A Profile of Health Among Massachusetts Adults, 2016

**Results from the Behavioral Risk Factor Surveillance System**

Health Survey Program

Office of Data Management and Outcomes Assessment

Massachusetts Department of Public Health



September 2017

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*September 2017*

Table of Contents

[Acknowledgements 3](#_Toc493665666)

[Introduction 4](#_Toc493665667)

[Highlights 5](#_Toc493665668)

[Demographic Characteristics of Respondents 7](#_Toc493665669)

[Section 1: Overall Health Measures 8](#_Toc493665670)

[Section 1.1: Overall Health Status 9](#_Toc493665671)

[Section 1.2: Quality of Life 10](#_Toc493665672)

[Section 1.3: Disability 11](#_Toc493665673)

[Section 2: Health Care Access and Utilization 12](#_Toc493665674)

[Section 2.1: Health Insurance Status 13](#_Toc493665675)

[Section 2.2: Health Care Access 14](#_Toc493665676)

[Section 2.3: Oral Health 16](#_Toc493665677)

[Section 3: Risk Factors and Preventive Behaviors 17](#_Toc493665678)

[Section 3.1: Tobacco Use 18](#_Toc493665679)

[Section 3.2: Smoking Cessation 21](#_Toc493665680)

[Section 3.3: Environmental Tobacco Smoke 22](#_Toc493665681)

[Section 3.4: Alcohol Use 23](#_Toc493665682)

[Section 3.5: Overweight and Obesity Status 24](#_Toc493665683)

[Section 3.6: Physical Activity 25](#_Toc493665684)

[Section 4: Immunization 26](#_Toc493665685)

[Section 4.1: Flu Vaccine and Pneumonia Vaccine 27](#_Toc493665686)

[Section 4.2: Human Papilloma Virus (HPV) Vaccination 30](#_Toc493665687)

[Section 4.3: Hepatitis B Virus (HBV) Vaccination 31](#_Toc493665688)

[Section 4.4: Herpes Zoster (Shingles) Vaccination 32](#_Toc493665689)

[Section 5: Chronic Health Conditions 33](#_Toc493665690)

[Section 5.1: Diabetes 34](#_Toc493665691)

[Section 5.2: Asthma 35](#_Toc493665692)

[Section 5.3: Chronic Obstructive Pulmonary Disease (COPD) 36](#_Toc493665693)

[Section 5.4: Heart Disease and Stroke 37](#_Toc493665694)

[Section 5.5: Depression 39](#_Toc493665695)

[Section 5.6: Cancer Diagnosis 40](#_Toc493665696)

[Section 6: Cancer Screening 41](#_Toc493665697)

[Section 6.1: Colorectal Cancer Screening 42](#_Toc493665698)

[Section 6.2: Breast Cancer Screening 43](#_Toc493665699)

[Section 6.3: Cervical Cancer Screening 44](#_Toc493665700)

[Section 7: Other Topics 45](#_Toc493665701)

[Section 7.1: Sexual Orientation and Gender Identity 46](#_Toc493665702)

[Section 7.2: HIV Testing 47](#_Toc493665703)

[Section 7.3: Sexual Violence 48](#_Toc493665704)

[Section 7.4: Unintentional Falls 49](#_Toc493665705)

[Section 7.5: Drinking and Driving 50](#_Toc493665706)

[Section 7.6: Seatbelt Use 51](#_Toc493665707)

[Section 7.7: Family Planning 52](#_Toc493665708)

[Section 7.8: Opioid and Marijuana Use 53](#_Toc493665709)

[Appendix 55](#_Toc493665710)

[Age-Adjusted Percentages For Selected Topics 56](#_Toc493665711)

[Massachusetts and National Estimates 64](#_Toc493665712)

[Item-Specific Non-Response 65](#_Toc493665713)

[Terms, Definitions and Statistical Methodology 66](#_Toc493665714)

[Limitations 68](#_Toc493665715)

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# Introduction

The Behavioral Risk Factor Surveillance System (BRFSS) is a continuous multimode survey of adults ages 18 and older and is conducted in all states as a collaboration between the federal Centers for Disease Control and Prevention (CDC) and state departments of public health. The landline telephone portion of the survey has been conducted in Massachusetts since 1986; a cell phone component was added in 2011. The BRFSS collects data on a variety of health risk factors, preventive behaviors, chronic conditions, and emerging public health issues. The information obtained in this survey assists in identifying the need for health interventions, monitoring the effectiveness of existing interventions and prevention programs, developing health policy and legislation, and measuring progress toward attaining state and national health objectives.

Each year, the BRFSS includes a core set of questions developed by the CDC. These questions addressed health status, health care access and utilization, overweight and obesity status, asthma, diabetes, immunizations, tobacco use, alcohol consumption, HIV/AIDS testing and other selected public health topics.

In addition to the core CDC questions, the Massachusetts Health Survey Program, in collaboration with other Massachusetts Department of Public Health programs, added a number of topics to the surveillance instrument including opiate use, marijuana use, family planning, sexual violence, and other selected topics.

In 2016, 3,962 landline interviews and 4,453 cell phone interviews were completed among Massachusetts adults. To increase the number of respondents who belong to racial and/or ethnic minority groups, the cities of Boston, Brockton, Lowell, Lynn, New Bedford, Quincy, Springfield, and Worcester were oversampled. Interviews were administered in the respondents’ preferred language, with a choice of English, Spanish, or Portuguese.

This report summarizes selected results from the combined landline and cell phone portions of the 2016 Massachusetts BRFSS. In each section of the report, a description of survey questions used to obtain estimates for key variables is provided. Tables detailing the overall estimates and estimates by demographic and socioeconomic characteristics (gender, age, race-ethnicity, disability status, education and annual household income) are provided in the main body of the report in the form of crude percentages.

In the Appendix of the report, tables are presented detailing age-adjusted percentages for 2016 indicators and their 95% confidence intervals. United States (US) median data for all participating states and territories for variables with comparable national data are presented for 2016 in a separate table.

All percentages in this report are weighted (see definition on page 64) to represent the total Massachusetts population in 2016.

# Highlights

**Overall Health Measures**

* Hispanic adults were more likely than White or Black (non-Hispanic) adults to report that their overall health was fair or poor.

**Health Care Access and Utilization**

* Overall, 3.8% of adults ages 18-64 reported not having any health insurance; there has been an average 2.5% per year decrease in those reporting not having health insurance since 2012. Males were more likely than females and Hispanic adults were more likely than White adults to not have health insurance. Those aged 25-34 were more likely than any other age group to be uninsured.
* Males were less likely than females to have a personal health care provider or to have had a routine check-up in the previous year.
* Approximately 3 out of 4 adults reported that they had a dental visit in the previous year. Those with four or more years of college education and those with a household income of $75,000 or more were more likely than others to have had a dental visit in the previous year.

**Risk Factors and Preventive Behaviors**

* The prevalence of cigarette smoking has been declining by an average of 7.5% per year since 2011. In 2016, 13.6% of adults reported current cigarette smoking. Adults with a disability\* were nearly twice as likely as those without a disability to be current cigarette smokers.
* Overall, use of e-cigarettes is 4.3%; however, among those 18-24 years of age, 10.1% report using electronic cigarettes.
* The reported prevalence of binge drinking has been declining by an average of 4.5% per year since 2011; in 2016, 17.8% of adults reported binge drinking in the previous 30 days. Prevalence is highest among 18-34 year olds and decreases with age. Males are more likely than females to report binge drinking.
* 60% of adults reported being overweight or obese (BMI ≥ 25.0) and 24% reported being obese (BMI ≥ 30.0). Obesity was higher among males, among Black and Hispanic adults, among those with a disability, and among those with lower educational attainment.

\*see definition of disability on p. 67

**Chronic Health Conditions**

* The crude prevalence of diabetes has been increasing by an average of 3% per year since 2011 and that of pre-diabetes by an average of 4.5% per year. In 2016, 9.3% of adults reported that they had ever been diagnosed with diabetes and an additional 8.4% had been told that they have pre-diabetes.
* Asthma remains more prevalent in Massachusetts than in much of the rest of the nation. In 2016, 10% of adults reported that they currently have asthma (national range = 5.1 –12.2%). Females were twice as likely as males to report currently having asthma.
* 19% of adults reported that they had ever been diagnosed with a depressive disorder. Females were more likely than males to have been diagnosed with depression. Prevalence of a depression diagnosis decreases with increasing educational attainment and with increasing household income.
* In 2016, 11% of Massachusetts adults reported that they had ever been diagnosed with cancer. Among those 75 years of age and older, the prevalence of cancer survivors comprises 35% of all residents. White adults were more likely than Hispanic adults to have ever been diagnosed with cancer.

**Cancer Screening**

* One in four adults ages 50-74 reported they did not meet the US Preventive Services Task Force (USPSTF) recommendation for colorectal cancer screening.
* 86% of females ages 50-74 reported having a mammogram in the previous two years.
* 84% of females ages 21-65 without a hysterectomy reported having a pap smear in the previous three years; however, among those 21-24 years of age, this was only 59%. Asian females were less likely than White females to report having a pap smear in the previous three years.

**Other Topics**

* 46% of adults ages 18-64 reported that they had ever been tested for HIV. Adults 18-64 years of age with a disability were more likely to report ever having been tested for HIV than those without a disability. Black adults and Hispanic adults were more likely than White adults or Asian adults to report ever having had an HIV test.
* 17% of female adults and 5% of male adults reported that they had experienced sexual violence in their lifetime. Adults with a disability (males and females combined) were nearly twice as likely to report experiencing sexual violence as adults without a disability.
* 29% of adults ages 65 and older reported that they had fallen at least once in the prior year and 39% of those reported that they sustained an injury from a fall.
* 12% of adults reported non-medical use of marijuana in the previous year. Males were more likely than females to report use. Younger adults (ages 18-34) were much more likely than older adults to report non-medical use of marijuana.
* One in three adults reported that they had ever been prescribed an opiate and 2.7% reported non-medical use of an opiate in the previous year.

|  |  |  |
| --- | --- | --- |
| Demographic Characteristics of Respondents Massachusetts Behavioral Risk Factor Surveillance System, 2016 | | |
|  | Unweighted Sample Size | Weighted Percent |
|  | N | %† |
| Overall | 8,415 | 100.0 |
| Gender |  |  |
| male | 3,952 | 47.8 |
| female | 4,462 | 52.2 |
| Age Group |  |  |
| 18–24 | 563 | 13.2 |
| 25–34 | 973 | 17.3 |
| 35–44 | 936 | 15.3 |
| 45–54 | 1,328 | 16.6 |
| 55–64 | 1,804 | 17.0 |
| 65–74 | 1,550 | 11.7 |
| 75 and older | 1,058 | 8.8 |
| Race-ethnicity\* |  |  |
| white | 6,680 | 76.2 |
| black | 467 | 6.6 |
| hispanic | 679 | 10.3 |
| asian | 264 | 6.8 |
| Disability¶ |  |  |
| disability | 2,165 | 23.9 |
| no disability | 5,807 | 76.1 |
| Education |  |  |
| < high school | 499 | 10.7 |
| high school | 1,870 | 25.9 |
| college 1–3 yrs | 1,949 | 26.6 |
| college 4+ yrs | 4,046 | 36.7 |
| Household Income |  |  |
| <$25,000 | 999 | 14.5 |
| $25,000–34,999 | 555 | 8.5 |
| $35,000–49,999 | 831 | 12.7 |
| $50,000–74,999 | 957 | 15.2 |
| $75,000+ | 2,882 | 49.1 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † See BRFSS methodology in “Terms, Definitions and Methodology Used in this Report”  ¶ See p 67 for definition of disability | | |

# Section 1: Overall Health Measures

## Section 1.1: Overall Health Status

Respondents were asked to describe their overall health as excellent, very good, good, fair, or poor. Presented here are the percentages of adults who reported that their overall health was fair or poor.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 1.1 – Overall Health Status Among Massachusetts Adults, 2016 | | | | | |
|  | Fair or Poor Health  N % 95% CI | | | | |
| Overall | 8,390 | 14.1 | 13.0 | -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  - | 15.2 |
| Gender |  |  |  |  |  |
| male | 3,941 | 14.2 | 12.7 | - | 15.8 |
| female | 4,448 | 13.9 | 12.5 | - | 15.4 |
| Age Group |  |  |  |  |  |
| 18–24 | 562 | 8.2 | 5.0 | - | 11.3 |
| 25–34 | 971 | 9.7 | 7.3 | - | 12.1 |
| 35–44 | 934 | 12.7 | 9.8 | - | 15.6 |
| 45–54 | 1,326 | 13.3 | 10.8 | - | 15.8 |
| 55–64 | 1,800 | 18.0 | 15.5 | - | 20.5 |
| 65–74 | 1,544 | 18.6 | 15.6 | - | 21.5 |
| 75 and older | 1,054 | 24.1 | 19.9 | - | 28.2 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,664 | 12.2 | 11.1 | - | 13.3 |
| black | 467 | 16.5 | 11.5 | - | 21.6 |
| hispanic | 675 | 29.5 | 25.0 | - | 33.9 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 2,151 | 39.5 | 36.4 | - | 42.6 |
| no disability | 5,798 | 6.2 | 5.4 | - | 7.1 |
| Education |  |  |  |  |  |
| < high school | 494 | 36.0 | 30.3 | - | 41.7 |
| high school | 1,863 | 17.7 | 15.4 | - | 20.0 |
| college 1–3 yrs | 1,946 | 12.8 | 11.0 | - | 14.6 |
| college 4+ yrs | 4,038 | 6.2 | 5.3 | - | 7.1 |
| Household Income |  |  |  |  |  |
| <$25,000 | 997 | 32.6 | 28.4 | - | 36.8 |
| $25,000–34,999 | 552 | 18.8 | 14.2 | - | 23.5 |
| $35,000–49,999 | 831 | 15.3 | 11.5 | - | 19.0 |
| $50,000–74,999 | 957 | 12.8 | 9.6 | - | 16.0 |
| $75,000+ | 2,877 | 5.0 | 4.0 | - | 6.1 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 1.2: Quality of Life

All respondents were asked to report: (1) the number of days during the past month that their physical health, which includes physical illness and injury, had not been good; and (2) the number of days during the past month they would describe their mental health, which includes stress, depression, and problems with emotions, as not good.

Presented here are the percentages of adults who reported that (1) they had experienced at least 15 days of poor physical health in the previous month; or (2) their mental health was not good for at least 15 days during the past month.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 1.2 – Quality of Life Among Massachusetts Adults, 2016 | | | | | | | | | | |
|  | 15+ DAYS OF POOR PHYSICAL HEALTH  N % 95% CI | | | | | 15+ DAYS OF POOR MENTAL HEALTH  N % 95% CI | | | | |
|  |
|  |
| Overall | 8,161 | 9.7 | 8.8 | - | 10.7 | 8,200 | 11.3 | 10.3 | - | 12.3 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,839 | 9.3 | 7.9 | - | 10.6 | 3,857 | 9.9 | 8.5 | - | 11.3 |
| female | 4,321 | 10.0 | 8.7 | - | 11.3 | 4,342 | 12.4 | 11.0 | - | 13.9 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 552 | 4.9 | 2.1 | - | 7.8 | 552 | 13.1 | 9.5 | - | 16.7 |
| 25–34 | 961 | 5.7 | 3.8 | - | 7.6 | 965 | 13.3 | 10.6 | - | 15.9 |
| 35–44 | 921 | 9.2 | 6.7 | - | 11.8 | 913 | 12.4 | 9.4 | - | 15.3 |
| 45–54 | 1,294 | 9.9 | 7.6 | - | 12.2 | 1,291 | 12.8 | 10.3 | - | 15.2 |
| 55–64 | 1,762 | 14.9 | 12.6 | - | 17.2 | 1,748 | 10.8 | 8.8 | - | 12.8 |
| 65–74 | 1,499 | 12.1 | 9.6 | - | 14.6 | 1,519 | 7.8 | 5.8 | - | 9.8 |
| 75 and older | 984 | 14.1 | 10.6 | - | 17.7 | 1,019 | 7.7 | 4.4 | - | 11.0 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 6,518 | 9.5 | 8.5 | - | 10.5 | 6,543 | 10.8 | 9.7 | - | 12.0 |
| black | 438 | 11.3 | 6.2 | - | 16.4 | 442 | 13.5 | 8.8 | - | 18.2 |
| hispanic | 638 | 13.3 | 10.0 | - | 16.6 | 640 | 12.3 | 9.2 | - | 15.3 |
| asian | † |  |  |  |  | 261 | 9.4 | 4.1 | - | 14.6 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 2,022 | 29.6 | 26.6 | - | 32.6 | 2,061 | 27.9 | 24.8 | - | 30.9 |
| no disability | 5,713 | 3.9 | 3.2 | - | 4.6 | 5,716 | 6.1 | 5.2 | - | 7.0 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 447 | 20.9 | 15.7 | - | 26.1 | 457 | 19.7 | 14.4 | - | 25.0 |
| high school | 1,798 | 13.0 | 10.9 | - | 15.1 | 1,800 | 12.9 | 10.9 | - | 14.9 |
| college 1–3 yrs | 1,894 | 9.7 | 8.1 | - | 11.4 | 1,909 | 13.7 | 11.6 | - | 15.7 |
| college 4+ yrs | 3,977 | 4.5 | 3.8 | - | 5.3 | 3,985 | 6.1 | 5.1 | - | 7.1 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 941 | 21.5 | 17.8 | - | 25.3 | 950 | 21.3 | 17.6 | - | 25.1 |
| $25,000–34,999 | 536 | 13.0 | 9.0 | - | 17.0 | 539 | 15.0 | 10.8 | - | 19.1 |
| $35,000–49,999 | 814 | 9.8 | 6.5 | - | 13.1 | 814 | 10.5 | 7.7 | - | 13.4 |
| $50,000–74,999 | 947 | 8.1 | 5.7 | - | 10.6 | 946 | 9.1 | 6.3 | - | 12.0 |
| $75,000+ | 2,851 | 4.7 | 3.6 | - | 5.8 | 2,853 | 7.2 | 5.8 | - | 8.7 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 1.3: Disability

In 2016, respondents were asked about disabilities and activity limitations. Respondents were classified as having a disability if they answered “yes” to one or more of the following questions:

**Please note: This definition of disability differs from prior years**

1. Are you deaf or do you have serious difficulty hearing?

2. Are you blind or do you have serious difficulty seeing, even when wearing glasses?

3. Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering or making decisions?

4. Do you have serious difficulty walking or climbing stairs?

5. Do you have difficulty dressing or bathing?

6. Because of a physical, mental or emotional condition, do you have difficulty doing errands alone such as visiting a doctor’s office or shopping?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 1.3 – Disability Among Massachusetts Adults**, 2016** | | | | | |
|  | Have Disability¶  N % 95% CI | | | | |
| Overall | 7,972 | 23.9 | 22.6 | - | 25.2 |
| Gender |  |  |  |  |  |
| male | 3,736 | 22.6 | 20.8 | - | 24.4 |
| female | 4,235 | 25.0 | 23.1 | - | 26.8 |
| Age Group |  |  |  |  |  |
| 18–24 | 522 | 18.3 | 14.0 | - | 22.5 |
| 25–34 | 921 | 15.3 | 12.4 | - | 18.2 |
| 35–44 | 878 | 16.8 | 13.5 | - | 20.0 |
| 45–54 | 1,268 | 20.3 | 17.5 | - | 23.1 |
| 55–64 | 1,725 | 27.4 | 24.5 | - | 30.3 |
| 65–74 | 1,489 | 32.5 | 28.9 | - | 36.0 |
| 75 and older | 987 | 51.5 | 46.5 | - | 56.4 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,352 | 22.8 | 21.4 | - | 24.2 |
| black | 427 | 24.9 | 19.0 | - | 30.7 |
| hispanic | 644 | 34.3 | 29.7 | - | 38.9 |
| asian | 248 | 13.2 | 7.0 | - | 19.3 |
| Education |  |  |  |  |  |
| < high school | 474 | 45.6 | 39.5 | - | 51.8 |
| high school | 1,749 | 30.8 | 28.0 | - | 33.7 |
| college 1–3 yrs | 1,822 | 25.7 | 23.1 | - | 28.3 |
| college 4+ yrs | 3,883 | 11.5 | 10.3 | - | 12.7 |
| Household Income |  |  |  |  |  |
| <$25,000 | 949 | 47.8 | 43.2 | - | 52.4 |
| $25,000–34,999 | 534 | 26.7 | 21.8 | - | 31.7 |
| $35,000–49,999 | 801 | 24.8 | 20.7 | - | 28.8 |
| $50,000–74,999 | 916 | 16.4 | 13.1 | - | 19.7 |
| $75,000+ | 2,794 | 11.9 | 10.2 | - | 13.7 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

# Section 2: Health Care Access and Utilization

## Section 2.1: Health Insurance Status

All respondents were asked if they had any type of health care coverage at the time of the interview. Those who indicated that they had no coverage were asked a follow-up question to be certain that they had considered all types of health care coverage. This included health care coverage from their employer or someone else’s employer, a plan that they had bought on their own, Medicare, MassHealth, Commonwealth Care, and coverage through the military, or the Indian Health Service. CDC estimates of uninsured adults, based solely upon the CDC core health insurance question, may differ from estimates derived from the Massachusetts BRFSS estimates, which were based on the CDC core health insurance question and the Massachusetts follow-up question. Table 2.1 presents the Massachusetts BRFSS data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 2.1 –Health Insurance Status Among Massachusetts Adults,  Ages 18-64, 2016 | | | | | |
|  | No Health Insurance  N % 95% CI | | | | |
| Overall | 5,037 | 3.8 | 3.1 | -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  - | 4.6 |
| Gender |  |  |  |  |  |
| male | 2,471 | 5.3 | 4.0 | - | 6.5 |
| female | 2,566 | 2.5 | 1.6 | - | 3.3 |
| Age Group |  |  |  |  |  |
| 18–24 | 438 | 4.4 | 2.3 | - | 6.5 |
| 25–34 | 758 | 8.0 | 5.4 | - | 10.6 |
| 35–44 | 842 | 2.9 | 1.4 | - | 4.4 |
| 45–54 | 1,270 | 2.8 | 1.8 | - | 3.9 |
| 55–64 | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |
| white | 3,816 | 2.9 | 2.2 | - | 3.7 |
| black | † |  |  |  |  |
| hispanic | 537 | 7.8 | 4.7 | - | 10.9 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 1,071 | 5.3 | 3.2 | - | 7.3 |
| no disability | 3,699 | 3.3 | 2.5 | - | 4.1 |
| Education |  |  |  |  |  |
| < high school | 272 | 11.1 | 6.4 | - | 15.9 |
| high school | 1,111 | 5.8 | 4.0 | - | 7.6 |
| college 1–3 yrs | 1,198 | 2.3 | 1.3 | - | 3.3 |
| college 4+ yrs | 2,435 | 1.6 | 1.0 | - | 2.2 |
| Household Income |  |  |  |  |  |
| <$25,000 | 582 | 8.4 | 5.0 | - | 11.7 |
| $25,000–34,999 | † |  |  |  |  |
| $35,000–49,999 | † |  |  |  |  |
| $50,000–74,999 | † |  |  |  |  |
| $75,000+ | 2,051 | 1.4 | 0.7 | - | 2.0 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 2.2: Health Care Access

All respondents were asked if they had a person that they thought of as their personal doctor or health care provider. All respondents were also asked whether they were unable to see a doctor at any time in the past year due to cost and about how long since they last visited a doctor for a routine checkup. Presented here are the percentages of adults who reported that they did not have a personal health care provider, the percentages of adults who reported that cost had prevented them from seeing a doctor at some point in the past year, and the percentage of adults who had visited a medical provider for a checkup in the past year.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 2.2 – Health Care Access Among Massachusetts **Adults,** 2016 | | | | | | | | | | |
|  | Have Personal Health Care Provider  N % 95% CI | | | | | Could Not See Doctor Due to Cost  N % 95% CI | | | | |
|  |
|  |
| Overall | 8,379 | 88.9 | 87.9 | - | 89.8 | 8,389 | 8.8 | 7.9 | - | 9.6 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,931 | 84.0 | 82.4 | - | 85.6 | 3,938 | 8.9 | 7.7 | - | 10.1 |
| female | 4,447 | 93.4 | 92.3 | - | 94.5 | 4,450 | 8.5 | 7.3 | - | 9.7 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 558 | 80.8 | 77.1 | - | 84.5 | 562 | 8.1 | 5.7 | - | 10.6 |
| 25–34 | 967 | 76.0 | 72.7 | - | 79.3 | 971 | 11.7 | 9.3 | - | 14.1 |
| 35–44 | 933 | 87.3 | 84.6 | - | 90.0 | 935 | 10.3 | 7.9 | - | 12.7 |
| 45–54 | 1,324 | 92.5 | 90.7 | - | 94.2 | 1,322 | 10.2 | 8.0 | - | 12.5 |
| 55–64 | 1,797 | 95.7 | 94.5 | - | 96.9 | 1,800 | 9.4 | 7.4 | - | 11.3 |
| 65–74 | 1,547 | 97.6 | 96.5 | - | 98.6 | 1,545 | 5.8 | 3.7 | - | 7.8 |
| 75 and older | 1,053 | 96.0 | 93.6 | - | 98.4 | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 6,658 | 91.9 | 91.0 | - | 92.8 | 6,671 | 6.8 | 5.9 | - | 7.6 |
| black | 461 | 87.9 | 83.5 | - | 92.2 | 464 | 13.9 | 9.3 | - | 18.5 |
| hispanic | 675 | 77.0 | 72.9 | - | 81.1 | 671 | 19.4 | 15.5 | - | 23.3 |
| asian | 260 | 77.3 | 71.1 | - | 83.4 | 260 | 6.1 | 2.8 | - | 9.3 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 2,156 | 91.4 | 89.5 | - | 93.3 | 2,153 | 16.2 | 13.8 | - | 18.6 |
| no disability | 5,785 | 88.1 | 87.0 | - | 89.3 | 5,796 | 6.4 | 5.6 | - | 7.3 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 495 | 81.3 | 76.4 | - | 86.1 | 496 | 15.7 | 11.5 | - | 20.0 |
| high school | 1,864 | 87.2 | 85.1 | - | 89.4 | 1,861 | 9.6 | 7.9 | - | 11.4 |
| college 1–3 yrs | 1,937 | 91.5 | 90.0 | - | 93.1 | 1,944 | 10.0 | 8.3 | - | 11.7 |
| college 4+ yrs | 4,034 | 90.5 | 89.4 | - | 91.6 | 4,039 | 5.2 | 4.3 | - | 6.1 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 992 | 84.4 | 81.2 | - | 87.6 | 995 | 15.1 | 12.1 | - | 18.1 |
| $25,000–34,999 | 551 | 87.0 | 83.3 | - | 90.8 | 552 | 12.7 | 9.1 | - | 16.3 |
| $35,000–49,999 | 829 | 88.3 | 85.6 | - | 91.1 | 829 | 10.3 | 7.4 | - | 13.2 |
| $50,000–74,999 | 955 | 89.5 | 86.7 | - | 92.3 | 957 | 8.6 | 6.0 | - | 11.1 |
| $75,000+ | 2,876 | 92.6 | 91.4 | - | 93.9 | 2,881 | 4.9 | 3.8 | - | 6.0 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 2.2 (Continued) - Health Care Access Among Massachusetts Adults, 2016 | | | | | |
|  | Had a Routine Checkup in the Past Year  N % 95% CI | | | | |
| Overall | 8,278 | 78.7 | 77.4 | - | 79.9 |
| Gender |  |  |  |  |  |
| male | 3,881 | 75.1 | 73.3 | - | 77.0 |
| female | 4,396 | 82.0 | 80.4 | - | 83.7 |
| Age Group |  |  |  |  |  |
| 18–24 | 549 | 73.4 | 68.9 | - | 78.0 |
| 25–34 | 955 | 65.7 | 62.0 | - | 69.3 |
| 35–44 | 919 | 72.5 | 68.8 | - | 76.1 |
| 45–54 | 1,310 | 78.7 | 75.7 | - | 81.6 |
| 55–64 | 1,786 | 83.4 | 81.1 | - | 85.8 |
| 65–74 | 1,525 | 91.8 | 90.0 | - | 93.6 |
| 75 and older | 1,036 | 94.5 | 92.4 | - | 96.5 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,587 | 79.6 | 78.3 | - | 81.0 |
| black | 454 | 81.7 | 76.8 | - | 86.6 |
| hispanic | 665 | 76.3 | 72.3 | - | 80.3 |
| asian | 259 | 72.4 | 65.1 | - | 79.8 |
| Disability¶ |  |  |  |  |  |
| disability | 2,118 | 82.4 | 79.9 | - | 84.9 |
| no disability | 5,730 | 77.5 | 76.0 | - | 79.0 |
| Education |  |  |  |  |  |
| < high school | 487 | 76.2 | 70.6 | - | 81.7 |
| high school | 1,837 | 78.8 | 76.3 | - | 81.3 |
| college 1–3 yrs | 1,908 | 81.4 | 79.0 | - | 83.8 |
| college 4+ yrs | 3,998 | 77.6 | 75.9 | - | 79.2 |
| Household Income |  |  |  |  |  |
| <$25,000 | 976 | 77.2 | 73.4 | - | 81.0 |
| $25,000–34,999 | 548 | 77.7 | 73.1 | - | 82.3 |
| $35,000–49,999 | 817 | 82.3 | 78.9 | - | 85.6 |
| $50,000–74,999 | 948 | 75.9 | 72.1 | - | 79.7 |
| $75,000+ | 2,859 | 78.5 | 76.4 | - | 80.6 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

## Section 2.3: Oral Health

All respondents were asked how long it had been since they had last visited a dentist or a dental clinic. Presented here is the percentage reporting that they had been to a dentist or a dental clinic within the past year. The wording of the question did not differentiate between a routine cleaning and other types of dental work. All respondents were also asked how many of their teeth were missing due to decay or gum disease only. The number of teeth missing due to injury or orthodontic purposes is not included. Presented here is the percentage of adults with six or more teeth missing.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 2.3 – Dental Health Care Among Massachusetts Adults**,** 2016 | | | | | | | | | | |
|  | Dental Visit in Past Year  N % 95% CI | | | | | Six or More Teeth Missing  N % 95% CI | | | | |
|  |
|  |
| Overall | 8,274 | 73.7 | 72.3 | - | 75.0 | 8,064 | 13.6 | 12.6 | - | 14.6 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,873 | 70.3 | 68.3 | - | 72.3 | 3,793 | 13.6 | 12.1 | - | 15.0 |
| female | 4,400 | 76.8 | 74.9 | - | 78.7 | 4,270 | 13.5 | 12.1 | - | 14.8 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 552 | 76.1 | 71.5 | - | 80.7 | † |  |  |  |  |
| 25–34 | 961 | 65.8 | 62.0 | - | 69.5 | 954 | 1.9 | 0.8 | - | 3.0 |
| 35–44 | 925 | 75.8 | 72.2 | - | 79.3 | 923 | 4.4 | 2.5 | - | 6.3 |
| 45–54 | 1,312 | 74.8 | 71.5 | - | 78.2 | 1,297 | 10.4 | 8.2 | - | 12.6 |
| 55–64 | 1,784 | 78.6 | 76.0 | - | 81.1 | 1,737 | 20.6 | 17.9 | - | 23.2 |
| 65–74 | 1,522 | 73.1 | 69.8 | - | 76.5 | 1,464 | 33.3 | 29.7 | - | 36.9 |
| 75 and older | 1,023 | 68.4 | 63.8 | - | 73.0 | 950 | 41.1 | 36.1 | - | 46.0 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 6,587 | 76.3 | 74.9 | - | 77.8 | 6,411 | 13.9 | 12.8 | - | 15.0 |
| black | 447 | 66.2 | 59.7 | - | 72.8 | 445 | 15.1 | 10.4 | - | 19.9 |
| hispanic | 672 | 67.3 | 62.8 | - | 71.8 | 655 | 13.2 | 10.2 | - | 16.3 |
| asian | 257 | 67.6 | 59.8 | - | 75.5 | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 2,113 | 62.3 | 59.2 | - | 65.4 | 2,016 | 30.5 | 27.6 | - | 33.4 |
| no disability | 5,737 | 77.4 | 75.9 | - | 78.9 | 5,644 | 8.9 | 7.9 | - | 9.8 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 478 | 51.4 | 45.3 | - | 57.6 | 470 | 34.6 | 28.9 | - | 40.2 |
| high school | 1,824 | 67.5 | 64.6 | - | 70.4 | 1,759 | 19.3 | 17.1 | - | 21.5 |
| college 1–3 yrs | 1,913 | 76.4 | 73.9 | - | 78.9 | 1,857 | 12.3 | 10.6 | - | 14.1 |
| college 4+ yrs | 4,015 | 82.7 | 81.2 | - | 84.2 | 3,937 | 4.7 | 4.0 | - | 5.4 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 966 | 56.7 | 52.1 | - | 61.2 | 945 | 29.0 | 25.1 | - | 32.9 |
| $25,000–34,999 | 541 | 62.1 | 56.3 | - | 67.9 | 526 | 20.8 | 16.1 | - | 25.6 |
| $35,000–49,999 | 820 | 72.3 | 68.0 | - | 76.7 | 784 | 13.7 | 10.7 | - | 16.7 |
| $50,000–74,999 | 954 | 75.4 | 71.5 | - | 79.4 | 931 | 12.3 | 9.3 | - | 15.3 |
| $75,000+ | 2,867 | 84.3 | 82.5 | - | 86.2 | 2,844 | 5.4 | 4.3 | - | 6.5 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

# Section 3: Risk Factors and Preventive Behaviors

## Section 3.1: Tobacco Use

A current smoker was defined as someone who has smoked at least 100 cigarettes in his/her lifetime and who currently smokes either some days or everyday. A former smoker was defined as someone who has smoked at least 100 cigarettes in his/her lifetime but no longer smokes. Presented here are the percentage of adults who reported being current smokers and the percentage of adults who reported being former smokers.

Respondents were asked if they currently use chewing tobacco, snuff, or snus (Swedish for snuff) every day, some days, or not at all. Presented is the percentage of adults who reported using chewing tobacco, snuff or snus either every day or some days.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 3.1.1 – Tobacco Use Among Massachusetts Adults**,** 2016 | | | | | | | | | | |
|  | Current Smoker  N % 95% CI | | | | | Former Smoker  N % 95% CI | | | | |
|  |
|  |
| Overall | 7,961 | 13.6 | 12.6 | - | 14.7 | 7,961 | 26.7 | 25.4 | - | 28.1 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,722 | 15.5 | 13.9 | - | 17.1 | 3,722 | 28.1 | 26.2 | - | 30.1 |
| female | 4,238 | 11.9 | 10.5 | - | 13.3 | 4,238 | 25.5 | 23.7 | - | 27.3 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 525 | 10.6 | 7.3 | - | 13.8 | 525 | 7.6 | 4.4 | - | 10.9 |
| 25–34 | 922 | 16.8 | 13.8 | - | 19.8 | 922 | 12.8 | 10.2 | - | 15.5 |
| 35–44 | 876 | 14.5 | 11.3 | - | 17.7 | 876 | 25.3 | 21.7 | - | 29.0 |
| 45–54 | 1,262 | 16.6 | 14.0 | - | 19.3 | 1,262 | 24.5 | 21.3 | - | 27.8 |
| 55–64 | 1,722 | 16.4 | 14.0 | - | 18.8 | 1,722 | 34.7 | 31.6 | - | 37.7 |
| 65–74 | 1,484 | 9.5 | 7.4 | - | 11.5 | 1,484 | 45.4 | 41.7 | - | 49.0 |
| 75 and older | 991 | 6.1 | 3.4 | - | 8.8 | 991 | 48.5 | 43.6 | - | 53.5 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 6,339 | 14.3 | 13.1 | - | 15.6 | 6,339 | 30.3 | 28.8 | - | 31.8 |
| black | 426 | 11.7 | 8.0 | - | 15.5 | 426 | 15.2 | 9.7 | - | 20.8 |
| hispanic | 645 | 11.9 | 8.7 | - | 15.1 | 645 | 18.2 | 14.5 | - | 21.9 |
| asian | 250 | 6.6 | 2.9 | - | 10.4 | 250 | 9.5 | 4.5 | - | 14.4 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 2,132 | 21.2 | 18.6 | - | 23.8 | 2,132 | 35.0 | 32.0 | - | 38.0 |
| no disability | 5,740 | 11.3 | 10.1 | - | 12.4 | 5,740 | 24.2 | 22.7 | - | 25.6 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 470 | 22.4 | 17.2 | - | 27.6 | 470 | 31.7 | 25.7 | - | 37.6 |
| high school | 1,750 | 20.3 | 17.9 | - | 22.8 | 1,750 | 29.3 | 26.5 | - | 32.1 |
| college 1–3 yrs | 1,820 | 14.9 | 12.8 | - | 17.0 | 1,820 | 28.3 | 25.7 | - | 31.0 |
| college 4+ yrs | 3,877 | 5.7 | 4.9 | - | 6.6 | 3,877 | 22.5 | 21.0 | - | 24.1 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 941 | 22.6 | 18.8 | - | 26.4 | 941 | 26.1 | 21.8 | - | 30.4 |
| $25,000–34,999 | 532 | 16.0 | 11.9 | - | 20.1 | 532 | 29.6 | 24.2 | - | 35.1 |
| $35,000–49,999 | 802 | 14.1 | 10.8 | - | 17.5 | 802 | 30.7 | 26.3 | - | 35.0 |
| $50,000–74,999 | 916 | 16.7 | 13.1 | - | 20.4 | 916 | 29.4 | 25.2 | - | 33.5 |
| $75,000+ | 2,790 | 8.6 | 7.1 | - | 10.1 | 2,790 | 26.0 | 23.9 | - | 28.1 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 3.1.2 - Smokeless Tobacco Use Among Massachusetts Adults, 2016 | | | | | |
|  | Use Smokeless tobacco  N % 95% CI | | | | |
| Overall | 7,995 | 2.0 | 1.5 | - | 2.4 |
| Gender |  |  |  |  |  |
| male | 3,737 | 3.1 | 2.3 | - | 3.9 |
| female | 4,257 | 1.0 | 0.5 | - | 1.4 |
| Age Group |  |  |  |  |  |
| 18–24 | 525 | 4.5 | 2.1 | - | 6.8 |
| 25–34 | 919 | 2.6 | 1.5 | - | 3.7 |
| 35–44 | 879 | 2.5 | 1.3 | - | 3.7 |
| 45–54 | 1,268 | 1.4 | 0.6 | - | 2.1 |
| 55–64 | 1,724 | 1.5 | 0.7 | - | 2.2 |
| 65–74 | † |  |  |  |  |
| 75 and older | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,373 | 1.7 | 1.3 | - | 2.2 |
| black | † |  |  |  |  |
| hispanic | † |  |  |  |  |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 2,142 | 2.6 | 1.5 | - | 3.6 |
| no disability | 5,761 | 1.8 | 1.3 | - | 2.3 |
| Education |  |  |  |  |  |
| < high school | † |  |  |  |  |
| high school | 1,753 | 2.6 | 1.6 | - | 3.5 |
| college 1–3 yrs | 1,832 | 1.6 | 0.7 | - | 2.4 |
| college 4+ yrs | 3,898 | 1.7 | 1.1 | - | 2.3 |
| Household Income |  |  |  |  |  |
| <$25,000 | 945 | 2.4 | 1.0 | - | 3.7 |
| $25,000–34,999 | † |  |  |  |  |
| $35,000–49,999 | † |  |  |  |  |
| $50,000–74,999 | † |  |  |  |  |
| $75,000+ | 2,798 | 1.7 | 0.9 | - | 2.4 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

Respondents were asked if they ever tried electronic cigarettes, and if so, if they currently use electronic cigarettes every day, some days, or not at all. Presented is the percentage of adults who reported using electronic cigarettes either every day or some days.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 3.1.3 – Electronic Cigarette Use Among Massachusetts Adults, 2016 | | | | | |
|  | Use E-Cigarettes  N % 95% CI | | | | |
| Overall | 7,987 | 4.3 | 3.6 | - | 5.1 |
| Gender |  |  |  |  |  |
| male | 3,739 | 5.8 | 4.6 | - | 7.0 |
| female | 4,247 | 2.9 | 2.1 | - | 3.7 |
| Age Group |  |  |  |  |  |
| 18–24 | 524 | 10.1 | 6.3 | - | 13.8 |
| 25–34 | 920 | 6.8 | 4.9 | - | 8.7 |
| 35–44 | 879 | 4.3 | 2.6 | - | 6.1 |
| 45–54 | 1,266 | 3.6 | 2.3 | - | 4.9 |
| 55–64 | 1,722 | 2.9 | 1.8 | - | 3.9 |
| 65–74 | † |  |  |  |  |
| 75 and older | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,360 | 4.3 | 3.5 | - | 5.1 |
| black | † |  |  |  |  |
| hispanic | 645 | 3.9 | 2.0 | - | 5.8 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 2,139 | 7.5 | 5.6 | - | 9.5 |
| no disability | 5,757 | 3.4 | 2.7 | - | 4.1 |
| Education |  |  |  |  |  |
| < high school | 466 | 8.6 | 4.5 | - | 12.7 |
| high school | 1,755 | 5.8 | 4.3 | - | 7.4 |
| college 1–3 yrs | 1,831 | 4.9 | 3.5 | - | 6.2 |
| college 4+ yrs | 3,889 | 1.7 | 1.2 | - | 2.2 |
| Household Income |  |  |  |  |  |
| <$25,000 | 943 | 6.5 | 3.9 | - | 9.1 |
| $25,000–34,999 | 534 | 7.6 | 3.7 | - | 11.5 |
| $35,000–49,999 | 803 | 3.5 | 2.0 | - | 5.1 |
| $50,000–74,999 | 921 | 4.9 | 2.8 | - | 7.0 |
| $75,000+ | 2,794 | 2.7 | 1.8 | - | 3.6 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 3.2: Smoking Cessation

Respondents who were current smokers were asked if they had stopped smoking for one day or longer in the past 12 months because they were trying to quit smoking. They were also asked if they had any intention of trying to quit smoking within the next 30 days. Presented here is the percentage of adult current smokers who reported that they had attempted to quit smoking for one day or longer in the past 12 months and the percentage of adult current smokers who reported that they had plans to quit smoking within the next 30 days.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 3.2 – Smoking Cessation among Massachusetts Adults, 2016 | | | | | |
|  | Quit Attempt  N % 95% CI | | | | |
| Overall | 1,040 | 59.9 | 55.6 | - | 64.1 |
| Gender |  |  |  |  |  |
| male | 544 | 58.1 | 52.3 | - | 63.9 |
| female | 496 | 61.9 | 55.9 | - | 67.9 |
| Age Group |  |  |  |  |  |
| 18–24 | 57 | 74.4 | 60.0 | - | 88.7 |
| 25–34 | 150 | 64.9 | 55.1 | - | 74.6 |
| 35–44 | 122 | 55.7 | 43.4 | - | 67.9 |
| 45–54 | 212 | 59.4 | 50.8 | - | 68.0 |
| 55–64 | 282 | 55.8 | 47.7 | - | 63.9 |
| 65–74 | 159 | 52.2 | 40.7 | - | 63.6 |
| 75 and older | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |
| white | 832 | 59.9 | 55.2 | - | 64.6 |
| black | 67 | 63.8 | 47.9 | - | 79.6 |
| hispanic | 77 | 51.8 | 37.2 | - | 66.4 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 414 | 60.4 | 53.5 | - | 67.3 |
| no disability | 614 | 59.1 | 53.7 | - | 64.5 |
| Education |  |  |  |  |  |
| < high school | 101 | 53.3 | 39.9 | - | 66.6 |
| high school | 363 | 58.2 | 51.7 | - | 64.7 |
| college 1–3 yrs | 312 | 65.7 | 58.4 | - | 73.1 |
| college 4+ yrs | 262 | 59.7 | 51.8 | - | 67.5 |
| Household Income |  |  |  |  |  |
| <$25,000 | 217 | 64.9 | 56.1 | - | 73.7 |
| $25,000–34,999 | 82 | 71.0 | 59.1 | - | 82.9 |
| $35,000–49,999 | 109 | 54.4 | 41.4 | - | 67.4 |
| $50,000–74,999 | 134 | 52.5 | 40.4 | - | 64.6 |
| $75,000+ | 217 | 55.9 | 46.3 | - | 65.4 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 3.3: Environmental Tobacco Smoke

Respondents were asked about rules regarding smoking in their households; whether smoking was permitted anywhere, smoking was allowed in some places or at some times, or smoking was not allowed anywhere. Presented here is the percentage of adults reporting that no smoking was permitted anywhere in their household.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 3.3 – Environmental Tobacco Among Massachusetts Adults**,** 2016 | | | | | |
|  | No Smoking Allowed in Household  N % 95% CI | | | | |
| Overall | 2,857 | 81.3 | 79.3 | - | 83.4 |
| Gender |  |  |  |  |  |
| male | 1,295 | 79.2 | 76.1 | - | 82.2 |
| female | 1,562 | 83.3 | 80.6 | - | 86.0 |
| Age Group |  |  |  |  |  |
| 18–24 | 151 | 74.7 | 66.4 | - | 83.0 |
| 25–34 | 278 | 77.1 | 71.2 | - | 83.0 |
| 35–44 | 313 | 89.9 | 86.0 | - | 93.9 |
| 45–54 | 478 | 83.1 | 78.9 | - | 87.2 |
| 55–64 | 634 | 81.2 | 77.2 | - | 85.3 |
| 65–74 | 568 | 81.3 | 76.7 | - | 85.8 |
| 75 and older | 380 | 82.4 | 75.7 | - | 89.2 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 2,295 | 80.9 | 78.6 | - | 83.3 |
| black | 157 | 74.5 | 64.3 | - | 84.6 |
| hispanic | 222 | 86.0 | 80.0 | - | 92.1 |
| asian | 82 | 89.8 | 83.3 | - | 96.4 |
| Disability¶ |  |  |  |  |  |
| disability | 821 | 76.7 | 72.4 | - | 81.0 |
| no disability | 2,003 | 83.2 | 80.9 | - | 85.4 |
| Education |  |  |  |  |  |
| < high school | 170 | 72.8 | 63.6 | - | 82.0 |
| high school | 649 | 74.8 | 70.2 | - | 79.5 |
| college 1–3 yrs | 644 | 78.3 | 74.0 | - | 82.6 |
| college 4+ yrs | 1,384 | 89.8 | 87.9 | - | 91.7 |
| Household Income |  |  |  |  |  |
| <$25,000 | 345 | 71.5 | 64.5 | - | 78.5 |
| $25,000–34,999 | 211 | 70.5 | 61.4 | - | 79.6 |
| $35,000–49,999 | 278 | 82.8 | 77.1 | - | 88.5 |
| $50,000–74,999 | 351 | 86.1 | 81.5 | - | 90.7 |
| $75,000+ | 1,004 | 89.9 | 87.5 | - | 92.4 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

## Section 3.4: Alcohol Use

All respondents were asked about their consumption of alcohol in the past month. A drink of alcohol was defined as a twelve ounce can or bottle of beer, one five ounce glass of wine, or one drink with one shot of liquor. Binge drinking was defined as consumption of five or more drinks for men or four or more drinks for women, on any one occasion in the past month. Heavy drinking was defined as consumption of more than 60 drinks in the past month for men and consumption of more than 30 drinks in the past month for women. Presented here are the percentage of adults who reported binge drinking and the percentage of adults who reported heavy drinking.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 3.4 – Alcohol Use Among Massachusetts Adults**,** 2016 | | | | | | | | | | |
|  | Binge Drinking  N % 95% CI | | | | | Heavy Drinking  N % 95% CI | | | | |
|  |
|  |
| Overall | 7,760 | 17.8 | 16.6 | - | 19.0 | 7,732 | 7.5 | 6.7 | - | 8.3 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,609 | 22.3 | 20.5 | - | 24.2 | 3,590 | 8.0 | 6.7 | - | 9.2 |
| female | 4,150 | 13.8 | 12.2 | - | 15.3 | 4,141 | 7.1 | 6.0 | - | 8.2 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 509 | 30.5 | 25.6 | - | 35.3 | 502 | 10.0 | 6.7 | - | 13.2 |
| 25–34 | 887 | 29.3 | 25.7 | - | 32.8 | 883 | 8.8 | 6.5 | - | 11.2 |
| 35–44 | 859 | 23.1 | 19.6 | - | 26.7 | 862 | 7.5 | 5.3 | - | 9.7 |
| 45–54 | 1,232 | 15.9 | 13.3 | - | 18.6 | 1,227 | 7.6 | 5.8 | - | 9.5 |
| 55–64 | 1,670 | 10.3 | 8.4 | - | 12.3 | 1,667 | 7.0 | 5.4 | - | 8.6 |
| 65–74 | 1,465 | 6.2 | 4.4 | - | 8.1 | 1,456 | 6.8 | 4.8 | - | 8.8 |
| 75 and older | 969 | 3.8 | 2.1 | - | 5.4 | 966 | 4.2 | 2.3 | - | 6.0 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 6,200 | 19.0 | 17.7 | - | 20.4 | 6,180 | 8.3 | 7.4 | - | 9.3 |
| black | 411 | 14.0 | 9.5 | - | 18.5 | † |  |  |  |  |
| hispanic | 619 | 14.8 | 11.3 | - | 18.3 | 617 | 5.9 | 3.5 | - | 8.2 |
| asian | 239 | 14.3 | 8.8 | - | 19.8 | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 2,079 | 14.6 | 12.2 | - | 16.9 | 2,070 | 8.2 | 6.3 | - | 10.1 |
| no disability | 5,597 | 18.9 | 17.5 | - | 20.3 | 5,577 | 7.4 | 6.5 | - | 8.3 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 442 | 12.6 | 8.1 | - | 17.1 | 439 | 7.0 | 3.6 | - | 10.5 |
| high school | 1,695 | 16.7 | 14.2 | - | 19.3 | 1,697 | 7.3 | 5.6 | - | 8.9 |
| college 1–3 yrs | 1,777 | 20.0 | 17.4 | - | 22.5 | 1,766 | 8.4 | 6.6 | - | 10.3 |
| college 4+ yrs | 3,808 | 18.6 | 17.0 | - | 20.2 | 3,791 | 7.3 | 6.2 | - | 8.3 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 915 | 13.1 | 9.8 | - | 16.5 | 914 | 4.7 | 2.9 | - | 6.6 |
| $25,000–34,999 | 523 | 10.9 | 7.4 | - | 14.4 | 515 | 4.4 | 2.4 | - | 6.5 |
| $35,000–49,999 | 781 | 18.9 | 15.4 | - | 22.5 | 778 | 11.0 | 8.0 | - | 13.9 |
| $50,000–74,999 | 901 | 21.5 | 17.4 | - | 25.6 | 902 | 8.8 | 6.0 | - | 11.6 |
| $75,000+ | 2,747 | 21.3 | 19.3 | - | 23.4 | 2,737 | 8.8 | 7.4 | - | 10.3 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 3.5: Overweight and Obesity Status

All respondents were asked to report their height and weight. Respondents’ overweight status and obesity status were categorized based on their Body Mass Index (BMI), which equals weight in kilograms divided by height in meters squared. All adults with a BMI between 25.0 and 29.9 were classified as being overweight and adults with a BMI greater than or equal to 30.0 were classified as being obese. Presented here are the percentages of adults who were defined as overweight and obese. Please note that the overweight category includes all adults with a BMI of greater than 25.0, including those who are obese.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 3.5 – Overweight and Obese Among Massachusetts Adults**,** 2016 | | | | | | | | | | |
|  | Overweight (BMI ≥ 25.0)  N % 95% CI | | | | | Obese (BMI ≥ 30.0)  N % 95% CI | | | | |
|  |
|  |
| Overall | 7,480 | 60.2 | 58.7 | - | 61.8 | 7,480 | 23.6 | 22.2 | - | 24.9 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,704 | 68.5 | 66.4 | - | 70.5 | 3,704 | 25.9 | 24.0 | - | 27.9 |
| female | 3,775 | 51.8 | 49.5 | - | 54.1 | 3,775 | 21.1 | 19.3 | - | 22.9 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 499 | 40.5 | 35.0 | - | 46.1 | 499 | 14.5 | 10.1 | - | 18.8 |
| 25–34 | 839 | 49.6 | 45.4 | - | 53.7 | 839 | 19.4 | 16.3 | - | 22.6 |
| 35–44 | 843 | 64.5 | 60.4 | - | 68.6 | 843 | 24.1 | 20.4 | - | 27.7 |
| 45–54 | 1,203 | 67.7 | 64.3 | - | 71.2 | 1,203 | 27.4 | 24.2 | - | 30.7 |
| 55–64 | 1,602 | 69.0 | 66.0 | - | 72.0 | 1,602 | 28.6 | 25.5 | - | 31.7 |
| 65–74 | 1,422 | 68.4 | 65.0 | - | 71.9 | 1,422 | 30.7 | 27.2 | - | 34.1 |
| 75 and older | 979 | 60.2 | 55.4 | - | 65.0 | 979 | 17.7 | 14.0 | - | 21.4 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 6,002 | 60.0 | 58.2 | - | 61.7 | 6,002 | 22.7 | 21.3 | - | 24.1 |
| black | 397 | 66.6 | 59.9 | - | 73.4 | 397 | 35.6 | 28.7 | - | 42.5 |
| hispanic | 594 | 66.1 | 61.2 | - | 70.9 | 594 | 28.9 | 24.4 | - | 33.4 |
| asian | 232 | 41.9 | 33.4 | - | 50.5 | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 2,003 | 69.3 | 66.3 | - | 72.3 | 2,003 | 34.3 | 31.2 | - | 37.4 |
| no disability | 5,232 | 57.2 | 55.4 | - | 59.1 | 5,232 | 20.7 | 19.2 | - | 22.2 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 448 | 67.4 | 61.2 | - | 73.5 | 448 | 32.5 | 26.6 | - | 38.4 |
| high school | 1,668 | 63.8 | 60.6 | - | 67.0 | 1,668 | 27.7 | 24.9 | - | 30.6 |
| college 1–3 yrs | 1,705 | 60.8 | 57.6 | - | 63.9 | 1,705 | 23.7 | 21.1 | - | 26.3 |
| college 4+ yrs | 3,629 | 55.6 | 53.5 | - | 57.6 | 3,629 | 18.0 | 16.4 | - | 19.5 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 923 | 62.5 | 57.9 | - | 67.1 | 923 | 31.2 | 26.9 | - | 35.6 |
| $25,000–34,999 | 508 | 58.9 | 52.6 | - | 65.3 | 508 | 26.3 | 21.1 | - | 31.6 |
| $35,000–49,999 | 754 | 63.0 | 58.5 | - | 67.5 | 754 | 27.7 | 23.4 | - | 32.1 |
| $50,000–74,999 | 888 | 63.3 | 58.8 | - | 67.9 | 888 | 25.7 | 21.7 | - | 29.8 |
| $75,000+ | 2,710 | 60.8 | 58.3 | - | 63.3 | 2,710 | 20.1 | 18.1 | - | 22.1 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 3.6: Physical Activity

In 2016, all respondents were asked if during the past month, other than their regular job, they participated in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise. Presented here is the percentage of adults who participated in any leisure time physical activity in the last 30 days.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 3.6 - Any Leisure Time Physical Activity among Massachusetts Adults, 2016 | | | | | |
|  | Physical Activity in the past month  N % 95% CI | | | | |
| Overall | 8,393 | 80.0 | 78.8 | - | 81.3 |
| Gender |  |  |  |  |  |
| male | 3,936 | 81.5 | 79.8 | - | 83.2 |
| female | 4,456 | 78.7 | 76.9 | - | 80.5 |
| Age Group |  |  |  |  |  |
| 18–24 | 562 | 86.3 | 82.5 | - | 90.0 |
| 25–34 | 972 | 82.6 | 79.4 | - | 85.9 |
| 35–44 | 932 | 83.0 | 79.9 | - | 86.1 |
| 45–54 | 1,325 | 82.1 | 79.0 | - | 85.1 |
| 55–64 | 1,802 | 77.3 | 74.6 | - | 80.0 |
| 65–74 | 1,547 | 74.4 | 71.2 | - | 77.6 |
| 75 and older | 1,051 | 68.4 | 63.7 | - | 73.1 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,665 | 82.4 | 81.1 | - | 83.6 |
| black | 464 | 77.3 | 71.7 | - | 83.0 |
| hispanic | 678 | 68.8 | 64.3 | - | 73.3 |
| asian | 264 | 76.6 | 68.8 | - | 84.5 |
| Disability¶ |  |  |  |  |  |
| disability | 2,153 | 65.1 | 62.1 |  | 68.1 |
| no disability | 5,799 | 84.8 | 83.4 |  | 86.1 |
| Education |  |  |  |  |  |
| < high school | 497 | 62.4 | 56.5 | - | 68.3 |
| high school | 1,867 | 72.4 | 69.7 | - | 75.0 |
| college 1–3 yrs | 1,940 | 80.6 | 78.3 | - | 83.0 |
| college 4+ yrs | 4,038 | 90.4 | 89.2 | - | 91.6 |
| Household Income |  |  |  |  |  |
| <$25,000 | 997 | 69.4 | 65.2 | - | 73.5 |
| $25,000–34,999 | 555 | 70.1 | 64.4 | - | 75.8 |
| $35,000–49,999 | 829 | 78.3 | 74.4 | - | 82.1 |
| $50,000–74,999 | 956 | 84.0 | 80.9 | - | 87.0 |
| $75,000+ | 2,878 | 89.4 | 87.8 | - | 91.1 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

# Section 4: Immunization

## Section 4.1: Flu Vaccine and Pneumonia Vaccine

All respondents were asked if they had received an influenza vaccine (flu shot) or nasal flu spray (flu mist) within the past 12 months. In addition, all respondents were asked if they had ever received a pneumonia vaccine. Presented here are the percentages of adults ages 18-49 years, 50-64 years and ages 65 and older who received a flu vaccine or spray in the past year, and the percentage of adults, ages 65 and older, who reported that they had ever had a pneumonia vaccination.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 4.1.1 – Flu Vaccine Among Massachusetts Adults, Ages 18-64, 2016** | | | | | | | | | | |
| N % 95% CI | Flu vaccine in past year, Ages 18-49  N % 95% CI | | | | | Flu vaccine in past year, Ages 50-64  N % 95% CI | | | | |
|  |
|  |
| Overall | 2,834 | 34.6 | 32.4 | - | 36.8 | 2,354 | 45.1 | 42.3 | - | 47.9 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 1,440 | 28.1 | 25.3 | - | 30.9 | 1,107 | 42.6 | 38.7 | - | 46.5 |
| female | 1,393 | 40.9 | 37.6 | - | 44.3 | 1,247 | 47.5 | 43.5 | - | 51.5 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 508 | 30.7 | 25.7 | - | 35.8 |  |  |  |  |  |
| 25–34 | 899 | 35.6 | 31.8 | - | 39.4 |  |  |  |  |  |
| 35–44 | 860 | 35.3 | 31.3 | - | 39.4 |  |  |  |  |  |
| 45–49 | 567 | 37.6 | 32.7 | - | 42.6 |  |  |  |  |  |
| 50–64 |  |  |  |  |  | 2,354 | 45.1 | 42.3 | - | 47.9 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 1,982 | 36.3 | 33.6 | - | 39.0 | 1,959 | 44.1 | 41.2 | - | 47.0 |
| black | 185 | 34.6 | 25.6 | - | 43.6 | 113 | 46.0 | 31.1 | - | 61.0 |
| hispanic | 369 | 30.6 | 24.9 | - | 36.2 | 172 | 46.0 | 36.4 | - | 55.6 |
| asian | 187 | 32.2 | 24.1 | - | 40.2 | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 489 | 36.3 | 30.5 | - | 42.1 | 622 | 45.7 | 40.2 | - | 51.2 |
| no disability | 2,322 | 34.4 | 32.0 | - | 36.9 | 1,709 | 45.0 | 41.7 | - | 48.2 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 136 | 36.6 | 26.7 | - | 46.5 | 124 | 50.1 | 37.7 | - | 62.4 |
| high school | 539 | 25.8 | 21.3 | - | 30.3 | 529 | 35.6 | 30.1 | - | 41.0 |
| college 1–3 yrs | 657 | 30.6 | 26.3 | - | 34.9 | 545 | 44.3 | 38.5 | - | 50.1 |
| college 4+ yrs | 1,486 | 42.5 | 39.5 | - | 45.6 | 1,151 | 51.0 | 47.5 | - | 54.5 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 311 | 29.6 | 23.0 | - | 36.1 | 280 | 44.5 | 35.7 | - | 53.3 |
| $25,000–34,999 | 166 | 33.7 | 24.5 | - | 42.9 | 133 | 46.8 | 33.2 | - | 60.3 |
| $35,000–49,999 | 280 | 34.5 | 27.8 | - | 41.2 | 186 | 41.6 | 31.6 | - | 51.7 |
| $50,000–74,999 | 331 | 31.2 | 24.5 | - | 37.8 | 285 | 41.8 | 33.6 | - | 50.0 |
| $75,000+ | 1,184 | 39.8 | 36.3 | - | 43.3 | 991 | 48.1 | 44.0 | - | 52.2 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 4.1.2 – Flu Vaccine Among Massachusetts Adults, Ages 65 Years and Older, 2016** | | | | | |
|  | Flu vaccine in past year, Ages 65+  N % 95% CI | | | | |
| Overall | 2,458 | 57.1 | 54.1 | - | 60.0 |
| Gender |  |  |  |  |  |
| male | 1,030 | 55.2 | 50.7 | - | 59.7 |
| female | 1,428 | 58.5 | 54.6 | - | 62.4 |
| Age Group |  |  |  |  |  |
| 65–74 | 1,475 | 55.2 | 51.6 | - | 58.9 |
| 75 and older | 983 | 59.5 | 54.7 | - | 64.3 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 2,175 | 58.0 | 54.9 | - | 61.1 |
| black | 107 | 43.3 | 27.0 | - | 59.5 |
| hispanic | 82 | 62.9 | 46.9 | - | 78.9 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 955 | 56.5 | 51.5 | - | 61.5 |
| no disability | 1,467 | 57.9 | 54.3 | - | 61.6 |
| Education |  |  |  |  |  |
| < high school | 182 | 63.5 | 53.1 | - | 73.8 |
| high school | 618 | 50.7 | 45.0 | - | 56.5 |
| college 1–3 yrs | 562 | 56.2 | 50.4 | - | 62.0 |
| college 4+ yrs | 1,087 | 61.3 | 57.6 | - | 65.0 |
| Household Income |  |  |  |  |  |
| <$25,000 | 316 | 60.0 | 51.4 | - | 68.6 |
| $25,000–34,999 | 222 | 46.2 | 36.0 | - | 56.3 |
| $35,000–49,999 | 314 | 54.0 | 45.7 | - | 62.2 |
| $50,000–74,999 | 282 | 59.4 | 50.8 | - | 68.1 |
| $75,000+ | 537 | 61.4 | 55.9 | - | 66.8 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 4.1.3 – Pneumonia Vaccine Among Massachusetts Adults, Ages 65 Years and Older, 2016** | | | | | |
|  | Ever had Pneumonia Vaccine  N % 95% CI | | | | |
|
| Overall | 2,357 | 76.4 | 73.8 | - | 79.1 |
| Gender |  |  |  |  |  |
| male | 971 | 73.6 | 69.4 | - | 77.8 |
| female | 1,386 | 78.6 | 75.1 | - | 82.0 |
| Age Group |  |  |  |  |  |
| 65–74 | 1,408 | 71.4 | 67.9 | - | 74.9 |
| 75 and older | 949 | 83.1 | 79.0 | - | 87.2 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 2,094 | 78.6 | 76.0 | - | 81.3 |
| black | 101 | 61.2 | 44.3 | - | 78.1 |
| hispanic | 74 | 57.8 | 40.3 | - | 75.4 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 919 | 77.0 | 72.4 | - | 81.5 |
| no disability | 1,404 | 76.0 | 72.7 | - | 79.3 |
| Education |  |  |  |  |  |
| < high school | 174 | 65.0 | 54.5 | - | 75.6 |
| high school | 596 | 79.0 | 74.1 | - | 84.0 |
| college 1–3 yrs | 537 | 79.6 | 74.8 | - | 84.4 |
| college 4+ yrs | 1,042 | 77.5 | 74.2 | - | 80.7 |
| Household Income |  |  |  |  |  |
| <$25,000 | 306 | 69.9 | 61.8 | - | 78.0 |
| $25,000–34,999 | 216 | 84.0 | 76.9 | - | 91.2 |
| $35,000–49,999 | 305 | 82.9 | 76.0 | - | 89.7 |
| $50,000–74,999 | 272 | 73.8 | 65.0 | - | 82.7 |
| $75,000+ | 510 | 77.4 | 72.8 | - | 81.9 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | |

## Section 4.2: Human Papilloma Virus (HPV) Vaccination

All respondents between the ages of 18-49 were asked if they had ever received the HPV vaccine; if they responded yes, they were then asked how many HPV shots they had received. Presented are the percentage of females aged 18-34 who had ever received the HPV vaccine and the percentage of those who had completed the series of three shots. Percentages for males are not presented due to insufficient data.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 4.2 – HPV Vaccine Among Massachusetts Females, Ages 18-34 Years,** 2016 | | | | | | | | | | |
|  | Ever had HPV Vaccine  N % 95% CI | | | | | Completed Series \*\*    N % 95% CI | | | | |
|  |
|  |
| Overall | 221 | 54.4 | 46.6 | - | 62.3 | 109 | 84.0 | 77.0 | - | 91.0 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 77 | 60.4 | 48.0 | - | 72.9 | † |  |  |  |  |
| 25–34 | 144 | 49.5 | 39.8 | - | 59.1 | 64 | 85.4 | 76.7 | - | 94.1 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 139 | 63.8 | 54.5 | - | 73.2 | 80 | 86.2 | 78.6 | - | 93.8 |
| black | † |  |  |  |  | † |  |  |  |  |
| hispanic | † |  |  |  |  | † |  |  |  |  |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | † |  |  |  |  | † |  |  |  |  |
| no disability | 173 | 57.1 | 48.3 | - | 65.8 | 88 | 83.1 | 75.2 | - | 91.0 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | † |  |  |  |  | † |  |  |  |  |
| high school | † |  |  |  |  | † |  |  |  |  |
| college 1–3 yrs | 77 | 51.6 | 39.0 | - | 64.2 | † |  |  |  |  |
| college 4+ yrs | 104 | 68.4 | 58.6 | - | 78.2 | 61 | 87.0 | 78.6 | - | 95.4 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | † |  |  |  |  | † |  |  |  |  |
| $25,000–34,999 | † |  |  |  |  | † |  |  |  |  |
| $35,000–49,999 | † |  |  |  |  | † |  |  |  |  |
| $50,000–74,999 | † |  |  |  |  | † |  |  |  |  |
| $75,000+ | 63 | 79.3 | 68.9 | - | 89.7 | † |  |  |  |  |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  \*\* Analysis conducted among those who reported ever having had vaccine  † Insufficient data | | | | | | | | | | |

## Section 4.3: Hepatitis B Virus (HBV) Vaccination

All respondents were asked if they had ever received the Hepatitis B vaccine. They were told to respond yes only if they had received the entire series of 3 shots. Presented below is the percentage of adults who reported that they had ever received the Hepatitis B vaccine.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 4.3 – Hepatitis B Vaccine Among Massachusetts Adults**, 2016 | | | | | |
|  | Received 3 shots HBV Vaccine  N % 95% CI | | | | |
| Overall | 2,457 | 36.8 | 34.1 | - | 39.5 |
| Gender |  |  |  |  |  |
| male | 1,115 | 30.6 | 26.9 | - | 34.3 |
| female | 1,342 | 42.4 | 38.6 | - | 46.2 |
| Age Group |  |  |  |  |  |
| 18–24 | 113 | 54.9 | 44.2 | - | 65.5 |
| 25–34 | 210 | 54.2 | 46.2 | - | 62.3 |
| 35–44 | 262 | 48.8 | 41.0 | - | 56.6 |
| 45–54 | 412 | 34.9 | 29.2 | - | 40.7 |
| 55–64 | 567 | 28.8 | 24.1 | - | 33.6 |
| 65–74 | 510 | 22.7 | 17.6 | - | 27.9 |
| 75 and older | 337 | 6.4 | 3.2 | - | 9.7 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 1,986 | 34.7 | 31.8 | - | 37.6 |
| black | 130 | 42.6 | 30.4 | - | 54.8 |
| hispanic | 183 | 41.4 | 32.0 | - | 50.7 |
| asian | 62 | 55.8 | 40.6 | - | 70.9 |
| Disability¶ |  |  |  |  |  |
| disability | 720 | 28.3 | 23.1 |  | 33.5 |
| no disability | 1,709 | 40.0 | 36.8 |  | 43.1 |
| Education |  |  |  |  |  |
| < high school | 145 | 23.5 | 12.9 | - | 34.1 |
| high school | 558 | 28.9 | 23.5 | - | 34.3 |
| college 1–3 yrs | 574 | 38.7 | 33.0 | - | 44.3 |
| college 4+ yrs | 1,170 | 44.2 | 40.6 | - | 47.8 |
| Household Income |  |  |  |  |  |
| <$25,000 | 309 | 30.4 | 22.7 | - | 38.1 |
| $25,000–34,999 | 184 | 34.7 | 24.6 | - | 44.7 |
| $35,000–49,999 | 235 | 38.3 | 29.9 | - | 46.6 |
| $50,000–74,999 | 307 | 38.2 | 30.1 | - | 46.3 |
| $75,000+ | 851 | 42.1 | 37.8 | - | 46.4 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

## Section 4.4: Herpes Zoster (Shingles) Vaccination

All respondents ages 50 and older were asked if they had ever received the shingles vaccine. Presented here is the percentage of adults ages 60 or older who had ever received the shingles vaccine.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 4.4 – Shingles Vaccine Among Massachusetts Adults, Age 60+**, 2016 | | | | | |
|  | Ever Had Shingles Vaccine  N % 95% CI | | | | |
| Overall | 1,452 | 43.8 | 40.3 | - | 47.4 |
| Gender |  |  |  |  |  |
| male | 595 | 44.6 | 39.3 | - | 49.9 |
| female | 857 | 43.3 | 38.5 | - | 48.0 |
| Age Group |  |  |  |  |  |
| 60-69 | 735 | 40.0 | 35.3 | - | 44.7 |
| 70-79 | 440 | 51.9 | 45.0 | - | 58.8 |
| 80 and older | 277 | 42.9 | 34.5 | - | 51.3 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 1,288 | 46.5 | 42.7 | - | 50.2 |
| black | † |  |  |  |  |
| hispanic | 66 | 25.4 | 10.6 | - | 40.3 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 548 | 39.6 | 33.8 | - | 45.5 |
| no disability | 881 | 46.9 | 42.5 | - | 51.4 |
| Education |  |  |  |  |  |
| < high school | 93 | 18.4 | 7.6 | - | 29.1 |
| high school | 345 | 42.4 | 35.1 | - | 49.7 |
| college 1–3 yrs | 348 | 41.3 | 34.2 | - | 48.5 |
| college 4+ yrs | 663 | 54.0 | 49.2 | - | 58.8 |
| Household Income |  |  |  |  |  |
| <$25,000 | 190 | 21.9 | 13.8 | - | 30.0 |
| $25,000–34,999 | 114 | 51.3 | 36.8 | - | 65.8 |
| $35,000–49,999 | 169 | 44.5 | 34.4 | - | 54.5 |
| $50,000–74,999 | 199 | 43.1 | 33.7 | - | 52.5 |
| $75,000+ | 380 | 54.3 | 47.8 | - | 60.9 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

# Section 5: Chronic Health Conditions

## Section 5.1: Diabetes

All respondents were asked if a doctor had ever told them that they had diabetes or pre-diabetes Women who reported that they had diabetes only during pregnancy (gestational diabetes) were categorized as not having diabetes. Presented here is the percentage of adults who reported that a doctor had ever told them that they had diabetes and the percentage of adults who reported that a doctor had ever told them that they had pre-diabetes.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 5.1 – Diabetes Among Massachusetts Adults**,** 2016 | | | | | | | | | | |
|  | Pre-Diabetes  N % 95% CI | | | | | Diabetes  N % 95% CI | | | | |
|  |
|  |
| Overall | 3,280 | 8.4 | 7.1 | - | 9.6 | 8,395 | 9.3 | 8.4 | - | 10.1 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 1,472 | 8.0 | 6.4 | - | 9.6 | 3,941 | 9.7 | 8.5 | - | 10.9 |
| female | 1,808 | 8.7 | 6.8 | - | 10.6 | 4,453 | 8.8 | 7.6 | - | 9.9 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | † |  |  |  |  | † |  |  |  |  |
| 25–34 | 354 | 4.2 | 1.8 | - | 6.5 | † |  |  |  |  |
| 35–44 | † |  |  |  |  | 935 | 3.8 | 2.3 | - | 5.4 |
| 45–54 | 548 | 8.5 | 5.4 | - | 11.7 | 1,325 | 8.0 | 5.9 | - | 10.1 |
| 55–64 | 713 | 13.8 | 10.3 | - | 17.2 | 1,803 | 14.6 | 12.5 | - | 16.8 |
| 65–74 | 573 | 12.7 | 8.9 | - | 16.4 | 1,546 | 21.9 | 18.8 | - | 25.0 |
| 75 and older | 417 | 11.0 | 7.2 | - | 14.9 | 1,056 | 20.2 | 16.3 | - | 24.2 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 2,655 | 6.9 | 5.7 | - | 8.1 | 6,668 | 8.8 | 8.0 | - | 9.7 |
| black | † |  |  |  |  | 465 | 14.0 | 9.2 | - | 18.8 |
| hispanic | 236 | 12.4 | 7.7 | - | 17.2 | 677 | 9.8 | 7.2 | - | 12.3 |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 793 | 14.9 | 11.0 | - | 18.7 | 2,158 | 18.8 | 16.4 | - | 21.1 |
| no disability | 2,320 | 6.6 | 5.3 | - | 7.8 | 5,797 | 6.3 | 5.5 | - | 7.1 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 171 | 11.8 | 5.2 | - | 18.4 | 496 | 18.2 | 13.8 | - | 22.5 |
| high school | 738 | 9.1 | 6.6 | - | 11.7 | 1,865 | 10.7 | 9.0 | - | 12.4 |
| college 1–3 yrs | 745 | 10.5 | 7.7 | - | 13.3 | 1,946 | 9.0 | 7.4 | - | 10.5 |
| college 4+ yrs | 1,608 | 5.7 | 4.4 | - | 6.9 | 4,039 | 6.0 | 5.1 | - | 6.8 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 360 | 13.7 | 9.0 | - | 18.5 | 994 | 15.2 | 12.3 | - | 18.2 |
| $25,000–34,999 | 221 | 6.0 | 2.8 | - | 9.1 | 554 | 10.2 | 7.1 | - | 13.2 |
| $35,000–49,999 | 303 | 10.6 | 6.1 | - | 15.1 | 830 | 12.6 | 9.2 | - | 16.0 |
| $50,000–74,999 | 388 | 6.9 | 3.5 | - | 10.2 | 956 | 9.9 | 7.4 | - | 12.5 |
| $75,000+ | 1,171 | 6.4 | 4.5 | - | 8.2 | 2,881 | 5.5 | 4.4 | - | 6.6 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 5.2: Asthma

All respondents were asked if a doctor, nurse, or other health care professional had ever told them that they had asthma. Those who reported ever having asthma were then asked if they currently have asthma. Reported here are the percentages of adults who have ever had asthma and those who currently have asthma.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 5.2 – Asthma Among Massachusetts Adults,** 2016 | | | | | | | | | | |
|  | Ever Had Asthma  N % 95% CI | | | | | Currently Have Asthma  N % 95% CI | | | | |
|  |
|  |
| Overall | 8,385 | 15.3 | 14.2 | - | 16.4 | 8,356 | 10.3 | 9.4 | - | 11.2 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,932 | 11.8 | 10.5 | - | 13.2 | 3,921 | 6.3 | 5.3 | - | 7.3 |
| female | 4,452 | 18.4 | 16.8 | - | 20.1 | 4,434 | 13.9 | 12.5 | - | 15.4 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 561 | 19.1 | 15.1 | - | 23.0 | 558 | 11.8 | 8.6 | - | 15.0 |
| 25–34 | 970 | 15.8 | 13.1 | - | 18.4 | 967 | 9.5 | 7.3 | - | 11.6 |
| 35–44 | 932 | 16.3 | 13.3 | - | 19.4 | 931 | 10.2 | 7.8 | - | 12.6 |
| 45–54 | 1,327 | 15.7 | 12.9 | - | 18.5 | 1,324 | 11.3 | 8.8 | - | 13.8 |
| 55–64 | 1,796 | 14.1 | 11.9 | - | 16.2 | 1,784 | 10.2 | 8.3 | - | 12.1 |
| 65–74 | 1,546 | 13.0 | 10.5 | - | 15.4 | 1,542 | 10.0 | 7.9 | - | 12.1 |
| 75 and older | 1,054 | 12.2 | 8.8 | - | 15.6 | 1,052 | 9.5 | 6.3 | - | 12.8 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 6,655 | 14.8 | 13.6 | - | 15.9 | 6,630 | 10.0 | 9.0 | - | 10.9 |
| black | 466 | 20.6 | 14.7 | - | 26.5 | 464 | 15.7 | 10.1 | - | 21.3 |
| hispanic | 678 | 16.4 | 13.1 | - | 19.7 | 678 | 11.2 | 8.4 | - | 14.0 |
| asian | 264 | 13.4 | 7.5 | - | 19.3 | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 2,150 | 22.9 | 20.3 | - | 25.6 | 2,142 | 17.0 | 14.6 | - | 19.3 |
| no disability | 5,796 | 12.6 | 11.4 | - | 13.8 | 5,777 | 8.2 | 7.2 | - | 9.2 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 496 | 18.6 | 13.9 | - | 23.3 | 493 | 14.9 | 10.4 | - | 19.4 |
| high school | 1,865 | 14.4 | 12.2 | - | 16.5 | 1,856 | 10.0 | 8.1 | - | 11.8 |
| college 1–3 yrs | 1,938 | 15.9 | 13.7 | - | 18.1 | 1,934 | 9.8 | 8.1 | - | 11.5 |
| college 4+ yrs | 4,037 | 14.6 | 13.2 | - | 16.0 | 4,024 | 9.6 | 8.4 | - | 10.7 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 996 | 18.2 | 14.8 | - | 21.6 | 990 | 12.6 | 9.7 | - | 15.5 |
| $25,000–34,999 | 552 | 16.5 | 11.5 | - | 21.4 | 550 | 12.0 | 7.3 | - | 16.7 |
| $35,000–49,999 | 830 | 17.4 | 13.4 | - | 21.5 | 828 | 10.2 | 7.0 | - | 13.4 |
| $50,000–74,999 | 954 | 14.2 | 11.1 | - | 17.3 | 952 | 9.5 | 7.0 | - | 12.0 |
| $75,000+ | 2,876 | 14.5 | 12.8 | - | 16.3 | 2,869 | 9.3 | 7.8 | - | 10.7 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 5.3: Chronic Obstructive Pulmonary Disease (COPD)

All respondents were asked if a doctor, nurse, or other health care professional had ever told them that they had Chronic Obstructive Pulmonary Disease or COPD, emphysema or chronic bronchitis.

Presented here is the percentage of adults who reported that they had ever been diagnosed with COPD, emphysema or chronic bronchitis.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 5.3 – Chronic Obstructive Pulmonary Disease (COPD) Among Massachusetts Adults**, 2016 | | | | | |
|  | Ever diagnosed with COPD  N % 95% CI | | | | |
| Overall | 8,358 | 5.4 | 4.7 | - | 6.0 |
| Gender |  |  |  |  |  |
| male | 3,924 | 4.5 | 3.6 | - | 5.3 |
| female | 4,433 | 6.2 | 5.2 | - | 7.3 |
| Age Group |  |  |  |  |  |
| 18–24 | † |  |  |  |  |
| 25–34 | † |  |  |  |  |
| 35–44 | 933 | 2.9 | 1.6 | - | 4.2 |
| 45–54 | 1,321 | 5.1 | 3.5 | - | 6.6 |
| 55–64 | 1,794 | 7.8 | 6.0 | - | 9.5 |
| 65–74 | 1,537 | 9.8 | 7.4 | - | 12.1 |
| 75 and older | 1,044 | 12.3 | 8.9 | - | 15.6 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,639 | 5.7 | 5.0 | - | 6.5 |
| black | † |  |  |  |  |
| hispanic | 673 | 4.8 | 3.0 | - | 6.6 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 2,133 | 14.6 | 12.3 | - | 16.9 |
| no disability | 5,787 | 2.6 | 2.1 | - | 3.1 |
| Education |  |  |  |  |  |
| < high school | 486 | 11.5 | 7.7 | - | 15.3 |
| high school | 1,856 | 7.9 | 6.4 | - | 9.3 |
| college 1–3 yrs | 1,938 | 5.0 | 3.9 | - | 6.2 |
| college 4+ yrs | 4,029 | 2.3 | 1.8 | - | 2.8 |
| Household Income |  |  |  |  |  |
| <$25,000 | 986 | 10.9 | 8.2 | - | 13.6 |
| $25,000–34,999 | 550 | 6.1 | 3.6 | - | 8.6 |
| $35,000–49,999 | 827 | 5.8 | 4.0 | - | 7.7 |
| $50,000–74,999 | 957 | 4.9 | 3.1 | - | 6.7 |
| $75,000+ | 2,875 | 2.6 | 1.7 | - | 3.4 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 5.4: Heart Disease and Stroke

All respondents were asked whether a doctor, nurse, or other health professional had ever told them that they had had a myocardial infarction (“MI,” also called a “heart attack”), angina or coronary heart disease, or a stroke. Presented here are the percentages of adults 35 and older who reported being told that they had experienced a heart attack, had angina or coronary heart disease, or had a stroke.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 5.4.1 – Heart Disease Among Massachusetts Adults,**  **Ages 35 Years and Older, 2016** | | | | | | | | | | |
|  | Ever Diagnosed with Myocardial Infarction  N % 95% CI | | | | | Ever Diagnosed with Angina or Coronary Heart Disease  N % 95% CI | | | | |
|  |
|  |
| Overall | 6,633 | 5.7 | 4.9 | - | 6.5 | 6,614 | 5.5 | 4.8 | - | 6.3 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 3,037 | 7.6 | 6.3 | - | 8.8 | 3,022 | 6.7 | 5.6 | - | 7.9 |
| female | 3,596 | 4.1 | 3.1 | - | 5.1 | 3,592 | 4.4 | 3.5 | - | 5.4 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 35–44 | † |  |  |  |  | † |  |  |  |  |
| 45–54 | 1,314 | 2.5 | 1.5 | - | 3.6 | 1,321 | 1.7 | 0.9 | - | 2.5 |
| 55–64 | 1,794 | 5.8 | 4.3 | - | 7.2 | 1,792 | 4.6 | 3.3 | - | 5.9 |
| 65–74 | 1,545 | 7.9 | 5.9 | - | 10.0 | 1,530 | 10.4 | 8.2 | - | 12.7 |
| 75 and older | 1,048 | 15.2 | 11.6 | - | 18.9 | 1,037 | 16.5 | 12.7 | - | 20.4 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 5,512 | 5.8 | 4.9 | - | 6.6 | 5,488 | 6.1 | 5.2 | - | 7.0 |
| black | † |  |  |  |  | † |  |  |  |  |
| hispanic | 457 | 6.5 | 3.5 | - | 9.5 | 459 | 3.9 | 1.7 | - | 6.1 |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 1,888 | 13.0 | 10.6 | - | 15.4 | 1,868 | 11.6 | 9.5 | - | 13.7 |
| no disability | 4,423 | 3.0 | 2.3 | - | 3.7 | 4,418 | 3.4 | 2.7 | - | 4.1 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 428 | 11.0 | 6.9 | - | 15.1 | 419 | 8.9 | 5.0 | - | 12.9 |
| high school | 1,506 | 6.8 | 5.2 | - | 8.4 | 1,512 | 6.4 | 4.9 | - | 8.0 |
| college 1–3 yrs | 1,481 | 6.0 | 4.5 | - | 7.6 | 1,474 | 6.4 | 4.8 | - | 8.0 |
| college 4+ yrs | 3,196 | 3.2 | 2.4 | - | 4.1 | 3,186 | 3.3 | 2.6 | - | 3.9 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 796 | 11.9 | 8.2 | - | 15.6 | 795 | 10.0 | 6.6 | - | 13.5 |
| $25,000–34,999 | 433 | 7.3 | 4.0 | - | 10.6 | 433 | 8.1 | 4.5 | - | 11.7 |
| $35,000–49,999 | 650 | 6.3 | 3.8 | - | 8.8 | 645 | 6.3 | 3.9 | - | 8.7 |
| $50,000–74,999 | 747 | 4.2 | 2.5 | - | 6.0 | 746 | 5.8 | 3.6 | - | 8.0 |
| $75,000+ | 2,364 | 3.2 | 2.2 | - | 4.2 | 2,361 | 3.3 | 2.3 | - | 4.2 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 5.4.2 – Stroke Among Massachusetts Adults,**  **Ages 35 Years and Older**, 2016 | | | | | |
|  | Ever Diagnosed with Stroke  N % 95% CI | | | | |
| Overall | 6,650 | 3.5 | 2.9 | - | 4.1 |
| Gender |  |  |  |  |  |
| male | 3,040 | 2.8 | 2.2 | - | 3.5 |
| female | 3,610 | 4.2 | 3.2 | - | 5.1 |
| Age Group |  |  |  |  |  |
| 35–44 | † |  |  |  |  |
| 45–54 | 1,322 | 1.6 | 0.9 | - | 2.4 |
| 55–64 | 1,797 | 3.0 | 2.0 | - | 4.1 |
| 65–74 | 1,543 | 5.8 | 4.1 | - | 7.5 |
| 75 and older | 1,054 | 8.9 | 6.4 | - | 11.3 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 5,520 | 3.5 | 2.9 | - | 4.1 |
| black | 320 | 4.8 | 2.1 | - | 7.5 |
| hispanic | † |  |  |  |  |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 1,894 | 8.5 | 6.7 | - | 10.3 |
| no disability | 4,428 | 1.7 | 1.3 | - | 2.2 |
| Education |  |  |  |  |  |
| < high school | 430 | 6.0 | 3.1 | - | 8.8 |
| high school | 1,519 | 4.5 | 3.3 | - | 5.7 |
| college 1–3 yrs | 1,485 | 3.9 | 2.7 | - | 5.2 |
| college 4+ yrs | 3,193 | 1.8 | 1.3 | - | 2.3 |
| Household Income |  |  |  |  |  |
| <$25,000 | 802 | 6.9 | 4.6 | - | 9.1 |
| $25,000–34,999 | 434 | 4.5 | 2.1 | - | 7.0 |
| $35,000–49,999 | 653 | 3.8 | 2.1 | - | 5.5 |
| $50,000–74,999 | † |  |  |  |  |
| $75,000+ | 2,358 | 1.6 | 0.9 | - | 2.2 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 5.5: Depression

All respondents were asked if a doctor, nurse or other health professional had ever told them they had a depressive disorder, including depression, major depression, dysthymia, or minor depression. Presented here is the percentage of adults who were ever told that they had a depressive disorder.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 5.6 – Depression Among Massachusetts Adults**, 2016 | | | | | |
|  | Ever diagnosed with Depression  N % 95% CI | | | | |
| Overall | 8,371 | 18.7 | 17.5 | - | 19.9 |
| Gender |  |  |  |  |  |
| male | 3,930 | 14.9 | 13.4 | - | 16.5 |
| female | 4,440 | 22.1 | 20.3 | - | 23.8 |
| Age Group |  |  |  |  |  |
| 18–24 | 556 | 21.9 | 17.5 | - | 26.3 |
| 25–34 | 967 | 19.4 | 16.4 | - | 22.3 |
| 35–44 | 933 | 21.6 | 18.2 | - | 25.1 |
| 45–54 | 1,325 | 17.3 | 14.7 | - | 19.8 |
| 55–64 | 1,796 | 20.1 | 17.7 | - | 22.6 |
| 65–74 | 1,544 | 18.3 | 15.4 | - | 21.2 |
| 75 and older | 1,053 | 11.0 | 7.6 | - | 14.3 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,652 | 18.9 | 17.5 | - | 20.2 |
| black | 464 | 17.4 | 12.4 | - | 22.4 |
| hispanic | 672 | 22.8 | 19.0 | - | 26.6 |
| asian | 261 | 9.0 | 3.9 | - | 14.0 |
| Disability¶ |  |  |  |  |  |
| disability | 2,147 | 41.7 | 38.6 | - | 44.8 |
| no disability | 5,789 | 11.6 | 10.6 | - | 12.7 |
| Education |  |  |  |  |  |
| < high school | 492 | 29.9 | 24.3 | - | 35.5 |
| high school | 1,861 | 20.1 | 17.7 | - | 22.5 |
| college 1–3 yrs | 1,941 | 19.3 | 17.0 | - | 21.5 |
| college 4+ yrs | 4,029 | 14.3 | 12.9 | - | 15.7 |
| Household Income |  |  |  |  |  |
| <$25,000 | 986 | 34.8 | 30.6 | - | 39.1 |
| $25,000–34,999 | 554 | 20.8 | 15.8 | - | 25.8 |
| $35,000–49,999 | 828 | 17.3 | 13.9 | - | 20.6 |
| $50,000–74,999 | 955 | 15.4 | 12.2 | - | 18.5 |
| $75,000+ | 2,876 | 14.7 | 12.9 | - | 16.4 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

## Section 5.6: Cancer Diagnosis

All respondents were asked if a doctor, nurse or other health professional had ever told them they had skin cancer and if they had ever been told they had any other type of cancer. Presented is the percentage of adults who were ever told they had one or more types of cancer.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 5.5 – Cancer Diagnosis Among Massachusetts Adults**, 2016 | | | | | |
|  | Ever diagnosed with Cancer  N % 95% CI | | | | |
| Overall | 8,373 | 11.4 | 10.6 | - | 12.3 |
| Gender |  |  |  |  |  |
| male | 3,937 | 10.0 | 8.9 | - | 11.2 |
| female | 4,435 | 12.7 | 11.4 | - | 14.0 |
| Age Group |  |  |  |  |  |
| 18–24 | † |  |  |  |  |
| 25–34 | 970 | 2.4 | 1.2 | - | 3.5 |
| 35–44 | 932 | 4.1 | 2.6 | - | 5.7 |
| 45–54 | 1,325 | 9.6 | 7.4 | - | 11.9 |
| 55–64 | 1,790 | 15.0 | 12.8 | - | 17.1 |
| 65–74 | 1,545 | 25.8 | 22.6 | - | 29.0 |
| 75 and older | 1,052 | 35.4 | 30.9 | - | 39.9 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,653 | 13.9 | 12.8 | - | 15.0 |
| black | † |  |  |  |  |
| hispanic | 676 | 4.0 | 2.1 | - | 5.9 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 2,151 | 17.1 | 14.9 | - | 19.3 |
| no disability | 5,785 | 9.7 | 8.8 | - | 10.6 |
| Education |  |  |  |  |  |
| < high school | 495 | 7.6 | 4.8 | - | 10.4 |
| high school | 1,859 | 12.2 | 10.2 | - | 14.2 |
| college 1–3 yrs | 1,939 | 11.9 | 10.2 | - | 13.6 |
| college 4+ yrs | 4,032 | 11.5 | 10.4 | - | 12.7 |
| Household Income |  |  |  |  |  |
| <$25,000 | 995 | 10.0 | 7.7 | - | 12.4 |
| $25,000–34,999 | 551 | 12.2 | 8.6 | - | 15.8 |
| $35,000–49,999 | 828 | 13.0 | 9.7 | - | 16.3 |
| $50,000–74,999 | 953 | 13.7 | 10.9 | - | 16.5 |
| $75,000+ | 2,873 | 9.8 | 8.5 | - | 11.1 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

# Section 6: Cancer Screening

## Section 6.1: Colorectal Cancer Screening

Respondents, ages 50 and older, were asked if they ever had had a blood stool test using a home test kit to determine if their stool contained blood and were also asked if they had ever had a sigmoidoscopy or colonoscopy, tests that examine the bowel for signs of cancer or other health problems. Presented here is the percentage of adults ages 50-74 who had either a blood stool test in the previous year, a blood stool test in the previous three years and a sigmoidoscopy or colonoscopy in the previous five years, or a colonoscopy in the previous ten years.

**Please note that these results should not be compared to those in prior years’ reports as the definition has changed.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 6.1 – Colorectal Cancer Screening Among Massachusetts Adults  ages 50-74, 2016 | | | | | |
|  | Met Screening Recommendation for Colorectal Cancer  N % 95% CI | | | | | |
| Overall | 3,603 | 76.3 | 74.1 | - | 78.4 | |
| Gender |  |  |  |  |  | |
| male | 1,625 | 75.9 | 73.0 | - | 78.8 | |
| female | 1,978 | 76.6 | 73.5 | - | 79.7 | |
| Age Group |  |  |  |  |  | |
| 50-59 | 1,363 | 65.3 | 61.6 | - | 69.1 | |
| 60-69 | 1,580 | 85.6 | 83.3 | - | 87.9 | |
| 70-74 | 660 | 84.4 | 80.3 | - | 88.4 | |
| Race-ethnicity\* |  |  |  |  |  | |
| white | 3,069 | 78.4 | 76.4 | - | 80.5 | |
| black | 175 | 66.9 | 54.6 | - | 79.2 | |
| hispanic | 212 | 70.1 | 62.0 | - | 78.1 | |
| asian | † |  |  |  |  | |
| Disability¶ |  |  |  |  |  | |
| disability | 1,007 | 75.2 | 71.3 | - | 79.2 | |
| no disability | 2,560 | 76.5 | 73.9 | - | 79.0 | |
| Education |  |  |  |  |  | |
| < high school | 190 | 68.8 | 59.2 | - | 78.4 | |
| high school | 799 | 73.3 | 69.0 | - | 77.7 | |
| college 1–3 yrs | 814 | 73.7 | 69.0 | - | 78.4 | |
| college 4+ yrs | 1,793 | 81.9 | 79.7 | - | 84.2 | |
| Household Income |  |  |  |  |  | |
| <$25,000 | 423 | 67.3 | 60.0 | - | 74.6 | |
| $25,000–34,999 | 235 | 66.1 | 55.8 | - | 76.4 | |
| $35,000–49,999 | 352 | 76.4 | 69.3 | - | 83.6 | |
| $50,000–74,999 | 452 | 83.0 | 77.5 | - | 88.4 | |
| $75,000+ | 1,333 | 78.5 | 75.1 | - | 81.8 | |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | |

## Section 6.2: Breast Cancer Screening

All female respondents were asked about breast cancer screening. Those women who reported that they had ever had a mammogram were asked how long it had been since their last mammogram. The percentage of women age 50-74 in Massachusetts who reported that they had a mammogram in the past two years is presented in Table 6.2.

**Please note that these results should not be compared to those in prior years’ reports as the definition has changed.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 6.2 – **Breast Cancer Screening among Massachusetts Women**  **ages 50 - 74**, 2016 | | | | | |
|  | Mammogram in the Past Two Years  N % 95% CI | | | | |
| Overall | 2,005 | 86.3 | 84.1 | - | 88.5 |
| Age Group |  |  |  |  |  |
| 50-59 | 728 | 85.7 | 82.1 | - | 89.3 |
| 60-69 | 941 | 86.6 | 83.5 | - | 89.7 |
| 70-74 | 336 | 87.2 | 81.7 | - | 92.6 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 1,680 | 85.4 | 82.9 | - | 87.9 |
| black | 110 | 83.4 | 72.7 | - | 94.2 |
| hispanic | 140 | 91.9 | 85.8 | - | 97.9 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 577 | 85.2 | 81.1 | - | 89.3 |
| no disability | 1,408 | 86.4 | 83.8 | - | 89.1 |
| Education |  |  |  |  |  |
| < high school | 126 | 82.3 | 71.7 | - | 92.9 |
| high school | 421 | 82.5 | 77.4 | - | 87.6 |
| college 1–3 yrs | 476 | 88.1 | 84.2 | - | 92.0 |
| college 4+ yrs | 979 | 88.4 | 85.9 | - | 90.8 |
| Household Income |  |  |  |  |  |
| <$25,000 | 253 | 85.3 | 78.1 | - | 92.5 |
| $25,000–34,999 | 148 | 82.2 | 73.5 | - | 91.0 |
| $35,000–49,999 | 199 | 82.0 | 74.9 | - | 89.1 |
| $50,000–74,999 | 246 | 83.5 | 75.2 | - | 91.8 |
| $75,000+ | 655 | 89.5 | 86.6 | - | 92.4 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 6.3: Cervical Cancer Screening

All female respondents were asked if they ever had had a Pap smear, a screening test for cancer of the cervix. Those who reported that they had had a Pap smear were then asked how long it had been since their last Pap smear. The percentage of women ages 21 – 65 without a hysterectomy who reported having had a Pap smear in the past 3 years is presented below.

**Please note that these results should not be compared to those in prior years’ reports as the definition has changed.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 6.3 – Cervical Cancer Screening Among Massachusetts Women, Ages 21-65, 2016** | | | | | |
|  | Pap Smear Test within Past Three Years  N % 95% CI | | | | |
| Overall | 2,185 | 84.1 | 82.0 | - | 86.2 |
| Age Group |  |  |  |  |  |
| 21–24 | 137 | 58.5 | 48.7 | - | 68.4 |
| 25–34 | 383 | 84.4 | 80.1 | - | 88.6 |
| 35–44 | 379 | 87.3 | 82.8 | - | 91.7 |
| 45–54 | 527 | 89.0 | 84.8 | - | 93.2 |
| 55–65 | 759 | 86.7 | 83.3 | - | 90.0 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 1,705 | 85.9 | 83.7 | - | 88.2 |
| black | 111 | 81.2 | 71.2 | - | 91.3 |
| hispanic | 232 | 85.0 | 79.5 | - | 90.5 |
| asian | 83 | 69.7 | 57.2 | - | 82.3 |
| Disability¶ |  |  |  |  |  |
| disability | 469 | 84.9 | 80.4 | - | 89.3 |
| no disability | 1,702 | 84.3 | 81.9 | - | 86.7 |
| Education |  |  |  |  |  |
| < high school | 92 | 90.5 | 80.4 | - | 100 |
| high school | 340 | 78.2 | 72.2 | - | 84.2 |
| college 1–3 yrs | 487 | 82.2 | 77.8 | - | 86.6 |
| college 4+ yrs | 1,259 | 86.2 | 83.7 | - | 88.7 |
| Household Income |  |  |  |  |  |
| <$25,000 | 238 | 81.6 | 75.0 | - | 88.2 |
| $25,000–34,999 | 123 | 71.9 | 59.1 | - | 84.6 |
| $35,000–49,999 | 210 | 84.2 | 78.2 | - | 90.2 |
| $50,000–74,999 | 278 | 82.9 | 76.5 | - | 89.3 |
| $75,000+ | 908 | 89.8 | 87.1 | - | 92.5 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

# Section 7: Other Topics

## Section 7.1: Sexual Orientation and Gender Identity

All respondents were asked if they considered themselves to be heterosexual or straight, homosexual (gay, lesbian), bisexual or other. The percentage of those who self-identified as homosexual, bisexual or other is presented.

All respondents were also asked whether they consider themselves to be transgender. Overall, in 2016, 0.4% of Massachusetts adults self-identified as transgender. A table of this data is not presented due to the low prevalence.

.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 7.1 - Sexual Orientation Among Massachusetts Adults, 2016 | | | | | |
|  | Self-Identified as Homosexual, Bisexual or Other  N % 95% CI | | | | |
| Overall | 6,746 | 6.8 | 5.9 | - | 7.7 |
| Gender |  |  |  |  |  |
| male | 3,134 | 6.1 | 5.0 | - | 7.2 |
| female | 3,612 | 7.4 | 6.1 | - | 8.8 |
| Age Group |  |  |  |  |  |
| 18–24 | 372 | 15.5 | 10.8 | - | 20.1 |
| 25–34 | 666 | 10.4 | 7.6 | - | 13.2 |
| 35–44 | 720 | 6.0 | 3.9 | - | 8.1 |
| 45–54 | 1,113 | 5.7 | 4.1 | - | 7.2 |
| 55–64 | 1,519 | 5.3 | 4.0 | - | 6.7 |
| 65–74 | 1,341 | 2.7 | 1.7 | - | 3.8 |
| 75 and older | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |
| white | 5,467 | 7.0 | 6.0 | - | 8.0 |
| black | † |  |  |  |  |
| hispanic | 518 | 5.8 | 3.7 | - | 8.0 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 1,847 | 9.3 | 7.1 | - | 11.5 |
| no disability | 4,820 | 6.0 | 5.1 | - | 7.0 |
| Education |  |  |  |  |  |
| < high school | 362 | 8.1 | 3.7 | - | 12.5 |
| high school | 1,512 | 6.8 | 5.0 | - | 8.7 |
| college 1–3 yrs | 1,583 | 6.4 | 4.7 | - | 8.0 |
| college 4+ yrs | 3,261 | 6.8 | 5.7 | - | 7.8 |
| Household Income |  |  |  |  |  |
| <$25,000 | 779 | 7.9 | 5.0 | - | 10.9 |
| $25,000–34,999 | 451 | 9.1 | 4.5 | - | 13.8 |
| $35,000–49,999 | 685 | 5.6 | 3.3 | - | 8.0 |
| $50,000–74,999 | 782 | 7.0 | 4.6 | - | 9.5 |
| $75,000+ | 2,391 | 5.9 | 4.6 | - | 7.2 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 7.2: HIV Testing

All respondents were asked if they had ever been tested for HIV. Respondents were told not to include times that HIV testing had been done as part of a blood donation. Respondents who reported that they had ever been tested for HIV were asked the date of their most recent HIV test. Presented here is the percentage of adults ages 18-64 who report ever having been tested for HIV and the percentage who had been tested in the past year.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 7.2 – HIV Testing Among Massachusetts Adults, Ages 18-64,** 2016 | | | | | | | | | | |
|  | Ever Tested for HIV  N % 95% CI | | | | | Tested for HIV in Past Year  N % 95% CI | | | | |
|  |
|  |
| Overall | 4,839 | 45.6 | 43.7 | - | 47.5 | 4,251 | 10.2 | 9.0 | - | 11.5 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 2,372 | 42.9 | 40.3 | - | 45.5 | 2,095 | 10.6 | 8.7 | - | 12.5 |
| female | 2,466 | 48.3 | 45.6 | - | 51.0 | 2,155 | 9.9 | 8.2 | - | 11.6 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 479 | 29.9 | 24.6 | - | 35.2 | 452 | 16.3 | 11.7 | - | 20.8 |
| 25–34 | 850 | 56.8 | 52.7 | - | 60.9 | 738 | 15.8 | 12.7 | - | 18.9 |
| 35–44 | 800 | 60.8 | 56.5 | - | 65.2 | 696 | 11.7 | 8.9 | - | 14.6 |
| 45–54 | 1,162 | 45.0 | 41.3 | - | 48.8 | 994 | 5.8 | 4.1 | - | 7.4 |
| 55–64 | 1,548 | 33.5 | 30.3 | - | 36.7 | 1,371 | 2.8 | 1.7 | - | 3.8 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 3,668 | 43.2 | 41.1 | - | 45.3 | 3,265 | 8.0 | 6.7 | - | 9.3 |
| black | 279 | 64.5 | 56.5 | - | 72.5 | 230 | 21.6 | 14.9 | - | 28.3 |
| hispanic | 519 | 59.8 | 54.5 | - | 65.0 | 419 | 18.8 | 14.4 | - | 23.3 |
| asian | 209 | 28.8 | 20.9 | - | 36.8 | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 1,047 | 55.1 | 50.8 | - | 59.3 | 870 | 15.1 | 11.3 | - | 18.8 |
| no disability | 3,748 | 43.3 | 41.2 | - | 45.3 | 3,345 | 9.0 | 7.7 | - | 10.3 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 244 | 48.8 | 40.6 | - | 57.0 | 199 | 13.5 | 6.6 | - | 20.4 |
| high school | 980 | 42.6 | 38.5 | - | 46.7 | 847 | 9.5 | 6.9 | - | 12.0 |
| college 1–3 yrs | 1,125 | 44.2 | 40.4 | - | 47.9 | 984 | 12.1 | 9.5 | - | 14.6 |
| college 4+ yrs | 2,473 | 47.9 | 45.5 | - | 50.3 | 2,210 | 8.8 | 7.3 | - | 10.3 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 559 | 56.8 | 51.1 | - | 62.5 | 467 | 20.2 | 14.9 | - | 25.4 |
| $25,000–34,999 | 278 | 52.3 | 44.4 | - | 60.2 | 241 | 15.0 | 8.8 | - | 21.3 |
| $35,000–49,999 | 438 | 47.5 | 41.5 | - | 53.5 | 388 | 12.6 | 8.6 | - | 16.6 |
| $50,000–74,999 | 564 | 46.3 | 40.7 | - | 51.9 | 513 | 10.9 | 7.4 | - | 14.3 |
| $75,000+ | 2,048 | 43.6 | 40.8 | - | 46.4 | 1,840 | 7.5 | 5.8 | - | 9.2 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 7.3: Sexual Violence

Respondents were asked if they had experienced sexual violence at any time in their lifetime. Sexual violence was defined as having the sexual parts of the body touched without consent or attempted or completed sex without consent. Presented here are the percentages of men and women who reported that they had experienced sexual violence at some time in their lifetime.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 7.3 – Sexual Violence Among Massachusetts Adults,** 2016 | | | | | | | | | | |
|  | Sexual Violence,  Women  N % 95% CI | | | | | Sexual Violence,  Men  N % 95% CI | | | | |
|  |
|  |
| Overall | 1,534 | 17.0 | 14.4 | - | 19.6 | 1,410 | 5.5 | 3.8 | - | 7.2 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 72 | 18.5 | 9.1 | - | 28.0 | † |  |  |  |  |
| 25–34 | 125 | 20.5 | 12.2 | - | 28.7 | † |  |  |  |  |
| 35–44 | 155 | 19.4 | 11.4 | - | 27.4 | † |  |  |  |  |
| 45–54 | 254 | 18.2 | 12.8 | - | 23.6 | † |  |  |  |  |
| 55–64 | 377 | 17.3 | 12.3 | - | 22.4 | † |  |  |  |  |
| 65–74 | 312 | 15.5 | 9.3 | - | 21.7 | † |  |  |  |  |
| 75 and older | † |  |  |  |  | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 1,251 | 17.2 | 14.3 | - | 20.1 | 1,143 | 4.9 | 3.1 | - | 6.7 |
| black | † |  |  |  |  | † |  |  |  |  |
| hispanic | 120 | 12.3 | 5.7 | - | 18.9 | † |  |  |  |  |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 450 | 26.0 | 19.6 | - | 32.4 | 329 | 8.9 | 4.7 | - | 13.0 |
| no disability | 1,068 | 14.0 | 11.4 | - | 16.7 | 1,063 | 4.7 | 2.8 | - | 6.6 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | † |  |  |  |  | † |  |  |  |  |
| high school | 315 | 14.8 | 9.0 | - | 20.7 | † |  |  |  |  |
| college 1–3 yrs | 387 | 18.4 | 13.1 | - | 23.6 | 311 | 7.6 | 3.7 | - | 11.4 |
| college 4+ yrs | 740 | 16.9 | 13.6 | - | 20.3 | 695 | 3.8 | 2.1 | - | 5.5 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 196 | 23.0 | 13.9 | - | 32.2 | 149 | 16.1 | 6.9 | - | 25.3 |
| $25,000–34,999 | † |  |  |  |  | † |  |  |  |  |
| $35,000–49,999 | 169 | 21.7 | 12.4 | - | 31.1 | † |  |  |  |  |
| $50,000–74,999 | 154 | 13.6 | 5.9 | - | 21.2 | † |  |  |  |  |
| $75,000+ | 488 | 15.3 | 11.5 | - | 19.1 | 578 | 4.8 | 2.2 | - | 7.3 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 7.4: Unintentional Falls

Respondents ages 45 and older were asked if they had fallen in the past 12 months. They were also asked if they were injured by a fall in the past 12 months. A fall was defined as unintentionally coming to rest on the ground or another lower level. An injury from a fall was defined as one that caused the respondent to limit regular activities for at least a day or to go see a doctor. Presented here is the percentage of adults ages 65 and older who reported falling in the past 12 months and the percentage that were injured from a fall in the past 12 months.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 7.4 - Unintentional Falls, Massachusetts Adults 65 and Older, 2016 | | | | | | | | | | |
|  | Unintentional Falls  N % 95% CI | | | | | Injured by Unintentional Fall  N % 95% CI | | | | |
|  |
|  |
| Overall | 2,417 | 29.0 | 26.3 | - | 31.6 | 2,413 | 11.3 | 9.4 | - | 13.2 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 1,019 | 25.3 | 21.6 | - | 29.1 | 1,019 | 8.5 | 6.2 | - | 10.7 |
| female | 1,398 | 31.8 | 28.1 | - | 35.5 | 1,394 | 13.5 | 10.6 | - | 16.3 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 65–74 | 1,450 | 27.8 | 24.5 | - | 31.1 | 1,448 | 9.5 | 7.5 | - | 11.6 |
| 75-84 | 725 | 28.8 | 23.8 | - | 33.7 | 723 | 11.4 | 7.6 | - | 15.1 |
| 85 and older | 242 | 37.3 | 27.8 | - | 46.8 | 242 | 22.2 | 13.9 | - | 30.5 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 2,136 | 29.2 | 26.4 | - | 31.9 | 2,132 | 11.0 | 9.1 | - | 12.8 |
| black | † |  |  |  |  | † |  |  |  |  |
| hispanic | † |  |  |  |  | † |  |  |  |  |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 933 | 42.2 | 37.2 | - | 47.2 | 932 | 18.7 | 14.8 | - | 22.6 |
| no disability | 1,448 | 20.4 | 17.6 | - | 23.1 | 1,445 | 6.3 | 4.6 | - | 8.0 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 178 | 27.3 | 17.8 | - | 36.7 | 178 | 14.9 | 7.3 | - | 22.4 |
| high school | 605 | 27.1 | 21.9 | - | 32.2 | 604 | 9.5 | 6.1 | - | 12.9 |
| college 1–3 yrs | 557 | 31.2 | 25.9 | - | 36.6 | 557 | 11.2 | 7.6 | - | 14.9 |
| college 4+ yrs | 1,068 | 30.0 | 26.5 | - | 33.6 | 1,065 | 11.5 | 9.0 | - | 13.9 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 316 | 37.4 | 28.4 | - | 46.4 | 316 | 19.8 | 11.7 | - | 27.8 |
| $25,000–34,999 | 217 | 29.6 | 20.5 | - | 38.7 | 217 | 11.7 | 5.1 | - | 18.3 |
| $35,000–49,999 | 313 | 34.8 | 27.2 | - | 42.5 | 312 | 12.9 | 7.4 | - | 18.3 |
| $50,000–74,999 | 279 | 20.4 | 14.1 | - | 26.8 | † |  |  |  |  |
| $75,000+ | 529 | 26.4 | 21.6 | - | 31.2 | 527 | 11.0 | 7.5 | - | 14.5 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

## Section 7.5: Drinking and Driving

All respondents were asked if they had had at least one alcoholic drink in the past month. A drink of alcohol was defined as a twelve ounce can or bottle of beer, one five ounce glass of wine, or one drink with one shot of liquor. Those who reported that they had had at least one alcoholic drink in the past month were asked how many times during the past 30 days they had driven after having too much to drink. Presented here is the percentage of all adults who reported driving at least one time during the past month after drinking too much in their opinion.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 7.5 – Drinking and Driving Among Massachusetts Adults**, 2016 | | | | | |
|  | Drinking and Driving in past 30 days  N % 95% CI | | | | |
| Overall | 7,819 | 2.8 | 2.2 | - | 3.3 |
| Gender |  |  |  |  |  |
| male | 3,644 | 3.8 | 2.9 | - | 4.7 |
| female | 4,174 | 1.8 | 1.2 | - | 2.4 |
| Age Group |  |  |  |  |  |
| 18–24 | 509 | 4.1 | 1.8 | - | 6.4 |
| 25–34 | 894 | 3.8 | 2.2 | - | 5.4 |
| 35–44 | 862 | 3.2 | 1.8 | - | 4.7 |
| 45–54 | 1,240 | 3.0 | 1.8 | - | 4.3 |
| 55–64 | 1,687 | 2.1 | 1.3 | - | 2.9 |
| 65–74 | † |  |  |  |  |
| 75 and older | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,223 | 2.6 | 2.0 | - | 3.2 |
| black | † |  |  |  |  |
| hispanic | 638 | 3.3 | 1.4 | - | 5.1 |
| asian | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |
| disability | 2,101 | 2.5 | 1.3 | - | 3.8 |
| no disability | 5,627 | 2.8 | 2.2 | - | 3.4 |
| Education |  |  |  |  |  |
| < high school | † |  |  |  |  |
| high school | 1,710 | 2.1 | 1.2 | - | 3.1 |
| college 1–3 yrs | 1,796 | 3.5 | 2.2 | - | 4.7 |
| college 4+ yrs | 3,814 | 2.7 | 2.0 | - | 3.3 |
| Household Income |  |  |  |  |  |
| <$25,000 | † |  |  |  |  |
| $25,000–34,999 | † |  |  |  |  |
| $35,000–49,999 | 786 | 2.8 | 1.2 | - | 4.3 |
| $50,000–74,999 | 897 | 4.4 | 2.4 | - | 6.5 |
| $75,000+ | 2,741 | 3.4 | 2.4 | - | 4.3 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | |

## Section 7.6: Seatbelt Use

All respondents were asked how often they wear a seatbelt when riding or driving in a car. Presented here is the percentage of adults who reported that they always wear their seatbelts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 7.6 – Seatbelt Use Among Massachusetts Adults**, 2016 | | | | | |
|  | Always use a seatbelt  N % 95% CI | | | | |
| Overall | 7,730 | 81.3 | 80.0 | - | 82.5 |
| Gender |  |  |  |  |  |
| male | 3,610 | 76.7 | 74.7 | - | 78.6 |
| female | 4,119 | 85.6 | 84.0 | - | 87.2 |
| Age Group |  |  |  |  |  |
| 18–24 | 505 | 73.5 | 68.5 | - | 78.6 |
| 25–34 | 888 | 77.9 | 74.5 | - | 81.2 |
| 35–44 | 856 | 83.1 | 79.8 | - | 86.3 |
| 45–54 | 1,231 | 82.3 | 79.4 | - | 85.2 |
| 55–64 | 1,667 | 83.2 | 80.9 | - | 85.6 |
| 65–74 | 1,440 | 84.7 | 82.1 | - | 87.3 |
| 75 and older | 966 | 84.6 | 80.7 | - | 88.5 |
| Race-ethnicity\* |  |  |  |  |  |
| white | 6,168 | 81.5 | 80.0 | - | 82.9 |
| black | 408 | 79.5 | 73.5 | - | 85.4 |
| hispanic | 621 | 83.4 | 79.9 | - | 86.8 |
| asian | 240 | 82.7 | 76.3 | - | 89.1 |
| Disability¶ |  |  |  |  |  |
| disability | 2,056 | 76.5 | 73.5 | - | 79.4 |
| no disability | 5,586 | 82.8 | 81.4 | - | 84.2 |
| Education |  |  |  |  |  |
| < high school | 439 | 77.4 | 71.7 | - | 83.1 |
| high school | 1,682 | 75.9 | 73.2 | - | 78.7 |
| college 1–3 yrs | 1,786 | 77.2 | 74.5 | - | 79.9 |
| college 4+ yrs | 3,784 | 88.8 | 87.5 | - | 90.1 |
| Household Income |  |  |  |  |  |
| <$25,000 | 896 | 76.9 | 72.7 | - | 81.2 |
| $25,000–34,999 | 523 | 79.3 | 74.5 | - | 84.2 |
| $35,000–49,999 | 785 | 77.6 | 73.6 | - | 81.5 |
| $50,000–74,999 | 892 | 77.6 | 73.7 | - | 81.6 |
| $75,000+ | 2,734 | 85.1 | 83.2 | - | 87.0 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability | | | | | |

## Section 7.7: Family Planning

All women ages 18-50 who were currently pregnant or had been pregnant in the past five years were asked if they had wanted to be pregnant sooner, later, or not at all. Unplanned pregnancy was defined as wanting to be pregnant later or not at all. Women ages 18-50, who had not had a hysterectomy or sterilization, were not currently pregnant, and whose partners were not reported to have been sterilized nor had a vasectomy also were asked whether they or their partners currently use some form of birth control. Presented below are the percentage of females ages 18-44 who reported an unplanned pregnancy and the percentage of females ages 18-44 who reported that they or their partner use some form of birth control. The more restricted ages are presented here to be consistent with national data.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 7.7 – Family Planning Among Massachusetts Women, Ages 18-44, 2016 | | | | | | | | | | |
|  | Unplanned Pregnancy  N % 95% CI | | | | | Use Birth Control  N % 95% CI | | | | |
|  |
|  |
| Overall | † |  |  |  |  | 320 | 72.0 | 65.8 | - | 78.2 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | † |  |  |  |  | 71 | 67.0 | 54.3 | - | 79.7 |
| 25–34 | † |  |  |  |  | 114 | 73.9 | 63.9 | - | 83.9 |
| 35–44 | † |  |  |  |  | 135 | 75.7 | 67.6 | - | 83.8 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | † |  |  |  |  | 220 | 72.7 | 65.0 | - | 80.4 |
| black | † |  |  |  |  | † |  |  |  |  |
| hispanic | † |  |  |  |  | 56 | 67.5 | 53.5 | - | 81.5 |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | † |  |  |  |  | 65 | 68.7 | 54.1 | - | 83.2 |
| no disability | † |  |  |  |  | 251 | 73.4 | 66.5 | - | 80.4 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | † |  |  |  |  | † |  |  |  |  |
| high school | † |  |  |  |  | † |  |  | - |  |
| college 1–3 yrs | † |  |  |  |  | 97 | 67.6 | 56.7 | - | 78.5 |
| college 4+ yrs | † |  |  |  |  | 165 | 76.7 | 69.4 | - | 84.0 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | † |  |  |  |  | † |  |  | - |  |
| $25,000–34,999 | † |  |  |  |  | † |  |  |  |  |
| $35,000–49,999 | † |  |  |  |  | † |  |  | - |  |
| $50,000–74,999 | † |  |  |  |  | † |  |  | - |  |
| $75,000+ | † |  |  |  |  | 118 | 76.0 | 66.8 | - | 85.3 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient Data  ¶ See p 67 for definition of disability | | | | | | | | | | |

## Section 7.8: Opioid and Marijuana Use

Respondents were asked if they were ever prescribed pain killers (e.g. Vicodin, Darvon, Percocet, Codeine, or OxyContin) or medical marijuana by a doctor or other health professional. They were also asked if they had any “non-medical” use of prescription pain killers or marijuana in the previous year. “Non-medical” drug use was defined for respondents as using it to get high or experience pleasurable effects, see what the effects are like, or take with friends. Presented here are the percentages of adults who report that they have ever been prescribed an opiate or marijuana and the percent who report non-medical use of these drugs in the previous year.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 7.8.1 – Opioid Among Massachusetts Adults,** 2016 | | | | | | | | | | |
|  | Ever Prescribed Opiate  N % 95% CI | | | | | Non-medical Use of Opiate in past year  N % 95% CI | | | | |
|  |
|  |
| Overall | 2,831 | 32.5 | 30.1 | - | 34.8 | 2,862 | 2.7 | 1.9 | - | 3.5 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 1,281 | 30.1 | 26.8 | - | 33.3 | 1,295 | 3.9 | 2.4 | - | 5.3 |
| female | 1,550 | 34.6 | 31.3 | - | 38.0 | 1,567 | 1.7 | 0.9 | - | 2.5 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | 147 | 16.9 | 10.1 | - | 23.7 | † |  |  |  |  |
| 25–34 | 273 | 38.1 | 31.3 | - | 44.9 | † |  |  |  |  |
| 35–44 | 304 | 28.6 | 21.8 | - | 35.5 | † |  |  |  |  |
| 45–54 | 471 | 29.9 | 24.7 | - | 35.0 | † |  |  |  |  |
| 55–64 | 632 | 39.7 | 34.7 | - | 44.7 | † |  |  |  |  |
| 65–74 | 567 | 39.8 | 34.3 | - | 45.3 | † |  |  |  |  |
| 75 and older | 381 | 30.3 | 23.6 | - | 37.1 | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 2,280 | 36.3 | 33.6 | - | 39.0 | 2,300 | 2.5 | 1.7 | - | 3.4 |
| black | 159 | 21.6 | 12.4 | - | 30.9 | † |  |  |  |  |
| hispanic | 216 | 16.0 | 9.5 | - | 22.5 | † |  |  |  |  |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 810 | 44.6 | 39.6 | - | 49.7 | 825 | 5.7 | 3.4 | - | 7.9 |
| no disability | 1,988 | 28.3 | 25.7 | - | 30.9 | 2,004 | 1.7 | 1.0 | - | 2.4 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | 165 | 25.2 | 15.7 | - | 34.6 | † |  |  |  |  |
| high school | 641 | 30.9 | 26.1 | - | 35.7 | 645 | 4.1 | 2.0 | - | 6.1 |
| college 1–3 yrs | 642 | 36.0 | 30.9 | - | 41.0 | 650 | 2.8 | 1.2 | - | 4.3 |
| college 4+ yrs | 1,372 | 33.1 | 30.1 | - | 36.2 | 1,388 | 1.4 | 0.7 | - | 2.0 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 338 | 33.6 | 26.3 | - | 40.9 | 345 | 7.6 | 3.4 | - | 11.8 |
| $25,000–34,999 | 208 | 39.1 | 29.4 | - | 48.8 | † |  |  |  |  |
| $35,000–49,999 | 275 | 36.4 | 28.9 | - | 43.8 | † |  |  |  |  |
| $50,000–74,999 | 349 | 35.5 | 28.3 | - | 42.6 | † |  |  |  |  |
| $75,000+ | 997 | 33.7 | 30.0 | - | 37.4 | † |  |  |  |  |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 7.8.2 – Marijuana Use Among Massachusetts Adults,** 2016 | | | | | | | | | | |
|  | Ever Prescribed Marijuana  N % 95% CI | | | | | Non-medical Use of Marijuana in past year  N % 95% CI | | | | |
|  |
|  |
| Overall | 2,853 | 1.8 | 1.1 | - | 2.5 | 2,859 | 12.0 | 10.2 | - | 13.8 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| male | 1,291 | 2.2 | 1.1 | - | 3.3 | 1,294 | 16.1 | 13.3 | - | 18.8 |
| female | 1,562 | 1.4 | 0.6 | - | 2.3 | 1,565 | 8.3 | 6.0 | - | 10.7 |
| Age Group |  |  |  |  |  |  |  |  |  |  |
| 18–24 | † |  |  |  |  | 148 | 24.5 | 16.7 | - | 32.3 |
| 25–34 | † |  |  |  |  | 274 | 22.3 | 16.5 | - | 28.1 |
| 35–44 | † |  |  |  |  | 306 | 12.7 | 7.2 | - | 18.3 |
| 45–54 | † |  |  |  |  | 477 | 7.2 | 4.4 | - | 9.9 |
| 55–64 | † |  |  |  |  | 638 | 7.2 | 4.8 | - | 9.6 |
| 65–74 | † |  |  |  |  | 573 | 6.3 | 3.1 | - | 9.4 |
| 75 and older | † |  |  |  |  | † |  |  |  |  |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |
| white | 2,296 | 1.9 | 1.1 | - | 2.8 | 2,298 | 12.2 | 10.3 | - | 14.2 |
| black | † |  |  |  |  | † |  |  |  |  |
| hispanic | † |  |  |  |  | 221 | 9.4 | 4.6 | - | 14.2 |
| asian | † |  |  |  |  | † |  |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |
| disability | 822 | 4.5 | 2.4 | - | 6.7 | 824 | 16.6 | 12.2 | - | 21.0 |
| no disability | 1,998 | 0.9 | 0.4 | - | 1.3 | 2,002 | 10.5 | 8.6 | - | 12.3 |
| Education |  |  |  |  |  |  |  |  |  |  |
| < high school | † |  |  |  |  | † |  |  |  |  |
| high school | 644 | 3.6 | 1.7 | - | 5.5 | 644 | 13.2 | 9.7 | - | 16.8 |
| college 1–3 yrs | † |  |  |  |  | 648 | 15.5 | 11.3 | - | 19.7 |
| college 4+ yrs | † |  |  |  |  | 1,387 | 8.7 | 6.8 | - | 10.6 |
| Household Income |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | † |  |  |  |  | 344 | 19.4 | 13.0 | - | 25.8 |
| $25,000–34,999 | † |  |  |  |  | 210 | 12.3 | 5.8 | - | 18.8 |
| $35,000–49,999 | † |  |  |  |  | 279 | 18.2 | 12.1 | - | 24.3 |
| $50,000–74,999 | † |  |  |  |  | 349 | 12.6 | 7.1 | - | 18.1 |
| $75,000+ | † |  |  |  |  | 1,002 | 9.1 | 6.7 | - | 11.6 |
| \* White, Black, and Asian race categories refer to non-Hispanic  ¶ See p 67 for definition of disability  † Insufficient data | | | | | | | | | | |

# Appendix

## Age-Adjusted Percentages For Selected Topics

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | | | | |
|  | Fair or Poor Health | | | | Poor Mental Health | | | | Poor Physical Health | | | | Disability | | | | No Health Insurance (Ages 18-64) | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 13.9 | 12.7 | - | 15.0 | 11.6 | 10.5 | - | 12.7 | 9.7 | 8.7 | - | 10.7 | 22.9 | 21.6 | - | 24.2 | 3.9 | 3.1 | - | 4.8 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 14.0 | 12.4 | - | 15.6 | 10.2 | 8.7 | - | 11.7 | 9.3 | 7.9 | - | 10.6 | 21.9 | 20.1 | - | 23.7 | 5.5 | 4.2 | - | 6.8 |
| female | 13.6 | 12.1 | - | 15.1 | 12.9 | 11.3 | - | 14.4 | 9.8 | 8.5 | - | 11.1 | 23.6 | 21.7 | - | 25.5 | 2.6 | 1.7 | - | 3.6 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| white | 11.5 | 10.3 | - | 12.6 | 11.5 | 10.2 | - | 12.8 | 9.0 | 8.0 | - | 10.1 | 21.0 | 19.5 | - | 22.4 | 3.2 | 2.3 | - | 4.0 |
| black | 16.8 | 11.7 | - | 21.9 | 13.5 | 8.7 | - | 18.3 | 11.7 | 6.4 | - | 16.9 | 24.2 | 18.4 | - | 30.0 | † |  |  |  |
| hispanic | 32.1 | 27.6 | - | 36.7 | 12.3 | 9.2 | - | 15.4 | 14.3 | 10.7 | - | 17.9 | 38.0 | 33.5 | - | 42.5 | 7.5 | 7.3 | - | 7.8 |
| asian | † |  |  |  | † |  |  |  | † |  |  |  | 18.9 | 10.3 | - | 27.6 | † |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 38.5 | 34.7 | - | 42.3 | 33.3 | 29.4 | - | 37.1 | 30.3 | 26.6 | - | 34.0 | *n/a* |  |  |  | 6.0 | 3.5 | - | 8.5 |
| no disability | 6.4 | 5.5 | - | 7.3 | 6.2 | 5.3 | - | 7.2 | 4.0 | 3.2 | - | 4.7 | *n/a* |  |  |  | 3.5 | 2.6 | - | 4.3 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | 33.8 | 27.7 | - | 40.0 | 20.5 | 14.7 | - | 26.3 | 19.9 | 14.4 | - | 25.5 | 41.6 | 35.4 | - | 47.8 | 12.6 | 7.4 | - | 17.8 |
| high school | 17.1 | 14.7 | - | 19.5 | 14.0 | 11.7 | - | 16.4 | 13.3 | 11.1 | - | 15.6 | 29.8 | 26.8 | - | 32.8 | 6.3 | 4.4 | - | 8.2 |
| college 1–3 yrs | 13.5 | 11.4 | - | 15.5 | 14.7 | 12.4 | - | 17.1 | 9.9 | 8.1 | - | 11.6 | 25.6 | 22.8 | - | 28.5 | 2.4 | 1.2 | - | 3.6 |
| college 4+ yrs | 6.2 | 5.2 | - | 7.3 | 6.9 | 5.6 | - | 8.2 | 4.4 | 3.6 | - | 5.1 | 11.3 | 10.1 | - | 12.5 | 2.2 | 1.2 | - | 3.1 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 31.3 | 27.1 | - | 35.6 | 21.7 | 17.8 | - | 25.7 | 21.8 | 17.8 | - | 25.8 | 46.6 | 41.9 | - | 51.3 | 8.3 | 5.0 | - | 11.5 |
| $25,000–34,999 | 19.0 | 13.8 | - | 24.3 | 16.3 | 11.5 | - | 21.1 | 13.3 | 8.6 | - | 18.0 | 25.1 | 20.2 | - | 30.0 | † |  |  |  |
| $35,000–49,999 | 15.0 | 11.1 | - | 19.0 | 11.0 | 7.8 | - | 14.2 | 9.2 | 5.9 | - | 12.6 | 23.2 | 19.0 | - | 27.3 | † |  |  |  |
| $50,000–74,999 | 13.0 | 9.4 | - | 16.6 | 8.9 | 5.9 | - | 11.8 | 7.8 | 5.3 | - | 10.4 | 16.9 | 13.2 | - | 20.6 | † |  |  |  |
| $75,000+ | 5.2 | 4.1 | - | 6.4 | 7.3 | 5.7 | - | 8.8 | 4.7 | 3.6 | - | 5.8 | 12.7 | 10.8 | - | 14.6 | 1.6 | 0.8 | - | 2.3 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | | | | |

**Age-Adjusted Percentages for Selected Topics (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | | | | |
|  | Personal Doctor | | | | No Doctor due to Cost | | | | Checkup in Past Year | | | | Dental Visit in Past Year | | | | Six or More Teeth Missing | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 88.1 | 87.1 | - | 89.2 | 9.0 | 8.1 | - | 10.0 | 77.4 | 76.0 | - | 78.8 | 73.7 | 72.2 | - | 75.1 | 12.7 | 11.7 | - | 13.6 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 83.2 | 81.6 | - | 84.9 | 9.2 | 7.9 | - | 10.5 | 73.9 | 72.0 | - | 75.8 | 69.8 | 67.8 | - | 71.9 | 12.9 | 11.6 | - | 14.1 |
| female | 92.8 | 91.6 | - | 94.1 | 8.9 | 7.6 | - | 10.2 | 80.9 | 79.1 | - | 82.8 | 77.0 | 75.0 | - | 78.9 | 12.0 | 10.8 | - | 13.2 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| white | 90.5 | 89.4 | - | 91.7 | 7.1 | 6.2 | - | 8.0 | 77.3 | 75.7 | - | 78.9 | 76.2 | 74.6 | - | 77.8 | 11.5 | 10.5 | - | 12.4 |
| black | 87.5 | 82.6 | - | 92.3 | 14.2 | 9.3 | - | 19.1 | 82.7 | 77.9 | - | 87.6 | 65.5 | 58.6 | - | 72.4 | 19.0 | 14.5 | - | 23.4 |
| hispanic | 77.8 | 73.5 | - | 82.2 | 19.1 | 14.9 | - | 23.3 | 78.7 | 75.2 | - | 82.2 | 68.0 | 63.5 | - | 72.6 | 16.3 | 12.7 | - | 19.9 |
| asian | 84.4 | 80.5 | - | 88.4 | † |  |  |  | 78.5 | 71.7 | - | 85.2 | 66.5 | 57.1 | - | 76.0 | † |  |  |  |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 89.4 | 86.8 | - | 92.0 | 18.9 | 15.8 | - | 22.0 | 78.3 | 74.9 | - | 81.6 | 63.4 | 59.6 | - | 67.2 | 23.7 | 20.8 | - | 26.7 |
| no disability | 88.0 | 86.9 | - | 89.2 | 6.4 | 5.5 | - | 7.3 | 77.1 | 75.6 | - | 78.7 | 77.2 | 75.6 | - | 78.7 | 9.1 | 8.1 | - | 10.0 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | 78.4 | 73.0 | - | 83.9 | 17.1 | 12.2 | - | 21.9 | 71.8 | 65.7 | - | 77.9 | 51.5 | 44.9 | - | 58.2 | 28.5 | 23.6 | - | 33.4 |
| high school | 85.9 | 83.5 | - | 88.2 | 10.2 | 8.3 | - | 12.2 | 76.4 | 73.5 | - | 79.3 | 67.5 | 64.4 | - | 70.6 | 16.9 | 15.0 | - | 18.9 |
| college 1–3 yrs | 91.1 | 89.3 | - | 92.9 | 10.8 | 8.8 | - | 12.8 | 80.5 | 77.9 | - | 83.2 | 75.0 | 72.2 | - | 77.8 | 12.4 | 10.6 | - | 14.1 |
| college 4+ yrs | 89.2 | 87.8 | - | 90.6 | 5.7 | 4.6 | - | 6.8 | 76.8 | 74.9 | - | 78.7 | 81.7 | 79.9 | - | 83.4 | 4.6 | 3.9 | - | 5.2 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 83.8 | 80.3 | - | 87.2 | 15.4 | 12.1 | - | 18.7 | 74.3 | 70.1 | - | 78.6 | 58.0 | 53.4 | - | 62.7 | 25.9 | 22.7 | - | 29.1 |
| $25,000–34,999 | 85.7 | 81.3 | - | 90.2 | 15.2 | 10.7 | - | 19.6 | 76.2 | 70.8 | - | 81.5 | 63.6 | 57.6 | - | 69.5 | 18.2 | 13.5 | - | 23.0 |
| $35,000–49,999 | 87.3 | 84.4 | - | 90.2 | 11.2 | 8.0 | - | 14.4 | 80.6 | 76.8 | - | 84.3 | 71.0 | 66.3 | - | 75.6 | 11.5 | 8.9 | - | 14.1 |
| $50,000–74,999 | 89.6 | 86.9 | - | 92.2 | 7.6 | 5.4 | - | 9.9 | 76.8 | 72.9 | - | 80.6 | 75.6 | 71.3 | - | 79.9 | 11.4 | 8.5 | - | 14.3 |
| $75,000+ | 92.0 | 90.5 | - | 93.4 | 4.7 | 3.6 | - | 5.8 | 78.4 | 76.2 | - | 80.5 | 84.3 | 82.4 | - | 86.2 | 5.8 | 4.6 | - | 7.0 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | | | | |

**Age-Adjusted Percentages for Selected Topics (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | | | | |
|  | Current Smoker | | | | Former Smoker | | | | Use Smokeless Tobacco | | | | Use E-cigarettes | | | | Quit Attempt | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 13.9 | 12.8 | - | 15.1 | 25.7 | 24.4 | - | 27.0 | 2.1 | 1.6 | - | 2.6 | 4.6 | 3.9 | - | 5.4 | 59.2 | 54.6 | - | 63.8 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 15.8 | 14.1 | - | 17.5 | 27.7 | 25.7 | - | 29.6 | 3.2 | 2.4 | - | 4.1 | 6.0 | 4.8 | - | 7.2 | 56.8 | 50.6 | - | 63.1 |
| female | 12.1 | 10.6 | - | 13.6 | 24.1 | 22.3 | - | 25.9 | 1.0 | 0.5 | - | 1.6 | 3.1 | 2.3 | - | 4.0 | 63.3 | 57.1 | - | 69.5 |
| Race-ethnicity\* | . | . |  | . |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| white | 15.0 | 13.5 | - | 16.4 | 27.8 | 26.3 | - | 29.4 | 1.9 | 1.4 | - | 2.4 | 4.9 | 4.0 | - | 5.9 | 60.2 | 55.2 | - | 65.3 |
| black | 12.5 | 8.4 | - | 16.5 | 16.6 | 11.0 | - | 22.2 | † |  |  |  | † |  |  |  | 59.1 | 55.6 | - | 62.5 |
| hispanic | 10.8 | 7.9 | - | 13.7 | 19.2 | 15.3 | - | 23.1 | † |  |  |  | 3.5 | 1.7 | - | 5.3 | 64.8 | 64.8 | - | 64.8 |
| asian | † |  |  |  | 11.1 | 5.0 | - | 17.2 | † |  |  |  | † |  |  |  | 52.2 | 52.2 | - | 52.2 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 24.1 | 20.9 | - | 27.4 | 31.5 | 28.0 | - | 35.0 | 3.1 | 1.7 | - | 4.6 | 9.7 | 7.1 | - | 12.2 | 63.1 | 55.4 | - | 70.8 |
| no disability | 11.4 | 10.2 | - | 12.6 | 24.3 | 22.8 | - | 25.7 | 1.9 | 1.4 | - | 2.4 | 3.4 | 2.7 | - | 4.2 | 58.9 | 53.5 | - | 64.3 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | 24.0 | 18.0 | - | 30.0 | 28.2 | 22.3 | - | 34.1 | † |  |  |  | 9.8 | 5.8 | - | 13.8 | 51.0 | 49.8 | - | 52.3 |
| high school | 22.0 | 19.2 | - | 24.7 | 27.8 | 24.8 | - | 30.8 | 2.9 | 1.8 | - | 3.9 | 6.8 | 4.9 | - | 8.6 | 59.4 | 52.5 | - | 66.4 |
| college 1–3 yrs | 16.0 | 13.6 | - | 18.5 | 29.8 | 26.9 | - | 32.7 | 1.4 | 0.7 | - | 2.0 | 5.2 | 3.6 | - | 6.7 | 65.1 | 64.6 | - | 65.6 |
| college 4+ yrs | 5.6 | 4.7 | - | 6.5 | 21.8 | 20.2 | - | 23.3 | 1.9 | 1.1 | - | 2.8 | 1.9 | 1.1 | - | 2.6 | 59.3 | 50.9 | - | 67.7 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 23.5 | 19.3 | - | 27.6 | 25.7 | 21.1 | - | 30.2 | † |  |  |  | 6.3 | 3.8 | - | 8.8 | 65.9 | 56.4 | - | 75.4 |
| $25,000–34,999 | 16.1 | 11.8 | - | 20.3 | 27.5 | 21.8 | - | 33.1 | † |  |  |  | 7.7 | 4.2 | - | 11.2 | 67.1 | 66.6 | - | 67.5 |
| $35,000–49,999 | 15.3 | 11.6 | - | 19.1 | 29.0 | 24.8 | - | 33.3 | † |  |  |  | 4.0 | 2.2 | - | 5.7 | 54.3 | 52.8 | - | 55.7 |
| $50,000–74,999 | 16.8 | 12.8 | - | 20.8 | 27.7 | 23.9 | - | 31.6 | † |  |  |  | 5.1 | 2.7 | - | 7.6 | † |  |  |  |
| $75,000+ | 8.4 | 6.9 | - | 10.0 | 26.2 | 24.1 | - | 28.2 | 1.9 | 1.0 | - | 2.9 | 2.8 | 1.8 | - | 3.8 | 55.2 | 54.5 | - | 56.0 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | | | | |

**Age-Adjusted Percentages for Selected Topics (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | | | | |
|  | No Smoking in Home | | | | Binge Drinking | | | | Heavy Drinking | | | | Overweight (BMI≥25.0) | | | | Obese (BMI≥30.0) | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 82.0 | 80.0 | - | 84.1 | 19.2 | 17.9 | - | 20.5 | 7.8 | 6.9 | - | 8.7 | 59.8 | 58.2 | - | 61.4 | 23.8 | 22.4 | - | 25.3 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 79.7 | 76.6 | - | 82.7 | 23.6 | 21.6 | - | 25.5 | 8.1 | 6.8 | - | 9.4 | 68.3 | 66.2 | - | 70.4 | 25.8 | 23.8 | - | 27.8 |
| female | 84.0 | 81.3 | - | 86.8 | 15.1 | 13.4 | - | 16.8 | 7.4 | 6.2 | - | 8.6 | 51.2 | 48.8 | - | 53.6 | 20.6 | 18.7 | - | 22.5 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| white | 81.4 | 79.0 | - | 83.9 | 21.8 | 20.2 | - | 23.5 | 8.7 | 7.6 | - | 9.8 | 59.0 | 57.2 | - | 60.8 | 22.1 | 20.6 | - | 23.7 |
| black | 75.4 | 64.4 | - | 86.4 | 14.4 | 9.3 | - | 19.5 | † |  |  |  | 67.9 | 61.4 | - | 74.4 | 35.9 | 28.7 | - | 43.2 |
| hispanic | 86.5 | 80.7 | - | 92.4 | 12.9 | 9.9 | - | 15.9 | 5.9 | 3.5 | - | 8.4 | 65.1 | 60.2 | - | 70.1 | 27.8 | 23.5 | - | 32.0 |
| asian | 78.3 | 70.1 | - | 86.5 | 9.3 | 5.8 | - | 12.9 | † |  |  |  | 48.1 | 39.0 | - | 57.2 | 7.3 | 3.3 | - | 11.4 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 76.5 | 71.1 | - | 81.9 | 19.4 | 16.0 | - | 22.8 | 10.1 | 7.4 | - | 12.8 | 68.0 | 64.2 | - | 71.7 | 34.8 | 30.9 | - | 38.6 |
| no disability | 83.7 | 81.5 | - | 85.9 | 19.2 | 17.8 | - | 20.7 | 7.4 | 6.5 | - | 8.3 | 57.5 | 55.7 | - | 59.3 | 20.8 | 19.3 | - | 22.3 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | † |  |  |  | 14.4 | 9.0 | - | 19.7 | 7.4 | 3.3 | - | 11.4 | 65.4 | 58.5 | - | 72.4 | 31.3 | 25.0 | - | 37.6 |
| high school | 75.9 | 71.3 | - | 80.6 | 18.9 | 16.0 | - | 21.8 | 8.2 | 6.3 | - | 10.2 | 64.9 | 61.6 | - | 68.2 | 28.3 | 25.2 | - | 31.5 |
| college 1–3 yrs | 79.9 | 75.8 | - | 84.1 | 20.8 | 17.9 | - | 23.6 | 8.3 | 6.4 | - | 10.2 | 62.4 | 59.2 | - | 65.7 | 24.7 | 21.9 | - | 27.5 |
| college 4+ yrs | 90.1 | 88.1 | - | 92.1 | 20.2 | 18.3 | - | 22.1 | 7.5 | 6.3 | - | 8.7 | 53.6 | 51.4 | - | 55.7 | 17.7 | 16.0 | - | 19.4 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 72.3 | 65.2 | - | 79.3 | 13.3 | 10.1 | - | 16.4 | 4.7 | 2.8 | - | 6.6 | 61.8 | 57.0 | - | 66.6 | 31.1 | 26.5 | - | 35.6 |
| $25,000–34,999 | 74.9 | 67.2 | - | 82.5 | 12.2 | 8.1 | - | 16.4 | 4.6 | 2.3 | - | 7.0 | 58.3 | 51.6 | - | 65.0 | 25.8 | 20.1 | - | 31.5 |
| $35,000–49,999 | 81.7 | 81.0 | - | 82.3 | 20.8 | 16.8 | - | 24.8 | 12.0 | 8.6 | - | 15.3 | 63.6 | 58.8 | - | 68.4 | 29.1 | 24.5 | - | 33.8 |
| $50,000–74,999 | 85.7 | 80.6 | - | 90.9 | 23.0 | 18.5 | - | 27.5 | 9.3 | 6.2 | - | 12.5 | 62.0 | 57.1 | - | 66.9 | 24.2 | 20.2 | - | 28.3 |
| $75,000+ | 89.7 | 86.9 | - | 92.4 | 22.3 | 20.0 | - | 24.5 | 9.1 | 7.5 | - | 10.8 | 59.3 | 56.7 | - | 61.8 | 19.4 | 17.3 | - | 21.5 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | | | | |

**Age-Adjusted Percentages for Selected Topics (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | | | | |
|  | Any physical Activity in past month | | | | Received 3 Shots HBV Vaccine | | | | Pre-diabetes | | | | Diabetes | | | | Ever had Asthma | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 80.6 | 79.3 | - | 81.9 | 40.0 | 37.0 | - | 42.9 | 8.2 | 6.8 | - | 9.6 | 8.3 | 7.5 | - | 9.1 | 15.3 | 14.1 | - | 16.4 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 81.9 | 80.1 | - | 83.6 | 32.4 | 28.4 | - | 36.4 | 7.8 | 6.2 | - | 9.3 | 9.1 | 7.9 | - | 10.2 | 11.9 | 10.5 | - | 13.3 |
| female | 79.3 | 77.4 | - | 81.1 | 47.4 | 43.3 | - | 51.4 | 8.5 | 6.4 | - | 10.6 | 7.6 | 6.6 | - | 8.6 | 18.9 | 17.1 | - | 20.7 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| white | 83.6 | 82.3 | - | 84.9 | 39.9 | 36.5 | - | 43.3 | 6.2 | 5.1 | - | 7.4 | 7.2 | 6.4 | - | 7.9 | 15.5 | 14.2 | - | 16.8 |
| black | 75.8 | 69.6 | - | 81.9 | 45.3 | 33.1 | - | 57.4 | † |  |  |  | 16.1 | 11.0 | - | 21.2 | 19.2 | 13.1 | - | 25.2 |
| hispanic | 67.5 | 62.8 | - | 72.2 | 39.1 | 29.9 | - | 48.4 | 15.4 | 9.8 | - | 21.0 | 12.1 | 9.0 | - | 15.3 | 16.5 | 13.1 | - | 20.0 |
| asian | 76.5 | 68.2 | - | 84.9 | 59.7 | 51.0 | - | 68.4 | 12.0 | 11.3 | - | 12.6 | 11.6 | 4.9 | - | 18.3 | 14.4 | 6.0 | - | 22.8 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 68.0 | 64.5 | - | 71.5 | 35.8 | 28.6 | - | 42.9 | 15.4 | 10.3 | - | 20.6 | 14.3 | 12.0 | - | 16.6 | 24.4 | 21.1 | - | 27.7 |
| no disability | 84.7 | 83.3 | - | 86.1 | 41.6 | 38.4 | - | 44.9 | 6.5 | 5.3 | - | 7.7 | 6.2 | 5.4 | - | 6.9 | 12.8 | 11.6 | - | 14.0 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | 64.5 | 58.2 | - | 70.7 | 23.5 | 12.5 | - | 34.5 | 12.6 | 11.7 | - | 13.5 | 14.6 | 10.9 | - | 18.2 | 18.2 | 13.3 | - | 23.2 |
| high school | 72.0 | 69.1 | - | 75.0 | 33.1 | 27.1 | - | 39.0 | 8.3 | 5.9 | - | 10.7 | 9.1 | 7.6 | - | 10.5 | 14.1 | 11.7 | - | 16.4 |
| college 1–3 yrs | 79.9 | 77.3 | - | 82.5 | 40.1 | 34.3 | - | 46.0 | 10.7 | 7.7 | - | 13.7 | 8.9 | 7.3 | - | 10.5 | 15.7 | 13.4 | - | 18.1 |
| college 4+ yrs | 90.3 | 89.0 | - | 91.6 | 45.8 | 41.6 | - | 50.1 | 5.1 | 3.9 | - | 6.2 | 5.7 | 4.9 | - | 6.6 | 14.7 | 13.1 | - | 16.3 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 68.8 | 64.6 | - | 73.1 | 32.4 | 23.7 | - | 41.0 | 13.9 | 9.2 | - | 18.5 | 13.0 | 10.7 | - | 15.4 | 17.0 | 13.7 | - | 20.3 |
| $25,000–34,999 | 69.0 | 62.8 | - | 75.2 | 40.1 | 29.4 | - | 50.9 | 6.4 | 5.5 | - | 7.3 | 8.9 | 6.0 | - | 11.7 | 17.2 | 11.7 | - | 22.7 |
| $35,000–49,999 | 77.8 | 73.6 | - | 82.0 | 47.6 | 46.8 | - | 48.3 | 9.7 | 9.6 | - | 9.9 | 11.3 | 7.8 | - | 14.8 | 18.5 | 14.2 | - | 22.9 |
| $50,000–74,999 | 85.3 | 82.5 | - | 88.1 | 41.6 | 40.8 | - | 42.3 | 7.2 | 7.1 | - | 7.3 | 8.6 | 6.5 | - | 10.7 | 15.1 | 11.4 | - | 18.8 |
| $75,000+ | 89.0 | 87.3 | - | 90.7 | 45.3 | 45.0 | - | 45.7 | 6.3 | 4.4 | - | 8.1 | 5.8 | 4.6 | - | 7.0 | 14.6 | 12.7 | - | 16.5 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | | | | |

**Age-Adjusted Percentages for Selected Topics (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | | | | |
|  | Currently have Asthma | | | | Ever Diagnosed with COPD | | | | Ever Diagnosed with Cancer | | | | Ever Diagnosed with Depression | | | | Self-Identified as Homosexual, bisexual, or other | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 10.3 | 9.4 | - | 11.3 | 5.0 | 4.4 | - | 5.7 | 10.2 | 9.4 | - | 10.9 | 19.3 | 18.0 | - | 20.6 | 7.3 | 6.3 | - | 8.3 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 6.2 | 5.2 | - | 7.2 | 4.0 | 3.3 | - | 4.8 | 9.2 | 8.2 | - | 10.2 | 15.3 | 13.6 | - | 16.9 | 6.2 | 5.0 | - | 7.4 |
| female | 14.3 | 12.7 | - | 15.9 | 5.8 | 4.8 | - | 6.7 | 11.0 | 9.9 | - | 12.2 | 22.9 | 21.0 | - | 24.8 | 8.4 | 6.9 | - | 10.0 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| white | 10.2 | 9.1 | - | 11.3 | 4.9 | 4.3 | - | 5.6 | 11.2 | 10.4 | - | 12.1 | 20.0 | 18.5 | - | 21.5 | 8.1 | 6.8 | - | 9.3 |
| black | 15.6 | 9.7 | - | 21.5 | † |  | - |  | † |  | - |  | 17.2 | 12.1 | - | 22.4 | 7.6 | 3.4 | - | 11.8 |
| hispanic | 11.4 | 8.4 | - | 14.3 | 4.9 | 3.1 | - | 6.7 | 5.1 | 2.4 | - | 7.9 | 23.0 | 19.1 | - | 27.0 | 5.1 | 3.2 | - | 7.1 |
| asian | † |  |  |  | † |  |  |  | 4.8 | 3.6 | - | 6.0 | 11.4 | 4.7 | - | 18.1 | 4.2 | 4.1 | - | 4.2 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 17.7 | 14.9 | - | 20.6 | 12.6 | 10.3 | - | 15.0 | 12.6 | 10.5 | - | 14.7 | 48.3 | 44.5 | - | 52.1 | 12.5 | 9.3 | - | 15.6 |
| no disability | 8.3 | 7.3 | - | 9.3 | 2.5 | 2.0 | - | 3.0 | 9.6 | 8.8 | - | 10.5 | 11.8 | 10.7 | - | 13.0 | 6.1 | 5.2 | - | 7.1 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | 14.1 | 9.6 | - | 18.7 | 9.5 | 6.1 | - | 12.9 | 5.2 | 3.4 | - | 7.0 | 30.4 | 24.4 | - | 36.4 | 9.5 | 4.2 | - | 14.8 |
| high school | 9.6 | 7.7 | - | 11.5 | 6.9 | 5.6 | - | 8.2 | 10.3 | 8.6 | - | 12.0 | 21.6 | 18.8 | - | 24.3 | 7.2 | 5.2 | - | 9.1 |
| college 1–3 yrs | 9.8 | 8.0 | - | 11.6 | 5.2 | 3.9 | - | 6.4 | 11.3 | 9.7 | - | 13.0 | 20.5 | 17.8 | - | 23.1 | 6.0 | 4.4 | - | 7.6 |
| college 4+ yrs | 9.6 | 8.2 | - | 10.9 | 2.2 | 1.7 | - | 2.8 | 10.6 | 9.6 | - | 11.7 | 14.9 | 13.2 | - | 16.6 | 7.1 | 5.7 | - | 8.6 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 11.7 | 9.0 | - | 14.5 | 9.7 | 7.4 | - | 12.1 | 8.1 | 6.2 | - | 9.9 | 34.9 | 30.4 | - | 39.4 | 8.7 | 5.4 | - | 12.0 |
| $25,000–34,999 | 12.7 | 7.5 | - | 17.9 | 5.5 | 3.2 | - | 7.8 | 8.8 | 6.2 | - | 11.4 | 22.1 | 16.7 | - | 27.4 | 9.4 | 5.6 | - | 13.2 |
| $35,000–49,999 | 10.9 | 7.4 | - | 14.5 | 5.2 | 3.5 | - | 7.0 | 10.7 | 7.7 | - | 13.7 | 17.9 | 14.2 | - | 21.5 | 5.8 | 3.5 | - | 8.1 |
| $50,000–74,999 | 10.0 | 7.0 | - | 13.1 | 4.5 | 2.9 | - | 6.1 | 12.7 | 10.0 | - | 15.4 | 16.1 | 12.4 | - | 19.8 | 7.5 | 4.5 | - | 10.6 |
| $75,000+ | 9.2 | 7.6 | - | 10.7 | 2.5 | 1.8 | - | 3.3 | 10.1 | 8.9 | - | 11.4 | 14.7 | 12.9 | - | 16.6 | 6.2 | 4.6 | - | 7.8 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | | | | |

**Age-Adjusted Percentages for Selected Topics (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | | | | |
|  | Ever Tested for HIV - ages 18-64 | | | | Tested for HIV in past year - ages 18-64 | | | | Sexual Violence - Women | | | | Drinking and Driving | | | | Always Use a Seatbelt | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 47.8 | 45.8 | - | 49.7 | 10.7 | 9.4 | - | 12.0 | 17.6 | 14.6 | - | 20.5 | 2.9 | 2.3 | - | 3.5 | 81.1 | 79.7 | - | 82.4 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 44.6 | 41.9 | - | 47.2 | 10.9 | 9.0 | - | 12.8 | *n/a* |  | - |  | 4.0 | 3.0 | - | 5.0 | 76.5 | 74.5 | - | 78.5 |
| female | 51.0 | 48.3 | - | 53.7 | 10.7 | 8.9 | - | 12.5 | 17.6 | 14.7 | - | 20.5 | 1.9 | 1.3 | - | 2.6 | 85.4 | 83.6 | - | 87.1 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | . |  |  |  |
| white | 46.3 | 44.1 | - | 48.5 | 8.9 | 7.5 | - | 10.3 | 18.4 | 14.9 | - | 22.0 | 2.8 | 2.2 | - | 3.5 | 80.8 | 79.2 | - | 82.4 |
| black | 67.1 | 59.2 | - | 74.9 | 20.4 | 13.6 | - | 27.2 | 18.0 | 17.0 | - | 19.0 | † |  | - |  | 82.6 | 77.3 | - | 87.8 |
| hispanic | 59.8 | 59.2 | - | 60.3 | 18.8 | 18.5 | - | 19.1 | 12.0 | 11.3 | - | 12.6 | 2.8 | 1.2 | - | 4.4 | 84.2 | 81.0 | - | 87.5 |
| asian | 28.0 | 27.5 | - | 28.5 | 7.9 | 7.9 | - | 8.0 | 6.6 | 6.6 | - | 6.6 | † |  | - |  | 87.0 | 82.3 | - | 91.7 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 59.4 | 54.9 | - | 63.9 | 16.7 | 12.8 | - | 20.6 | 33.2 | 25.0 | - | 41.4 | 3.0 | 1.5 | - | 4.6 | 73.4 | 69.9 | - | 76.9 |
| no disability | 45.0 | 42.9 | - | 47.1 | 9.4 | 8.1 | - | 10.8 | 13.6 | 10.8 | - | 16.4 | 2.9 | 2.3 | - | 3.5 | 82.7 | 81.3 | - | 84.1 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | 49.6 | 40.9 | - | 58.3 | 13.9 | 7.5 | - | 20.3 | 15.4 | 10.6 | - | 20.3 | † |  |  |  | 77.0 | 70.8 | - | 83.1 |
| high school | 47.0 | 42.8 | - | 51.2 | 9.8 | 7.2 | - | 12.5 | 18.5 | 17.6 | - | 19.4 | 2.5 | 1.2 | - | 3.7 | 74.8 | 71.9 | - | 77.8 |
| college 1–3 yrs | 49.4 | 45.4 | - | 53.4 | 12.6 | 9.8 | - | 15.4 | 17.3 | 12.1 | - | 22.5 | 3.7 | 2.3 | - | 5.2 | 76.3 | 73.3 | - | 79.2 |
| college 4+ yrs | 47.9 | 45.3 | - | 50.6 | 9.2 | 7.6 | - | 10.9 | 17.1 | 12.7 | - | 21.5 | 2.7 | 2.0 | - | 3.4 | 88.2 | 86.5 | - | 89.8 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 59.3 | 53.3 | - | 65.3 | 20.5 | 15.1 | - | 26.0 | 22.5 | 12.9 | - | 32.0 | † |  |  |  | 77.8 | 73.7 | - | 81.8 |
| $25,000–34,999 | 52.9 | 44.4 | - | 61.3 | 14.7 | 14.6 | - | 14.8 | 21.0 | 20.8 | - | 21.2 | † |  |  |  | 77.2 | 71.6 | - | 82.9 |
| $35,000–49,999 | 49.4 | 48.9 | - | 50.0 | 12.9 | 12.0 | - | 13.8 | 26.9 | 25.7 | - | 28.0 | † |  |  |  | 76.5 | 72.2 | - | 80.8 |
| $50,000–74,999 | 47.1 | 41.1 | - | 53.0 | 11.3 | 7.6 | - | 15.0 | 11.9 | 11.9 | - | 11.9 | 4.5 | 2.2 | - | 6.9 | 77.3 | 73.0 | - | 81.6 |
| $75,000+ | 44.7 | 41.8 | - | 47.7 | 8.5 | 6.5 | - | 10.4 | 15.2 | 11.0 | - | 19.4 | 3.4 | 2.3 | - | 4.5 | 84.7 | 82.6 | - | 86.9 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | | | | |

**Age-Adjusted Percentages for Selected Topics (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | | | | | | | | | | | | | | | |
|  | Ever Prescribed Opiate | | | | Non-medical Use of Opiate in past year | | | | Ever Prescribed Marijuana | | | | Non-Medical Use of Marijuana in past year | | | |
|  | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | | % | 95% CI | | |
| Overall | 31.9 | 29.4 | - | 34.4 | 2.6 | 1.8 | - | 3.5 | 1.9 | 1.1 | - | 2.6 | 13.0 | 11.0 | - | 15.1 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| male | 30.0 | 26.6 | - | 33.4 | 3.9 | 2.4 | - | 5.3 | 2.1 | 1.0 | - | 3.1 | 16.6 | 13.7 | - | 19.6 |
| female | 33.7 | 30.0 | - | 37.3 | 1.5 | 0.8 | - | 2.2 | † |  |  |  | 9.6 | 6.8 | - | 12.4 |
| Race-ethnicity\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| white | 35.4 | 32.5 | - | 38.4 | 2.5 | 1.5 | - | 3.4 | 2.2 | 1.2 | - | 3.2 | 14.1 | 11.8 | - | 16.5 |
| black | 26.1 | 15.6 | - | 36.6 | † |  |  |  | † |  |  |  |  |  | - |  |
| hispanic | 14.5 | 8.4 | - | 20.6 | † |  |  |  | † |  |  |  | 6.7 | 3.2 | - | 10.1 |
| asian | 15.7 | 7.1 | - | 24.4 | 1.0 | 0.9 | - | 1.1 | 1.2 | 1.1 | - | 1.2 | 2.5 | 2.5 | - | 2.5 |
| Disability¶ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| disability | 45.8 | 39.3 | - | 52.3 | 5.3 | 2.8 | - | 7.8 | 5.7 | 2.5 | - | 8.9 | 23.3 | 16.9 | - | 29.7 |
| no disability | 27.9 | 25.3 | - | 30.5 | 1.7 | 1.0 | - | 2.4 | 0.9 | 0.4 | - | 1.3 | 10.6 | 8.8 | - | 12.5 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| < high school | † |  |  |  | † |  |  |  | † |  |  |  |  |  |  |  |
| high school | 31.5 | 26.3 | - | 36.8 | 4.4 | 2.0 | - | 6.8 | 4.2 | 1.8 | - | 6.6 | 14.5 | 10.6 | - | 18.5 |
| college 1–3 yrs | 36.3 | 30.9 | - | 41.7 | 2.5 | 1.1 | - | 3.9 | † |  |  |  | 14.8 | 11.0 | - | 18.7 |
| college 4+ yrs | 31.5 | 28.3 | - | 34.7 | 1.2 | 0.6 | - | 1.7 | † |  |  |  | 9.9 | 7.4 | - | 12.3 |
| Household Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <$25,000 | 32.7 | 25.3 | - | 40.1 | 7.2 | 3.2 | - | 11.1 | † |  |  |  | 18.6 | 13.0 | - | 24.2 |
| $25,000–34,999 | 37.9 | 28.0 | - | 47.8 | † |  |  |  | † | . |  |  | 11.9 | 5.6 | - | 18.2 |
| $35,000–49,999 | 33.7 | 33.2 | - | 34.1 | 3.1 | 2.9 | - | 3.4 | 3.8 | 3.7 | - | 3.8 | 21.8 | 21.4 | - | 22.1 |
| $50,000–74,999 | 38.2 | 30.1 | - | 46.3 | † |  |  |  | † |  |  |  | 13.9 | 7.8 | - | 20.0 |
| $75,000+ | 33.8 | 30.0 | - | 37.7 | † |  |  |  | † |  |  |  | 9.9 | 7.0 | - | 12.9 |
| \* White, Black, and Asian race categories refer to non-Hispanic  † Insufficient data  ¶ See p 67 for definition of disability | | | | | | | | | | | | | | | | | |

## Massachusetts and National Estimates

|  |  |  |  |
| --- | --- | --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | | | |
| Variables | MA  % | US Median¶  % | US Range¶  % |
| Overall Health Measures |  |  |  |
| Fair or poor health | 14.1 | 16.7 | 11.6 – 34.3 |
| 15+ poor mental health days | 11.3 | 11.2 | 7.8 – 15.9 |
| 15+ days in poor physical health | 9.7 | 10.9 | 7.2 – 17.1 |
| Health Care Access and Utilization |  |  |  |
| Have personal health care provider | 88.9 | 78.2 | 67.0 – 88.9 |
| Could not see doctor due to cost | 8.8 | 12.1 | 7.4 – 21.6 |
| Checkup in Past Year | 78.7 | 70.8 | 58.8 – 81.7 |
| Dental Visit in the past year | 73.7 | 66.3 | 50.8 – 77.8 |
| 6 or more teeth missing | 13.6 | 15.0 | 8.8 – 29.3 |
| Risk factors and preventive behaviors |  |  |  |
| Current smoker | 13.6 | 17.0 | 6.6 – 25.1 |
| Former smoker | 26.7 | 24.9 | 10.1 – 32.0 |
| Use Smokeless Tobacco | 2.0 | 4.0 | 1.1 – 9.8 |
| Quit attempt among current Smokers | 59.9 | 58.7 | 49.9 – 75.7 |
| Binge drinking | 17.8 | 16.9 | 11.3 – 25.5 |
| Heavy drinking | 7.5 | 6.5 | 3.5 – 11.1 |
| Overweight (BMI>=25.0) | 60.2 | 65.3 | 53.4 – 71.3 |
| Obesity (BMI>=30.0) | 23.6 | 30.1 | 22.3 – 37.7 |
| physical activity in past month | 80.0 | 76.7 | 58.3 – 84.3 |
| Flu vaccine in past year (50-64) | 45.1 | 40.7 | 16.6 – 49.1 |
| Flu vaccine in past year (65+) | 57.1 | 58.2 | 28.0 – 67.5 |
| Ever had pneumonia vaccination (65+) | 76.4 | 73.4 | 30.3 – 79.7 |
| Chronic Health Conditions |  |  |  |
| Diabetes | 9.3 | 10.5 | 6.6 – 15.3 |
| Ever had asthma | 15.3 | 14.0 | 9.3 – 17.5 |
| Currently have asthma | 10.3 | 9.1 | 5.1 – 12.2 |
| COPD | 5.4 | 6.2 | 3.2 – 13.9 |
| Cancer | 11.4 | 11.6 | 3.3 – 14.6 |
| Myocardial Infarction (35+) | 5.7 | 6.0 | 3.1 – 10.0 |
| Angina (35+) | 5.5 | 5.7 | 2.5 – 10.7 |
| Stroke (35+) | 3.5 | 4.1 | 1.7 – 6.7 |
| Cancer Screening |  |  |  |
| Met Recommendation for Colorectal Cancer Screening (50-74) | 76.3 | 67.1 | 43.8 – 76.3 |
| Mammography in past 2 years (50-74) | 86.3 | 77.5 | 64.1 – 86.3 |
| Pap Smear in past Three Years (21-65) | 84.1 | 79.8 | 65.7 – 85.7 |
| Other Topics |  |  |  |
| Ever tested for HIV (18-64) | 45.6 | 41.9 | 25.6 – 76.3 |
| Drinking & Driving | 2.8 | 2.1 | 0.8 – 11.4 |
| Unintentional Falls (65+) | 29.0 | 29.9 | 22.7 – 37.5 |
| Injury from Unintentional Fall (65+) | 11.3 | 11.0 | 5.8 – 15.7 |
| Seatbelt Use | 81.3 | 85.2 | 64.2 – 93.4 |
| ¶ The US median percentage and range are based on data for all 50 states, District of Columbia, and Puerto Rico. | | | |

## Item-Specific Non-Response

|  |  |
| --- | --- |
| **Massachusetts Behavioral Risk Factor Surveillance System, 2016** | |
| Variables | Percentage of Non-Response\*  % |
| Overall Health Measures |  |
| Fair or poor health | 0.30 |
| 15+ days in poor physical health | 3.02 |
| 15+ poor mental health days | 2.55 |
| Disability | 5.26 |
| No health insurance (ages 18-64) | 1.04 |
| Have personal health care provider | 0.43 |
| Could not see doctor due to cost | 0.31 |
| Had Checkup in Past Year | 1.63 |
| Dental Visit in the past year | 1.68 |
| 6 or more teeth missing | 4.17 |
| Current smoker | 5.40 |
| Former smoker | 5.40 |
| Quit attempt among current smokers | 0.76 |
| E-cigarette use | 5.09 |
| Smokeless tobacco use | 4.99 |
| Binge drinking | 7.78 |
| Heavy drinking | 8.12 |
| Overweight | 11.11 |
| Obesity | 11.11 |
| Physical Activity | 0.26 |
| Flu vaccine in the past year (50-64) | 6.66 |
| Flu Vaccine in the Past Year (65+) | 5.75 |
| Ever had pneumonia vaccine (65+) | 9.62 |
| HPV Vaccination | 24.8 |
| Hepatitis B Vaccine | 34.5 |
| Ever had Shingles Vaccine | 14.1 |
| Pre-Diabetes | 0.61 |
| Diabetes | 0.24 |
| Ever had asthma | 0.36 |
| Currently have asthma | 0.70 |
| Heart Attack (35+) | 0.64 |
| Angina or Coronary Heart Disease (35+) | 0.93 |
| Stroke (35+) | 0.39 |
| Ever Cancer Diagnosis | 0.50 |
| Chronic Obstructive Pulmonary Disease | 0.68 |
| Ever diagnosed with Depression | 0.52 |
| Met Recommendation for Colorectal Cancer Screening (50-74) | 13.8 |
| Mammography in past 2 yrs (50-74) | 9.0 |
| Pap in previous three years (21-65) | 2.5 |
| Ever tested for HIV (18-64) | 13.65 |
| Drinking & Driving | 10.89 |
| Unintentional Falls (65+) | 7.32 |
| Seatbelt Use | 8.14 |
| **\*** The item-specific unweighted non-response % was calculated using the number of respondents who had finished the demographic section of the 2016 BRFSS as the denominator and those who reported don’t know or refused as the numerator. | |

# Terms, Definitions and Statistical Methodology

This report presents data from the **combined sample** - both landline and cell phone respondents. The combined sample contained 8,415 respondents.

* The survey design included two versions (or “splits”), to allow for an increase in the number of optional modules and Massachusetts-added questions asked without an increase in the length of the survey:
* Split 1 contained 1,951 landline respondents and 1,797 cell phone respondents,
* Split 2 contained 2,011 landline respondents and 2,086 cell phone respondents,
* In order to obtain more information about minorities, cities of Boston, Brockton, Lowell, Lynn, New Bedford, Quincy, Springfield, and Worcester were over-sampled.

The BRFSS data were **weighted** to represent the adult population of Massachusetts. Weighting makes the sample representative in two ways:

* It adjusts for differences in the probability of selection due to the telephone number, the number of telephones in a household, and the number of adults in a household.
* Adjustments are also made to reduce bias from non-response, non-coverage of households without landline telephones or cell phones, and differential participation by sex, age, race/ethnicity, marital status, education, and owner/renter status.

All the weighting factors were multiplied together to get the final weight for each respondent so that the weighted BRFSS data represent the adult population of Massachusetts. Weights were produced for the combined (landline and cell phone) sample, for the entire landline sample, and for each of the three versions of the landline questionnaire.

The underlying **sample size (N)** in each cell of the presented tables is the number of individuals who responded to the specific BRFSS question. These are unweighted numbers. These numbers exclude individuals who reported "not sure, don't know," those who refused to answer the question, or had no response coded (missing or skipped). The underlying size of the sample used to produce particular estimates varies depending on whether the data come from the combined land line and cell phone sample or from one of the sample splits through which some of the optional modules and Massachusetts-added questions were administered.

The **crude percentage** is the weighted proportion of respondents in a particular category. When percentages are reported in the text of this report, they are referring to crude percentages. The crude percentage of respondents used in this report reflects the burden of a certain health status indicator in a specific group of the population, e.g. age group, gender, etc.

The **age-adjusted percentage** is a weighted average of the age-specific proportions. The projected 2000 USpopulation was used as a standard for the calculation. The age-adjusted percentage is a single, calculated number. Age-adjustment is done in order to be able to compare population subgroups with potentially different age structures (e.g., Hispanic vs. White non-Hispanic). The reader should exercise caution when using age-adjusted percentages for the comparison of survey data subgroups. While the estimates have been adjusted by age, other factors like gender, income, or education and their possible correlation may also have an impact on the results of subgroup comparisons (see Appendix). The percentages were not age-adjusted for health indicators obtained for restricted age groups such as cancer screening. Age-adjusted estimates are presented in tables in the Appendix of this report.

The **data presented** here are univariate, descriptive percentages that are either crude or age-adjusted. No multivariate analysis was performed on this data. In addition, all data presented here are cross-sectional and thus this report contains no inferences about causality.

**The US median** was calculated for the estimates from all participating states, the District of Columbia, and territories for each respective indicator when available. The values were ordered from lowest to highest and the middle value is then chosen (if the number of values is odd) or calculated as the average of the two middle values (if the number of values is even). The median then represents a value for which half of the states have higher estimates and half of the states have lower estimates.

**The 95% confidence interval (95% CI)** is a range of values determined by the degree of variability of the data within which the true value is likely to lie. The confidence interval indicates the precision of a calculation; the wider the interval the less precision in the estimate. The 95% confidence intervals used in this report for crude and age-adjusted percentages are the indicators of reliability (or stability) of the estimate. Smaller population subgroups or smaller numbers of respondents yield less precise estimates.

**Suppression of the presented estimates**:

1. Estimates and their 95% confidence intervals are not presented in the tables if the underlying sample size is less than 50 respondents.
2. Following recommendations of the National Center for Health Statistics, data are not presented in the tables if a ratio of standard error to the estimate itself exceeds 30% (relative standard error of greater than 30%). Standard error of the estimate is a measure of its variability. Bigger standard errors yield wider confidence intervals and less reliable estimates.[[1]](#endnote-1)

For this report, respondents were classified as having a **disability** if they answered “yes” to one or more of the following questions:

1. Are you deaf or do you have serious difficulty hearing?

2. Are you blind or do you have serious difficulty seeing, even when wearing glasses?

3. Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering or making decisions?

4. Do you have serious difficulty walking or climbing stairs?

5. Do you have difficulty dressing or bathing?

6. Because of a physical, mental or emotional condition, do you have difficulty doing errands alone such as visiting a doctor’s office or shopping?

**Note: The definition of disability has changed from prior years’ reports**

**Race-ethnicity categories** in this report include White, Black, Hispanic, and Asian. When referring to White, Black, or Asian, these categories include only non-Hispanic respondents. All respondents reporting Hispanic ethnicity are included in the Hispanic category regardless of race.

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Limitations

There are some limitations that should be considered when interpreting results from the BRFSS, based on the nature of the survey data:

* The health characteristics estimated from the BRFSS pertain to the adult population, aged 18 years and older, who live in households with either a landline telephone or a cell phone.
* Telephone coverage varies across population subgroups: minorities and those in lower socioeconomic groups typically have lower telephone coverage. No direct method of compensating for non‑telephone coverage is employed by the BRFSS; however, weighted data are used, which may partially correct for any bias caused by non‑telephone coverage. Weighting is designed to make the total number of cases equal to some desired number which, for MA BRFSS data, is the number of people in the state who are aged 18 years and older. In the BRFSS, such weighting serves as a blanket adjustment for non-coverage and non-response and forces the total number of cases to equal population estimates.
* All data collected by the BRFSS are based on self-report from the respondents.  By its nature, self-reported data may be subject to error for several reasons. An individual may have difficulty remembering events that occurred a long time ago or the frequency of certain behaviors. Some respondents may over report socially desirable behaviors, while underreporting behaviors they perceive to be less acceptable. Finally, because the BRFSS surveys a randomly selected sample of Massachusetts adults, these results may differ from another random sample to some extent simply due to chance.
* Persons with the most severe limitations and with certain disabilities are not represented in this sample since individuals living in institutions are not included in the BRFSS.  BRFSS methodology also precludes anyone from assisting respondents in completing the interview if the selected adult had difficulty in participating for any reason, such as an intellectual or developmental disability.

1. [↑](#endnote-ref-1)