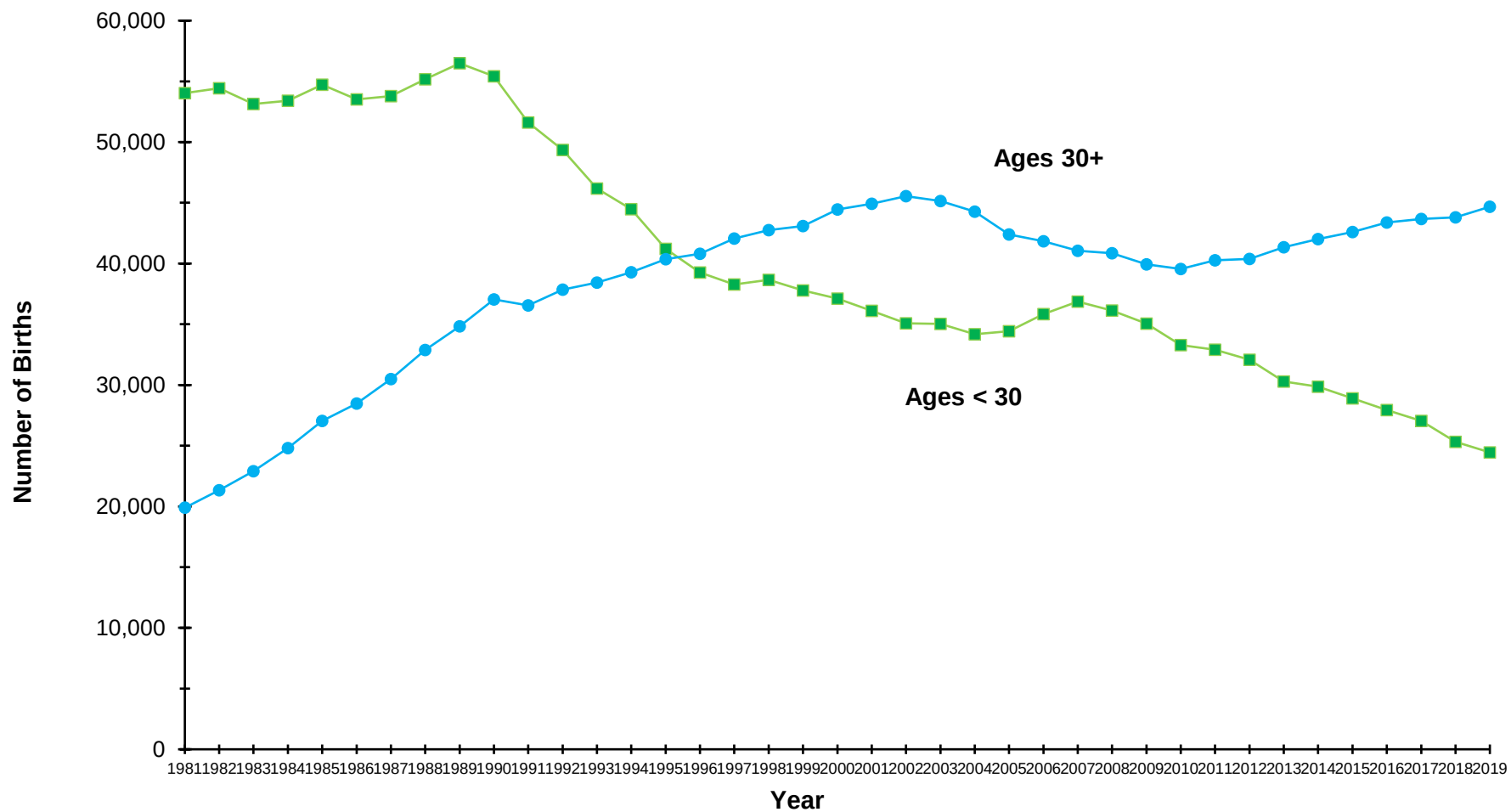


Table 4. Trends in Number and Percent Distribution of Births by Plurality and Maternal Age, Massachusetts: 2005-2019

Singletons				Multiples ¹						Total births ²	
Age Group	Year	n	%	Twins		Triplets or more		Total Multiples		n	%
				n	%	n	%	n	%		
<u>All Ages</u>											
	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
	2018	65,469	96.5	2,304	3.4	63	0.1	2,367	3.5	67,836	100.0
	2019	66,699	96.5	2,349	3.4	68	0.1	2,417	3.5	69,117	100.0
<u>Ages <35</u>											
	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
	2018	48,492	97.0	1,491	3.0	27	0.1	1,518	3.0	50,010	100.0
	2019	48,856	97.0	1,446	2.9	47	0.1	1,493	3.0	50,350	100.0
<u>Ages 35+</u>											
	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
	2018	16,976	95.2	813	4.6	36	0.2	849	4.8	17,825	100.0
	2019	17,842	95.1	903	4.8	21	0.1	924	4.9	18,766	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: 2019

	Ages 15-17		Ages 18-19		Combined Ages 15-19	
	N	% ^{1,2}	N	% ^{1,2}	N	% ^{1,2}
State Total	360	23.4%	1,178	76.6%	1,538	100.0%
White Non-Hispanic	60	17.0%	325	27.9%	385	25.4%
Black Non-Hispanic	39	11.1%	146	12.6%	185	12.2%
Asian Non-Hispanic	6	1.7%	20	1.7%	26	1.7%
Hispanic	246	69.9%	657	56.5%	903	59.6%
American Indian and Other	--6	--6	15	1.3%	16	1.1%
Birthplace						
US States / D.C.	220	61.1%	784	66.6%	1,004	65.3%
Puerto Rico / US Terr.	24	6.7%	72	6.1%	96	6.2%
Non-US-born	116	32.2%	322	27.3%	438	28.5%
Prenatal Care Funding						
Public	311	88.4%	964	83.0%	1,275	84.2%
Private, other	41	11.6%	198	17.0%	239	15.8%
Pregnancy-Related Factors						
Adequacy of Prenatal Care³						
Adequate Total ⁴	229	63.6%	772	65.5%	1,001	65.1%
Adequate Intensive	95	26.4%	357	30.3%	452	29.4%
Adequate Basic	134	37.2%	415	35.2%	549	35.7%
Intermediate	23	6.4%	107	9.1%	130	8.5%
Inadequate/None	98	27.2%	260	22.1%	358	23.3%
Unknown	10	2.8%	39	3.3%	49	3.2%
Parity⁵						
1	346	96.1%	1,008	85.6%	1,354	88.0%
2	13	3.6%	152	12.9%	165	10.7%
3+	--6	--6	18	1.5%	19	1.2%
Smoking during Pregnancy						
Yes	6	1.7%	55	4.9%	61	4.2%
No	341	98.3%	1061	95.1%	1,402	95.8%
Birth Outcomes						
Birthweight						
< 500 g	--6	--6	--6	--6	5	0.3%
500-1,499 g	9	2.5%	14	1.2%	23	1.5%
1,500-2,499 g	29	8.1%	84	7.1%	113	7.4%
LBW (<2,499 g)	41	11.4%	100	8.5%	141	9.2%
2,500-3,999 g	311	86.4%	1,019	86.6%	1,330	86.5%
4000+ g	8	2.2%	58	4.9%	66	4.3%
Gestational Age						
< 28 weeks	7	1.9%	7	0.6%	14	0.9%
Preterm (< 37 weeks)	34	9.4%	99	8.4%	133	8.6%
37-42 weeks	326	90.6%	1,079	91.6%	1,405	91.4%
Plurality						
Singleton	356	98.9%	1,168	99.2%	1,524	99.1%
Multiple birth	--6	--6	10	0.8%	14	0.9%

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. 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: 2019

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	1,538	6.7 (6.3, 7)	385	2.6 (2.3, 2.8)	185	10 (8.6, 11.5)	903	24.8 (23.2, 26.4)
Lawrence	105	32.8 (26.5, 39.1)	--4	--4	--4	--4	103	35.6 (28.7, 42.4)
Chelsea	31	28.8 (19.2, 40.2)	--4	--4	--4	--4	28	31.4 (21.4, 43.3)
Springfield	174	28.3 (24.1, 32.5)	14	13.8 (7.5, 22)	21	18.2 (10.8, 27.4)	139	38.7 (32.3, 45.1)
Holyoke	36	27 (17.8, 38.1)	--4	--4			32	32.8 (22.5, 44.9)
New Bedford	81	26.7 (17.6, 37.8)	20	14.1 (7.8, 22.4)	--4	--4	53	50.1 (37.2, 64.9)
Lynn	74	23.7 (15.2, 34.2)	--4	--4	--4	--4	64	37.6 (26.5, 50.5)
Fall River	51	20.7 (12.7, 30.5)	21	14 (7.6, 22.2)	--4	--4	22	39.8 (28.4, 53.1)
Brockton	60	18.9 (11.4, 28.3)	6	10.1 (4.9, 17.2)	33	17.5 (10.3, 26.6)	17	38.6 (27.4, 51.7)
Milford	14	17.9 (10.6, 27.1)	--4	--4	--4	--4	12	82.4 (65.6, 101.1)
Chicopee	26	15.9 (9.1, 24.6)	10	10.9 (5.4, 18.3)	--4	--4	11	20 (12.2, 29.7)
Haverhill	26	14.9 (8.3, 23.4)	12	11.6 (5.9, 19.1)	--4	--4	13	24.8 (16, 35.4)
Fitchburg	22	14.2 (7.8, 22.5)	8	9.5 (4.5, 16.5)	--4	--4	12	22.6 (14.3, 32.9)
Leominster	16	14.1 (7.7, 22.4)	6	9.1 (4.2, 15.9)	--4	--4	10	30.4 (20.6, 42.2)
West Springfield	11	14.1 (7.7, 22.3)	5	9.6 (4.5, 16.5)	--4	--4	--4	--4
Lowell	53	13.8 (7.5, 22)	9	6.6 (2.6, 12.5)	--4	--4	27	25.7 (16.8, 36.6)
Worcester	100	13.5 (10.9, 16.2)	24	7.8 (3.3, 14.2)	11	9.1 (4.2, 15.9)	63	26.3 (17.3, 37.3)
Marlborough	13	12.2 (6.4, 20)	5	7.3 (3, 13.4)	--4	--4	7	26.5 (17.4, 37.5)
Framingham	28	11.2 (5.6, 18.6)	--4	--4	--4	--4	24	50.1 (37.2, 64.8)
Attleboro	13	10.5 (5.1, 17.7)	9	10.6 (5.2, 17.9)	--4	--4	--4	--4
Taunton	17	10.4 (5.1, 17.6)	11	10 (4.8, 17)	--4	--4	5	21.6 (13.4, 31.6)
Everett	14	9.4 (4.4, 16.4)	--4	--4	--4	--4	10	17.8 (10.5, 26.9)
Revere	15	8.7 (3.9, 15.4)	--4	--4	--4	--4	12	12.8 (6.7, 20.7)
Salem	12	7.7 (3.3, 14)	--4	--4	--4	--4	--4	--4
Boston	169	6.8 (5.8, 7.9)	6	0.6 (0, 2.7)	50	9.4 (4.4, 16.3)	111	20.7 (16.9, 24.6)
Waltham	12	5 (1.6, 10.3)	--4	--4	--4	--4	11	22.1 (13.9, 32.2)

NOTE: The total number of Asian Non-Hispanic teen births in MA in 2019 was 26 for a rate of 1.4/1,000 significantly lower than the state rate of 6.7. Lowell had the largest number of Asian Non-Hispanic teen births at 13 births. The Asian Non-Hispanic teen birth rate in this community was slightly higher than the state.

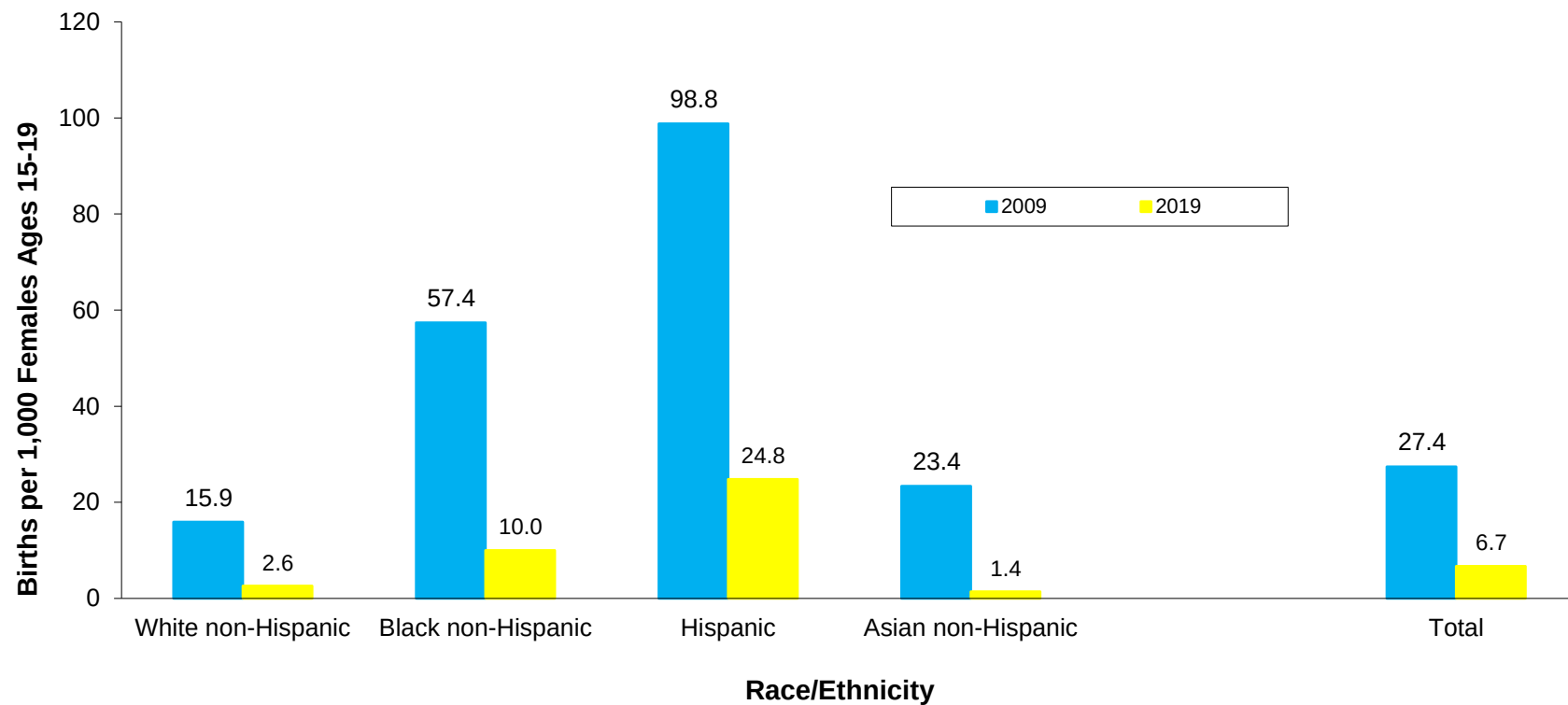
1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births. 2. Rates are per 1,000 females ages 15-19 per city/town. 3. Birth rates for cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2010 Estimates 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 2018, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2018, 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 2019 Teen Birth Rate, Massachusetts: 2009, 2018-2019

2019 Rank	Municipality ¹	2009		2018		2019	
		# Births 15-19	Birth Rate ²	# Births 15-19	Birth Rate ^{2,3}	# Births 15-19	Birth Rate ^{2,3}
	State Total	4,477	19.5	1,624	7.0	1,538	7.1
1	Lawrence	239	79.0	106	32.4	105	32.8
2	Chelsea	76	76.0	44	40.1	31	28.8
3	Springfield	438	72.1	174	28.0	174	28.3
4	Holyoke	146	96.8	45	32.9	36	27.0
5	New Bedford	173	58.5	88	29.1	81	26.7
6	Lynn	172	55.8	62	19.5	74	23.7
7	Fall River	129	45.6	63	25.3	51	20.7
8	Brockton	137	37.7	57	18.2	60	18.9
9	Milford	11	14.1	9	11.5	14	17.9
10	Chicopee	72	41.4	22	13.2	26	15.9
11	Haverhill	70	36.7	26	14.8	26	14.9
12	Fitchburg	64	40.9	25	15.9	22	14.2
13	Leominster	41	32.7	13	11.2	16	14.1
14	West Springfield	27	32.1	18	7.5	11	14.1
15	Lowell	210	53.0	63	16.1	53	13.8
16	Worcester	219	31.1	94	12.6	100	13.5
17	Marlborough	22	21.8	15	14.0	13	12.2
18	Framingham	50	25.6	17	6.8	28	11.2
19	Attleboro	39	34.4	13	10.4	13	10.5
20	Taunton	70	42.9	17	10.4	17	10.4
21	Everett	37	34.9	14	9.5	14	9.4
22	Revere	56	53.2	12	7.1	15	8.7
23	Salem	20	13.0	9	5.7	12	7.7
24	Boston	521	26.4	162	6.5	169	6.8
25	Waltham	22	9.4	18	7.5	12	5.0

1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births in 2019. Ranking is by 2019 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 2018, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2018, 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. 5. Counts and rates based on counts of 1-4 births are excluded.

Figure 2. Teen Birth Rates among Females Ages 15-19 Years by Mother's Race/Hispanic Ethnicity, Massachusetts: 2009 and 2019



NOTE: Teen birth rate is number of births to females ages 15-19 per 1,000 females ages 15-19. 2009 birth rates are based upon the 2009 population estimates from the National Center for Health Statistics. 2018 birth rates are based upon UMass Donahue Institute population estimates for 2019

Table 8. Births by Birthweight, Race/Hispanic Ethnicity, Massachusetts: 2019

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	69,117	100.0	40,989	100.0	7,181	100.0	14,067	100.0	6,457	100.0	832	100.0	1,119	100.0
<500	94	0.1	27	0.1	22	0.3	29	0.2	5	0.1	--2	--2	10	1.0
500-999	279	0.4	102	0.3	56	0.8	82	0.6	25	0.4	6	0.7	8	0.8
1,000-1,499	412	0.6	187	0.5	78	1.1	98	0.7	33	0.5	--2	--2	12	1.2
1,500-1,999	1,052	1.5	517	1.3	168	2.3	224	1.6	98	1.5	21	2.5	24	2.4
2,000-2,499	3,436	5.0	1,702	4.3	476	6.6	766	5.5	381	5.9	39	4.7	72	7.1
2,500-2,999	12,398	18.0	6,101	15.5	1,529	21.3	2,854	20.3	1,559	24.2	173	20.8	182	18.0
3,000-3,499	26,595	38.6	14,876	37.8	2,726	38.1	5,619	40.0	2,701	41.9	324	39.0	349	34.5
3,500-3,999	18,745	27.2	11,866	30.1	1,637	22.9	3,392	24.1	1,381	21.4	197	23.7	272	26.9
4,000-4,499	5,144	7.5	3,509	8.9	403	5.6	858	6.1	247	3.8	51	6.1	76	7.5
4,500-4,999	702	1.0	483	1.2	63	0.9	119	0.8	17	0.3	12	1.4	8	0.8
>=5,000	53	0.1	38	0.1	6	0.1	7	0.0	0	0.0	--2	--2	0	0.0
Unknown birthweight	207	0.3	53	0.1	17	0.2	19	0.1	10	0.2	--2	--2	106	9.5
VLBW³ (0-1,499 g)	785	1.1	316	0.8	156	2.2	209	1.5	63	1.0	11	1.3	30	3.0
LBW⁴ (0-2,499 g)	5,273	7.7	2,535	6.2	800	11.2	1,199	8.5	542	8.4	71	8.6	126	12.4
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: 2009-2019

Maternal Age Group (years)	Year	Singleton				Twin				Multiples				Total Multiples				Total Births			
		VLBW ¹		LBW ²		VLBW ¹		LBW ²		VLBW ¹		LBW ²		VLBW ¹		LBW ²		VLBW ¹		LBW ²	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
All Ages	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
	2018	583	0.9	3,860	5.8	210	8.9	1,318	55.9	36	52.9	65	95.6	258	7.5	1,468	42.5	829	1.2	5,243	7.6
	2019	587	0.9	3,952	5.9	184	7.9	1,256	53.8	14	21.2	65	98.5	208	6	1,395	40.4	785	1.1	5,273	7.7
Ages < 35	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
	2018	396	0.8	2,798	5.7	157	10.3	859	56.6	20	57.1	35	100	188	8	967	40.9	573	1.1	3,692	7.3
	2019	435	0.9	2,878	5.9	134	9.3	830	57.7	10	21.3	46	97.9	152	6.6	935	40.6	579	1.2	3,754	7.5
Ages 35+	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
	2018	187	1.1	1,061	6.1	53	6.3	457	54.5	16	48.5	30	90.9	70	6.4	499	45.7	256	1.4	1,548	8.5
	2019	152	0.9	1,074	6	50	5.6	426	47.5	4	21.1	19	100	56	4.9	460	40	206	1.1	1,519	8.1

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: 2019

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	69,117	100.0	39,461	100.0	7,181	100.0	14,067	100.0	6,457	100.0	832	100.0	1,119
<20	20	0.03	5	0.01	--4	--4	9	0.06	--4	--4	0	0.00	--4
20-23	93	0.13	24	0.1	22	0.3	31	0.2	--4	--4	--4	--4	11
24-27	255	0.34	91	0.2	51	0.7	76	0.5	26	0.4	--4	--4	7
28-31	556	0.74	265	0.7	90	1.3	142	1.0	38	0.6	8	1.0	13
32-33	706	0.93	401	1.0	102	1.4	121	0.9	53	0.8	12	1.4	17
34-36	4,570	5.73	2,442	6.2	523	7.3	1,041	7.4	416	6.4	61	7.3	87
37-38	16,955	22.56	8,962	22.7	1,914	26.7	3,834	27.3	1,774	27.5	214	25.8	257
39	24,439	20.20	14,157	35.9	2,398	33.4	4,966	35.3	2,342	36.3	295	35.5	281
40	15,198	13.39	9,127	23.1	1,460	20.3	2,846	20.2	1,360	21.1	168	20.2	237
41	5,958	4.14	3,795	9.6	593	8.3	975	6.9	433	6.7	65	7.8	97
42	208	0.15	152	0.4	21	0.3	22	0.2	7	0.1	--4	--4	--4
43	--4	--4	--4	--4	--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
<u>Preterm⁵ (<37)</u>	6,200	9.0	3,228	8.2	792	11.0	1,420	10.1	538	8.3	86	10.4	136
Very Early ⁶ (<28)	368	0.5	120	0.3	77	1.1	116	0.8	31	0.5	5	0.6	19
(28-33)	1,262	1.8	666	1.7	192	2.7	263	1.9	91	1.4	20	2.4	30
Late (34-36)	4,570	6.6	2,442	6.2	523	7.3	1,041	7.4	416	6.4	61	7.3	87
<u>Term (≥37)</u>	62,765	91.0	36,198	91.8	6,387	89.0	12,643	89.9	5,917	91.7	744	89.6	876
Early Term (37-38)	16,955	24.6	8,962	22.7	1,914	26.7	3,834	27.3	1,774	27.5	214	25.8	257
(39-41)	45,595	66.0	27,079	68.7	4,451	62.0	8,787	62.5	4,135	64.1	528	63.6	615
(>=42)	215	0.3	157	0.4	22	0.3	22	0.2	8	0.1			--4
Unknown ⁷	152		35		--4		--4		--4		--4		107

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

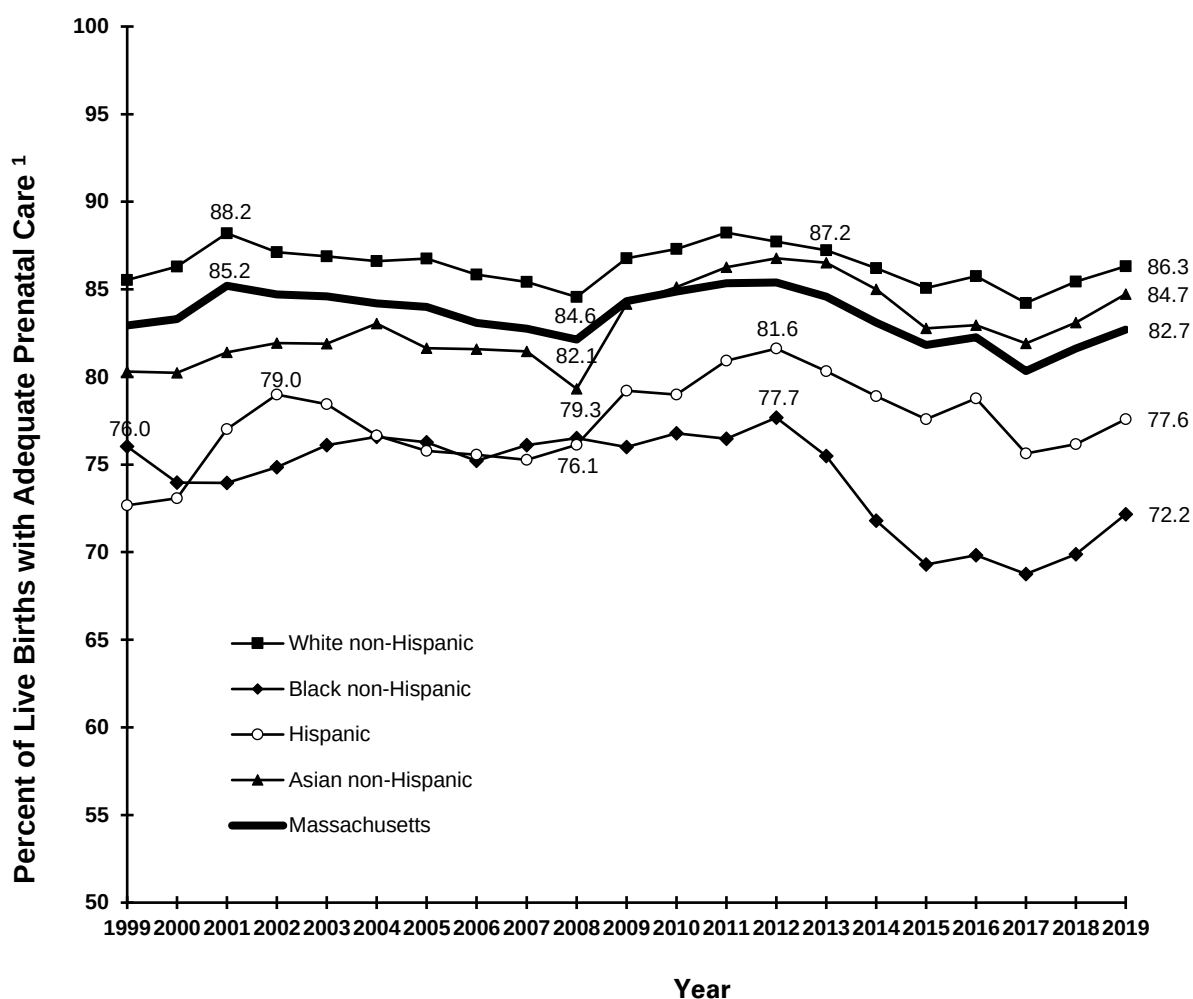
1. A clinical estimate of the number of weeks of pregnancy completed; as estimated by the attendant at birth or the postnatal physician. 2. Percentages are based on column total. 3. Other races include American Indian and others not specified. 4. Calculations based on values of 1-4 are excluded. 5. Also 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: 2003-2019

	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)
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	0.5	1.8	6.1	21.7	91.4
2015	0.6	1.9	6.0	22.5	91.6
2016	0.6	1.8	6.3	22.8	91.3
2017	0.6	1.8	6.6	23.2	91.1
2018	0.5	1.9	6.5	23.4	91.1
2019	0.5	1.8	6.6	24.6	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: 1999-2019



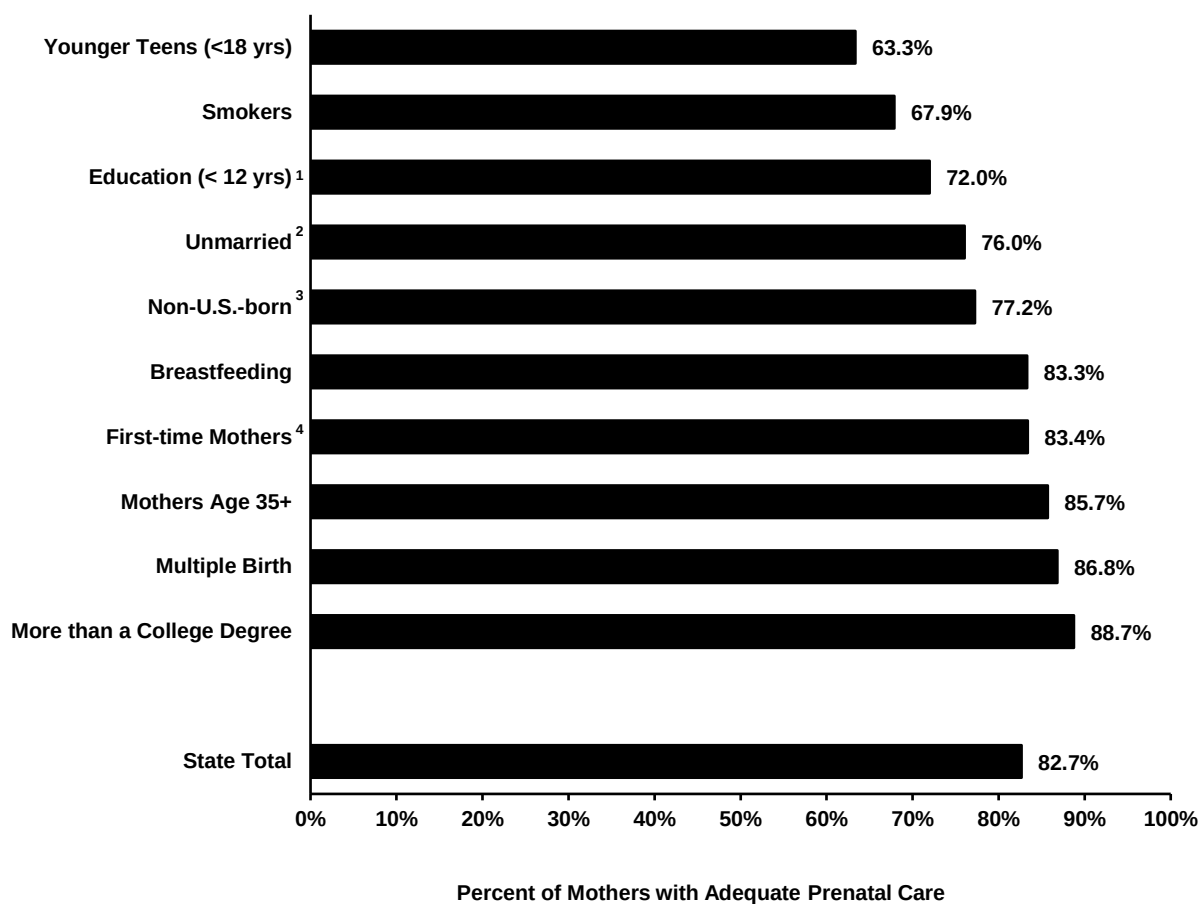
NOTE: FOR PURPOSES OF VISUAL REPRESENTATION THE VERTICAL SCALE OF GRAPH REPRESENTS A SMALL INTERVAL (from 50% to 100%).

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. Data from Metro West hospital are not included in years 2011 and 2012 because of reporting problems. Data from Newton Wellesley, Saint Vincent, and Winchester hospitals are not included in years 2011-2017 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.

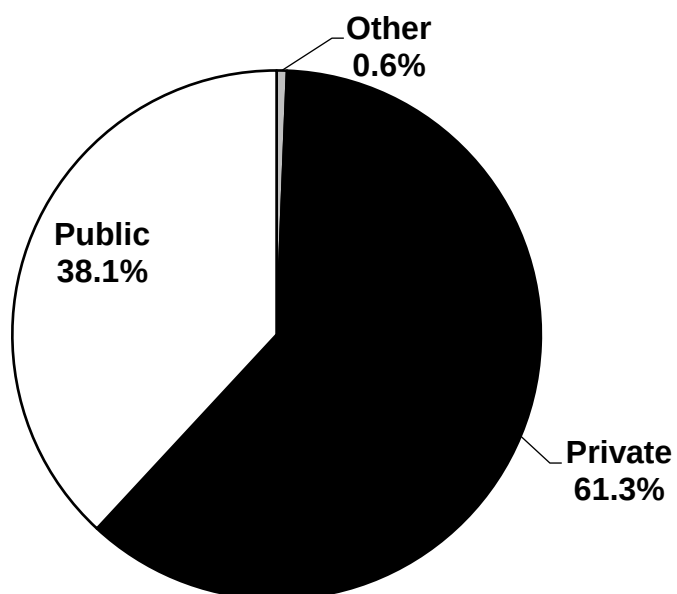
Figure 4. Adequacy of Prenatal Care by Selected Maternal Characteristics, Massachusetts: 2019



NOTE: All percentages are calculated based on the Adequacy of Prenatal Care Utilization (APNCU) Index. 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: 2019



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: 2019

Mother's Race and Ethnicity ⁴									
Municipality ¹	Rank ³	Population	Crude Birth rate ²	White Non-Hispanic	Black Non-Hispanic	Hispanic	Asian or Other	Very Low Birthweight (<1500 gms.)	Low Birthweight (<2500 gms.)
					%	%	%	%	%
STATE TOTAL		6,964,383	9.9	57.1	10.4	20.4	10.5	1.1	7.7
Arlington	29	45,827	10.4	70.1	1.9	3.8	23.2	0.4	6.7
Attleboro	28	46,517	10.4	70.8	8.3	14.9	4.3	1.5	7.3
Boston	1	692,958	10.5	39.9	22.9	24.6	10.6	1.6	9.0
Brockton	9	99,226	15.0	17.6	59.3	16.2	5.8	1.2	8.6
Brookline	18	64,727	9.0	62.7	4.3	6.9	23.9	0.3	7.1
Cambridge	5	111,989	10.1	49.7	10.9	9.9	28.0	0.8	7.7
Chicopee	23	56,710	9.5	54.3	6.7	35.9	2.6	3.0	9.6
Everett	27	48,552	12.9	23.5	17.6	45.6	12.0	1.9	8.0
Fall River	11	89,317	12.5	61.9	10.2	20.5	6.9	1.4	8.3
Framingham	14	74,398	11.9	44.6	9.1	32.7	11.2	1.8	7.6
Haverhill	17	65,939	12.0	55.1	5.1	34.7	3.3	1.1	8.6
Lawrence	12	87,731	16.3	4.7	2.5	90.5	2.1	1.5	8.5
Lowell	4	116,143	12.7	30.5	13.0	28.6	27.0	1.8	9.6
Lynn	7	100,824	15.0	18.6	10.1	57.1	8.9	1.4	9.6
Malden	15	67,654	12.2	28.8	16.5	18.8	33.5	0.5	8.3
Medford	21	60,761	10.3	58.7	7.8	11.2	20.5	0.5	5.5
Methuen	26	53,837	10.0	43.6	6.5	43.9	5.2	2.2	8.6
New Bedford	8	99,980	12.1	44.7	12.4	37.1	5.3	1.3	9.9
Newton	10	91,690	6.3	63.6	2.9	8.6	22.4	0.7	4.5
Peabody	25	55,967	9.9	68.4	6.3	16.1	3.8	1.3	6.1
Plymouth	19	62,729	8.6	87.1	2.2	6.7	3.7	0.9	7.8
Quincy	6	101,531	11.4	41.4	9.8	7.1	40.4	1.0	6.2
Revere	20	60,849	11.9	33.0	7.5	44.2	12.0	0.8	7.6
Salem	30	45,021	10.2	61.9	3.9	21.2	4.8	1.8	8.6
Somerville	13	75,646	10.3	59.7	5.0	16.3	16.9	0.9	6.3
Springfield	3	156,245	12.9	17.4	19.0	59.4	3.7	2.0	11.2
Taunton	22	57,573	11.0	61.4	19.8	13.8	4.4	0.8	9.1
Waltham	16	66,447	11.3	46.2	8.4	25.6	18.8	0.3	6.8
Weymouth	24	56,177	11.8	68.1	7.4	8.4	14.9	0.8	7.8
Worcester	2	191,575	12.5	39.8	20.6	31.6	7.7	1.3	8.7

Table 12 (cont'd). Resident Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2019

Births						
Municipality ¹	Gestational Diabetes	Adequate Prenatal Care ⁷	Public Payment for Prenatal Care ⁸	Unmarried	Teen Mothers 15 to 19 years	
	%	%	%	%	N ⁹	Rate
STATE TOTAL	7.1	82.7	38.1	32.5	1,538	8.1
Arlington	4.8	88.9	7.3	8.4	0	0.0
Attleboro	6.6	78.6	16.9	31.9	13	10.5
Boston	4.7	81.1	40.3	35.8	169	6.8
Brockton	8.3	71.0	69.5	55.7	60	18.9
Brookline	4.3	88.3	8.8	5.2	0	0.0
Cambridge	3.8	84.0	15.7	13.6	6	1.7
Chicopee	10.2	80.7	61.5	56.9	26	15.9
Everett	7.8	75.5	66.7	38.7	14	9.4
Fall River	9.8	80.4	75.7	63.0	51	20.7
Framingham	6.2	74.3	49.4	29.9	28	11.2
Haverhill	7.3	81.3	42.9	45.3	26	14.9
Lawrence	6.4	77.0	83.5	59.4	105	32.8
Lowell	7.6	79.0	62.0	51.9	53	13.8
Lynn	4.3	78.1	70.0	48.1	74	23.7
Malden	5.1	81.5	44.2	23.6	11	6.7
Medford	4.8	83.5	20.1	13.4	--6	--6
Methuen	8.2	78.2	50.0	38.2	8	4.5
New Bedford	9.9	79.8	75.7	63.8	81	26.7
Newton	7.9	87.9	8.8	8.1	--6	--6
Peabody	7.0	85.3	30.1	27.1	5	3.8
Plymouth	5.9	89.0	26.1	31.5	--6	--6
Quincy	7.2	83.4	29.6	24.0	5	2.5
Revere	4.2	78.7	63.8	36.0	15	8.7
Salem	5.3	84.3	36.4	34.9	12	7.7
Somerville	3.7	88.3	22.5	17.8	6	4.0
Springfield	10.5	73.5	80.1	70.2	174	28.3
Taunton	5.2	76.0	49.2	49.8	17	10.4
Waltham	7.7	83.9	32.6	22.1	12	5.0
Weymouth	5.4	89.9	22.2	22.9	8	5.6
Worcester	9.1	79.2	63.3	48.3	100	13.5

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. 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 UMass Donahue Institute (UMDI) estimates for 2019.

Table 13. Birth Characteristics by Facility/Location, Massachusetts: 2019

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		69,919	7.6	37.8	82.5	24.6	6.7
Anna Jaques Hospital	Newburyport	637	4.1	9.6	91.8	23.5	6.6
Baystate Franklin Medical Center	Greenfield	489	4.7	40.7	83.8	20.9	7.4
Baystate Medical Center	Springfield	4,125	12.1	56.2	79.2	26.2	9.7
Berkshire Medical Center	Pittsfield	623	5.6	50.1	85.4	17.2	5.5
Beth Israel Deaconess Hospital - Plymouth	Plymouth	812	3.6	27.6	88.3	22.4	4.3
Beth Israel Deaconess Medical Center	Boston	5,445	12.0	21.3	89.4	25.6	9.1
Beverly Hospital	Beverly	2,182	4.9	29.9	83.0	23.1	5.1
Boston Medical Center	Boston	2,860	8.8	81.3	62.7	27.2	6.3
Brigham and Women's Hospital	Boston	6,259	9.9	23.8	87.7	27.1	9.4
Brockton Hospital	Brockton	1,441	5.2	75.5	77.8	24.8	4.8
Cambridge Birth Center	Cambridge	71	-- ⁸	18.3	66.2	25.4	-- ⁸
Cambridge Hospital	Cambridge	1,115	3.1	68.6	80.7	21.9	4.1
Cape Cod Hospital	Barnstable	759	4.5	55.6	76.9	17.8	6.2
Charlton Memorial Hospital	Fall River	1,436	6.2	62.1	84.3	22.7	4.6
Cooley Dickinson Hospital	Northampton	563	3.4	36.0	84.8	17.3	2.5
Emerson Hospital	Concord	1,300	4.5	11.2	81.2	20.3	5.8
Fairview Hospital	Great Barrington	140	4.3	42.9	84.2	22.9	-- ⁸
Falmouth Hospital	Falmouth	347	3.5	49.3	80.8	17.6	2.3
Good Samaritan Medical Center	Brockton	676	4.9	53.5	57.9	22.6	5.9
Healthalliance - Clinton Hospital, Leominster	Leominster	564	3.5	62.7	81.0	20.6	3.9
Heywood Hospital	Gardner	388	5.4	65.0	80.0	16.5	3.9
Holyoke Medical Center	Holyoke	346	4.0	63.4	66.7	24.9	4.6
Lawrence General Hospital	Lawrence	1,367	6.4	78.5	81.1	25.7	5.9
Lowell General Hospital	Lowell	2,175	6.7	51.7	82.4	29.5	6.9
Martha's Vineyard Hospital	Oak Bluffs	149	-- ⁸	51.0	87.6	12.1	-- ⁸
Massachusetts General Hospital	Boston	3,854	8.9	22.9	82.9	24.2	6.5
Melrose-Wakefield Hospital	Melrose	795	4.7	30.9	88.6	24.1	4.0
Mercy Medical Center	Springfield	982	4.5	63.9	79.6	26.9	4.2
Metrowest Med Ctr - Framingham Union Hospital	Framingham	1,144	6.1	58.0	71.9	28.8	6.2
Milford Regional Medical Center	Milford	892	3.8	36.5	91.6	26.4	3.8
Mt. Auburn Hospital	Cambridge	2,482	3.9	17.1	85.4	20.1	4.2
Nantucket Cottage Hospital	Nantucket	122	-- ⁸	50.8	83.6	23.0	4.9
Newton-Wellesley Hospital	Newton	3,743	4.3	2.7	89.3	23.4	5.1
North Shore Birth Center	Beverly	50	-- ⁸	34.0	86.0	12.0	-- ⁸
North Shore Medical Center - Salem Hospital	Salem	1,192	7.3	57.8	82.2	30.6	5.5
Norwood Hospital	Norwood	426	4.5	17.5	81.0	28.4	5.2
Saint Vincent Hospital	Worcester	1,967	5.0	37.8	88.6	26.4	5.2
South Shore Hospital	Weymouth	3,089	6.5	14.6	89.7	23.6	6.6
St. Elizabeth's Medical Center	Boston	852	18.1	38.3	74.8	26.9	9.9
St. Luke's Hospital	New Bedford	1,520	7.8	67.9	81.3	26.0	6.6
Steward Holy Family Hospital	Methuen	1,027	3.8	52.5	76.4	17.8	4.2
Sturdy Memorial Hospital	Attleboro	636	6.0	13.0	81.4	15.1	2.7

Table 13 (cont'd). Birth Characteristics by Facility/Location, Massachusetts: 2019

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 (%)
Tobey Hospital	Wareham	350	1.7	56.3	84.5	19.8	3.7
Tufts Medical Center	Boston	1,304	18.5	42.2	84.9	29.1	11.0
UMass Memorial Medical Center	Worcester	4,411	10.8	45.2	77.4	26.5	9.0
Winchester Hospital	Winchester	2,349	5.4	12.9	82.1	22.9	5.3
Other Hospitals		6	--8	--8	--8	--8	--8
Home, Enroute & Dr. Off.		457	8.6	25.9	63.2	19.7	6.0

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.

Table 14. Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2019

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		230,303	1,538	6.7	25.4	12.2	59.6	2.8
Arlington	29	1,238	--4	--4	--4	--4	--4	--4
Attleboro	28	1,243	13	10.5	69.2	--4	--4	0.0
Boston	1	24,682	169	6.8	3.6	29.8	66.1	--4
Brockton	9	3,176	60	18.9	10.0	55.0	28.3	--4
Brookline	18	1,795	--4	--4	--4	--4	--4	--4
Cambridge	5	3,452	6	1.7	--4	--4	--4	0.0
Chicopee	23	1,636	26	15.9	38.5	--4	42.3	--4
Everett	27	1,482	14	9.4	--4	--4	71.4	--4
Fall River	11	2,466	51	20.7	42.0	--4	44.0	--4
Framingham	14	2,504	28	11.2	--4	0.0	85.7	--4
Haverhill	17	1,742	26	14.9	48.0	0.0	52.0	0.0
Lawrence	12	3,200	105	32.8	0.0	--4	98.1	0.0
Lowell	4	3,843	53	13.8	17.3	--4	51.9	25.0
Lynn	7	3,118	74	23.7	--4	--4	90.1	--4
Malden	15	1,635	11	6.7	--4	--4	--4	--4
Medford	21	1,627	--4	4.5	--4	0.0	--4	--4
Methuen	26	1,768	8	26.7	24.7	7.4	65.4	--4
New Bedford	8	3,031	81	--4	--4	0.0	0.0	0.0
Newton	10	4,925	--4	3.8	0.0	--4	--4	0.0
Peabody	25	1,303	5	--4	--4	0.0	--4	0.0
Plymouth	19	1,731	--4	2.5	--4	0.0	--4	--4
Quincy	6	1,970	5	8.7	--4	--4	80.0	0.0
Revere	20	1,720	15	7.7	--4	--4	--4	0.0
Salem	30	1,561	12	4.0	--4	0.0	--4	0.0
Somerville	13	1,487	6	28.3	8.0	12.1	79.9	0.0
Springfield	3	6,143	174	10.4	64.7	--4	29.4	0.0
Taunton	22	1,639	17	5.0	0.0	--4	91.7	0.0
Waltham	16	2,381	12	5.6	--4	--4	75.0	0.0
Weymouth	24	1,440	8	13.5	24.0	11.0	63.0	--4
Worcester	2	7,382	100	0.0	0.0	0.0	0.0	0.0

Table 14 (cont'd). Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2019

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	84.2	91.9	9.2	8.6	30.4	36.9	8.7	24.0
Arlington	--4	--4	--4	--4	--4	--4	--4	--4
Attleboro	50.0	91.7	--4	--4	66.7	--4	0.0	--4
Boston	89.0	94.7	9.5	7.1	26.5	39.8	11.4	22.3
Brockton	79.7	91.7	8.3	10.0	30.5	33.9	--4	32.2
Brookline	--4	--4	--4	--4	--4	--4	--4	--4
Cambridge	--4	100.0	--4	--4	--4	--4	0.0	--4
Chicopee	80.8	80.8	--4	--4	--4	34.6	--4	38.5
Everett	64.3	71.4	--4	0.0	35.7	--4	0.0	35.7
Fall River	91.8	87.2	15.7	11.8	45.8	39.6	--4	12.5
Framingham	92.6	89.3	17.9	--4	22.2	29.6	22.2	25.9
Haverhill	65.4	100.0	19.2	--4	24.0	40.0	--4	28.0
Lawrence	94.3	87.6	8.6	6.7	24.8	42.9	12.4	20.0
Lowell	82.7	90.6	13.2	9.4	37.5	29.2	--4	27.1
Lynn	87.5	90.5	13.5	13.5	31.9	31.9	8.7	27.5
Malden	100.0	90.9	--4	--4	--4	--4	--4	45.5
Medford	0.0	--4	0.0	0.0	0.0	0.0	0.0	--4
Methuen	--4	87.5	0.0	--4	--4	--4	--4	--4
New Bedford	91.3	96.2	11.1	7.4	34.6	38.3	7.4	19.8
Newton	0.0	--4	0.0	0.0	0.0	--4	0.0	0.0
Peabody	100.0	--4	0.0	--4	0.0	--4	0.0	--4
Plymouth	0.0	--4	--4	--4	--4	0.0	0.0	--4
Quincy	--4	--4	0.0	--4	0.0	--4	0.0	--4
Revere	93.3	100.0	--4	--4	33.3	40.0	0.0	--4
Salem	100.0	100.0	--4	--4	--4	41.7	--4	--4
Somerville	100.0	83.3	0.0	0.0	--4	--4	0.0	--4
Springfield	93.0	94.2	8.0	8.6	23.8	44.6	7.7	23.8
Taunton	75.0	100.0	--4	--4	--4	38.5	--4	0.0
Waltham	91.7	100.0	0.0	--4	--4	41.7	0.0	50.0
Weymouth	87.5	100.0	--4	--4	--4	62.5	0.0	0.0
Arlington	87.0	93.0	10.0	9.0	36.0	36.0	12.0	16.0

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 UMASS Donahue Institute (UMDI) population estimates for 2019. 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. 9. Inadequate includes those mothers with no prenatal care.

Table 15. Adequacy of Prenatal Care Utilization: Summary and Component Indices, Massachusetts: 2019

	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	54,912	82.6	25,957	39.0	28,955	43.6	4,075	6.1	7,491	11.3	1,419
<u>Component Indices</u>											
Adequacy of Initiation	59,413	89.4	20,635	31.0	38,778	58.3	3,782	5.7	3,283	4.9	1,419
Adequacy of Received Services (Visits)	61,061	91.9	30,867	46.4	30,194	45.4	4,581	6.9	836	1.3	1,419

NOTE: All percentages are calculated based on the Adequacy of Prenatal Care Utilization (APNCU) Index.

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: 2019

Race/Ethnicity and Payment Source	Births ¹		Teen Births ²				Birthweight			
			<18 Years		<20 Years		Very Low ³		Low ⁴	
	n	%	n	%	n	%	n	%	n	%
STATE TOTAL⁵	69,117	100.0	381	0.6	1,559	2.3	785	1.1	5,273	7.7
Public	26,103	37.9	328	1.3	1,292	4.9	370	1.4	2,325	8.9
Medicaid ⁶	22,629	32.9	297	1.3	1,182	5.2	321	1.4	2,039	9.0
Other Public ⁷	3,474	5.0	31	0.9	110	3.2	49	1.4	286	8.2
Private⁸	41,981	61.0	42	0.1	236	0.6	380	0.9	2,799	6.7
White Non-Hispanic	39,461	100.0	64	0.2	389	1.0	316	0.8	2,535	6.4
Public	8,897	22.6	46	0.5	271	3.0	91	1.0	708	8.0
Medicaid ⁶	7,405	18.8	43	0.6	249	3.4	79	1.1	612	8.3
Other Public ⁷	1,492	3.8	-- ⁹	-- ⁹	22	1.5	12	0.8	96	6.4
Private⁸	30,092	76.5	16	0.1	111	0.4	214	0.7	1,759	5.8
Black Non-Hispanic	7,181	100.0	41	0.6	187	2.6	156	2.2	800	11.1
Public	4,457	62.2	32	0.7	147	3.3	88	2.0	476	10.7
Medicaid ⁶	3,850	53.8	28	0.7	134	3.5	78	2.0	417	10.8
Other Public ⁷	607	8.5	-- ⁹	-- ⁹	13	2.1	10	1.6	59	9.7
Private⁸	2,578	36.0	8	0.3	37	1.4	60	2.3	289	11.2
Hispanic	14,067	100.0	260	1.8	917	6.5	209	1.5	1,199	8.5
Public	10,290	73.3	238	2.3	820	8.0	159	1.5	905	8.8
Medicaid ⁶	9,218	65.7	215	2.3	752	8.2	139	1.5	804	8.7
Other Public ⁷	1,072	7.6	23	2.1	68	6.3	20	1.9	101	9.4
Private⁸	3,614	25.8	15	0.4	77	2.1	43	1.2	275	7.6
Asian Non-Hispanic	6,457	100.0	6	0.1	26	0.4	63	1.0	542	8.4
Public	1,562	24.2	-- ⁹	-- ⁹	20	1.3	19	1.2	147	9.4
Medicaid ⁶	1,388	21.5	-- ⁹	-- ⁹	19	1.4	16	1.2	131	9.4
Other Public ⁷	174	2.7	0	0.0	-- ⁹	-- ⁹	-- ⁹	-- ⁹	16	9.2
Private⁸	4,824	74.8	-- ⁹	-- ⁹	6	0.1	42	0.9	383	7.9
Other Non-Hispanic⁹	832	100.0	--⁹	--⁹	16	1.9	11	1.3	71	8.5
Public	493	60.2	-- ⁹	-- ⁹	14	2.8	6	1.2	46	9.3
Medicaid ⁶	396	48.4	-- ⁹	-- ⁹	10	2.5	-- ⁹	-- ⁹	34	8.6
Other Public ⁷	97	11.8	0	0.0	-- ⁹	-- ⁹	-- ⁹	-- ⁹	12	12.4
Private⁸	293	35.8	0	0.0	-- ⁹	-- ⁹	-- ⁹	-- ⁹	19	6.5

Race/Ethnicity and Payment Source	Prenatal Care				Cesarean Delivery		Breastfeeding ¹		Smoking ¹³	
	Adequate ¹¹		Began 1st Trimester				²			
	n	%	n	%	n	%	n	%	n	%
STATE TOTAL⁵	55,705	82.7	54,386	80.1	21,656	31.4	59,733	86.7	2,694	4.1
Public	19,147	74.9	18,142	70.5	8,200	31.4	21,402	82.2	2,006	8.1
Medicaid ⁶	16,593	74.9	15,685	70.3	7,096	31.4	18,550	82.2	1,785	8.3
Other Public ⁷	2,554	74.6	2,457	71.4	1,104	31.8	2,852	82.2	221	6.5
Private ⁸	36,251	88.3	35,935	86.8	13,195	31.4	37,736	90.0	594	1.5
White Non-Hispanic	33,227	86.3	32,899	84.7	12,281	31.1	33,879	86.0	2,025	5.3
Public	6,733	77.2	6,469	73.6	2,773	31.2	6,823	76.8	1,430	16.6
Medicaid ⁶	5,599	77.1	5,349	73.1	2,335	31.5	5,665	76.7	1,267	17.6
Other Public ⁷	1,134	77.6	1,120	75.9	438	29.4	1,158	77.6	163	11.2
Private ⁸	26,305	89.5	26,243	88.5	9,393	31.2	26,785	89.1	515	1.8
Black Non-Hispanic	5,059	72.2	4,776	67.6	2,497	34.8	6,360	88.9	170	2.4
Public	2,935	67.5	2,734	62.4	1,491	33.5	3,877	87.2	138	3.2
Medicaid ⁶	2,528	67.5	2,354	62.3	1,261	32.8	3,329	86.7	121	3.2
Other Public ⁷	407	67.6	380	63.0	230	37.9	548	90.3	17	2.8
Private ⁸	2,092	82.4	2,006	78.5	955	37.1	2,372	92.5	28	1.1
Hispanic	10,688	77.6	10,167	73.3	4,454	31.7	12,092	86.2	406	3.0
Public	7,641	75.6	7,205	70.9	3,178	30.9	8,678	84.6	363	3.7
Medicaid ⁶	6,859	75.8	6,474	71.1	2,835	30.8	7,787	84.8	330	3.8
Other Public ⁷	782	73.9	731	68.8	343	32.0	891	83.5	33	3.1
Private ⁸	3,004	85.0	2,920	82.0	1,230	34.0	3,304	91.6	35	1.0
Asian Non-Hispanic	5,410	84.7	5,248	81.8	1,846	28.6	5,860	90.9	37	0.6
Public	1,224	79.7	1,142	73.8	468	30.0	1,281	82.2	25	1.7
Medicaid ⁶	1,091	80.0	1,015	73.8	413	29.8	1,132	81.7	23	1.7
Other Public ⁷	133	77.3	127	73.4	55	31.6	149	85.6	-- ⁹	-- ⁹
Private ⁸	4,162	87.0	4,082	85.1	1,357	28.1	4,521	93.9	12	0.3
Other Non-Hispanic¹⁰	586	73.3	573	70.7	293	35.3	703	84.8	50	6.3
Public	343	71.3	328	67.6	181	36.7	419	85.2	45	9.6
Medicaid ⁶	269	69.9	253	65.2	150	37.9	343	86.8	39	10.5
Other Public ⁷	74	77.1	75	77.3	31	32.0	76	78.4	6	6.4
Private ⁸	227	80.2	229	79.5	95	32.4	254	86.7	-- ⁹	-- ⁹

Table 16 (cont'd). Birth Characteristics by Race/Hispanic Ethnicity and Source of Prenatal Care Payment, Massachusetts: 2019

**Table 17. Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2019**

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	69,919	69,117	5,273	6,200	1,538
Abington	1	184	10	12	--
Acton	2	169	15	17	0
Acushnet	0	85	5	8	--
Adams	1	68	5	7	0
Agawam	2	257	19	23	--
Alford	0	0	0	0	0
Amesbury	1	153	15	19	0
Amherst	1	157	9	11	--
Andover	1	269	20	32	0
Aquinnah (Formerly Gay Head)	0	3	0	0	0
Arlington	2	478	32	40	0
Ashburnham	2	44	--	--	0
Ashby	1	25	0	0	--
Ashfield	0	11	0	0	0
Ashland	1	210	17	14	--
Athol	0	110	8	8	--
Attleboro	641	483	35	34	13
Auburn	0	155	8	11	--
Avon	0	57	7	7	0
Ayer	0	94	7	8	--
Barnstable	767	405	17	33	11
Barre	0	50	--	6	0
Becket	0	11	0	0	0
Bedford	0	101	15	16	0
Belchertown	0	118	13	15	5
Bellingham	2	170	9	12	--
Belmont	2	207	11	9	0
Berkley	1	43	0	--	--
Berlin	1	33	--	--	0
Bernardston	0	25	--	--	--
Beverly	2,234	396	25	30	--
Billerica	2	436	39	51	--
Blackstone	2	89	10	6	--
Blandford	0	8	0	0	0
Bolton	1	52	--	6	--
Boston	20,622	7,283	655	724	169
Bourne	1	147	--	7	--
Boxborough	0	37	0	--	0
Boxford	0	63	--	--	0
Boylston	2	43	6	6	0
Braintree	3	410	31	35	0
Brewster	0	56	5	7	0
Bridgewater	2	247	16	29	--
Brimfield	0	29	6	--	--
Brockton	2,134	1,491	128	144	60
Brookfield	1	26	--	--	0
Brookline	1	581	41	46	0
Buckland	0	13	--	--	0

Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2019

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	2	275	22	24	--
Cambridge	3,671	1,136	87	102	6
Canton	2	241	18	26	--
Carlisle	1	30	--	--	0
Carver	1	84	--	9	--
Charlemont	0	7	0	0	0
Charlton	0	97	8	8	--
Chatham	0	15	0	--	0
Chelmsford	1	334	20	31	--
Chelsea	4	607	57	60	31
Cheshire	0	26	--	--	--
Chester	0	11	--	0	0
Chesterfield	0	10	0	--	0
Chicopee	3	540	52	66	26
Chilmark	0	6	0	0	0
Clarksburg	1	10	--	--	0
Clinton	5	162	11	10	--
Cohasset	1	70	6	5	0
Colrain	0	7	--	--	0
Concord	1,304	116	--	6	0
Conway	0	11	--	--	0
Cummington	1	4	--	0	0
Dalton	0	29	0	--	--
Danvers	1	243	12	14	0
Dartmouth	2	173	11	9	--
Dedham	2	290	22	25	--
Deerfield	1	39	0	--	0
Dennis	1	91	--	--	--
Dighton	2	77	8	11	--
Douglas	3	83	7	7	0
Dover	1	41	--	--	0
Dracut	0	317	27	24	--
Dudley	0	100	7	11	0
Dunstable	0	26	--	--	0
Duxbury	1	129	7	9	0
East Bridgewater	2	144	9	12	--
East Brookfield	0	22	--	--	--
East Longmeadow	0	126	6	7	0
Eastham	0	27	--	--	0
Easthampton	2	134	11	11	--
Easton	1	192	12	15	--
Edgartown	1	55	--	5	--
Egremont	3	8	--	--	0
Erving	0	20	--	--	0
Essex	1	25	0	0	0
Everett	3	625	50	69	14
Fairhaven	1	109	9	8	--
Fall River	1,442	1,113	92	90	51
Falmouth	350	180	12	9	--
Fitchburg	3	475	37	41	22

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2019**

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	4	0	0	0
Foxborough	2	175	13	13	0
Framingham	1,147	883	67	75	28
Franklin	2	303	11	19	--
Freetown	0	68	--	--	0
Gardner	390	231	23	19	9
Georgetown	1	77	--	8	--
Gill	0	11	--	--	0
Gloucester	1	254	21	20	6
Goshen	0	3	0	0	0
Gosnold	0	0	0	0	0
Grafton	2	187	14	17	0
Granby	1	38	6	--	0
Granville	0	6	0	--	0
Great Barrington	143	32	--	--	0
Greenfield	492	160	15	21	--
Groton	0	69	--	--	--
Groveland	0	51	5	5	--
Hadley	0	31	--	--	0
Halifax	0	61	9	12	0
Hamilton	1	84	--	--	0
Hampden	0	25	--	--	0
Hancock	0	5	0	0	0
Hanover	2	142	--	8	0
Hanson	0	97	--	9	0
Hardwick	0	24	--	--	0
Harvard	1	31	--	--	0
Harwich	1	89	7	8	--
Hatfield	0	15	0	0	0
Haverhill	4	792	68	94	26
Hawley	0	1	0	0	0
Heath	0	2	0	0	0
Hingham	1	199	10	14	0
Hinsdale	0	19	--	5	0
Holbrook	0	126	7	9	--
Holden	0	182	9	18	0
Holland	0	30	9	6	0
Holliston	0	109	--	7	0
Holyoke	347	489	50	59	36
Hopedale	2	55	5	9	--
Hopkinton	1	163	5	5	--
Hubbardston	0	38	--	--	0
Hudson	2	218	6	12	--
Hull	1	56	--	--	0
Huntington	1	18	--	--	0
Ipswich	1	101	7	10	0
Kingston	0	133	9	9	--
Lakeville	1	110	7	5	0
Lancaster	1	57	5	6	0
Lanesborough	0	19	--	0	--

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2019**

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	1,368	1,429	122	133	105
Lee	2	27	--	--	0
Leicester	1	89	11	10	0
Lenox	2	17	0	--	--
Leominster	568	422	19	27	16
Leverett	2	17	0	--	0
Lexington	0	147	13	9	0
Leyden	0	7	0	0	0
Lincoln	2	80	--	5	--
Littleton	1	85	--	7	--
Longmeadow	3	118	12	17	0
Lowell	2,178	1,473	141	148	53
Ludlow	0	155	10	17	--
Lunenburg	1	113	7	13	--
Lynn	3	1,508	145	150	74
Lynnfield	0	132	5	9	--
Malden	1	825	68	62	11
Manchester	0	19	0	--	0
Mansfield	0	195	7	14	--
Marblehead	1	134	18	17	--
Marion	0	36	0	--	0
Marlborough	0	496	45	51	13
Marshfield	1	215	13	17	--
Mashpee	0	107	10	13	--
Mattapoisett	0	30	--	--	--
Maynard	3	111	7	10	0
Medfield	2	110	7	5	--
Medford	3	625	34	39	--
Medway	1	120	--	9	--
Melrose	798	358	17	20	--
Mendon	2	45	--	--	0
Merrimac	1	51	--	--	--
Methuen	1,030	537	46	50	8
Middleborough	0	211	15	22	5
Middlefield	0	2	0	0	0
Middleton	0	54	10	7	--
Milford	894	351	22	29	14
Millbury	6	114	13	12	--
Millis	3	81	6	7	0
Millville	0	27	--	--	--
Milton	6	291	20	27	--
Monroe	0	2	--	0	0
Monson	1	44	--	--	--
Montague	1	66	6	7	5
Monterey	0	4	0	0	0
Montgomery	0	8	0	0	0
Mount Washington	1	1	0	0	0
Nahant	0	14	--	--	0
Nantucket	124	137	9	11	--
Natick	2	397	30	38	--

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2019**

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	4	291	16	24	--
New Ashford	0	1	0	0	0
New Bedford	1,524	1,211	120	118	81
New Braintree	0	12	--	--	0
New Marlborough	0	10	0	0	0
New Salem	0	5	0	0	0
Newbury	0	49	--	--	0
Newburyport	637	110	8	9	--
Newton	3,748	580	26	37	--
Norfolk	1	109	6	10	0
North Adams	1	95	10	9	5
North Andover	2	277	15	23	--
North Attleborough	2	275	22	20	--
North Brookfield	0	44	--	--	0
North Reading	2	152	9	11	0
Northampton	566	150	11	10	--
Northborough	2	134	5	5	--
Northbridge	1	131	11	11	--
Northfield	0	27	--	--	0
Norton	2	141	13	12	--
Norwell	1	119	--	6	0
Norwood	428	371	23	25	--
Oak Bluffs	150	50	--	--	--
Oakham	0	14	0	0	0
Orange	0	53	--	--	--
Orleans	0	24	--	--	0
Otis	0	6	0	0	0
Oxford	1	119	17	18	--
Palmer	0	110	--	5	--
Paxton	0	38	--	--	0
Peabody	0	554	34	46	5
Pelham	0	5	0	0	0
Pembroke	0	163	8	9	0
Pepperell	2	108	9	10	--
Peru	0	6	0	0	0
Petersham	0	8	--	0	0
Phillipston	1	15	0	--	0
Pittsfield	626	419	47	50	11
Plainfield	1	5	0	0	0
Plainville	1	82	5	--	--
Plymouth	815	541	42	62	--
Plympton	0	28	--	--	0
Princeton	0	22	--	0	0
Provincetown	0	10	--	--	0
Quincy	6	1,157	72	84	5
Randolph	1	377	37	42	8
Raynham	0	137	9	14	--
Reading	1	252	7	16	0
Rehoboth	1	98	--	--	--
Revere	4	722	55	60	15

Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2019

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	0	6	--	--	0
Rochester	1	47	--	--	--
Rockland	1	189	17	17	--
Rockport	0	35	--	--	0
Rowe	0	0	0	0	0
Rowley	0	49	--	6	0
Royalston	1	13	0	0	0
Russell	2	23	0	0	0
Rutland	1	85	7	11	--
Salem	1,196	457	39	45	12
Salisbury	0	60	6	8	0
Sandisfield	0	4	0	0	0
Sandwich	1	144	6	12	--
Saugus	1	277	25	30	--
Savoy	1	6	0	0	0
Scituate	0	169	8	18	--
Seekonk	0	139	10	9	--
Sharon	3	140	9	16	0
Sheffield	0	14	0	0	0
Shelburne	0	8	0	--	0
Sherborn	0	33	--	--	0
Shirley	1	67	--	--	--
Shrewsbury	2	354	29	20	--
Shutesbury	1	12	0	0	0
Somerset	0	146	5	12	0
Somerville	3	777	49	63	6
South Hadley	0	127	10	14	--
Southampton	1	50	--	--	--
Southborough	1	100	--	6	0
Southbridge	0	203	17	23	8
Southwick	0	65	--	6	--
Spencer	0	111	12	15	--
Springfield	5,127	2,021	225	252	174
Sterling	1	70	--	--	0
Stockbridge	0	6	0	--	0
Stoneham	1	248	15	20	--
Stoughton	0	319	30	38	--
Stow	0	43	--	--	0
Sturbridge	0	74	6	5	--
Sudbury	2	144	12	19	0
Sunderland	0	14	0	--	--
Sutton	0	75	--	6	0
Swampscott	0	147	7	13	--
Swansea	0	127	--	--	--
Taunton	5	632	57	61	17
Templeton	0	73	--	6	0
Tewksbury	0	309	22	20	--
Tisbury	0	47	--	--	0
Tolland	0	1	0	0	0
Topsfield	0	35	--	--	0

**Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births,
Massachusetts Municipalities: 2019**

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	0	82	9	15	--
Truro	0	10	--	--	0
Tyngsborough	1	114	5	10	0
Tyringham	0	2	0	0	0
Upton	2	85	6	11	--
Uxbridge	3	116	9	9	0
Wakefield	0	332	14	20	--
Wales	1	10	0	0	0
Walpole	3	287	21	29	0
Waltham	1	751	51	58	12
Ware	2	89	9	9	7
Wareham	350	181	14	16	--
Warren	0	37	--	--	--
Warwick	0	2	0	0	0
Washington	0	0	0	0	0
Watertown	3	437	23	28	0
Wayland	2	104	--	--	0
Webster	0	201	12	19	8
Wellesley	0	165	6	10	0
Wellfleet	0	12	0	0	0
Wendell	0	2	0	0	0
Wenham	0	29	--	--	0
West Boylston	1	76	8	11	0
West Bridgewater	0	77	6	8	0
West Brookfield	0	23	0	0	0
West Newbury	0	25	--	0	0
West Springfield	2	287	17	26	11
West Stockbridge	1	4	0	0	0
West Tisbury	1	25	0	0	0
Westborough	1	191	11	12	5
Westfield	0	321	24	30	--
Westford	0	150	5	10	0
Westhampton	0	9	0	0	0
Westminster	0	84	8	10	--
Weston	3	63	--	5	0
Westport	2	110	14	11	0
Westwood	0	130	9	10	0
Weymouth	3,092	665	52	57	8
Whately	0	14	0	--	0
Whitman	3	153	8	12	--
Wilbraham	0	101	6	--	0
Williamsburg	1	13	0	0	0
Williamstown	0	24	--	--	0
Wilmington	0	248	15	26	0
Winchendon	2	72	10	10	--
Winchester	2,351	177	11	12	--
Windsor	0	4	0	0	0
Winthrop	1	181	14	19	--
Woburn	2	479	38	41	5
Worcester	6,390	2,404	209	246	100

Table 17 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2019					
Community	Occurrence Births¹	Resident Births²			
		Number of Births	Low Birthweight (Less than 2,500 grams, 5.5 lbs.)	Preterm (<37 weeks gestation)	Teen Births (15-19 years)
Worthington	0	4	0	0	0
Wrentham	0	101	6	8	--
Yarmouth	0	157	5	14	--
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.					

Table 18. Birth Characteristics: Occurrence and Resident Births by County, Massachusetts: 2019

County	Occurrence Births ¹	Number of Births	Resident Births ²		
			Low Birthweight ³	Preterm ⁴	Teen Births (15-19 Years)
STATE TOTAL	69,919	69,117	5,273	6,200	1,538
BARNSTABLE	1,121	1,474	77	117	21
BERKSHIRE	782	887	83	90	20
BRISTOL	3,626	5,554	437	456	184
DUKES	152	186	5	10	--
ESSEX	6,485	8,490	679	797	255
FRANKLIN	497	536	35	52	13
HAMPDEN	5,488	4,785	447	529	260
HAMPSHIRE	577	982	78	83	24
MIDDLESEX	15,253	16,305	1,129	1,345	184
NANTUCKET	124	137	9	11	--
NORFOLK	3,567	7,260	498	604	45
PLYMOUTH	3,318	5,236	356	473	87
SUFFOLK	20,631	8,793	781	863	216
WORCESTER	8,298	8,491	659	770	224
UNKNOWN	0	1	0	0	0

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: 2019

Community Health Network Area	Occurrence Births ¹	Number of Births	LBW ³	Resident Births ²	
				Preterm ⁴	Teen Births (15-19 Years)
STATE TOTAL	69,919	69,117	5,273	6,200	1,538
1. Community Health Network of Berkshire County	782	887	83	90	20
2. Upper Valley Health Web (Franklin County)	499	682	44	61	14
3. Partnership for Health in Hampshire County (Northampton)	576	964	75	79	24
4. The Community Health Connection (Springfield)	5,137	3,200	295	347	192
5. Community Health Network of Southern Worcester County	-- ⁵	1,126	103	118	29
6. Community Partners for Health (Milford)	914	1,650	102	135	28
7. Community Health Network of Greater Metro West (Framingham)	1,176	4,281	283	338	58
8. Community Wellness Coalition (Worcester)	6,404	3,642	311	354	108
9. Fitchburg/Gardner Community Health Network	981	2,609	183	221	66
10. Greater Lowell Community Health Network	2,182	3,159	261	298	62
11. Greater Lawrence Community Health Network	2,401	2,566	213	245	116
12. Greater Haverhill Community Health Network	644	1,480	116	155	31
13. Community Health Network North (Beverly/Gloucester)	2,238	978	63	71	10
14. North Shore Community Health Network	1,202	3,466	287	326	98
15. Greater Woburn/Concord/Littleton Community Health Network	3,665	1,944	142	168	10
16. North Suburban Health Alliance (Medford/Malden/Melrose)	809	3,417	214	257	33
17. Greater Cambridge/Somerville Community Health Network	3,681	3,035	202	242	12
18. West Suburban Health Network (Newton/Waltham)	3,759	2,311	138	172	15
19. Alliance for Community Health (Boston/Chelsea/Revere/Winthrop)	20,632	9,374	822	909	216
20. Blue Hills Community Health Alliance (Greater Quincy)	3,545	4,265	292	359	27
21. Four (For) Communities (Holyoke, Chicopee, Ludlow, Westfield)	351	1,534	140	176	67
22. Greater Brockton Community Health Network	2,143	2,990	233	286	74
23. South Shore Community Partners in Prevention (Plymouth)	821	1,782	115	164	11
24. Greater Attleboro-Taunton Health & Education Response	655	2,541	184	205	50
25. Partners for a Healthier Community (Fall River)	1,444	1,496	114	117	53
26. Greater New Bedford Health & Human Services Coalition	1,878	1,940	167	169	88
27. Cape and Islands Community Health Network	1,397	1,797	91	138	26

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. 5. Due to small numbers (n=1-4), exact count not provided.

Figure 6. Percent of Infants whose Mother Smoked During Pregnancy, Massachusetts: 1990 - 2019

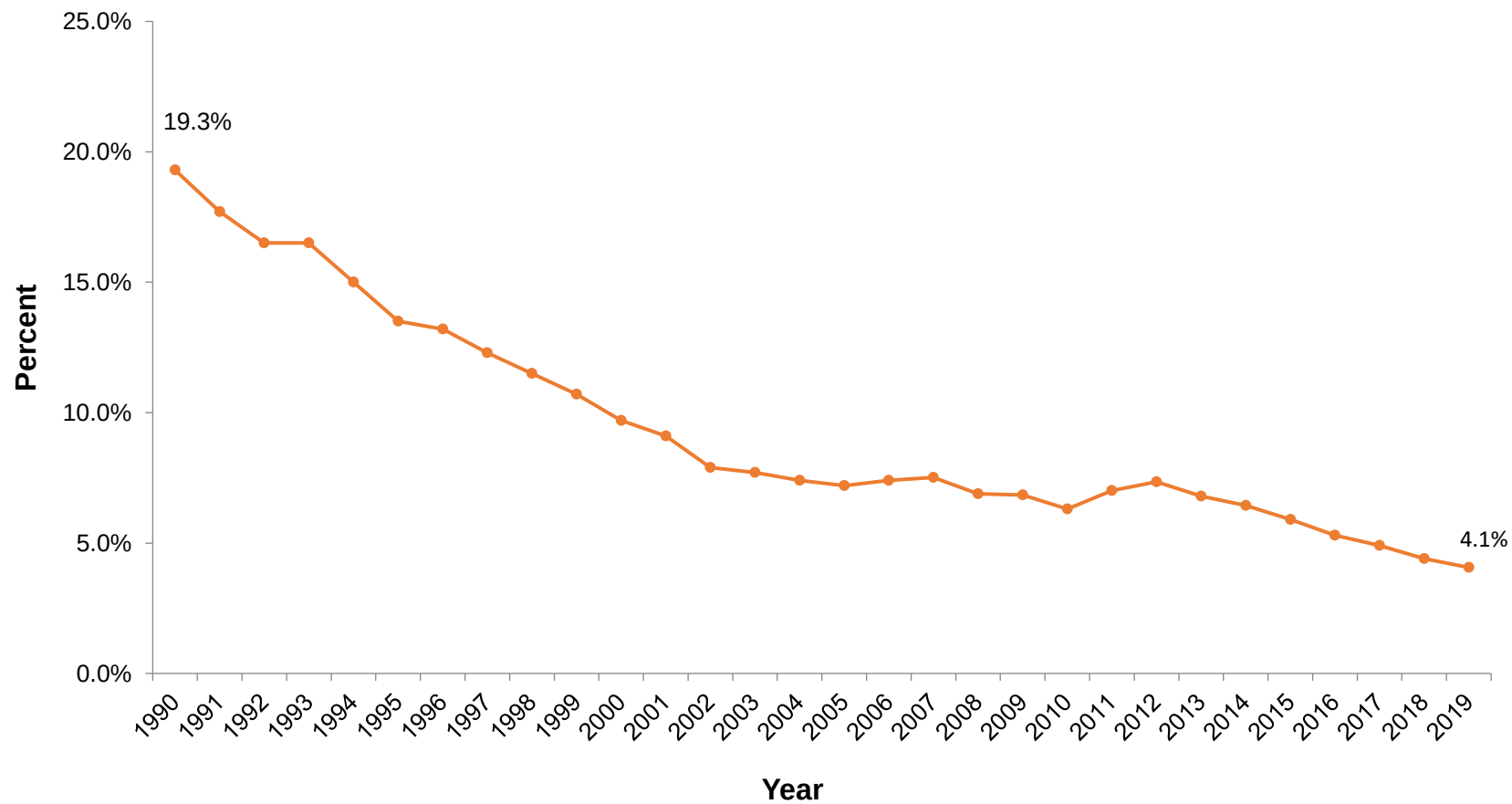


Table 20. Cesarean Deliveries and Vaginal Births after Cesarean (VBACs) by Licensed Maternity Facility¹, All Mothers, Massachusetts: 2019

Facility ²	Occurrence Deliveries ³	Total Cesareans		Primary Cesareans ³		Repeat Cesareans ³		VBACs ³	
		N	% ⁴	N	%	N	%	N	%
State Total	66,703	20,382	30.6	11,459	20.4	8,923	84.7	1,618	15.3
Anna Jaques Hospital	514	172	33.5	90	21.6	82	84.5	15	15.5
Baystate Franklin Medical Center	455	136	29.9	77	20.1	59	81.9	13	18.1
Baystate Medical Center	3,805	1,204	31.6	683	21.7	521	79.1	138	20.9
Berkshire Medical Center	605	152	25.1	90	17.2	62	74.7	21	25.3
Beth Israel Deaconess Hospital - Plymouth	800	248	31.0	146	21.4	102	85.7	17	14.3
Beth Israel Deaconess Medical Center	5,220	1,532	29.3	1,089	22.9	443	93.7	30	6.3
Beverly Hospital	2,132	600	28.1	349	18.8	251	90.6	26	9.4
Boston Medical Center	2,799	868	31.0	467	20.3	401	81.2	93	18.8
Brigham And Women's Hospital	5,838	1,873	32.1	1,065	21.7	808	85.9	133	14.1
Brockton Hospital	1,419	385	27.1	189	16.1	196	80.7	47	19.3
Cambridge Hospital	1,094	312	28.5	165	18.2	147	78.2	41	21.8
Cape Cod Hospital	747	242	32.4	128	20.8	114	86.4	18	13.6
Charlton Memorial Hospital	1,328	434	32.7	223	20.1	211	97.7	5	2.3
Cooley Dickinson Hospital	552	153	27.7	102	21.1	51	73.9	18	26.1
Emerson Hospital	1,252	374	29.9	206	19.8	168	80.4	41	19.6
Fairview Hospital	119	29	24.4	15	14.3	14	100.0	0	0.0
Falmouth Hospital	346	113	32.7	55	19.1	58	100.0	0	0.0
Good Samaritan Medical Center	668	241	36.1	104	20.4	137	87.3	20	12.7
Healthalliance-Clinton Hospital, Leominster	558	138	24.7	60	12.5	78	100.0	0	0.0
Heywood Hospital	375	74	19.7	37	11.4	37	72.5	14	27.5
Holyoke Medical Center	338	99	29.3	76	24.5	23	82.1	5	17.9
Lawrence General Hospital	1,268	470	37.1	195	19.7	275	98.6	4	1.4
Lowell General Hospital	2,007	658	32.8	321	19.6	337	91.1	33	8.9
Martha's Vineyard Hospital	147	55	37.4	38	29.2	17	100.0	0	0.0
Massachusetts General Hospital	3,698	1,087	29.4	668	21.2	419	77.6	121	22.4
Melrose-Wakefield Hospital	772	235	30.4	120	18.3	115	100.0	0	0.0
Mercy Medical Center	953	277	29.1	151	18.6	126	88.7	16	11.3
Metro West Medical Center-Framingham Union Hospital	1,128	397	35.2	194	21.7	203	87.5	29	12.5
Milford Regional Medical Center	844	267	31.6	134	19.3	133	89.9	15	10.1
Mt. Auburn Hospital	2,424	529	21.8	342	16.2	187	60.7	121	39.3
Nantucket Cottage Hospital	120	36	30.0	13	13.4	23	100.0	0	0.0
Newton-Wellesley Hospital	3,657	1,105	30.2	656	21.0	449	83.9	86	16.1

Table 20. Cesarean Deliveries and Vaginal Births after Cesarean (VBACs) by Licensed Maternity Facility¹, All Mothers, Massachusetts: 2019

North Shore Medical Center - Salem Hospital	1,173	345	29.4	187	19.1	158	81.4	36	18.6
Norwood Hospital	395	143	36.2	68	21.7	75	92.6	6	7.4
Saint Vincent Hospital	1,900	610	32.1	383	23.5	227	83.2	46	16.8
South Shore Hospital	3,021	1,042	34.5	545	22.4	497	84.7	90	15.3
St. Elizabeth's Medical Center	799	276	34.5	151	23.3	125	83.3	25	16.7
St. Luke's Hospital	1,480	456	30.8	241	19.3	215	92.7	17	7.3
Steward Holy Family Hospital	826	318	38.5	158	24.0	160	95.8	7	4.2
Sturdy Memorial Hospital	577	181	31.4	86	18.3	95	88.8	12	11.2
Tobey Hospital	341	78	22.9	45	14.6	33	100.0	0	0.0
Tufts Medical Center	1,248	474	38.0	279	27.8	195	80.2	48	19.8
UMass Memorial Medical Center-Memorial Campus	4,196	1,263	30.1	670	19.5	593	78.3	164	21.7
Winchester Hospital	2,196	701	31.9	398	21.4	303	90.4	32	9.6

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: 2019

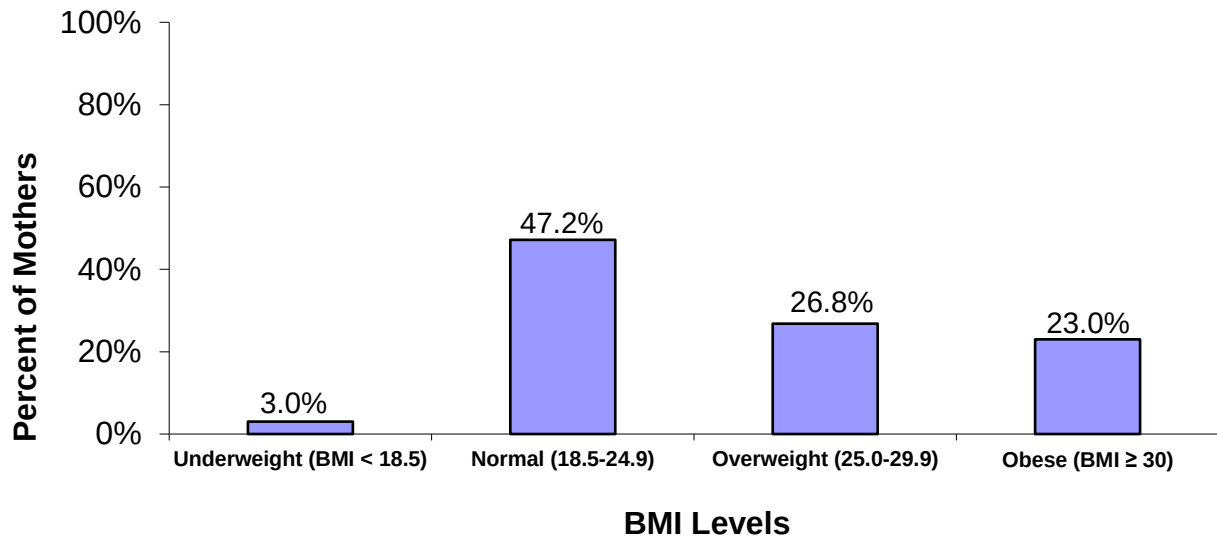
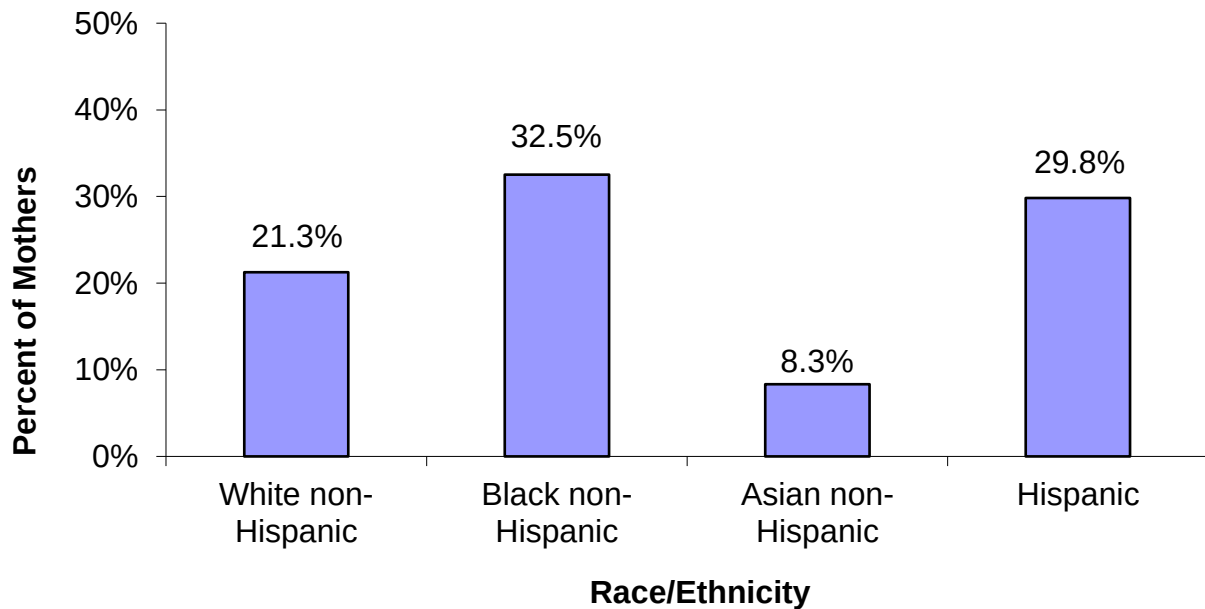


Figure 8. Obesity Prior to Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2019



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: 2019

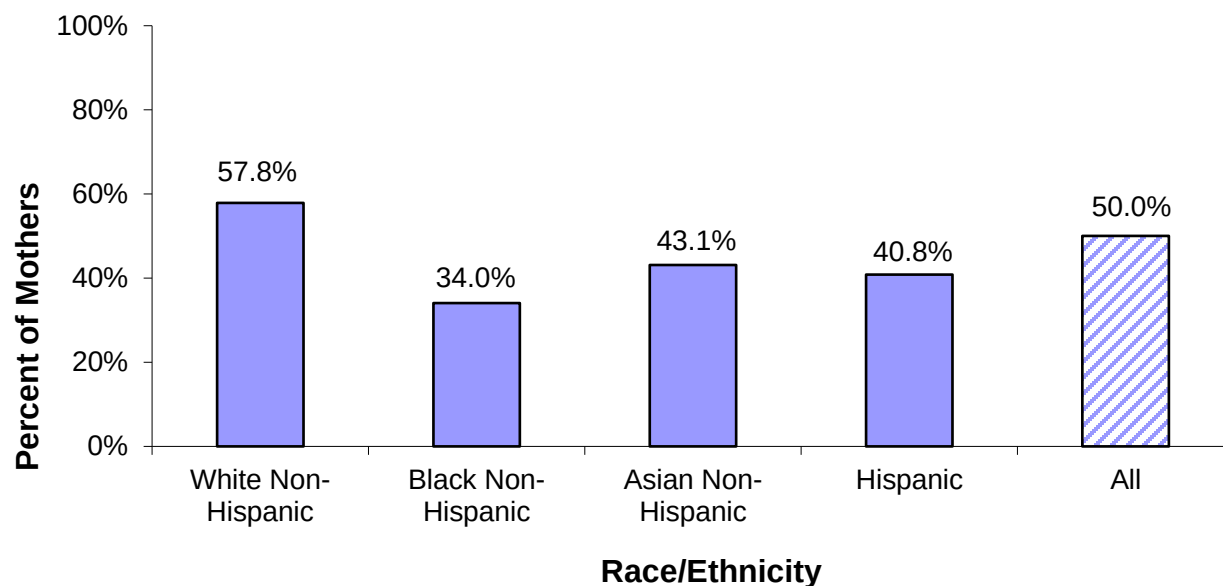
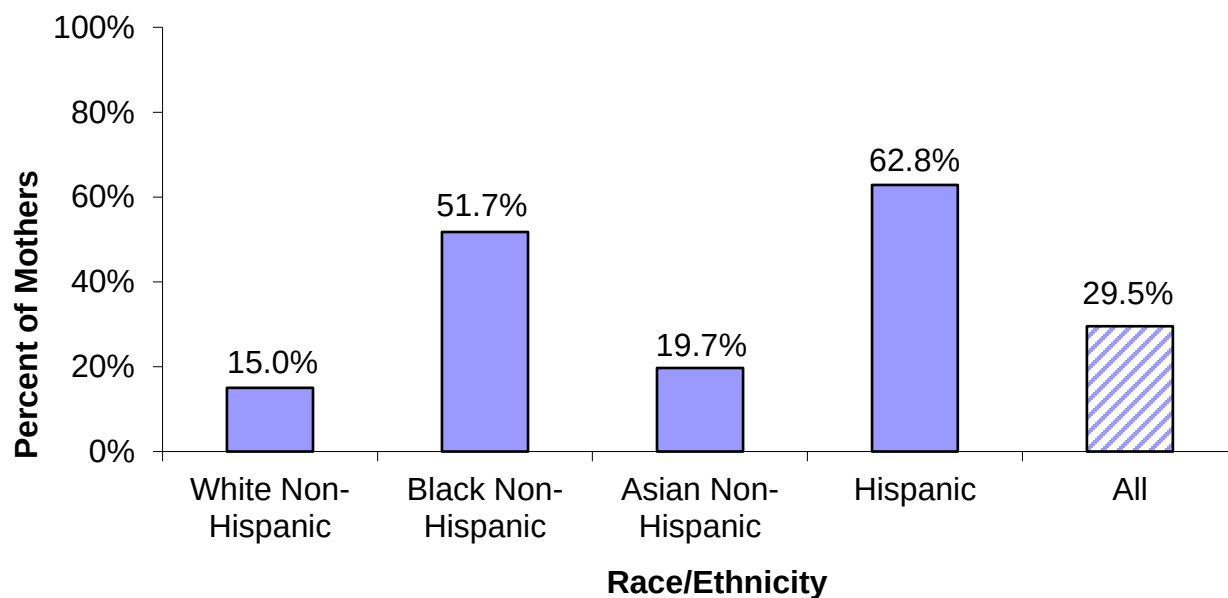
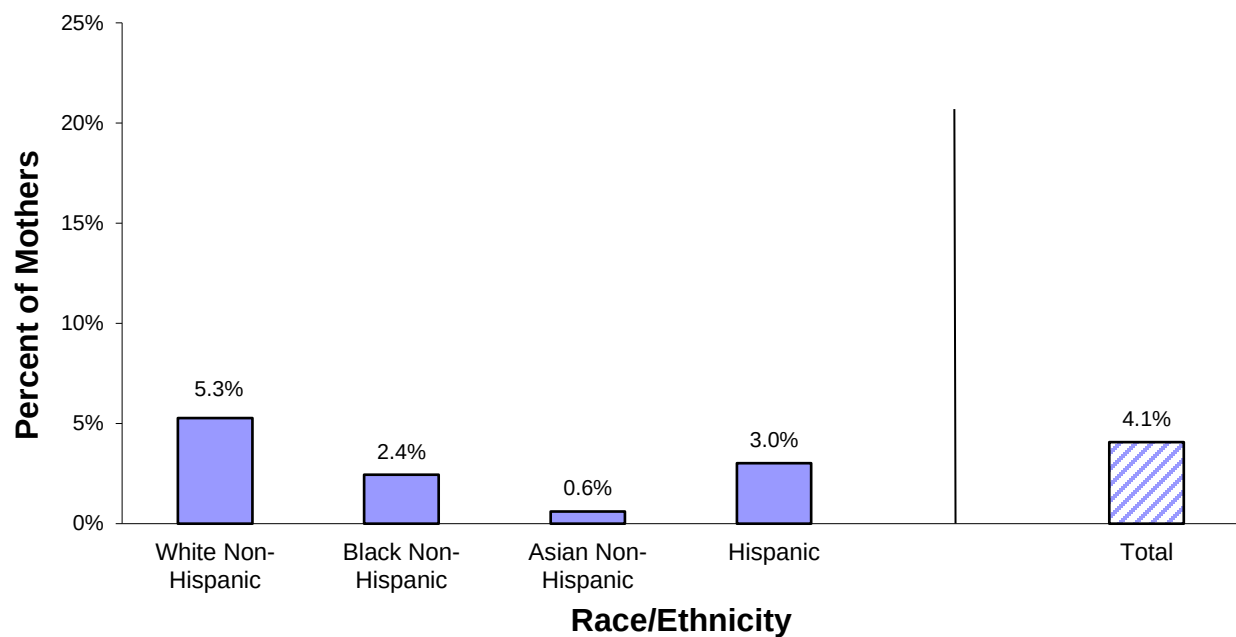


Figure 10. Mothers Who Reported Having Received WIC Food During Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2019



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: 2019



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

Table 21. Mothers Who Used Infertility Treatments, Massachusetts: 2019

	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	2,849	74.9%	428	11.3%	525	13.8%
Maternal Demographics						
Race/Hispanic Ethnicity	N	% ⁵	N	% ⁵	N	% ⁵
White Non-Hispanic	2,202	77.9%	336	79.2%	378	73.1%
Black Non-Hispanic	101	3.6%	17	4.0%	26	5.0%
Asian Non-Hispanic	334	11.8%	42	9.9%	62	12.0%
Hispanic	172	6.1%	26	6.1%	47	9.1%
American Indian and Other	19	0.7%	--9	--9	--9	--9
Birthplace						
US States / D.C. / US Terr.	2,226	78.1%	346	80.8%	386	73.5%
Non-US-born	623	21.9%	82	19.2%	139	26.5%
Prenatal care funding						
Public	149	5.3%	32	7.5%	70	13.4%
Private, other	2,688	94.7%	395	92.5%	452	86.6%
Age						
20-29	152	5.3%	36	8.4%	102	19.4%
30-34	924	32.4%	183	42.8%	244	46.5%
35-39	1,171	41.1%	164	38.3%	144	27.4%
40+	602	21.1%	45	10.5%	35	6.7%
Pregnancy-Related Factors						
Adequacy of Prenatal Care⁶						
Adequate Total ⁷	2,067	89.9%	325	91.8%	386	90.8%
Adequate Intensive	1,220	53.1%	180	50.8%	219	51.5%
Adequate Basic	847	36.9%	145	41.0%	167	39.3%
Intermediate	93	4.0%	14	4.0%	8	1.9%
Inadequate/None	138	6.0%	15	4.2%	31	7.3%
Parity⁸						
1	1,718	60.3%	311	72.8%	325	61.9%
2	913	32.1%	95	22.2%	151	28.8%
3+	216	7.6%	21	4.9%	49	9.3%
Birth Outcomes						
Gestational age						
<28 weeks (extremely preterm) ¹⁰	22	4.9%	--9	--9	7	0.8%
<37 weeks (preterm) ¹⁰	359	79.4%	47	1.4%	71	7.8%
37+	2,490	550.9%	381	11.5%	454	50.0%
Plurality						
Singleton	2,638	92.6%	390	91.1%	480	91.4%
Multiple birth	211	7.4%	38	8.9%	45	8.6%

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. 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

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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.*

☐ American Indian/Alaska Native (specify tribal nation): _____ ☐ Asian ☐ Black ☐ Guamanian or Chamorro ☐ Hispanic/Latina/Black ☐ Hispanic/Latina/White	☐ Hispanic/Latina/Other (specify): _____ ☐ Native Hawaiian ☐ Samoan ☐ White ☐ Other Pacific Islander (specify): _____ ☐ Other race not listed (specify): _____
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Mother/Parent Ethnicity

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

☐ African (specify): _____ ☐ African-American ☐ American ☐ Asian Indian ☐ Brazilian ☐ Cambodian ☐ Cape Verdean ☐ Caribbean Islander (specify): _____ ☐ Chinese ☐ Colombian ☐ Cuban ☐ Dominican ☐ European (specify): _____ ☐ Filipino ☐ Guatemalan ☐ Haitian ☐ Honduran	☐ Japanese ☐ Korean ☐ Laotian ☐ Mexican, Mexican American, Chicano ☐ Middle Eastern (specify): _____ ☐ Native American (specify tribal nation(s)): _____ ☐ Portuguese ☐ Puerto Rican ☐ Russian ☐ Salvadoran ☐ Vietnamese ☐ Other Asian (specify): _____ ☐ Other Central American (specify): _____ ☐ Other Pacific Islander (specify): _____ ☐ Other Portuguese (specify): _____ ☐ Other South American (specify): _____ ☐ Other ethnicity (ies) not listed (specify): _____
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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 1 ☐ Puerto Rican 2 ☐ Dominican 3 ☐ Mexican 4 ☐ Cuban 5 ☐ Colombian 6 ☐ Salvadoran 7 ☐ Other Central American (specify) _____ 8 ☐ Other South American (specify) _____ 9 ☐ Other Hispanic/Latina (specify): _____	AFRICAN/AFRICAN AMERICAN 29 ☐ African-American/ Afro-American 30 ☐ Nigerian 31 ☐ Other African (specify): _____
ASIAN/PACIFIC ISLANDER 10 ☐ Chinese 11 ☐ Vietnamese 12 ☐ Cambodian 13 ☐ Asian Indian 14 ☐ Korean 15 ☐ Filipino 16 ☐ Japanese 17 ☐ Laotian 18 ☐ Pakistani 19 ☐ Thai 20 ☐ Hawaiian 21 ☐ Other Asian/Pacific Islander (specify) _____	MIDDLE EASTERN 32 ☐ Lebanese 33 ☐ Iranian 34 ☐ Israeli 35 ☐ Other Middle Eastern (specify): _____
PORTUGUESE SPEAKING 22 ☐ Cape Verdean 23 ☐ Brazilian 24 ☐ Other Portuguese (specify): _____	AMERICAN ANCESTRY 36 ☐ Native American/ American Indian (specify tribe/affiliation): _____ 37 ☐ American
WEST INDIAN/CARIBBEAN ISLANDER 25 ☐ Haitian 26 ☐ Jamaican 27 ☐ Barbadian 28 ☐ Other West Indian/Caribbean Islander (specify): _____	EUROPEAN and OTHER ancestries 38 ☐ European (specify): _____ 39 ☐ Other (specify): _____

Table A1. 2019 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						
<1	35,022	20,247	3,150	55	2,389	7,679
1 to 4	139,996	83,011	12,843	238	10,247	29,700
5 to 9	180,866	102,688	16,839	353	12,724	35,343
10 to 14	195,246	119,587	16,962	313	13,575	35,174
15 to 19	230,303	149,822	18,420	359	18,086	36,376
20 to 24	256,989	166,453	21,718	446	23,549	38,510
25 to 29	253,658	165,526	22,876	640	25,918	39,603
30 to 34	237,349	158,580	20,018	385	25,899	33,170
35 to 39	222,487	144,863	17,940	309	23,566	31,833
40 to 44	208,500	136,935	16,841	291	19,953	29,264
45 to 49	223,427	157,366	16,246	300	18,088	26,267
50+	1,398,991	1,151,159	78,223	2,144	63,554	89,383
All Females	3,582,833	2,556,237	262,076	5,833	257,549	432,303
Male						
<1	36,936	21,178	3,227	68	2,668	8,082
1 to 4	146,577	87,391	13,050	277	10,935	30,772
5 to 9	188,592	106,904	17,303	338	13,525	36,680
10 to 14	203,177	125,768	17,182	313	13,794	36,433
15 to 19	231,607	151,723	18,566	350	16,443	37,648
20 to 24	254,744	164,642	21,022	444	20,944	41,347
25 to 29	261,438	169,405	24,456	682	25,163	43,134
30 to 34	236,446	158,061	20,110	461	22,730	35,376
35 to 39	218,336	142,790	17,846	341	20,932	32,826
40 to 44	199,688	133,226	15,791	257	17,360	28,402
45 to 49	209,772	149,759	15,192	303	16,382	23,319
50+	1,194,236	988,437	63,406	1,975	54,432	72,774
All Males	3,381,549	2,399,284	247,152	5,810	235,309	426,792
<1	71,958	41,425	6,376	123	5,057	15,761
1 to 4	286,573	170,402	25,893	515	21,182	60,472
5 to 9	369,458	209,592	34,142	691	26,249	72,023
10 to 14	398,423	245,355	34,144	626	27,369	71,607
15 to 19	461,910	301,545	36,987	709	34,529	74,024
20 to 24	511,733	331,096	42,740	891	44,494	79,857
25 to 29	515,096	334,931	47,332	1,322	51,081	82,737
30 to 34	473,795	316,640	40,128	846	48,630	68,546
35 to 39	440,823	287,653	35,786	650	44,498	64,659
40 to 44	408,189	270,161	32,633	548	37,314	57,665
45 to 49	433,199	307,126	31,438	603	34,470	49,585
50+	2,593,227	2,139,596	141,628	4,119	117,986	162,157
State Total	6,964,383	4,955,521	509,228	11,644	492,858	859,095

1. Population estimates were calculated using UMass Donahue Institute (UMDI) estimates for 2019.

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.