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Executive Office of Health and Human Services  
Department of Public Health  
250 Washington Street, Boston, MA 02108-4619

**CHARLES D. BAKER**  
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**MONICA BHAREL, MD, MPH**  
Commissioner

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May 29, 2018

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

William F. Welch  
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 2016 calendar year.

Sincerely,

Monica Bharel, MD, MPH  
Commissioner  
Department of Public Health



**Charles D. Baker**  
Governor

**Karyn Polito**  
Lieutenant Governor



**Marylou Sudders**  
Secretary

**Monica Bharel, MD, MPH**  
Commissioner

# Massachusetts Births 2016

**May 2018**





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# ***Massachusetts Births 2016***

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**Massachusetts Department of Public Health**  
Registry of Vital Records and Statistics

May 2018



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# Massachusetts Births 2016

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Charles D. Baker, Governor  
Marylou Sudders, Secretary of Health and Human Services  
Monica Bharel, MD, MPH, Commissioner of Public Health

Karin Barrett, Registrar  
Registry of Vital Records and Statistics

Massachusetts Department of Public Health

May 2018

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

### **To obtain additional copies of this report, contact:**

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Massachusetts Department of Public Health  
Office of Data Management and Outcomes Assessment  
250 Washington Street, 6th floor  
Boston, MA 02108

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/eohhs/researcher/community-health/masschip/>

or call 888-MAS-CHIP (toll free in MA) or 617-624-5629.

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## **Note to Readers**

Please review the information below before reading the report. 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 2016 (Annual Report Vital Statistics of Massachusetts-Births, Public Document #1 2016). Public Document #1 information on 2016 deaths, marriages, and divorces is covered in separate reports.

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

### **Suggested Citation**

*Massachusetts Births 2016* Boston, MA: Registry of Vital Records and Statistics, Massachusetts Department of Public Health. May 2018.

### **Selected Takeaways**

- In 2016, there were 71,319 births to Massachusetts resident mothers, a decline of 0.2% from 71,484 in 2015 and a decline of 22.9% since 1990. The number of births to mothers age 30 and older increased by 1.8% (2016: 43,377; 2015: 42,594), while the number of births to mothers under 30 decreased by 3.3% (2016: 27,942; 2015: 28,890).
- Between 2015 and 2016, the number of births to White Non-Hispanic mothers decreased by 1.9%, while the number of births to Black Non-Hispanic, Asian Non-Hispanic, and Hispanic mothers increased by 2.1%, 2.7%, and 1.3%, respectively.
- In 2016, the Massachusetts teen birth rate decreased for the sixth year in a row. The teen birth rate was 15.4 births per 1,000 women age 15-19 in 2011, while in 2016 the rate was 8.5 births per 1,000 women age 15-19, representing a significant decrease. Between 2015 and 2016, the percentage of births to mothers less than 20 years old decreased for White Non-Hispanic, Black Non-Hispanic, Hispanic, and Asian Non-Hispanic births. However, disparities persisted, and the percentage of teen births to Hispanic women was over five times higher than the percentage of teen births to White Non-Hispanic women.
- In 2016, 31.3% of births were cesarean deliveries. Among White Non-Hispanic, Black Non-Hispanic, Hispanic, and Asian Non-Hispanic births, Black Non-Hispanics had the highest percentage of cesarean deliveries (34.6%), while Asian Non-Hispanics had the lowest percentage (29.3%).
- Between 2014 and 2015, the percentage of births to mothers who developed gestational diabetes increased from 5.4% to 6.0%. However, in 2016 the percentage of births to mothers affected by gestational diabetes returned to 5.6%.
- For the third year in a row, the percentage of low birthweight infants (less than 2,500 grams or 5.5 pounds) remained unchanged (2014: 7.5%; 2015: 7.5%; 2016: 7.5%).
- Between 2015 and 2016, the percentage of preterm births (births occurring at less than 37 weeks of gestation) increased slightly from 8.4% to 8.7%. Black Non-Hispanics experienced the greatest increase in the percentage of preterm births, rising from 10.4% in 2015 to 11.2% in 2016. In contrast, this percentage actually decreased for Asian Non-Hispanics from 8.1% in 2015 to 7.5% in 2016.
- From 2015 to 2016, the percentage of births to mothers who received adequate prenatal care increased for the first time since 2012, climbing from 81.8% in 2015 to 82.3% in 2016. The percentage of births with adequate prenatal care increased for all races/ethnicities, though the percentage of Black Non-Hispanics obtaining adequate care was more than 15% less than the corresponding percentage for White Non-Hispanics.
- The percentage of births to mothers whose prenatal care was financed through a public program remained relatively the same from 2015 (38.3%) to 2016 (38.6%). Among White Non-Hispanic, Black Non-Hispanic, Hispanic, and Asian Non-Hispanic births, the largest increase in public paid prenatal care occurred among Asian Non-Hispanic births, rising 10.5% between 2015 and 2016.
- The percentage of multiple births decreased slightly from 3.8% in 2015 to 3.7% in 2016. Between 2015 and 2016 the percentage of multiple births to mothers under 35 years old remained the same at 3.1%, and the corresponding percentage for births to mothers 35 and older decreased from 5.9% to 5.7%.
- Smoking during pregnancy continued to decline in 2016. The percentage of infants whose mothers reported smoking during pregnancy decreased from 5.9% in 2015 to 5.3% in 2016.
- In Massachusetts overall, the percentage of mothers who used infertility treatments decreased from 73.3% in 2015 to 68.9% in 2016.

**Table 1. Trends in Birth Characteristics, Massachusetts: 1990, 2002-2016**

| Characteristic                        |                   | 1990   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   |
|---------------------------------------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Births <sup>1</sup>                   | n <sup>2</sup>    | 92,461 | 80,624 | 80,167 | 78,460 | 76,824 | 77,670 | 77,934 | 76,969 | 74,966 | 72,835 | 73,169 | 72,457 | 71,618 | 71,867 | 71,484 | 71,319 |
|                                       | Rate <sup>3</sup> | 62.1   | 56.8   | 56.8   | 56.2   | 55.6   | 56.9   | 57.2   | 56.5   | 55.1   | 53.7   | 54.1   | 53.3   | 52.5   | 52.1   | 52.0   | 52.0   |
| Race of Mother                        |                   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| White Non-Hispanic                    | n                 | 72,483 | 58,136 | 57,604 | 55,322 | 53,469 | 52,975 | 52,620 | 51,760 | 49,759 | 48,466 | 45,973 | 45,032 | 44,432 | 44,128 | 43,255 | 42,448 |
|                                       | % <sup>4</sup>    | 78.4   | 72.1   | 71.9   | 70.5   | 69.6   | 68.2   | 67.5   | 67.2   | 66.4   | 66.5   | 62.8   | 62.1   | 62.0   | 61.4   | 60.5   | 59.5   |
| Black Non-Hispanic                    | n                 | 7,158  | 5,948  | 5,902  | 6,053  | 6,077  | 6,452  | 6,462  | 6,652  | 6,945  | 6,794  | 6,999  | 6,892  | 7,016  | 7,071  | 6,949  | 7,095  |
|                                       | % <sup>4</sup>    | 7.7    | 7.4    | 7.4    | 7.7    | 7.9    | 8.3    | 8.3    | 8.6    | 9.3    | 9.3    | 9.6    | 9.5    | 9.8    | 9.8    | 9.7    | 9.9    |
| Asian Non-Hispanic                    | n                 | 3,349  | 5,300  | 5,224  | 5,454  | 5,251  | 5,469  | 5,758  | 5,958  | 5,939  | 5,817  | 6,022  | 6,530  | 6,220  | 6,426  | 6,473  | 6,647  |
|                                       | % <sup>4</sup>    | 3.6    | 6.6    | 6.5    | 7.0    | 6.8    | 7.0    | 7.4    | 7.7    | 7.9    | 8.0    | 8.2    | 9.0    | 8.7    | 8.9    | 9.1    | 9.3    |
| Hispanic                              | n                 | 8,406  | 9,543  | 9,764  | 9,798  | 10,061 | 10,696 | 10,861 | 10,895 | 10,986 | 10,588 | 12,777 | 13,088 | 12,315 | 12,670 | 12,927 | 13,100 |
|                                       | % <sup>4</sup>    | 9.1    | 11.8   | 12.2   | 12.5   | 13.1   | 13.8   | 13.9   | 14.2   | 14.7   | 14.5   | 17.5   | 18.1   | 17.2   | 17.6   | 18.1   | 18.4   |
| Teen Births<br>(Ages 15-19)           | n                 | 7,258  | 4,642  | 4,639  | 4,559  | 4,539  | 4,722  | 4,944  | 4,583  | 4,477  | 3,907  | 3,480  | 3,219  | 2,732  | 2,402  | 2,140  | 1,931  |
|                                       | Rate <sup>3</sup> | 35.4   | 23.3   | 23.0   | 22.2   | 21.7   | 21.3   | 22.0   | 20.1   | 19.5   | 17.1   | 15.4   | 14.0   | 12.0   | 10.6   | 9.4    | 8.5    |
| Births to Unmarried                   | n                 | 22,837 | 21,604 | 22,262 | 22,376 | 23,170 | 24,977 | 26,010 | 26,146 | 26,029 | 25,220 | 25,349 | 24,900 | 24,014 | 23,853 | 23,913 | 23,566 |
|                                       | %                 | 24.7   | 26.8   | 27.8   | 28.5   | 30.2   | 32.2   | 33.4   | 34.0   | 34.7   | 34.6   | 34.8   | 34.5   | 33.7   | 33.3   | 33.6   | 33.2   |
| Cesarean Deliveries                   | n                 | 20,615 | 22,553 | 23,392 | 24,295 | 24,732 | 25,901 | 26,240 | 26,240 | 25,067 | 24,244 | 23,062 | 22,900 | 22,508 | 22,691 | 22,431 | 22,302 |
|                                       | %                 | 22.3   | 28.0   | 29.2   | 31.0   | 32.3   | 33.4   | 33.7   | 34.3   | 33.6   | 33.3   | 32.5   | 31.7   | 31.5   | 31.6   | 31.4   | 31.3   |
| Gestational Diabetes <sup>5</sup>     | n                 |        | 2,633  | 2,693  | 2,741  | 2,666  | 2,925  | 3,279  | 3,086  | 3,445  | 3,368  | 3,698  | 4,070  | 3,784  | 3,867  | 4,287  | 4,005  |
|                                       | %                 |        | 3.3    | 3.4    | 3.5    | 3.5    | 3.8    | 4.2    | 4.0    | 4.7    | 4.7    | 5.1    | 5.6    | 5.3    | 5.4    | 6.0    | 5.6    |
| Low Birthweight <sup>6</sup>          | n                 | 5,388  | 6,060  | 6,115  | 6,125  | 6,073  | 6,150  | 6,147  | 5,955  | 5,804  | 5,650  | 5,458  | 5,491  | 5,495  | 5,394  | 5,321  | 5,341  |
|                                       | %                 | 5.8    | 7.5    | 7.6    | 7.8    | 7.9    | 7.9    | 7.9    | 7.8    | 7.8    | 7.8    | 7.6    | 7.6    | 7.7    | 7.5    | 7.5    | 7.5    |
| Preterm <sup>7</sup>                  | n                 | 5,899  | 6,795  | 6,963  | 7,222  | 6,925  | 6,954  | 6,980  | 6,750  | 6,516  | 6,234  | 5,992  | 6,107  | 6,300  | 6,161  | 6,001  | 6,167  |
|                                       | %                 | 6.5    | 8.5    | 8.7    | 9.2    | 9.0    | 9.0    | 9.0    | 8.8    | 8.7    | 8.6    | 8.4    | 8.6    | 8.8    | 8.6    | 8.4    | 8.7    |
| Late Preterm <sup>8</sup>             | n                 | 3,977  | 4,726  | 4,800  | 5,016  | 4,808  | 4,918  | 4,945  | 4,753  | 4,602  | 4,361  | 4,206  | 4,422  | 4,518  | 4,394  | 4,305  | 4,492  |
|                                       | %                 | 4.4    | 5.9    | 6.0    | 6.4    | 6.3    | 6.3    | 6.4    | 6.2    | 6.2    | 6.0    | 5.9    | 6.2    | 6.3    | 6.1    | 6.0    | 6.3    |
| Prenatal Care                         |                   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Public Pay Prenatal Care <sup>9</sup> | %                 | 25.1   | 27.9   | 28.3   | 29.9   | 31.9   | 33.5   | 34.9   | 34.5   | 35.3   | 35.8   | 38.8   | 39.8   | 38.9   | 42.9   | 38.3   | 38.6   |
| APNCU Index <sup>10</sup>             | %                 |        | 84.7   | 84.5   | 84.2   | 84.0   | 83.1   | 82.8   | 82.1   | 84.3   | 84.9   | 82.8   | 83.4   | 83.7   | 82.6   | 81.8   | 82.1   |
| Adjusted APNCU Index <sup>11</sup>    | %                 |        |        |        |        |        |        |        |        |        |        | 85.3   | 85.4   | 84.5   | 83.1   | 81.8   | 82.3   |

**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. 4. Percentages are calculated based on births, including those to mothers of unknown race. 5. Gestational diabetes is defined as glucose intolerance found for the first time during pregnancy. It excludes cases with known 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 of gestation. 9. 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. 10. Beginning with Births 2001, the APNCU Index has replaced the Kessner Index as the standard measurement of adequacy of prenatal care. 11. Does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems.

Table 2. Birth Characteristics by Maternal Race/Hispanic Ethnicity and Birthplace, Massachusetts: 2016

| Race and Hispanic Ethnicity (by mother's birthplace) | Births          |                 | Teen Births     |                 |                 |                 | Birthweight           |                 |                  |                 | Prenatal Care         |                 |                           |                 | Cesarean Deliveries |                 | Breastfeeding <sup>5</sup> |                 |
|------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|------------------|-----------------|-----------------------|-----------------|---------------------------|-----------------|---------------------|-----------------|----------------------------|-----------------|
|                                                      | n               | % <sup>1</sup>  | <18 Years       |                 | <20 Years       |                 | Very Low <sup>2</sup> |                 | Low <sup>3</sup> |                 | Adequate <sup>4</sup> |                 | 1 <sup>st</sup> Trimester |                 | n                   | %               | n                          | %               |
| <b>State Total</b>                                   | <b>71,319</b>   | <b>100.0</b>    | <b>489</b>      | <b>0.7</b>      | <b>1,943</b>    | <b>2.7</b>      | <b>842</b>            | <b>1.2</b>      | <b>5,341</b>     | <b>7.5</b>      | <b>49,876</b>         | <b>82.3</b>     | <b>56,355</b>             | <b>80.8</b>     | <b>22,302</b>       | <b>31.3</b>     | <b>61,075</b>              | <b>85.9</b>     |
| US inc. DC                                           | 47,991          | 67.3            | 320             | 0.7             | 1,329           | 2.8             | 503                   | 1.1             | 3,459            | 7.2             | 34,070                | 84.9            | 39,378                    | 83.7            | 14,717              | 30.7            | 39,784                     | 83.2            |
| US Territories <sup>7</sup>                          | 1,702           | 2.4             | 60              | 3.5             | 178             | 10.5            | 30                    | 1.8             | 166              | 9.8             | 1,276                 | 79.9            | 1,280                     | 76.2            | 553                 | 32.5            | 1,396                      | 82.4            |
| Non-US-born <sup>8</sup>                             | 21,611          | 30.3            | 109             | 0.5             | 435             | 2.0             | 300                   | 1.4             | 1,703            | 7.9             | 14,524                | 77.0            | 15,691                    | 74.7            | 7,026               | 32.5            | 19,895                     | 92.4            |
| <b>White Non-Hispanic</b>                            | <b>42,448</b>   | <b>59.5</b>     | <b>112</b>      | <b>0.3</b>      | <b>605</b>      | <b>1.4</b>      | <b>385</b>            | <b>0.9</b>      | <b>2,715</b>     | <b>6.4</b>      | <b>30,035</b>         | <b>85.7</b>     | <b>35,237</b>             | <b>84.6</b>     | <b>13,235</b>       | <b>31.2</b>     | <b>35,878</b>              | <b>84.7</b>     |
| US inc. DC                                           | 37,665          | 88.7            | 106             | 0.3             | 579             | 1.5             | 341                   | 0.9             | 2,435            | 6.5             | 26,774                | 86.5            | 31,556                    | 85.3            | 11,711              | 31.1            | 31,426                     | 83.6            |
| US Territories <sup>7</sup>                          | 11              | 0.0             | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | 0                     | 0.0             | -- <sup>6</sup>  | -- <sup>6</sup> | -- <sup>6</sup>       | -- <sup>6</sup> | 9                         | 81.8            | -- <sup>6</sup>     | -- <sup>6</sup> | 10                         | 90.9            |
| Non-US-born <sup>8</sup>                             | 4,770           | 11.2            | 5               | 0.1             | 25              | 0.5             | 43                    | 0.9             | 276              | 5.8             | 3,250                 | 80.0            | 3,671                     | 78.9            | 1,519               | 31.8            | 4,442                      | 93.3            |
| <b>Black Non-Hispanic</b>                            | <b>7,095</b>    | <b>9.9</b>      | <b>52</b>       | <b>0.7</b>      | <b>236</b>      | <b>3.3</b>      | <b>149</b>            | <b>2.1</b>      | <b>801</b>       | <b>11.3</b>     | <b>4,510</b>          | <b>69.8</b>     | <b>4,721</b>              | <b>68.3</b>     | <b>2,457</b>        | <b>34.6</b>     | <b>6,276</b>               | <b>89.0</b>     |
| US inc. DC                                           | 2,933           | 41.3            | 36              | 1.2             | 169             | 5.8             | 67                    | 2.3             | 367              | 12.5            | 2,006                 | 75.3            | 2,149                     | 75.1            | 898                 | 30.6            | 2,388                      | 81.9            |
| US Territories <sup>7</sup>                          | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | 0                     | 0.0             | 0                | 0.0             | -- <sup>6</sup>       | -- <sup>6</sup> | -- <sup>6</sup>           | -- <sup>6</sup> | -- <sup>6</sup>     | -- <sup>6</sup> | -- <sup>6</sup>            | -- <sup>6</sup> |
| Non-US-born <sup>8</sup>                             | 4,156           | 58.6            | 15              | 0.4             | 66              | 1.6             | 80                    | 1.9             | 430              | 10.4            | 2,499                 | 66.0            | 2,568                     | 63.5            | 1,556               | 37.4            | 3,886                      | 94.0            |
| <b>Hispanic</b>                                      | <b>13,100</b>   | <b>18.4</b>     | <b>301</b>      | <b>2.3</b>      | <b>1,005</b>    | <b>7.7</b>      | <b>206</b>            | <b>1.6</b>      | <b>1,091</b>     | <b>8.3</b>      | <b>9,461</b>          | <b>78.8</b>     | <b>9,669</b>              | <b>75.6</b>     | <b>4,006</b>        | <b>30.6</b>     | <b>11,211</b>              | <b>85.9</b>     |
| US inc. DC                                           | 5,041           | 38.5            | 162             | 3.2             | 510             | 10.1            | 73                    | 1.4             | 442              | 8.8             | 3,630                 | 79.6            | 3,828                     | 77.4            | 1,475               | 29.3            | 4,037                      | 80.3            |
| US Territories <sup>7</sup>                          | 1,676           | 12.8            | 58              | 3.5             | 174             | 10.4            | 29                    | 1.7             | 161              | 9.6             | 1,256                 | 79.8            | 1,259                     | 76.1            | 544                 | 32.5            | 1,377                      | 82.5            |
| Non-US-born <sup>8</sup>                             | 6,383           | 48.7            | 81              | 1.3             | 321             | 5.0             | 104                   | 1.6             | 488              | 7.7             | 4,575                 | 77.9            | 4,582                     | 74.0            | 1,987               | 31.1            | 5,797                      | 91.2            |
| <b>Asian Non-Hispanic</b>                            | <b>6,647</b>    | <b>9.3</b>      | <b>10</b>       | <b>0.2</b>      | <b>42</b>       | <b>0.6</b>      | <b>60</b>             | <b>0.9</b>      | <b>531</b>       | <b>8.0</b>      | <b>4,524</b>          | <b>82.9</b>     | <b>5,299</b>              | <b>81.2</b>     | <b>1,947</b>        | <b>29.3</b>     | <b>6,110</b>               | <b>92.0</b>     |
| US inc. DC                                           | 1,163           | 17.5            | 8               | 0.7             | 29              | 2.5             | -- <sup>6</sup>       | -- <sup>6</sup> | 106              | 9.1             | 837                   | 84.7            | 973                       | 84.5            | 277                 | 23.8            | 1,031                      | 88.7            |
| US Territories <sup>7</sup>                          | -- <sup>6</sup> | -- <sup>6</sup> | 0               | 0.0             | 0               | 0.0             | 0                     | 0.0             | 0                | 0.0             | -- <sup>6</sup>       | -- <sup>6</sup> | -- <sup>6</sup>           | -- <sup>6</sup> | 0                   | 0.0             | -- <sup>6</sup>            | -- <sup>6</sup> |
| Non-US-born <sup>8</sup>                             | 5,482           | 82.5            | -- <sup>6</sup> | -- <sup>6</sup> | 13              | 0.2             | 57                    | 1.0             | 425              | 7.8             | 3,685                 | 82.5            | 4,324                     | 80.6            | 1,670               | 30.5            | 5,077                      | 92.7            |
| <b>American Indian Non-Hispanic<sup>9</sup></b>      | <b>281</b>      | <b>0.4</b>      | -- <sup>6</sup> | -- <sup>6</sup> | <b>17</b>       | <b>6.0</b>      | -- <sup>6</sup>       | -- <sup>6</sup> | <b>19</b>        | <b>6.8</b>      | <b>189</b>            | <b>78.4</b>     | <b>208</b>                | <b>76.8</b>     | <b>69</b>           | <b>24.6</b>     | <b>228</b>                 | <b>81.1</b>     |
| US inc. DC                                           | 274             | 97.5            | -- <sup>6</sup> | -- <sup>6</sup> | 17              | 6.2             | -- <sup>6</sup>       | -- <sup>6</sup> | 19               | 7.0             | 183                   | 78.2            | 202                       | 76.5            | 67                  | 24.5            | 222                        | 81.0            |
| US Territories <sup>7</sup>                          | 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 <sup>8</sup>                             | -- <sup>6</sup> | -- <sup>6</sup> | 0               | 0.0             | 0               | 0.0             | 0                     | 0.0             | 0                | 0.0             | 6                     | 85.7            | -- <sup>6</sup>           | -- <sup>6</sup> | -- <sup>6</sup>     | -- <sup>6</sup> | -- <sup>6</sup>            | -- <sup>6</sup> |
| <b>Other Non-Hispanic<sup>10</sup></b>               | <b>438</b>      | <b>0.6</b>      | -- <sup>6</sup> | -- <sup>6</sup> | <b>10</b>       | <b>2.3</b>      | <b>8</b>              | <b>1.8</b>      | <b>43</b>        | <b>9.8</b>      | <b>279</b>            | <b>75.6</b>     | <b>297</b>                | <b>71.4</b>     | <b>171</b>          | <b>39.0</b>     | <b>340</b>                 | <b>77.6</b>     |
| US inc. DC                                           | 114             | 26.0            | -- <sup>6</sup> | -- <sup>6</sup> | 7               | 6.1             | 0                     | 0.0             | -- <sup>6</sup>  | -- <sup>6</sup> | 83                    | 80.6            | 90                        | 81.1            | 47                  | 41.2            | 76                         | 66.7            |
| US Territories <sup>7</sup>                          | 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 <sup>8</sup>                             | 324             | 74.0            | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | -- <sup>6</sup> | 8                     | 2.5             | 35               | 10.8            | 196                   | 73.7            | 207                       | 67.9            | 124                 | 38.3            | 264                        | 81.5            |
| <b>Unknown</b>                                       | <b>1,310</b>    | <b>1.8</b>      | <b>7</b>        | <b>0.5</b>      | <b>28</b>       | <b>2.1</b>      | <b>31</b>             | <b>2.5</b>      | <b>141</b>       | <b>11.3</b>     | <b>878</b>            | <b>82.4</b>     | <b>924</b>                | <b>79.5</b>     | <b>417</b>          | <b>33.5</b>     | <b>1,032</b>               | <b>83.7</b>     |

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

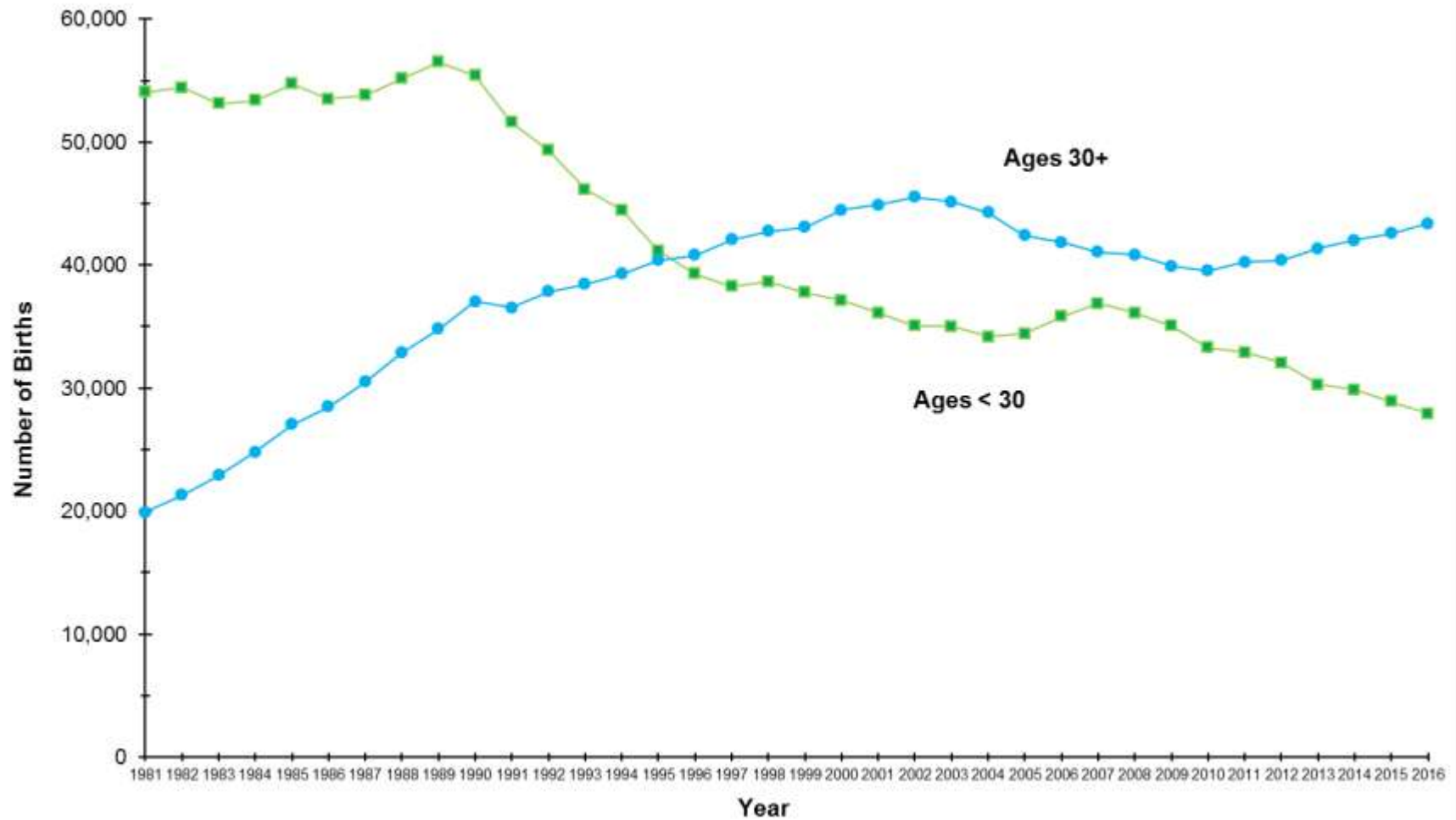
1. In the column "Births %," the percentages of the race/Hispanic groups (bolded) are based on the state total (including births of unknown race/ethnicity), and the birthplace percentage for the race/ethnicities are based on the total number in race/Hispanic ethnicity category. For all other categories,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

**Table 3. Birth Characteristics by Maternal Ancestry, Massachusetts: 2016**

| Maternal Ancestry     | Births <sup>1</sup> |       | Teen Births     |                 |                 |                 | Low Birthweight <sup>2</sup> |      | Prenatal Care         |      |                           |      | Late Preterm <sup>4</sup> |      | Cesarean Section |      | Breast-feeding <sup>5</sup> |      | Gestational Diabetes <sup>6</sup> |      |
|-----------------------|---------------------|-------|-----------------|-----------------|-----------------|-----------------|------------------------------|------|-----------------------|------|---------------------------|------|---------------------------|------|------------------|------|-----------------------------|------|-----------------------------------|------|
|                       |                     |       | <18 years       |                 | <20 Years       |                 |                              |      | Adequate <sup>3</sup> |      | 1 <sup>st</sup> Trimester |      |                           |      |                  |      |                             |      |                                   |      |
|                       | N                   | %     | N               | %               | N               | %               | N                            | %    | N                     | %    | N                         | %    | N                         | %    | N                | %    | N                           | %    | N                                 | %    |
| State Total           | 71,319              | 100.0 | 489             | 0.7             | 1,943           | 2.7             | 5,341                        | 7.5  | 49,876                | 82.3 | 56,355                    | 80.8 | 4,492                     | 6.3  | 22,302           | 31.3 | 61,075                      | 85.9 | 4,005                             | 5.6  |
| American              | 34,152              | 47.9  | 147             | 0.4             | 714             | 2.1             | 2,249                        | 6.6  | 24,568                | 86.0 | 28,451                    | 84.8 | 2,061                     | 6.0  | 10,623           | 31.1 | 29,078                      | 85.3 | 1,767                             | 5.2  |
| European              | 8,726               | 12.2  | 15              | 0.2             | 88              | 1.0             | 515                          | 5.9  | 5,931                 | 87.4 | 7,400                     | 86.3 | 562                       | 6.4  | 2,593            | 29.7 | 8,008                       | 91.9 | 436                               | 5.0  |
| Puerto Rican          | 4,716               | 6.6   | 162             | 3.4             | 498             | 10.6            | 455                          | 9.7  | 3,449                 | 79.6 | 3,545                     | 76.5 | 338                       | 7.2  | 1,471            | 31.2 | 3,695                       | 78.6 | 265                               | 5.6  |
| African American      | 3,031               | 4.2   | 38              | 1.3             | 182             | 6.0             | 372                          | 12.3 | 2,045                 | 74.8 | 2,201                     | 74.5 | 258                       | 8.5  | 962              | 31.7 | 2,464                       | 81.7 | 109                               | 3.6  |
| Dominican             | 2,991               | 4.2   | 52              | 1.7             | 185             | 6.2             | 246                          | 8.2  | 2,171                 | 77.3 | 2,223                     | 76.2 | 199                       | 6.7  | 1,093            | 36.5 | 2,655                       | 89.0 | 117                               | 3.9  |
| Portuguese            | 2,117               | 3.0   | 30              | 1.4             | 87              | 4.1             | 132                          | 6.2  | 1,581                 | 80.9 | 1,663                     | 79.6 | 119                       | 5.6  | 751              | 35.5 | 1,528                       | 72.2 | 128                               | 6.0  |
| Chinese               | 2,110               | 3.0   | -- <sup>7</sup> | -- <sup>7</sup> | 11              | 0.5             | 119                          | 5.6  | 1,530                 | 85.8 | 1,752                     | 84.5 | 109                       | 5.2  | 488              | 23.1 | 1,953                       | 92.6 | 191                               | 9.1  |
| Asian Indian          | 2,095               | 2.9   | -- <sup>7</sup> | -- <sup>7</sup> | -- <sup>7</sup> | -- <sup>7</sup> | 205                          | 9.8  | 1,280                 | 82.5 | 1,668                     | 81.1 | 126                       | 6.0  | 800              | 38.2 | 1,988                       | 94.9 | 252                               | 12.0 |
| African               | 2,063               | 2.9   | -- <sup>7</sup> | -- <sup>7</sup> | 10              | 0.5             | 191                          | 9.3  | 1,270                 | 69.9 | 1,308                     | 65.1 | 126                       | 6.1  | 776              | 37.6 | 1,948                       | 94.8 | 148                               | 7.2  |
| Other                 | 2,040               | 2.9   | 7               | 0.3             | 25              | 1.2             | 195                          | 9.6  | 1,323                 | 82.8 | 1,552                     | 79.5 | 158                       | 7.7  | 671              | 32.9 | 920                         | 45.1 | 120                               | 5.9  |
| Brazilian             | 1,588               | 2.2   | 8               | 0.5             | 33              | 2.1             | 126                          | 7.9  | 1,026                 | 77.4 | 1,123                     | 75.4 | 86                        | 5.4  | 637              | 40.1 | 1,485                       | 93.7 | 85                                | 5.4  |
| Haitian               | 1,472               | 2.1   | 5               | 0.3             | 30              | 2.0             | 164                          | 11.1 | 861                   | 63.2 | 889                       | 61.9 | 117                       | 7.9  | 594              | 40.4 | 1,357                       | 92.8 | 109                               | 7.4  |
| Cape Verdean          | 1,447               | 2.0   | 21              | 1.5             | 87              | 6.0             | 143                          | 9.9  | 1,020                 | 73.3 | 1,032                     | 72.7 | 84                        | 5.8  | 433              | 29.9 | 1,261                       | 87.3 | 46                                | 3.2  |
| Salvadoran            | 1,293               | 1.8   | 21              | 1.6             | 99              | 7.7             | 91                           | 7.0  | 999                   | 80.7 | 978                       | 76.6 | 77                        | 6.0  | 281              | 21.7 | 1,182                       | 91.7 | 55                                | 4.3  |
| Middle Eastern        | 1,226               | 1.7   | -- <sup>7</sup> | -- <sup>7</sup> | 8               | 0.7             | 77                           | 6.3  | 792                   | 74.5 | 889                       | 74.2 | 65                        | 5.3  | 403              | 32.9 | 1,150                       | 94.0 | 64                                | 5.2  |
| Guatemalan            | 1,031               | 1.4   | 21              | 2.0             | 102             | 9.9             | 66                           | 6.4  | 709                   | 74.9 | 643                       | 64.6 | 64                        | 6.2  | 231              | 22.4 | 870                         | 85.0 | 61                                | 5.9  |
| Russian               | 750                 | 1.1   | -- <sup>7</sup> | -- <sup>7</sup> | -- <sup>7</sup> | -- <sup>7</sup> | 37                           | 4.9  | 504                   | 85.6 | 629                       | 84.4 | 32                        | 4.3  | 184              | 24.5 | 714                         | 95.2 | 45                                | 6.0  |
| Vietnamese            | 653                 | 0.9   | -- <sup>7</sup> | -- <sup>7</sup> | 10              | 1.5             | 47                           | 7.2  | 435                   | 77.7 | 489                       | 76.9 | 29                        | 4.4  | 193              | 29.6 | 573                         | 87.9 | 69                                | 10.6 |
| Cambodian             | 578                 | 0.8   | 6               | 1.0             | 18              | 3.1             | 57                           | 9.9  | 426                   | 79.9 | 411                       | 72.9 | 44                        | 7.6  | 126              | 21.8 | 407                         | 70.5 | 46                                | 8.0  |
| Mexican               | 577                 | 0.8   | 9               | 1.6             | 20              | 3.5             | 35                           | 6.1  | 406                   | 81.0 | 440                       | 78.4 | 25                        | 4.3  | 161              | 27.9 | 512                         | 89.0 | 29                                | 5.0  |
| West Indian Caribbean | 562                 | 0.8   | -- <sup>7</sup> | -- <sup>7</sup> | 21              | 3.7             | 77                           | 13.8 | 374                   | 74.4 | 402                       | 73.6 | 56                        | 10.0 | 187              | 33.3 | 513                         | 92.1 | 30                                | 5.3  |
| Other South American  | 550                 | 0.8   | 9               | 1.6             | 26              | 4.7             | 49                           | 9.0  | 390                   | 81.6 | 404                       | 76.4 | 37                        | 6.7  | 149              | 27.1 | 520                         | 94.9 | 23                                | 4.2  |
| Native American       | 484                 | 0.7   | 6               | 1.2             | 31              | 6.4             | 46                           | 9.5  | 325                   | 79.3 | 363                       | 76.7 | 40                        | 8.3  | 140              | 28.9 | 404                         | 83.5 | 28                                | 5.8  |
| Colombian             | 436                 | 0.6   | -- <sup>7</sup> | -- <sup>7</sup> | 9               | 2.1             | 33                           | 7.6  | 326                   | 83.0 | 339                       | 79.6 | 29                        | 6.7  | 130              | 29.8 | 398                         | 91.9 | 21                                | 4.8  |
| Honduran              | 406                 | 0.6   | 14              | 3.4             | 34              | 8.4             | 28                           | 6.9  | 289                   | 74.7 | 269                       | 67.1 | 25                        | 6.2  | 90               | 22.2 | 371                         | 91.6 | 14                                | 3.4  |
| Korean                | 378                 | 0.5   | 0               | 0.0             | 0               | 0.0             | 21                           | 5.6  | 262                   | 84.8 | 313                       | 84.8 | 21                        | 5.6  | 97               | 25.7 | 360                         | 95.5 | 35                                | 9.3  |

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

Figure 1. Trends in the Number of Births by Mother's Age Group, Massachusetts: 1981-2016



**Table 4. Trends in Number and Percent Distribution of Births by Plurality and Maternal Age, Massachusetts: 2002-2016**

| Age Group          | Singletons |        |      | Multiples <sup>1</sup> |     |                  |     |                 |     | Total births <sup>2</sup> |       |
|--------------------|------------|--------|------|------------------------|-----|------------------|-----|-----------------|-----|---------------------------|-------|
|                    | Year       | n      | %    | Twins                  |     | Triplets or more |     | Total Multiples |     | n                         | %     |
|                    |            | n      | %    | n                      | %   | n                | %   | n               | %   | n                         | %     |
| <b>All Ages</b>    |            |        |      |                        |     |                  |     |                 |     |                           |       |
|                    | 2002       | 76,673 | 95.1 | 3,708                  | 4.6 | 243              | 0.3 | 3,951           | 4.9 | 80,624                    | 100.0 |
|                    | 2003       | 76,367 | 95.3 | 3,551                  | 4.4 | 249              | 0.3 | 3,800           | 4.7 | 80,167                    | 100.0 |
|                    | 2004       | 74,677 | 95.2 | 3,538                  | 4.5 | 245              | 0.3 | 3,783           | 4.8 | 78,460                    | 100.0 |
|                    | 2005       | 73,258 | 95.4 | 3,375                  | 4.4 | 190              | 0.2 | 3,565           | 4.6 | 76,824                    | 100.0 |
|                    | 2006       | 74,146 | 95.5 | 3,375                  | 4.3 | 149              | 0.2 | 3,524           | 4.5 | 77,670                    | 100.0 |
|                    | 2007       | 74,498 | 95.6 | 3,310                  | 4.2 | 126              | 0.2 | 3,436           | 4.4 | 77,934                    | 100.0 |
|                    | 2008       | 73,475 | 95.5 | 3,365                  | 4.4 | 129              | 0.2 | 3,494           | 4.5 | 76,969                    | 100.0 |
|                    | 2009       | 71,423 | 95.3 | 3,386                  | 4.5 | 157              | 0.2 | 3,543           | 4.7 | 74,966                    | 100.0 |
|                    | 2010       | 69,508 | 95.4 | 3,220                  | 4.4 | 107              | 0.1 | 3,327           | 4.6 | 72,835                    | 100.0 |
|                    | 2011       | 69,933 | 95.6 | 3,135                  | 4.3 | 100              | 0.1 | 3,235           | 4.4 | 73,169                    | 100.0 |
|                    | 2012       | 69,272 | 95.6 | 3,093                  | 4.3 | 90               | 0.1 | 3,183           | 4.4 | 72,457                    | 100.0 |
|                    | 2013       | 68,363 | 95.5 | 3,164                  | 4.4 | 91               | 0.1 | 3,255           | 4.5 | 71,618                    | 100.0 |
|                    | 2014       | 68,800 | 95.7 | 2,984                  | 4.2 | 83               | 0.1 | 3,067           | 4.3 | 71,867                    | 100.0 |
|                    | 2015       | 68,756 | 96.2 | 2,671                  | 3.7 | 57               | 0.1 | 2,728           | 3.8 | 71,484                    | 100.0 |
|                    | 2016       | 68,660 | 96.3 | 2,569                  | 3.6 | 90               | 0.1 | 2,659           | 3.7 | 71,319                    | 100.0 |
| <b>Ages &lt;35</b> |            |        |      |                        |     |                  |     |                 |     |                           |       |
|                    | 2002       | 59,736 | 96.0 | 2,379                  | 3.8 | 127              | 0.2 | 2,506           | 4.0 | 62,242                    | 100.0 |
|                    | 2003       | 59,347 | 95.9 | 2,389                  | 3.9 | 118              | 0.2 | 2,507           | 4.1 | 61,854                    | 100.0 |
|                    | 2004       | 57,618 | 96.0 | 2,229                  | 3.7 | 142              | 0.2 | 2,371           | 4.0 | 59,989                    | 100.0 |
|                    | 2005       | 56,380 | 96.3 | 2,086                  | 3.6 | 102              | 0.2 | 2,188           | 3.7 | 58,569                    | 100.0 |
|                    | 2006       | 57,237 | 96.3 | 2,116                  | 3.6 | 89               | 0.1 | 2,205           | 3.7 | 59,442                    | 100.0 |
|                    | 2007       | 57,977 | 96.3 | 2,144                  | 3.6 | 87               | 0.1 | 2,231           | 3.7 | 60,208                    | 100.0 |
|                    | 2008       | 57,080 | 96.3 | 2,111                  | 3.6 | 78               | 0.1 | 2,189           | 3.7 | 59,269                    | 100.0 |
|                    | 2009       | 55,906 | 96.1 | 2,202                  | 3.8 | 80               | 0.1 | 2,282           | 3.9 | 58,188                    | 100.0 |
|                    | 2010       | 54,369 | 96.3 | 2,018                  | 3.6 | 58               | 0.1 | 2,076           | 3.7 | 56,445                    | 100.0 |
|                    | 2011       | 54,837 | 96.4 | 2,014                  | 3.5 | 59               | 0.1 | 2,073           | 3.6 | 56,910                    | 100.0 |
|                    | 2012       | 54,069 | 96.4 | 1,961                  | 3.5 | 57               | 0.1 | 2,018           | 3.6 | 56,089                    | 100.0 |
|                    | 2013       | 52,995 | 96.2 | 2,025                  | 3.7 | 54               | 0.1 | 2,079           | 3.8 | 55,074                    | 100.0 |
|                    | 2014       | 53,166 | 96.5 | 1,890                  | 3.4 | 50               | 0.1 | 1,940           | 3.5 | 55,106                    | 100.0 |
|                    | 2015       | 52,640 | 96.9 | 1,665                  | 3.1 | 45               | 0.1 | 1,710           | 3.1 | 54,350                    | 100.0 |
|                    | 2016       | 52,043 | 96.9 | 1,601                  | 3.0 | 47               | 0.1 | 1,648           | 3.1 | 53,691                    | 100.0 |
| <b>Ages 35+</b>    |            |        |      |                        |     |                  |     |                 |     |                           |       |
|                    | 2002       | 16,936 | 92.1 | 1,329                  | 7.2 | 116              | 0.6 | 1,445           | 7.9 | 18,381                    | 100.0 |
|                    | 2003       | 17,015 | 92.9 | 1,162                  | 6.3 | 131              | 0.7 | 1,293           | 7.1 | 18,308                    | 100.0 |
|                    | 2004       | 17,055 | 92.4 | 1,309                  | 7.1 | 103              | 0.6 | 1,412           | 7.6 | 18,467                    | 100.0 |
|                    | 2005       | 16,874 | 92.5 | 1,289                  | 7.1 | 88               | 0.5 | 1,377           | 7.5 | 18,251                    | 100.0 |
|                    | 2006       | 16,901 | 92.8 | 1,257                  | 6.9 | 60               | 0.3 | 1,317           | 7.2 | 18,218                    | 100.0 |
|                    | 2007       | 16,519 | 93.2 | 1,166                  | 6.6 | 39               | 0.2 | 1,205           | 6.8 | 17,724                    | 100.0 |
|                    | 2008       | 16,392 | 92.6 | 1,254                  | 7.1 | 51               | 0.3 | 1,305           | 7.4 | 17,697                    | 100.0 |
|                    | 2009       | 15,513 | 92.5 | 1,184                  | 7.1 | 77               | 0.5 | 1,261           | 7.5 | 16,774                    | 100.0 |
|                    | 2010       | 15,136 | 92.4 | 1,200                  | 7.3 | 49               | 0.3 | 1,249           | 7.6 | 16,385                    | 100.0 |
|                    | 2011       | 15,092 | 92.8 | 1,121                  | 6.9 | 41               | 0.3 | 1,162           | 7.1 | 16,255                    | 100.0 |
|                    | 2012       | 15,202 | 92.9 | 1,132                  | 6.9 | 33               | 0.2 | 1,165           | 7.1 | 16,367                    | 100.0 |
|                    | 2013       | 15,367 | 92.9 | 1,139                  | 6.9 | 37               | 0.2 | 1,176           | 7.1 | 16,543                    | 100.0 |
|                    | 2014       | 15,634 | 93.3 | 1,094                  | 6.5 | 33               | 0.2 | 1,127           | 6.7 | 16,761                    | 100.0 |
|                    | 2015       | 16,115 | 94.1 | 1,005                  | 5.9 | 12               | 0.1 | 1,017           | 5.9 | 17,132                    | 100.0 |
|                    | 2016       | 16,617 | 94.3 | 968                    | 5.5 | 43               | 0.2 | 1,011           | 5.7 | 17,628                    | 100.0 |

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 5a. Summary of Selected Teen Birth Characteristics, Massachusetts: 2016**

|                                              | Ages 15-17      |                  | Ages 18-19      |                  | Combined Ages 15-19 |                  |
|----------------------------------------------|-----------------|------------------|-----------------|------------------|---------------------|------------------|
|                                              | N               | % <sup>1,2</sup> | N               | % <sup>1,2</sup> | N                   | % <sup>1,2</sup> |
| <b>State Total</b>                           | <b>477</b>      | <b>24.7%</b>     | <b>1,454</b>    | <b>75.3%</b>     | <b>1,931</b>        | <b>100.0%</b>    |
| White Non-Hispanic                           | 106             | 22.6%            | 493             | 34.4%            | 599                 | 31.5%            |
| Black Non-Hispanic                           | 51              | 10.9%            | 184             | 12.8%            | 235                 | 12.3%            |
| Asian Non-Hispanic                           | 10              | 2.1%             | 32              | 2.2%             | 42                  | 2.2%             |
| Hispanic                                     | 296             | 63.0%            | 704             | 49.1%            | 1,000               | 52.5%            |
| Other Non-Hispanic                           | 7               | 1.5%             | 20              | 1.4%             | 27                  | 1.4%             |
| <b>Birthplace</b>                            |                 |                  |                 |                  |                     |                  |
| US States / D.C.                             | 312             | 65.4%            | 1,009           | 69.4%            | 1,321               | 68.4%            |
| Puerto Rico / US Terr.                       | 60              | 12.6%            | 118             | 8.1%             | 178                 | 9.2%             |
| Non-US-born                                  | 105             | 22.0%            | 327             | 22.5%            | 432                 | 22.4%            |
| <b>Prenatal Care Funding</b>                 |                 |                  |                 |                  |                     |                  |
| Public                                       | 391             | 83.2%            | 1,161           | 81.4%            | 1,552               | 81.8%            |
| Private, other                               | 79              | 16.8%            | 266             | 18.6%            | 345                 | 18.2%            |
| <b>Pregnancy-Related Factors</b>             |                 |                  |                 |                  |                     |                  |
| <b>Adequacy of Prenatal Care<sup>3</sup></b> |                 |                  |                 |                  |                     |                  |
| Adequate Total <sup>4</sup>                  | 272             | 58.6%            | 919             | 65.6%            | 1,191               | 63.9%            |
| Adequate Intensive                           | 134             | 28.9%            | 469             | 33.5%            | 603                 | 32.3%            |
| Adequate Basic                               | 138             | 29.7%            | 450             | 32.1%            | 588                 | 31.5%            |
| Intermediate                                 | 36              | 7.8%             | 130             | 9.3%             | 166                 | 8.9%             |
| Inadequate/None                              | 137             | 29.5%            | 292             | 20.9%            | 429                 | 23.0%            |
| Unknown                                      | 19              | 4.1%             | 59              | 4.2%             | 78                  | 4.2%             |
| <b>Parity<sup>5</sup></b>                    |                 |                  |                 |                  |                     |                  |
| 1                                            | 456             | 95.8%            | 1,221           | 84.3%            | 1,677               | 87.2%            |
| 2                                            | -- <sup>6</sup> | -- <sup>6</sup>  | 196             | 13.5%            | 215                 | 11.2%            |
| 3+                                           | -- <sup>6</sup> | -- <sup>6</sup>  | 31              | 2.1%             | 32                  | 1.7%             |
| <b>Smoking during Pregnancy</b>              |                 |                  |                 |                  |                     |                  |
| Yes                                          | 23              | 5.0%             | 114             | 8.2%             | 137                 | 7.4%             |
| No                                           | 439             | 95.0%            | 1,278           | 91.8%            | 1,717               | 92.6%            |
| <b>Birth Outcomes</b>                        |                 |                  |                 |                  |                     |                  |
| <b>Birthweight</b>                           |                 |                  |                 |                  |                     |                  |
| < 500 g                                      | -- <sup>6</sup> | -- <sup>6</sup>  | -- <sup>6</sup> | -- <sup>6</sup>  | 5                   | 0.3%             |
| 500-1,499 g                                  | -- <sup>6</sup> | -- <sup>6</sup>  | -- <sup>6</sup> | -- <sup>6</sup>  | 23                  | 1.2%             |
| 1,500-2,499 g                                | 44              | 9.2%             | 115             | 7.9%             | 159                 | 8.3%             |
| <b>LBW (&lt;2,499 g)</b>                     | <b>51</b>       | <b>10.7%</b>     | <b>136</b>      | <b>9.4%</b>      | <b>187</b>          | <b>9.7%</b>      |
| 2,500-3,999 g                                | 409             | 85.9%            | 1,226           | 84.5%            | 1,635               | 84.8%            |
| 4000+ g                                      | 16              | 3.4%             | 89              | 6.1%             | 105                 | 5.4%             |
| <b>Gestational Age</b>                       |                 |                  |                 |                  |                     |                  |
| < 28 weeks                                   | -- <sup>6</sup> | -- <sup>6</sup>  | 13              | 0.9%             | 17                  | 0.9%             |
| <b>Preterm (&lt; 37 weeks)</b>               | <b>53</b>       | <b>11.2%</b>     | <b>128</b>      | <b>8.8%</b>      | <b>181</b>          | <b>9.4%</b>      |
| 37-42 weeks                                  | 422             | 88.8%            | 1,325           | 91.2%            | 1,747               | 90.6%            |
| <b>Plurality</b>                             |                 |                  |                 |                  |                     |                  |
| Singleton                                    | 472             | 99.0%            | 1,438           | 98.9%            | 1,910               | 98.9%            |
| Multiple birth                               | 5               | 1.0%             | 16              | 1.1%             | 21                  | 1.1%             |

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

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

**Table 5b. Number and Teen Birth Rates by Race/Hispanic Ethnicity for Selected Communities, Massachusetts: 2016**

| Municipality <sup>1</sup> | Teen Births  |                             | White Non-Hispanic |                             | Black Non-Hispanic |                             | Hispanic        |                             |
|---------------------------|--------------|-----------------------------|--------------------|-----------------------------|--------------------|-----------------------------|-----------------|-----------------------------|
|                           | N            | Rate (95%CI) <sup>2,3</sup> | N                  | Rate (95%CI) <sup>2,3</sup> | N                  | Rate (95%CI) <sup>2,3</sup> | N               | Rate (95%CI) <sup>2,3</sup> |
| <b>State Total</b>        | <b>1,931</b> | <b>8.5 (8.1, 8.9)</b>       | <b>599</b>         | <b>3.8 (3.5, 4.2)</b>       | <b>235</b>         | <b>11.7 (10.2, 13.2)</b>    | <b>1,000</b>    | <b>29.9 (28.0, 31.8)</b>    |
| Lawrence                  | 117          | 34.5 (28.2, 40.7)           | 6                  | 16.0 (9.1, 24.7)            | -- <sup>4</sup>    | -- <sup>4</sup>             | 106             | 37.0 (30.0, 44.1)           |
| Chelsea                   | 39           | 32.6 (22.4, 44.7)           | -- <sup>4</sup>    | -- <sup>4</sup>             | 0                  | 0.0 (0.0,0.0)               | 35              | 39.6 (28.2, 52.8)           |
| Holyoke                   | 48           | 31.9 (21.8, 43.8)           | -- <sup>4</sup>    | -- <sup>4</sup>             | -- <sup>4</sup>    | -- <sup>4</sup>             | 41              | 38.8 (27.6, 51.9)           |
| New Bedford               | 96           | 31.6 (21.6, 43.5)           | 27                 | 13.3 (7.1, 21.3)            | 7                  | 28.8 (19.3, 40.2)           | 52              | 72.2 (56.5, 89.8)           |
| Southbridge               | 17           | 29.8 (20.1, 41.4)           | -- <sup>4</sup>    | -- <sup>4</sup>             | 0                  | 0.0 (0.0,0.0)               | 14              | 63.9 (49.2, 80.5)           |
| Lynn                      | 94           | 29.2 (19.6, 40.7)           | 9                  | 8.0 (3.4, 14.4)             | 5                  | 11.1 (5.6, 18.5)            | 71              | 53.0 (39.7, 68.2)           |
| Fall River                | 70           | 25.2 (16.3, 35.9)           | 34                 | 15.5 (8.8, 24.1)            | 9                  | 58.1 (44.1, 73.9)           | 23              | 74.9 (58.9, 92.8)           |
| Springfield               | 172          | 25.2 (21.4, 28.9)           | 14                 | 7.3 (3, 13.5)               | 16                 | 10.6 (5.2, 17.9)            | 138             | 43.0 (35.8, 50.2)           |
| Brockton                  | 82           | 24.4 (15.7, 35)             | 14                 | 10.2 (4.9, 17.3)            | 43                 | 29.3 (19.6, 40.8)           | 23              | 56.4 (42.6, 72.0)           |
| Fitchburg                 | 42           | 23.6 (15.1, 34.1)           | 7                  | 6.0 (2.2, 11.6)             | -- <sup>4</sup>    | -- <sup>4</sup>             | 29              | 62.1 (47.6, 78.5)           |
| Marlborough               | 23           | 22.4 (14.1, 32.6)           | 5                  | 6.3 (2.4, 12.1)             | 0                  | 0.0 (0.0,0.0)               | 17              | 92.9 (75.0, 112.7)          |
| Everett                   | 25           | 19 (11.4, 28.4)             | 6                  | 9.0 (4.1, 15.8)             | -- <sup>4</sup>    | -- <sup>4</sup>             | 14              | 42.8 (31.0, 56.6)           |
| Haverhill                 | 31           | 17.3 (10.1, 26.4)           | 14                 | 10.6 (5.2, 17.9)            | -- <sup>4</sup>    | -- <sup>4</sup>             | 15              | 38.8 (27.5, 51.9)           |
| Pittsfield                | 23           | 17.2 (10, 26.2)             | 16                 | 14.4 (8, 22.7)              | -- <sup>4</sup>    | -- <sup>4</sup>             | -- <sup>4</sup> | -- <sup>4</sup>             |
| Revere                    | 20           | 13.9 (7.6, 22.2)            | -- <sup>4</sup>    | -- <sup>4</sup>             | -- <sup>4</sup>    | -- <sup>4</sup>             | 14              | 26.8 (17.6, 37.8)           |
| Chicopee                  | 26           | 13.8 (7.5, 22)              | 8                  | 6.1 (2.2, 11.7)             | 0                  | 0.0 (0.0,0.0)               | 17              | 38.8 (27.6, 51.9)           |
| Worcester                 | 102          | 13.2 (10.6, 15.8)           | 35                 | 7.8 (3.3, 14.2)             | 8                  | 10.4 (5.1, 17.6)            | 58              | 29.2 (19.6, 40.7)           |
| Taunton                   | 23           | 13.2 (7.1, 21.2)            | 8                  | 5.4 (1.8, 10.8)             | 5                  | 49.0 (36.3, 63.7)           | 6               | 44.8 (32.6, 58.8)           |
| Lowell                    | 54           | 13.1 (7, 21.1)              | 11                 | 5.8 (2.1, 11.4)             | 0                  | 0.0 (0.0,0.0)               | 31              | 31.4 (21.4, 43.3)           |
| Attleboro                 | 17           | 12.6 (6.7, 20.5)            | 7                  | 6.3 (2.4, 12.1)             | -- <sup>4</sup>    | -- <sup>4</sup>             | 6               | 54.5 (41, 69.9)             |
| Leominster                | 16           | 12.2 (6.4, 20)              | 5                  | 5.4 (1.9, 10.9)             | 0                  | 0.0 (0.0,0.0)               | 11              | 38.9 (27.6, 52)             |
| Somerville                | 16           | 9.4 (4.4, 16.2)             | -- <sup>4</sup>    | -- <sup>4</sup>             | 0                  | 0.0 (0.0,0.0)               | 12              | 42.1 (30.4, 55.7)           |
| Methuen                   | 15           | 9.2 (4.3, 16.1)             | -- <sup>4</sup>    | -- <sup>4</sup>             | 0                  | 0.0 (0.0,0.0)               | 13              | 29.1 (19.5, 40.6)           |
| Framingham                | 19           | 8.1 (3.5, 14.5)             | -- <sup>4</sup>    | -- <sup>4</sup>             | -- <sup>4</sup>    | -- <sup>4</sup>             | 13              | 30.4 (20.6, 42.2)           |
| Boston                    | 198          | 7.6 (6.6, 8.7)              | 6                  | 0.5 (0.0, 2.6)              | 72                 | 11.0 (5.5, 18.4)            | 114             | 21.9 (17.9, 26.0)           |

**NOTE:** The total number of Asian Non-Hispanic teen births in MA was 42 for a rate of 2.4/1,000 significantly lower than the state rate of 8.5. Lowell had the largest number of Asian Non-Hispanic teen births at 10 births. The Asian Non-Hispanic teen birth rate in this community was higher than the state.

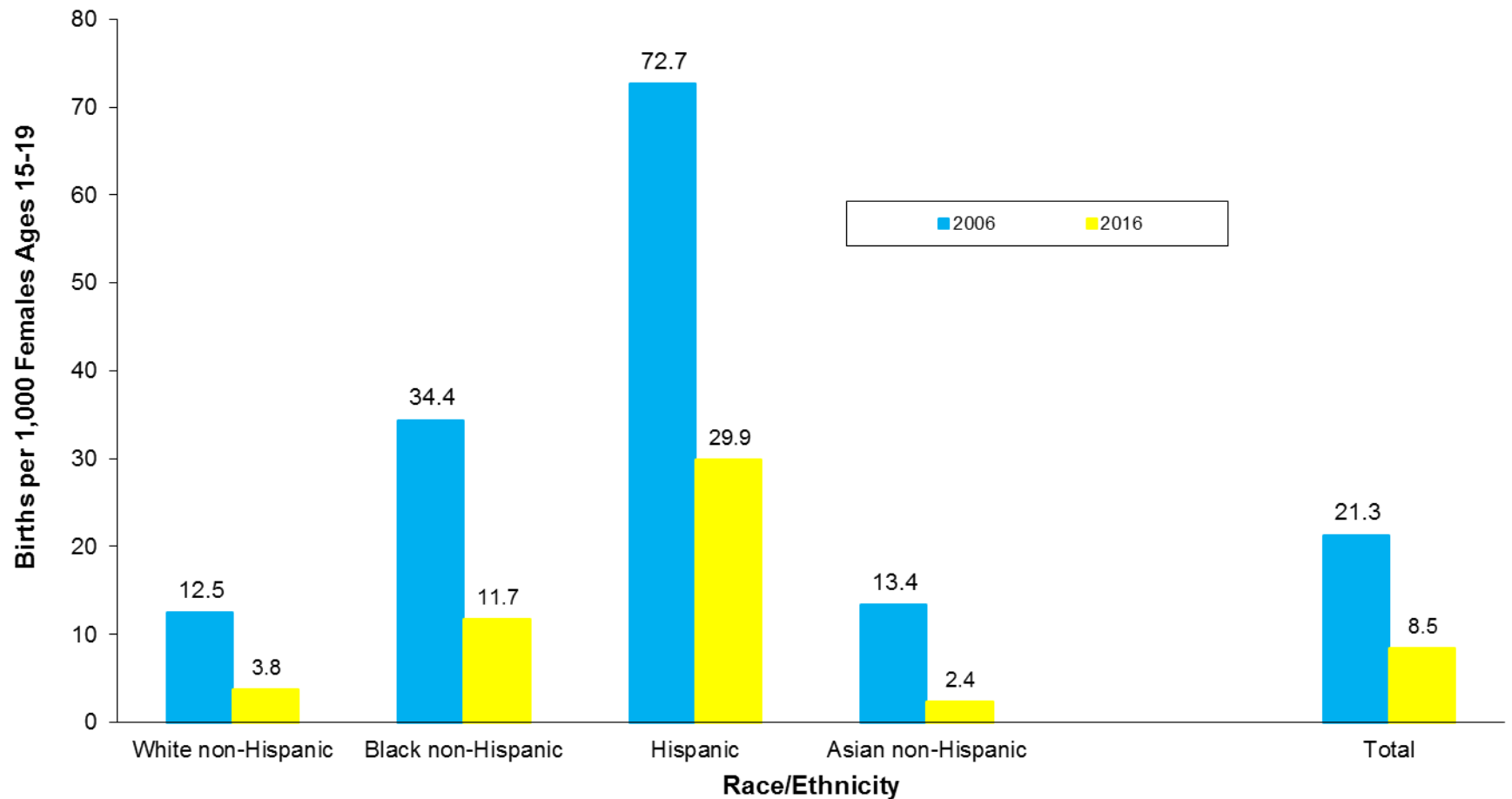
1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births. 2. Rates are per 1,000 females ages 15-19 per city/town. 3. Birth rates for cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2010 Estimates 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 2016, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2016, the rates given in the publication may underestimate the actual rate.** 4. Counts and rates based on counts of 1-4 births are not presented.

**Table 6. Trends in Teen Birth Rates for Selected Communities, Ranked by 2016 Teen Birth Rate, Massachusetts: 2006, 2015-2016**

| 2015 Rank | Municipality <sup>1</sup> | 2006                  |                              | 2015                  |                                | 2016                  |                                |
|-----------|---------------------------|-----------------------|------------------------------|-----------------------|--------------------------------|-----------------------|--------------------------------|
|           |                           | Number of Teen Births | Teen Birth Rate <sup>2</sup> | Number of Teen Births | Teen Birth Rate <sup>2,3</sup> | Number of Teen Births | Teen Birth Rate <sup>2,3</sup> |
|           | <b>State Total</b>        | <b>4,722</b>          | <b>21.3</b>                  | <b>2,140</b>          | <b>9.4</b>                     | <b>1,931</b>          | <b>8.5</b>                     |
| 1         | Lawrence                  | 244                   | 80.6                         | 110                   | 32.4                           | 117                   | 34.5                           |
| 2         | Chelsea                   | 79                    | 79.0                         | 41                    | 34.3                           | 39                    | 32.6                           |
| 3         | Holyoke                   | 143                   | 94.8                         | 61                    | 40.5                           | 48                    | 31.9                           |
| 4         | New Bedford               | 207                   | 70.0                         | 97                    | 31.9                           | 96                    | 31.6                           |
| 5         | Southbridge               | 36                    | 64.5                         | 21                    | 36.8                           | 17                    | 29.8                           |
| 6         | Lynn                      | 147                   | 47.7                         | 104                   | 32.3                           | 94                    | 29.2                           |
| 7         | Fall River                | 146                   | 51.6                         | 81                    | 29.1                           | 70                    | 25.2                           |
| 8         | Springfield               | 490                   | 80.7                         | 215                   | 31.5                           | 172                   | 25.2                           |
| 9         | Brockton                  | 156                   | 42.9                         | 77                    | 23.0                           | 82                    | 24.4                           |
| 10        | Fitchburg                 | 91                    | 58.2                         | 44                    | 24.7                           | 42                    | 23.6                           |
| 11        | Marlborough               | 28                    | 31.7 <sup>4</sup>            | 16                    | 15.6                           | 23                    | 22.4                           |
| 12        | Everett                   | 37                    | 34.9                         | 23                    | 17.5                           | 25                    | 19.0                           |
| 13        | Haverhill                 | 73                    | 38.3                         | 36                    | 20.1                           | 31                    | 17.3                           |
| 14        | Pittsfield                | 63                    | 49.6                         | 17                    | 12.7                           | 23                    | 17.2                           |
| 15        | Revere                    | 39                    | 37.0                         | 17                    | 11.9                           | 20                    | 13.9                           |
| 16        | Chicopee                  | 58                    | 33.4                         | 30                    | 15.9                           | 26                    | 13.8                           |
| 17        | Worcester                 | 242                   | 34.4                         | 130                   | 16.8                           | 102                   | 13.2                           |
| 18        | Taunton                   | 53                    | 32.5                         | 21                    | 12.0                           | 23                    | 13.2                           |
| 19        | Lowell                    | 202                   | 50.9                         | 84                    | 20.4                           | 54                    | 13.1                           |
| 20        | Attleboro                 | 27                    | 24.2 <sup>4</sup>            | 9                     | 6.7                            | 17                    | 12.6                           |
| 21        | Leominster                | 38                    | 30.3                         | 17                    | 13.0                           | 16                    | 12.2                           |
| 22        | Somerville                | 34                    | 15.7                         | 12                    | 7.0                            | 16                    | 9.4                            |
| 23        | Methuen                   | 29                    | 22.3 <sup>4</sup>            | 18                    | 11.1                           | 15                    | 9.2                            |
| 24        | Framingham                | 65                    | 33.3                         | 27                    | 11.5                           | 19                    | 8.1                            |
| 25        | Boston                    | 568                   | 28.7                         | 247                   | 9.5                            | 198                   | 7.6                            |

1. Selected communities include the 25 Massachusetts cities and towns with the greatest number of teen births in 2016. Ranking is by 2016 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 2016, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2016, the rates given in the publication may underestimate the actual rate.** 4. Birth rates for select cities and towns were calculated using the Massachusetts Department of Public Health Race Allocated Census 2004 Estimates file (MRACE 2004), which is the most up-to-date information available prior to 2010 on the number of persons by age, race, and sex at the sub-state level.

**Figure 2. Teen Birth Rates among Females Ages 15-19 Years by Mother's Race/Hispanic Ethnicity, Massachusetts: 2006 and 2016**



**NOTE:** Teen birth rate is number of births to females ages 15-19 per 1,000 females ages 15-19. Birth rates are based upon the 2010 Census population and the National Center for Health Statistics. Postcensal estimates of the resident population of the United States for July 1, 2010-July 1, 2016, by year, county, single-year of age (0, 1, 2, ..., 85 years and over), bridged race, Hispanic origin, and sex (Vintage 2016).

Table 7. Births by Birthweight, Race/Hispanic Ethnicity, Massachusetts: 2016

| Birthweight<br>(in grams)                                                                                                                                                                                                                                            | Total         |                | White Non-Hispanic |                | Black Non-Hispanic |                | Hispanic      |                | Asian Non-Hispanic |                 | Other Non-Hispanic |                 | Unknown Race/Ethnicity |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|--------------------|----------------|--------------------|----------------|---------------|----------------|--------------------|-----------------|--------------------|-----------------|------------------------|----------------|
|                                                                                                                                                                                                                                                                      | n             | % <sup>1</sup> | n                  | % <sup>1</sup> | n                  | % <sup>1</sup> | n             | % <sup>1</sup> | n                  | % <sup>1</sup>  | n                  | % <sup>1</sup>  | n                      | % <sup>1</sup> |
| <b>State Total</b>                                                                                                                                                                                                                                                   | <b>71,319</b> | <b>100.0</b>   | <b>42,448</b>      | <b>100.0</b>   | <b>7,095</b>       | <b>100.0</b>   | <b>13,100</b> | <b>100.0</b>   | <b>6,647</b>       | <b>100.0</b>    | <b>719</b>         | <b>100.0</b>    | <b>1,310</b>           | <b>100.0</b>   |
| <500                                                                                                                                                                                                                                                                 | 88            | 0.1            | 33                 | 0.1            | 25                 | 0.4            | 21            | 0.2            | -- <sup>2</sup>    | -- <sup>2</sup> | -- <sup>2</sup>    | -- <sup>2</sup> | 5                      | 0.4            |
| 500-999                                                                                                                                                                                                                                                              | 324           | 0.5            | 139                | 0.3            | 61                 | 0.9            | 89            | 0.7            | 22                 | 0.3             | -- <sup>2</sup>    | -- <sup>2</sup> | 10                     | 0.8            |
| 1,000-1,499                                                                                                                                                                                                                                                          | 430           | 0.6            | 213                | 0.5            | 63                 | 0.9            | 96            | 0.7            | 35                 | 0.5             | 7                  | 1.0             | 16                     | 1.3            |
| 1,500-1,999                                                                                                                                                                                                                                                          | 1,077         | 1.5            | 572                | 1.4            | 168                | 2.4            | 215           | 1.6            | 82                 | 1.2             | 11                 | 1.5             | 29                     | 2.3            |
| 2,000-2,499                                                                                                                                                                                                                                                          | 3,422         | 4.8            | 1,758              | 4.2            | 484                | 6.8            | 670           | 5.1            | 389                | 5.9             | 40                 | 5.6             | 81                     | 6.5            |
| 2,500-2,999                                                                                                                                                                                                                                                          | 12,128        | 17.0           | 6,218              | 14.7           | 1,485              | 21.0           | 2,553         | 19.5           | 1,524              | 22.9            | 155                | 21.6            | 193                    | 15.5           |
| 3,000-3,499                                                                                                                                                                                                                                                          | 26,896        | 37.8           | 15,629             | 36.9           | 2,634              | 37.2           | 5,156         | 39.4           | 2,742              | 41.3            | 254                | 35.4            | 481                    | 38.5           |
| 3,500-3,999                                                                                                                                                                                                                                                          | 20,122        | 28.3           | 13,088             | 30.9           | 1,648              | 23.3           | 3,363         | 25.7           | 1,519              | 22.9            | 185                | 25.8            | 319                    | 25.6           |
| 4,000-4,499                                                                                                                                                                                                                                                          | 5,762         | 8.1            | 4,095              | 9.7            | 424                | 6.0            | 809           | 6.2            | 292                | 4.4             | 51                 | 7.1             | 91                     | 7.3            |
| 4,500-4,999                                                                                                                                                                                                                                                          | 855           | 1.2            | 612                | 1.4            | 82                 | 1.2            | 101           | 0.8            | 30                 | 0.5             | 10                 | 1.4             | 20                     | 1.6            |
| >=5,000                                                                                                                                                                                                                                                              | 82            | 0.1            | 57                 | 0.1            | 7                  | 0.1            | 10            | 0.1            | -- <sup>2</sup>    | -- <sup>2</sup> | -- <sup>2</sup>    | -- <sup>2</sup> | 3                      | 0.2            |
| Unknown birthweight                                                                                                                                                                                                                                                  | 133           | 0.2            | 34                 | 0.1            | 14                 | 0.2            | 17            | 0.1            | 5                  | 0.1             | -- <sup>2</sup>    | -- <sup>2</sup> | 62                     | 4.7            |
| <b>VLBW<sup>3</sup><br/>(0-1,499 g)</b>                                                                                                                                                                                                                              | <b>842</b>    | <b>1.2</b>     | <b>385</b>         | <b>0.9</b>     | <b>149</b>         | <b>2.1</b>     | <b>206</b>    | <b>1.6</b>     | <b>60</b>          | <b>0.9</b>      | <b>11</b>          | <b>1.5</b>      | <b>31</b>              | <b>2.5</b>     |
| <b>LBW<sup>4</sup><br/>(0-2,499 g)</b>                                                                                                                                                                                                                               | <b>5,341</b>  | <b>7.5</b>     | <b>2,715</b>       | <b>6.4</b>     | <b>801</b>         | <b>11.3</b>    | <b>1,091</b>  | <b>8.3</b>     | <b>531</b>         | <b>8.0</b>      | <b>62</b>          | <b>8.6</b>      | <b>141</b>             | <b>11.3</b>    |
| <b>NOTE:</b> 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 8. Low Birthweight by Plurality and Maternal Age, Massachusetts: 2006-2016

| Maternal Age Group (years) | Year | Singleton         |     |                  |     | Twin              |      |                  |      | Multiples         |      |                  |       | Total Multiples   |      |                  |      | Total Births      |     |                  |     |
|----------------------------|------|-------------------|-----|------------------|-----|-------------------|------|------------------|------|-------------------|------|------------------|-------|-------------------|------|------------------|------|-------------------|-----|------------------|-----|
|                            |      | VLBW <sup>1</sup> |     | LBW <sup>2</sup> |     | VLBW <sup>1</sup> |      | LBW <sup>2</sup> |      | VLBW <sup>1</sup> |      | LBW <sup>2</sup> |       | VLBW <sup>1</sup> |      | LBW <sup>2</sup> |      | VLBW <sup>1</sup> |     | LBW <sup>2</sup> |     |
|                            |      | n                 | %   | n                | %   | n                 | %    | n                | %    | n                 | %    | n                | %     | n                 | %    | n                | %    | n                 | %   | n                | %   |
| All Ages                   | 2006 | 687               | 0.9 | 4,264            | 5.8 | 308               | 9.1  | 1,746            | 51.8 | 46                | 31.1 | 140              | 94.6  | 354               | 10.1 | 1,886            | 53.6 | 1,041             | 1.3 | 6,150            | 7.9 |
|                            | 2007 | 693               | 0.9 | 4,258            | 5.7 | 306               | 9.2  | 1,772            | 53.6 | 54                | 42.9 | 117              | 92.9  | 360               | 10.5 | 1,889            | 55.0 | 1,053             | 1.4 | 6,147            | 7.9 |
|                            | 2008 | 627               | 0.9 | 4,039            | 5.5 | 324               | 9.7  | 1,803            | 53.8 | 55                | 42.6 | 113              | 87.6  | 379               | 10.9 | 1,916            | 55.1 | 1,006             | 1.3 | 5,955            | 7.8 |
|                            | 2009 | 677               | 1.0 | 3,886            | 5.5 | 276               | 8.2  | 1,771            | 52.7 | 61                | 38.9 | 147              | 93.6  | 337               | 9.6  | 1,918            | 54.5 | 1,014             | 1.4 | 5,804            | 7.8 |
|                            | 2010 | 643               | 0.9 | 3,882            | 5.6 | 288               | 8.9  | 1,668            | 51.8 | 30                | 28.8 | 100              | 96.2  | 318               | 9.6  | 1,768            | 53.2 | 961               | 1.3 | 5,650            | 7.8 |
|                            | 2011 | 629               | 0.9 | 3,824            | 5.6 | 286               | 9.2  | 1,541            | 49.8 | 41                | 41.0 | 93               | 93.0  | 327               | 10.2 | 1,634            | 51.2 | 956               | 1.3 | 5,458            | 7.6 |
|                            | 2012 | 585               | 0.8 | 3,810            | 5.5 | 252               | 8.2  | 1,592            | 51.6 | 41                | 45.6 | 89               | 98.9  | 300               | 7.5  | 1,731            | 43.5 | 878               | 1.2 | 5,491            | 7.6 |
|                            | 2013 | 596               | 0.9 | 3,727            | 5.5 | 318               | 10.1 | 1,686            | 53.5 | 23                | 25.8 | 82               | 92.1  | 351               | 8.6  | 1,825            | 45.0 | 937               | 1.3 | 5,495            | 7.7 |
|                            | 2014 | 605               | 0.9 | 3,690            | 5.4 | 270               | 9.1  | 1,624            | 54.5 | 19                | 22.9 | 80               | 96.4  | 297               | 7.6  | 1,763            | 45.2 | 894               | 1.2 | 5,394            | 7.5 |
|                            | 2015 | 627               | 0.9 | 3,849            | 5.6 | 219               | 8.2  | 1,419            | 53.4 | 19                | 34.5 | 53               | 96.4  | 241               | 6.8  | 1,528            | 43.2 | 865               | 1.2 | 5,321            | 7.5 |
|                            | 2016 | 596               | 0.9 | 3,904            | 5.7 | 208               | 8.1  | 1,351            | 52.7 | 38                | 42.2 | 86               | 95.6  | 258               | 6.8  | 1,514            | 39.7 | 842               | 1.2 | 5,341            | 7.5 |
| Ages < 35                  | 2006 | 534               | 0.9 | 3,342            | 5.8 | 217               | 10.3 | 1,157            | 54.8 | 28                | 31.5 | 83               | 93.3  | 245               | 11.1 | 1,240            | 56.3 | 779               | 1.3 | 4,582            | 7.7 |
|                            | 2007 | 533               | 0.9 | 3,317            | 5.7 | 223               | 10.4 | 1,191            | 55.6 | 45                | 51.7 | 85               | 97.7  | 268               | 12.0 | 1,276            | 57.2 | 801               | 1.3 | 4,593            | 7.6 |
|                            | 2008 | 492               | 0.9 | 3,134            | 5.5 | 218               | 10.4 | 1,181            | 56.2 | 34                | 43.6 | 70               | 89.7  | 252               | 11.6 | 1,251            | 57.4 | 744               | 1.3 | 4,385            | 7.4 |
|                            | 2009 | 525               | 0.9 | 3,093            | 5.6 | 174               | 7.9  | 1,187            | 54.2 | 36                | 45.0 | 76               | 95.0  | 210               | 9.2  | 1,263            | 55.6 | 735               | 1.3 | 4,356            | 7.5 |
|                            | 2010 | 489               | 0.9 | 3,071            | 5.7 | 206               | 10.2 | 1,059            | 52.5 | 22                | 40.0 | 51               | 92.7  | 228               | 11.0 | 1,110            | 53.5 | 717               | 1.3 | 4,181            | 7.4 |
|                            | 2011 | 475               | 0.9 | 2,964            | 5.5 | 189               | 9.5  | 1,034            | 52.0 | 31                | 52.5 | 54               | 91.5  | 220               | 10.8 | 1,088            | 53.2 | 695               | 1.2 | 4,052            | 7.2 |
|                            | 2012 | 437               | 0.8 | 2,964            | 5.5 | 185               | 9.5  | 1,066            | 54.6 | 34                | 59.6 | 57               | 100   | 226               | 8.4  | 1,168            | 43.5 | 656               | 1.2 | 4,087            | 7.3 |
|                            | 2013 | 433               | 0.8 | 2,852            | 5.4 | 225               | 11.2 | 1,101            | 54.6 | 17                | 32.7 | 48               | 92.3  | 250               | 9.1  | 1,202            | 43.7 | 675               | 1.2 | 4,001            | 7.3 |
|                            | 2014 | 460               | 0.9 | 2,828            | 5.3 | 186               | 9.8  | 1,076            | 57.0 | 14                | 28.0 | 48               | 96.0  | 207               | 7.9  | 1,173            | 44.7 | 660               | 1.2 | 3,952            | 7.2 |
|                            | 2015 | 476               | 0.9 | 2,922            | 5.6 | 142               | 8.6  | 902              | 54.5 | 16                | 36.4 | 43               | 97.7  | 160               | 6.7  | 990              | 41.8 | 634               | 1.2 | 3,867            | 7.1 |
|                            | 2016 | 443               | 0.9 | 2,952            | 5.7 | 145               | 9.1  | 865              | 54.1 | 22                | 46.8 | 47               | 100.0 | 178               | 6.9  | 977              | 37.8 | 610               | 1.1 | 3,864            | 7.2 |
| Ages 35+                   | 2006 | 151               | 0.9 | 919              | 5.4 | 89                | 7.1  | 587              | 46.8 | 18                | 30.5 | 57               | 96.6  | 107               | 8.1  | 644              | 49.0 | 258               | 1.4 | 1,563            | 8.6 |
|                            | 2007 | 160               | 1.0 | 941              | 5.7 | 83                | 7.1  | 581              | 49.8 | 9                 | 23.1 | 32               | 82.1  | 92                | 7.6  | 613              | 50.9 | 252               | 1.4 | 1,554            | 8.8 |
|                            | 2008 | 135               | 0.8 | 905              | 5.6 | 106               | 8.5  | 622              | 49.8 | 21                | 41.2 | 43               | 84.3  | 127               | 9.8  | 665              | 51.2 | 262               | 1.5 | 1,570            | 8.9 |
|                            | 2009 | 152               | 1.0 | 792              | 5.1 | 102               | 8.7  | 584              | 49.9 | 25                | 32.5 | 71               | 92.2  | 127               | 10.2 | 655              | 52.5 | 279               | 1.7 | 1,447            | 8.7 |
|                            | 2010 | 154               | 1.0 | 810              | 5.4 | 82                | 6.8  | 609              | 50.8 | 8                 | 16.3 | 49               | 100   | 90                | 7.2  | 658              | 52.8 | 244               | 1.5 | 1,468            | 9.0 |
|                            | 2011 | 154               | 1.0 | 860              | 5.8 | 97                | 8.8  | 507              | 45.9 | 10                | 24.4 | 39               | 95.1  | 107               | 9.3  | 546              | 47.6 | 261               | 1.6 | 1,406            | 8.8 |
|                            | 2012 | 148               | 1.0 | 846              | 5.6 | 67                | 5.9  | 526              | 46.5 | 7                 | 21.2 | 32               | 97.0  | 74                | 5.7  | 563              | 43.5 | 222               | 1.4 | 1,404            | 8.6 |
|                            | 2013 | 163               | 1.1 | 875              | 5.7 | 93                | 8.2  | 585              | 51.6 | 6                 | 16.2 | 34               | 91.9  | 101               | 7.7  | 623              | 47.6 | 262               | 1.6 | 1,494            | 9.1 |
|                            | 2014 | 145               | 0.9 | 862              | 5.5 | 84                | 7.7  | 548              | 50.2 | 5                 | 15.2 | 32               | 97.0  | 90                | 7.1  | 590              | 46.3 | 234               | 1.4 | 1,442            | 8.6 |
|                            | 2015 | 151               | 0.9 | 927              | 5.8 | 77                | 7.7  | 517              | 51.7 | 3                 | 27.3 | 10               | 90.9  | 81                | 7.0  | 538              | 46.3 | 231               | 1.4 | 1,454            | 8.5 |
|                            | 2016 | 153               | 0.9 | 952              | 5.7 | 63                | 6.5  | 486              | 50.3 | 16                | 37.2 | 39               | 90.7  | 80                | 6.5  | 537              | 43.8 | 232               | 1.3 | 1,477            | 8.4 |

**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 9. Births by Gestational Age, Race/Hispanic Ethnicity, Massachusetts: 2016

| Gestational Age <sup>1</sup><br>(weeks completed) | Total           |                 | White Non-Hispanic |                 | Black Non-Hispanic |                 | Hispanic        |                 | Asian Non-Hispanic |                 | Other Non-Hispanic <sup>3</sup> |                 | Unknown      |
|---------------------------------------------------|-----------------|-----------------|--------------------|-----------------|--------------------|-----------------|-----------------|-----------------|--------------------|-----------------|---------------------------------|-----------------|--------------|
|                                                   | n               | % <sup>2</sup>  | n                  | % <sup>2</sup>  | n                  | % <sup>2</sup>  | n               | % <sup>2</sup>  | n                  | % <sup>2</sup>  | n                               | % <sup>2</sup>  | n            |
| <b>State Total</b>                                | <b>71,319</b>   | <b>100.0</b>    | <b>42,448</b>      | <b>100.0</b>    | <b>7,095</b>       | <b>100.0</b>    | <b>13,100</b>   | <b>100.0</b>    | <b>6,647</b>       | <b>100.0</b>    | <b>719</b>                      | <b>100.0</b>    | <b>1,310</b> |
| <20                                               | 19              | 0.03            | 7                  | 0.02            | -- <sup>4</sup>    | -- <sup>4</sup> | -- <sup>4</sup> | -- <sup>4</sup> | -- <sup>4</sup>    | -- <sup>4</sup> | 1                               | 0.1             | 3            |
| 20-23                                             | 123             | 0.17            | 47                 | 0.1             | -- <sup>4</sup>    | -- <sup>4</sup> | 31              | 0.2             | -- <sup>4</sup>    | -- <sup>4</sup> | 1                               | 0.1             | 5            |
| 24-27                                             | 266             | 0.34            | 118                | 0.3             | 49                 | 0.7             | 72              | 0.5             | 14                 | 0.2             | 2                               | 0.3             | 11           |
| 28-31                                             | 513             | 0.66            | 268                | 0.6             | 70                 | 1.0             | 114             | 0.9             | 45                 | 0.7             | 4                               | 0.6             | 12           |
| 32-33                                             | 754             | 0.97            | 416                | 1.0             | 95                 | 1.3             | 159             | 1.2             | 51                 | 0.8             | 11                              | 1.5             | 22           |
| 34-36                                             | 4,492           | 5.49            | 2,532              | 6.0             | 541                | 7.6             | 872             | 6.7             | 386                | 5.8             | 49                              | 6.8             | 112          |
| 37-38                                             | 16,208          | 20.95           | 8,986              | 21.2            | 1,751              | 24.7            | 3,286           | 25.1            | 1,705              | 25.7            | 177                             | 24.6            | 303          |
| 39                                                | 23,725          | 18.80           | 14,050             | 33.1            | 2,252              | 31.8            | 4,440           | 33.9            | 2,357              | 35.5            | 249                             | 34.6            | 377          |
| 40                                                | 17,168          | 14.47           | 10,749             | 25.3            | 1,526              | 21.5            | 2,958           | 22.6            | 1,512              | 22.8            | 151                             | 21.0            | 272          |
| 41                                                | 7,598           | 5.07            | 5,000              | 11.8            | 741                | 10.5            | 1,120           | 8.6             | 548                | 8.2             | 72                              | 10.0            | 117          |
| 42                                                | 327             | 0.23            | 237                | 0.6             | 27                 | 0.4             | 33              | 0.3             | 19                 | 0.3             | 2                               | 0.3             | 9            |
| 43                                                | -- <sup>4</sup> | -- <sup>4</sup> | -- <sup>4</sup>    | -- <sup>4</sup> | -- <sup>4</sup>    | -- <sup>4</sup> | -- <sup>4</sup> | -- <sup>4</sup> | -- <sup>4</sup>    | -- <sup>4</sup> | 0                               | 0.0             | 0            |
| 44+                                               | -- <sup>4</sup> | -- <sup>4</sup> | -- <sup>4</sup>    | -- <sup>4</sup> | 0                  | 0.0             | 0               | 0.0             | 0                  | 0.0             | 0                               | 0.0             | 0            |
| <b>Preterm<sup>5</sup> (&lt;37)</b>               | <b>6,167</b>    | <b>8.7</b>      | <b>3,388</b>       | <b>8.0</b>      | <b>792</b>         | <b>11.2</b>     | <b>1,253</b>    | <b>9.6</b>      | <b>501</b>         | <b>7.5</b>      | <b>68</b>                       | <b>9.5</b>      | <b>165</b>   |
| Very Early <sup>6</sup> (<28)                     | 408             | 0.6             | 172                | 0.4             | 86                 | 1.2             | 108             | 0.8             | 19                 | 0.3             | -- <sup>4</sup>                 | -- <sup>4</sup> | 19           |
| (28-33)                                           | 1,267           | 1.8             | 684                | 1.6             | 165                | 2.3             | 273             | 2.1             | 96                 | 1.4             | -- <sup>4</sup>                 | -- <sup>4</sup> | 34           |
| Late (34-36)                                      | 4,492           | 6.3             | 2,532              | 6.0             | 541                | 7.6             | 872             | 6.7             | 386                | 5.8             | 49                              | 6.8             | 112          |
| <b>Term (≥37)</b>                                 | <b>65,038</b>   | <b>91.3</b>     | <b>39,028</b>      | <b>92.0</b>     | <b>6,298</b>       | <b>88.8</b>     | <b>11,841</b>   | <b>90.4</b>     | <b>6,142</b>       | <b>92.5</b>     | <b>651</b>                      | <b>90.5</b>     | <b>1,078</b> |
| Early Term (37-38)                                | 16,208          | 22.8            | 8,986              | 21.2            | 1,751              | 24.7            | 3,286           | 25.1            | 1,705              | 25.7            | -- <sup>4</sup>                 | -- <sup>4</sup> | 303          |
| (39-41)                                           | 48,491          | 68.0            | 29,799             | 70.3            | 4,519              | 63.7            | 8,518           | 65.1            | 4,417              | 66.5            | 472                             | 65.6            | 766          |
| (>=42)                                            | 339             | 0.5             | 243                | 0.6             | 28                 | 0.4             | 37              | 0.3             | 20                 | 0.3             | -- <sup>4</sup>                 | -- <sup>4</sup> | 9            |
| Unknown <sup>7</sup>                              | 114             |                 | 32                 |                 | 5                  |                 | 6               |                 | 4                  |                 | 0                               |                 | 67           |

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

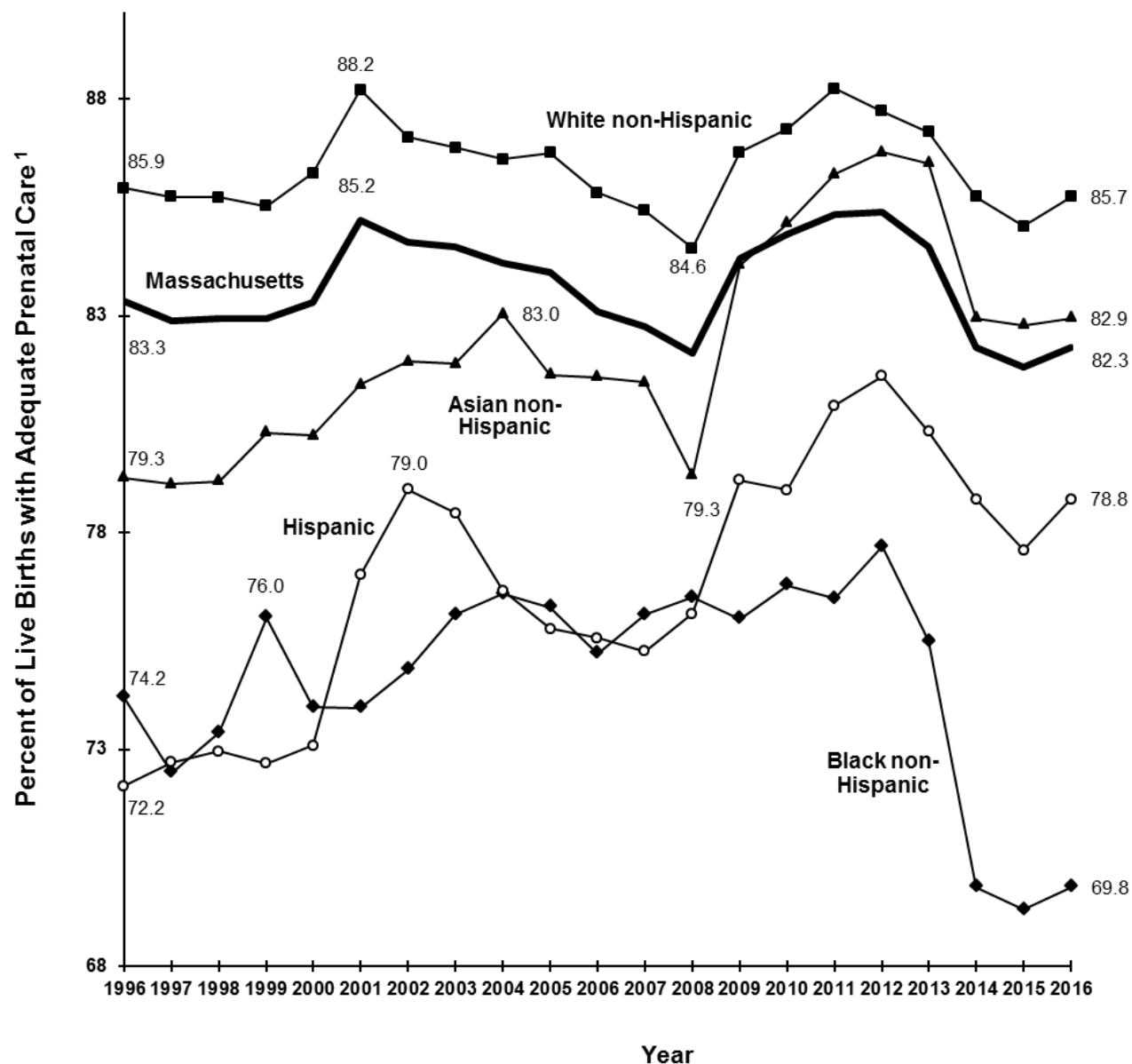
1. A clinical estimate of the number of weeks of pregnancy completed; as estimated by the attendant at birth or the postnatal physician. 2. Percentages are based on column total. 3. Other races include American Indian and others not specified. 4. Calculations based on values of 1-4 are excluded. 5. Also 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 9b. Percent Preterm and Term Births by Gestational Age Category, Massachusetts: 2001-2016**

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

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<sup>2</sup> by Race/Hispanic Ethnicity, Massachusetts: 1996-2016**

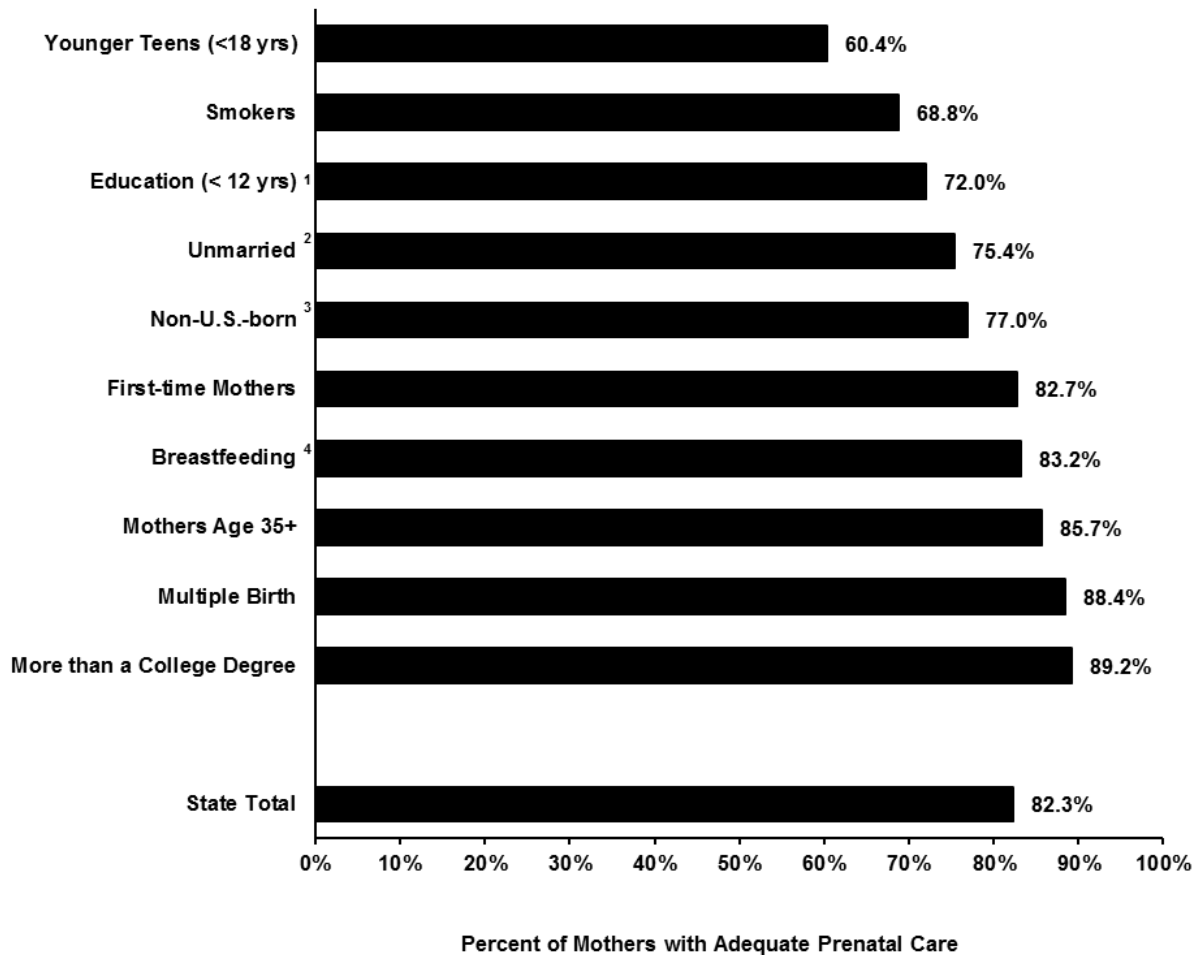


**NOTE:** FOR PURPOSES OF VISUAL REPRESENTATION THE VERTICAL SCALE OF GRAPH REPRESENTS A SMALL INTERVAL (from 68% to 90%).

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

2. Adequacy of Prenatal Care Utilization (APNCU) Index is an assessment of the timing and number of prenatal care visits and not an evaluation of the quality of care delivered. Years 2011 and 2012 do not include data from Metro West, Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. Years 2013 - 2016 do not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems.

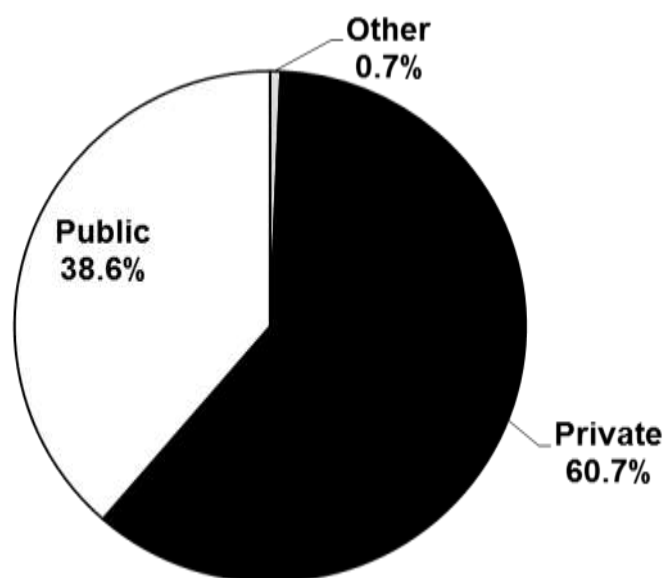
**Figure 4. Adequacy of Prenatal Care by Selected Maternal Characteristics, Massachusetts: 2016**



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

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

**Figure 5. Distribution of Prenatal Care Payment Source, Massachusetts: 2016**



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**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 10. Resident Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2016**

| Municipality <sup>1</sup> | Rank<br>(by pop.<br>size) | Population       | Crude<br>Birth<br>Rate <sup>2</sup> | Mother's Race/Ethnicity                     |                                             |                            |                                                     | Birthweight                   |                       | Gestational<br>Diabetes |
|---------------------------|---------------------------|------------------|-------------------------------------|---------------------------------------------|---------------------------------------------|----------------------------|-----------------------------------------------------|-------------------------------|-----------------------|-------------------------|
|                           |                           |                  |                                     | White<br>Non-<br>Hispanic<br>% <sup>3</sup> | Black<br>Non-<br>Hispanic<br>% <sup>3</sup> | Hispanic<br>% <sup>3</sup> | Asian<br>or<br>Other <sup>4</sup><br>% <sup>3</sup> | Very<br>Low<br>(<1500 g)<br>% | Low<br>(<2500 g)<br>% |                         |
| <b>STATE TOTAL</b>        |                           | <b>6,811,779</b> | <b>10.9</b>                         | <b>59.5</b>                                 | <b>9.9</b>                                  | <b>18.4</b>                | <b>10.3</b>                                         | <b>1.2</b>                    | <b>7.5</b>            | <b>5.6</b>              |
| Arlington                 | 30                        | 42,839           | 13.6                                | 65.8                                        | 3.4                                         | 4.1                        | 23.5                                                | 1.5                           | 6.5                   | 4.5                     |
| Attleboro                 | 29                        | 43,585           | 11.4                                | 74.6                                        | 7.0                                         | 10.1                       | 7.2                                                 | 2.2                           | 8.2                   | 4.0                     |
| Barnstable                | 27                        | 45,185           | 9.4                                 | 68.2                                        | 8.0                                         | 17.9                       | 5.2                                                 | 0.5                           | 7.3                   | 3.3                     |
| Boston                    | 1                         | 617,594          | 12.5                                | 38.0                                        | 24.5                                        | 24.4                       | 10.4                                                | 1.5                           | 8.8                   | 2.9                     |
| Brockton                  | 7                         | 93,802           | 15.4                                | 21.1                                        | 59.6                                        | 14.8                       | 3.7                                                 | 1.7                           | 10.6                  | 7.0                     |
| Brookline                 | 18                        | 58,730           | 10.3                                | 58.0                                        | 2.5                                         | 7.4                        | 28.6                                                | 0.8                           | 6.3                   | 3.6                     |
| Cambridge                 | 5                         | 105,157          | 10.9                                | 55.5                                        | 10.9                                        | 6.5                        | 24.8                                                | 1.2                           | 5.2                   | 3.4                     |
| Chicopee                  | 22                        | 55,295           | 10.0                                | 59.5                                        | 5.2                                         | 31.3                       | 3.4                                                 | 1.3                           | 7.8                   | 8.3                     |
| Fall River                | 10                        | 88,844           | 12.5                                | 65.5                                        | 8.8                                         | 18.0                       | 7.1                                                 | 1.5                           | 9.6                   | 7.1                     |
| Framingham                | 14                        | 68,314           | 12.0                                | 48.2                                        | 7.8                                         | 24.6                       | 12.7                                                | 1.9                           | 8.4                   | 4.8                     |
| Haverhill                 | 15                        | 60,876           | 11.9                                | 59.2                                        | 5.2                                         | 32.1                       | 2.8                                                 | 2.1                           | 9.0                   | 2.8                     |
| Lawrence                  | 12                        | 76,368           | 18.6                                | 7.6                                         | 2.6                                         | 87.3                       | 2.2                                                 | 1.6                           | 9.3                   | 5.7                     |
| Lowell                    | 4                         | 106,517          | 13.9                                | 33.0                                        | 10.2                                        | 25.9                       | 30.5                                                | 2.0                           | 9.3                   | 9.4                     |
| Lynn                      | 9                         | 90,328           | 16.6                                | 23.7                                        | 11.1                                        | 51.9                       | 8.4                                                 | 1.6                           | 8.1                   | 5.1                     |
| Malden                    | 17                        | 59,447           | 14.9                                | 35.4                                        | 16.5                                        | 14.2                       | 31.5                                                | 1.6                           | 7.5                   | 6.4                     |
| Medford                   | 20                        | 56,171           | 12.1                                | 61.4                                        | 9.4                                         | 7.9                        | 18.5                                                | 0.3                           | 6.6                   | 5.1                     |
| Methuen                   | 26                        | 47,252           | 11.0                                | 51.2                                        | 5.8                                         | 36.5                       | 5.8                                                 | 1.5                           | 8.1                   | 4.2                     |
| New Bedford               | 6                         | 95,071           | 13.3                                | 47.9                                        | 12.5                                        | 33.4                       | 4.3                                                 | 1.6                           | 8.8                   | 6.7                     |
| Newton                    | 11                        | 85,142           | 8.3                                 | 65.9                                        | 3.4                                         | 6.1                        | 21.8                                                | 0.4                           | 7.1                   | 3.0                     |
| Peabody                   | 25                        | 51,253           | 10.1                                | 69.2                                        | 6.2                                         | 15.2                       | 4.2                                                 | 0.6                           | 6.4                   | 4.6                     |
| Pittsfield                | 28                        | 44,728           | 10.2                                | 73.8                                        | 13.8                                        | 9.2                        | 2.6                                                 | 2.4                           | 9.7                   | 3.3                     |
| Plymouth                  | 19                        | 56,455           | 8.5                                 | 87.7                                        | 3.1                                         | 5.2                        | 2.9                                                 | 2.3                           | 5.6                   | 5.6                     |
| Quincy                    | 8                         | 92,275           | 13.3                                | 45.3                                        | 7.0                                         | 6.0                        | 39.0                                                | 0.7                           | 7.0                   | 7.3                     |
| Revere                    | 24                        | 51,744           | 15.5                                | 38.6                                        | 8.8                                         | 38.8                       | 9.6                                                 | 1.6                           | 7.8                   | 5.5                     |
| Somerville                | 13                        | 75,748           | 11.2                                | 61.6                                        | 5.8                                         | 16.3                       | 14.1                                                | 1.1                           | 5.6                   | 3.3                     |
| Springfield               | 3                         | 153,057          | 13.6                                | 20.4                                        | 17.6                                        | 56.5                       | 5.0                                                 | 1.5                           | 9.6                   | 8.0                     |
| Taunton                   | 21                        | 55,869           | 11.9                                | 68.5                                        | 14.2                                        | 11.4                       | 3.8                                                 | 1.5                           | 7.1                   | 6.6                     |
| Waltham                   | 16                        | 60,621           | 12.4                                | 49.1                                        | 9.5                                         | 21.2                       | 18.2                                                | 0.5                           | 6.7                   | 4.7                     |
| Weymouth                  | 23                        | 53,736           | 12.8                                | 72.4                                        | 6.1                                         | 7.7                        | 12.8                                                | 0.7                           | 6.3                   | 9.7                     |
| Worcester                 | 2                         | 181,041          | 13.1                                | 42.9                                        | 20.0                                        | 28.4                       | 8.2                                                 | 1.2                           | 7.6                   | 6.2                     |

**Table 10 (cont'd). Resident Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2016**

| Municipality <sup>1</sup> | Adequate<br>Prenatal Care <sup>6</sup> | Public Payment <sup>7</sup><br>for<br>Prenatal Care | Unmarried   | Teen Mothers<br>15-19 years <sup>8</sup> |                 |
|---------------------------|----------------------------------------|-----------------------------------------------------|-------------|------------------------------------------|-----------------|
|                           | %                                      | %                                                   | %           | n                                        | Rate            |
| <b>STATE TOTAL</b>        | <b>82.3</b>                            | <b>38.6</b>                                         | <b>33.1</b> | <b>1,931</b>                             | <b>8.5</b>      |
| Arlington                 | 89.4                                   | 11.9                                                | 6.7         | 0                                        | 0.0             |
| Attleboro                 | 77.9                                   | 16.0                                                | 32.8        | 17                                       | 12.6            |
| Barnstable                | 72.2                                   | 55.6                                                | 41.3        | 12                                       | 9.4             |
| Boston                    | 79.9                                   | 44.9                                                | 38.7        | 198                                      | 7.6             |
| Brockton                  | 73.1                                   | 74.4                                                | 57.6        | 82                                       | 24.4            |
| Brookline                 | 89.2                                   | 10.1                                                | 6.6         | -- <sup>5</sup>                          | -- <sup>5</sup> |
| Cambridge                 | 85.1                                   | 17.9                                                | 11.2        | -- <sup>5</sup>                          | -- <sup>5</sup> |
| Chicopee                  | 80.6                                   | 54.9                                                | 53.3        | 26                                       | 13.8            |
| Fall River                | 74.3                                   | 63.3                                                | 63.5        | 70                                       | 25.2            |
| Framingham                | 73.7                                   | 41.6                                                | 25.9        | 19                                       | 8.1             |
| Haverhill                 | 80.5                                   | 50.4                                                | 49.7        | 31                                       | 17.3            |
| Lawrence                  | 74.2                                   | 81.8                                                | 65.5        | 117                                      | 34.5            |
| Lowell                    | 78.3                                   | 65.8                                                | 53.8        | 54                                       | 13.1            |
| Lynn                      | 75.7                                   | 68.7                                                | 50.3        | 94                                       | 29.2            |
| Malden                    | 80.8                                   | 45.2                                                | 23.7        | 11                                       | 7.1             |
| Medford                   | 87.0                                   | 22.0                                                | 16.0        | 8                                        | 4.8             |
| Methuen                   | 82.2                                   | 48.8                                                | 43.1        | 15                                       | 9.2             |
| New Bedford               | 74.6                                   | 76.1                                                | 66.6        | 96                                       | 31.6            |
| Newton                    | 88.7                                   | 6.5                                                 | 9.6         | -- <sup>5</sup>                          | -- <sup>5</sup> |
| Peabody                   | 87.3                                   | 37.5                                                | 27.9        | 6                                        | 4.3             |
| Pittsfield                | 77.2                                   | 45.6                                                | 56.8        | 23                                       | 17.2            |
| Plymouth                  | 91.9                                   | 36.3                                                | 29.8        | 13                                       | 7.9             |
| Quincy                    | 84.7                                   | 37.3                                                | 22.7        | 12                                       | 6.0             |
| Revere                    | 82.5                                   | 59.3                                                | 36.2        | 20                                       | 13.9            |
| Somerville                | 88.1                                   | 29.0                                                | 22.6        | 16                                       | 9.4             |
| Springfield               | 79.2                                   | 76.7                                                | 70.2        | 172                                      | 25.2            |
| Taunton                   | 74.1                                   | 50.2                                                | 50.4        | 23                                       | 13.2            |
| Waltham                   | 85.0                                   | 28.0                                                | 22.1        | 14                                       | 5.9             |
| Weymouth                  | 87.9                                   | 28.4                                                | 24.7        | -- <sup>5</sup>                          | -- <sup>5</sup> |
| Worcester                 | 74.2                                   | 54.2                                                | 47.5        | 102                                      | 13.2            |

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

**Table 11. Birth Characteristics by Facility/Location, Massachusetts: 2016**

| Facility <sup>(1)</sup>                     | Location         | (2)<br>Occurrence<br>Births<br>(n) | (3)<br>Low<br>Birthweight<br>(%) | (4)<br>Public<br>Pay for<br>PNC (%) | (5)<br>Adequate<br>Prenatal<br>Care (%) | (6)<br>Early<br>Term<br>(%) | (7)<br>Late<br>Preterm<br>(%) |
|---------------------------------------------|------------------|------------------------------------|----------------------------------|-------------------------------------|-----------------------------------------|-----------------------------|-------------------------------|
| <b>State Total</b>                          |                  | <b>71,937</b>                      | <b>7.5</b>                       | <b>38.4</b>                         | <b>82.1</b>                             | <b>22.8</b>                 | <b>6.3</b>                    |
| Anna Jaques Hospital                        | Newburyport      | 700                                | 5.4                              | 25.9                                | 87.8                                    | 21.9                        | 5.0                           |
| Baystate Franklin Medical Center            | Greenfield       | 490                                | 2.7                              | 39.5                                | 87.5                                    | 15.5                        | 2.2                           |
| Baystate Medical Center                     | Springfield      | 3,876                              | 11.4                             | 55.2                                | 82.6                                    | 21.4                        | 8.7                           |
| Berkshire Medical Center                    | Pittsfield       | 798                                | 6.1                              | 40.8                                | 80.3                                    | 17.8                        | 4.1                           |
| Beth Israel Deaconess Hospital - Plymouth   | Plymouth         | 771                                | 4.0                              | 39.4                                | 88.2                                    | 20.8                        | 3.6                           |
| Beth Israel Deaconess Medical Center        | Boston           | 5,319                              | 9.7                              | 21.2                                | 92.6                                    | 24.2                        | 8.4                           |
| Beverly Hospital                            | Beverly          | 2,255                              | 4.9                              | 34.8                                | 84.7                                    | 21.3                        | 6.5                           |
| Boston Medical Center                       | Boston           | 2,810                              | 10.0                             | 86.5                                | 54.5                                    | 24.8                        | 6.4                           |
| Brigham and Women's Hospital                | Boston           | 6,373                              | 11.0                             | 27.2                                | 88.3                                    | 25.3                        | 8.7                           |
| Brockton Hospital                           | Brockton         | 1,006                              | 5.3                              | 61.9                                | 81.5                                    | 22.3                        | 7.5                           |
| Cambridge Birth Center                      | Cambridge        | 122                                | -- <sup>8</sup>                  | 17.2                                | 90.2                                    | 9.0                         | -- <sup>8</sup>               |
| Cambridge Hospital                          | Cambridge        | 1,022                              | 3.8                              | 64.7                                | 84.8                                    | 24.5                        | 4.0                           |
| Cape Cod Hospital                           | Barnstable       | 797                                | 5.5                              | 55.4                                | 70.3                                    | 25.2                        | 6.3                           |
| Charlton Memorial Hospital                  | Fall River       | 1,474                              | 6.6                              | 53.1                                | 77.9                                    | 17.5                        | 4.7                           |
| Cooley Dickinson Hospital                   | Northampton      | 587                                | 2.9                              | 42.2                                | 93.9                                    | 16.7                        | 2.6                           |
| Emerson Hospital                            | Concord          | 1,266                              | 5.1                              | 11.1                                | 87.6                                    | 23.1                        | 4.8                           |
| Fairview Hospital                           | Great Barrington | 128                                | -- <sup>8</sup>                  | 27.6                                | 85.9                                    | 18.0                        | 3.9                           |
| Falmouth Hospital                           | Falmouth         | 408                                | 3.9                              | 50.6                                | 63.4                                    | 20.1                        | 4.9                           |
| Good Samaritan Medical Center               | Brockton         | 1,064                              | 5.8                              | 72.9                                | 64.0                                    | 23.4                        | 5.5                           |
| Harrington Memorial Hospital                | Southbridge      | 219                                | 3.2                              | 59.8                                | 93.2                                    | 20.5                        | -- <sup>8</sup>               |
| HealthAlliance Hospital                     | Leominster       | 874                                | 2.1                              | 66.3                                | 84.4                                    | 21.2                        | 2.3                           |
| Heywood Hospital                            | Gardner          | 455                                | 4.6                              | 54.9                                | 82.5                                    | 15.2                        | 2.2                           |
| Holy Family Hospital and Medical Center     | Methuen          | 1,032                              | 6.5                              | 51.8                                | 81.0                                    | 19.5                        | 6.2                           |
| Holyoke Medical Center                      | Holyoke          | 457                                | 5.5                              | 43.0                                | 63.7                                    | 26.3                        | 3.7                           |
| Lawrence General Hospital                   | Lawrence         | 1,418                              | 5.9                              | 73.7                                | 74.5                                    | 22.0                        | 5.0                           |
| Lowell General Hospital                     | Lowell           | 2,232                              | 6.4                              | 52.4                                | 81.2                                    | 24.3                        | 4.9                           |
| Martha's Vineyard Hospital                  | Oak Bluffs       | 127                                | 3.9                              | 66.9                                | 89.7                                    | 16.5                        | -- <sup>8</sup>               |
| Massachusetts General Hospital              | Boston           | 3,829                              | 9.0                              | 25.9                                | 86.3                                    | 23.6                        | 7.2                           |
| Melrose-Wakefield Hospital                  | Melrose          | 937                                | 4.5                              | 33.7                                | 86.5                                    | 22.6                        | 5.3                           |
| Mercy Medical Center                        | Springfield      | 1,309                              | 3.9                              | 58.2                                | 85.7                                    | 21.4                        | 3.4                           |
| Metro West Medical Center                   | Framingham       | 1,038                              | 4.9                              | 55.3                                | 44.3                                    | 27.5                        | 6.2                           |
| Milford Regional Medical Center             | Milford          | 964                                | 4.5                              | 39.2                                | 90.1                                    | 26.6                        | 3.9                           |
| Morton Hospital                             | Taunton          | 278                                | 4.3                              | 59.3                                | 64.6                                    | 25.9                        | 4.3                           |
| Mt. Auburn Hospital                         | Cambridge        | 2,658                              | 3.8                              | 18.4                                | 88.5                                    | 18.1                        | 5.0                           |
| Nantucket Cottage Hospital                  | Nantucket        | 153                                | -- <sup>8</sup>                  | 52.9                                | 88.9                                    | 21.6                        | 3.9                           |
| Newton-Wellesley Hospital <sup>9</sup>      | Newton           | 3,854                              | 4.6                              | 2.6                                 | 81.2                                    | 23.1                        | 5.0                           |
| North Shore Birth Center                    | Beverly          | 85                                 | -- <sup>8</sup>                  | 35.3                                | 91.8                                    | 16.5                        | -- <sup>8</sup>               |
| North Shore Medical Center - Salem Hospital | Salem            | 1,266                              | 6.9                              | 60.0                                | 79.0                                    | 24.3                        | 6.6                           |
| Norwood Hospital                            | Norwood          | 444                                | 3.6                              | 28.2                                | 78.1                                    | 28.2                        | 4.5                           |
| Saint Vincent Hospital <sup>9</sup>         | Worcester        | 1,923                              | 4.0                              | 36.3                                | 77.6                                    | 22.4                        | 4.9                           |
| South Shore Hospital                        | Weymouth         | 3,449                              | 5.8                              | 25.1                                | 90.0                                    | 22.5                        | 5.3                           |
| St. Elizabeth's Medical Center              | Boston           | 965                                | 17.0                             | 37.3                                | 83.1                                    | 24.4                        | 11.3                          |
| St. Luke's Hospital                         | New Bedford      | 1,449                              | 6.8                              | 70.1                                | 77.0                                    | 27.4                        | 6.0                           |

**Table 11 (cont'd). Birth Characteristics by Facility/Location, Massachusetts: 2016**

| Facility <sup>(1)</sup>            | Location   | (2)<br>Occurrence<br>Births<br>(n) | (3)<br>Low<br>Birthweight<br>(%) | (4)<br>Public<br>Pay for<br>PNC (%) | (5)<br>Adequate<br>Prenatal<br>Care (%) | (6)<br>Early<br>Term<br>(%) | (7)<br>Late<br>Preterm<br>(%) |
|------------------------------------|------------|------------------------------------|----------------------------------|-------------------------------------|-----------------------------------------|-----------------------------|-------------------------------|
| Sturdy Memorial Hospital           | Attleboro  | 704                                | 5.0                              | 12.4                                | 70.0                                    | 15.5                        | 3.0                           |
| Tobey Hospital                     | Wareham    | 435                                | 2.3                              | 46.1                                | 84.2                                    | 14.3                        | 3.0                           |
| Tufts Medical Center               | Boston     | 1,344                              | 24.0                             | 49.0                                | 80.3                                    | 28.5                        | 12.5                          |
| UMass Memorial Medical Center      | Worcester  | 4,073                              | 10.9                             | 38.3                                | 77.5                                    | 24.0                        | 7.7                           |
| Winchester Hospital <sup>9</sup>   | Winchester | 2,201                              | 5.4                              | 12.3                                | 83.5                                    | 20.7                        | 5.9                           |
| Other Hospitals                    |            | 8                                  | -- <sup>8</sup>                  | -- <sup>8</sup>                     | -- <sup>8</sup>                         | -- <sup>8</sup>             | -- <sup>8</sup>               |
| Home, En route & Dr. Office/Clinic |            | 491                                | 5.9                              | 23.9                                | 64.2                                    | 15.3                        | 5.6                           |

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

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

**Table 12. Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2016**

| Municipality <sup>1</sup> | Total Population Rank | Female Population, ages 15-19 | Number of Teen Births (Ages 15-19) | Teen Birth Rate <sup>2</sup> | Mother's Race/Hispanic Ethnicity (% of teen births) |                    |                 |                                          |
|---------------------------|-----------------------|-------------------------------|------------------------------------|------------------------------|-----------------------------------------------------|--------------------|-----------------|------------------------------------------|
|                           |                       |                               |                                    |                              | White Non-Hispanic                                  | Black Non-Hispanic | Hispanic        | Asian or Other Non-Hispanic <sup>3</sup> |
| <b>State Total</b>        |                       | <b>227,247</b>                | <b>1,931</b>                       | <b>8.5</b>                   | <b>31.5</b>                                         | <b>12.3</b>        | <b>52.5</b>     | <b>3.6</b>                               |
| Arlington                 | 30                    | 867                           | 0                                  | 0.0                          | 0.0                                                 | 0.0                | 0.0             | 0.0                                      |
| Attleboro                 | 29                    | 1,344                         | 17                                 | 12.6                         | 41.2                                                | -- <sup>4</sup>    | 35.3            | 0.0                                      |
| Barnstable                | 27                    | 1,278                         | 12                                 | 9.4                          | 50.0                                                | 0.0                | 41.7            | -- <sup>4</sup>                          |
| Boston                    | 1                     | 25,988                        | 198                                | 7.6                          | 3.0                                                 | 36.5               | 57.9            | 2.5                                      |
| Brockton                  | 7                     | 3,354                         | 82                                 | 24.4                         | 17.1                                                | 52.4               | 28.0            | -- <sup>4</sup>                          |
| Brookline                 | 18                    | 1,469                         | -- <sup>4</sup>                    | -- <sup>4</sup>              | 0.0                                                 | 0.0                | -- <sup>4</sup> | 0.0                                      |
| Cambridge                 | 5                     | 3,550                         | -- <sup>4</sup>                    | -- <sup>4</sup>              | 0.0                                                 | -- <sup>4</sup>    | -- <sup>4</sup> | 0.0                                      |
| Chicopee                  | 22                    | 1,881                         | 26                                 | 13.8                         | 30.8                                                | 0.0                | 65.4            | -- <sup>4</sup>                          |
| Fall River                | 10                    | 2,781                         | 70                                 | 25.2                         | 48.6                                                | 12.9               | 32.9            | -- <sup>4</sup>                          |
| Framingham                | 14                    | 2,351                         | 19                                 | 8.1                          | -- <sup>4</sup>                                     | -- <sup>4</sup>    | 68.4            | 0.0                                      |
| Haverhill                 | 15                    | 1,791                         | 31                                 | 17.3                         | 45.2                                                | -- <sup>4</sup>    | 48.4            | 0.0                                      |
| Lawrence                  | 12                    | 3,395                         | 117                                | 34.5                         | 5.1                                                 | -- <sup>4</sup>    | 90.6            | -- <sup>4</sup>                          |
| Lowell                    | 4                     | 4,118                         | 54                                 | 13.1                         | 20.4                                                | 0.0                | 57.4            | 22.2                                     |
| Lynn                      | 9                     | 3,223                         | 94                                 | 29.2                         | 10.3                                                | 5.7                | 81.6            | -- <sup>4</sup>                          |
| Malden                    | 17                    | 1,548                         | 11                                 | 7.1                          | -- <sup>4</sup>                                     | -- <sup>4</sup>    | 45.5            | -- <sup>4</sup>                          |
| Medford                   | 20                    | 1,683                         | 8                                  | 4.8                          | -- <sup>4</sup>                                     | -- <sup>4</sup>    | -- <sup>4</sup> | 0.0                                      |
| Methuen                   | 26                    | 1,624                         | 15                                 | 9.2                          | -- <sup>4</sup>                                     | 0.0                | 86.7            | 0.0                                      |
| New Bedford               | 6                     | 3,037                         | 96                                 | 31.6                         | 30.0                                                | 7.8                | 57.8            | -- <sup>4</sup>                          |
| Newton                    | 11                    | 4,195                         | -- <sup>4</sup>                    | -- <sup>4</sup>              | 0.0                                                 | 0.0                | -- <sup>4</sup> | 0.0                                      |
| Peabody                   | 25                    | 1,405                         | 6                                  | 4.3                          | -- <sup>4</sup>                                     | 0.0                | -- <sup>4</sup> | -- <sup>4</sup>                          |
| Pittsfield                | 28                    | 1,339                         | 23                                 | 17.2                         | 69.6                                                | -- <sup>4</sup>    | -- <sup>4</sup> | -- <sup>4</sup>                          |
| Plymouth                  | 19                    | 1,641                         | 13                                 | 7.9                          | 69.2                                                | -- <sup>4</sup>    | -- <sup>4</sup> | -- <sup>4</sup>                          |
| Quincy                    | 8                     | 1,984                         | 12                                 | 6.0                          | 58.3                                                | -- <sup>4</sup>    | -- <sup>4</sup> | -- <sup>4</sup>                          |
| Revere                    | 24                    | 1,434                         | 20                                 | 13.9                         | -- <sup>4</sup>                                     | -- <sup>4</sup>    | 70.0            | -- <sup>4</sup>                          |
| Somerville                | 13                    | 1,711                         | 16                                 | 9.4                          | -- <sup>4</sup>                                     | 0.0                | 75.0            | 0.0                                      |
| Springfield               | 3                     | 6,836                         | 172                                | 25.2                         | 8.2                                                 | 9.4                | 80.7            | -- <sup>4</sup>                          |
| Taunton                   | 21                    | 1,744                         | 23                                 | 13.2                         | 38.1                                                | 23.8               | 28.6            | -- <sup>4</sup>                          |
| Waltham                   | 16                    | 2,356                         | 14                                 | 5.9                          | -- <sup>4</sup>                                     | -- <sup>4</sup>    | 71.4            | -- <sup>4</sup>                          |
| Weymouth                  | 23                    | 1,444                         | -- <sup>4</sup>                    | -- <sup>4</sup>              | -- <sup>4</sup>                                     | 0.0                | 0.0             | 0.0                                      |
| Worcester                 | 2                     | 7,726                         | 102                                | 13.2                         | 34.3                                                | 7.8                | 56.9            | -- <sup>4</sup>                          |

Table 12 (cont'd). Resident Teen Birth Characteristics, 30 Largest Municipalities, Massachusetts: 2016

| Municipality <sup>1</sup> | Public Payment for Prenatal Care <sup>5</sup> (%) | Unmarried (%)   | Low Birthweight <sup>6</sup> (%) | Preterm <sup>7</sup> (%) | Adequacy of Prenatal Care <sup>8</sup> (% of teen births) |                 |                 |                         |
|---------------------------|---------------------------------------------------|-----------------|----------------------------------|--------------------------|-----------------------------------------------------------|-----------------|-----------------|-------------------------|
|                           |                                                   |                 |                                  |                          | Adequate Intensive                                        | Adequate Basic  | Intermediate    | Inadequate <sup>9</sup> |
| <b>State Total</b>        | <b>81.8</b>                                       | <b>93.5</b>     | <b>9.7</b>                       | <b>9.4</b>               | <b>33.8</b>                                               | <b>32.9</b>     | <b>9.3</b>      | <b>24.0</b>             |
| Arlington                 | 0.0                                               | 0.0             | 0.0                              | 0.0                      | 0.0                                                       | 0.0             | 0.0             | 0.0                     |
| Attleboro                 | 52.9                                              | 93.8            | -- <sup>4</sup>                  | -- <sup>4</sup>          | 29.4                                                      | 29.4            | -- <sup>4</sup> | 35.3                    |
| Barnstable                | 83.3                                              | 91.7            | 0.0                              | 0.0                      | 41.7                                                      | 41.7            | -- <sup>4</sup> | 0.0                     |
| Boston                    | 88.4                                              | 96.0            | 9.6                              | 10.6                     | 24.7                                                      | 35.5            | 11.8            | 28.0                    |
| Brockton                  | 87.3                                              | 95.1            | 12.3                             | 7.3                      | 28.4                                                      | 32.1            | 7.4             | 32.1                    |
| Brookline                 | -- <sup>4</sup>                                   | -- <sup>4</sup> | -- <sup>4</sup>                  | -- <sup>4</sup>          | -- <sup>4</sup>                                           | 0.0             | 0.0             | 0.0                     |
| Cambridge                 | -- <sup>4</sup>                                   | -- <sup>4</sup> | -- <sup>4</sup>                  | 0.0                      | -- <sup>4</sup>                                           | -- <sup>4</sup> | -- <sup>4</sup> | 0.0                     |
| Chicopee                  | 65.4                                              | 92.3            | -- <sup>4</sup>                  | -- <sup>4</sup>          | -- <sup>4</sup>                                           | 33.3            | 20.8            | 33.3                    |
| Fall River                | 79.7                                              | 95.7            | 10.0                             | 7.1                      | 37.7                                                      | 17.4            | 7.2             | 37.7                    |
| Framingham                | 92.9                                              | 100.0           | 0.0                              | -- <sup>4</sup>          | -- <sup>4</sup>                                           | 0.0             | 0.0             | -- <sup>4</sup>         |
| Haverhill                 | 71                                                | 96.8            | 16.1                             | 16.1                     | 24.1                                                      | 37.9            | -- <sup>4</sup> | 24.1                    |
| Lawrence                  | 89.7                                              | 95.7            | 6.8                              | 6.8                      | 22.2                                                      | 39.3            | 16.2            | 22.2                    |
| Lowell                    | 92.6                                              | 100.0           | 14.8                             | -- <sup>4</sup>          | 43.4                                                      | 26.4            | -- <sup>4</sup> | 22.6                    |
| Lynn                      | 89.1                                              | 85.1            | 7.4                              | 9.6                      | 32.2                                                      | 24.4            | 7.8             | 35.6                    |
| Malden                    | 80                                                | 63.6            | -- <sup>4</sup>                  | -- <sup>4</sup>          | 45.5                                                      | -- <sup>4</sup> | 0               | -- <sup>4</sup>         |
| Medford                   | 62.5                                              | 100.0           | -- <sup>4</sup>                  | -- <sup>4</sup>          | -- <sup>4</sup>                                           | -- <sup>4</sup> | 0               | 75.0                    |
| Methuen                   | 93.3                                              | 86.7            | 0.0                              | 0                        | -- <sup>4</sup>                                           | 42.9            | -- <sup>4</sup> | -- <sup>4</sup>         |
| New Bedford               | 89.5                                              | 92.6            | 12.6                             | 13.5                     | 33.7                                                      | 23.2            | 13.7            | 29.5                    |
| Newton                    | -- <sup>4</sup>                                   | -- <sup>4</sup> | 0.0                              | 0.0                      | 0.0                                                       | 0.0             | 0.0             | 0.0                     |
| Peabody                   | -- <sup>4</sup>                                   | 83.3            | -- <sup>4</sup>                  | 0.0                      | -- <sup>4</sup>                                           | 0.0             | -- <sup>4</sup> | -- <sup>4</sup>         |
| Pittsfield                | 78.3                                              | 95.7            | -- <sup>4</sup>                  | -- <sup>4</sup>          | 43.5                                                      | 39.1            | -- <sup>4</sup> | -- <sup>4</sup>         |
| Plymouth                  | 83.3                                              | 92.3            | -- <sup>4</sup>                  | -- <sup>4</sup>          | -- <sup>4</sup>                                           | -- <sup>4</sup> | 0               | 41.7                    |
| Quincy                    | 83.3                                              | 100.0           | -- <sup>4</sup>                  | -- <sup>4</sup>          | -- <sup>4</sup>                                           | -- <sup>4</sup> | -- <sup>4</sup> | 41.7                    |
| Revere                    | 85.0                                              | 80.0            | -- <sup>4</sup>                  | -- <sup>4</sup>          | 47.4                                                      | -- <sup>4</sup> | 0               | 36.8                    |
| Somerville                | 100.0                                             | 100.0           | 0.0                              | 0.0                      | 43.8                                                      | 43.8            | 0               | -- <sup>4</sup>         |
| Springfield               | 91.8                                              | 98.3            | 14.6                             | 12.2                     | 42.7                                                      | 32.7            | 5.8             | 18.7                    |
| Taunton                   | 68.2                                              | 85.0            | -- <sup>4</sup>                  | 21.7                     | 42.9                                                      | 38.1            | -- <sup>4</sup> | -- <sup>4</sup>         |
| Waltham                   | 64.3                                              | 78.6            | 0.0                              | -- <sup>4</sup>          | -- <sup>4</sup>                                           | 75.0            | -- <sup>4</sup> | 0.0                     |
| Weymouth                  | -- <sup>4</sup>                                   | -- <sup>4</sup> | 0.0                              | 0.0                      | -- <sup>4</sup>                                           | -- <sup>4</sup> | 0.0             | 0.0                     |
| Worcester                 | 73.3                                              | 92.2            | 6.9                              | 6.9                      | 27.2                                                      | 37.0            | 14.8            | 21.0                    |

**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 MDPH population estimates for 2010. 3. Mothers who designated themselves as Non-Hispanic Asian, American Indian, or Other. 4. Counts and calculations based on values of 1-4 are excluded. 5. Government programs including CommonHealth, Healthy Start, Medicaid/MassHealth, and Medicare (may also be HMO or managed care), or free care; other: Worker's Compensation and other sources. 6. Less than 2,500 grams or 5.5 pounds. 7. Less than 37 weeks of gestational age. 8. Based on Adequacy of Prenatal Care Utilization (APNCU) Index. State total does not include data from Newton Wellesley, Saint Vincent and Winchester hospitals because of reporting problems. 9. Inadequate includes those mothers with no prenatal care.

**Table 13. Adequacy of Prenatal Care Utilization: Summary and Component Indices, Massachusetts: 2016**

|                                        | Adequate Total <sup>1</sup> |      | Adequate Intensive |      | Adequate Basic |      | Intermediate |     | Inadequate |      | Unknown |
|----------------------------------------|-----------------------------|------|--------------------|------|----------------|------|--------------|-----|------------|------|---------|
|                                        | n                           | %    | n                  | %    | n              | %    | n            | %   | n          | %    | n       |
| <b><u>Summary Index</u></b>            |                             |      |                    |      |                |      |              |     |            |      |         |
| Adequacy of Prenatal Care Utilization  | 49,876                      | 82.3 | 25,525             | 42.1 | 24,351         | 40.2 | 3,600        | 5.9 | 7,150      | 11.8 | 2,854   |
| <b><u>Component Indices</u></b>        |                             |      |                    |      |                |      |              |     |            |      |         |
| Adequacy of Initiation                 | 54,022                      | 89.1 | 19,565             | 32.3 | 34,457         | 56.8 | 3,461        | 5.7 | 3,143      | 5.2  | 2,854   |
| Adequacy of Received Services (Visits) | 55,398                      | 91.4 | 29,837             | 49.2 | 25,561         | 42.2 | 4,108        | 6.8 | 1,120      | 1.8  | 2,854   |

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

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

**Table 14. Birth Characteristics by Race/Hispanic Ethnicity and Source of Prenatal Care Payment, Massachusetts: 2016**

| Race/Ethnicity and Payment Source     | Births <sup>1</sup> |              | Teen Births <sup>2</sup> |                 |                 |                 | Birthweight           |                 |                  |             |
|---------------------------------------|---------------------|--------------|--------------------------|-----------------|-----------------|-----------------|-----------------------|-----------------|------------------|-------------|
|                                       | n                   | %            | <18 Years                |                 | <20 Years       |                 | Very Low <sup>3</sup> |                 | Low <sup>4</sup> |             |
|                                       |                     |              | n                        | %               | n               | %               | n                     | %               | n                | %           |
| <b>STATE TOTAL<sup>5</sup></b>        | <b>71,319</b>       | <b>100.0</b> | <b>489</b>               | <b>0.7</b>      | <b>1,943</b>    | <b>2.7</b>      | <b>842</b>            | <b>1.2</b>      | <b>5,341</b>     | <b>7.5</b>  |
| Public                                | 27,216              | 38.4         | 401                      | 1.5             | 1,562           | 5.7             | 402                   | 1.5             | 2,346            | 8.6         |
| Medicaid <sup>6</sup>                 | 23,894              | 33.7         | 365                      | 1.5             | 1,456           | 6.1             | 359                   | 1.5             | 2,072            | 8.7         |
| Other Public <sup>7</sup>             | 3,322               | 4.7          | 36                       | 1.1             | 106             | 3.2             | 43                    | 1.3             | 274              | 8.2         |
| Private <sup>8</sup>                  | 42,758              | 60.3         | 77                       | 0.2             | 336             | 0.8             | 391                   | 0.9             | 2,838            | 6.6         |
| <b>White Non-Hispanic</b>             | <b>42,448</b>       | <b>100.0</b> | <b>112</b>               | <b>0.3</b>      | <b>605</b>      | <b>1.4</b>      | <b>385</b>            | <b>0.9</b>      | <b>2,715</b>     | <b>6.4</b>  |
| Public                                | 10,436              | 24.7         | 78                       | 0.7             | 422             | 4.0             | 124                   | 1.2             | 785              | 7.5         |
| Medicaid <sup>6</sup>                 | 8,770               | 20.8         | 71                       | 0.8             | 392             | 4.5             | 102                   | 1.2             | 662              | 7.5         |
| Other Public <sup>7</sup>             | 1,666               | 3.9          | 7                        | 0.4             | 30              | 1.8             | 22                    | 1.3             | 123              | 7.4         |
| Private <sup>8</sup>                  | 31,409              | 74.3         | 32                       | 0.1             | 174             | 0.6             | 249                   | 0.8             | 1,870            | 6.0         |
| <b>Black Non-Hispanic</b>             | <b>7,095</b>        | <b>100.0</b> | <b>52</b>                | <b>0.7</b>      | <b>236</b>      | <b>3.3</b>      | <b>149</b>            | <b>2.1</b>      | <b>801</b>       | <b>11.3</b> |
| Public                                | 4,556               | 64.5         | 43                       | 0.9             | 189             | 4.1             | 89                    | 2.0             | 509              | 11.2        |
| Medicaid <sup>6</sup>                 | 4,075               | 57.7         | -- <sup>9</sup>          | -- <sup>9</sup> | 177             | 4.3             | 79                    | 1.9             | 454              | 11.1        |
| Other Public <sup>7</sup>             | 481                 | 6.8          | -- <sup>9</sup>          | -- <sup>9</sup> | 12              | 2.5             | 10                    | 2.1             | 55               | 11.4        |
| Private <sup>8</sup>                  | 2,264               | 32.1         | 8                        | 0.4             | 35              | 1.5             | 42                    | 1.9             | 247              | 10.9        |
| <b>Hispanic</b>                       | <b>13,100</b>       | <b>100.0</b> | <b>301</b>               | <b>2.3</b>      | <b>1,005</b>    | <b>7.7</b>      | <b>206</b>            | <b>1.6</b>      | <b>1,091</b>     | <b>8.3</b>  |
| Public                                | 9,528               | 73.1         | 261                      | 2.7             | 873             | 9.2             | 155                   | 1.6             | 802              | 8.4         |
| Medicaid <sup>6</sup>                 | 8,677               | 66.6         | 236                      | 2.7             | 814             | 9.4             | 149                   | 1.7             | 740              | 8.5         |
| Other Public <sup>7</sup>             | 851                 | 6.5          | 25                       | 2.9             | 59              | 6.9             | 6                     | 0.7             | 62               | 7.3         |
| Private <sup>8</sup>                  | 3,352               | 25.7         | 32                       | 1.0             | 109             | 3.3             | 37                    | 1.1             | 259              | 7.7         |
| <b>Asian Non-Hispanic</b>             | <b>6,647</b>        | <b>100.0</b> | <b>10</b>                | <b>0.2</b>      | <b>42</b>       | <b>0.6</b>      | <b>60</b>             | <b>0.9</b>      | <b>531</b>       | <b>8.0</b>  |
| Public                                | 1,877               | 28.4         | 7                        | 0.4             | 34              | 1.8             | 19                    | 1.0             | 154              | 8.2         |
| Medicaid <sup>6</sup>                 | 1,689               | 25.5         | -- <sup>9</sup>          | -- <sup>9</sup> | -- <sup>9</sup> | -- <sup>9</sup> | -- <sup>9</sup>       | -- <sup>9</sup> | 137              | 8.1         |
| Other Public <sup>7</sup>             | 188                 | 2.8          | -- <sup>9</sup>          | -- <sup>9</sup> | -- <sup>9</sup> | -- <sup>9</sup> | -- <sup>9</sup>       | -- <sup>9</sup> | 17               | 9.0         |
| Private <sup>8</sup>                  | 4,662               | 70.5         | -- <sup>9</sup>          | -- <sup>9</sup> | 8               | 0.2             | 41                    | 0.9             | 370              | 7.9         |
| <b>Other Non-Hispanic<sup>9</sup></b> | <b>719</b>          | <b>100.0</b> | <b>7</b>                 | <b>1.0</b>      | <b>27</b>       | <b>3.8</b>      | <b>11</b>             | <b>1.5</b>      | <b>62</b>        | <b>8.6</b>  |
| Public                                | 354                 | 49.9         | 6                        | 1.7             | 23              | 6.5             | 5                     | 1.4             | 40               | 11.3        |
| Medicaid <sup>6</sup>                 | 310                 | 43.7         | 6                        | 1.9             | 23              | 7.4             | 5                     | 1.6             | 35               | 11.3        |
| Other Public <sup>7</sup>             | 44                  | 6.2          | 0                        | 0.0             | 0               | 0.0             | 0                     | 0.0             | 5                | 11.4        |
| Private <sup>8</sup>                  | 344                 | 48.5         | 1                        | 0.3             | 3               | 0.9             | 6                     | 1.7             | 20               | 5.8         |

**Table 14 (cont'd). Birth Characteristics by Race/Hispanic Ethnicity and Source of Prenatal Care Payment, Massachusetts: 2016**

| Race/Ethnicity and Payment Source      | Prenatal Care          |             |                     |             |                   |             |                             |             |                       |                 |
|----------------------------------------|------------------------|-------------|---------------------|-------------|-------------------|-------------|-----------------------------|-------------|-----------------------|-----------------|
|                                        | Adequate <sup>11</sup> |             | Began 1st Trimester |             | Cesarean Delivery |             | Breastfeeding <sup>12</sup> |             | Smoking <sup>13</sup> |                 |
|                                        | n                      | %           | n                   | %           | n                 | %           | n                           | %           | n                     | %               |
| <b>STATE TOTAL<sup>9</sup></b>         | <b>49,876</b>          | <b>82.3</b> | <b>56,355</b>       | <b>80.8</b> | <b>22,302</b>     | <b>31.3</b> | <b>61,075</b>               | <b>85.9</b> | <b>3,695</b>          | <b>5.3</b>      |
| Public                                 | 18,912                 | 75.4        | 19,299              | 72.4        | 8,438             | 31.0        | 22,103                      | 81.5        | 2,678                 | 10.2            |
| Medicaid <sup>6</sup>                  | 16,727                 | 75.4        | 16,893              | 72.2        | 7,413             | 31.0        | 19,362                      | 81.3        | 2,380                 | 10.3            |
| Other Public <sup>7</sup>              | 2,185                  | 75.4        | 2,406               | 74.2        | 1,025             | 30.9        | 2,741                       | 82.7        | 298                   | 9.3             |
| Private <sup>8</sup>                   | 30,722                 | 88.6        | 36,807              | 87.3        | 13,505            | 31.6        | 38,021                      | 89.1        | 909                   | 2.2             |
| <b>White Non-Hispanic</b>              | <b>30,035</b>          | <b>85.7</b> | <b>35,237</b>       | <b>84.6</b> | <b>13,235</b>     | <b>31.2</b> | <b>35,878</b>               | <b>84.7</b> | <b>2,881</b>          | <b>6.9</b>      |
| Public                                 | 7,276                  | 77.2        | 7,599               | 74.1        | 3,230             | 31.0        | 7,804                       | 75.0        | 2,017                 | 19.9            |
| Medicaid <sup>6</sup>                  | 6,159                  | 77.0        | 6,328               | 73.4        | 2,739             | 31.2        | 6,475                       | 74.0        | 1,779                 | 20.9            |
| Other Public <sup>7</sup>              | 1,117                  | 78.2        | 1,271               | 77.8        | 491               | 29.5        | 1,329                       | 79.8        | 238                   | 14.6            |
| Private <sup>8</sup>                   | 22,612                 | 89.7        | 27,494              | 88.7        | 9,850             | 31.4        | 27,663                      | 88.2        | 780                   | 2.5             |
| <b>Black Non-Hispanic</b>              | <b>4,510</b>           | <b>69.8</b> | <b>4,721</b>        | <b>68.3</b> | <b>2,457</b>      | <b>34.6</b> | <b>6,276</b>                | <b>89.0</b> | <b>236</b>            | <b>3.4</b>      |
| Public                                 | 2,822                  | 66.4        | 2,888               | 64.9        | 1,511             | 33.2        | 3,976                       | 87.7        | 200                   | 4.5             |
| Medicaid <sup>6</sup>                  | 2,566                  | 67.2        | 2,606               | 65.5        | 1,328             | 32.6        | 3,564                       | 87.8        | 186                   | 4.6             |
| Other Public <sup>7</sup>              | 256                    | 59.8        | 282                 | 60.1        | 183               | 38.0        | 412                         | 86.7        | 14                    | 3.0             |
| Private <sup>8</sup>                   | 1,656                  | 83.7        | 1,801               | 80.7        | 852               | 37.6        | 2,074                       | 92.1        | 27                    | 1.2             |
| <b>Hispanic</b>                        | <b>9,461</b>           | <b>78.8</b> | <b>9,669</b>        | <b>75.6</b> | <b>4,006</b>      | <b>30.6</b> | <b>11,211</b>               | <b>85.9</b> | <b>439</b>            | <b>3.4</b>      |
| Public                                 | 6,924                  | 77.3        | 6,907               | 73.9        | 2,930             | 30.8        | 8,042                       | 84.7        | 359                   | 3.9             |
| Medicaid <sup>6</sup>                  | 6,322                  | 77.2        | 6,287               | 73.8        | 2,676             | 30.8        | 7,320                       | 84.7        | 327                   | 3.9             |
| Other Public <sup>7</sup>              | 602                    | 79.3        | 620                 | 75.1        | 254               | 29.8        | 722                         | 84.9        | 32                    | 3.9             |
| Private <sup>8</sup>                   | 2,503                  | 86.0        | 2,724               | 82.7        | 1,022             | 30.5        | 3,004                       | 89.8        | 67                    | 2.0             |
| <b>Asian Non-Hispanic</b>              | <b>4,524</b>           | <b>82.9</b> | <b>5,299</b>        | <b>81.2</b> | <b>1,947</b>      | <b>29.3</b> | <b>6,110</b>                | <b>92.0</b> | <b>59</b>             | <b>0.9</b>      |
| Public                                 | 1,372                  | 78.4        | 1,373               | 74.5        | 479               | 25.5        | 1,618                       | 86.2        | 41                    | 2.2             |
| Medicaid <sup>6</sup>                  | 1,248                  | 78.5        | 1,231               | 74.2        | 436               | 25.8        | 1,448                       | 85.7        | -- <sup>9</sup>       | -- <sup>9</sup> |
| Other Public <sup>7</sup>              | 124                    | 76.5        | 142                 | 77.2        | 43                | 22.9        | 170                         | 90.4        | -- <sup>9</sup>       | -- <sup>9</sup> |
| Private <sup>8</sup>                   | 3,132                  | 86.2        | 3,899               | 84.7        | 1,437             | 30.8        | 4,391                       | 94.3        | 18                    | 0.4             |
| <b>Other Non-Hispanic<sup>10</sup></b> | <b>468</b>             | <b>76.7</b> | <b>505</b>          | <b>73.5</b> | <b>240</b>        | <b>33.4</b> | <b>568</b>                  | <b>79.0</b> | <b>67</b>             | <b>9.6</b>      |
| Public                                 | 220                    | 70.3        | 223                 | 66.2        | 132               | 37.3        | 291                         | 82.2        | 51                    | 14.7            |
| Medicaid <sup>6</sup>                  | 197                    | 71.4        | 197                 | 66.3        | 113               | 36.5        | 253                         | 81.6        | 42                    | 13.9            |
| Other Public <sup>7</sup>              | 23                     | 62.2        | 26                  | 65.0        | 19                | 43.2        | 38                          | 86.4        | 9                     | 20.5            |
| Private <sup>8</sup>                   | 245                    | 86.6        | 280                 | 83.3        | 104               | 30.2        | 265                         | 77.0        | 15                    | 4.5             |

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

**Table 15. Birth Characteristics: Occurrence and Resident Births,  
Massachusetts Municipalities: 2016**

| Community                    | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                      |                                  |                              |
|------------------------------|--------------------------------|------------------------------|------------------------------------------------------|----------------------------------|------------------------------|
|                              |                                | Number of Births             | Low Birthweight<br>(Less than 2,500 grams, 5.5 lbs.) | Preterm<br>(<37 weeks gestation) | Teen Births<br>(15-19 years) |
| <b>STATE TOTAL</b>           | <b>71,937</b>                  | <b>71,319</b>                | <b>5,341</b>                                         | <b>6,167</b>                     | <b>1,931</b>                 |
|                              |                                |                              |                                                      |                                  |                              |
| Abington                     | 1                              | 213                          | 12                                                   | 12                               | --                           |
| Acton                        | 0                              | 187                          | 11                                                   | 12                               | --                           |
| Acushnet                     | 1                              | 71                           | --                                                   | --                               | --                           |
| Adams                        | 1                              | 84                           | 5                                                    | --                               | 10                           |
| Agawam                       | 0                              | 257                          | 15                                                   | 23                               | 6                            |
| Alford                       | 0                              | 0                            | 0                                                    | 0                                | 0                            |
| Amesbury                     | 1                              | 170                          | 6                                                    | 11                               | --                           |
| Amherst                      | 4                              | 168                          | 16                                                   | 13                               | --                           |
| Andover                      | 3                              | 257                          | 9                                                    | 11                               | 0                            |
| Aquinnah (Formerly Gay Head) | 0                              | 2                            | 0                                                    | 0                                | 0                            |
| Arlington                    | 9                              | 582                          | 38                                                   | 33                               | 0                            |
| Ashburnham                   | 3                              | 45                           | --                                                   | --                               | --                           |
| Ashby                        | 0                              | 25                           | 0                                                    | 0                                | 0                            |
| Ashfield                     | 2                              | 12                           | 0                                                    | 0                                | 0                            |
| Ashland                      | 2                              | 205                          | 12                                                   | 14                               | 0                            |
| Athol                        | 0                              | 124                          | 10                                                   | 9                                | 5                            |
| Attleboro                    | 706                            | 497                          | 41                                                   | 41                               | 17                           |
| Auburn                       | 1                              | 143                          | 8                                                    | 9                                | --                           |
| Avon                         | 1                              | 56                           | --                                                   | 6                                | --                           |
| Ayer                         | 0                              | 120                          | 14                                                   | 13                               | 0                            |
| Barnstable                   | 800                            | 424                          | 31                                                   | 49                               | 12                           |
| Barre                        | 1                              | 58                           | --                                                   | --                               | --                           |
| Becket                       | 0                              | 15                           | --                                                   | --                               | --                           |
| Bedford                      | 0                              | 117                          | 8                                                    | 14                               | 0                            |
| Belchertown                  | 1                              | 113                          | 6                                                    | 6                                | --                           |
| Bellingham                   | 3                              | 159                          | 6                                                    | 11                               | --                           |
| Belmont                      | 2                              | 243                          | 12                                                   | 10                               | --                           |
| Berkley                      | 0                              | 49                           | --                                                   | --                               | 0                            |
| Berlin                       | 0                              | 28                           | --                                                   | --                               | --                           |
| Bernardston                  | 0                              | 13                           | 0                                                    | 0                                | 0                            |
| Beverly                      | 2,343                          | 394                          | 18                                                   | 22                               | --                           |
| Billerica                    | 0                              | 474                          | 48                                                   | 58                               | --                           |
| Blackstone                   | 2                              | 75                           | --                                                   | 5                                | --                           |
| Blandford                    | 0                              | 6                            | 0                                                    | 0                                | 0                            |
| Bolton                       | 0                              | 45                           | --                                                   | --                               | 0                            |
| Boston                       | 20,685                         | 7,703                        | 673                                                  | 729                              | 198                          |
| Bourne                       | 2                              | 142                          | 13                                                   | 12                               | --                           |
| Boxborough                   | 0                              | 31                           | --                                                   | --                               | 0                            |
| Boxford                      | 0                              | 60                           | --                                                   | --                               | 0                            |
| Boylston                     | 2                              | 40                           | --                                                   | --                               | 0                            |
| Braintree                    | 3                              | 389                          | 33                                                   | 36                               | --                           |
| Brewster                     | 0                              | 53                           | 8                                                    | 10                               | --                           |
| Bridgewater                  | 0                              | 224                          | 5                                                    | 12                               | --                           |
| Brimfield                    | 0                              | 26                           | --                                                   | --                               | 0                            |
| Brockton                     | 2,076                          | 1,446                        | 153                                                  | 160                              | 82                           |
| Brookfield                   | 0                              | 21                           | --                                                   | --                               | 0                            |
| Brookline                    | 0                              | 605                          | 38                                                   | 49                               | --                           |
| Buckland                     | 0                              | 11                           | --                                                   | --                               | 0                            |

**Table 15 (cont'd). Birth Characteristics: Occurrence and Resident Births,  
Massachusetts Municipalities: 2016**

| Community        | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                         |                                     |                              |
|------------------|--------------------------------|------------------------------|---------------------------------------------------------|-------------------------------------|------------------------------|
|                  |                                | Number of Births             | Low Birthweight<br>(Less than 2,500<br>grams, 5.5 lbs.) | Preterm<br>(<37 weeks<br>gestation) | Teen Births<br>(15-19 years) |
| Burlington       | 2                              | 272                          | 20                                                      | 29                                  | --                           |
| Cambridge        | 3,814                          | 1,145                        | 59                                                      | 87                                  | --                           |
| Canton           | 2                              | 267                          | 24                                                      | 30                                  | --                           |
| Carlisle         | 0                              | 32                           | --                                                      | --                                  | 0                            |
| Carver           | 2                              | 115                          | 9                                                       | 11                                  | 0                            |
| Charlemont       | 0                              | 12                           | 0                                                       | 0                                   | 0                            |
| Charlton         | 2                              | 121                          | 9                                                       | 10                                  | --                           |
| Chatham          | 0                              | 25                           | 0                                                       | 0                                   | --                           |
| Chelmsford       | 3                              | 313                          | 20                                                      | 24                                  | --                           |
| Chelsea          | 1                              | 687                          | 55                                                      | 63                                  | 39                           |
| Cheshire         | 0                              | 34                           | --                                                      | 5                                   | --                           |
| Chester          | 1                              | 7                            | --                                                      | --                                  | 0                            |
| Chesterfield     | 0                              | 8                            | --                                                      | --                                  | 0                            |
| Chicopee         | 2                              | 553                          | 43                                                      | 53                                  | 26                           |
| Chilmark         | 1                              | 6                            | --                                                      | --                                  | 0                            |
| Clarksburg       | 1                              | 12                           | 0                                                       | 0                                   | 0                            |
| Clinton          | 2                              | 181                          | 24                                                      | 19                                  | --                           |
| Cohasset         | 0                              | 73                           | 5                                                       | --                                  | 0                            |
| Colrain          | 1                              | 19                           | --                                                      | --                                  | --                           |
| Concord          | 1,268                          | 118                          | 7                                                       | 10                                  | 0                            |
| Conway           | 1                              | 9                            | --                                                      | --                                  | 0                            |
| Cummington       | 0                              | 2                            | 0                                                       | 0                                   | 0                            |
| Dalton           | 0                              | 40                           | --                                                      | --                                  | 0                            |
| Danvers          | 0                              | 252                          | 20                                                      | 25                                  | --                           |
| Dartmouth        | 0                              | 214                          | 20                                                      | 20                                  | --                           |
| Dedham           | 3                              | 279                          | 15                                                      | 22                                  | 5                            |
| Deerfield        | 2                              | 34                           | 0                                                       | 0                                   | 0                            |
| Dennis           | 0                              | 94                           | 7                                                       | 7                                   | --                           |
| Dighton          | 0                              | 63                           | --                                                      | 5                                   | --                           |
| Douglas          | 1                              | 87                           | --                                                      | --                                  | --                           |
| Dover            | 0                              | 33                           | --                                                      | --                                  | 0                            |
| Dracut           | 0                              | 346                          | 25                                                      | 27                                  | 8                            |
| Dudley           | 1                              | 92                           | 5                                                       | 6                                   | --                           |
| Dunstable        | 0                              | 14                           | 0                                                       | 0                                   | 0                            |
| Duxbury          | 3                              | 117                          | --                                                      | 6                                   | 0                            |
| East Bridgewater | 1                              | 129                          | 8                                                       | 8                                   | --                           |
| East Brookfield  | 0                              | 24                           | --                                                      | --                                  | 0                            |
| East Longmeadow  | 0                              | 139                          | 9                                                       | 11                                  | --                           |
| Eastham          | 0                              | 35                           | --                                                      | --                                  | 0                            |
| Easthampton      | 2                              | 131                          | 7                                                       | 7                                   | --                           |
| Easton           | 1                              | 174                          | 10                                                      | 11                                  | --                           |
| Edgartown        | 2                              | 36                           | --                                                      | --                                  | 0                            |
| Egremont         | 0                              | 8                            | 0                                                       | 0                                   | 0                            |
| Erving           | 1                              | 20                           | --                                                      | --                                  | --                           |
| Essex            | 0                              | 28                           | --                                                      | --                                  | 0                            |
| Everett          | 3                              | 680                          | 63                                                      | 89                                  | 25                           |
| Fairhaven        | 2                              | 102                          | 8                                                       | 11                                  | --                           |
| Fall River       | 1,474                          | 1,113                        | 107                                                     | 102                                 | 70                           |
| Falmouth         | 413                            | 241                          | 15                                                      | 20                                  | 7                            |
| Fitchburg        | 3                              | 553                          | 41                                                      | 46                                  | 42                           |

**Table 15 (cont'd). Birth Characteristics: Occurrence and Resident Births,  
Massachusetts Municipalities: 2016**

| Community        | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                      |                                  |                              |
|------------------|--------------------------------|------------------------------|------------------------------------------------------|----------------------------------|------------------------------|
|                  |                                | Number of Births             | Low Birthweight<br>(Less than 2,500 grams, 5.5 lbs.) | Preterm<br>(<37 weeks gestation) | Teen Births<br>(15-19 years) |
| Florida          | 0                              | 4                            | 0                                                    | 0                                | 0                            |
| Foxborough       | 4                              | 196                          | 16                                                   | 20                               | --                           |
| Framingham       | 1,046                          | 822                          | 69                                                   | 85                               | 19                           |
| Franklin         | 2                              | 249                          | 11                                                   | 18                               | 5                            |
| Freetown         | 1                              | 80                           | 6                                                    | 10                               | --                           |
| Gardner          | 459                            | 230                          | 6                                                    | 10                               | 13                           |
| Georgetown       | 0                              | 74                           | 6                                                    | 7                                | --                           |
| Gill             | 0                              | 17                           | 0                                                    | 0                                | 0                            |
| Gloucester       | 1                              | 261                          | 21                                                   | 33                               | 7                            |
| Goshen           | 0                              | 11                           | 0                                                    | 0                                | 0                            |
| Gosnold          | 0                              | 0                            | 0                                                    | 0                                | 0                            |
| Grafton          | 2                              | 187                          | 10                                                   | 14                               | 0                            |
| Granby           | 1                              | 35                           | --                                                   | --                               | 0                            |
| Granville        | 0                              | 9                            | 0                                                    | 0                                | 0                            |
| Great Barrington | 131                            | 37                           | --                                                   | --                               | --                           |
| Greenfield       | 496                            | 185                          | --                                                   | 5                                | 8                            |
| Groton           | 0                              | 80                           | 10                                                   | 11                               | --                           |
| Groveland        | 1                              | 61                           | 7                                                    | 6                                | 0                            |
| Hadley           | 2                              | 29                           | 0                                                    | 0                                | 0                            |
| Halifax          | 0                              | 53                           | --                                                   | --                               | 0                            |
| Hamilton         | 0                              | 88                           | 6                                                    | 7                                | 0                            |
| Hampden          | 0                              | 34                           | --                                                   | --                               | 0                            |
| Hancock          | 0                              | 4                            | 0                                                    | 0                                | 0                            |
| Hanover          | 1                              | 125                          | --                                                   | 10                               | 0                            |
| Hanson           | 0                              | 87                           | 5                                                    | 11                               | --                           |
| Hardwick         | 0                              | 19                           | --                                                   | --                               | 0                            |
| Harvard          | 1                              | 38                           | --                                                   | --                               | 0                            |
| Harwich          | 1                              | 88                           | --                                                   | --                               | --                           |
| Hatfield         | 1                              | 17                           | --                                                   | --                               | 0                            |
| Haverhill        | 3                              | 726                          | 65                                                   | 62                               | 31                           |
| Hawley           | 0                              | 1                            | 0                                                    | 0                                | 0                            |
| Heath            | 0                              | 3                            | 0                                                    | 0                                | 0                            |
| Hingham          | 0                              | 219                          | 13                                                   | 23                               | --                           |
| Hinsdale         | 0                              | 17                           | --                                                   | --                               | 0                            |
| Holbrook         | 0                              | 123                          | 18                                                   | 16                               | --                           |
| Holden           | 3                              | 181                          | 12                                                   | 7                                | 0                            |
| Holland          | 1                              | 19                           | --                                                   | --                               | 0                            |
| Holliston        | 0                              | 123                          | 5                                                    | 5                                | 0                            |
| Holyoke          | 460                            | 519                          | 53                                                   | 55                               | 48                           |
| Hopedale         | 1                              | 66                           | 5                                                    | 7                                | --                           |
| Hopkinton        | 2                              | 159                          | 13                                                   | 12                               | --                           |
| Hubbardston      | 1                              | 27                           | --                                                   | --                               | 0                            |
| Hudson           | 1                              | 203                          | 11                                                   | 20                               | 5                            |
| Hull             | 0                              | 74                           | 0                                                    | 5                                | --                           |
| Huntington       | 0                              | 21                           | --                                                   | --                               | --                           |
| Ipswich          | 0                              | 87                           | 5                                                    | 8                                | --                           |
| Kingston         | 0                              | 134                          | 8                                                    | 13                               | 0                            |
| Lakeville        | 2                              | 95                           | 7                                                    | 6                                | --                           |
| Lancaster        | 0                              | 60                           | --                                                   | 5                                | --                           |
| Lanesborough     | 0                              | 17                           | --                                                   | --                               | --                           |

**Table 15 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2016**

| Community        | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                      |                                  |                              |
|------------------|--------------------------------|------------------------------|------------------------------------------------------|----------------------------------|------------------------------|
|                  |                                | Number of Births             | Low Birthweight<br>(Less than 2,500 grams, 5.5 lbs.) | Preterm<br>(<37 weeks gestation) | Teen Births<br>(15-19 years) |
| Lawrence         | 1,420                          | 1,417                        | 131                                                  | 142                              | 117                          |
| Lee              | 0                              | 38                           | --                                                   | --                               | 0                            |
| Leicester        | 0                              | 113                          | 6                                                    | 6                                | --                           |
| Lenox            | 0                              | 19                           | --                                                   | --                               | 0                            |
| Leominster       | 877                            | 451                          | 28                                                   | 38                               | 16                           |
| Leverett         | 2                              | 22                           | --                                                   | --                               | 0                            |
| Lexington        | 1                              | 174                          | 19                                                   | 23                               | --                           |
| Leyden           | 0                              | 5                            | 0                                                    | 0                                | 0                            |
| Lincoln          | 2                              | 87                           | 5                                                    | 5                                | 0                            |
| Littleton        | 0                              | 102                          | 8                                                    | 8                                | --                           |
| Longmeadow       | 3                              | 120                          | 5                                                    | 7                                | 0                            |
| Lowell           | 2,238                          | 1477                         | 138                                                  | 135                              | 54                           |
| Ludlow           | 2                              | 142                          | 9                                                    | 10                               | --                           |
| Lunenburg        | 1                              | 110                          | --                                                   | --                               | --                           |
| Lynn             | 1                              | 1502                         | 121                                                  | 152                              | 94                           |
| Lynnfield        | 0                              | 114                          | 6                                                    | 9                                | 0                            |
| Malden           | 4                              | 885                          | 66                                                   | 81                               | 11                           |
| Manchester       | 0                              | 31                           | 0                                                    | --                               | 0                            |
| Mansfield        | 0                              | 202                          | 24                                                   | 30                               | --                           |
| Marblehead       | 0                              | 136                          | 7                                                    | 15                               | --                           |
| Marion           | 0                              | 32                           | --                                                   | --                               | 0                            |
| Marlborough      | 10                             | 510                          | 39                                                   | 41                               | 23                           |
| Marshfield       | 2                              | 187                          | 16                                                   | 19                               | --                           |
| Mashpee          | 1                              | 122                          | --                                                   | 11                               | 6                            |
| Mattapoisett     | 1                              | 35                           | --                                                   | 0                                | 0                            |
| Maynard          | 2                              | 110                          | 6                                                    | 5                                | --                           |
| Medfield         | 0                              | 120                          | 6                                                    | 9                                | 0                            |
| Medford          | 8                              | 681                          | 45                                                   | 58                               | 8                            |
| Medway           | 3                              | 138                          | 13                                                   | 17                               | --                           |
| Melrose          | 938                            | 383                          | 25                                                   | 23                               | --                           |
| Mendon           | 1                              | 46                           | --                                                   | 8                                | --                           |
| Merrimac         | 0                              | 62                           | 8                                                    | --                               | --                           |
| Methuen          | 1,032                          | 521                          | 42                                                   | 49                               | 15                           |
| Middleborough    | 0                              | 230                          | 14                                                   | 12                               | 10                           |
| Middlefield      | 0                              | 0                            | 0                                                    | 0                                | 0                            |
| Middleton        | 0                              | 70                           | 6                                                    | 5                                | --                           |
| Milford          | 965                            | 355                          | 31                                                   | 27                               | 10                           |
| Millbury         | 1                              | 132                          | --                                                   | 7                                | 0                            |
| Millis           | 1                              | 86                           | 5                                                    | 7                                | --                           |
| Millville        | 0                              | 28                           | --                                                   | --                               | --                           |
| Milton           | 5                              | 288                          | 18                                                   | 27                               | --                           |
| Monroe           | 0                              | 2                            | --                                                   | --                               | 0                            |
| Monson           | 0                              | 63                           | 9                                                    | 9                                | 0                            |
| Montague         | 1                              | 78                           | 11                                                   | 12                               | --                           |
| Monterey         | 1                              | 5                            | --                                                   | 0                                | 0                            |
| Montgomery       | 0                              | 5                            | 0                                                    | 0                                | 0                            |
| Mount Washington | 0                              | 0                            | 0                                                    | 0                                | 0                            |
| Nahant           | 0                              | 11                           | 0                                                    | 0                                | 0                            |
| Nantucket        | 155                            | 175                          | 15                                                   | 20                               | --                           |
| Natick           | 3                              | 423                          | 20                                                   | 21                               | --                           |

**Table 15 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2016**

| Community          | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                      |                                  |                              |
|--------------------|--------------------------------|------------------------------|------------------------------------------------------|----------------------------------|------------------------------|
|                    |                                | Number of Births             | Low Birthweight<br>(Less than 2,500 grams, 5.5 lbs.) | Preterm<br>(<37 weeks gestation) | Teen Births<br>(15-19 years) |
| Needham            | 1                              | 249                          | 8                                                    | 18                               | --                           |
| New Ashford        | 0                              | 0                            | 0                                                    | 0                                | 0                            |
| New Bedford        | 1,455                          | 1,265                        | 111                                                  | 110                              | 96                           |
| New Braintree      | 0                              | 6                            | 0                                                    | 0                                | 0                            |
| New Marlborough    | 1                              | 5                            | 0                                                    | 0                                | 0                            |
| New Salem          | 0                              | 7                            | --                                                   | --                               | --                           |
| Newbury            | 2                              | 47                           | 7                                                    | 5                                | 0                            |
| Newburyport        | 701                            | 100                          | 7                                                    | 8                                | --                           |
| Newton             | 3,858                          | 706                          | 50                                                   | 58                               | --                           |
| Norfolk            | 3                              | 97                           | 10                                                   | 11                               | 0                            |
| North Adams        | 1                              | 115                          | 8                                                    | 7                                | 9                            |
| North Andover      | 0                              | 247                          | 10                                                   | 16                               | --                           |
| North Attleborough | 1                              | 277                          | 15                                                   | 12                               | --                           |
| North Brookfield   | 1                              | 41                           | 0                                                    | --                               | --                           |
| North Reading      | 2                              | 175                          | 12                                                   | 12                               | 0                            |
| Northampton        | 593                            | 169                          | 10                                                   | 14                               | --                           |
| Northborough       | 0                              | 143                          | 16                                                   | 17                               | --                           |
| Northbridge        | 2                              | 163                          | 18                                                   | 14                               | 7                            |
| Northfield         | 0                              | 17                           | --                                                   | --                               | --                           |
| Norton             | 0                              | 150                          | 19                                                   | 20                               | --                           |
| Norwell            | 2                              | 106                          | --                                                   | 13                               | 0                            |
| Norwood            | 444                            | 400                          | 28                                                   | 32                               | --                           |
| Oak Bluffs         | 128                            | 48                           | 5                                                    | 7                                | 0                            |
| Oakham             | 0                              | 14                           | 0                                                    | --                               | 0                            |
| Orange             | 1                              | 74                           | --                                                   | 5                                | 6                            |
| Orleans            | 0                              | 28                           | --                                                   | 5                                | --                           |
| Otis               | 0                              | 8                            | --                                                   | --                               | 0                            |
| Oxford             | 3                              | 127                          | 13                                                   | 11                               | 7                            |
| Palmer             | 2                              | 99                           | --                                                   | 5                                | --                           |
| Paxton             | 0                              | 46                           | 6                                                    | 8                                | 0                            |
| Peabody            | 2                              | 519                          | 33                                                   | 43                               | 6                            |
| Pelham             | 0                              | 6                            | --                                                   | --                               | 0                            |
| Pembroke           | 1                              | 168                          | 9                                                    | 13                               | --                           |
| Pepperell          | 1                              | 103                          | 6                                                    | 7                                | --                           |
| Peru               | 0                              | 10                           | --                                                   | --                               | 0                            |
| Petersham          | 1                              | 7                            | 0                                                    | 0                                | 0                            |
| Phillipston        | 0                              | 11                           | 0                                                    | 0                                | 0                            |
| Pittsfield         | 801                            | 455                          | 44                                                   | 40                               | 23                           |
| Plainfield         | 0                              | 2                            | 0                                                    | 0                                | 0                            |
| Plainville         | 0                              | 80                           | --                                                   | --                               | --                           |
| Plymouth           | 779                            | 480                          | 27                                                   | 32                               | 13                           |
| Plympton           | 0                              | 35                           | --                                                   | --                               | --                           |
| Princeton          | 0                              | 21                           | 0                                                    | 0                                | 0                            |
| Provincetown       | 0                              | 13                           | --                                                   | --                               | 0                            |
| Quincy             | 5                              | 1,224                        | 86                                                   | 91                               | 12                           |
| Randolph           | 2                              | 397                          | 38                                                   | 48                               | 5                            |
| Raynham            | 2                              | 147                          | 8                                                    | 11                               | --                           |
| Reading            | 1                              | 295                          | 24                                                   | 27                               | --                           |
| Rehoboth           | 0                              | 84                           | 8                                                    | 8                                | 0                            |
| Revere             | 1                              | 804                          | 63                                                   | 68                               | 20                           |

**Table 15 (cont'd). Birth Characteristics: Occurrence and Resident Births,  
Massachusetts Municipalities: 2016**

| Community    | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                      |                                  |                              |
|--------------|--------------------------------|------------------------------|------------------------------------------------------|----------------------------------|------------------------------|
|              |                                | Number of Births             | Low Birthweight<br>(Less than 2,500 grams, 5.5 lbs.) | Preterm<br>(<37 weeks gestation) | Teen Births<br>(15-19 years) |
| Richmond     | 0                              | 9                            | 0                                                    | 0                                | 0                            |
| Rochester    | 0                              | 44                           | --                                                   | --                               | 0                            |
| Rockland     | 1                              | 191                          | 9                                                    | 12                               | 5                            |
| Rockport     | 0                              | 30                           | 0                                                    | --                               | 0                            |
| Rowe         | 0                              | 1                            | 0                                                    | 0                                | 0                            |
| Rowley       | 0                              | 57                           | --                                                   | --                               | 0                            |
| Royalston    | 0                              | 7                            | 0                                                    | 0                                | --                           |
| Russell      | 1                              | 14                           | 0                                                    | 0                                | --                           |
| Rutland      | 1                              | 87                           | 6                                                    | 5                                | --                           |
| Salem        | 1,270                          | 452                          | 40                                                   | 45                               | 15                           |
| Salisbury    | 0                              | 60                           | 8                                                    | 9                                | --                           |
| Sandisfield  | 0                              | 6                            | 0                                                    | 0                                | 0                            |
| Sandwich     | 0                              | 131                          | 13                                                   | 12                               | --                           |
| Saugus       | 0                              | 290                          | 25                                                   | 28                               | 5                            |
| Savoy        | 0                              | 4                            | 0                                                    | --                               | 0                            |
| Scituate     | 0                              | 167                          | 10                                                   | 13                               | --                           |
| Seekonk      | 0                              | 140                          | 10                                                   | 10                               | --                           |
| Sharon       | 2                              | 154                          | 13                                                   | 10                               | --                           |
| Sheffield    | 3                              | 24                           | --                                                   | --                               | 0                            |
| Shelburne    | 1                              | 13                           | --                                                   | --                               | 0                            |
| Sherborn     | 0                              | 27                           | --                                                   | --                               | 0                            |
| Shirley      | 2                              | 56                           | --                                                   | --                               | 0                            |
| Shrewsbury   | 4                              | 339                          | 27                                                   | 37                               | --                           |
| Shutesbury   | 1                              | 14                           | --                                                   | --                               | 0                            |
| Somerset     | 1                              | 145                          | 9                                                    | 15                               | --                           |
| Somerville   | 8                              | 846                          | 47                                                   | 57                               | 16                           |
| South Hadley | 1                              | 127                          | 9                                                    | 12                               | --                           |
| Southampton  | 2                              | 49                           | --                                                   | --                               | 0                            |
| Southborough | 2                              | 102                          | --                                                   | 7                                | --                           |
| Southbridge  | 221                            | 213                          | 19                                                   | 17                               | 17                           |
| Southwick    | 0                              | 66                           | 7                                                    | 12                               | --                           |
| Spencer      | 0                              | 126                          | 7                                                    | 15                               | 8                            |
| Springfield  | 5,201                          | 2,075                        | 200                                                  | 228                              | 172                          |
| Sterling     | 2                              | 44                           | 5                                                    | 9                                | --                           |
| Stockbridge  | 0                              | 8                            | 0                                                    | --                               | 0                            |
| Stoneham     | 0                              | 260                          | 25                                                   | 25                               | --                           |
| Stoughton    | 0                              | 317                          | 26                                                   | 32                               | --                           |
| Stow         | 0                              | 67                           | --                                                   | 6                                | 0                            |
| Sturbridge   | 2                              | 89                           | 7                                                    | 10                               | --                           |
| Sudbury      | 4                              | 140                          | 7                                                    | 11                               | --                           |
| Sunderland   | 0                              | 22                           | 0                                                    | 0                                | 0                            |
| Sutton       | 1                              | 73                           | 5                                                    | --                               | 0                            |
| Swampscott   | 1                              | 157                          | 12                                                   | 14                               | --                           |
| Swansea      | 0                              | 130                          | 8                                                    | --                               | --                           |
| Taunton      | 282                            | 664                          | 47                                                   | 57                               | 23                           |
| Templeton    | 0                              | 71                           | 8                                                    | 14                               | --                           |
| Tewksbury    | 1                              | 305                          | 19                                                   | 24                               | --                           |
| Tisbury      | 0                              | 48                           | --                                                   | --                               | 0                            |
| Tolland      | 0                              | 4                            | 0                                                    | 0                                | 0                            |
| Topsfield    | 0                              | 46                           | 0                                                    | 7                                | 0                            |

**Table 15 (cont'd). Birth Characteristics: Occurrence and Resident Births,  
Massachusetts Municipalities: 2016**

| Community        | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                         |                                     |                              |
|------------------|--------------------------------|------------------------------|---------------------------------------------------------|-------------------------------------|------------------------------|
|                  |                                | Number of Births             | Low Birthweight<br>(Less than 2,500<br>grams, 5.5 lbs.) | Preterm<br>(<37 weeks<br>gestation) | Teen Births<br>(15-19 years) |
| Townsend         | 0                              | 77                           | --                                                      | 5                                   | 0                            |
| Truro            | 1                              | 11                           | --                                                      | 0                                   | 0                            |
| Tyngsborough     | 0                              | 135                          | 6                                                       | 12                                  | --                           |
| Tyringham        | 0                              | 2                            | 0                                                       | 0                                   | 0                            |
| Upton            | 1                              | 71                           | --                                                      | --                                  | 0                            |
| Uxbridge         | 4                              | 132                          | 13                                                      | 16                                  | --                           |
| Wakefield        | 0                              | 303                          | 21                                                      | 27                                  | 0                            |
| Wales            | 0                              | 21                           | --                                                      | --                                  | 0                            |
| Walpole          | 2                              | 247                          | 17                                                      | 16                                  | 0                            |
| Waltham          | 4                              | 751                          | 50                                                      | 68                                  | 14                           |
| Ware             | 0                              | 92                           | 6                                                       | 6                                   | --                           |
| Wareham          | 436                            | 194                          | 8                                                       | 13                                  | 7                            |
| Warren           | 3                              | 48                           | --                                                      | --                                  | --                           |
| Warwick          | 0                              | 6                            | 0                                                       | 0                                   | 0                            |
| Washington       | 0                              | 1                            | 0                                                       | 0                                   | 0                            |
| Watertown        | 4                              | 526                          | 34                                                      | 42                                  | --                           |
| Wayland          | 0                              | 116                          | --                                                      | --                                  | 0                            |
| Webster          | 1                              | 175                          | 13                                                      | 11                                  | 13                           |
| Wellesley        | 3                              | 198                          | 17                                                      | 21                                  | --                           |
| Wellfleet        | 0                              | 24                           | --                                                      | --                                  | 0                            |
| Wendell          | 2                              | 10                           | 0                                                       | --                                  | --                           |
| Wenham           | 0                              | 31                           | --                                                      | --                                  | 0                            |
| West Boylston    | 0                              | 61                           | --                                                      | --                                  | 0                            |
| West Bridgewater | 0                              | 76                           | 7                                                       | 12                                  | 0                            |
| West Brookfield  | 0                              | 23                           | --                                                      | 5                                   | 0                            |
| West Newbury     | 1                              | 29                           | --                                                      | 0                                   | 0                            |
| West Springfield | 3                              | 352                          | 25                                                      | 26                                  | 9                            |
| West Stockbridge | 0                              | 5                            | --                                                      | --                                  | 0                            |
| West Tisbury     | 0                              | 23                           | --                                                      | --                                  | 0                            |
| Westborough      | 1                              | 207                          | 13                                                      | 15                                  | --                           |
| Westfield        | 0                              | 345                          | 23                                                      | 24                                  | 11                           |
| Westford         | 2                              | 152                          | 6                                                       | 12                                  | --                           |
| Westhampton      | 0                              | 8                            | 0                                                       | 0                                   | 0                            |
| Westminster      | 1                              | 65                           | 7                                                       | 7                                   | --                           |
| Weston           | 0                              | 70                           | 5                                                       | 5                                   | 0                            |
| Westport         | 2                              | 82                           | 5                                                       | 7                                   | 0                            |
| Westwood         | 0                              | 129                          | 9                                                       | 10                                  | --                           |
| Weymouth         | 3,450                          | 688                          | 43                                                      | 47                                  | --                           |
| Whately          | 0                              | 14                           | --                                                      | --                                  | 0                            |
| Whitman          | 1                              | 159                          | 14                                                      | 12                                  | --                           |
| Wilbraham        | 1                              | 85                           | --                                                      | --                                  | --                           |
| Williamsburg     | 0                              | 12                           | 0                                                       | 0                                   | 0                            |
| Williamstown     | 1                              | 38                           | --                                                      | --                                  | 0                            |
| Wilmington       | 0                              | 257                          | 9                                                       | 15                                  | --                           |
| Winchendon       | 1                              | 119                          | 11                                                      | 6                                   | 8                            |
| Winchester       | 2,204                          | 164                          | 14                                                      | 18                                  | 0                            |
| Windsor          | 0                              | 2                            | --                                                      | --                                  | 0                            |
| Winthrop         | 0                              | 190                          | 15                                                      | 17                                  | --                           |
| Woburn           | 3                              | 528                          | 30                                                      | 33                                  | --                           |
| Worcester        | 6,016                          | 2,372                        | 179                                                     | 206                                 | 102                          |

**Table 15 (cont'd). Birth Characteristics: Occurrence and Resident Births, Massachusetts Municipalities: 2016**

| Community                                                                                                                                                                                                                                                                                                                                | Occurrence Births <sup>1</sup> | Resident Births <sup>2</sup> |                                                      |                                  |                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------|------------------------------------------------------|----------------------------------|------------------------------|
|                                                                                                                                                                                                                                                                                                                                          |                                | Number of Births             | Low Birthweight<br>(Less than 2,500 grams, 5.5 lbs.) | Preterm<br>(<37 weeks gestation) | Teen Births<br>(15-19 years) |
| Worthington                                                                                                                                                                                                                                                                                                                              | 0                              | 10                           | 0                                                    | --                               | --                           |
| Wrentham                                                                                                                                                                                                                                                                                                                                 | 1                              | 102                          | --                                                   | 8                                | 0                            |
| Yarmouth                                                                                                                                                                                                                                                                                                                                 | 1                              | 170                          | 10                                                   | 15                               | --                           |
| 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.<br>-- Due to small numbers (n=1-4), exact count not provided. |                                |                              |                                                      |                                  |                              |

**Table 16. Birth Characteristics: Occurrence and Resident Births by County, Massachusetts: 2016**

| County             | Occurrence Births <sup>1</sup> | Number of Births | Resident Births <sup>2</sup> |                      |                           |
|--------------------|--------------------------------|------------------|------------------------------|----------------------|---------------------------|
|                    |                                |                  | Low Birthweight <sup>3</sup> | Preterm <sup>4</sup> | Teen Births (15-19 Years) |
| <b>STATE TOTAL</b> | <b>71,937</b>                  | <b>71,319</b>    | <b>5,341</b>                 | <b>6,167</b>         | <b>1,931</b>              |
| BARNSTABLE         | 1,219                          | 1,601            | 112                          | 146                  | 37                        |
| BERKSHIRE          | 941                            | 1,026            | 83                           | 78                   | 47                        |
| BRISTOL            | 3,928                          | 5,649            | 467                          | 491                  | 235                       |
| DUKES              | 131                            | 163              | 13                           | 11                   | 0                         |
| ESSEX              | 6,782                          | 8,387            | 637                          | 757                  | 309                       |
| FRANKLIN           | 511                            | 621              | 37                           | 45                   | 24                        |
| HAMPDEN            | 5,677                          | 4,960            | 410                          | 473                  | 281                       |
| HAMPSHIRE          | 607                            | 1,010            | 63                           | 71                   | -- <sup>5</sup>           |
| MIDDLESEX          | 15,452                         | 17,182           | 1,199                        | 1,430                | 224                       |
| NANTUCKET          | 155                            | 175              | 15                           | 20                   | -- <sup>5</sup>           |
| NORFOLK            | 3,940                          | 7,343            | 515                          | 622                  | 61                        |
| PLYMOUTH           | 3,309                          | 5,135            | 354                          | 439                  | 137                       |
| SUFFOLK            | 20,687                         | 9,384            | 806                          | 877                  | 260                       |
| WORCESTER          | 8,598                          | 8,683            | 630                          | 707                  | 300                       |

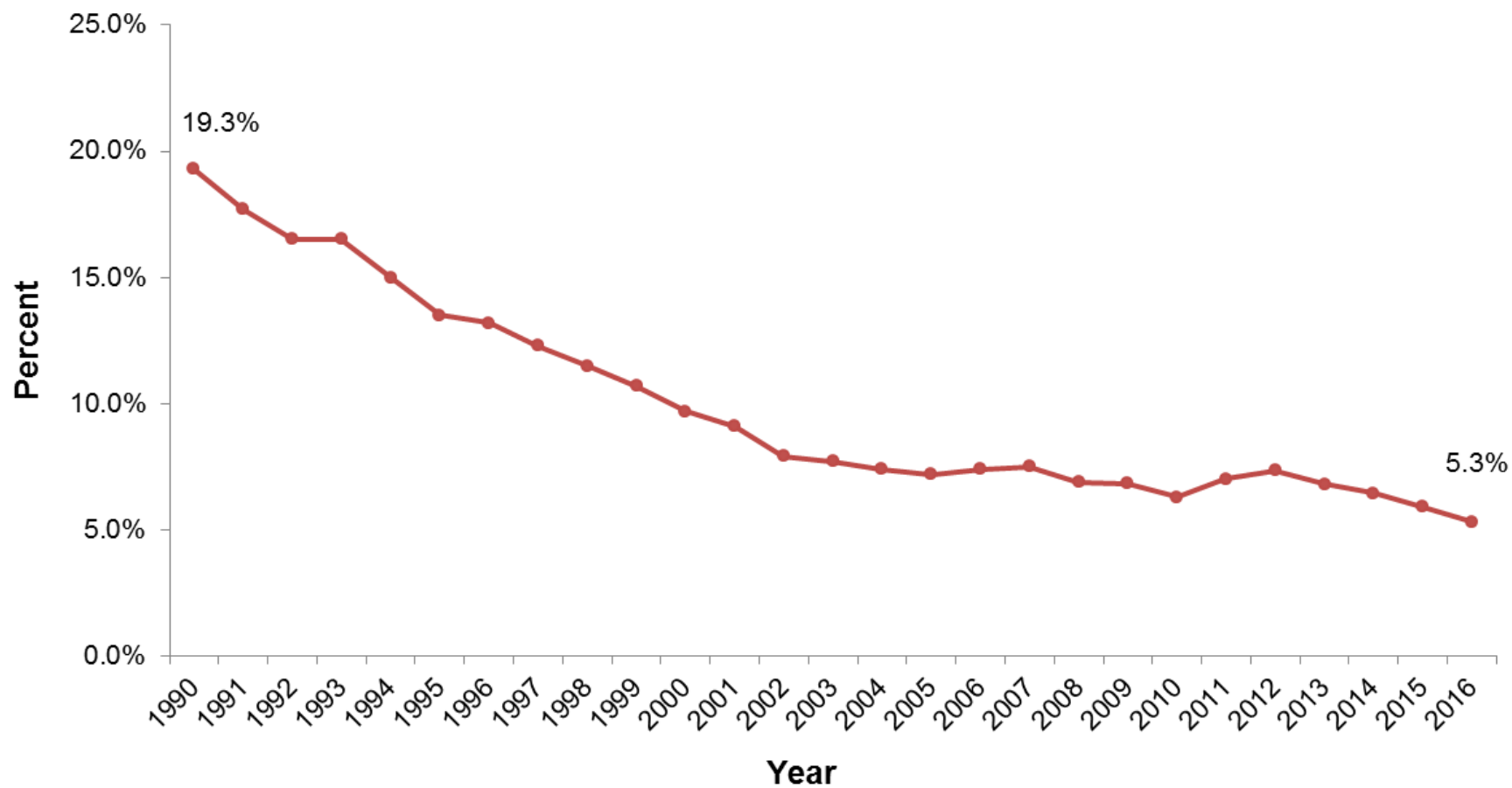
1. Births occurring in a geographical place (state, city/town) regardless of the residency of the mother. 2. Births to mothers who report their usual place of residence as a particular geographical place (state, or city/town). See "Note to Readers" for more details. 3. Less than 2,500 grams (5.5 lbs.).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

**Table 17. Birth Characteristics: Occurrence and Resident Births, Massachusetts Community Health Network Areas (CHNAs), Massachusetts: 2016**

| Community Health Network Area                                     | Occurrence Births <sup>1</sup> | Number of Births | LBW <sup>3</sup> | Resident Births <sup>2</sup> |                           |
|-------------------------------------------------------------------|--------------------------------|------------------|------------------|------------------------------|---------------------------|
|                                                                   |                                |                  |                  | Preterm <sup>4</sup>         | Teen Births (15-19 Years) |
| <b>STATE TOTAL</b>                                                | <b>71,937</b>                  | <b>71,319</b>    | <b>5,341</b>     | <b>6,167</b>                 | <b>1,931</b>              |
| 1. Community Health Network of Berkshire County                   | 941                            | 1,026            | 83               | 78                           | 47                        |
| 2. Upper Valley Health Web (Franklin County)                      | 512                            | 770              | 47               | 54                           | 30                        |
| 3. Partnership for Health in Hampshire County (Northampton)       | 607                            | 989              | 61               | 69                           | 13                        |
| 4. The Community Health Connection (Springfield)                  | 5,211                          | 3,328            | 276              | 324                          | 195                       |
| 5. Community Health Network of Southern Worcester County          | 235                            | 1,166            | 88               | 100                          | 55                        |
| 6. Community Partners for Health (Milford)                        | 986                            | 1,642            | 115              | 133                          | 35                        |
| 7. Community Health Network of Greater Metro West (Framingham)    | 1,084                          | 4,285            | 281              | 339                          | 64                        |
| 8. Community Wellness Coalition (Worcester)                       | 6,029                          | 3,614            | 259              | 299                          | 108                       |
| 9. Fitchburg/Gardner Community Health Network                     | 1,356                          | 2,733            | 196              | 217                          | 105                       |
| 10. Greater Lowell Community Health Network                       | 2,244                          | 3,216            | 262              | 292                          | 70                        |
| 11. Greater Lawrence Community Health Network                     | 2,455                          | 2,512            | 198              | 223                          | 135                       |
| 12. Greater Haverhill Community Health Network                    | 709                            | 1,446            | 121              | 117                          | 38                        |
| 13. Community Health Network North (Beverly/Gloucester)           | 2,344                          | 996              | 54               | 86                           | 11                        |
| 14. North Shore Community Health Network                          | 1,274                          | 3,433            | 264              | 331                          | 125                       |
| 15. Greater Woburn/Concord/Littleton Community Health Network     | 3,480                          | 2,069            | 137              | 172                          | 10                        |
| 16. North Suburban Health Alliance (Medford/Malden/Melrose)       | 956                            | 3,662            | 281              | 342                          | 49                        |
| 17. Greater Cambridge/Somerville Community Health Network         | 3,837                          | 3,342            | 190              | 229                          | 22                        |
| 18. West Suburban Health Network (Newton/Waltham)                 | 3,869                          | 2,415            | 156              | 205                          | 24                        |
| 19. Alliance for Community Health                                 | 20,687                         | 9,989            | 844              | 926                          | 263                       |
| 20. Blue Hills Community Health Alliance (Greater Quincy)         | 3,915                          | 4,446            | 315              | 379                          | 35                        |
| 21. Four (For) Communities (Holyoke, Chicopee, Ludlow, Westfield) | 465                            | 1,587            | 131              | 145                          | 88                        |
| 22. Greater Brockton Community Health Network                     | 2,081                          | 2,917            | 257              | 281                          | 95                        |
| 23. South Shore Community Partners in Prevention (Plymouth)       | 789                            | 1,692            | 95               | 133                          | 23                        |
| 24. Greater Attleboro-Taunton Health & Education Response         | 993                            | 2,598            | 200              | 216                          | 66                        |
| 25. Partners for a Healthier Community (Fall River)               | 1,477                          | 1,470            | 129              | 127                          | 74                        |
| 26. Greater New Bedford Health & Human Services Coalition         | 1,896                          | 2,037            | 161              | 173                          | 113                       |
| 27. Cape and Islands Community Health Network                     | 1,505                          | 1,939            | 140              | 177                          | 38                        |

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

Figure 6. Percent of Infants whose Mother Smoked During Pregnancy, Massachusetts: 1990 - 2016



**Table 18. Cesarean Deliveries and Vaginal Births after Cesarean (VBACs) by Licensed Maternity Facility<sup>1</sup>, All Mothers, Massachusetts: 2016**

| Facility <sup>2</sup>                     | Occurrence Deliveries <sup>3</sup> | Total Cesareans |                | Primary Cesareans <sup>3</sup> |             | Repeat Cesareans <sup>3</sup> |             | VBACs <sup>3</sup> |                 |
|-------------------------------------------|------------------------------------|-----------------|----------------|--------------------------------|-------------|-------------------------------|-------------|--------------------|-----------------|
|                                           |                                    | N               | % <sup>4</sup> | N                              | %           | N                             | %           | N                  | %               |
| <b>State Total</b>                        | <b>70,582</b>                      | <b>21,567</b>   | <b>30.6</b>    | <b>12,061</b>                  | <b>20.3</b> | <b>9,506</b>                  | <b>85.6</b> | <b>1,605</b>       | <b>14.4</b>     |
| Anna Jaques Hospital                      | 689                                | 203             | 29.5           | 108                            | 18.6        | 95                            | 88.0        | 13                 | 12.0            |
| Baystate Franklin Medical Center          | 487                                | 124             | 25.5           | 77                             | 18.2        | 47                            | 73.4        | 17                 | 26.6            |
| Baystate Medical Center                   | 3,781                              | 1,214           | 32.1           | 687                            | 21.9        | 527                           | 82.5        | 112                | 17.5            |
| Berkshire Medical Center                  | 789                                | 194             | 24.6           | 110                            | 16.3        | 84                            | 72.4        | 32                 | 27.6            |
| Beth Israel Deaconess Hospital - Plymouth | 762                                | 218             | 28.6           | 123                            | 19.0        | 95                            | 84.1        | 18                 | 15.9            |
| Beth Israel Deaconess Medical Center      | 5,184                              | 1,471           | 28.4           | 909                            | 20.3        | 562                           | 80.4        | 137                | 19.6            |
| Beverly Hospital                          | 2,224                              | 601             | 27.0           | 328                            | 17.2        | 273                           | 86.1        | 44                 | 13.9            |
| Boston Medical Center                     | 2,765                              | 896             | 32.4           | 535                            | 23.0        | 361                           | 83.0        | 74                 | 17.0            |
| Brigham and Women's Hospital              | 6,146                              | 1,958           | 31.9           | 1,135                          | 22.0        | 823                           | 83.4        | 164                | 16.6            |
| Brockton Hospital                         | 992                                | 263             | 26.5           | 108                            | 13.3        | 155                           | 86.6        | 24                 | 13.4            |
| Cambridge Hospital                        | 1,019                              | 275             | 27.0           | 166                            | 18.9        | 109                           | 76.8        | 33                 | 23.2            |
| Cape Cod Hospital                         | 786                                | 257             | 32.7           | 129                            | 20.1        | 128                           | 88.9        | 16                 | 11.1            |
| Charlton Memorial Hospital                | 1,461                              | 502             | 34.4           | 233                            | 19.5        | 269                           | 100.0       | 0                  | 0.0             |
| Cooley Dickinson Hospital                 | 584                                | 156             | 26.7           | 93                             | 18.5        | 63                            | 78.8        | 17                 | 21.3            |
| Emerson Hospital                          | 1,248                              | 385             | 30.8           | 202                            | 19.8        | 183                           | 80.3        | 45                 | 19.7            |
| Fairview Hospital                         | 128                                | 41              | 32.0           | 23                             | 20.9        | 18                            | 100.0       | 0                  | 0.0             |
| Falmouth Hospital                         | 402                                | 148             | 36.8           | 83                             | 24.6        | 65                            | 100.0       | 0                  | 0.0             |
| Good Samaritan Medical Center             | 1,052                              | 371             | 35.3           | 194                            | 22.6        | 177                           | 90.8        | 18                 | 9.2             |
| Harrington Memorial Hospital              | 218                                | 65              | 29.8           | 44                             | 22.3        | 21                            | 100.0       | 0                  | 0.0             |
| HealthAlliance Hospital                   | 869                                | 247             | 28.4           | 132                            | 17.7        | 115                           | 93.5        | 8                  | 6.5             |
| Heywood Hospital                          | 451                                | 94              | 20.8           | 47                             | 12.0        | 47                            | 81.0        | 11                 | 19.0            |
| Holy Family Hospital and Medical Center   | 1,014                              | 429             | 42.3           | 204                            | 25.9        | 225                           | 100.0       | 0                  | 0.0             |
| Holyoke Medical Center                    | 454                                | 102             | 22.5           | 61                             | 15.3        | 41                            | 75.9        | 13                 | 24.1            |
| Lawrence General Hospital                 | 1,406                              | 494             | 35.1           | 216                            | 19.3        | 278                           | 97.2        | -- <sup>5</sup>    | -- <sup>5</sup> |
| Lowell General Hospital                   | 2,200                              | 668             | 30.4           | 354                            | 19.2        | 314                           | 88.7        | 40                 | 11.3            |
| Martha's Vineyard Hospital                | 126                                | 35              | 27.8           | 15                             | 14.3        | 20                            | 95.2        | -- <sup>5</sup>    | -- <sup>5</sup> |
| Massachusetts General Hospital            | 3,736                              | 1,077           | 28.8           | 662                            | 20.6        | 415                           | 78.9        | 111                | 21.1            |
| Melrose-Wakefield Hospital                | 929                                | 287             | 30.9           | 138                            | 17.7        | 149                           | 100.0       | 0                  | 0.0             |
| Mercy Medical Center                      | 1,288                              | 387             | 30.0           | 218                            | 19.8        | 169                           | 89.9        | 19                 | 10.1            |
| Metro West Medical Center                 | 1,026                              | 379             | 36.9           | 180                            | 22.2        | 199                           | 93.0        | 15                 | 7.0             |
| Milford Regional Medical Center           | 956                                | 289             | 30.2           | 170                            | 20.7        | 119                           | 88.1        | 16                 | 11.9            |
| Morton Hospital                           | 277                                | 92              | 33.2           | 50                             | 21.3        | 42                            | 100.0       | 0                  | 0.0             |
| Mt. Auburn Hospital                       | 2,629                              | 684             | 26.0           | 470                            | 20.2        | 214                           | 71.3        | 86                 | 28.7            |
| Nantucket Cottage Hospital                | 153                                | 35              | 22.9           | 19                             | 13.9        | 16                            | 100.0       | 0                  | 0.0             |
| Newton-Wellesley Hospital                 | 3,781                              | 1,153           | 30.5           | 673                            | 20.9        | 480                           | 85.6        | 81                 | 14.4            |

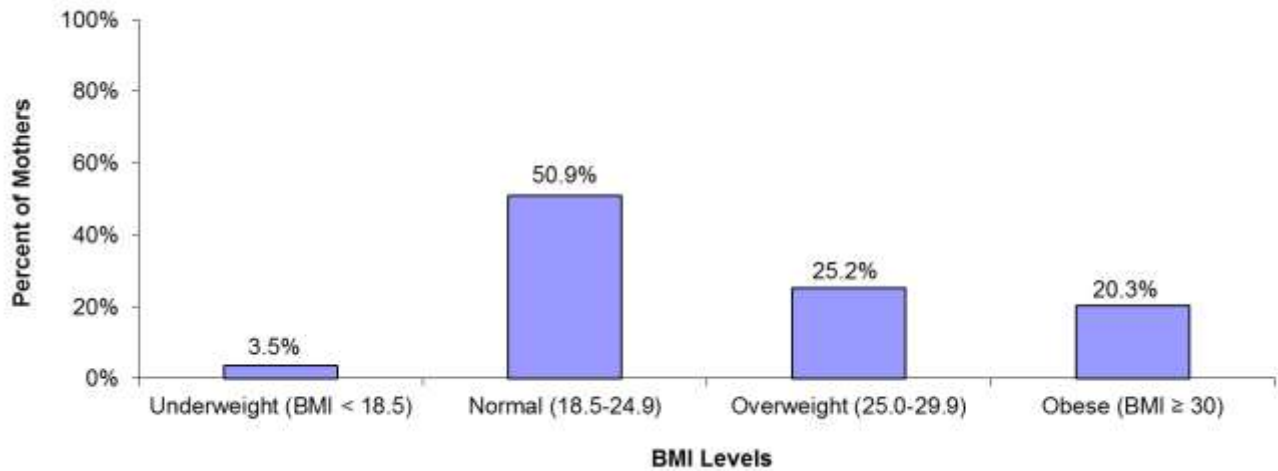
**Table 18 (cont'd). Cesarean Deliveries and Vaginal Births after Cesarean (VBACs) by Licensed Maternity Facility, All Mothers, Massachusetts: 2016**

|                                             |       |       |      |     |      |     |       |                 |                 |
|---------------------------------------------|-------|-------|------|-----|------|-----|-------|-----------------|-----------------|
| North Shore Medical Center - Salem Hospital | 1,242 | 354   | 28.5 | 184 | 17.5 | 170 | 88.5  | 22              | 11.5            |
| Norwood Hospital                            | 437   | 137   | 31.4 | 68  | 19.0 | 69  | 86.3  | 11              | 13.8            |
| Saint Vincent Hospital                      | 1,898 | 578   | 30.5 | 338 | 21.0 | 240 | 82.5  | 51              | 17.5            |
| South Shore Hospital                        | 3,375 | 1,241 | 36.8 | 653 | 24.1 | 588 | 89.0  | 73              | 11.0            |
| St. Elizabeth's Medical Center              | 929   | 356   | 38.3 | 214 | 28.0 | 142 | 86.1  | 23              | 13.9            |
| St. Luke's Hospital                         | 1,431 | 467   | 32.6 | 224 | 18.9 | 243 | 99.2  | -- <sup>5</sup> | -- <sup>5</sup> |
| Sturdy Memorial Hospital                    | 696   | 231   | 33.2 | 123 | 21.5 | 108 | 86.4  | 17              | 13.6            |
| Tobey Hospital                              | 433   | 96    | 22.2 | 52  | 13.4 | 44  | 100.0 | 0               | 0.0             |
| Tufts Medical Center                        | 1,273 | 470   | 36.9 | 282 | 27.2 | 188 | 79.0  | 50              | 21.0            |
| UMass Memorial Medical Center               | 3,989 | 1,144 | 28.7 | 624 | 18.6 | 520 | 81.6  | 117             | 18.4            |
| Winchester Hospital                         | 2,166 | 696   | 32.1 | 401 | 22.0 | 295 | 85.8  | 49              | 14.2            |

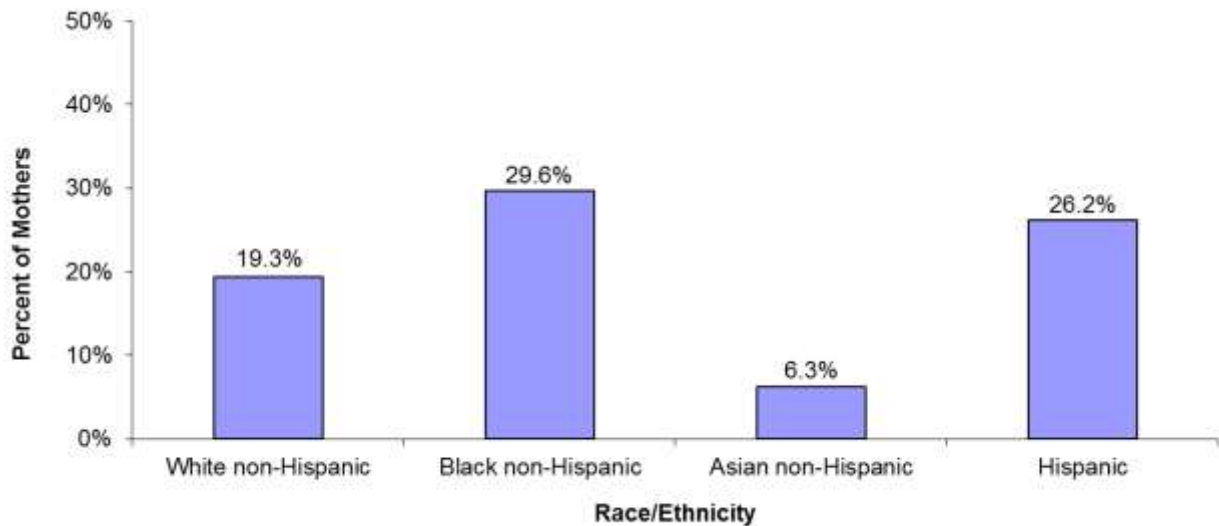
**NOTE:** This table is based on mothers and not births. All percentages are calculated based on only those mothers with known values for the characteristic(s) of interest

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: 2016**

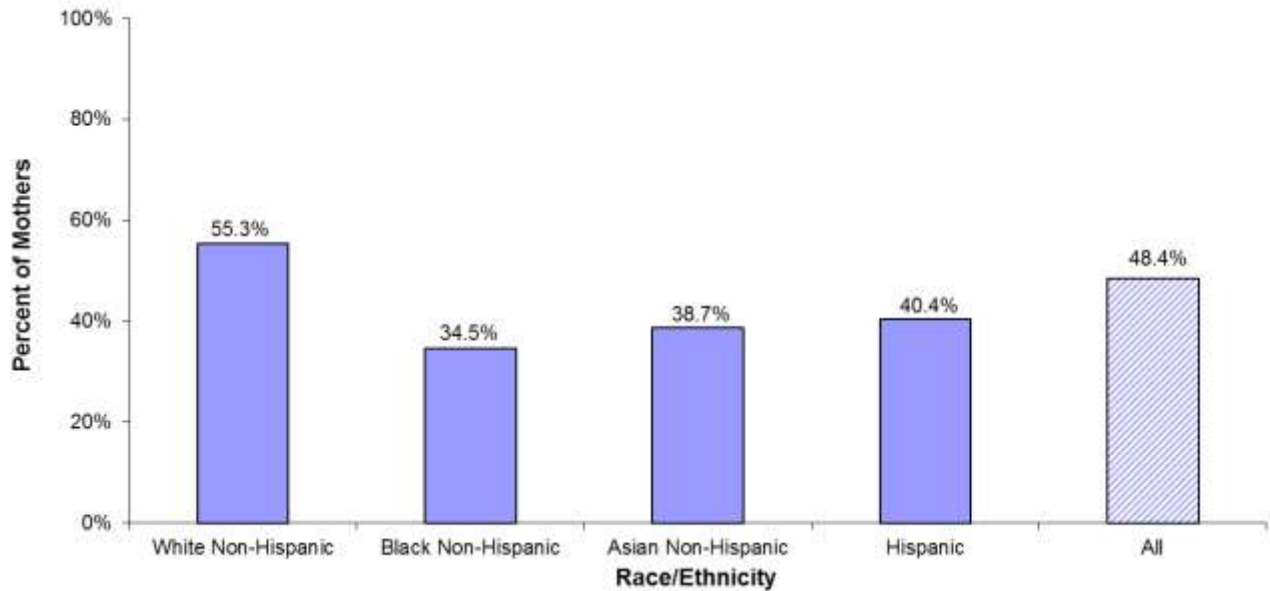


**Figure 8. Obesity Prior to Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2016**

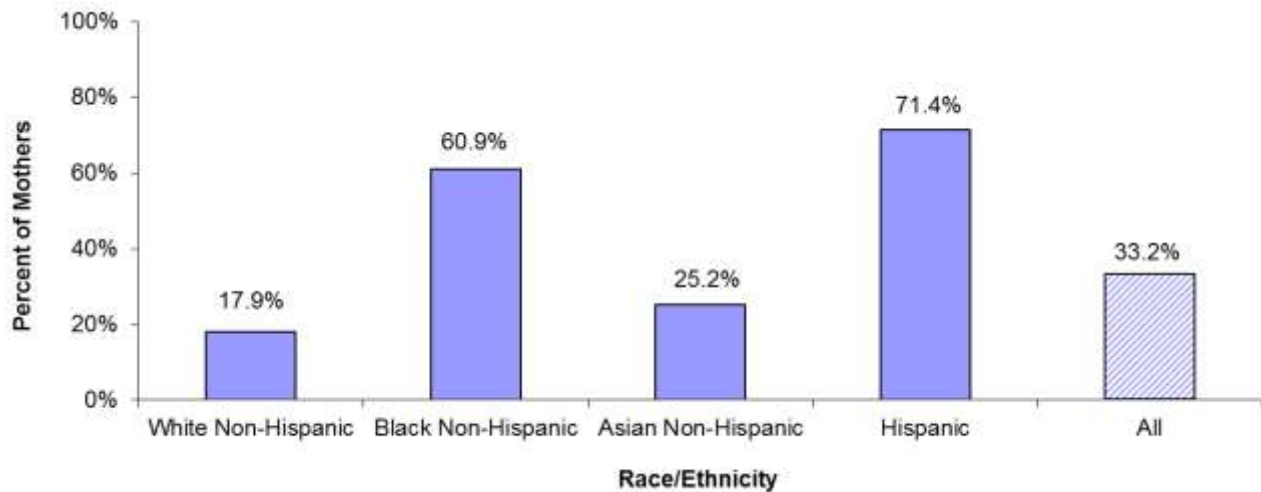


**NOTE:** These figures are based on mothers and not births.

**Figure 9. Mothers Who Reported Having Their Teeth Cleaned During Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2016**

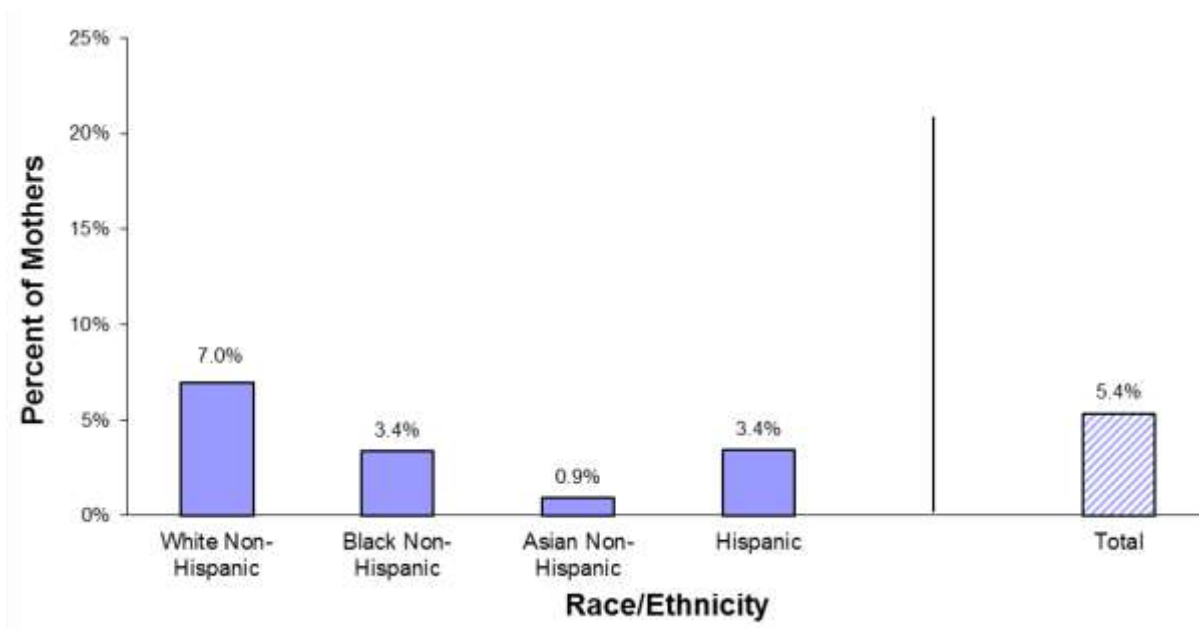


**Figure 10. Mothers Who Reported Having Received WIC Food During Pregnancy by Race/Hispanic Ethnicity, All Mothers, Massachusetts: 2016**



**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: 2016**



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

**Table 19. Mothers Who Used Infertility Treatments, Massachusetts: 2016**

|                                              | Assisted Reproductive Technology (ART) with or without Artificial Insemination and/or Fertility Drugs <sup>1</sup> |                | Artificial Insemination with or without Fertility Drugs <sup>2</sup> |                 | Fertility Enhancing Drugs Only <sup>3</sup> |                |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------|-----------------|---------------------------------------------|----------------|
|                                              | N                                                                                                                  | % <sup>4</sup> | N                                                                    | % <sup>4</sup>  | N                                           | % <sup>4</sup> |
| <b>State total</b>                           | 2,381                                                                                                              | 68.9%          | 533                                                                  | 15.4%           | 541                                         | 15.7%          |
| <b>Maternal Demographics</b>                 |                                                                                                                    |                |                                                                      |                 |                                             |                |
| <b>Race/Hispanic Ethnicity</b>               | N                                                                                                                  | % <sup>5</sup> | N                                                                    | % <sup>5</sup>  | N                                           | % <sup>5</sup> |
| White Non-Hispanic                           | 1,812                                                                                                              | 77.4%          | 417                                                                  | 79.1%           | 402                                         | 74.9%          |
| Black Non-Hispanic                           | 93                                                                                                                 | 4.0%           | 19                                                                   | 3.6%            | 19                                          | 3.5%           |
| Asian Non-Hispanic                           | 275                                                                                                                | 11.7%          | 59                                                                   | 11.2%           | 70                                          | 13.0%          |
| Hispanic                                     | 148                                                                                                                | 6.3%           | 28                                                                   | 5.3%            | 42                                          | 7.8%           |
| Other Non-Hispanic                           | 13                                                                                                                 | 0.6%           | 4                                                                    | 0.8%            | 4                                           | 0.7%           |
| <b>Birthplace</b>                            |                                                                                                                    |                |                                                                      |                 |                                             |                |
| US States / D.C. / US Terr.                  | 1,809                                                                                                              | 76.0%          | 436                                                                  | 81.8%           | 422                                         | 78.0%          |
| Non-US-born                                  | 572                                                                                                                | 24.0%          | 97                                                                   | 18.2%           | 119                                         | 22.0%          |
| <b>Prenatal care funding</b>                 |                                                                                                                    |                |                                                                      |                 |                                             |                |
| Public                                       | 135                                                                                                                | 5.7%           | 33                                                                   | 6.2%            | 64                                          | 11.9%          |
| Private, other                               | 2,239                                                                                                              | 94.3%          | 500                                                                  | 93.8%           | 474                                         | 88.1%          |
| <b>Age</b>                                   |                                                                                                                    |                |                                                                      |                 |                                             |                |
| 20-29                                        | 159                                                                                                                | 6.7%           | 54                                                                   | 10.2%           | 103                                         | 19.1%          |
| 30-34                                        | 764                                                                                                                | 32.1%          | 216                                                                  | 40.7%           | 282                                         | 52.2%          |
| 35-39                                        | 928                                                                                                                | 39.0%          | 209                                                                  | 39.4%           | 116                                         | 21.5%          |
| 40+                                          | 530                                                                                                                | 22.3%          | 52                                                                   | 9.8%            | 39                                          | 7.2%           |
| <b>Pregnancy-Related Factors</b>             |                                                                                                                    |                |                                                                      |                 |                                             |                |
| <b>Adequacy of Prenatal Care<sup>6</sup></b> |                                                                                                                    |                |                                                                      |                 |                                             |                |
| Adequate Total <sup>7</sup>                  | 1,797                                                                                                              | 92.1%          | 425                                                                  | 94.7%           | 405                                         | 90.2%          |
| Adequate Intensive                           | 1,129                                                                                                              | 57.9%          | 253                                                                  | 56.3%           | 233                                         | 51.9%          |
| Adequate Basic                               | 668                                                                                                                | 34.2%          | 172                                                                  | 38.3%           | 172                                         | 38.3%          |
| Intermediate                                 | 62                                                                                                                 | 3.2%           | 12                                                                   | 2.7%            | 18                                          | 4.0%           |
| Inadequate/None                              | 92                                                                                                                 | 4.7%           | 12                                                                   | 2.7%            | 26                                          | 5.8%           |
| <b>Parity<sup>8</sup></b>                    |                                                                                                                    |                |                                                                      |                 |                                             |                |
| 1                                            | 1,456                                                                                                              | 61.3%          | 358                                                                  | 67.2%           | 353                                         | 65.4%          |
| 2                                            | 710                                                                                                                | 29.9%          | 134                                                                  | 25.1%           | 129                                         | 23.9%          |
| 3+                                           | 210                                                                                                                | 8.8%           | 41                                                                   | 7.7%            | 58                                          | 10.7%          |
| <b>Birth Outcomes</b>                        |                                                                                                                    |                |                                                                      |                 |                                             |                |
| <b>Gestational age</b>                       |                                                                                                                    |                |                                                                      |                 |                                             |                |
| <28 weeks (extremely preterm) <sup>10</sup>  | 31                                                                                                                 | 1.3%           | -- <sup>9</sup>                                                      | -- <sup>9</sup> | 11                                          | 2.0%           |
| <37 weeks (preterm) <sup>10</sup>            | 418                                                                                                                | 17.6%          | 67                                                                   | 12.6%           | 63                                          | 11.6%          |
| 37+                                          | 1,963                                                                                                              | 82.4%          | 466                                                                  | 87.4%           | 478                                         | 88.4%          |
| <b>Plurality</b>                             |                                                                                                                    |                |                                                                      |                 |                                             |                |
| Singleton                                    | 2,039                                                                                                              | 85.6%          | 486                                                                  | 91.2%           | 499                                         | 92.2%          |
| Multiple birth                               | 342                                                                                                                | 14.4%          | 47                                                                   | 8.8%            | 42                                          | 7.8%           |

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

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

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

## Technical Notes

### Data Cautions

#### Limitations of small numbers:

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

#### Differences with previously published data:

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

#### Self-reported data:

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

### Changes in the Collection of Race/Ethnicity Information

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

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

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

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

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

## **2003 Revision**

### **Mother/Parent Race**

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

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

### **Mother/Parent Ethnicity**

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

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

## **1989 Revision**

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

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

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

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

**Table A1. 2016 Massachusetts Population Estimates by Age Group, Gender, Race/Hispanic Ethnicity (mutually exclusive)**

| Age Group          | Total <sup>1</sup> | White Non-Hispanic | Black Non-Hispanic | Native American Non-Hispanic | Asian Non-Hispanic | Hispanic <sup>2</sup> |
|--------------------|--------------------|--------------------|--------------------|------------------------------|--------------------|-----------------------|
| <b>Female</b>      |                    |                    |                    |                              |                    |                       |
| 0 to 4             | 177,127            | 108,890            | 17,556             | 443                          | 13,822             | 36,416                |
| 5 to 9             | 182,404            | 116,702            | 17,669             | 461                          | 14,142             | 33,430                |
| 10 to 14           | 192,308            | 128,560            | 17,415             | 464                          | 13,924             | 31,945                |
| 15 to 19           | 227,247            | 155,754            | 20,004             | 558                          | 17,489             | 33,442                |
| 20 to 24           | 249,084            | 168,593            | 22,631             | 597                          | 21,893             | 35,370                |
| 25 to 29           | 242,344            | 162,768            | 21,291             | 595                          | 24,295             | 33,395                |
| 30 to 34           | 233,116            | 158,428            | 19,211             | 481                          | 23,814             | 31,182                |
| 35 to 39           | 214,056            | 144,518            | 17,896             | 439                          | 21,230             | 29,973                |
| 40 to 44           | 207,223            | 144,466            | 16,638             | 400                          | 19,295             | 26,424                |
| 45 to 49           | 237,709            | 178,836            | 17,499             | 525                          | 16,708             | 24,141                |
| 50+                | 1,343,510          | 1,131,456          | 74,583             | 2,733                        | 57,508             | 77,230                |
| <b>All Females</b> | <b>3,506,128</b>   | <b>2,598,971</b>   | <b>262,393</b>     | <b>7,696</b>                 | <b>244,120</b>     | <b>392,948</b>        |
| <b>Male</b>        |                    |                    |                    |                              |                    |                       |
| 0 to 4             | 184,249            | 113,495            | 18,620             | 446                          | 14,310             | 37,378                |
| 5 to 9             | 190,835            | 122,253            | 19,170             | 452                          | 14,405             | 34,555                |
| 10 to 14           | 200,492            | 134,439            | 18,537             | 479                          | 14,021             | 33,016                |
| 15 to 19           | 229,354            | 157,067            | 20,426             | 533                          | 15,804             | 35,524                |
| 20 to 24           | 249,253            | 168,083            | 22,711             | 702                          | 19,827             | 37,930                |
| 25 to 29           | 246,013            | 164,635            | 21,980             | 657                          | 22,443             | 36,298                |
| 30 to 34           | 230,856            | 157,170            | 18,733             | 513                          | 21,451             | 32,989                |
| 35 to 39           | 206,333            | 140,873            | 16,791             | 400                          | 18,262             | 30,007                |
| 40 to 44           | 197,401            | 139,035            | 15,575             | 418                          | 17,863             | 24,510                |
| 45 to 49           | 224,176            | 170,622            | 15,409             | 518                          | 15,700             | 21,927                |
| 50+                | 1,146,689          | 970,280            | 60,781             | 2,504                        | 49,545             | 63,579                |
| <b>All Males</b>   | <b>3,305,651</b>   | <b>2,437,952</b>   | <b>248,733</b>     | <b>7,622</b>                 | <b>223,631</b>     | <b>387,713</b>        |
| 0 to 4             | 361,376            | 222,385            | 36,176             | 889                          | 28,132             | 73,794                |
| 5 to 9             | 373,239            | 238,955            | 36,839             | 913                          | 28,547             | 67,985                |
| 10 to 14           | 392,800            | 262,999            | 35,952             | 943                          | 27,945             | 64,961                |
| 15 to 19           | 456,601            | 312,821            | 40,430             | 1,091                        | 33,293             | 68,966                |
| 20 to 24           | 498,337            | 336,676            | 45,342             | 1,299                        | 41,720             | 73,300                |
| 25 to 29           | 488,357            | 327,403            | 43,271             | 1,252                        | 46,738             | 69,693                |
| 30 to 34           | 463,972            | 315,598            | 37,944             | 994                          | 45,265             | 64,171                |
| 35 to 39           | 420,389            | 285,391            | 34,687             | 839                          | 39,492             | 59,980                |
| 40 to 44           | 404,624            | 283,501            | 32,213             | 818                          | 37,158             | 50,934                |
| 45 to 49           | 461,885            | 349,458            | 32,908             | 1,043                        | 32,408             | 46,068                |
| 50+                | 2,490,199          | 2,101,736          | 135,364            | 5,237                        | 107,053            | 140,809               |
| <b>State Total</b> | <b>6,811,779</b>   | <b>5,036,923</b>   | <b>511,126</b>     | <b>15,318</b>                | <b>467,751</b>     | <b>780,661</b>        |

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

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

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