Massachusetts Department of Public Health

Health Survey Program
Center for Health Information, Statistics, Research, and Evaluation

A Profile of Health Among Massachusetts Adults, 2004

Results from the Behavioral Risk Factor Surveillance System

Mitt Romney, Governor
Kerry Healey, Lieutenant Governor
Timothy R. Murphy, Secretary of Health and Human Services
Paul J. Cote, Jr., Commissioner of Public Health

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ACKNOWLEDGEMENTS

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We wish to express our gratitude to the residents of Massachusetts who participated in this survey, and to ORC Macro, Inc. and the dedicated interviewers who helped make this survey possible.

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Highlights

The highlights from the 2004 Massachusetts Behavioral Risk Factor Surveillance System report are presented below. For the details of each indicator, including definitions and variations in subgroup populations, please refer to the corresponding sections of the report.

Overall Health Status

- 12% of Massachusetts adults surveyed reported their health was either fair or poor.
- 9% of Massachusetts adults reported that they had 15 or more days of poor mental health in the past 30 days.

Quality of Life

- 7% of Massachusetts adults surveyed reported 15 or more days of feeling sad, blue or depressed in the past 30 days.
- 8% of adults reported 15 or more days of poor physical health in the past month.

Insurance Status

- 9% of Massachusetts adults surveyed, ages 18-64, reported being uninsured at the time of the survey.

Health Care Access

- 87% of Massachusetts adults surveyed reported that they had a personal health care provider.
- 8% of Massachusetts adults reported that they had not seen a doctor at some point in the past year due to cost.

Dental Health Care

- 78% of Massachusetts adults surveyed reported that they had been to a dentist or dental clinic in the past year.
- 15% of Massachusetts adults reported having six or more teeth missing due to decay or gum disease.

Tobacco Use

- 19% of Massachusetts adults surveyed reported that they were current smokers.
- 2% of Massachusetts adults were heavy smokers (smoking more than 20 cigarettes per day).

Smoking Cessation

- 60% of Massachusetts smokers surveyed had stopped smoking for one day or longer in the past 12 months because they were trying to quit.
- 32% of Massachusetts smokers were planning to quit in the next 30 days.

Environmental Tobacco Smoke

- 75% of Massachusetts adults surveyed reported living in a household where smoking is not allowed anywhere.
- 69% of Massachusetts adults supported a ban on smoking in restaurants.

Alcohol Use

- 17% of Massachusetts adults surveyed reported binge drinking at some point in the past month.
- 6% of Massachusetts adults surveyed reported heavy drinking in the past month.

Overweight and Obesity

- 55% of Massachusetts adults surveyed were overweight based on their reported height and weight (BMI ≥ 25).
- 18% of Massachusetts adults were obese based on their reported height and weight (BMI ≥ 30).

Physical Activity

- 80% of Massachusetts adults surveyed reported some form of leisure time physical activity over the past month.

Flu Shot and Pneumonia Vaccine

- Among adults surveyed ages 50-64 years, 41% reported having a flu shot in the past year.
- 66% of adults ages 65-74 years and 75% of adults ages 75 years and older reported having a flu shot in the past year.
- Among adults ages 65 and older, 65% reported ever having a pneumonia vaccination.

Sunburn

- 37% of Massachusetts adults surveyed reported having a sunburn within the past 12 months.

Diabetes

- 6% of Massachusetts adults surveyed reported that they had ever been told by a doctor that they had diabetes.

Asthma

- 15% of Massachusetts adults surveyed reported that they had ever been told by a doctor that they had asthma.
- 10% of Massachusetts adults reported that they currently have asthma.

Disability

- 20% of Massachusetts adults surveyed reported having a disability.
- 5% of Massachusetts adults reported that they had a disability that caused them to need help with routine activities.

Colorectal Cancer Screening

- Among adults surveyed age 50 and older, 34% reported ever having had a blood stool test using a home kit to determine if their stool contained blood.
- Among adults age 50 and older, 54% reported having had a sigmoidoscopy or colonoscopy in the past five years.

Prostate Cancer Screening

- 56% of Massachusetts men surveyed ages 50 and older reported having a prostate-specific antigen (PSA) test in the past year.
- 63% of Massachusetts men age 50 and older reported having a digital rectal exam (DRE) in the past year.

Breast Cancer Screening

- Among women surveyed age 40 years and older, 83% reported having a mammogram in the past two years.
- Among women age 40 years and older, 87% of women reported having a clinical breast exam in the past two years.

Cervical Cancer Screening

- 86% of Massachusetts women surveyed reported having a pap smear in the past three years.

Family Planning

- 24% of women surveyed ages 18-44 who were currently pregnant or had been pregnant in the past 5 years reported the pregnancy had been unplanned.
- 88% of Massachusetts women ages 18-44 reported that they or their partners use some form of birth control.

HIV Testing

- Among adults surveyed ages 18-64, 46% reported ever having been tested for HIV.
- 13% of adults ages 18-64 reported that they had been tested for HIV in the past year.

Illicit Drug Use

- 56% of Massachusetts adults surveyed reported ever having used an illicit drug.
- 8% of Massachusetts adults reported having used an illicit drug in the past 30 days.

Firearms

- 12% of Massachusetts adults surveyed reported that firearms were kept in or around their homes.

INTRODUCTION

The Behavioral Risk Factor Surveillance System (BRFSS) is a continuous, random–digit–dial, telephone survey of adults ages 18 and older that is conducted in all states as a collaboration between the federal Centers for Disease Control and Prevention (CDC) and state departments of health. The survey has been in the field in Massachusetts since 1986. 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. In 2004, these questions addressed health status, health care access and utilization, exercise, fruit and vegetable consumption, asthma, diabetes, immunizations, tobacco use, alcohol consumption, HIV/AIDS, and other selected public health topics. In addition to the core CDC questions, the Massachusetts BRFSS added a number of topics including environmental tobacco exposure, disability and quality of life, breast and colorectal cancer screening, illicit drug use, family planning, and other selected topics. Interviews were administered in the respondents' preferred language, with a choice of English, Spanish, or Portuguese. Interviews were conducted with 62% of those determined to be eligible to participate in the survey. In 2004, 8,203 interviews were conducted among Massachusetts adults.

ABOUT THIS REPORT

This report summarizes selected results from the 2004 Massachusetts BRFSS. First, a description of survey questions and analyses used for key variables is provided. In addition, overall percentage estimates of these variables are presented, along with key findings of interest. Where possible, figures comparing 2004 results to previous years' data are provided for variables that have been measured over several years. This is done in order to assess trends in specific characteristics over time. Tables detailing the overall estimates and estimates by demographic characteristics (gender, age, race-ethnicity, education, household income) and Massachusetts health service regions are also provided. Crude percentages and age-adjusted percentages and their 95% confidence intervals are presented in tables for each topic.

Whenever possible, a comparison of Massachusetts results to national data and Healthy People 2010 Objectives are provided in the Appendix. For national comparisons, the median percentage and the range of estimates for all fifty states, the District of Columbia, and Puerto Rico are presented.

All the percentages in the report are weighted to reflect both the probability that an individual was selected to participate in the survey and the differential participation by sex, age, and race-ethnicity. There may be slight differences in estimates between this report and previous publications due to different sample weighting methods.

Readers should be aware that all data collected by the BRFSS are based on self-reported information from the respondents. 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 or under-report behaviors they perceive to be less acceptable; and respondents may also report certain risks,

behaviors and perceptions differently due to their respective cultural and linguistic backgrounds. Additionally, 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.

TERMS USED IN THIS REPORT

The **crude percentage** is the weighted proportion of respondents in a particular category. Crude percentages are used for the numbers presented throughout the text in this report. Age-specific percentages are simply crude rates for a specific age group such as adults ages 18-24.

The **age-adjusted percentage** is a weighted average of the age-specific rates where the weights are the proportions of persons in the corresponding age groups of the projected 2000 US population. Age-adjustment is done in order to eliminate differences that may in fact be due to different age distributions in the population when comparing different population subgroups (e.g., Hispanics vs. non-Hispanic Whites), different geographies (e.g., a community rate compared with the statewide rate) or across time (e.g., Massachusetts in 1990 compared to Massachusetts in 2004). Please note that while the estimates have been adjusted by age, other factors like gender, income, or education may also have an impact on the results of subgroup comparisons in this report.

Statistical estimates in this report include 95% confidence intervals. A **95% confidence interval** is a range of values in which the true value can be expected 95% of the time under similar circumstances.

Statistical significance was considered as a basis when we use the terms “more likely”, “less likely”, “about the same “, “increase” or “decrease.” Measurement error and other biases were also taken into account to some extent; this was dealt with on a case-by-case base. The percentages for respective subgroups were presented when a difference was not statistically significant but worth noting due to the potential public health impact.

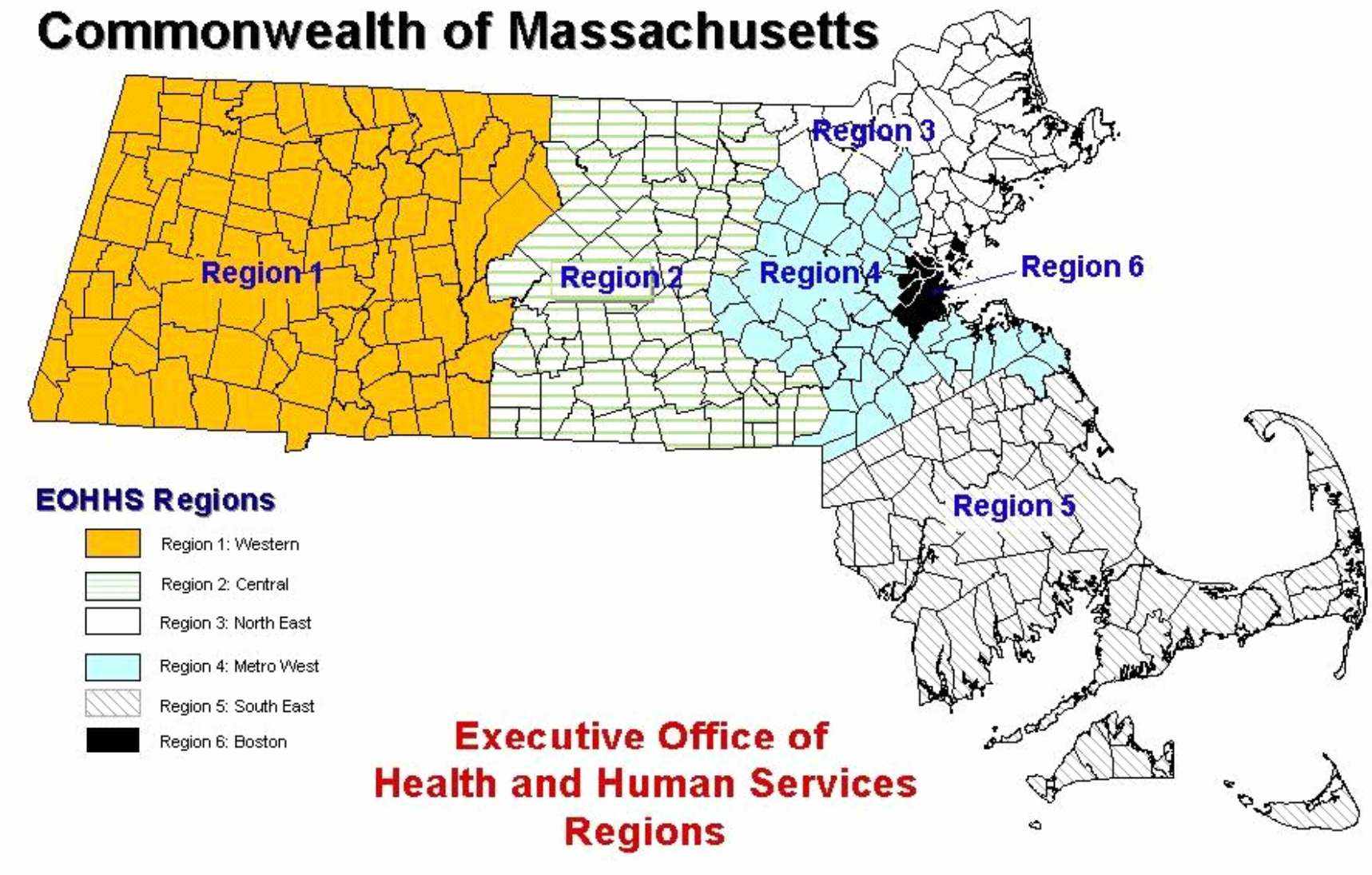
Race-ethnicity categories in this report include White, Black, Hispanic, and Asian. When referring to White, Black, or Asian, these categories include only non-Hispanic respondents. All respondents reporting Hispanic ethnicity are included in the Hispanic category.

Healthy People 2010 Objectives: *The Healthy People 2010: National Health Promotion and Disease Prevention Objectives* is a national agenda that aims to significantly improve the health of Americans in the decade preceding the year 2010. Developed through an extensive governmental, professional, and public national process, Healthy People 2010 defined two broad national goals: to increase quality and years of healthy life and to eliminate health disparities. These goals were supported by 476 specific objectives that set priorities for public health during the first decade of the 2000’s. The objectives were organized into 28 priority areas and for each objective, a numeric national target for the year 2010 was set. For each health status indicator in this report that has a corresponding Healthy People 2010 Objective, the year 2010 target is shown in the summary table at the end of the document (see pages 87).

DEMOGRAPHIC PROFILE OF MASSACHUSETTS BRFSS SURVEY RESPONDENTS

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS MASSACHUSETTS BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2004		
	UNWEIGHTED SAMPLE SIZE* N	WEIGHTED PERCENT (%)**
OVERALL	8,203	100.0
GENDER		
MALE	3,217	47.4
FEMALE	4,986	52.6
AGE GROUP		
18–24	445	12.3
25–34	1,254	18.0
35–44	1,668	21.1
45–54	1,745	18.1
55–64	1,345	12.8
65–74	838	8.5
75 AND OLDER	792	9.2
RACE-ETHNICITY***		
WHITE	6,664	83.2
BLACK	395	3.5
HISPANIC	747	8.0
ASIAN	181	2.8
OTHER	125	1.5
EDUCATION		
< HIGH SCHOOL	783	7.9
HIGH SCHOOL	2,087	24.0
COLLEGE 1–3 YRS	1,861	23.4
COLLEGE 4+ YRS	3,445	44.7
HOUSEHOLD INCOME		
<$25,000	1,883	21.0
$25–34,999	761	9.9
$35–49,999	1,054	14.0
$50–74,999	1,272	18.4
$75,000+	2,137	36.7
REGION		
I–WESTERN	1,412	14.7
II–CENTRAL	1,318	14.3
III–NORTH EAST	1,508	17.7
IV–METRO WEST	1,254	23.8
V–SOUTH EAST	1,526	28.9
VI–BOSTON	1,144	10.6

* Numbers may not total due to missing data.
** See BRFSS Methodology in Appendix.
*** White, Black and Asian race categories refer to non-Hispanic..


Commonwealth of Massachusetts
Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
EOHHS Regions
Region 1: Western
Region 2: Central
Region 3: North East
Region 4: Metro West
Region 5: South East
Region 6: Boston
Executive Office of
Health and Human Services
Regions

SECTION 1: OVERALL HEALTH MEASURES

Section 1.1: Overall Health Status

Self-assessed health status is a predictor of mortality and morbidity that reflects known demographic differences, socioeconomic disparities and health patterns within subpopulations. It can help determine the existing burdens of preventable diseases, injuries, and disabilities and can provide new insights to health behaviors that affect physical and mental health. Self-rated health status can also help to guide interventions and health policies to fulfill unmet health needs.[1]

Respondents were asked to describe their health as excellent, very good, good, fair, or poor. Respondents were also asked how many days during the past month they would describe their mental health as not good. Presented here are the percentage of adults who reported that their health was fair or poor and the percentage of adults who reported 15 or more days of poor mental health.

FAIR OR POOR HEALTH (Table 1.1)

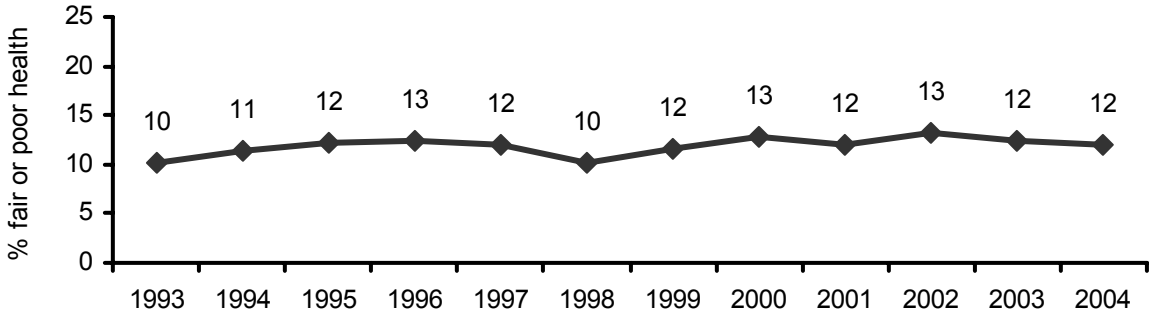
- 12% of Massachusetts adults reported their health as being fair or poor.
- The percentage of adults who reported fair or poor health increased with increasing age for those 25 and older, with the highest percentage of adults reporting fair or poor health being in the 75 and older age group (30%).
- Hispanic adults (27%) were more likely than White (11%), Black (11%) or Asian (4%) adults to report fair or poor health.
- The percentage of adults reporting fair or poor health decreased with both increasing education and income, adults with four or more years of college education were almost seven times less likely to report fair or poor health than those with less than a high school education.
- Adults in the Metro West region of the state (8%) were less likely to report fair or poor health than adults from most other regions in the state.
- From 1993 to 2004, the percentage of Massachusetts adults who reported fair or poor health has remained relatively stable, ranging from 10-13% (Figure 1.1.1).

15+ POOR MENTAL HEALTH DAYS IN PAST MONTH (Table 1.1)

- 9% of Massachusetts adults reported that they had 15 or more poor mental health days in the past 30 days.
- Adults ages 18-24 years were more likely to report poor mental health than adults ages 65 years and older.
- Asian adults (2%) were less likely than White (9%), Black (12%), or Hispanic (14%) adults to report poor mental health.
- Reports of poor mental health decreased with increasing education, with adults with less than a high school education (15%) being 2.5 times more likely than those with four or more years of college education (6%) to report poor mental health.
- From 1993 to 2004, the percentage of Massachusetts adults who reported poor mental health has remained relatively stable, ranging from 8-10% (Figure 1.1.2).

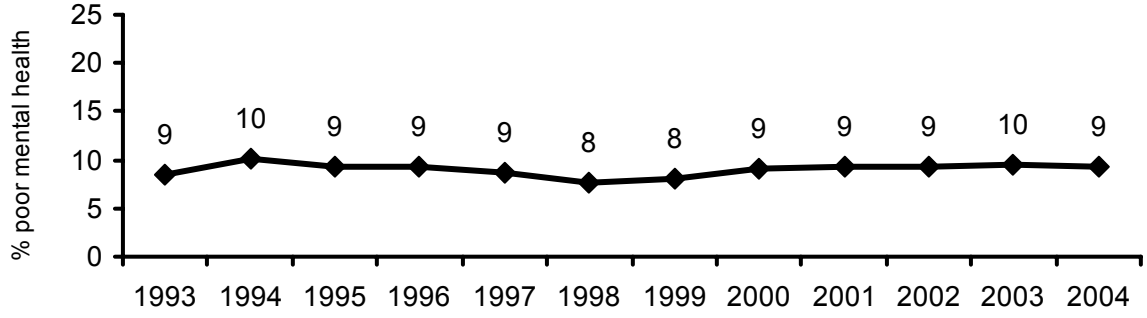
[1] National Center for Chronic Disease Prevention and Health Promotion. Measuring Healthy Days. Available at: http://www.cdc.gov/nccdphp/hrqol/pdfs/mhd.pdf Accessed July 25, 2005

Figure 1.1.1: Trend in the percentage of Massachusetts adults with fair or poor health, 1993 - 2004



Source: Massachusetts BRFSS, 1993-2004

Figure 1.1.2: Trend in the percentage of Massachusetts adults with poor mental health for 15 or more days in past month, 1993 - 2004



Source: Massachusetts BRFSS, 1993-2004

TABLE 1.1 – OVERALL HEALTH STATUS AMONG MASSACHUSETTS ADULTS, 2004

	FAIR OR POOR HEALTH			15+ POOR MENTAL HEALTH DAYS		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	12.0	11.9	(11.0-12.8)	9.2	9.2	(8.4-10.1)
GENDER						
MALE	11.8	12.0	(10.6-13.4)	7.4	7.3	(6.1-8.6)
FEMALE	12.3	11.7	(10.6-12.8)	10.8	11.0	(9.8-12.3)
AGE GROUP						
18–24	9.8		(6.2-13.5)*	11.6		(7.7-15.6)*
25–34	5.7		(4.0-7.3)*	8.8		(7.0-10.7)*
35–44	6.8		(5.3-8.3)*	9.6		(7.8-11.4)*
45–54	11.6		(9.8-13.4)*	10.9		(9.0-12.8)*
55–64	16.0		(13.6-18.4)*	9.8		(7.6-12.0)*
65–74	17.2		(14.1-20.3)*	4.9		(3.3-6.6)*
75 AND OLDER	30.1		(25.9-34.3)*	5.6		(3.5-7.6)*
RACE-ETHNICITY**						
WHITE	10.8	10.2	(9.2-11.2)	8.9	9.1	(8.1-10.1)
BLACK	11.4	14.0	(9.6-18.4)	11.6	11.7	(7.1-16.3)
HISPANIC	27.2	35.0	(30.2-39.9)	14.1	13.3	(9.9-16.7)
ASIAN	4.3	12.8	(2.4-23.2)	2.4	1.4	(0.2-2.6)
EDUCATION						
< HIGH SCHOOL	38.2	37.3	(32.4-42.2)	14.8	14.8	(11.3-18.3)
HIGH SCHOOL	16.0	15.0	(13.0-17.0)	11.2	11.7	(9.7-13.6)
COLLEGE 1–3 YRS	12.1	12.0	(10.1-13.8)	12.1	12.4	(10.4-14.5)
COLLEGE 4+ YRS	5.2	5.3	(4.4-6.2)	5.6	5.6	(4.4-6.9)
HOUSEHOLD INCOME						
<$25,000	27.5	28.1	(25.3-31.0)	16.4	19.0	(16.4-21.7)
$25–34,999	18.1	17.6	(13.6-21.6)	11.6	13.0	(9.4-16.6)
$35–49,999	9.7	9.8	(7.5-12.0)	10.2	10.5	(7.7-13.2)
$50–74,999	6.5	6.6	(4.8-8.5)	7.2	7.0	(5.1-8.9)
$75,000+	3.9	5.3	(3.6-7.0)	5.4	5.4	(4.0-6.9)
REGION						
I–WESTERN	15.5	14.6	(12.1-17.1)	11.6	11.6	(9.1-14.0)
II–CENTRAL	12.4	12.7	(10.4-15.0)	11.3	11.2	(8.8-13.5)
III–NORTH EAST	12.4	12.4	(10.0-14.9)	9.6	9.8	(7.4-12.3)
IV–METRO WEST	8.2	7.9	(6.4-9.4)	6.6	6.7	(5.1-8.3)
V–SOUTH EAST	11.8	11.4	(9.3-13.5)	9.5	9.5	(7.6-11.5)
VI–BOSTON	15.4	17.6	(14.7-20.6)	7.7	8.2	(6.1-10.2)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 1.2: Quality of Life

Health-related quality of life refers to a person's or group's perceived physical and mental health. These data are used to measure the effects of numerous disorders, short- and long-term disabilities, and diseases in different populations. These measures can be used to help guide policies and interventions to improve health.[2]

All respondents were asked to report the number of days that they had felt sad, blue, or depressed during the past month. All respondents were also asked to report the number of days during the past month that their physical health, which includes physical illness and injury, had not been good. Presented here is the percentage of respondents who reported that they felt sad, blue, or depressed for at least 15 days of the past month and the percentage of respondents who reported that they had experienced at least 15 days of poor physical health in the previous month.

15+ DAYS SAD, BLUE, OR DEPRESSED (Table 1.2)

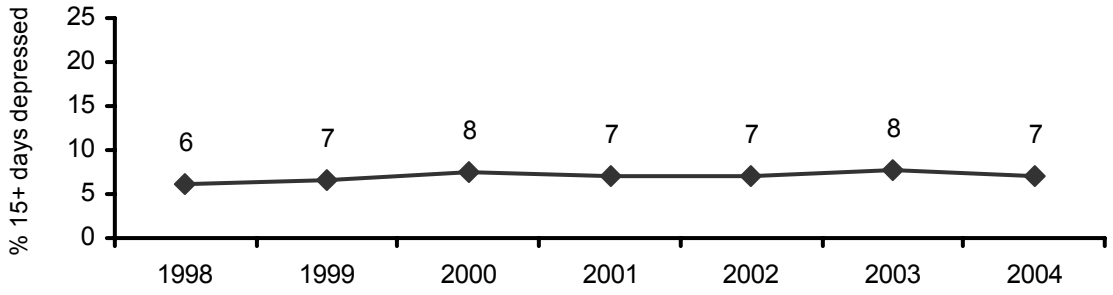
- 7% of Massachusetts adults felt sad, blue or depressed for 15 or more days during the previous month.
- Women (8%) were more likely than men (6%) to report feeling sad, blue or depressed for 15 or more days in the previous month.
- Hispanic (14%) and Black (12%) adults were more likely than White (6%) and Asian (2%) adults to report feeling sad, blue or depressed for 15 or more days in the previous month.
- Adults with a household income of less than $25,000 were more likely to report feeling sad, blue or depressed for 15 or more days in the previous month.
- Feeling sad, blue or depressed for 15 or more days in the previous month decreased with increasing education.
- Over the past seven years, the percentage of Massachusetts adults who reported that they experienced 15 or more days of feeling sad, blue or depressed in the past month has remained relatively stable (Figure 1.2.1).

15+ DAYS IN POOR PHYSICAL HEALTH (Table 1.2)

- 8% of Massachusetts adults reported being in poor physical health for 15 or more days in the previous month.
- Asian adults (1%) were less likely than White (8%), Black (9%) or Hispanic (10%) adults to report 15 or more days of poor physical health in the past month.
- Poor physical health decreased with both increasing education and increasing income.
- From 1998 to 2004, the percentage of Massachusetts adults who reported that they experienced 15 or more days of feeling sad, blue or depressed in the past month was in the range of 6-9% (Figure 1.2.2).

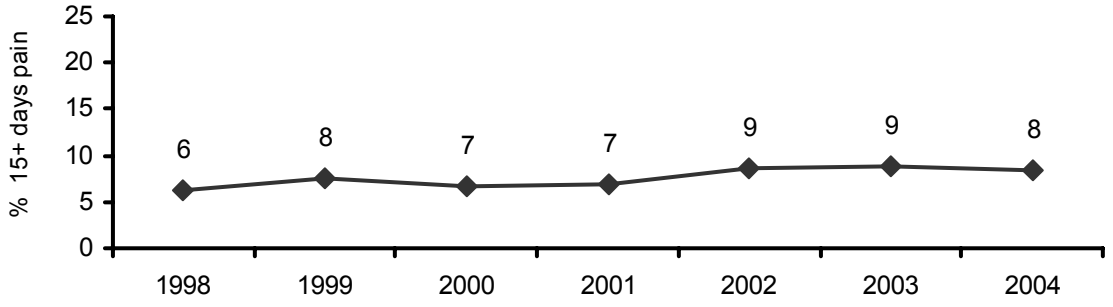
[2] National Center for Chronic Disease Prevention and Health Promotion, Health-Related Quality of Life. Available at: http://www.cdc.gov/hrqol/ Accessed July 25, 2005.

Figure 1.2.1: Trend in the percentage of Massachusetts adults who felt sad, blue or depressed 15 or more days in the past month, 1998-2004



Source: Massachusetts BRFSS, 1998-2004

Figure 1.2.2: Trend in the percentage of Massachusetts adults who were with physical pain 15 or more days in the past month, 1998-2004



Source: Massachusetts BRFSS, 1998-2004

TABLE 1.2 – QUALITY OF LIFE AMONG MASSACHUSETTS ADULTS, 2004				
	15+ DAYS SAD, BLUE, OR DEPRESSED		15+ DAYS IN POOR PHYSICAL HEALTH	
	CRUDE %	AGE–ADJUSTED % 95% CI	CRUDE %	AGE–ADJUSTED % 95% CI
OVERALL	7.1	7.2 (6.2-8.1)	8.3	8.2 (7.4-8.9)
GENDER				
MALE	5.6	5.5 (4.2-6.8)	8.0	8.2 (7.0-9.4)
FEMALE	8.4	8.7 (7.3-10.1)	8.5	8.2 (7.2-9.1)
AGE GROUP				
18–24	10.2	(5.9-14.6)*	5.1	(2.5-7.6)*
25–34	5.7	(3.6-7.7)*	3.5	(2.3-4.7)*
35–44	6.2	(4.4-8.1)*	5.7	(4.3-7.1)*
45–54	9.3	(7.1-11.5)*	9.5	(7.8-11.2)*
55–64	7.8	(5.4-10.1)*	11.8	(9.7-14.0)*
65–74	5.0	(2.9-7.0)*	11.3	(8.7-13.9)*
75 AND OLDER	5.0	(2.6-7.4)*	17.8	(14.3-21.4)*
RACE-ETHNICITY**				
WHITE	6.4	6.4 (5.4-7.5)	8.4	7.9 (7.1-8.8)
BLACK	12.0	10.6 (4.9-16.2)	8.5	10.0 (6.3-13.8)
HISPANIC	14.1	17.1 (12.1-22.0)	10.0	12.8 (9.5-16.0)
ASIAN	1.6	1.2 (0.2-7.7)	1.2	1.7 (0.5-5.8)
EDUCATION				
< HIGH SCHOOL	15.3	15.7 (11.1-20.3)	18.2	17.7 (14.2-21.2)
HIGH SCHOOL	9.8	10.2 (7.9-12.6)	11.9	11.2 (9.4-13.0)
COLLEGE 1–3 YRS	7.9	7.8 (5.8-9.7)	9.8	9.9 (8.2-11.5)
COLLEGE 4+ YRS	4.0	3.9 (2.7-5.2)	3.9	3.8 (3.1-4.5)
HOUSEHOLD INCOME				
<$25,000	16.9	18.6 (15.2-22.0)	19.0	19.5 (17.2-21.8)
$25–34,999	7.6	7.9 (4.9-10.8)	11.3	11.3 (8.1-14.5)
$35–49,999	8.4	8.8 (5.7-12.0)	5.5	5.8 (3.8-7.7)
$50–74,999	4.1	4.1 (2.3-5.8)	5.7	5.6 (3.7-7.5)
$75,000+	2.7	2.9 (1.5-4.4)	3.7	4.3 (2.8-5.8)
REGION				
I–WESTERN	9.1	9.3 (6.5-12.1)	11.9	11.4 (9.0-13.7)
II–CENTRAL	8.2	8.0 (5.2-10.9)	8.1	8.1 (6.2-10.1)
III–NORTH EAST	6.2	6.5 (4.2-8.8)	7.5	7.5 (5.8-9.1)
IV–METRO WEST	5.1	5.0 (3.3-6.6)	5.7	5.5 (4.2-6.8)
V–SOUTH EAST	7.5	7.4 (5.3-9.5)	9.1	8.8 (7.0-10.5)
VI–BOSTON	8.3	8.6 (5.9-11.3)	9.3	10.4 (7.9-13.0)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic

SECTION 2: HEALTH CARE ACCESS AND UTILIZATION

Section 2.1: Health Insurance Status

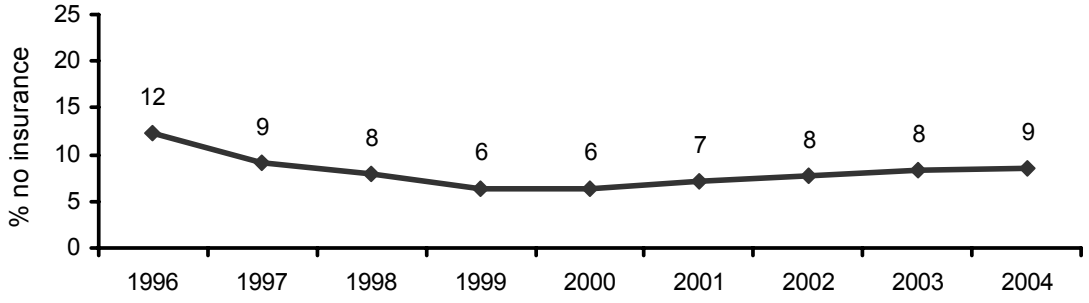
Health insurance status is a key factor affecting access to health care. Uninsured adults are less likely to receive preventive health services such as cancer screenings and vaccinations.[3] Lack of health-care coverage is also associated with delayed medical care and with a lower quality of care. Adults without health-care coverage are more likely to have poor health and be at greater risk for chronic diseases than those who have health-care coverage. [3]

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.[4] This included health care coverage from their employer or someone else's employer, a plan that they had bought on their own, Medicare, MassHealth, and coverage through the military, or the Indian Health Service. Presented here is the percentage of Massachusetts adults ages 18-64 years reporting no health care coverage.

NO HEALTH INSURANCE, AGES 18-64 (Table 2.1)

- 9% of Massachusetts adults in the survey sample reported that they were uninsured.
- Men (11%) were more likely than women (6%) to report being uninsured.
- Being uninsured decreased with increasing age, with 17% of adults ages 18-24 years reporting being uninsured as opposed to 4% of adults ages 55-64 years.
- Hispanic adults (26%) were more likely to report being uninsured than Black (11%), Asian (7%) or White (6%) adults.
- Being uninsured decreased with both increasing education and increasing income.
- The Metro West (5%) region had the lowest percentage of reports of being uninsured and Boston (14%) had the highest. However, none of the differences between regions were statistically significant.
- From 1996 to 1999, the percentage of adults ages 18-64 with no health insurance decreased from 12% to 6% and from 2000 to 2004, increased from 6% to 9% (Figure 2.1).

Figure 2.1: Trend in the percentage of Massachusetts adults ages 18 - 64 without health insurance, 1996 - 2004



[3] Self-assessed health status and selected behavioral risk factors among persons with and without health-care coverage. United States, 1994-1995. MMWR 47(09): 176-180.

[4] Please note that CDC estimates of uninsured adults, based solely upon the CDC core health insurance question may differ from estimates derived from the Massachusetts BRFSS. The Massachusetts BRFSS includes a follow-up question to ensure that respondents consider all possible types of health insurance coverage; the addition of this follow-up question leads to differences between CDC and Massachusetts BRFSS estimates.

TABLE 2.1 – NO HEALTH INSURANCE AMONG MASSACHUSETTS ADULTS, AGES 18-64, 2004			
	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	8.6	8.7	(7.6-9.8)
GENDER			
MALE	11.3	11.4	(9.6-13.2)
FEMALE	6.1	6.1	(4.9-7.3)
AGE GROUP			
18–24	17.0		(12.2-21.8)*
25–34	12.7		(9.9-15.4)*
35–44	6.2		(4.7-7.7)*
45–54	4.8		(3.6-5.9)*
55–64	4.4		(2.9-5.9)*
RACE-ETHNICITY**			
WHITE	6.4	6.7	(5.6-7.9)
BLACK	10.7	9.6	(5.8-13.5)
HISPANIC	26.2	22.7	(17.8-27.7)
ASIAN	7.1	8.0	(2.3-13.7)
EDUCATION			
< HIGH SCHOOL	27.4	25.0	(19.6-30.5)
HIGH SCHOOL	12.3	12.3	(9.7-14.9)
COLLEGE 1–3 YRS	9.1	9.2	(7.0-11.4)
COLLEGE 4+ YRS	3.7	4.2	(2.7-5.6)
HOUSEHOLD INCOME			
<$25,000	22.7	21.6	(18.3-24.9)
$25–34,999	16.8	16.7	(11.9-21.4)
$35–49,999	9.2	9.5	(6.5-12.5)
$50–74,999	4.4	4.8	(2.3-7.2)
$75,000+	2.2	2.2	(1.3-3.1)
REGION			
I–WESTERN	9.4	9.3	(6.7-11.9)
II–CENTRAL	6.6	6.7	(4.6-8.8)
III–NORTH EAST	9.8	9.9	(7.2-12.6)
IV–METRO WEST	5.2	5.4	(3.3-7.5)
V–SOUTH EAST	9.1	9.9	(7.0-12.9)
VI–BOSTON	14.4	12.6	(9.1-16.0)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

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 in the past year due to cost. Presented here are the percentage of respondents who reported that they did have a personal health care provider and the percentage of respondents who reported that cost had prevented them from seeing a doctor at some point in the past year.

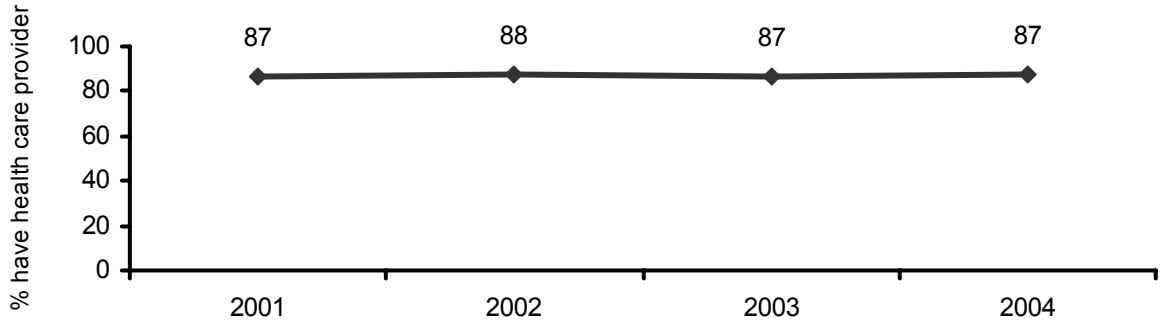
HAVE PERSONAL HEALTH CARE PROVIDER (Table 2.2)

- 87% of Massachusetts adults reported that they had a personal doctor or health care provider.
- Women (92%) were more likely than men (82%) to report having a personal doctor or health care provider.
- Adults ages 18-34 years (18-24 (68%) and 25-34 (77%)) were less likely to have a personal health care provider than adults 35 years and older (35-44 (90%), 45-54 (93%), 55-64 (96%), 65-74 (96%), and 75 and older (97%)).
- Adults with a household income of more than $75,000 (93%) were more likely to have a personal health care provider than adults with a household income of less than $25,000 (81%).
- Hispanic adults (66%) were less likely than White (90%), Black (88%) and Asian (84%) adults to report having a personal health care provider.
- The percentage of Massachusetts adults who have a personal health care provider remained relatively stable from 2001 to 2004, ranging from 87% to 88% (Figure 2.2.1).

COULD NOT SEE DOCTOR DUE TO COST (Table 2.2)

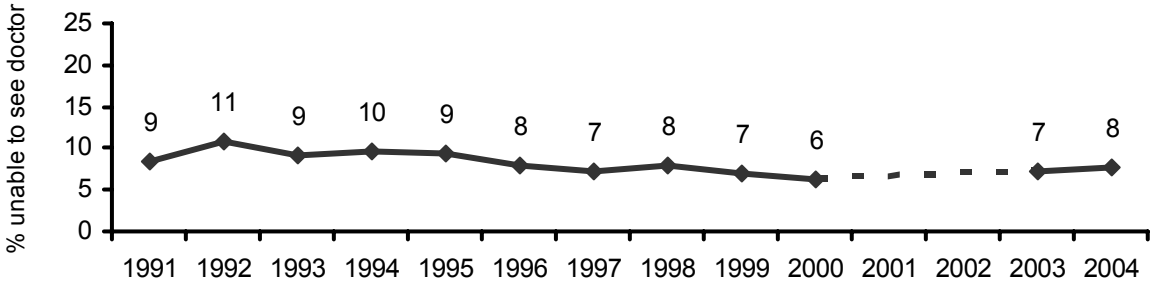
- 8% of Massachusetts adults reported that they had not seen a doctor at some point in the past year due to cost.
- Women and men were about equally likely to report being unable to see a doctor in the past year due to cost (7% of women and 8% of men).
- White adults (7%) were less likely than Hispanic (16%) and Black (16%) adults to report not seeing a doctor over the past year due to cost.
- Adults with an education level of 4 years or more of college (5%) were less likely than those with education levels of less than high school (15%), high school (9%), and 1-3 years of college (10%) to report not seeing a doctor over the past year due to cost.
- The percentage of adults reporting that they were unable to see a doctor due to cost decreased with increasing income.
- The percentage of Massachusetts adults who were unable to see a doctor due to cost decreased from 1991 to 2000 and then remained relatively stable since 2000 to 2004 (Figure 2.2.2).

Figure 2.2.1: Trend in the percentage of Massachusetts adults who have a personal health care provider, 2001-2004



Source: Massachusetts BRFSS, 2001-2004

Figure 2.2.2: Trend in the percentage of Massachusetts adults who were unable to see a doctor due to cost, 1991-2004



Source: Massachusetts BRFSS, 1991-2004

Note: Dotted line signifies years in which question was not asked.

TABLE 2.2 – HEALTH CARE ACCESS AMONG MASSACHUSETTS ADULTS, 2004

	HAVE PERSONAL HEALTH CARE PROVIDER			COULD NOT SEE DOCTOR DUE TO COST		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	87.3	87.1	(85.9-88.2)	7.7	7.8	(6.9-8.7)
GENDER						
MALE	81.7	81.9	(80.0-83.7)	8.0	8.0	(6.6-9.4)
FEMALE	92.4	92.0	(90.8-93.3)	7.4	7.7	(6.6-8.7)
AGE GROUP						
18–24	68.4		(62.5-74.4)*	13.6		(9.3-17.8)*
25–34	76.8		(73.4-80.2)*	9.2		(7.0-11.3)*
35–44	89.7		(87.9-91.5)*	8.4		(6.7-10.2)*
45–54	92.5		(90.8-94.1)*	6.5		(5.1-8.0)*
55–64	96.3		(94.9-97.7)*	5.6		(4.0-7.2)*
65–74	96.0		(94.4-97.7)*	4.1		(2.3-5.9)*
75 AND OLDER	96.8		(95.4-98.2)*	4.0		(2.4-5.7)*
RACE-ETHNICITY**						
WHITE	89.6	88.6	(87.3-89.8)	6.5	6.8	(5.8-7.7)
BLACK	88.0	89.5	(85.4-93.7)	15.6	15.3	(9.7-20.9)
HISPANIC	65.7	74.5	(70.5-78.5)	15.9	13.3	(9.8-16.8)
ASIAN	83.5	88.3	(83.8-92.9)	7.2	7.3	(2.6-12.0)
EDUCATION						
< HIGH SCHOOL	79.8	80.2	(76.2-84.3)	14.7	13.9	(9.8-18.1)
HIGH SCHOOL	84.8	83.9	(81.3-86.5)	8.7	8.9	(7.0-10.8)
COLLEGE 1–3 YRS	87.4	87.8	(85.5-90.1)	10.2	10.1	(8.3-11.9)
COLLEGE 4+ YRS	89.8	89.0	(87.1-90.9)	4.6	4.3	(3.5-5.2)
HOUSEHOLD INCOME						
<$25,000	81.0	80.8	(78.1-83.4)	16.3	17.2	(14.5-19.9)
$25–34,999	78.9	78.0	(73.3-82.6)	10.8	11.9	(8.5-15.3)
$35–49,999	88.1	88.2	(85.1-91.2)	11.1	11.7	(8.8-14.7)
$50–74,999	88.6	87.8	(84.7-90.8)	3.4	3.4	(2.0-4.7)
$75,000+	92.5	92.9	(91.3-94.5)	2.9	2.8	(1.8-3.8)
REGION						
I–WESTERN	87.9	87.5	(84.6-90.4)	8.9	8.8	(6.7-11.0)
II–CENTRAL	89.5	89.3	(86.6-91.9)	6.3	6.3	(4.6-7.9)
III–NORTH EAST	85.7	85.3	(82.5-88.1)	8.9	9.0	(6.7-11.4)
IV–METRO WEST	89.6	89.0	(86.5-91.6)	6.1	6.2	(4.3-8.0)
V–SOUTH EAST	88.6	87.3	(84.5-90.1)	7.4	7.9	(5.9-10.0)
VI–BOSTON	79.2	82.9	(79.9-85.8)	10.4	9.1	(6.5-11.7)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 2.3: Dental Health Care

Oral health is essential to general health and well-being. Over the past 20 years, the number of adults missing all their natural teeth in the U.S. has declined from 33% to 20% for those ages 55 to 64, and from 2% to 0.4% for those adults between ages 18 and 34.[5]

All respondents were asked how long it had been since they had last visited a dentist or dental clinic. Reported is the percentage of respondents reporting that they had been to a dentist or 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.

DENTAL VISIT IN PAST YEAR (Table 2.3)

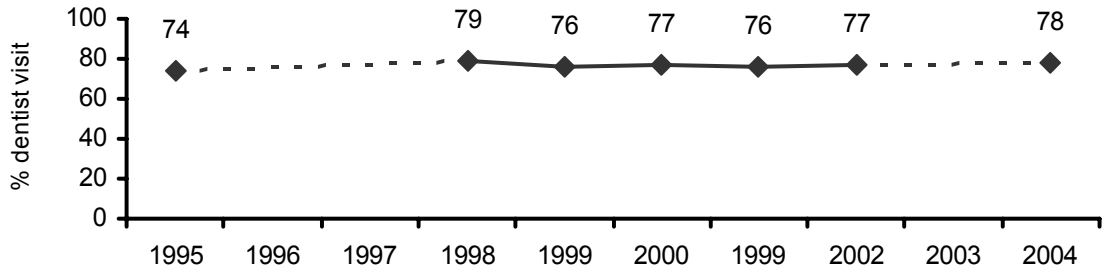
- 78% of Massachusetts adults reported that they had been to a dentist or dental clinic in the past year.
- Women (80%) were more likely than men (76%) to have been to the dentist or a dental clinic in the past year.
- White adults (80%) were more likely than Black (73%) and Hispanic (65%) adults to have been to the dentist or a dental clinic in the past year.
- The percentage of adults who had been to the dentist or a dental clinic in the past year increased with increasing education and income.
- Respondents in the Metro West region of the state were more likely than those living in other regions of the state to have been to the dentist in the past year.
- The percentage of Massachusetts adults who have been to a dentist or dental clinic in the past year has increased since 1995 (Figure 2.3.1).

SIX OR MORE TEETH MISSING DUE TO DECAY (Table 2.3)

- 15% of Massachusetts adults reported having six or more teeth missing due to decay or gum disease.
- Men and women reported having six or more missing teeth at similar rates (14% of men and 16% of women).
- The percentage of adults with six or more teeth missing due to decay or gum disease decreased with increasing education and income and increased with increasing age.
- Those in the Metro West region of the state were less likely than those in other regions of the state to report having six or more teeth missing due to decay or gum disease.
- The percentage of Massachusetts adults who have lost 6 or more teeth due to decay or gum disease has decreased from 1995 to 2004 (Figure 2.3.2).

[5] National Center for Chronic Disease Prevention and Health Promotion, Fact Sheet: Oral Health for Adults. Available at http://www.cdc.gov/OralHealth/factsheets/adult.htm Accessed August 18, 2005.

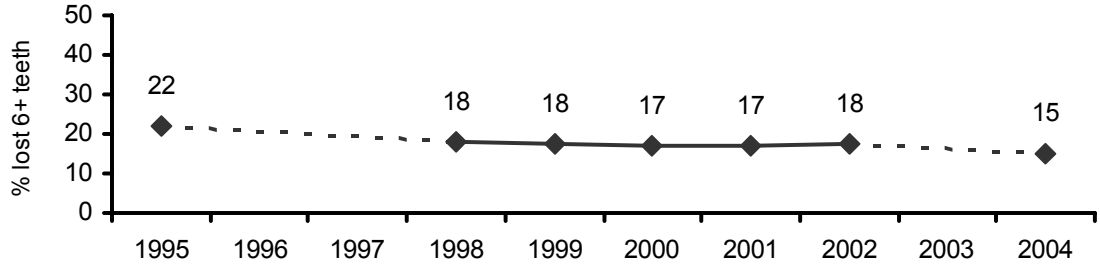
Figure 2.3.1: Trend in the percentage of Massachusetts adults who visited the dentist in the past year, 1995-2004



Source: Massachusetts BRFSS, 1995-2004

Note: Dotted line signifies years in which question was not asked.

Figure 2.3.2: Trend in the percentage of Massachusetts adults who have lost 6 or more teeth to decay or disease, 1995-2004



Source: Massachusetts BRFSS, 1995-2004

Note: Dotted line signifies years in which question was not asked.

TABLE 2.3– DENTAL HEALTH CARE AMONG MASSACHUSETTS ADULTS, 2004

	DENTAL VISIT IN PAST YEAR			6 OR MORE TEETH MISSING		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	78.2	78.2	(76.9-79.5)	15.1	14.9	(14.0-15.7)
GENDER						
MALE	75.8	75.8	(73.8-77.9)	13.9	14.5	(13.1-15.9)
FEMALE	80.4	80.6	(79.1-82.1)	16.2	15.1	(14.0-16.2)
AGE GROUP						
18–24	75.4		(70.2-80.5)*	0.7		(0.0-1.3)*
25–34	73.6		(70.3-76.9)*	2.0		(0.8-3.2)*
35–44	80.8		(78.3-83.3)*	5.0		(3.5-6.5)*
45–54	83.4		(81.0-85.8)*	15.7		(13.4-18.0)*
55–64	80.7		(77.9-83.5)*	28.2		(25.1-31.3)*
65–74	78.6		(75.3-81.9)*	33.8		(29.8-37.7)*
75 AND OLDER	71.2		(67.2-75.2)*	49.1		(44.5-53.7)*
RACE-ETHNICITY**						
WHITE	80.0	79.9	(78.5-81.3)	15.7	14.2	(13.3-15.1)
BLACK	73.3	71.4	(65.2-77.7)	11.9	16.6	(11.9-21.2)
HISPANIC	65.0	62.5	(57.3-67.7)	14.0	24.3	(20.3-28.3)
ASIAN	72.9	71.2	(58.9-83.5)	2.9	11.7	(0.9-22.6)
EDUCATION						
< HIGH SCHOOL	55.5	57.3	(52.3-62.3)	32.6	31.8	(27.6-36.0)
HIGH SCHOOL	72.3	72.3	(69.4-75.2)	23.6	21.6	(19.5-23.6)
COLLEGE 1–3 YRS	76.5	76.2	(73.4-78.9)	15.6	16.2	(14.3-18.1)
COLLEGE 4+ YRS	86.4	86.8	(85.2-88.3)	7.1	7.7	(6.7-8.7)
HOUSEHOLD INCOME						
<$25,000	58.9	59.2	(55.9-62.6)	29.3	27.3	(25.1-29.5)
$25–34,999	69.9	69.4	(64.6-74.1)	21.7	21.0	(16.5-25.6)
$35–49,999	75.4	74.9	(71.0-78.8)	16.1	16.1	(13.6-18.7)
$50–74,999	83.8	84.0	(81.2-86.8)	12.3	12.5	(10.3-14.7)
$75,000+	89.4	90.0	(88.3-91.7)	5.3	5.9	(4.5-7.2)
REGION						
I–WESTERN	75.4	75.8	(72.6-79.1)	18.8	17.5	(15.3-19.7)
II–CENTRAL	75.1	74.5	(71.1-77.8)	15.4	16.0	(13.6-18.4)
III–NORTH EAST	76.3	76.2	(73.0-79.3)	16.5	16.1	(14.0-18.2)
IV–METRO WEST	86.1	85.9	(83.4-88.4)	10.5	10.1	(8.5-11.6)
V–SOUTH EAST	76.8	76.5	(73.5-79.6)	17.4	15.9	(13.7-18.1)
VI–BOSTON	74.1	74.6	(71.3-78.0)	13.7	17.5	(14.7-20.2)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

SECTION 3: RISK FACTORS AND PREVENTIVE BEHAVIORS

Section 3.1: Tobacco Use

Tobacco use is the leading preventable cause of death, accounting for more than 9,000 deaths per year in Massachusetts alone.[6] It is a major risk factor for cancer, heart, and lung diseases. The health and economic burden of tobacco use has resulted in more than 2.7 billion dollars per year in health care costs in Massachusetts.[6] In 1993, the Massachusetts Tobacco Control Program was established to control tobacco use. Since the implementation of the program, the number of adults who smoke in Massachusetts has declined (Figure 3.1.1).

A current smoker was defined as someone who smoked at least 100 cigarettes in their lifetime and currently smoked either some days or everyday. A current smoker who reported smoking 21 or more cigarettes per day was defined as a heavy smoker. Presented here is the percentage of adults who are current smokers, and the percentage of adults who are heavy smokers.

CURRENT SMOKER (Table 3.1)

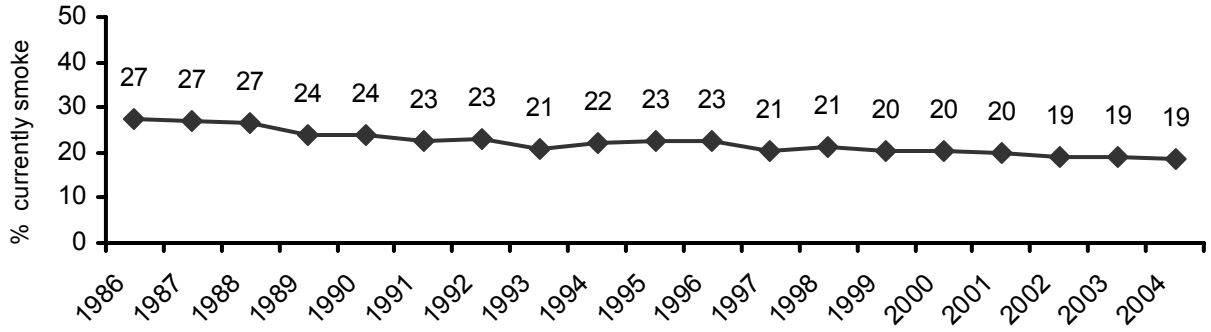
- 19% of Massachusetts adults reported being current smokers.
- Men (20%) and women (18%) were about equally likely to report that they were current smokers.
- Current smoking decreased with age with 25% of adults ages 18-24 years reporting current smoking as opposed to 6% of adults ages 75 years and older.
- Adults with an education level of 4 or more years of college (10%) were less likely than adults with an education level of less than high school (27%), high school (27%), or 1-3 years of college (22%) to report current smoking .
- Those with a household income of $75,000 or more (11%) were less likely than those with a household income of less than $75,000 to report being current smokers.
- The percentage of adults who report being current smokers has decreased from 1986 to 2004 (Figure 3.1.1).

HEAVY SMOKER (Table 3.1)

- 2% of Massachusetts adults reported they were heavy smokers.
- Similar rates of heavy smoking were reported by men (2%) and women (1%).
- Reports of heavy smoking were highest among respondents ages 45-64 years at 3%. However, there were no statistically significant differences in reports of heavy smoking based on age group.
- Reports of heavy smoking were highest among White adults at 2%, although there were no statistically significant differences in heavy smoking rates based on racial/ethnic group.
- The percentage of heavy smokers among Massachusetts adults has decreased from 1990 to 2004 (Figure 3.1.2).

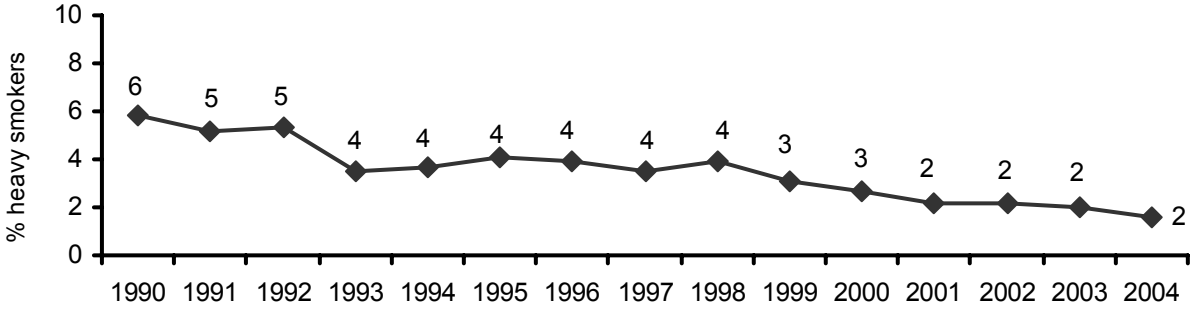
[6] Massachusetts Department of Public Health, Massachusetts Tobacco Control Program. Available at http://www.mass.gov/dph/mtcp/home.htm. Accessed June 30, 2005.

Figure 3.1.1: Trend in the percentage of Massachusetts adults who currently smoke, 1986 - 2004



Source: Massachusetts BRFSS, 1998-2004

Figure 3.1.2: Trend in the percentage of Massachusetts adults who are heavy smokers, 1990- 2004



Source: Massachusetts BRFSS, 1990-2004

TABLE 3.1 – TOBACCO USE AMONG MASSACHUSETTS ADULTS, 2004

	CURRENT SMOKER			HEAVY SMOKER		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	18.5	18.6	(17.4-19.8)	1.6	1.6	(1.2-2.1)
GENDER						
MALE	19.7	19.4	(17.5-21.4)	2.0	2.0	(1.2-2.8)
FEMALE	17.4	17.7	(16.3-19.2)	1.3	1.3	(0.8-1.7)
AGE GROUP						
18–24	24.7		(19.4-29.9)*	1.1		(0.0-2.8)*
25–34	21.2		(18.1-24.4)*	0.9		(0.0-1.7)*
35–44	20.4		(17.8-23.0)*	1.4		(0.6-2.3)*
45–54	19.6		(17.2-22.0)*	3.0		(1.7-4.3)*
55–64	18.3		(15.6-20.9)*	2.5		(1.3-3.8)*
65–74	10.2		(7.8-12.6)*	1.4		(0.3-2.6)*
75 AND OLDER	5.9		(3.6-8.2)*	0.6		(0.0-1.1)*
RACE-ETHNICITY**						
WHITE	18.3	18.9	(17.5-20.2)	1.9	1.9	(1.3-2.4)
BLACK	17.0	17.7	(12.9-22.4)	0.4	0.6	(0.1-2.4)
HISPANIC	19.6	16.8	(13.0-20.6)	†	†	--
ASIAN	10.7	8.5	(3.3-13.7)	†	†	--
EDUCATION						
< HIGH SCHOOL	26.5	28.2	(23.6-32.9)	2.4	2.7	(1.2-4.2)
HIGH SCHOOL	27.4	29.1	(26.2-32.1)	3.3	3.3	(2.0-4.6)
COLLEGE 1–3 YRS	22.4	22.7	(20.1-25.4)	1.7	1.8	(0.7-2.8)
COLLEGE 4+ YRS	10.2	10.3	(8.7-12.0)	0.6	0.6	(0.2-1.0)
HOUSEHOLD INCOME						
<$25,000	26.4	30.1	(26.9-33.2)	3.0	3.5	(1.9-5.1)
$25–34,999	28.7	31.3	(26.1-36.4)	4.4	5.1	(1.7-8.5)
$35–49,999	21.4	22.2	(18.6-25.9)	1.8	1.9	(0.7-3.2)
$50–74,999	17.9	17.0	(14.1-20.0)	1.3	1.1	(0.3-1.9)
$75,000+	11.4	10.4	(8.7-12.1)	0.7	0.7	(0.2-1.3)
REGION						
I–WESTERN	22.5	22.9	(19.7-26.1)	1.1	1.1	(0.4-1.7)
II–CENTRAL	20.0	19.9	(16.9-22.9)	2.1	1.9	(0.6-3.1)
III–NORTH EAST	19.8	20.3	(17.2-23.4)	0.9	1.0	(0.4-1.5)
IV–METRO WEST	12.1	12.3	(9.9-14.7)	1.9	2.0	(0.7-3.3)
V–SOUTH EAST	21.5	22.2	(19.0-25.4)	2.5	2.4	(1.3-3.5)
VI–BOSTON	16.6	16.4	(13.5-19.3)	0.8	1.0	(0.4-2.7)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers

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 are the percentage of 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 adults who reported that they did have plans to quit smoking within the next 30 days.

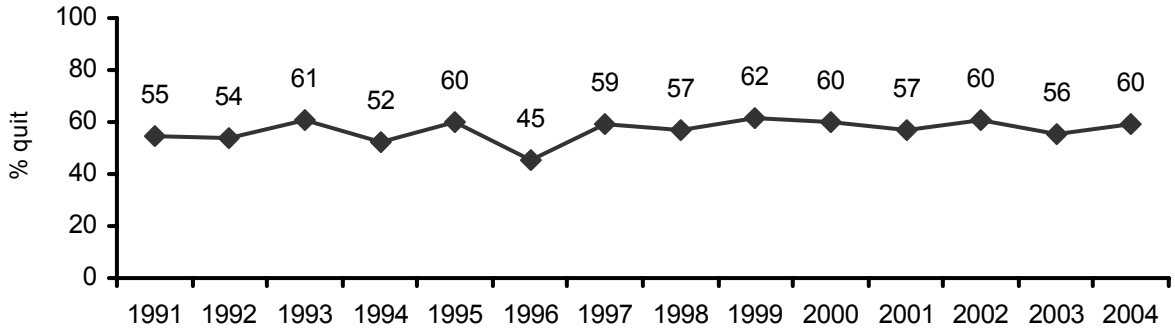
QUIT ATTEMPT AMONG CURRENT SMOKERS (Table 3.2)

- 60% of current smokers reported having made at least one quit attempt in the past year.
- Similar percentages of women (59%) and men (60%) smokers reported that they had made at least one quit attempt in the past year.
- Adults smokers ages 18-24 (79%) were more likely than adult smokers ages 55-74 to have made at least one quit attempt in the past year.
- Reports of having made at least one quit attempt were highest among Hispanic smokers (79%) although the difference across race/ethnicity was not significant.
- The percentage of adults who had made at least one quit attempt in the past year has been in the range of 45% to 62% from 1991 to 2004 (Figure 3.2.1).

PLANNING TO QUIT AMONG CURRENT SMOKERS (Table 3.2)

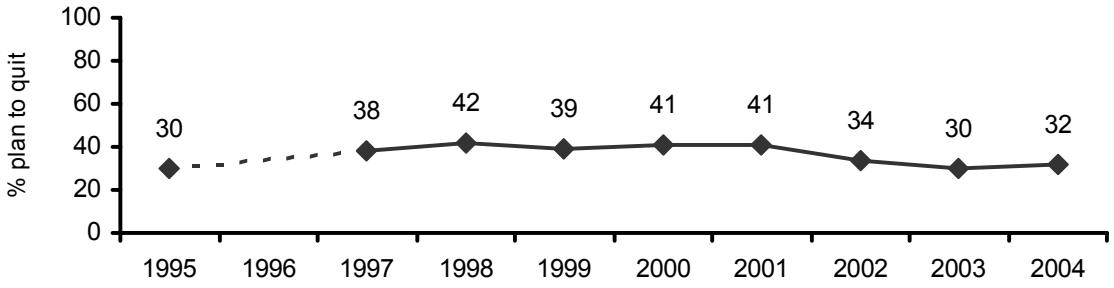
- 32% of Massachusetts smokers reported that they planned to quit smoking within the next 30 days.
- Similar percentages of men (33%) and women (31%) smokers reported that they planned to quit smoking in the next 30 days.
- Adult smokers ages 18-24 years (38%) had the highest percentage of respondents reporting that they had a plan to quit within the next 30 days, whereas adult smokers ages 65-74 years (27%) had the least number of respondents to have a plan to quit smoking in the next 30 days. However, none of the differences between age groups were statistically significant.
- White smokers (28%) had the lowest percentage of those planning to quit smoking. However, none of the racial/ethnic group differences were statistically significant.
- The percentages of adults smokers in Massachusetts who plan to quit smoking has been in the range of 30% to 41% from 1995 to 2004 (Figure 3.2.2.).

Figure 3.2.1: Trend in the percentage of Massachusetts smokers who quit for at least one day in the past year, 1991 - 2004



Source: Massachusetts BRFSS, 1991-2004

Figure 3.2.2: Trend in the percentage of Massachusetts smokers who plan to quit smoking, 1995-2004



Source: Massachusetts BRFSS, 1995-2004

Note: Dotted line signifies years in which question was not asked.

TABLE 3.2 – SMOKING CESSATION AMONG MASSACHUSETTS ADULT SMOKERS, 2004

	QUIT ATTEMPT			PLANNING TO QUIT		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	59.5	58.1	(53.9-62.2)	32.0	31.8	(27.5-36.2)
GENDER						
MALE	59.6	58.4	(52.1-64.7)	32.8	34.2	(27.3-41.0)
FEMALE	59.4	58.0	(52.7-63.3)	31.2	30.4	(25.1-35.6)
AGE GROUP						
18–24	79.4		(69.1-89.7)*	38.0		(22.9-53.1)*
25–34	59.0		(49.0-68.9)*	33.0		(22.5-43.4)*
35–44	60.3		(51.4-69.1)*	27.6		(19.8-35.4)*
45–54	57.3		(49.2-65.4)*	32.1		(23.7-40.5)*
55–64	48.9		(39.2-58.7)*	35.3		(24.7-45.9)*
65–74	41.5		(26.5-56.6)*	27.1		(11.8-42.3)*
75 AND OLDER	†		--	†		--
RACE-ETHNICITY**						
WHITE	57.3	57.1	(52.5-61.7)	28.2	28.4	(23.9-32.9)
BLACK	71.5	62.6	(51.7-73.6)	†	†	--
HISPANIC	78.8	80.3	(70.4-90.3)	55.9	50.8	(35.3-66.4)
ASIAN	†	†	--	†	†	--
EDUCATION						
< HIGH SCHOOL	56.7	56.6	(45.3-67.9)	47.1	48.6	(36.8-60.5)
HIGH SCHOOL	53.7	51.9	(45.2-58.6)	29.2	29.1	(22.4-35.8)
COLLEGE 1–3 YRS	68.7	68.2	(60.9-75.6)	29.9	27.9	(19.9-35.9)
COLLEGE 4+ YRS	58.4	58.0	(49.3-66.7)	31.1	32.5	(23.8-41.3)
HOUSEHOLD INCOME						
<$25,000	58.5	58.4	(51.2-65.6)	35.6	35.5	(27.9-43.1)
$25–34,999	57.8	56.6	(45.7-67.6)	27.0	25.3	(14.8-35.8)
$35–49,999	63.4	61.0	(50.9-71.0)	36.8	36.0	(24.7-47.4)
$50–74,999	58.5	50.1	(42.2-57.9)	31.0	26.6	(16.9-36.2)
$75,000+	60.7	62.5	(48.8-76.1)	30.4	39.1	(25.6-52.6)
REGION						
I–WESTERN	56.3	54.3	(44.7-63.8)	24.7	25.1	(16.2-33.9)
II–CENTRAL	60.3	64.6	(55.9-73.3)	38.2	37.9	(26.4-49.4)
III–NORTH EAST	54.0	53.5	(44.5-62.5)	29.0	28.4	(19.1-37.7)
IV–METRO WEST	62.5	56.9	(46.7-67.1)	38.4	38.9	(26.1-51.7)
V–SOUTH EAST	59.5	60.6	(51.7-69.4)	29.9	29.8	(21.9-37.6)
VI–BOSTON	66.8	64.4	(55.1-73.6)	37.2	34.0	(23.6-44.4)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers

Section 3.3: Environmental Tobacco Smoke

Environmental tobacco smoke, also known as secondhand smoke, is a mixture of smoke given off by the burning end of tobacco products and the smoke exhaled by smokers. Secondhand smoke has harmful effects on nonsmokers. Each year, primarily due to exposure to secondhand smoke, an estimated 3,000 nonsmoking Americans die of lung cancer, and more than 35,000 die of heart disease. In addition, 300,000 children suffer from greater respiratory problems such as asthma attacks and respiratory tract infections because of environmental tobacco smoke.[7]

Respondents were asked about rules regarding smoking in their household. Answer selections were: no smoking is allowed, smoking is allowed in some places or at sometimes, or smoking is permitted anywhere in the household. Presented here is the percentage of respondents reporting that no smoking was allowed in their household.

Respondents were also asked about their views on smoking in public places. Respondents were asked if they thought smoking should be allowed in certain areas, permitted without restriction, or not allowed at all. Presented here is percentage of respondents who felt that smoking should not be allowed in restaurants.

LIVE IN A HOUSEHOLD WHERE SMOKING IS NOT ALLOWED (Table 3.3)

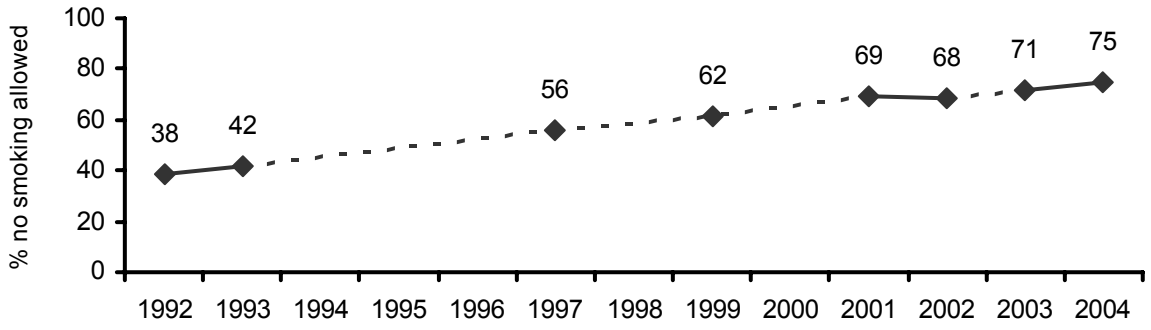
- 75% of Massachusetts adults live in a household where smoking is not allowed.
- Similar percentages of men (74%) and women (76%) reported living in a household where smoking is not allowed.
- Living in a household where smoking is not allowed was fairly consistent by age group.
- Asian (84%) and Hispanic (82%) adults were more likely to report living in a household where smoking is not allowed than White (75%) or Black (66%) adults.
- Adults with four or more years of college (83%) were more likely than those with an education level of less than high school (69%), high school (66%), or 1-3 years of college (71%) to report living in a household where smoking is not allowed.
- The percentage of adults reporting that they live in a household where smoking is not allowed has increased from 38% in 1992 to 75% in 2004 (Figure 3.3.1).

SUPPORT FOR BAN ON SMOKING IN RESTAURANTS (Table 3.3)

- 69% of Massachusetts adults supported a ban on smoking in restaurants.
- 71% of women and 67% of men reported supporting a ban on smoking in restaurants. However, this difference was not statistically significant.
- Asian adults (59%) were less likely than White (69%), Black (74%) or Hispanic (77%) adults to support a ban on smoking in restaurants.
- Adults with four or more years of college (74%) were more likely than adults with a high school education level (63%) to report that they support a ban on smoking in restaurants.
- The percentage of adults reporting that they support a ban on smoking in restaurants has increased from 38% in 1992 to 69% in 2004 (Figure 3.3.2).

[7] National Center for Chronic Disease Prevention and Health Promotion, Tobacco Information and Prevention Source (TIPS). Secondhand Smoke. Available at: http://www.cdc.gov/tobacco/factsheets/secondhand_smoke_factsheet.htm Accessed August 12, 2005.

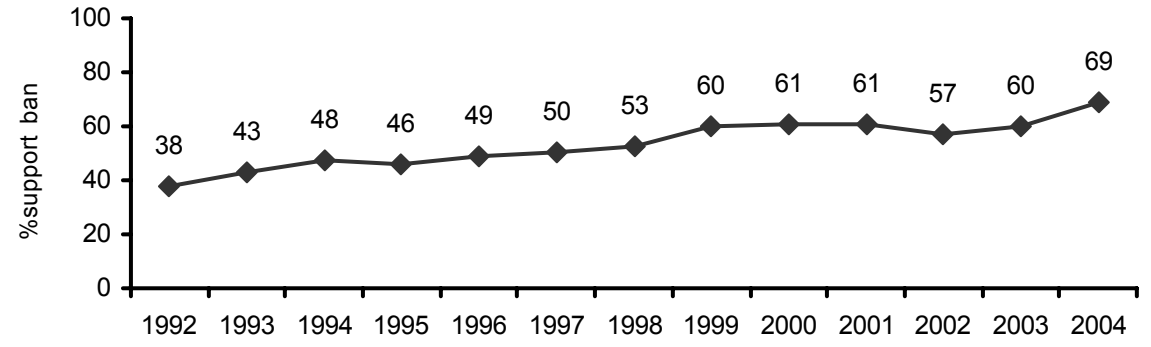
Figure 3.3.1: Trend in the percentage of Massachusetts adults who live in a household where smoking is not allowed, 1992-2004



Source: Massachusetts BRFSS, 1992-2004

Note: Dotted line signifies years in which question was not asked.

Figure 3.3.2: Trend in the percentage of Massachusetts adults who support a ban on smoking in restaurants, 1992 - 2004



Source: Massachusetts BRFSS, 1992-2004

TABLE 3.3 – ENVIRONMENTAL TOBACCO SMOKE AMONG MASSACHUSETTS ADULTS, 2004

	LIVE IN A HOUSEHOLD WHERE SMOKING IS NOT ALLOWED			SUPPORT A BAN ON SMOKING IN RESTAURANTS		
	CRUDE	AGE–ADJUSTED		CRUDE	AGE–ADJUSTED	
	%	%	95% CI	%	%	95% CI
OVERALL	75.0	75.0	(73.3-76.7)	69.2	69.2	(67.4-71.0)
GENDER						
MALE	73.5	73.6	(70.9-76.2)	66.9	66.9	(64.0-69.8)
FEMALE	76.3	76.5	(74.3-78.6)	71.3	71.5	(69.2-73.8)
AGE GROUP						
18–24	72.3		(65.3-79.4)*	67.3		(59.7-75.0)*
25–34	77.6		(73.6-81.6)*	71.6		(67.3-75.9)*
35–44	76.0		(72.5-79.6)*	69.5		(65.7-73.2)*
45–54	74.8		(71.4-78.1)*	70.8		(67.2-74.4)*
55–64	73.9		(70.1-77.7)*	71.1		(67.1-75.1)*
65–74	70.9		(65.8-76.1)*	64.7		(59.4-70.1)*
75 AND OLDER	76.7		(72.0-81.5)*	64.2		(58.9-69.6)*
RACE-ETHNICITY**						
WHITE	74.5	74.6	(72.7-76.5)	68.6	68.5	(66.4-70.6)
BLACK	65.6	66.7	(57.5-75.9)	74.4	73.8	(65.8-81.7)
HISPANIC	82.1	83.7	(78.6-88.7)	77.4	76.9	(71.2-82.6)
ASIAN	84.3	91.0	(85.2-96.8)	58.8	53.9	(44.4-63.3)
EDUCATION						
< HIGH SCHOOL	68.7	69.4	(63.5-75.3)	65.4	66.1	(59.9-72.3)
HIGH SCHOOL	66.1	65.6	(61.6-69.6)	63.4	63.3	(59.2-67.3)
COLLEGE 1–3 YRS	70.5	69.9	(66.3-73.5)	67.5	67.2	(63.5-71.0)
COLLEGE 4+ YRS	83.0	82.8	(80.5-85.2)	73.6	72.7	(69.7-75.6)
HOUSEHOLD INCOME						
<$25,000	68.2	66.3	(62.2-70.4)	67.3	67.7	(63.8-71.6)
$25–34,999	70.0	69.7	(63.6-75.9)	63.1	63.3	(56.5-70.1)
$35–49,999	69.3	68.8	(64.0-73.6)	64.1	63.8	(58.4-69.1)
$50–74,999	74.8	75.0	(70.4-79.6)	67.8	67.7	(62.8-72.6)
$75,000+	81.9	80.5	(77.2-83.8)	75.2	74.1	(70.5-77.8)
REGION						
I–WESTERN	71.8	72.3	(67.9-76.7)	67.7	67.3	(62.5-72.1)
II–CENTRAL	70.5	70.2	(65.4-75.1)	67.0	66.9	(62.0-71.7)
III–NORTH EAST	76.2	76.1	(72.3-79.9)	68.7	68.5	(64.2-72.8)
IV–METRO WEST	80.2	80.2	(76.7-83.7)	72.0	72.2	(68.1-76.2)
V–SOUTH EAST	72.0	71.7	(67.3-76.0)	68.7	69.1	(64.9-73.4)
VI–BOSTON	77.4	77.8	(74.0-81.5)	69.7	69.4	(64.9-73.9)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 3.4: Alcohol Use

Alcohol is a central nervous system depressant. The effects of alcohol on the body are directly related to the amount consumed. Adverse effects of alcohol can include impaired judgment, reduced reaction time, slurred speech, and unsteadiness.[8] Excessive drinking, including binge and heavy drinking, has numerous chronic (long-term) and acute (short-term) health effects. Chronic health consequences of excessive drinking can include liver cirrhosis, pancreatitis, various cancers such as cancer of the liver, mouth, throat, larynx and esophagus, high blood pressure, and psychological disorders. Acute health consequences of excessive drinking can include motor vehicle injuries and falls.[9]

All respondents were asked about their consumption of alcohol in the past month. A drink of alcohol was defined as one can or bottle of beer, one glass of wine, one can or bottle of wine cooler, one cocktail, or one shot of liquor. Binge drinking was defined as consumption of five or more drinks 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.

BINGE DRINKING (Table 3.4)

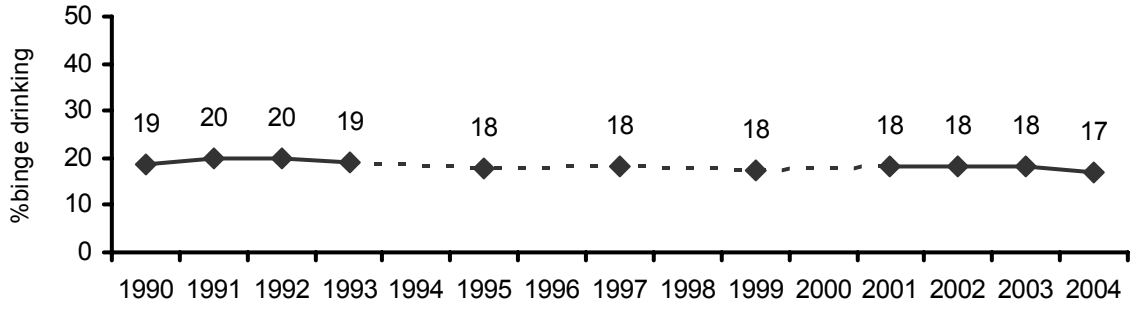
- 17% of Massachusetts adults reported binge drinking in the past month.
- Men (27%) were more likely than women (8%) to report binge drinking in the past month.
- Binge drinking decreased with increasing age, adults ages 18-34 were more likely to report binge drinking than adults ages 35 and older.
- White adults (18%) were more likely than Asian adults (10%) to report binge drinking.
- Those with household incomes of less than $25,000 (12%) were less likely to report binge drinking than those with household incomes of $25,000-$34,999 (19%), $35,000-$49,999 (20%), $50,000-$74,999 (19%), or $75,000 or more (20%).
- The percentage of adults who reported binge drinking in the past 30 days has remained consistent at 18% to 17% from 1995 to 2004 (Figure 3.4.1).

HEAVY DRINKING (Table 3.4)

- 6% of Massachusetts adults reported heavy drinking in the past month
- Similar percentages of heavy drinking were reported by women and men (6%).
- Heavy drinking decreased with increasing age with 12% of adults ages 18-24 reporting heavy drinking as opposed to 2% of adults ages 75 and older.
- Adults with household income of $35,000-$49,999 (9%) were more likely than those with household incomes of less than $25,000 (5%) to report heavy drinking.
- The percentage of adults who reported heavy drinking in the past 30 days remained consistent at 6% from 1992 to 1999 and then fluctuated in the range of 6-8% from 2001 to 2004 (Figure 3.4.1).

[8] National Center for Chronic Disease Prevention and Health Promotion, Alcohol and Public Health. Available at: http://www.cdc.gov/alcohol/faqs.htm/ Accessed July 26, 2005.
[9] Naimi T, Brewer B, Mokdad A, Serdula M, Denny C, Marks J. Binge Drinking Among U.S. Adults. JAMA 2003; 289:70–5.

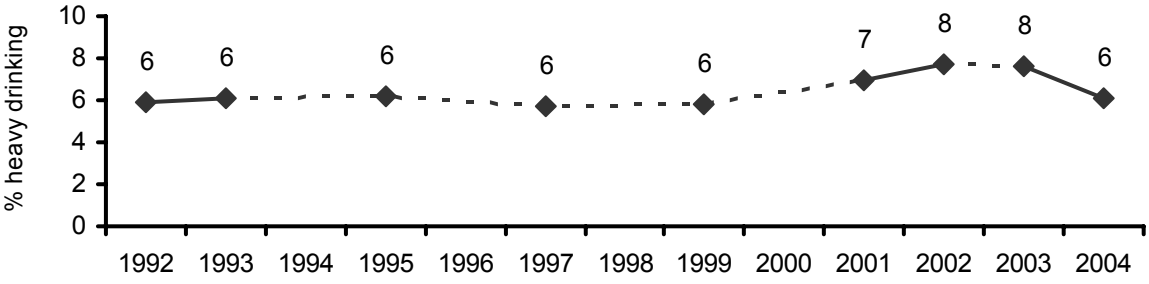
Figure 3.4.1: Trend in the percentage of Massachusetts adults who report binge drinking in the past 30 days, 1990-2004



Source: Massachusetts BRFSS, 1990-2004

Note: Dotted line signifies years in which question was not asked.

Figure 3.4.2: Trend in the percentage of Massachusetts adults who report heavy drinking in the past 30 days, 1992-2004



Note: Dotted line signifies years in which question was not asked.

TABLE 3.4 – ALCOHOL USE AMONG MASSACHUSETTS ADULTS, 2004

	BINGE DRINKING			HEAVY DRINKING***		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	17.0	17.3	(16.1-18.6)	6.1	6.2	(5.4-7.0)
GENDER						
MALE	26.5	26.2	(24.2-28.2)	6.3	6.3	(5.0-7.6)
FEMALE	8.4	8.9	(7.6-10.1)	5.9	6.1	(5.1-7.2)
AGE GROUP						
18–24	33.7		(27.8-39.7)*	12.4		(8.0-16.7)*
25–34	27.0		(23.5-30.4)*	6.0		(4.0-8.0)*
35–44	17.4		(15.1-19.8)*	5.9		(4.4-7.3)*
45–54	15.3		(13.0-17.5)*	5.8		(4.4-7.2)*
55–64	9.0		(6.9-11.1)*	5.3		(3.8-6.9)*
65–74	4.7		(2.9-6.5)*	4.8		(3.1-6.6)*
75 AND OLDER	0.7		(0.2-1.3)*	2.1		(1.0-3.2)*
RACE-ETHNICITY**						
WHITE	17.5	19.0	(17.6-20.5)	6.5	6.9	(5.9-7.9)
BLACK	15.3	16.0	(10.1-21.8)	7.0	7.3	(2.9-11.6)
HISPANIC	15.3	11.8	(8.6-15.0)	4.4	2.9	(1.2-4.7)
ASIAN	9.5	7.2	(3.0-11.4)	1.0	1.2	(0.3-4.4)
EDUCATION						
< HIGH SCHOOL	12.6	13.9	(9.9-17.8)	4.7	4.4	(1.9-7.0)
HIGH SCHOOL	17.4	18.8	(16.2-21.4)	6.8	7.1	(5.5-8.7)
COLLEGE 1–3 YRS	19.5	18.7	(16.0-21.3)	7.4	7.2	(5.3-9.1)
COLLEGE 4+ YRS	16.3	17.3	(15.2-19.4)	5.3	6.2	(4.7-7.6)
HOUSEHOLD INCOME						
<$25,000	11.5	12.3	(9.8-14.7)	4.9	5.0	(3.2-6.8)
$25–34,999	18.9	19.2	(14.9-23.5)	7.5	7.2	(3.9-10.4)
$35–49,999	20.2	21.6	(18.1-25.1)	8.8	9.9	(6.9-12.9)
$50–74,999	19.3	19.6	(16.2-22.9)	7.1	7.1	(5.2-9.1)
$75,000+	20.4	20.8	(18.2-23.4)	5.9	6.3	(4.6-8.0)
REGION						
I–WESTERN	14.9	15.2	(12.3-18.2)	6.4	6.2	(4.1-8.2)
II–CENTRAL	17.8	17.7	(14.7-20.8)	7.1	7.2	(4.9-9.5)
III–NORTH EAST	15.8	16.5	(13.6-19.4)	4.9	5.0	(3.2-6.7)
IV–METRO WEST	14.8	15.5	(12.8-18.2)	5.2	5.5	(3.8-7.1)
V–SOUTH EAST	19.3	21.2	(18.0-24.4)	7.6	7.9	(5.6-10.1)
VI–BOSTON	21.0	18.4	(15.4-21.3)	6.2	6.3	(4.4-8.3)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.
*** Heavy drinking is defined as consumption of more than 60 drinks in the past month for men and more than 30 drinks for women. Reports published prior to 2001 have defined heavy drinking as 60 or more drinks for either men or women. As a result, rates presented in this report may not be comparable to rates published prior to 2001.

Section 3.5: Overweight and Obesity

More than half of the adults in Massachusetts were overweight or obese, costing Massachusetts an estimated 1.8 billion dollars in direct and indirect costs in 2003.[10] There are a variety of factors that play a role in obesity and overweight conditions such as unhealthy behaviors associated with eating and physical activity, and environmental and genetic factors. People with unhealthy body weight are at increased risk for developing illnesses such as high blood pressure, heart disease, diabetes, stroke, osteoarthritis, respiratory problems, and certain types of cancer.[11]

All respondents were asked to report their height and weight. Respondents were categorized based on their Body Mass Index (BMI), which equals weight in kilograms divided by height in meters squared. Using the Healthy People 2010 standards (HP2010), all adults with a BMI between 25.0-29.9 were classified as being overweight and adults with a BMI greater than or equal to 30.0 were classified as being obese. For example, a person who is 5'6" would be considered overweight at 155 pounds and obese at 186 pounds. Presented here is the percentage of respondents who were determined to be overweight or obese. Please note that the overweight category presented here includes respondents with a BMI larger than 25.0 (respondents classified as overweight or obese).

OVERWEIGHT (BMI greater than or equal to 25.0) (Table 3.5)

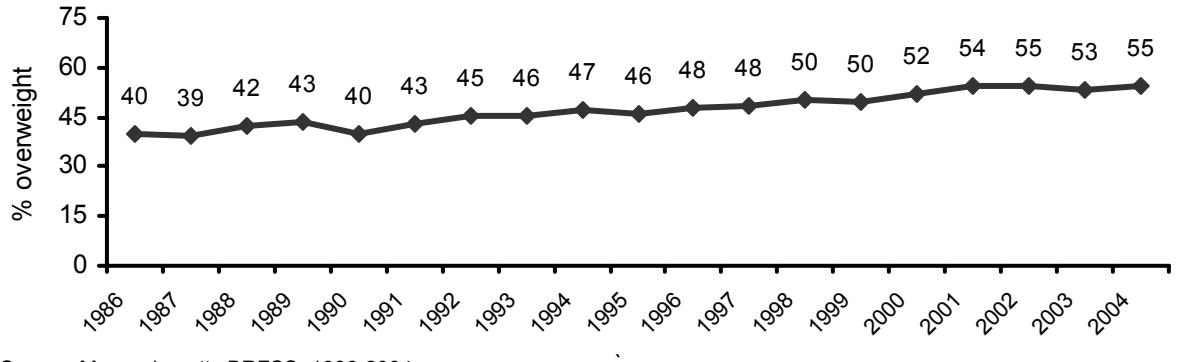
- 55% of Massachusetts adults were overweight.
- Men (66%) were more likely than women (44%) to be overweight.
- Adults ages 18-24 (32%) were less likely than all other age groups to be overweight.
- Asian adults (24%) were less likely than Black (67%), Hispanic (59%), or White (55%) adults to be overweight.
- Adults with four or more years of college education (50%) were less likely to be overweight than adults with less education.
- Adults living in the Metro West region (45%) were less likely to be overweight than adults living in other regions of the state.
- From 1990 to 2004, the percentage of adults who were overweight increased by 38% (Figure 3.5.1).

OBESITY (BMI greater than or equal to 30.0) (Table 3.5)

- 18% of Massachusetts adults were obese, with 19% of men being obese and 17% of women being obese.
- Asian adults (4%) were less likely to be obese than White (18%), Black (26%), or Hispanic (21%) adults.
- The percentage of adults who were obese decreased with increasing education, with those with less than a high school education (29%) being more than twice as likely as those with four or more years of college (14%) to be obese.
- Reports of being obese were lowest among those with household incomes of more than $75,000 (16%). However, differences based on income level were not statistically significant.
- Fourteen percent of adults living in the Metro West and Boston regions of the state were obese compared to 25% of adults living in the Central region of the state.
- From 1990 to 2004, the overall percentage of adults who were obese increased by 80% (Figure 3.5.2).

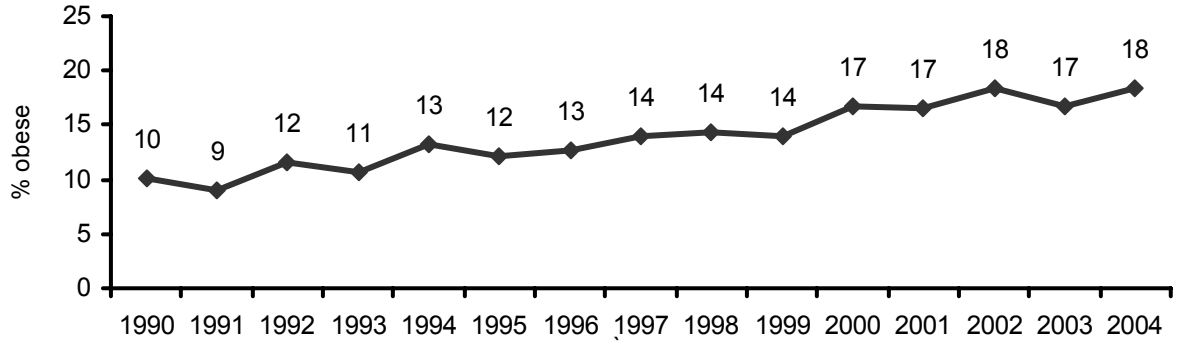
[10] Massachusetts Department of Public Health, Bureau of Family and Community Health: Nutrition and Physical Activity Unit. Available at http://www.mass.gov/ dph/fch/nutrition/facts_definitions.htm#overweightandobesity Accessed July 28, 2005.
[11] National Center for Chronic Disease Prevention and Health Promotion, Overweight and Obesity. Available at: http://www.cdc.gov/nccdphp/dnpa/obesity/index.htm Accessed August 5, 2005.

Figure 3.5.1: Trend in the percentage of Massachusetts adults who are overweight, 1986-2004



Source: Massachusetts BRFSS, 1986-2004

Figure 3.5.2: Trend in the percentage of Massachusetts adults who are obese, 1990-2004



Source: Massachusetts BRFSS, 1990-2004

TABLE 3.5 – OVERWEIGHT AND OBESITY AMONG MASSACHUSETTS ADULTS, 2004						
	OVERWEIGHT (BMI ≥ 25.0)			OBESITY (BMI ≥ 30.0)		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	54.5	54.4	(52.9-55.9)	18.4	18.4	(17.2-19.5)
GENDER						
MALE	65.7	65.5	(63.3-67.6)	19.4	19.2	(17.5-21.0)
FEMALE	43.8	43.4	(41.5-45.3)	17.4	17.4	(16.0-18.8)
AGE GROUP						
18–24	31.8		(26.2-37.4)*	11.7		(7.9-15.6)*
25–34	48.9		(45.1-52.7)*	15.1		(12.6-17.6)*
35–44	56.0		(52.8-59.1)*	18.0		(15.5-20.4)*
45–54	63.2		(60.1-66.2)*	22.7		(20.1-25.4)*
55–64	66.5		(63.2-69.8)*	26.1		(23.0-29.3)*
65–74	62.3		(58.1-66.6)*	20.4		(16.8-24.0)*
75 AND OLDER	53.6		(49.0-58.1)*	14.3		(10.9-17.8)*
RACE-ETHNICITY**						
WHITE	54.7	53.8	(52.1-55.5)	18.2	17.8	(16.6-19.1)
BLACK	66.5	71.1	(65.4-76.9)	26.3	28.0	(21.8-34.2)
HISPANIC	58.7	64.9	(59.7-70.0)	20.6	23.4	(18.7-28.0)
ASIAN	24.0	40.8	(31.4-50.2)	4.4	6.8	(0.7-12.8)
EDUCATION						
< HIGH SCHOOL	66.0	67.2	(62.1-72.3)	28.7	29.0	(24.5-33.5)
HIGH SCHOOL	59.4	60.6	(57.6-63.6)	23.5	24.3	(21.6-27.1)
COLLEGE 1–3 YRS	54.2	56.1	(53.0-59.1)	18.4	19.1	(16.8-21.4)
COLLEGE 4+ YRS	50.1	49.1	(46.7-51.6)	13.9	13.4	(11.9-15.0)
HOUSEHOLD INCOME						
<$25,000	58.8	60.3	(56.9-63.7)	22.4	24.0	(21.3-26.8)
$25–34,999	49.7	51.8	(47.0-56.6)	17.3	18.8	(14.3-23.2)
$35–49,999	58.0	58.0	(53.7-62.2)	21.4	22.3	(18.6-26.1)
$50–74,999	58.3	57.2	(53.3-61.2)	21.5	20.9	(17.7-24.1)
$75,000+	54.2	52.9	(49.8-55.9)	15.6	15.3	(13.0-17.6)
REGION						
I–WESTERN	57.5	57.7	(53.9-61.5)	18.5	18.5	(15.7-21.3)
II–CENTRAL	62.0	61.9	(58.1-65.8)	25.4	25.3	(21.8-28.8)
III–NORTH EAST	56.6	56.8	(53.5-60.1)	20.1	20.3	(17.6-22.9)
IV–METRO WEST	44.9	44.3	(41.2-47.3)	13.7	13.5	(11.4-15.6)
V–SOUTH EAST	58.4	57.9	(54.1-61.6)	20.1	20.1	(17.1-23.1)
VI–BOSTON	51.8	54.6	(50.6-58.6)	13.6	15.2	(12.1-18.2)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 3.6: Physical Activity

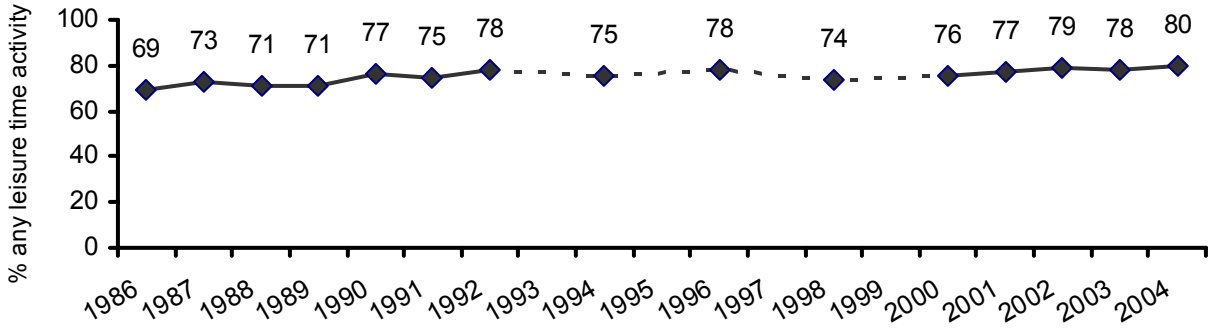
Regular physical activity reduces a person's risk for heart attack, colon cancer, diabetes, and high blood pressure, and helps to reduce the risk of stroke. Additionally, it helps to control weight, contributes to healthy bones, muscles, and joints, reduces falls among older adults, helps to relieve the pain of arthritis, reduces symptoms of anxiety and depression, and is associated with fewer hospitalizations, physician visits, and medications.[12]

All respondents were asked if they had participated in any physical activity, other than their regular job, in the past month. Presented here is the percentage of respondents who reported any leisure time physical activity.

ANY LEISURE TIME PHYSICAL ACTIVITY (Table 3.6)

- 80% of Massachusetts adults reported any leisure time physical activity in the past month.
- Men (83%) were more likely to report any leisure time physical activity in the past month than women (78%).
- Adults ages 75 and older (67%) were less likely to report any leisure time physical activity than adults in all other age groups.
- White adults (83%) were more likely than Hispanic (62%), Black (70%) and Asian (72%) adults to have participated in any leisure time physical activity in the past month.
- Participation in any leisure time physical activity increased with increasing education and income.
- The percentage of adults who participated in any leisure time physical activity has increased from 69% in 1986 to 80% in 2004 (Figure 3.6).

Figure 3.6: Trend in the percentage of Massachusetts adults who participate in any leisure time physical activity, 1986 - 2004



Source: Massachusetts BRFSS, 1990-2004

Note: Dotted line signifies years in which question was not asked.

[12] National Center for Chronic Disease Prevention and Health Promotion, Physical Activity for Everyone: The Importance of Physical Activity. Available at: http://www.cdc.gov/nccdphp/dnpa/physical/importance/index.htm Accessed August 8, 2005.

TABLE 3.6 – ANY LEISURE TIME PHYSICAL ACTIVITY AMONG MASSACHUSETTS ADULTS, 2004			
	CRUDE	AGE–ADJUSTED	
	%	%	95% CI
OVERALL	80.0	80.1	(78.9-81.2)
GENDER			
MALE	82.5	82.4	(80.7-84.1)
FEMALE	77.8	78.1	(76.5-79.7)
AGE GROUP			
18–24	82.8		(78.2-87.3)*
25–34	82.6		(79.8-85.3)*
35–44	81.9		(79.5-84.3)*
45–54	80.9		(78.5-83.4)*
55–64	80.1		(77.4-82.7)*
65–74	78.2		(74.8-81.5)*
75 AND OLDER	66.5		(62.3-70.8)*
RACE-ETHNICITY**			
WHITE	82.5	83.1	(81.9-84.3)
BLACK	70.1	69.9	(63.4-76.4)
HISPANIC	62.0	62.2	(57.0-67.4)
ASIAN	71.6	68.7	(56.4-80.9)
EDUCATION			
< HIGH SCHOOL	55.7	55.3	(50.0-60.6)
HIGH SCHOOL	71.1	71.7	(69.0-74.4)
COLLEGE 1–3 YRS	80.6	80.0	(77.5-82.5)
COLLEGE 4+ YRS	88.8	88.5	(86.8-90.2)
HOUSEHOLD INCOME			
<$25,000	62.7	62.0	(58.8-65.3)
$25–34,999	73.6	74.3	(69.9-78.7)
$35–49,999	81.3	81.6	(78.3-84.9)
$50–74,999	84.3	84.4	(81.3-87.4)
$75,000+	90.3	90.2	(88.5-91.9)
REGION			
I–WESTERN	80.1	80.6	(77.8-83.3)
II–CENTRAL	78.4	78.2	(75.2-81.2)
III–NORTH EAST	80.6	80.9	(78.4-83.4)
IV–METRO WEST	83.1	83.3	(80.8-85.8)
V–SOUTH EAST	77.9	77.6	(74.5-80.8)
VI–BOSTON	77.6	77.6	(74.2-81.0)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 3.7: Flu Shot and Pneumonia Vaccine

Influenza or the flu is a contagious respiratory illness caused by the influenza viruses. It can cause mild to severe illness and can lead to death. Every year in the United States, about 5-20% of the population gets the flu, more than 200,000 people are hospitalized from flu complications, and about 36,000 people die. Streptococcus pneumoniae is a bacterial pathogen that causes illness and sometimes death in young children, the elderly, and persons who have certain medical conditions. Adults 65 years or older and children less than 2 years old are at increased risk for pneumococcal infection. In Massachusetts, flu and pneumonia were the 5th leading causes of death in 2003 among adults 65 and older.[13]

All respondents were asked if they had 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 receiving a flu shot in the past year for adults ages 50-64 years and ages 65 years and older, and the percentage of adults, ages 65 and older, reporting that they had ever had a pneumonia vaccination.

FLU SHOT IN PAST YEAR, AGES 50 AND OLDER (Table 3.7)

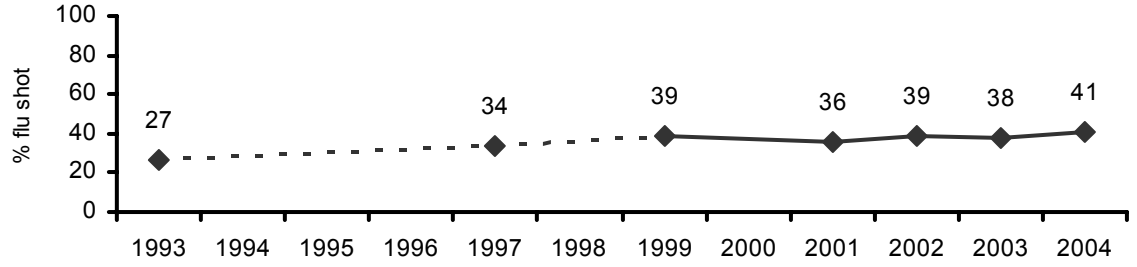
- 41% of Massachusetts adults ages 50-64 years reported that they had received a flu shot in the past year.
- Females ages 50-64 (45%) were more likely to report having had a flu shot in the past year than males ages 50-64 (37%).
- 71% percent of adults age 65 and older reported that they had received a flu shot in the past year.
- The percentage of adults ages 50-64 who reported that they had received a flu shot did not vary significantly by race.
- The percentage of adults ages 50-64 who have had a flu shot in the past year has increased from 27% in 1993 to 41% in 2004, and the percentage among adults age 65 and older increased from 49% to 71% (Figures 3.7.1 and 3.7.2).

EVER HAD PNEUMONIA VACCINE, AGES 65 AND OLDER (Table 3.7)

- 65% of Massachusetts adults age 65 and older reported that they ever had received a pneumonia vaccine.
- 69% of women and 60% of men ages 65 and older reported that they ever had received a pneumonia vaccine. However, this difference was not statistically significant.
- Hispanic adults (35%) were less likely than White adults (67%) to report that they ever had received a pneumonia vaccine.
- Reports of ever having received a pneumonia vaccine were highest among adults with 1-3 years of college (70%) and lowest among those with an education level of less than high school (60%).
- The percentage of adults age 65 and older who have had a pneumonia shot in the past year has increased from 22% in 1993 to 65% in 2004 (Figure 3.7.3).

[13] Center for Disease Control and Prevention. Key Facts about Influenza and the Influenza Vaccine. Available at: http://www.cdc.gov/flu/keyfacts.htm Accessed August 9, 2005.

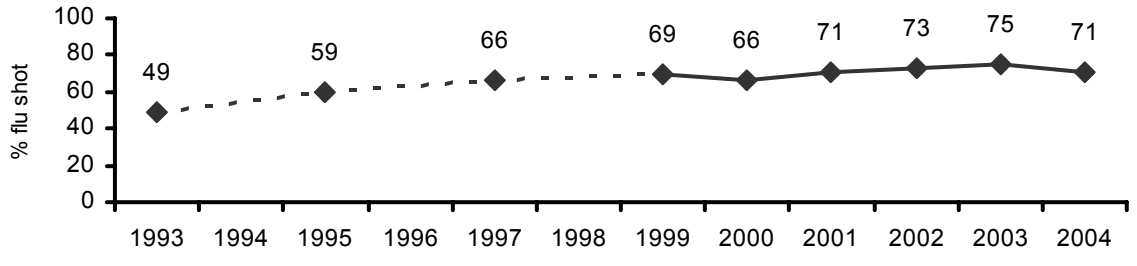
Figure 3.7.1: Trend in the percentage of Massachusetts adults ages 50 to 64 who had a flu shot in the past year, 1993-2004



Source: Massachusetts BRFSS, 1993-2004

Note: Dotted line signifies years in which question was not asked.

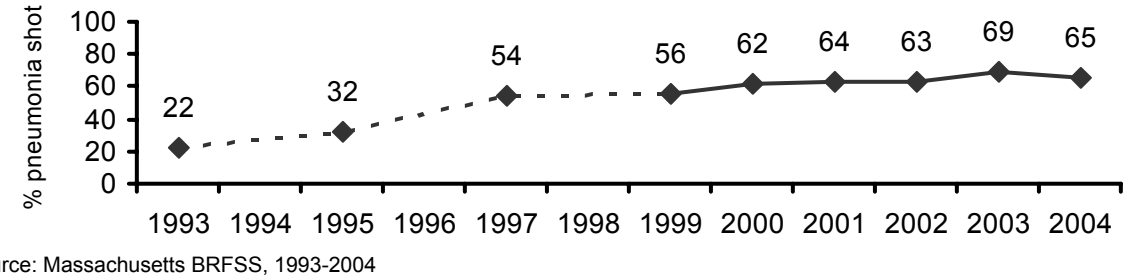
Figure 3.7.2: Trend in the percentage of Massachusetts adults ages 65 and older who had a flu shot in the past year, 1993-2004



Source: Massachusetts BRFSS, 1993-2004

Note: Dotted line signifies years in which question was not asked.

Figure 3.7.3: Trend in the percentage of Massachusetts adults ages 65 and older who have ever had a pneumonia vaccine, 1993-2004



Source: Massachusetts BRFSS, 1993-2004

Note: Dotted line signifies years in which question was not asked.

TABLE 3.7 – FLU SHOT AND PNEUMONIA VACCINE AMONG MASSACHUSETTS ADULTS, 2004

	FLU SHOT IN PAST YEAR				EVER HAD PNEUMONIA VACCINE	
	AGES 50-64		AGES 65+		AGES 65+	
	CRUDE%	95%CI	CRUDE%	95% CI	CRUDE%	95%CI
OVERALL	40.8	(38.1-43.5)	70.7	(67.9-73.5)	65.3	(62.2-68.4)
GENDER						
MALE	36.7	(32.7-40.8)	71.3	(66.7-75.9)	60.1	(54.8-65.3)
FEMALE	44.6	(41.1-48.1)	70.3	(66.8-73.8)	68.7	(65.0-72.4)
AGE GROUP						
50–64	40.8	(38.1-43.5)				
65–74			65.8	(61.7-69.9)	57.3	(53.0-61.7)
75 AND OLDER			75.3	(71.5-79.0)	72.8	(68.6-77.1)
RACE-ETHNICITY*						
WHITE	40.6	(37.8-43.4)	71.7	(68.8-74.5)	66.8	(63.6-70.0)
BLACK	48.8	(32.2-65.4)	63.2	(44.3-82.1)	44.9	(26.9-62.8)
HISPANIC	43.4	(31.0-55.8)	53.4	(37.0-69.7)	34.8	(18.3-51.4)
ASIAN	†	--	†	--	†	--
EDUCATION						
< HIGH SCHOOL	39.1	(29.0-49.2)	67.5	(59.7-75.3)	60.2	(50.9-69.4)
HIGH SCHOOL	38.4	(32.9-43.9)	66.5	(61.3-71.6)	63.4	(57.9-69.0)
COLLEGE 1–3 YRS	37.2	(31.6-42.7)	68.8	(62.7-74.9)	70.0	(63.9-76.1)
COLLEGE 4+ YRS	43.8	(39.8-47.8)	76.8	(72.2-81.3)	65.1	(59.8-70.4)
HOUSEHOLD INCOME						
<$25,000	44.4	(37.6-51.2)	68.9	(64.1-73.7)	66.2	(61.1-71.3)
$25–34,999	35.7	(26.8-44.7)	66.8	(58.7-75.0)	67.4	(58.8-75.9)
$35–49,999	35.2	(28.1-42.4)	70.7	(62.7-78.8)	60.5	(51.9-69.1)
$50–74,999	41.2	(34.7-47.7)	83.0	(75.5-90.5)	68.6	(59.1-78.1)
$75,000+	41.9	(37.4-46.5)	73.5	(64.8-82.2)	59.9	(49.8-70.1)
REGION						
I–WESTERN	32.8	(26.6-38.9)	72.6	(66.2-79.0)	70.8	(64.0-77.6)
II–CENTRAL	35.2	(28.2-42.2)	72.6	(64.6-80.6)	70.6	(61.7-79.6)
III–NORTH EAST	45.3	(38.9-51.7)	68.7	(62.1-75.3)	64.3	(57.3-71.3)
IV–METRO WEST	43.2	(37.1-49.4)	78.8	(73.3-84.3)	68.9	(62.6-75.2)
V–SOUTH EAST	43.7	(37.7-49.6)	63.5	(57.1-69.9)	60.7	(53.9-67.4)
VI–BOSTON	42.5	(34.8-50.2)	63.6	(54.0-73.2)	48.9	(38.7-59.1)

* White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers.

Section 3.8: Sunburn

Skin cancer is the most common form of cancer in the United States. Exposure to the sun's ultraviolet (UV) rays is a preventable environmental factor involved in the development of skin cancer. When practiced consistently, sun-protective behaviors such as using sunscreen, seeking shade, and wearing protective clothing when out in the sun can prevent skin cancer. [14]

All respondents were asked “Have you had a sunburn within the past 12 months?” This included anytime that even a small part of the skin was red for more than 12 hours.

SUNBURN (Table 3.8)

- 37% of Massachusetts adults reported that they had a sunburn in the past 12 months.
- Men (41%) were more likely than women (33%) to have had a sunburn in the past 12 months.
- The percentage of adults reporting that they had had a sunburn in the past 12 months decreased with increasing age, with 54% of adults ages 18-24 reporting that they had sunburn as opposed to 5% of adults ages 75 and older.
- White adults (42%) were more likely than Black (4%), Hispanic (12%) or Asian (15%) adults to have been sunburned in the past 12 months.
- The percentage of adults reporting that they had been sunburned in the past 12 months increased with increasing education and income.
- Adults living in the Boston region (27%) of the state were less likely than those in other regions of the state to report that they had had a sunburn in the past 12 months.
- The percentage of Massachusetts adults who had had a sunburn in the past year was 32% in 1999, 38% in 2003, and 37% in 2004 (Figure 3.8).

Figure 3.8: Trend in the percentage of Massachusetts adults who had a sunburn in the past year, 1993-2004

Source: Massachusetts BRFSS, 1999-2004

Note: Dotted line signifies years in which question was not asked.

[14] National Center for Chronic Disease Prevention and Health Promotion, Skin Cancer: Preventing America’s Most Common Cancer. Available at: http://www.cdc.gov/cancer/nscpep/about2004.htm Accessed August 5, 2005.

TABLE 3.8 – SUNBURN AMONG MASSACHUSETTS ADULTS, 2004

	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	36.8	37.4	(35.9-38.8)
GENDER			
MALE	40.6	40.2	(37.9-42.4)
FEMALE	33.4	34.8	(33.0-36.7)
AGE GROUP			
18–24	54.0		(47.8-60.2)*
25–34	49.2		(45.5-52.9)*
35–44	43.1		(40.0-46.2)*
45–54	40.5		(37.5-43.6)*
55–64	25.2		(22.0-28.3)*
65–74	16.1		(12.8-19.4)*
75 AND OLDER	5.0		(3.2-6.9)*
RACE-ETHNICITY**			
WHITE	41.7	44.1	(42.5-45.6)
BLACK	4.0	3.2	(1.3-5.1)
HISPANIC	12.3	10.9	(7.7-14.0)
ASIAN	15.2	16.6	(8.5-24.7)
EDUCATION			
< HIGH SCHOOL	17.5	17.3	(13.1-21.4)
HIGH SCHOOL	31.9	34.1	(31.0-37.2)
COLLEGE 1–3 YRS	38.7	37.9	(34.9-40.9)
COLLEGE 4+ YRS	42.1	42.8	(40.6-45.1)
HOUSEHOLD INCOME			
<$25,000	22.9	23.0	(20.2-25.9)
$25–34,999	30.1	31.4	(26.2-36.6)
$35–49,999	35.4	35.9	(31.9-39.9)
$50–74,999	42.0	42.0	(38.1-45.9)
$75,000+	48.9	46.3	(43.4-49.1)
REGION			
I–WESTERN	34.2	35.0	(31.4-38.7)
II–CENTRAL	42.0	41.8	(38.1-45.6)
III–NORTH EAST	36.4	37.0	(33.7-40.4)
IV–METRO WEST	36.8	37.6	(34.3-40.9)
V–SOUTH EAST	40.5	42.9	(39.4-46.4)
VI–BOSTON	27.4	24.5	(21.3-27.6)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

SECTION 4: CHRONIC HEALTH CONDITIONS

Section 4.1: Diabetes

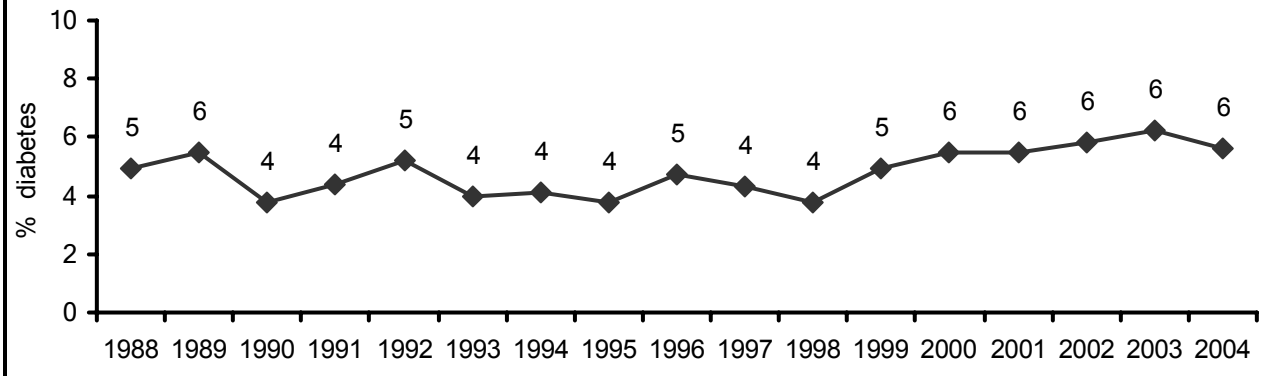
Diabetes is the sixth leading cause of death in the United States. However, diabetes is likely to be underreported as the underlying cause of death and instead, deaths may have been attributed to the complications caused by diabetes including heart disease, stroke, and kidney failure. In the United States, 65% of deaths among those with diabetes are attributed to heart disease and stroke. In 2002, the economic burden of diabetes in the United States surpassed $132 billion dollars in indirect costs, including time lost from work and direct costs including medical care and hospitalizations. Risks include older age, obesity, family and/or prior history of diabetes, physical inactivity, and race and ethnicity.[15]

All respondents were asked if they had ever been told by a doctor that they had diabetes. Women who had reported that they had diabetes only during pregnancy (gestational diabetes) were excluded from this analysis. Presented here is the precentage of respondents who reported that they had ever been told by a doctor that they had diabetes.

DIABETES (Table 4.1)

- 6% of Massachusetts adults reported that they had been told by a doctor that they had diabetes.
- Similar percentages of men (6%) and women (5%) reported that they had been told by a doctor that they had diabetes.
- The percentage of adults with diabetes increased with increasing age until age 74 years, then decreased slightly.
- White adults (5%) were less likely than Black (8%) and Hispanic (8%) adults to report having diabetes.
- The percentage of adults with diabetes decreased with increasing education. Those with less than a high school education (13%) were about four times more likely than those with four or more years of college (3%) to report that they had diabetes.
- The percentage of adults with diabetes decreased with increasing income.
- Between 1988 and 2004, the percentage of adults reporting diabetes was in the range of 4% to 6% (figure 4.1).

Figure 4.1: Trend in the percentage of Massachusetts adults who have diabetes, 1988 - 2004



Source: Massachusetts BRFSS, 1993-2004

[15] National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Information Clearinghouse (NDIC). Diabetes Overview. Available at: http://diabetes.niddk.nih.gov/dm/pubs/overview/index.htm. Accessed July 11, 2005.

TABLE 4.1 – DIABETES AMONG MASSACHUSETTS ADULTS, 2004			
	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	5.6	5.5	(4.9-6.1)
GENDER			
MALE	6.1	6.3	(5.3-7.3)
FEMALE	5.2	4.8	(4.1-5.5)
AGE GROUP			
18–24	1.4		(0.0-2.9)*
25–34	1.2		(0.4-1.9)*
35–44	2.7		(1.7-3.7)*
45–54	4.6		(3.4-5.8)*
55–64	11.7		(9.4-13.9)*
65–74	14.9		(11.8-18.0)*
75 AND OLDER	11.6		(8.6-14.6)*
RACE-ETHNICITY**			
WHITE	5.4	4.9	(4.3-5.6)
BLACK	7.6	9.2	(5.9-12.6)
HISPANIC	7.7	12.9	(9.4-16.4)
ASIAN	4.3	14.0	(2.8-25.1)
EDUCATION			
< HIGH SCHOOL	13.0	13.1	(10.1-16.2)
HIGH SCHOOL	7.3	6.5	(5.3-7.6)
COLLEGE 1–3 YRS	5.6	5.6	(4.3-6.9)
COLLEGE 4+ YRS	3.4	3.4	(2.6-4.1)
HOUSEHOLD INCOME			
<$25,000	10.3	10.1	(8.5-11.8)
$25–34,999	6.9	5.8	(3.9-7.7)
$35–49,999	4.6	4.6	(3.2-6.1)
$50–74,999	4.2	4.6	(3.1-6.1)
$75,000+	3.4	3.5	(2.4-4.7)
REGION			
I–WESTERN	6.9	6.5	(4.7-8.2)
II–CENTRAL	6.2	6.3	(4.6-8.0)
III–NORTH EAST	6.0	5.6	(4.3-7.0)
IV–METRO WEST	3.9	3.8	(2.8-4.8)
V–SOUTH EAST	6.6	6.3	(4.7-7.9)
VI–BOSTON	4.6	5.8	(4.3-7.2)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 4.2: Asthma

Asthma is a chronic disease that affects the lungs. It causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. Important asthma triggers include, but are not limited to, environmental tobacco smoke, dust mites, and outdoor air pollution. Asthma can be controlled by taking certain medications or by avoiding environmental triggers.[16]

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

EVER HAD ASTHMA (Table 4.2)

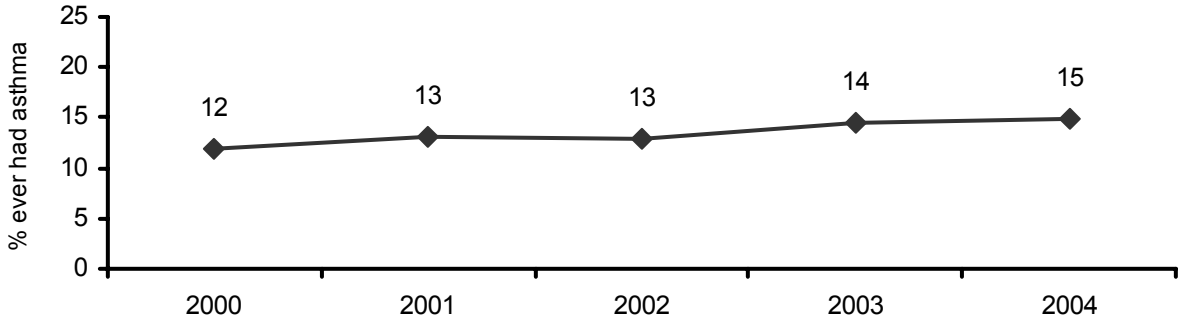
- 15% of Massachusetts adults reported that they had ever been told that they had asthma.
- Women (18%) were more likely to report ever having asthma than men (12%).
- The percentage of adults who had been told that they have ever had asthma decreased with increasing age, with those ages 18-24 (19%) being almost twice as likely as those age 75 and older (11%) to report that they ever had asthma.
- White adults (15%) were more likely than Asian adults (10%) to report ever having asthma.
- The percentage of adults who reported that they had ever been told they had asthma was 12% in 2000 and 15% in 2004 (Figure 4.2.1).

CURRENTLY HAVE ASTHMA (Table 4.2)

- 10% of Massachusetts adults reported that they currently have asthma.
- Women (12%) were more likely than men (7%) to report currently having asthma.
- Reports of current asthma were highest among those ages 18-24 (13%). However, none of the differences based on age were statistically significant.
- White adults (10%) were more likely than Asian adults (5%) to report that they currently have asthma.
- Reports of current have asthma were highest among adults with household incomes of less than $25,000. However, none of the income-based differences were statistically significant.
- The percentage of adults who currently have asthma has been in the range of 9% to 10% from 2000 to 2004 (Figure 4.2.2).

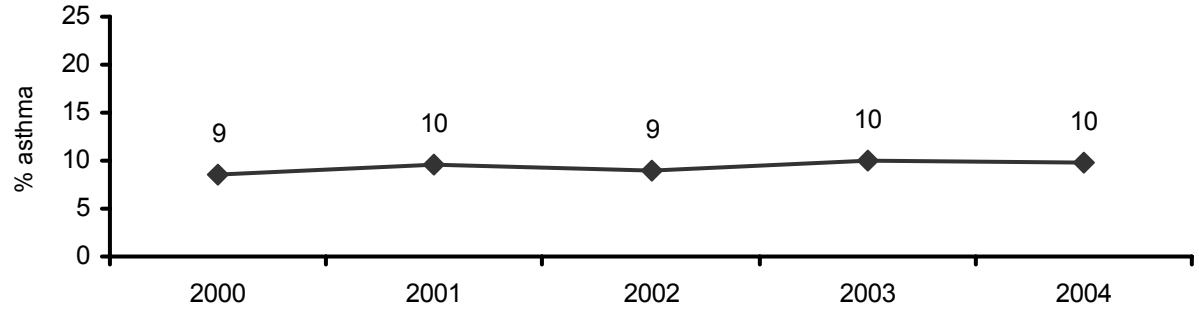
[16] National Center for Chronic Disease Prevention and Health Promotion, National Center for Environmental Health: Asthma. Available at: http://www.cdc.gov/asthma/basics.htm Accessed August 9, 2005.

Figure 4.2.1: Trend in the percentage of Massachusetts adults who have ever had asthma, 2000-2004



Source: Massachusetts BRFSS, 2000-2004

Figure 4.2.2: Trend in the percentage of Massachusetts adults who currently have asthma, 2000-2004



Source: Massachusetts BRFSS, 2000-2004

TABLE 4.2 – ASTHMA AMONG MASSACHUSETTS ADULTS, 2004

	EVER HAD ASTHMA			CURRENTLY HAVE ASTHMA		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	14.9	14.9	(13.9-16.0)	9.7	9.7	(8.8-10.5)
GENDER						
MALE	11.8	11.8	(10.4-13.3)	7.0	7.0	(5.8-8.1)
FEMALE	17.7	17.8	(16.4-19.3)	12.1	12.2	(10.9-13.4)
AGE GROUP						
18–24	19.0		(14.5-23.4)*	12.5		(8.7-16.2)*
25–34	16.5		(13.9-19.2)*	9.3		(7.3-11.3)*
35–44	13.8		(11.7-16.0)*	9.4		(7.6-11.1)*
45–54	13.9		(12.0-15.9)*	9.1		(7.6-10.7)*
55–64	15.0		(12.6-17.3)*	10.0		(8.1-12.0)*
65–74	14.4		(11.4-17.3)*	9.8		(7.4-12.3)*
75 AND OLDER	11.0		(8.1-13.9)*	7.3		(4.9-9.8)*
RACE-ETHNICITY**						
WHITE	14.9	15.2	(13.9-16.4)	9.8	10.0	(9.0-11.0)
BLACK	17.0	16.1	(11.0-21.3)	9.4	9.2	(6.0-12.3)
HISPANIC	15.3	15.5	(12.1-19.0)	9.8	9.8	(6.9-12.8)
ASIAN	10.3	8.6	(3.7-13.5)	4.7	4.3	(0.5-8.1)
EDUCATION						
< HIGH SCHOOL	16.2	15.0	(11.8-18.3)	12.8	11.7	(8.7-14.6)
HIGH SCHOOL	14.7	14.9	(12.6-17.2)	9.0	8.8	(7.1-10.5)
COLLEGE 1–3 YRS	15.6	15.7	(13.5-17.9)	10.4	10.6	(8.8-12.3)
COLLEGE 4+ YRS	14.3	14.4	(12.7-16.1)	9.0	9.1	(7.7-10.6)
HOUSEHOLD INCOME						
<$25,000	17.9	19.1	(16.6-21.7)	13.2	14.2	(12.0-16.3)
$25–34,999	16.1	15.7	(11.9-19.6)	10.6	10.2	(6.9-13.6)
$35–49,999	12.5	12.2	(9.6-14.7)	7.6	7.4	(5.5-9.4)
$50–74,999	13.8	13.9	(11.2-16.5)	7.6	7.5	(5.6-9.3)
$75,000+	14.2	14.8	(12.6-17.0)	8.8	8.8	(7.1-10.5)
REGION						
I–WESTERN	16.1	16.3	(13.4-19.3)	10.1	10.1	(8.1-12.2)
II–CENTRAL	13.9	13.7	(11.2-16.1)	9.0	8.8	(6.8-10.7)
III–NORTH EAST	14.9	15.0	(12.5-17.6)	9.7	9.9	(7.7-12.0)
IV–METRO WEST	15.0	15.3	(13.0-17.7)	9.9	10.1	(8.1-12.2)
V–SOUTH EAST	14.2	14.4	(11.8-17.0)	9.6	9.6	(7.4-11.9)
VI–BOSTON	15.6	15.5	(12.7-18.2)	9.5	9.5	(7.4-11.6)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 4.3: Disability

Nearly 50 million Americans have some type of disability, including long-term physical disabilities, such as those associated with spinal cord injury, cerebral palsy, sensory disabilities such as hearing loss and visual impairment, and other cognitive disabilities. Individuals with disabilities may face limited access to the range of activities, programs, and services that promote healthy living and this lack of access may keep these individuals from living full, healthy, and productive lives.[17]

All respondents were asked about disabilities and activity limitations. Respondents were classified as having a disability or limitation if, for at least one year, (1) they had an impairment that limited activities or caused cognitive difficulties, (2) they used special equipment or required help from others to get around, or (3) reported a disability of any kind. Those who answered yes to one or more of the conditions above but had been limited by their disability for less than one year, were excluded from the analysis. Presented here is the percentage of respondents who fit the above definition of having a disability.

Respondents who reported having a disability were also asked if their disability or limitation required them to need help with routine needs or personal care.

HAVE DISABILITY (Table 4.3)

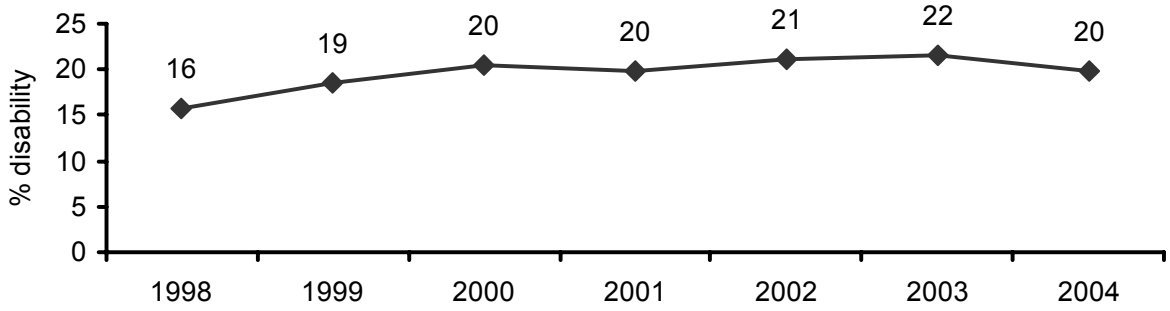
- 20% of Massachusetts adults (overall and by sex) reported having a disability or limitation.
- The percentage of adults reporting a disability increased with increasing age with 11% of those ages 18-24 reporting disability compared to 40% of adults ages 75 and older.
- The percentage of adults reporting a disability decreased with increasing education levels with 40% of adults with less than high school education level reporting disability compared to 14% of adults with 4 or more years of college.
- Adults with household incomes of <$35,000 were more likely to report having a disability than adults with higher incomes.
- The percentage of adults who report that they have a disability has been in the range of 19% to 22% from 1999 to 2004 (Figure 4.3.1).

DISABILITY/NEED HELP WITH ACTIVITIES (Table 4.3)

- 5% of Massachusetts adults had a disability or limitation that caused them to require help with daily activities.
- Women (7%) were more likely than men (3%) to report that they had a disability that caused them to require help with daily activities.
- The percentage of adults who had a disability that caused them to require help with daily activities increased with increasing age with 2% of adults ages 18-24 reporting needing help with daily activities as opposed to 13% of adults ages 75 and older.
- Hispanic adults (10%) were more likely than White (5%), Black (4%), or Asian (<1%) adults to report requiring help with daily activities.
- The percentage of adults who reported that they had a disability that caused them to require help with daily activities decreased with increasing education and income.
- Adults living in the Metro West region (3%) were less likely than those living in the Boston (7%) and Western (8%) regions of the state to report that their disability required them to need help with daily activities.
- The percentage of adults reporting that they have a disability and need help with activities has been in the range of 5% to 7% from 1999 to 2004 (Figure 4.3.2).

[17] National Center on Birth Defects and Developmental Disabilities. Developmental Disabilities Health Topics. Available at: http://www.cdc.gov/ncbddd/ddlist.htm Accessed August 9, 2005.

Figure 4.3.1: Trend in the percentage of Massachusetts adults reporting a disability, MA, 1998-2004



Source: Massachusetts BRFSS, 1998-2004

Figure 4.3.2: Trend in the percentage of Massachusetts adults reporting a disability and need help with personal care or routine needs, MA, 1999-2004

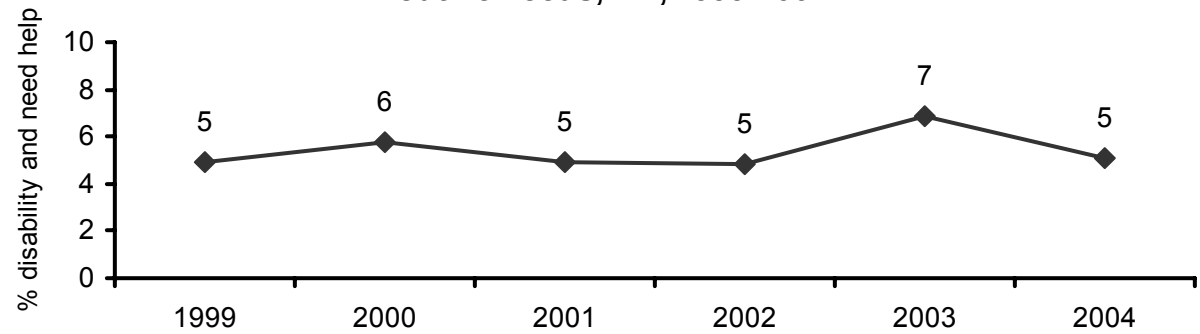


TABLE 4.3 - DISABILITY AMONG MASSACHUSETTS ADULTS, 2004

	HAVE DISABILITY			DISABILITY/NEED HELP WITH ACTIVITIES		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	19.8	19.6	(18.1-21.1)	5.1	4.9	(4.2-5.6)
GENDER						
MALE	19.6	19.9	(17.5-22.2)	3.2	3.2	(2.3-4.1)
FEMALE	20.0	19.3	(17.5-21.1)	6.7	6.4	(5.3-7.5)
AGE GROUP						
18–24	10.9		(5.8-16.1)*	1.7		(0.0-3.9)*
25–34	13.1		(9.8-16.3)*	2.0		(1.0-3.0)*
35–44	13.3		(10.6-16.0)*	3.1		(1.9-4.2)*
45–54	21.2		(17.9-24.5)*	6.0		(4.3-7.7)*
55–64	26.8		(22.7-30.9)*	7.4		(5.2-9.5)*
65–74	28.6		(23.3-33.9)*	6.1		(3.4-8.8)*
75 AND OLDER	39.9		(34.0-45.8)*	13.4		(9.2-17.5)*
RACE-ETHNICITY**						
WHITE	20.5	19.6	(17.9-21.3)	4.7	4.3	(3.5-5.0)
BLACK	18.4	20.2	(12.5-27.9)	4.0	4.4	(1.9-6.9)
HISPANIC	18.6	26.1	(20.0-32.1)	10.2	16.7	(11.1-22.2)
ASIAN	4.9	20.9	(17.0-24.9)	0.4	0.7	(0.1-3.7)
EDUCATION						
< HIGH SCHOOL	40.2	38.8	(32.2-45.3)	13.8	13.2	(9.1-17.4)
HIGH SCHOOL	22.8	22.1	(18.7-25.5)	7.1	6.5	(4.9-8.1)
COLLEGE 1–3 YRS	21.0	21.4	(18.3-24.5)	4.9	4.9	(3.5-6.3)
COLLEGE 4+ YRS	14.4	14.6	(12.4-16.8)	2.8	2.6	(1.8-3.4)
HOUSEHOLD INCOME						
<$25,000	37.3	37.7	(33.7-41.7)	14.4	14.4	(11.8-17.0)
$25–34,999	26.5	26.1	(19.9-32.3)	6.6	6.6	(3.7-9.4)
$35–49,999	14.9	14.4	(11.3-17.6)	3.0	2.9	(1.2-4.5)
$50–74,999	15.0	14.7	(11.3-18.1)	2.5	2.5	(1.0-3.9)
$75,000+	12.5	15.5	(12.3-18.6)	0.9	1.0	(0.4-1.6)
REGION						
I–WESTERN	22.3	20.9	(16.8-24.9)	8.1	7.2	(4.8-9.7)
II–CENTRAL	21.3	21.2	(17.2-25.2)	5.5	5.4	(3.6-7.2)
III–NORTH EAST	21.1	21.1	(17.5-24.8)	4.5	4.5	(3.1-6.0)
IV–METRO WEST	15.5	15.2	(12.4-18.0)	3.0	2.9	(1.7-4.1)
V–SOUTH EAST	21.5	20.8	(17.1-24.6)	4.5	4.1	(2.7-5.6)
VI–BOSTON	19.8	23.4	(19.5-27.3)	6.9	8.2	(5.2-11.3)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

SECTION 5: CANCER SCREENING

Section 5.1: Colorectal Cancer Screening

In 2003, colorectal cancer (the cancer of the colon or rectum) was the second leading cause of cancer-related deaths in Massachusetts. Colorectal cancer is also one of the more commonly diagnosed cancers in the United States. The risk of developing colorectal cancer increases with advancing age and 90% of cases occur in persons ages 50 years and older. Other risk factors include a family history of colorectal cancer, poor diet, physical inactivity, obesity, alcohol and tobacco use. Colorectal cancer can be prevented with early detection using tests such as fecal occult blood tests (blood stool test), sigmoidoscopy, and colonoscopy.[18]

Respondents ages 50 and older were asked if they had ever 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 are the percentage of those respondents who reported that they had a blood stool test using a home test kit in the past 2 years and the percentage of respondents who reported that they had a sigmoidoscopy or colonoscopy.

BLOOD STOOL TEST IN THE PAST TWO YEARS, AGES 50 YEARS AND OLDER (Table 5.1)

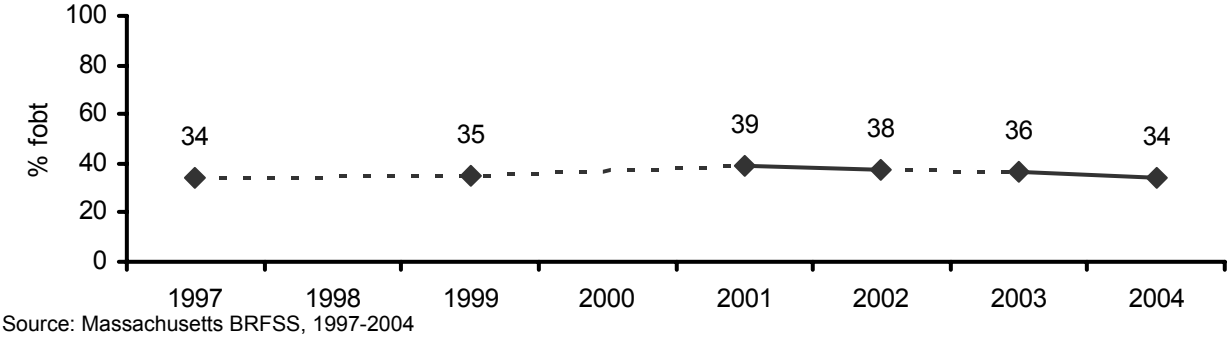
- 34% of Massachusetts adults ages 50 years and older reported that they had had a blood stool test in the past two years.
- 36% of women and 31% of men reported that they had had a blood stool test in the past two years. However, this difference was not statistically significant.
- Reports of a blood stool test in the past two years were highest among Hispanic adults (39%). However, none of the differences between racial/ethnic groups were statistically significant.
- Adults in the 50-59 age group (26%) were less likely to report that they had had a blood stool test in the past two years than those in the other age groups: 60-69 (34%), 70-79 (40%) and 80 and older (36%).
- The Boston region (40%) of the state had the highest percentage of adults reporting that they had had a blood stool test. However, none of the regional differences were statistically significant.
- The percentage of adults ages 50 and older who had had a blood stool test in the past 2 years has remained relatively stable from 1997 to 2004 (Figure 5.1.1).

SIGMOIDOSCOPY OR COLONOSCOPY IN THE PAST FIVE YEARS, AGES 50 YEARS AND OLDER (Table 5.1)

- 54% of Massachusetts adults ages 50 years and older reported that they had had a sigmoidoscopy or colonoscopy in the past five years.
- Men (58%) were more likely than women (51%) to report a sigmoidoscopy or colonoscopy in the past five years.
- Adults ages 50-59 (41%) were less likely than older adults to report that they had had a sigmoidoscopy or colonoscopy in the past five years.
- Adults with 4 or more years of college (62%) were more likely than adults with less than a high school education (48%) to report that they had had a sigmoidoscopy or colonoscopy in the past five years.
- From 1993 to 2004, the percentage of adults ages 50 and over who had a sigmoidoscopy or colonoscopy in the past 5 years has doubled from 27% to 54% (Figure 5.1.2).

[18] Massachusetts Department of Public Health (DPH). Center for Health Information, Statistics, Research, and Evaluation. Massachusetts Death 2003.

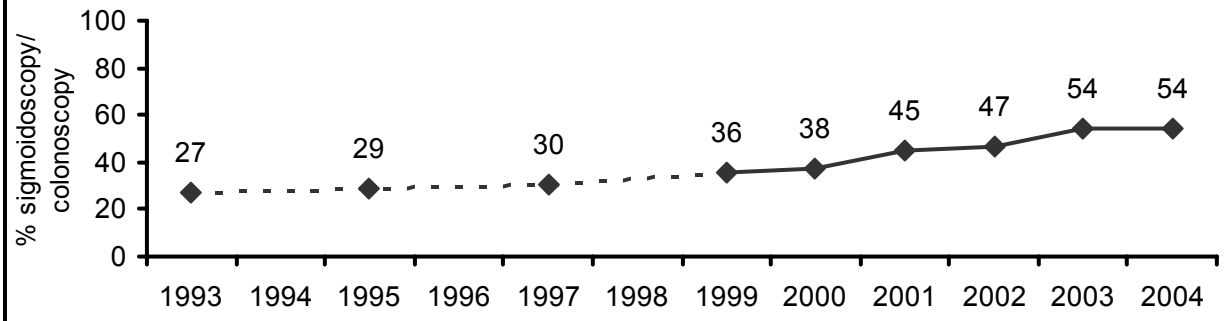
Figure 5.1.1: Trend in the percentage of Massachusetts adults ages 50 and older who had a fecal occult blood test in the past 2 years, 1997-2004



Source: Massachusetts BRFSS, 1997-2004

Note: Dotted line signifies years in which question was not asked.

Figure 5.1.2: Trend in the percentage of Massachusetts adults ages 50 and older who had a sigmoidoscopy or colonoscopy in the past 5 years, 1993-2004



Source: Massachusetts BRFSS, 1993-2004

Note: Dotted line signifies years in which question was not asked.

TABLE 5.1 – COLORECTAL CANCER SCREENING AMONG MASSACHUSETTS ADULTS, AGES 50 YEARS AND OLDER, 2004

	BLOOD STOOL TEST IN THE PAST 2 YEARS			SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5 YEARS		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	33.8	33.8	(31.9-35.8)	54.1	54.0	(51.9-56.1)
GENDER						
MALE	31.0	31.6	(28.5-34.6)	57.5	57.3	(54.0-60.6)
FEMALE	36.1	35.9	(33.3-38.5)	51.4	51.3	(48.6-53.9)
AGE GROUP						
50–59	25.9		(21.9-29.8)*	40.5		(36.1-44.9)*
60–69	34.0		(30.7-37.2)*	58.8		(55.4-62.3)*
70–79	39.6		(35.3-43.8)*	65.0		(60.9-69.1)*
80 AND OLDER	35.9		(31.4-40.4)*	50.4		(45.8-55.1)*
RACE-ETHNICITY**						
WHITE	33.7	33.7	(31.6-35.7)	54.5	54.4	(52.3-56.6)
BLACK	36.2	37.6	(26.3-48.9)	53.5	51.4	(40.4-62.3)
HISPANIC	38.5	39.7	(29.4-50.0)	50.9	51.3	(41.8-60.7)
ASIAN	†	†	--	†	†	--
EDUCATION						
< HIGH SCHOOL	35.7	35.7	(28.5-43.0)	48.0	47.3	(40.2-54.3)
HIGH SCHOOL	33.4	32.3	(28.5-36.0)	46.5	45.4	(41.3-49.4)
COLLEGE 1–3 YRS	32.2	32.3	(28.3-36.3)	49.8	49.6	(45.3-53.9)
COLLEGE 4+ YRS	34.6	35.3	(32.2-38.5)	62.1	62.6	(59.5-65.8)
HOUSEHOLD INCOME						
<$25,000	34.9	34.3	(30.0-38.6)	47.0	46.6	(42.1-51.1)
$25–34,999	37.2	35.1	(28.8-41.4)	45.7	42.6	(36.2-48.9)
$35–49,999	33.7	32.6	(27.5-37.8)	54.1	52.3	(46.6-58.0)
$50–74,999	35.3	36.0	(29.9-42.1)	58.0	58.6	(52.5-64.8)
$75,000+	30.6	33.1	(27.6-38.7)	61.4	66.4	(61.8-71.0)
REGION						
I–WESTERN	34.0	33.7	(28.9-38.5)	50.9	50.4	(45.4-55.4)
II–CENTRAL	34.9	35.9	(30.5-41.2)	45.2	45.9	(40.2-51.6)
III–NORTH EAST	34.5	34.2	(29.6-38.7)	56.1	55.2	(50.5-60.0)
IV–METRO WEST	33.3	33.4	(29.0-37.8)	58.0	58.1	(53.7-62.6)
V–SOUTH EAST	30.9	31.1	(26.9-35.2)	54.9	55.0	(50.5-59.5)
VI–BOSTON	39.7	39.4	(33.2-45.6)	58.1	57.8	(51.6-63.9)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers

Section 5.2: Prostate Cancer Screening

Prostate cancer is one of the most common forms of cancer among men in the United States. Prostate cancer is the second leading cause of cancer deaths among men in the United States and the sixth leading cause of death for men overall. More than 70% of all diagnosed prostate cancers are found in men age 65 and older. The two common screening tests used to detect prostate cancer are the digital rectal examination (DRE) and the prostate-specific antigen (PSA) test.

Men age 50 and older were asked if they had ever had a prostate-specific antigen test, a blood test used to check for prostate cancer. The percentages of those who reported that they had a PSA test in the past year are presented.

Men age 50 and older were also asked if they had ever had a digital rectal exam. A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. The percentage of those who reported that they had a DRE in the past year is also presented.

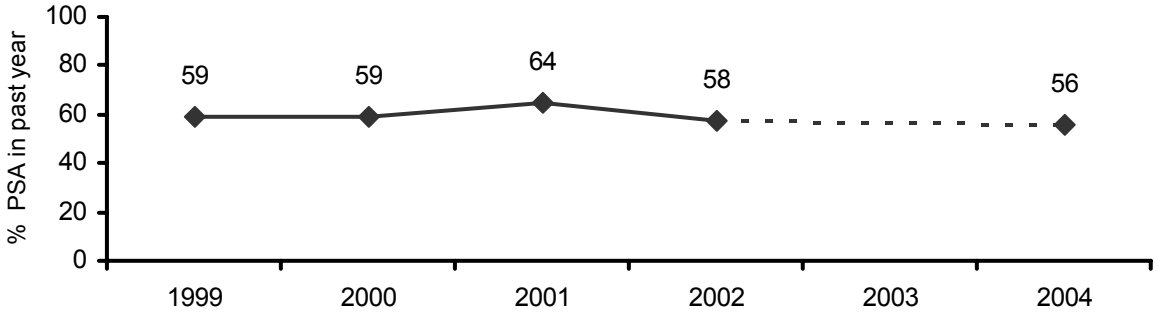
PSA IN THE PAST YEAR, MEN AGES 50 YEARS AND OLDER (Table 5.2)

- 56% of Massachusetts men age 50 and older reported having a PSA in the past year.
- The percentage of men who had a PSA test in the past year increased with increasing age until age 79 and then decreased. Men ages 50-59 (39%) were less likely than men of other age groups to report having a PSA test in the past year.
- Men with four or more years of college education (62%) were more likely than men with a high school education (45%) to have had a PSA test in the past year.
- Men with household incomes of less than $25,000 (44%) were less likely than men with household incomes greater than $50,000 (58%) to have had a PSA test in the past year.
- Men age 50 and older living in the Boston region (66%) were more likely than those living in the Western region (49%) of the state to have had a PSA test in the past year.
- The percentage of men reporting having a PSA test in the past year has remained relatively stable from 1999 to 2004 (Figure 5.2.1).

DRE IN THE PAST YEAR, MEN AGES 50 YEARS AND OLDER (Table 5.2)

- 63% of Massachusetts men age 50 and older reported having a DRE in the past year.
- The number of men who reported having a DRE in the past year increased with increasing education with 57% of men with less than high school education compared to 67% of men with four or more years of college having had a DRE in the past year.
- Men with household incomes under $25,000 (53%) were less likely than men with household incomes above $75,000 (69%) to have had a DRE in the past year.
- Reports of having a DRE in the past year were highest among men in the Boston region (69%) of the state and the lowest were among men in the Western (60%) and Central (60%) regions of the state. However, none of the regional differences were statistically significant.
- The percentage of men reporting having a DRE in the past year was 57% in 1999, 69% in 2001, 62% in 2002 and 63% in 2004 (Figure 5.2.2).

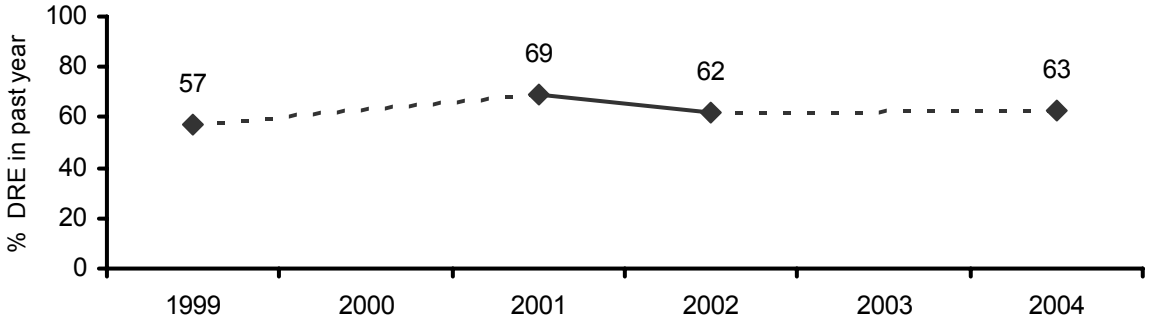
Figure 5.2.1: Trend in the percentage of Massachusetts men ages 50 and older who had a PSA test in the past year, 1999-2004



Source: Massachusetts BRFSS, 1999-2004

Note: Dotted line signifies years in which question was not asked.

Figure 5.2.2: Trend in the percentage of Massachusetts men ages 50 and older who had a DRE in the past year, 1999-2004



Source: Massachusetts BRFSS, 1999-2004

Note: Dotted line signifies years in which question was not asked.

TABLE 5.2 – PROSTATE CANCER SCREENING AMONG MASSACHUSETTS MEN AGES 50 AND OLDER, 2004

	PSA IN PAST YEAR			DRE IN PAST YEAR		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	56.1	56.2	(52.9-59.6)	62.7	62.9	(59.6-66.1)
GENDER						
MALE	56.1	56.2	(52.9-59.6)	62.7	62.9	(59.6-66.1)
FEMALE						
AGE GROUP						
50–59	38.6		(31.7-45.5)*	50.6		(43.6-57.5)*
60–69	60.8		(55.2-66.4)*	66.5		(61.2-71.8)*
70–79	67.4		(60.7-74.2)*	70.5		(64.2-76.7)*
80 AND OLDER	58.2		(50.3-66.1)*	63.1		(55.3-70.8)*
RACE-ETHNICITY**						
WHITE	56.3	56.3	(52.9-59.8)	62.8	62.8	(59.4-66.2)
BLACK	55.3	50.6	(33.7-67.6)	56.0	50.9	(34.7-67.1)
HISPANIC	45.6	49.2	(31.4-67.1)	64.9	70.4	(57.3-83.5)
ASIAN	†	†	--	†	†	--
EDUCATION						
< HIGH SCHOOL	55.0	54.6	(43.4-65.8)	56.6	56.6	(45.0-68.2)
HIGH SCHOOL	44.6	44.5	(37.9-51.2)	56.7	57.0	(50.3-63.7)
COLLEGE 1–3 YRS	56.4	56.4	(48.8-64.1)	61.8	61.3	(54.0-68.6)
COLLEGE 4+ YRS	61.6	62.6	(57.9-67.3)	66.7	67.3	(62.7-71.9)
HOUSEHOLD INCOME						
<$25,000	44.4	42.4	(34.5-50.3)	52.6	52.6	(44.7-60.6)
$25–34,999	57.5	55.3	(44.2-66.5)	62.2	60.4	(50.2-70.6)
$35–49,999	56.5	53.2	(44.0-62.5)	58.6	56.6	(47.4-65.9)
$50–74,999	57.6	59.6	(51.2-67.9)	60.7	62.3	(54.1-70.5)
$75,000+	58.4	60.8	(54.1-67.6)	69.4	73.5	(68.1-79.0)
REGION						
I–WESTERN	49.1	47.9	(40.0-55.8)	59.5	59.4	(51.7-67.1)
II–CENTRAL	52.3	52.6	(43.5-61.8)	60.0	59.5	(50.8-68.1)
III–NORTH EAST	52.3	53.7	(46.2-61.2)	63.0	64.0	(56.9-71.1)
IV–METRO WEST	62.5	63.3	(56.4-70.1)	64.5	64.8	(58.0-71.6)
V–SOUTH EAST	56.3	56.3	(48.8-63.9)	62.6	62.2	(54.7-69.7)
VI–BOSTON	66.2	65.5	(56.2-74.9)	69.0	69.2	(60.4-78.1)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers

Section 5.3: Breast Cancer Screening

Except for skin cancer, breast cancer is the most commonly diagnosed cancer among American women. Mammography and clinical breast exams are ways to detect breast cancer at an early stage. Timely mammograms among women could reduce breast cancer mortality.

All female respondents were asked about breast cancer screening. Those women who reported that they had ever had a mammogram (an x-ray of each breast to look for cancer) were asked how long it had been since their last mammogram. The percentages of women, age 40 and older who had a mammogram in the past two years is presented.

All women were also asked if they had ever had a clinical breast exam, an exam in which a doctor, nurse, or other health professional feels the breast for lumps. Those women who reported ever having had a clinical breast exam were asked how long it had been since their last exam. The percentage of women who had a clinical breast exam in the past two years is presented.

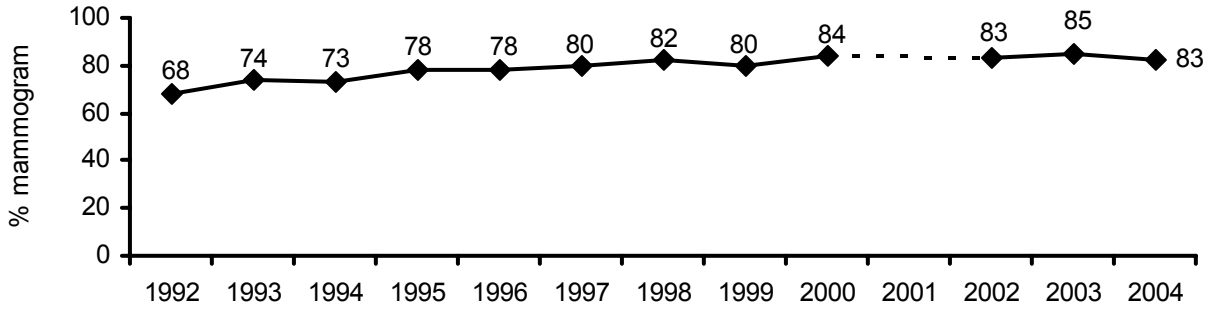
MAMMOGRAM IN THE PAST TWO YEARS, WOMEN AGES 40 AND OLDER (Table 5.3)

- 83% of women ages 40 or older, reported having had a mammogram in the past two years.
- The percentage of women reporting a mammogram in the past two years was lowest in the 40-49 years (77%) and 80 years and older (75%) age groups. However, differences based on age were not statistically significant.
- Hispanic women (88%) were more likely than White women (82%) to report having had a mammogram in the past two years.
- Women who had household incomes of more then $75,000 (84%) were more likely to report having had a mammogram in the past 2 years than women who had household incomes of less than $25,000 (76%).
- Reports of having had a mammogram in the past 2 years were lowest among women in the central (79%) and western (80%) regions of the state. However, none of the regional differences were statistically significant.
- The percentage of women who had a mammogram in the past 2 years increased from 68% in 1992 to 83% in 2004 (Figure 5.3.1).

CLINICAL BREAST EXAM IN PAST TWO YEARS (Table 5.3)

- 87% of women reported having had a clinical breast exam in the past two years.
- Reports of having had a clinical breast exam in the past two years were lowest among women ages 18-29 (81%) and women 80 years and older (74%). However, differences based on age were not statistically significant.
- Women with less than a high school education (74%) were less likely than women with four or more years of college (92%) to have had a clinical breast exam in the past 2 years.
- The percentage of women reporting having had a clinical breast exam in the past 2 years increased with increasing education and income.
- The percentage of women who had had a clinical breast exam in the past 2 years increased from 80% in 1992 to 87% in 2004 (Figure 5.3.2).

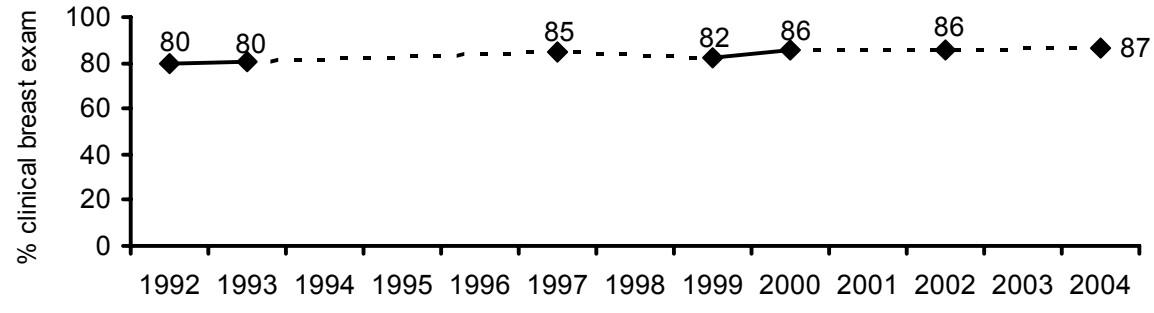
Figure 5.3.1: Trend in the percentage of Massachusetts women ages 40 years and older who had a mammogram in the past two years, 1992 - 2004



Source: Massachusetts BRFSS, 1992-2004

Note: Dotted line signifies year in which question was not asked.

Figure 5.3.2: Trend in the percentage of Massachusetts women ages 40 years and older who had a clinical breast exam in the past two years, 1992 - 2004



Note: Dotted line signifies years in which question was not asked.

TABLE 5.3 – BREAST CANCER SCREENING AMONG MASSACHUSETTS WOMEN, 2004

	MAMMOGRAM IN PAST TWO YEARS, AMONG WOMEN AGES 40+			CLINICAL BREAST EXAM IN PAST TWO YEARS		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	82.5	82.4	(80.7-84.1)	86.6	86.7	(85.3-88.1)
GENDER						
MALE						
FEMALE	82.5		(80.7-84.1)	86.6		(85.3-88.1)
AGE GROUP						
18–29				81.3		(76.5-86.1)*
30–39				88.9		(86.1-91.8)*
40-49	76.8		(73.3-80.3)*	91.6		(89.5-93.7)*
50–59	88.1		(85.4-90.7)*	91.0		(88.7-93.3)*
60–69	89.0		(86.1-91.9)*	86.5		(82.9-90.2)*
70–79	82.5		(78.1-86.9)*	83.6		(79.4-87.8)*
80 AND OLDER	75.3		(69.0-81.6)*	74.1		(67.8-80.4)*
RACE-ETHNICITY**						
WHITE	82.4	82.2	(80.4-84.1)	87.9	88.0	(86.4-89.6)
BLACK	79.5	81.7	(70.7-92.6)	80.8	86.6	(81.5-91.7)
HISPANIC	87.6	89.6	(85.2-94.0)	78.4	81.7	(77.0-86.4)
ASIAN	†	†	--	74.4	80.2	(71.0-89.3)
EDUCATION						
< HIGH SCHOOL	82.1	84.2	(79.4-89.0)	74.1	78.2	(73.0-83.3)
HIGH SCHOOL	80.2	80.3	(76.7-84.0)	82.3	83.4	(80.3-86.5)
COLLEGE 1–3 YRS	79.3	79.1	(75.4-82.9)	85.1	85.5	(82.5-88.5)
COLLEGE 4+ YRS	86.0	85.7	(83.4-88.1)	91.9	91.5	(89.7-93.3)
HOUSEHOLD INCOME						
<$25,000	75.6	75.8	(71.4-80.2)	77.0	78.9	(75.5-82.2)
$25–34,999	83.2	82.2	(76.1-88.2)	86.3	85.2	(80.5-89.9)
$35–49,999	80.1	79.2	(73.9-84.6)	88.2	87.1	(83.1-91.1)
$50–74,999	86.6	83.0	(78.1-87.8)	89.0	88.2	(84.2-92.2)
$75,000+	84.4	87.0	(84.2-89.8)	93.7	94.2	(92.4-96.1)
REGION						
I–WESTERN	79.7	79.7	(75.2-84.1)	85.0	85.9	(82.5-89.3)
II–CENTRAL	78.5	78.9	(74.0-83.8)	85.5	85.0	(81.2-88.7)
III–NORTH EAST	84.5	84.3	(80.1-88.4)	90.0	90.3	(87.7-92.8)
IV–METRO WEST	84.4	84.7	(81.4-88.1)	87.1	87.0	(83.5-90.4)
V–SOUTH EAST	82.7	82.5	(78.7-86.3)	85.6	84.5	(80.6-88.5)
VI–BOSTON	84.6	84.2	(80.0-88.4)	85.7	86.4	(82.8-89.9)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers

Section 5.4: Cervical Cancer Screening

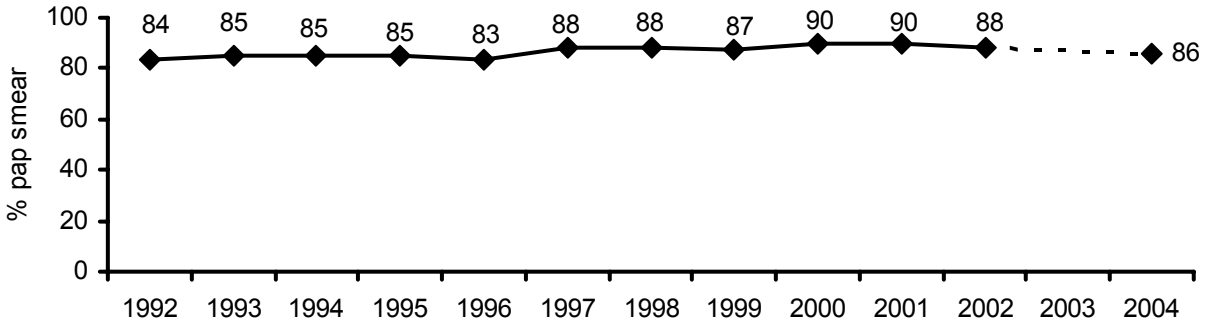
Cervical cancer, cancer of the cervix, can be detected and treated early if women are screened regularly with a Pap smear, also referred to as a Pap test. Most often cervical cancer develops in women age 40 and older; however, precursors to cervical cancer most often occur in young women.[19] Women should have regular Pap tests because the chances of being cured are higher if cervical cancer is detected early. [19]

All women were asked if they had ever had a Pap smear, a screening test for cancer of the cervix. Those who reported that they had a Pap smear were then asked how long it had been since their last pap smear. The percentage of women who reported having had a pap smear in the past 3 years is presented.[20]

PAP SMEAR IN PAST 3 YEARS (Table 5.4)

- 86% of Massachusetts women reported having had a pap smear in the past 3 years.
- Women ages 25-64 were more likely to report that they had had a pap smear in the past 3 years than women ages 65 and older.
- Women 75 years of age and older (56%) were less likely than women from all other age groups to report that they had had a pap smear in the past 3 years.
- Reports of having had a pap smear in the past 3 years were lowest among Asian women (72%). However, differences between racial/ethnic groups were not statistically significant.
- The percentage of women who had had a pap smear in the past 3 years increased with increasing education and income.
- From 1997 to 2004, the percentage of women reporting that they had had a pap smear in the past 3 years has been in the range of 86 to 90% (Figure 5.4).

Figure 5.4: Trend in the percentage of Massachusetts women who had a pap smear in the past three years, 1992-2004



Source: Massachusetts BRFSS, 1992-2004

[19] National Center for Chronic Disease Prevention and Health Promotion, Cancer Prevention and Control, Cervical Cancer Screening Fact Sheet. Available at: http://www.cdc.gov/cancer/nbccedp/cc_basic.htm Accessed September 20, 2005.

[20] The Massachusetts cervical cancer screening rates differ slightly from those published by the CDC. Women who have had a hysterectomy are removed from the analysis in Massachusetts calculations, but included in CDC calculations.

TABLE 5.4 – CERVICAL CANCER SCREENING AMONG MASSACHUSETTS WOMEN, 2004

	PAP SMEAR TEST WITHIN PAST 3 YRS		
	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	85.7	86.4	(85.0-87.8)
GENDER			
MALE			
FEMALE	85.7	86.4	(85.0-87.8)
AGE GROUP			
18–24	80.5		(73.5-87.5)*
25–34	93.8		(91.1-96.5)*
35–44	94.1		(92.1-96.0)*
45–54	93.1		(91.2-95.0)*
55–64	87.2		(84.1-90.3)*
65–74	77.3		(72.8-81.7)*
75 AND OLDER	56.4		(50.7-62.1)*
RACE-ETHNICITY**			
WHITE	86.0	87.2	(85.8-88.7)
BLACK	83.8	86.0	(79.2-92.7)
HISPANIC	88.0	89.6	(85.7-93.5)
ASIAN	71.7	81.0	(72.2-89.7)
EDUCATION			
< HIGH SCHOOL	75.9	79.5	(74.2-84.7)
HIGH SCHOOL	80.5	84.5	(81.6-87.4)
COLLEGE 1–3 YRS	83.8	84.7	(81.7-87.6)
COLLEGE 4+ YRS	91.1	90.1	(88.3-92.0)
HOUSEHOLD INCOME			
<$25,000	75.9	79.7	(76.5-82.9)
$25–34,999	85.7	87.5	(83.2-91.8)
$35–49,999	87.1	87.7	(84.5-90.9)
$50–74,999	90.1	88.6	(84.6-92.5)
$75,000+	92.9	90.4	(87.4-93.4)
REGION			
I–WESTERN	86.6	88.5	(85.9-91.0)
II–CENTRAL	87.0	86.5	(82.8-90.2)
III–NORTH EAST	87.4	88.4	(85.8-91.0)
IV–METRO WEST	84.6	85.2	(81.8-88.7)
V–SOUTH EAST	83.2	83.3	(79.3-87.3)
VI–BOSTON	86.2	87.1	(83.8-90.4)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

SECTION 6: OTHER TOPICS

Section 6.1: Family planning

An unplanned pregnancy is a pregnancy that is unexpected at the time of conception. Women whose pregnancies are unplanned may delay seeking prenatal care because they find out about their pregnancy later on than women with planned pregnancies. Unplanned pregnancies are associated with an increased risk of morbidity for women and with health behaviors during pregnancy that are associated with adverse effects which may affect the health of the newborn infant. [21]

All women ages 18-44 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 18-44 who had not had a hysterectomy and were not currently pregnant were also asked what type of birth control they or their partners currently used.

UNPLANNED PREGNANCY (Table 6.1)

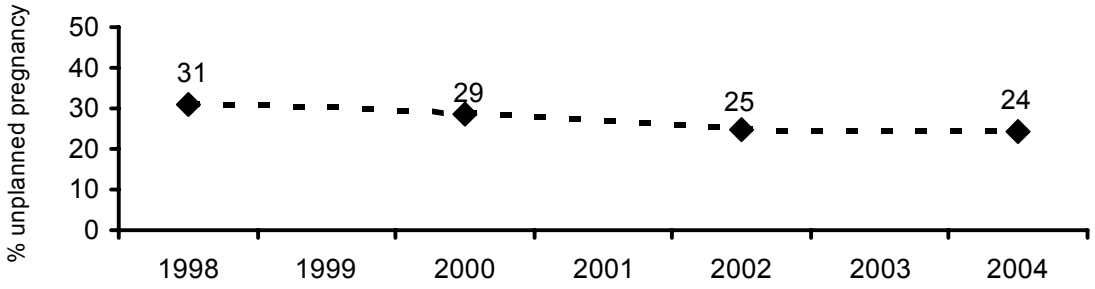
- 24% of women ages 18-44 who were currently pregnant or had been pregnant in the past 5 years reported that they had an unplanned pregnancy.
- Women ages 18-24 (57%) were four times more likely to report an unplanned pregnancy in the past 5 years than women ages 35-44 (14%).
- The percentage of women who had had an unplanned pregnancy in the past 5 years decreased with increasing age, education, and income.
- White women (20%) were less likely than Asian women (40%) to report an unplanned pregnancy in the past 5 years.
- The percentage of women ages 18-44 reporting unplanned pregnancy was 31% in 1998 and 24% in 2004 (Figure 6.1.1).

USE BIRTH CONTROL (Table 6.1)

- 88% of Massachusetts women ages 18-44 reported that they or their partner use some form of birth control.
- The percentage of women ages 18-44 who reported using some form of birth control decreased with increasing age, with over 90% of women ages 18-24 using some form of birth control.
- Reports of birth control use were highest among women with 1-3 years of college education (89%) and lowest among women with less than high school education (85%). However, none of the differences based on educational attainment were statistically significant.
- The percentage of women ages 18-44 reporting use of some form of birth control has increased from 72% in 1998 to 88% in 2004 (Figure 6.1.2).

[21] National Center for Chronic Disease Prevention and Health Promotion, Unintended and Teen Pregnancy Prevention. Available at: http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/index.htm Accessed September 20, 2005.

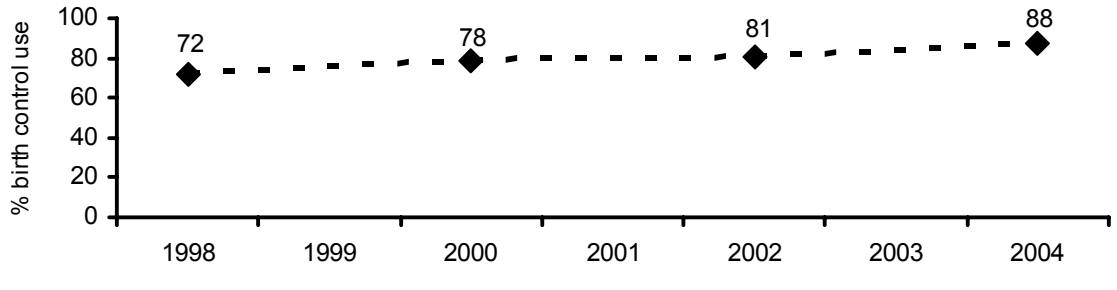
Figure 6.1.1: Trend in the percentage of Massachusetts women who report an unplanned pregnancy, 1998-2004



Source: Massachusetts BRFSS, 1998-2004

Note: Dotted line signifies years in which question was not asked.

Figure 6.1.2: Trend in the percentage of Massachusetts women who report currently using some form of birth control, 1998-2004



Source: Massachusetts BRFSS, 1998-2004

Note: Dotted line signifies years in which question was not asked.

TABLE 6.1 – FAMILY PLANNING AMONG MASSACHUSETTS WOMEN, AGES 18-44, 2004						
	UNPLANNED PREGNANCY			USE BIRTH CONTROL		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	24.4	26.9	(22.2-31.7)	87.7	87.8	(85.6-90.1)
GENDER						
MALE						
FEMALE	24.4	26.9	(22.2-31.7)	87.7	87.8	(85.6-90.1)
AGE GROUP						
18–24	56.6		(40.9-72.3)*	92.4		(87.3-97.4)*
25–34	21.6		(16.1-27.1)*	87.6		(83.7-91.5)*
35–44	13.9		(8.8-19.1)*	85.4		(82.2-88.6)*
RACE-ETHNICITY**						
WHITE	20.1	24.3	(18.2-30.4)	88.2	88.4	(85.9-91.0)
BLACK	40.7	35.3	(16.5-54.1)	76.6	76.3	(62.9-89.8)
HISPANIC	41.0	36.7	(24.7-48.8)	88.7	87.4	(81.5-93.3)
ASIAN	40.0	53.4	(37.2-69.6)	87.4	85.7	(73.7-97.7)
EDUCATION						
< HIGH SCHOOL	50.8	36.3	(22.4-50.3)	85.0	81.1	(70.9-91.4)
HIGH SCHOOL	34.5	29.6	(20.6-38.7)	87.3	86.6	(81.8-91.4)
COLLEGE 1–3 YRS	25.7	29.3	(19.3-39.3)	89.2	88.5	(84.2-92.9)
COLLEGE 4+ YRS	16.6	21.6	(11.8-31.3)	87.9	88.3	(84.7-91.8)
HOUSEHOLD INCOME						
<$25,000	47.8	40.5	(31.1-50.0)	84.3	84.1	(78.5-89.7)
$25–34,999	27.6	28.8	(13.7-43.9)	89.6	89.0	(82.7-95.3)
$35–49,999	27.8	24.2	(14.0-34.4)	86.8	88.7	(83.1-94.3)
$50–74,999	17.1	22.3	(8.8-35.8)	88.8	90.1	(86.0-94.2)
$75,000+	13.2	33.5	(29.5-37.6)	88.1	89.1	(85.1-93.0)
REGION						
I–WESTERN	26.7	26.9	(16.0-37.7)	88.9	88.8	(83.1-94.5)
II–CENTRAL	21.5	27.9	(17.2-38.5)	87.5	88.2	(83.4-93.0)
III–NORTH EAST	18.8	19.5	(10.6-28.4)	88.5	88.9	(84.8-93.0)
IV–METRO WEST	24.1	34.0	(24.6-43.4)	90.2	90.3	(86.0-94.7)
V–SOUTH EAST	29.3	30.0	(17.9-42.1)	84.7	84.9	(77.0-92.7)
VI–BOSTON	30.2	26.4	(15.3-37.4)	85.8	85.5	(79.3-91.7)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 6.2: HIV Testing

Each year there are more people living with HIV/AIDS in Massachusetts than in the previous year. The number of people living with HIV/AIDS has increased because the number of new HIV infection diagnoses has exceeded the number of deaths among people with HIV/AIDS in the past five years.[22] HIV testing provides the opportunity for people to know their HIV status and receive appropriate care, treatment, and support services (if they are positive) or risk reduction support (if they are negative).

All respondents ages 18-64 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 are the percentage of respondents who had ever been tested for HIV, and the percentage of those who had been tested in the past year.

EVER TESTED FOR HIV, AGES 18-64 YEARS (Table 6.2)

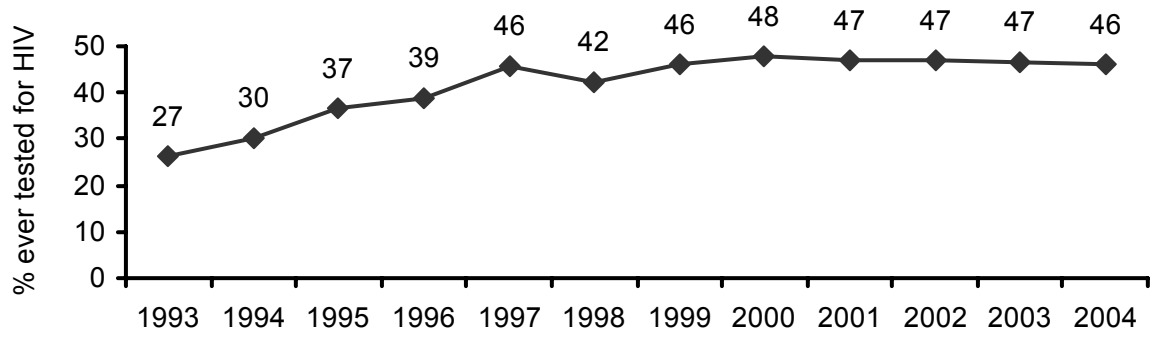
- Among adults ages 18-64 years, 46% reported ever having been tested for HIV.
- Similar percentages of men and women (approximately 46%) reported ever having been tested for HIV.
- Adults ages 25-34 (66%) were more likely than adults in other age groups to report ever having been tested for HIV.
- Black adults (58%) were more likely than White adults (45%) to report ever having been tested for HIV.
- Reports of ever having been tested for HIV were highest among adults with 4 or more years of college education (49%). However, there were no statistically significant differences in HIV testing based on educational attainment.
- The percentage of adults ages 18-64 who ever have been tested for HIV has increased from 27% in 1993 to 46% in 2004 (Figure 6.2.1).

TESTED FOR HIV IN PAST YEAR, AGES 18-64 YEARS (Table 6.2)

- 13% of Massachusetts adults ages 18-64 reported having been tested for HIV in the past year.
- Similar percentages of men (13%) and women (12%) reported having been tested for HIV in the past year.
- Adults ages 18-34 were more likely to report having been tested in the past year than adults ages 35-64 years.
- Black adults (23%) were more likely than White adults (12%) to report having been tested for HIV in the past year.
- The percentage of adults who had been tested for HIV in the past year was highest among those with less than high school education (21%). However, there were no statistically significant differences in HIV testing based on educational attainment.
- HIV testing in the past year decreased with increasing household income up to $74,999, then increased.
- The percentage of adults ages 18-64 who had been tested for HIV in the past year has been in the range of 11% to 15% from 1993 to 2004 (Figure 6.2.2).

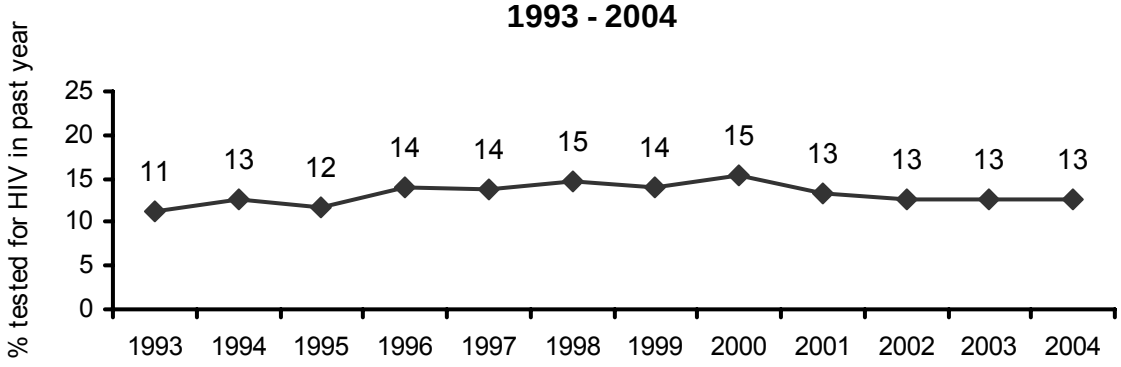
[22] Massachusetts Department of Public Health. HIV/AIDS Bureau. Massachusetts HIV/AIDS Data Fact Sheet: The HIV/AIDS Epidemic in MA. October 2004.

Figure 6.2.1: Trend in the percentage of Massachusetts adults, ages 18 - 64, who were ever tested for HIV, 1993 - 2004



Source: Massachusetts BRFSS, 1993-2004

Figure 6.2.2: Trend in the percentage of Massachusetts adults, ages 18 - 64, who were tested for HIV in the past year, 1993 - 2004



Source: Massachusetts BRFSS, 1993-2004

Table 6.2 – HIV TESTING AMONG MASSACHUSETTS ADULTS, AGES 18-64, 2004						
	EVER TESTED FOR HIV			TESTED FOR HIV IN THE PAST YEAR		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	46.2	46.7	(45.0-48.5)	12.7	12.9	(11.6-14.1)
GENDER						
MALE	46.3	46.7	(44.0-49.3)	13.3	13.4	(11.5-15.4)
FEMALE	46.2	46.9	(44.7-49.1)	12.1	12.4	(10.7-14.0)
AGE GROUP						
18–24	38.6		(32.4-44.8)*	20.1		(15.1-25.1)*
25–34	66.0		(62.3-69.7)*	21.8		(18.4-25.3)*
35–44	56.6		(53.4-59.8)*	10.6		(8.4-12.8)*
45–54	37.1		(34.0-40.2)*	7.2		(5.6-8.9)*
55–64	22.2		(19.2-25.2)*	3.9		(2.6-5.2)*
RACE-ETHNICITY**						
WHITE	44.7	46.1	(44.2-48.1)	11.5	12.3	(10.8-13.8)
BLACK	58.3	58.6	(50.4-66.7)	23.3	20.5	(14.8-26.1)
HISPANIC	54.7	52.3	(46.6-58.0)	21.1	17.9	(13.6-22.2)
ASIAN	33.4	33.6	(24.4-42.8)	6.7	7.8	(2.4-13.2)
EDUCATION						
< HIGH SCHOOL	45.1	45.7	(39.3-52.2)	21.2	19.5	(14.1-25.0)
HIGH SCHOOL	42.2	44.7	(41.1-48.3)	12.2	12.7	(10.1-15.3)
COLLEGE 1–3 YRS	44.7	46.7	(43.2-50.2)	11.6	12.3	(9.6-14.9)
COLLEGE 4+ YRS	49.1	48.3	(45.4-51.1)	12.1	13.1	(10.7-15.5)
HOUSEHOLD INCOME						
<$25,000	50.7	50.9	(46.8-55.0)	19.8	18.3	(15.2-21.4)
$25–34,999	43.0	44.0	(37.8-50.2)	12.1	12.0	(8.1-15.9)
$35–49,999	44.6	45.4	(40.6-50.1)	12.6	13.2	(9.4-17.0)
$50–74,999	43.7	44.8	(40.5-49.0)	8.0	8.3	(5.7-11.0)
$75,000+	48.2	46.5	(43.5-49.5)	11.1	12.0	(9.5-14.4)
REGION						
I–WESTERN	47.7	49.8	(45.4-54.1)	16.4	16.6	(13.1-20.1)
II–CENTRAL	43.0	43.2	(39.3-47.2)	10.9	11.4	(8.6-14.2)
III–NORTH EAST	48.6	49.0	(45.0-53.0)	13.4	13.3	(10.0-16.6)
IV–METRO WEST	44.8	44.7	(41.1-48.4)	9.2	9.5	(7.3-11.7)
V–SOUTH EAST	44.0	45.9	(41.6-50.3)	11.2	12.3	(8.9-15.6)
VI–BOSTON	51.2	50.3	(45.8-54.9)	18.9	16.9	(13.3-20.4)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

Section 6.3: Illicit Drug Use

In 2002, approximately 22 million Americans suffered from either alcohol or drug abuse or dependence on alcohol or drugs, with 3.3% of the population of the United States (age 12 and older) in need of treatment for a diagnosable drug problem.[23] Use of illicit drugs may lead to impaired decision making about risk behaviors, including decisions about unplanned or unprotected sex. [24]

All respondents were asked if they had ever, even if only once, used marijuana, powder cocaine, crack cocaine, hallucinogens, Oxycontin, or sedatives or tranquilizers that were not prescribed to them. Respondents ages 18-35 years were also asked if they had ever used MDMA/Ecstasy. Respondents were asked how long it had been since they had last used any of these drugs. Presented here are the percentage of adults who reported having ever used any of these illicit drugs and the percentage of adults who reported having used any of these illicit drugs within the past 30 days.

EVER USED ILLICIT DRUGS (Table 6.3)

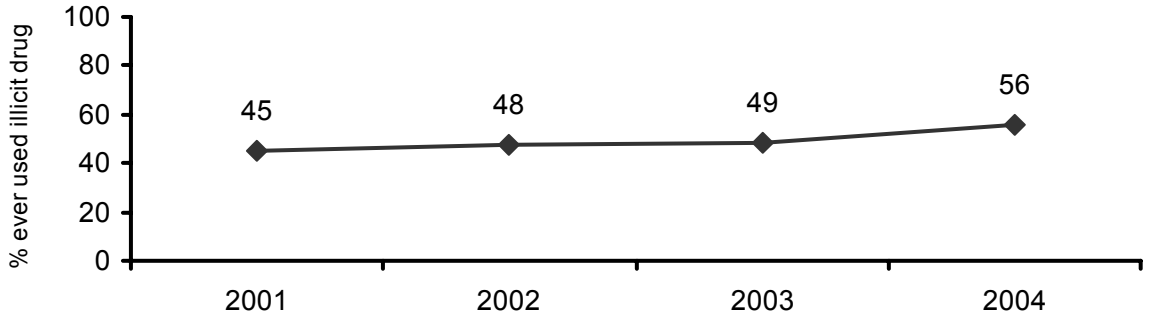
- Among Massachusetts adults, 56% reported having used an illicit drug at some time in their lifetime.
- Men (62%) were more likely than women (51%) to report ever having used an illicit drug.
- Adults ages 65-74 (20%) were less likely to have ever used an illicit drug compared to other age groups.
- White adults (61%) were more likely than Black (37%), Hispanic (28%) or Asian (18%) adults to have ever used an illicit drug.
- Illicit drug use increased with increasing education up to 1-3 years of college, then decreased.
- The percentage of adults who report that they ever used illicit drugs was 45% in 2001 and 56% in 2004 (Figure 6.3.1).

USED ILLICIT DRUGS IN THE PAST 30 DAYS (Table 6.3)

- 8% of Massachusetts adults reported having used an illicit drug in the past 30 days.
- Men (11%) were more likely than women (6%) to report having used an illicit drug in the past 30 days.
- Adults ages 18-24 years (24%) were more likely to have used illicit drugs in the past 30 days than adults in other age groups.
- White adults (9%) were more likely to report illicit drug use in the past 30 days than Hispanic adults (4%).
- Illicit drug use in the past 30 days decreased with increasing household income with 15% of adults with a household income of less than $25,000 reporting illicit drug use in the past 30 days compared to 6% of adults with household income of $75,000 or more.
- The percentage of adults who reported that they had used illicit drugs in the past 30 days has been in the range of 6% to 8% from 2001 to 2004 (Figure 6.3.2).

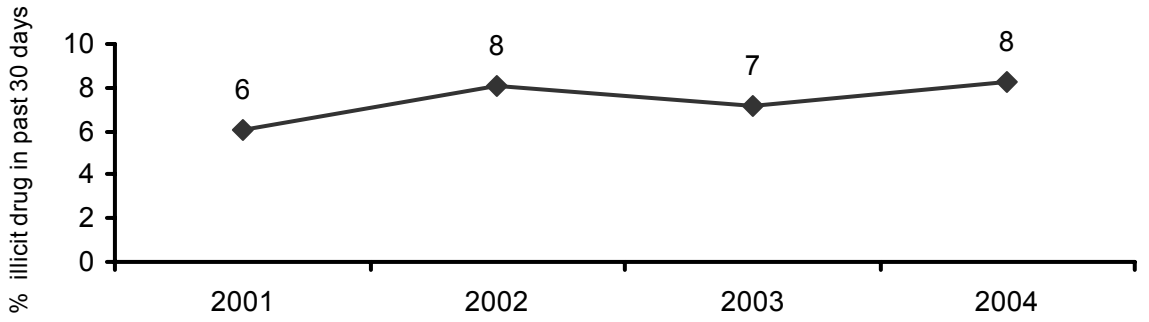
[23] United States Department of Health and Human Services, News Release. Available at: http://www.dhhs.gov/news/press/2003pres/20030905.html. Accessed November 16, 2005.
[24] United States Department of Health and Human Services, January 2005 Fact Sheet. Available at: http://hab.hrsa.gov/history/fact2005/substance_abuse_and_hivaids.htm Accessed November 6. 2005

Figure 6.3.1: Trend in the percentage of Massachusetts adults who report ever having used an illicit drug, 2001 - 2004



Source: Massachusetts BRFSS, 2001-2004

Figure 6.3.2: Trend in the percentage of Massachusetts adults who report having used an illicit drug in the past 30 days, 2001 - 2004



Source: Massachusetts BRFSS, 2001-2004

TABLE 6.3 – ILLICIT DRUG USE AMONG MASSACHUSETTS ADULTS, 2004

	EVER USED ILLICIT DRUGS			USED ILLICIT DRUGS IN THE PAST 30 DAYS		
	CRUDE %	AGE–ADJUSTED %	95% CI	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	55.9	50.6	(48.0-53.3)	8.3	7.0	(5.9-8.2)
GENDER						
MALE	61.6	59.0	(54.1-63.8)	11.0	9.3	(7.5-11.1)
FEMALE	50.6	44.0	(41.6-46.4)	5.8	4.9	(3.6-6.2)
AGE GROUP						
18–24	57.2		(50.0-64.5)*	24.1		(17.4-30.8)*
25–34	56.6		(52.2-61.1)*	7.9		(5.4-10.4)*
35–44	61.7		(58.0-65.3)*	5.5		(3.9-7.2)*
45–54	64.3		(60.7-67.9)*	5.7		(3.8-7.5)*
55–64	38.2		(34.1-42.3)*	2.2		(1.1-3.3)*
65–74	20.2		(7.9-32.5)*	0.2		(0.0-0.5)*
75 AND OLDER	†		--	†		--
RACE-ETHNICITY**						
WHITE	61.1	55.7	(52.8-58.6)	9.1	8.3	(6.9-9.7)
BLACK	37.4	37.0	(26.1-48.0)	5.5	4.2	(1.1-7.3)
HISPANIC	27.5	20.4	(15.5-25.2)	3.6	2.0	(0.4-3.7)
ASIAN	17.8	15.8	(7.4-24.1)	2.2	1.7	(0.4-7.3)
EDUCATION						
< HIGH SCHOOL	36.8	31.0	(24.9-37.1)	10.0	6.1	(3.2-8.9)
HIGH SCHOOL	53.4	46.9	(43.1-50.8)	11.4	9.1	(6.6-11.6)
COLLEGE 1–3 YRS	60.5	59.5	(52.7-66.4)	10.9	8.9	(6.3-11.4)
COLLEGE 4+ YRS	57.7	53.5	(48.7-58.3)	5.3	5.2	(3.4-7.0)
HOUSEHOLD INCOME						
<$25,000	50.8	46.9	(40.9-52.8)	14.7	9.5	(7.0-12.0)
$25–34,999	48.6	43.0	(37.0-48.9)	10.7	8.3	(4.1-12.4)
$35–49,999	62.0	56.6	(49.4-63.8)	8.0	6.7	(3.8-9.5)
$50–74,999	57.5	52.1	(44.8-59.4)	6.8	5.9	(3.6-8.2)
$75,000+	61.6	57.6	(50.7-64.5)	5.8	6.3	(4.0-8.6)
REGION						
I–WESTERN	58.9	53.1	(45.9-60.2)	9.3	7.1	(4.6-9.6)
II–CENTRAL	54.0	46.1	(41.7-50.5)	7.9	7.3	(4.5-10.1)
III–NORTH EAST	56.0	51.9	(46.3-57.5)	7.8	6.8	(4.0-9.6)
IV–METRO WEST	59.2	52.0	(46.9-57.1)	8.2	7.1	(4.5-9.6)
V–SOUTH EAST	56.6	50.9	(45.2-56.5)	7.8	7.5	(4.5-10.4)
VI–BOSTON	46.8	48.5	(39.3-57.8)	9.0	6.6	(4.3-8.9)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers.

Section 6.4: Firearms

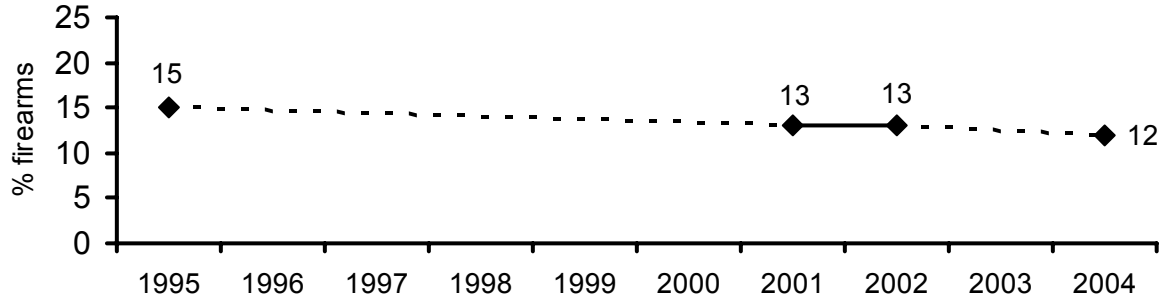
Firearms are a leading cause of injury mortality in Massachusetts, with 202 firearms deaths in Massachusetts in 2003.[25] This number includes suicides, homicides, unintentional deaths, and legal interventions. Approximately 60% of firearm deaths in Massachusetts in 2003 were suicides and 38% were homicides. [26]

All respondents were asked whether firearms were kept in or around their home. Respondents were asked to include weapons such as pistols, shotguns, and rifles; but not BB guns, starter pistols, or guns that cannot be fired. They were also asked to include those kept in a garage, outdoor storage area, or motor vehicle. The percentages of Massachusetts adults age 18 and older who reported that firearms were kept in or around their home are presented here.

FIREARMS (Table 6.4)

- 12% of Massachusetts adults reported that firearms were kept in or around their homes.
- Men (15%) were more likely than women (8%) to report keeping firearms in or around their homes.
- Reports of keeping firearms in or around the home were highest among adults ages 55-64 (17%). However, none of the differences between age groups were statistically significant.
- White adults (13%) were more likely than Hispanic (4%) or Asian (1%) adults to report keeping firearms in or around their homes.
- Reports of keeping firearms in or around the homes increased with increasing household income.
- Adults in the Metro West (7%) and Boston (6%) regions of the state were less likely than adults in other regions of the state to report keeping firearms in or around their homes.
- Between 1995 and 2004, the percentage of Massachusetts adults who reported that they kept firearms in or around their homes decreased (Figure 6.4).

Figure 6.4: Trend in the percentage of Massachusetts adults who report firearms being kept in or around their homes, 1995-2004



Source: Massachusetts BRFSS, 1995-2004

Note: Dotted line signifies years in which question was not asked.

[25] Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2004.
[26] Hahn RA, Bilukha OO, Crosby A, Fullilove MT, Liberman A, Moscicki E, Snyder S, Tuma F, Briss P. First Reports Evaluating the Effectiveness of Strategies for Preventing Violence: Firearm Laws. MMWR 2003: 52(RR14); 11-20.

TABLE 6.4 – FIREARMS AMONG MASSACHUSETTS ADULTS, 2004

	ANY FIREARMS NOW KEPT IN OR AROUND HOME		
	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	11.5	11.4	(10.4-12.5)
GENDER			
MALE	15.0	15.0	(13.2-16.8)
FEMALE	8.3	8.5	(7.3-9.6)
AGE GROUP			
18–24	11.1		(6.7-15.5)*
25–34	8.0		(5.9-10.1)*
35–44	12.3		(10.0-14.6)*
45–54	12.8		(10.6-15.0)*
55–64	16.9		(14.1-19.7)*
65–74	11.7		(8.7-14.6)*
75 AND OLDER	6.3		(3.8-8.9)*
RACE-ETHNICITY**			
WHITE	12.6	12.6	(11.3-13.8)
BLACK	8.9	9.3	(4.3-14.3)
HISPANIC	4.4	4.0	(1.5-6.5)
ASIAN	0.7	0.6	(0.1-2.4)
EDUCATION			
< HIGH SCHOOL	7.1	7.5	(4.6-10.4)
HIGH SCHOOL	14.2	14.2	(11.7-16.7)
COLLEGE 1–3 YRS	11.3	11.1	(9.2-13.0)
COLLEGE 4+ YRS	10.9	11.1	(9.3-12.8)
HOUSEHOLD INCOME			
<$25,000	6.9	6.6	(4.7-8.5)
$25–34,999	7.9	8.2	(5.3-11.1)
$35–49,999	9.6	9.6	(7.3-11.8)
$50–74,999	15.3	14.9	(11.9-17.8)
$75,000+	15.4	16.2	(13.4-18.9)
REGION			
I–WESTERN	17.2	17.3	(14.4-20.3)
II–CENTRAL	15.7	15.6	(12.4-18.9)
III–NORTH EAST	11.8	11.9	(9.1-14.6)
IV–METRO WEST	6.9	6.9	(5.2-8.6)
V–SOUTH EAST	12.4	12.3	(9.8-14.8)
VI–BOSTON	6.0	6.3	(3.6-9.0)

* Confidence interval presented is for the crude (age specific) rate in the previous column.
** White, Black and Asian race categories refer to non-Hispanic.

APPENDIX

SUMMARY: 2004 BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM

MASSACHUSETTS ESTIMATES, NATIONAL ESTIMATES, AND HEALTHY PEOPLE (HP) 2010				
VARIABLES	MA %	US MEDIAN¶ %	US RANGE¶ %	HP 2010^ %
OVERALL HEALTH MEASURES				
FAIR OR POOR HEALTH	12.0	14.9	10.0-34.8	X
15+ POOR MENTAL HEALTH DAYS	9.2	9.7	6.3-14.2	X
15+ DAYS SAD, BLUE OR DEPRESSED	7.1			X
15+ DAYS IN POOR PHYSICAL HEALTH	8.3	9.5	6.7-15.6	X
HEALTH CARE ACCESS AND UTILIZATION				
NO HEALTH INSURANCE	9.2**	14.8	7.8-26.7	0.0
HAVE PERSONAL HEALTH CARE PROVIDER	87.3	81.3	66.6-89.4	85.0
COULD NOT SEE DOCTOR DUE TO COST	7.7	12.8	6.8-20.0	X
DENTAL VISIT IN PAST YEAR	78.2			X
6 OR MORE TEETH MISSING	15.1	16.6	8.8-31.9	X
RISK FACTORS AND PREVENTIVE BEHAVIORS				
CURRENT SMOKER	18.5	20.8	10.5-27.5	12.0
HEAVY SMOKER	1.6			X
QUIT ATTEMPT AMONG CURRENT SMOKERS	59.5			75.0
PLAN TO QUIT AMONG CURRENT SMOKERS	32.0			X
LIVE IN HOUSEHOLD WHERE SMOKING IS NOT ALLOWED	75.0			X
SUPPORT FOR BAN ON SMOKING IN RESTAURANTS	69.2			X
BINGE DRINKING	17.0	14.9	10.5-21.8	6.0
HEAVY DRINKING	6.1	4.8	2.8-7.4	X
OVERWEIGHT (BASED ON HP 2010)	54.5	60.3	53.0-65.6	X
OBESITY	18.4	23.2	16.8-29.5	15.0
ANY LEISURE TIME PHYSICAL ACTIVITY	80.0	77.3	53.4-84.1	X
FLU SHOT IN PAST YEAR (50-64)	40.8	41.2	17.8-52.4	X
FLU SHOT IN PAST YEAR (65+)	70.7	68.3	35.3-78.9	90.0
EVER HAD PNEUMONIA VACCINATION (65+)	65.3	64.6	32.7-71.6	90.0
SUNBURN	36.8			X
CHRONIC HEALTH CONDITIONS				
DIABETES	5.6	7.0	4.2-10.9	2.5
CURRENTLY HAVE ASTHMA	9.7	8.3	6.2-10.3	X
EVER HAD ASTHMA	14.9	13.3	10.3-18.8	X
DISABILITY	19.8			X
DISABILITY / NEED HELP WITH ACTIVITIES	5.1			X
CANCER SCREENING				
BLOOD STOOL TEST IN THE PAST 2 YRS (50+)	33.8	26.5	3.5-40.3	50.0
SIGMOIDOSCOPY OR COLONOSCOPY PAST 5 YRS (50+)	54.1			X
PSA IN PAST YEAR (50+)	56.1	54.0	45.6-63.1	X
DRE IN PAST YEAR (50+)	62.7	50.7	34.9-63.9	X
MAMMOGRAM IN PAST 2 YRS (40+)	82.5	74.8	63.9-82.5	X
CLINICAL BREAST EXAM IN PAST 2 YRS (40+)	86.6			X
PAP SMEAR TEST IN PAST 3 YRS	85.7	82.1	73.7-86.6	90.0
OTHER TOPICS				
UNPLANNED PREGNANCY	24.4			X
USE BIRTH CONTROL	87.7			X
EVER TESTED FOR HIV (18-64)	46.2	41.5	26.8-68.3	X
TESTED FOR HIV IN PAST YEAR (18-64)	12.7			X
EVER USED ILLICIT DRUGS	55.9			X
USED ILLICIT DRUGS IN PAST 30 DAYS	8.3			2.0
FIREARMS IN HOUSE	11.5	40.3	4.3-65.5	X

¶ The US median percentage and range are based on data for all 50 states, the District of Columbia, and Puerto Rico.
^ HP2010 = Healthy People 2010 Objectives.
X No applicable objective.
** This estimate is based on the insurance question asked by all states. Additional Massachusetts information has been left out of this calculation so that Massachusetts can be compared with other states. Please see page 17.

SUMMARY OF ITEM-SPECIFIC NON-RESPONSE

MASSACHUSETTS BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2004	
	PERCENTAGE OF NON-RESPONSE* %
OVERALL HEALTH MEASURES	
FAIR OR POOR HEALTH	0.3
15+ POOR MENTAL HEALTH DAYS	1.5
15+ DAYS SAD, BLUE OR DEPRESSED	11.3
15+ DAYS IN POOR PHYSICAL HEALTH	1.4
HEALTH CARE ACCESS AND UTILIZATION	
NO HEALTH INSURANCE	0.1
HAVE PERSONAL HEALTH CARE PROVIDER	0.2
COULD NOT SEE DOCTOR DUE TO COST	0.2
DENTAL VISIT IN PAST YEAR	0.6
6 OR MORE TEETH MISSING	1.7
RISK FACTORS AND PREVENTIVE BEHAVIORS	
CURRENT SMOKER	0.3
HEAVY SMOKER	0.3
QUIT ATTEMPT AMONG CURRENT SMOKERS	0.4
PLAN TO QUIT AMONG CURRENT SMOKERS	15.7
LIVE IN HOUSEHOLD WHERE SMOKING IS NOT ALLOWED	8.7
SUPPORT FOR BAN ON SMOKING IN RESTAURANTS	9.7
BINGE DRINKING	0.9
HEAVY DRINKING	1.0
OVERWEIGHT (BASED ON HP 2010)	5.8
OBESITY	5.8
ANY LEISURE TIME PHYSICAL ACTIVITY	0.1
FLU SHOT IN PAST YEAR (50+)	0.3
EVER HAD PNEUMONIA VACCINATION (65+)	5.5
SUNBURN	0.4
CHRONIC HEALTH CONDITIONS	
DIABETES	0.1
CURRENTLY HAVE ASTHMA	0.7
EVER HAD ASTHMA	0.3
DISABILITY	9.8
DISABILITY / NEED HELP WITH ACTIVITIES	9.8
CANCER SCREENING	
BLOOD STOOL TEST IN THE PAST 2 YRS (50+)	3.7
SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5 YRS (50+)	3.4
PSA IN PAST YEAR (50+)	7.5
DRE IN PAST YEAR (50+)	3.2
MAMMOGRAM IN PAST 2 YRS (40+)	1.6
CLINICAL BREAST EXAM IN PAST 2 YRS (40+)	2.7
PAP SMEAR TEST IN PAST 3 YRS	3.3
OTHER TOPICS	
UNPLANNED PREGNANCY	4.0
USE BIRTH CONTROL	19.5
EVER TESTED FOR HIV (18-64)	8.5
TESTED FOR HIV IN PAST YEAR (18-64)	16.9
EVER USED ILLICIT DRUGS	16.5
USED ILLICIT DRUGS IN PAST 30 DAYS	17.1
FIREARMS IN HOUSE	8.1

***** The item-specific non-response was calculated using the number of respondents who had finished the demographic section of the 2004 BRFSS as the denominator and those who reported don't know or refused as the numerators. For many of the variables, calculations were based on multiple source variables. For example, for the current smoker non-response, 0.26% did not provide an answer to "ever smoked 100 cigarettes" and 0.10% of those who reported ever smoked 100 cigarettes did not provide information on their current smoking status. Overall, 0.30% did not provide an answer on whether or not they were current smokers.