

2008 Behavioral Health Risks



Of Pennsylvania Adults



Bureau of Health Statistics and Research

Edward G. Rendell, Governor

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2008
BEHAVIORAL HEALTH RISKS
of PENNSYLVANIA ADULTS

**A Report of Data Collected During 2008 for the
Behavioral Risk Factor Surveillance System**

December 2009

Bureau of Health Statistics and Research
Pennsylvania Department of Health
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Harrisburg, PA 17101-1914

Introduction

Nearly half of all deaths occurring annually are the result of modifiable behavioral risk factors (McGinnis, 1993). These risk factors include uncontrolled hypertension and diabetes, smoking, physical inactivity, poor diet, alcohol abuse, violence and risky sexual behavior. It has been estimated that control of fewer than ten risk factors could prevent between 40 and 70 percent of all premature deaths, a third of all cases of acute disability and two-thirds of all cases of chronic disability (Sullivan, 1991).

In an effort to measure and address these health issues, the Centers for Disease Control and Prevention (CDC) implemented the Behavioral Risk Factor Surveillance System (BRFSS) in the mid-1980s with fifteen states. The BRFSS survey consists of telephone interviews using randomly generated telephone numbers to determine the households contacted. The survey contains a core set of questions provided by CDC to gather comprehensive, standard information nationwide. The questions asked concern health status, access to health care, health awareness, use of preventive services and knowledge and attitude assessment.

The BRFSS now includes all fifty states, three territories and the District of Columbia, comprising the largest ongoing telephone health survey in the world. The Pennsylvania Department of Health has been participating in the BRFSS since 1989.

The BRFSS survey results provide valuable tools in measuring health trends, assessing chronic disease risk and monitoring the effectiveness of policies, programs and awareness campaigns. The information obtained from the data is used to guide health policy decisions, monitor progress toward achieving national year 2010 health objectives, propose and support legislation, develop public awareness strategies and identify critical areas for future attention.

Since sample data were used in this report, it was necessary to use weighted data for calculating percentages. This was done to adjust for under-representation of certain population subgroups in the sample. Please note that numbers shown in the tables consist of the actual numbers of respondents, excluding those who had missing, don't know, and refused answers. This is a change from reports prior to 2000, and percentages shown may vary slightly from previously published data. Confidence intervals (at the 95 percent level) were also calculated and shown for percentages to provide a basis for quality analysis and comparability. Please review the Technical Notes section in the back of this report for more thorough discussions of these and other data concerns.

The Bureau of Health Statistics and Research welcomes comments on the content and format of this report and the data. Copies of BRFSS data and additional statistics are available upon request.

Please direct all comments, questions and requests for data to:

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This report and many other health statistics are available on the Bureau of Health Statistics and Research section of the Department's website at www.health.state.pa.us/stats/

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General Health

How would you say your general health is?

- ◆ Sixteen percent of Pennsylvania adults responded “fair” or “poor;” 32 percent answered “good;” and 19 percent indicated their general health was “excellent..
- ◆ Percentages of “fair” or “poor” health were significantly higher for adults 45 years and greater compared to those adults who were less than 45 years of age. Twenty-eight percent of adults age 65+, 18 percent ages 45-64, 12 percent ages 30-44 and 8 percent ages 18-29 indicated having fair or poor health.
- ◆ Adults with less than a high school education had a significantly higher percentage of fair or poor health compared to adults with a high school education or higher (34 percent, less than a high school education; 22 percent, high school diploma; 14 percent, some college education; 7 percent, a college degree).
- ◆ Significantly higher percentages of fair or poor health were seen for adults with household incomes lower than \$25,000 (41 percent, less than \$15,000 in household income; 28 percent, \$15,000-\$24,999 income) compared to higher-income adults (16 percent, \$25,000-\$49,999 income; 10 percent, \$50,000-\$74,999 income; 6 percent, \$75,000+).
- ◆ Non-Hispanic black adults had a significantly higher percentage (25 percent) compared to Non-Hispanic, white adults (15 percent).
- ◆ No significant differences were seen by gender.

In the past month, how many days was your physical health not good?

- ◆ Thirty-six percent of Pennsylvania adults in 2008 indicated that their physical health was not good at least one day in the past month.
- ◆ Women had a significantly higher percentage (39) compared to men (34 percent) for having at least one day in the past month during which their physical health was not good.
- ◆ Adults with less than a high school education had a significantly higher percentage (46) compared to adults with at least some college education (some college education, 35 percent; and college degree, 34 percent).
- ◆ Adults with household incomes below \$15,000 had a significantly higher percentage (58) compared to adults with household incomes of \$15,000+ (\$15,000-\$24,999, 42 percent; \$25,000-\$49,999, 35 percent; \$50,000-\$74,999, 35 percent; and \$75,000+, 31 percent).
- ◆ No significant differences were seen by race/ethnicity.

In the past month, how many days was your mental health not good?

- ◆ In the 2008 survey, 34 percent of Pennsylvania adults reported that there was at least one day in the past month when their mental health was not good.
- ◆ Women had a significantly higher percentage (38) compared to men (29 percent) for having at least one day in the past month during which their mental health was not good.
- ◆ Younger adults had a significantly higher percentage compared to adults age 45+ (18-29, 44 percent; 30-44, 39 percent; 45-64, 33 percent; and 65+, 17 percent).
- ◆ Adults with less than a high school education had a significantly higher percentage (41) compared to adults with a college degree (32 percent).
- ◆ The percentage of adults with a household income of less than \$15,000 was significantly higher (51 percent) compared to adults with household incomes \$15,000+ (\$15,000-\$24,999, 37 percent; \$25,000-\$49,999, 33 percent; \$50,000-\$74,999, 31 percent; and \$75,000+, 31 percent).
- ◆ No significant differences were seen by race/ethnicity.

General Health

Figure 1A: General Health, Pennsylvania Adults, by Type, 1995-2008

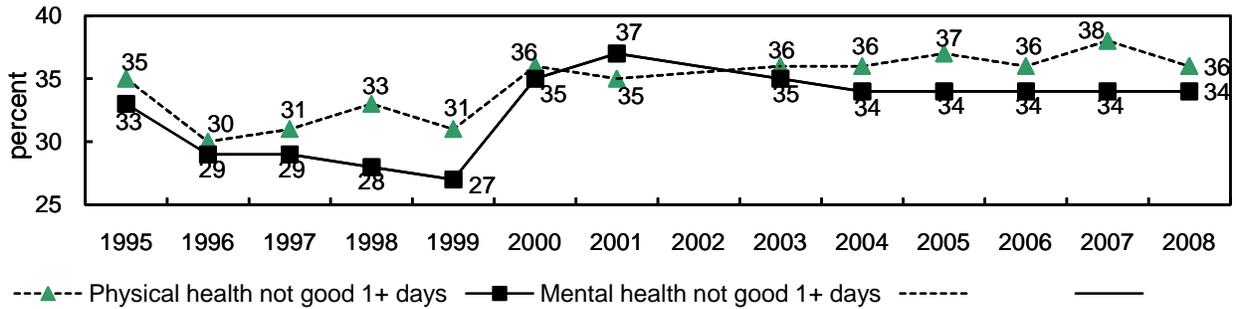


Figure 1B: General Health, Pennsylvania Adults, by Type and Age, 2008

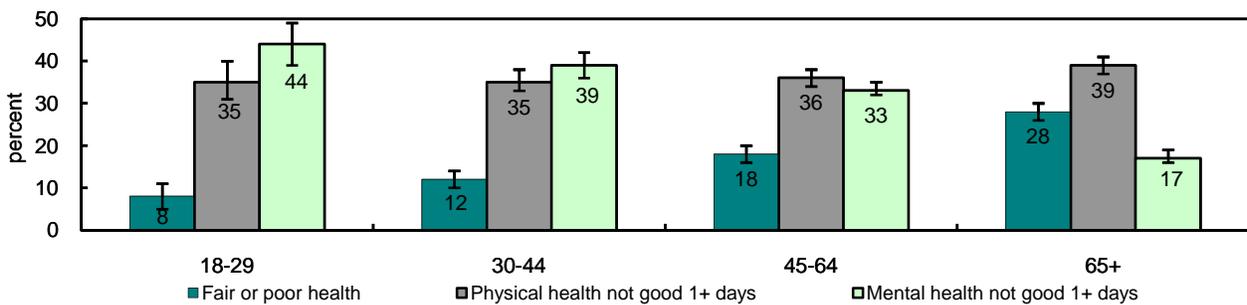


Table 1: General Health, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Fair or poor health*		Physical health not good 1+ days past month*		Mental health not good 1+ days past month*	
	%	CI	%	CI	%	CI
All Adults	16	15-17	36	35-38	34	32-35
Male	16	14-18	34	32-36	29	27-31
Female	17	16-18	39	37-40	38	36-40
Age:						
18-29	8	5-11	35	31-40	44	39-49
30-44	12	10-14	35	33-38	39	36-42
45-64	18	16-20	36	34-38	33	32-35
65+	28	26-30	39	37-41	17	16-19
Education:						
<High School	34	29-40	46	40-52	41	35-47
High School	22	20-24	37	35-40	33	31-35
Some College	14	12-16	35	32-38	35	32-38
College Degree	7	6-8	34	31-36	32	30-34
Income:						
<\$15,000	41	25-51	58	53-63	51	46-56
\$15,000 to \$24,999	28	25-31	42	38-46	37	33-41
\$25,000 to \$49,999	16	14-18	35	32-38	33	30-36
\$50,000 to \$74,999	10	8-12	35	31-38	31	28-35
\$75,000+	6	5-7	31	28-33	31	28-34
Race:						
White, non-Hispanic	15	14-16	36	35-38	33	32-35
Black, non-Hispanic	25	21-31	39	33-45	35	30-41
Hispanic	19	12-27	36	27-45	34	26-44

*Excludes missing, don't know, and refused.

Health Care Access

Age 18-64: Do you have health care coverage?

- ◆ “No” responded 14 percent of Pennsylvania adults ages 18-64 in 2008.
- ◆ Significantly more young adults (25 percent of those ages 18-29) reported having no health insurance compared to older adults (11 percent for ages 30-44 and 10 percent for ages 45-64).
- ◆ Adults with less than a high school education recorded a significantly higher percentage with no health care coverage (31 percent) compared to adults with a high school education or higher. Adults with a high school diploma and some college had significantly higher percentages (17 and 13, respectively) compared to adults with a college degree (8 percent).
- ◆ Significantly higher percentages were seen for adults reporting household incomes of less than \$25,000 (28 percent for <\$15,000 and 31 percent for \$15,000-\$24,999) compared to adults with household incomes of \$25,000 or higher. Adults with a household income of \$25,000-\$49,999 had a significantly higher percentage (16) compared to adults with incomes of \$50,000 or higher (7 percent for 50,000-\$74,999 and 5 percent for \$75,000+).
- ◆ Non-Hispanic black adults had a significantly higher percentage (23) of not having health insurance compared to non-Hispanic white adults (12 percent).

Those without someone they consider a personal doctor or health care provider

- ◆ Ten percent of Pennsylvania adults indicated that they do not have someone they consider a personal doctor or health care provider during the 2008 BRFSS survey.
- ◆ Men had a significantly higher percentage of no personal health care provider (14 percent) compared to women (8 percent).
- ◆ All age groups under 65 had percentages significantly higher than any older age group – i.e., ages 18-29 had 23 percent, ages 30-44 had 12 percent, ages 45-64 had 7 percent, and ages 65+ had 3 percent for not having a personal care provider.
- ◆ Adults with a household income less than \$25,000 had a significantly higher percentage (<\$15,000, 15 percent; \$15,000-\$24,999, 13 percent) compared to adults with a household income of \$75,000 or greater (7 percent).
- ◆ Non-Hispanic black adults had a significantly higher percentage (18) compared to non-Hispanic white adults (9 percent).
- ◆ No significant differences were seen by education.

Those who needed to see a doctor but could not because of cost

- ◆ Ten percent of Pennsylvania adults responded in 2008 that there was an instance in which they needed to see a doctor in the past year but could not because of cost.
- ◆ Adults under age 65 had a significantly higher percentage for being unable to see a doctor due to cost (18-29, 16 percent; 30-44, 12 percent; and 45-64, 10 percent) compared to adults age 65+ (4 percent).
- ◆ A significantly higher percentage was seen for adults with less than a college degree (< high school education, 18 percent; high school diploma, 12 percent; some college education, 11 percent) compared to adults with a college degree (5 percent).
- ◆ Adults with a household income less than \$25,000 had a significantly higher percentage (<\$15,000, 24 percent; \$15,000-\$24,999, 20 percent) compared to adults with higher household incomes (\$25,000-\$49,999, 11 percent; \$50,000-\$74,999, 6 percent; and \$75,000+, 4 percent).
- ◆ Non-Hispanic black adults had a significantly higher percentage (17) compared to non-Hispanic white adults (9 percent).
- ◆ No significant difference was seen by gender.

Health Care Access

Figure 2A: No Health Insurance, Pennsylvania Adults, Ages 18-64, 1995-2008

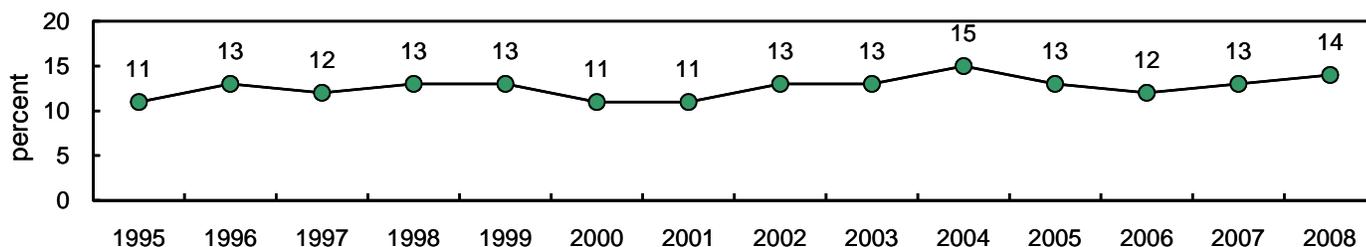


Figure 2B: Health Care Access, Pennsylvania Adults, by Health Risk Type and Age, 2008

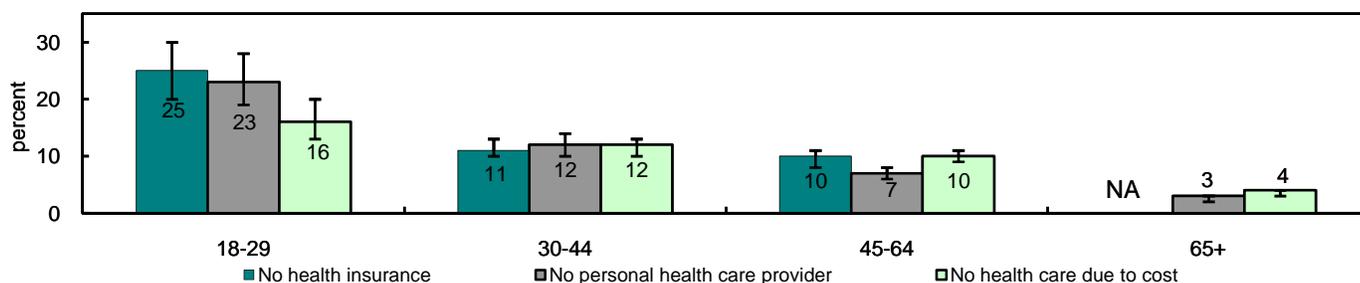


Table 2: Health Care Access, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	No Health Insurance Ages 18-64*		Does Not Have a Personal Health Care Provider*		Couldn't Receive Care Due to Cost in Past Year*	
	%	CI	%	CI	%	CI
All Adults	14	12-15	10	9-12	10	9-11
Male	17	14-19	14	12-16	10	9-12
Female	11	10-13	8	7-9	10	9-11
Age:						
18-29	25	20-30	23	19-28	16	13-20
30-44	11	10-13	12	10-14	12	10-13
45-64	10	8-11	7	6-8	10	9-11
65+	N/A		3	2-3	4	3-4
Education:						
<High School	31	24-40	15	11-20	18	14-24
High School	17	15-20	10	9-12	12	11-14
Some College	13	10-17	12	10-16	11	10-14
College Degree	7	5-9	9	7-11	5	4-6
Income:						
<\$15,000	28	23-34	15	11-20	24	19-28
\$15,000 to \$24,999	31	26-36	13	10-16	20	17-23
\$25,000 to \$49,999	16	13-19	11	9-13	11	9-13
\$50,000 to \$74,999	7	4-10	8	6-11	6	5-9
\$75,000+	5	4-7	7	6-9	4	3-5
Race:						
White, non-Hispanic	12	11-13	9	8-10	9	8-10
Black, non-Hispanic	23	16-30	18	12-24	17	13-22
Hispanic	#		#		#	

*Excludes missing, don't know, and refused.

#Data not reported due to N<50 or sample deemed to be statistically unreliable.

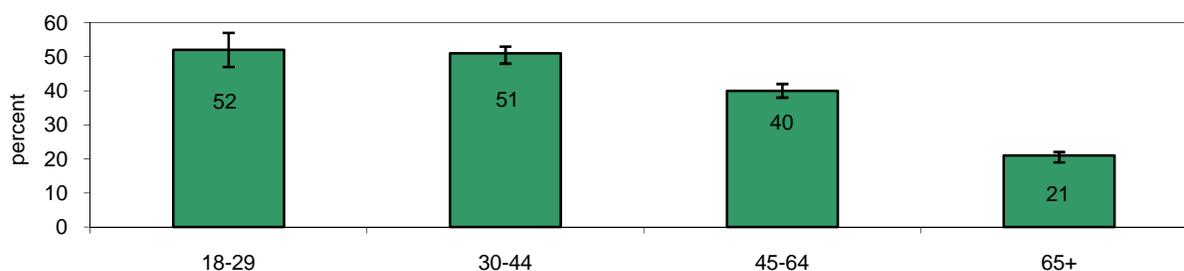
Sleep

Those who did not get enough sleep seven or more days in past month:

- ◆ Forty-one percent of Pennsylvania adults responded in 2008 that they did not get enough sleep seven or more days in the past month.
- ◆ Pennsylvania adults younger than age 45 had a significantly higher percentage of lack of sleep seven or more days in the past month (ages 18-29, 52 percent; and ages 30-44, 51 percent) compared to adults age 45 and older (ages 45-64, 40 percent; and age 65+, 21 percent). Adults ages 45-64 had a significantly higher percentage (40) of lack of sleep seven or more days in the past month compared to adults age 65+ (21 percent).
- ◆ No significant differences were seen by gender, education, income and race/ethnicity.

Sleep

Figure 3: Did Not Get Enough Sleep Seven or More Days in Past Month, Pennsylvania Adults, by Age, 2008



**Table 3: No Sleep 7+ Days*
Pennsylvania Adults, 2008 (with 95% confidence intervals)**

	%	CI
All Adults	41	40-43
Male	40	38-43
Female	42	41-44
Age:		
18-29	52	47-57
30-44	51	48-53
45-64	40	38-42
65+	21	19-22
Education:		
<High School	41	35-47
High School	40	38-43
Some College	44	41-47
College Degree	41	39-44
Income:		
<\$15,000	47	42-52
\$15,000 to \$24,999	42	38-46
\$25,000 to \$49,999	39	36-42
\$50,000 to \$74,999	44	41-48
\$75,000+	43	40-46
Race:		
White, non-Hispanic	41	39-42
Black, non-Hispanic	46	40-52
Hispanic	48	39-58

*Excludes missing, don't know, and refused.

Exercise

Those with no leisure time physical activity in the past month:

- ◆ Twenty-six percent of Pennsylvania adults responded in 2008 that they had not engaged in any leisure time physical activity in the past month.
- ◆ A significantly higher percentage of women did not engage in leisure time physical activity in the past month, (29 percent) compared to men (22 percent).
- ◆ Pennsylvania adults age 45+ had a significantly higher percentage of not having engaged in leisure time physical activity in the past month (ages 45-64, 27 percent; and ages 65+, 35 percent) compared to adults age 18-29 (16 percent). Pennsylvania adults age 65+ also had a significantly higher percentage of not having engaged in leisure time physical activity in the past month (35 percent) compared to adults age 30-44 (24 percent).
- ◆ Adults with less than a college degree consistently had significantly higher percentages compared to adults with a college degree for not engaging in any leisure time physical activity in the past month (less than a high school education, 39 percent; high school diploma, 32 percent; some college education, 25 percent; and a college degree, 15 percent). Adults with no college experience consistently had a significantly higher percentage compared to adults with at least some college experience for not engaging in any leisure time physical activity in the past month (less than a high school education, 39 percent; high school diploma, 32 percent; some college education, 25 percent; and a college degree, 15 percent).
- ◆ Adults with a household income less than \$50,000 had a significantly higher percentage of no leisure time physical activity (<\$15,000, 42 percent; \$15,000-\$24,999, 36 percent; and \$25,000-\$49,999, 30 percent) compared to adults with incomes of at least \$50,000 (\$50,000-\$74,999, 22 percent; and \$75,000+, 14 percent).
- ◆ No significant differences were seen by race/ethnicity.

Exercise

Figure 4A: No Leisure-Time Physical Activity, Pennsylvania Adults, 1995-2008

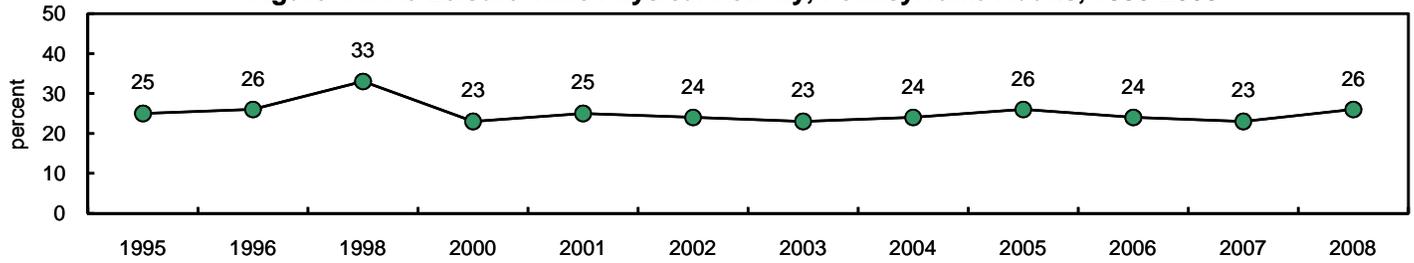
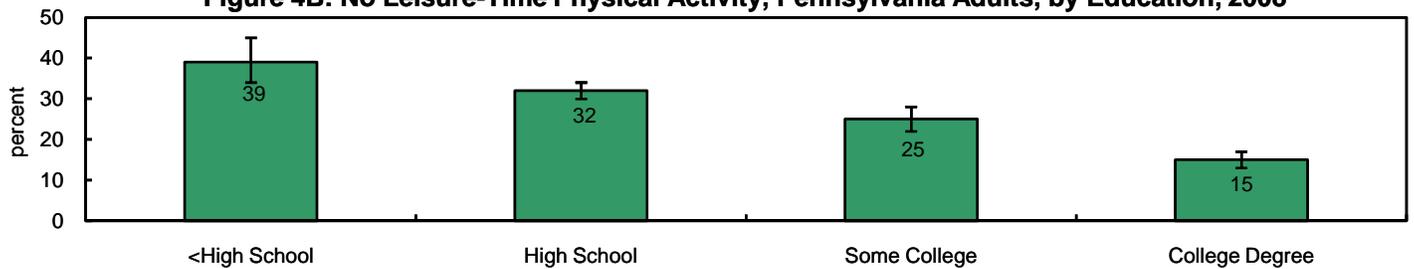


Figure 4B: No Leisure-Time Physical Activity, Pennsylvania Adults, by Education, 2008



**Table 4: No Leisure-Time Physical Activity*
Pennsylvania Adults, 2008 (with 95% confidence intervals)**

	%	CI
All Adults	26	25-27
Male	22	20-24
Female	29	28-31
Age:		
18-29	16	13-21
30-44	24	21-26
45-64	27	26-29
65+	35	33-37
Education:		
<High School	39	34-45
High School	32	30-34
Some College	25	22-28
College Degree	15	13-17
Income:		
<\$15,000	42	37-46
\$15,000 to \$24,999	36	32-39
\$25,000 to \$49,999	30	28-33
\$50,000 to \$74,999	22	20-25
\$75,000+	14	12-16
Race:		
White, non-Hispanic	25	24-26
Black, non-Hispanic	31	25-36
Hispanic	23	16-33

*Excludes missing, don't know, and refused.

Overweight and Obese

Overweight adults:

- ◆ Thirty-six percent of Pennsylvania adults were considered overweight according to the 2008 survey results.
- ◆ Males had a significantly higher percentage of being overweight (42 percent) compared to females (30 percent).
- ◆ Adults ages 18-29 had a significantly lower percentage of being overweight (27 percent) compared to all older age groups (ages 30-44, 36 percent; ages 45-64, 38 percent; and ages 65+, 41 percent).
- ◆ Pennsylvania adults with no college education (less than high school, 30 percent; high school diploma, 34 percent) had significantly lower percentages compared to adults with a college degree (41 percent).
- ◆ Adults with a household income of less than \$15,000 had a significantly lower percentage (29) compared to adults with household incomes of at least \$25,000 (\$25,000-\$49,999, 37 percent; \$50,000-\$74,999, 39 percent; and \$75,000+, 40 percent).
- ◆ No significant differences were seen by race/ethnicity.

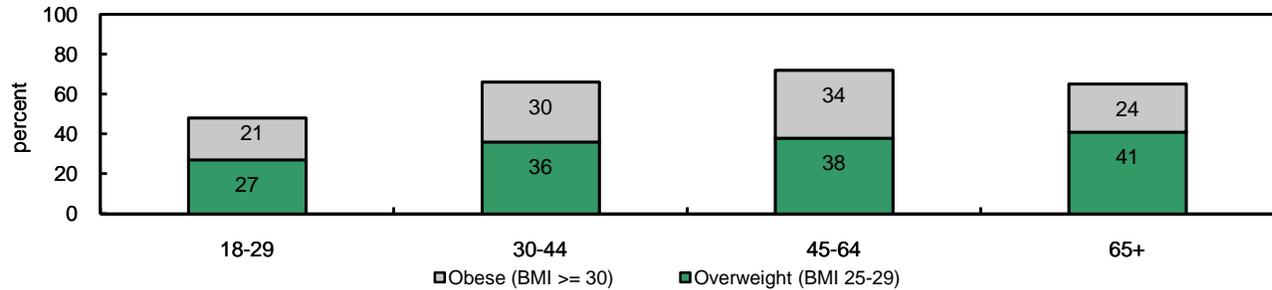
Obese adults:

- ◆ Twenty-eight percent of Pennsylvania adults were obese according to the 2008 survey results
- ◆ Adults ages 30-64 had significantly higher percentages of being obese compared to adults ages 18-29 (ages 18-29, 21 percent; ages 30-44, 30 percent; and ages 45-64, 34 percent). Adults age 65+ had a significantly lower percentage (24) compared to adults ages 30-64.
- ◆ A significantly lower percentage of adults with a college degree (22 percent) were considered obese compared to adults with a less than a high school education, high school diploma or some college education (less than high school, 34 percent; high school diploma, 33 percent; and some college, 28 percent).
- ◆ Adults with a household income less than \$15,000 had significantly higher percentage (37) compared to adults with a household income of \$75,000 or more (24 percent).
- ◆ Non-Hispanic black adults had a significantly higher percentage (40 percent) compared to Non-Hispanic white adults (27 percent).
- ◆ No significant differences were seen by gender.

Notes: The Body Mass Index (BMI), which describes relative weight for height, is significantly correlated with total body fat content. BMI is calculated as $\text{mass (kg)/height}^2 \text{ (m}^2\text{)}$ and estimated using pounds and inches by $[\text{weight (pound)/height}^2 \text{ (inches}^2\text{)}] \times 703$. Individuals with a BMI of 25 to 29.9 are considered overweight, while individuals with a BMI ≥ 30 are considered obese.

Overweight and Obese

Figure 5: Percent Overweight and Obese, Pennsylvania Adults, by Age, 2008



**Table 5: Overweight & Obese, Pennsylvania Adults, 2008
(with 95% confidence intervals)**

	Overweight* (BMI 25-29)		Obese* (BMI >= 30)		Overweight & Obese* (BMI >= 25)	
	%	CI	%	CI	%	CI
All Adults	36	35-37	28	27-30	64	63-66
Male	42	40-44	30	28-33	72	70-74
Female	30	29-32	26	25-28	57	55-59
Age:						
18-29	27	22-31	21	17-26	48	42-53
30-44	36	33-39	30	27-33	66	63-68
45-64	38	36-40	34	32-36	72	70-74
65+	41	39-44	24	23-26	66	64-68
Education:						
<High School	30	25-36	34	29-40	65	58-70
High School	34	32-36	33	30-35	67	64-69
Some College	35	32-38	28	25-31	63	59-66
College Degree	41	38-43	22	20-24	63	61-65
Income:						
<\$15,000	29	25-33	37	32-42	66	60-71
\$15,000 to \$24,999	34	30-38	32	28-36	66	62-69
\$25,000 to \$49,999	37	34-39	30	27-32	66	63-69
\$50,000 to \$74,999	39	36-43	30	27-34	70	66-73
\$75,000+	40	37-42	24	22-27	64	61-67
Race:						
White, non-Hispanic	36	35-38	27	26-29	64	62-65
Black, non-Hispanic	34	29-41	40	34-46	74	68-80
Hispanic	29	22-38	33	25-43	62	52-72

*Excludes missing, don't know, and refused.

Diabetes

Were you ever told you have diabetes?

- ◆ Nine percent of Pennsylvania adults responded “yes” in the 2008 survey to ever being told by a doctor that they had diabetes.
- ◆ Adults age 65+ who had ever been told that they had diabetes (20 percent) was significantly higher than for any of the other, younger age groups (ages 18-29, 1 percent; ages 30-44, 4 percent; and ages 45-64, 11 percent). Adults age 45-64 had a significantly higher percentage compared to adults under age 45. Adults age 30-44 had a significantly higher percentage compared to adults under age 30.
- ◆ Adults with less than a high school education (13 percent) and with a high school diploma (10 percent) reported having ever been told that they had diabetes at significantly higher percentages than those with a college degree (6 percent).
- ◆ Significantly higher percentages were seen for adults reporting household incomes less than \$25,000 (less than \$15,000, 17 percent; \$15,000-\$24,999, 15 percent; and \$25,000-\$49,999, 10 percent) compared to adults with household incomes of \$50,000 or higher (\$50,000-\$74,999, 6 percent; and \$75,000+, 4 percent). Adults reporting a household income of less than \$15,000 who had ever been told that they have diabetes (17 percent) had a significantly higher percentage compared to adults with a household income of \$25,000-\$49,999 (10 percent).
- ◆ Non-Hispanic black adults had a significantly higher percentage (15) compared to Non-Hispanic white adults (8 percent) and Hispanic adults (6 percent).

Are you currently taking insulin?

- ◆ Among Pennsylvania adults with diabetes, 26 percent were taking insulin in 2008.
- ◆ No significant differences were seen by gender, age, education, income or race/ethnicity.

Diabetes

Figure 6A: Diabetes Prevalence Per 1,000, Pennsylvania Adults, 1995-2008

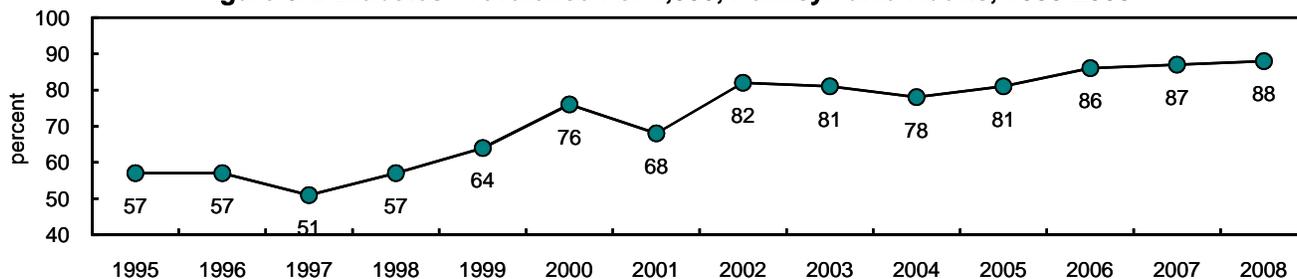


Figure 6B: Percent by Age When Diabetes Diagnosed, Pennsylvania Adults, 2008

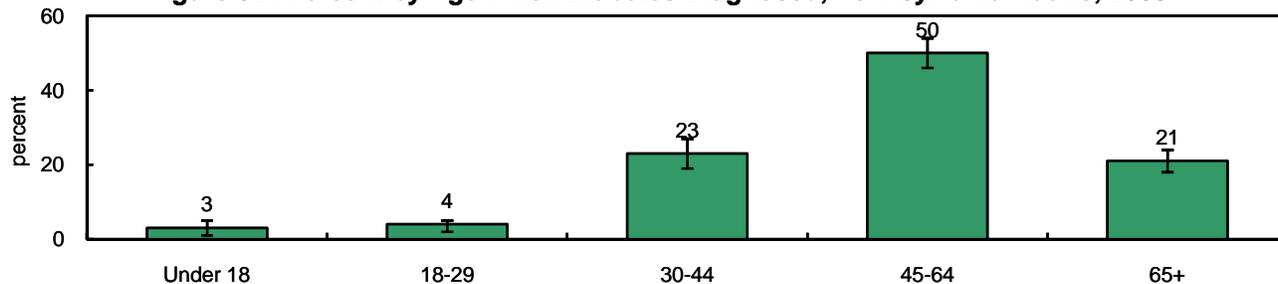


Table 6: Diabetes, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Ever Told Had Diabetes*		Currently Taking Insulin* **	
	%	CI	%	CI
All Adults	9	8-10	26	23-30
Male	10	8-11	29	24-35
Female	8	7-9	23	19-27
Age:				
18-29	1	0-1	#	
30-44	4	3-5	19	10-32
45-64	11	10-12	28	23-34
65+	20	18-22	24	20-28
Education:				
<High School	13	10-16	31	22-41
High School	10	9-12	24	20-29
Some College	9	7-11	30	23-39
College Degree	6	5-7	24	17-32
Income:				
<\$15,000	17	14-20	30	22-39
\$15,000 to \$24,999	15	12-17	23	17-30
\$25,000 to \$49,999	10	9-12	29	23-37
\$50,000 to \$74,999	6	5-8	22	14-34
\$75,000+	4	4-6	24	16-36
Race:				
White, non-Hispanic	8	8-9	27	24-31
Black, non-Hispanic	15	12-19	22	14-34
Hispanic	6	3-10	#	

*Excludes missing, don't know, and refused.

**Denominator is persons who have diabetes.

#Data not reported due to N<50 or sample deemed to be statistically unreliable.

Cardiovascular Disease

Has a doctor ever told you that you had a heart attack, heart disease or a stroke?

- ◆ According to the 2008 survey, 6 percent of Pennsylvania adults age 35 or older had been told by a doctor that they had a heart attack; 7 percent had been told they had angina or heart disease; and 4 percent were told that they had a stroke.
- ◆ Twelve (12) percent of Pennsylvania adults ages 35+ had either one or a combination of these cardiovascular conditions.
- ◆ Men age 35 and older had a significantly higher percentage (16) compared to women age 35 and older (10 percent) of having been diagnosed with a cardiovascular condition.
- ◆ As age increased, each age group had a significantly higher percentage of being told they had a heart attack, heart disease or a stroke compared to younger age groups (ages 35-44 at 3 percent; ages 45-54 at 7 percent; ages 55-64 at 13 percent; and ages 65+ at 26 percent).
- ◆ Adults ages 35+ with less than a college degree had a significantly higher percentage of having been told they had a heart attack, heart disease or a stroke (<high school at 24 percent; high school at 14 percent; some college at 12 percent; and college degree at 8 percent). Also, adults age 35+ with less than a high school education had a significantly higher percentage compared to adults with at least a high school education.
- ◆ Significantly higher percentages of adults age 35+ with household incomes less than \$50,000 had been told they had a heart attack, heart disease or a stroke (<\$15,000 at 24 percent; \$15,000-\$24,999 at 23 percent; \$25,000-\$49,999 at 13 percent; \$50,000-\$74,999 at 8 percent; and \$75,000+ at 6 percent). Also, adults age 35+ with household incomes of less than \$25,000 had significantly higher percentages compared to those with household incomes of at least \$25,000.
- ◆ No significant differences were seen by race/ethnicity.

Cardiovascular Disease

FIGURE 7A: Cardiovascular Disease, Pennsylvania Adults Age 35+, by Type and Sex, 2008

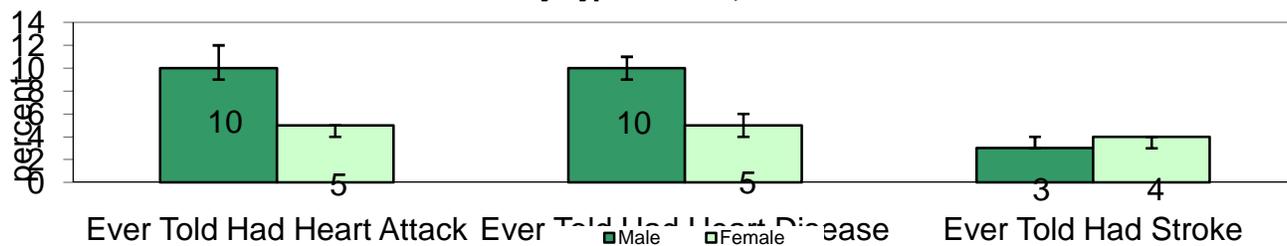


FIGURE 7B: Cardiovascular Disease, Pennsylvania Adults Age 35+, by Education and Type, 2008

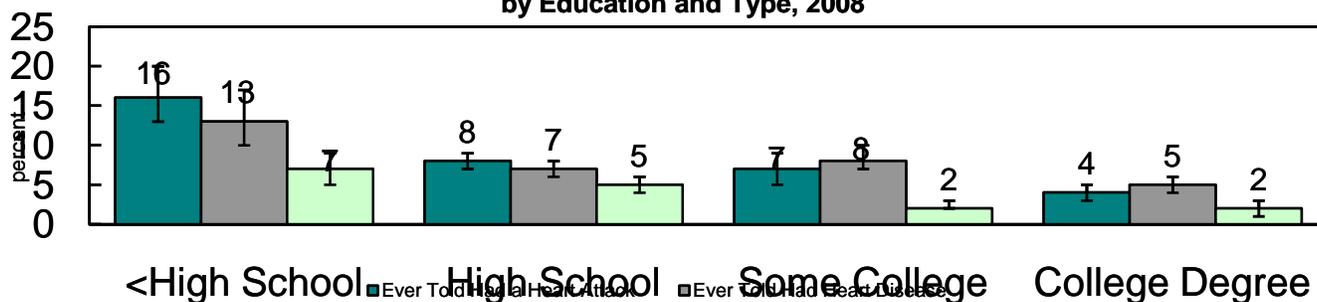


TABLE 7: Cardiovascular Disease, Pennsylvania Adults Age 35+, 2008 (with 95% confidence intervals)

	Ever Told Had Heart Attack, Heart Disease, or Stroke*		Ever Told Had a Heart Attack*		Ever Told Had Angina or Heart Disease*		Ever Told Had a Stroke*	
	%	CI	%	CI	%	CI	%	CI
All Adults	12	11-13	7	7-8	7	7-8	4	3-4
Male	16	14-17	10	9-12	10	9-11	3	3-4
Female	10	9-11	5	4-5	5	4-6	4	3-4
Age:								
35-44	3	2-4	1	1-3	1	1-2	1	1-2
45-54	7	5-8	3	3-5	4	3-5	2	1-3
55-64	13	11-15	7	6-9	8	6-10	4	3-5
65+	26	25-28	16	15-18	16	14-18	7	6-8
Education:								
<High School	24	20-29	16	13-20	13	10-17	7	5-9
High School	14	13-16	8	7-9	7	6-8	5	4-6
Some College	12	10-14	7	5-9	8	7-10	2	2-3
College Degree	8	7-9	4	3-5	5	4-6	2	1-3
Income:								
<\$15,000	24	21-28	16	13-19	14	11-17	9	6-12
\$15,000 to \$24,999	23	20-26	14	12-17	11	9-14	7	6-9
\$25,000 to \$49,999	13	12-15	8	6-9	9	7-10	4	3-5
\$50,000 to \$74,999	8	6-10	5	3-6	4	3-6	1	1-3
\$75,000+	6	5-7	3	2-4	4	3-5	1	1-2
Race:								
White, non-Hispanic	12	11-13	7	6-8	7	7-8	3	3-4
Black, non-Hispanic	13	10-17	6	4-10	5	3-9	5	4-8
Hispanic	12	6-21	6	2-15	6	3-12	7	3-16

*Excludes missing, don't know, and refused.

Cigarette Use

Current cigarette smokers:

- ◆ Twenty-one percent of all Pennsylvania adults indicated that they were current cigarette smokers, smoking cigarettes every day or some days, in 2008.
- ◆ For adults ages 18-44, the percentages of current smokers were significantly higher than for adults ages 45 and older (ages 18-29 at 29 percent; ages 30-44 at 26 percent; ages 45-64 at 21 percent; and ages 65+ at 8 percent). Adults ages 45-64 had a significantly higher percentage compared to adults ages 65+.
- ◆ Eleven percent of adults with a college degree reported current smoking. This is significantly lower than all other educational groups (<high school at 34 percent; high school at 27 percent; and some college at 22 percent).
- ◆ Adults with household incomes of less than \$25,000 had a significantly higher percentage compared to adults with household incomes of \$25,000 or more (<\$15,000 at 36 percent; \$15,000-\$24,999 at 30 percent; \$25,000-\$49,999 at 22 percent; \$50,000-\$74,999 at 21 percent; and \$75,000+ at 13 percent). Adults with household incomes of \$50,000-\$74,999 had a significantly lower percentage than adults with household incomes of less than \$25,000.
- ◆ No significant difference was seen by gender or race/ethnicity.

Former cigarette smokers:

- ◆ From the 2008 survey, 25 percent of Pennsylvania adults responded that they were former cigarette smokers.
- ◆ A significantly higher percentage of adult males (29 percent) were former smokers compared to adult females (22 percent).
- ◆ All younger adult age groups were significantly lower in percentages compared to older adult groups (ages 18-29 at 9 percent; ages 30-44 at 20 percent; ages 45-64 at 29 percent; and ages 65+ at 41 percent).
- ◆ Non-Hispanic, white adults had a significantly higher percentage (26 percent) compared to Non-Hispanic, black adults (15 percent).
- ◆ No significant differences were seen by income or race/ethnicity.

Those who quit smoking for at least one day in past year:

- ◆ Among those adults who were currently smoking every day in 2008, 54 percent reported quitting for at least one day in the past year.
- ◆ Adults ages 45 and older had a significantly lower percentage compared to those ages 18-29 (ages 18-29, 66 percent; ages 45-64, 46 percent; ages 65+, 43 percent).
- ◆ Adults with a college degree had a significantly lower percentage compared to adults with less than a high school education (<high school, 68 percent; and college degree, 46 percent).
- ◆ No significant differences were seen by gender or income.

Cigarette Use

Figure 8A: Current Smokers, Pennsylvania Adults, 1995-2008

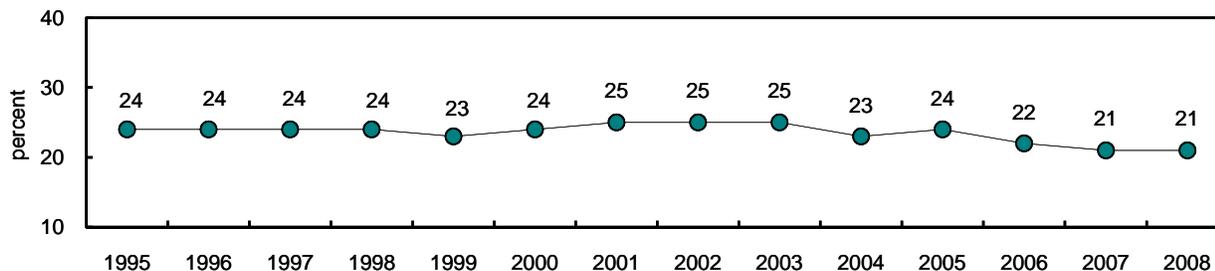


Figure 8B: Percent Current and Former Smokers, Pennsylvania Adults, by Age, 2008

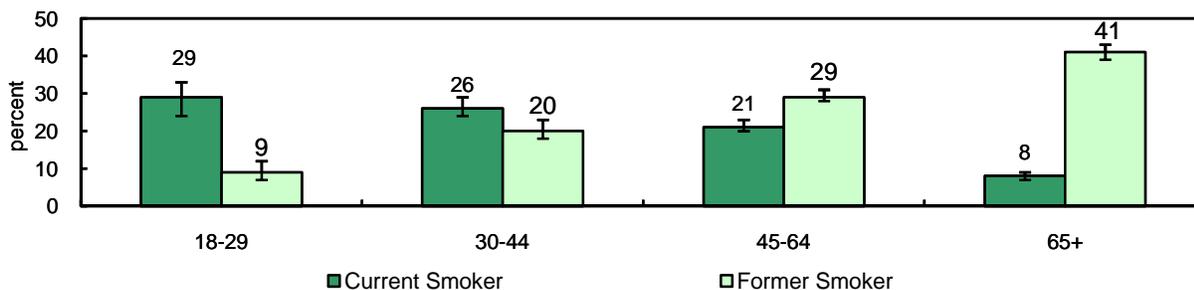


Table 8: Cigarette Use, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Current Smoker* **		Former Smoker*		Quit At Least 1 Day in Past Year* ***	
	%	CI	%	CI	%	CI
All Adults	21	20-23	25	24-26	54	50-58
Male	23	21-26	29	27-31	55	49-61
Female	19	18-21	22	21-23	53	48-57
Age:						
18-29	29	24-33	9	7-12	66	56-75
30-44	26	24-29	20	18-23	57	51-64
45-64	21	20-23	29	28-31	46	41-51
65+	8	7-9	41	39-43	43	35-51
Education:						
<High School	34	29-41	25	21-30	68	57-78
High School	27	24-29	26	24-28	52	46-57
Some College	22	20-25	25	23-28	57	49-64
College Degree	11	9-12	25	23-27	46	37-54
Income:						
<\$15,000	36	31-41	22	19-26	62	52-72
\$15,000 to \$24,999	30	27-34	23	20-26	59	50-67
\$25,000 to \$49,999	22	20-25	27	25-30	45	38-53
\$50,000 to \$74,999	21	18-24	27	24-30	52	43-61
\$75,000+	13	12-16	27	24-29	53	43-62
Race:						
White, non-Hispanic	20	19-22	26	25-27	54	50-58
Black, non-Hispanic	28	22-34	21	17-26	#	
Hispanic	27	18-37	23	16-32	#	

#Data not reported due to N<50. *Excludes missing, don't know, and refused.

*Includes adults who smoke cigarettes some days or everyday. ***Denominator is current smokers who smoke everyday.

Alcohol Consumption

Binge drinking:

- ◆ Seventeen percent of Pennsylvania adults admitted in 2008 to binge drinking (five or more alcoholic drinks on one occasion) in the previous month.
- ◆ Eleven percent of female adults said that they had been binge drinking in the past month, a significantly lower percentage compared to the 23 percent of male adults.
- ◆ As age increased, each age group had a significantly lower percentage compared to younger age groups (ages 18-29 at 32 percent; ages 30-44 at 21 percent; ages 45-64 at 13 percent; and ages 65+ at 4 percent).
- ◆ Adults with household incomes of less than \$25,000 who admitted in 2008 to binge drinking had a significantly lower percentage (<\$15,000, 12 percent; \$15,000-\$24,999, 13 percent) compared to adults with household incomes of at least \$75,000 (21 percent).
- ◆ No significant difference was seen by education or race/ethnicity.

At risk for problem drinking:

Definition: For the purposes of this report, being at risk for problem drinking is defined as having greater than 2 drinks per day for men and greater than 1 drink per day for women.

- ◆ During the 2008 survey, 5 percent of Pennsylvania adults were determined to be at risk for problem drinking.
- ◆ A significantly lower percentage of adults ages 65+ were identified as being at risk for problem drinking (2 percent) compared to adults younger than 65 years of age (ages 18-29, 7 percent; ages 30-44, 7 percent; ages 45-64, 5 percent).
- ◆ No significant difference was seen by education, income or race/ethnicity.

Chronic drinking:

Definition: For the purpose of this report, chronic drinking is defined as having an average of 2 or more drinks per day for the past 30 days.

- ◆ Five percent of Pennsylvania adults indicated that they were chronic drinkers in 2008.
- ◆ The percentage of males who were chronic drinkers (9) was significantly higher than the percentage of female chronic drinkers (1).
- ◆ Adults ages 30-44 who were chronic drinkers had a significantly higher percentage (6) compared to adults ages 65+ (3 percent).
- ◆ No significant difference was seen by education, income or race/ethnicity.

Alcohol Consumption

Figure 9A: Chronic Drinking, Pennsylvania Adults, 1995-2008

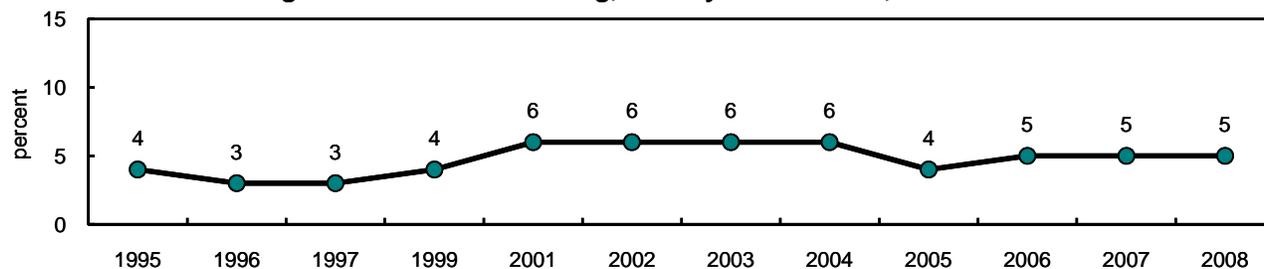


Figure 9B: Binge Drinking, Pennsylvania Adults, by Sex and Age, 2008

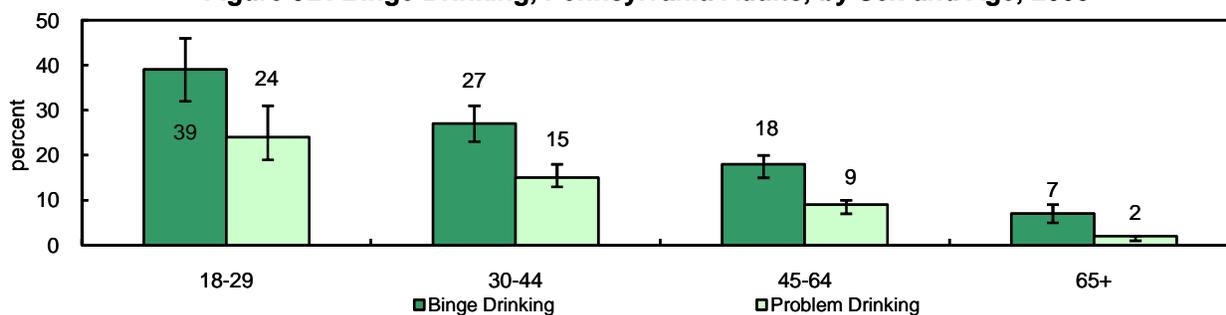


Table 9: Alcohol Consumption, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Binge Drinking*		At Risk for Problem Drinking* **	
	%	CI	%	CI
All Adults	17	15-18	5	5-6
Male	23	20-25	7	6-8
Female	11	10-13	4	3-5
Age:				
18-29	32	27-37	7	4-10
30-44	21	19-23	7	6-9
45-64	13	12-14	5	4-6
65+	4	3-5	2	2-3
Education:				
<High School	15	11-20	5	3-9
High School	15	13-18	5	4-7
Some College	19	17-22	6	4-7
College Degree	17	15-19	5	5-7
Income:				
<\$15,000	12	8-16	5	3-9
\$15,000 to \$24,999	13	10-16	6	4-8
\$25,000 to \$49,999	17	15-20	5	4-7
\$50,000 to \$74,999	19	16-22	6	4-9
\$75,000+	21	19-24	6	5-8
Race:				
White, non-Hispanic	17	16-19	6	5-6
Black, non-Hispanic	15	11-21	5	3-8
Hispanic	13	7-21	4	2-8

*Excludes missing, don't know, and refused.

** Defined as having greater than 2 drinks per day for men and greater than 1 drink per day for women.

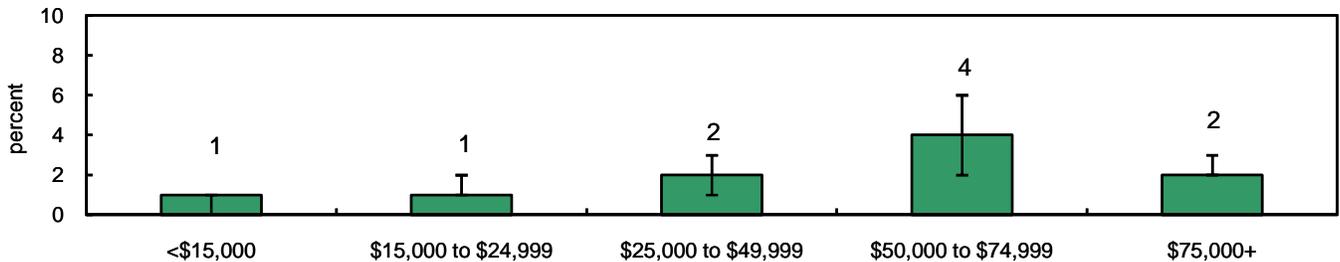
Drinking and Driving

Have driven during past month when perhaps had too much to drink:

- ◆ Two percent of Pennsylvania adults reported they had driven over the past month after possibly drinking too much, according to the 2008 survey.
- ◆ Men had a significantly higher percentage (3) compared to women (1 percent).
- ◆ Adults with household incomes of less than \$15,000 had a significantly lower percentage (1) compared to adults with a household income of at least \$50,000 (\$50,000-\$74,999, 4 percent; \$75,000+, 2 percent).
- ◆ There were no significant differences by age, education or race/ethnicity in 2008.

Drinking and Driving

Figure 10: Drinking and Driving, Pennsylvania Adults, by Income, 2008



**Table 10: Drinking and Driving, Pennsylvania Adults, 2008
(with 95% confidence intervals)**

	Have Driven Over Past Month When Perhaps Had Too Much to Drink*	
	%	CI
All Adults	2	2-2
Male	3	3-4
Female	1	1-1
Age:		
18-29	2	2-4
30-44	3	1-2
45-64	2	1-2
65+	1	0-3
Education:		
<High School	1	0-3
High School	2	2-3
Some College	2	1-3
College Degree	2	2-3
Income:		
<\$15,000	1	0-1
\$15,000 to \$24,999	1	1-2
\$25,000 to \$49,999	2	1-3
\$50,000 to \$74,999	4	2-6
\$75,000+	2	2-3
Race:		
White, non-Hispanic	2	2-3
Black, non-Hispanic	3	1-6
Hispanic	0	0-3

*Excludes missing, don't know, and refused.

Seatbelt Use

Those who always use seatbelts when driving or riding in a car:

- ◆ Seventy-five percent of Pennsylvania adults reported always using seatbelts when driving or riding in a car, according to the 2008 survey.
- ◆ Women had a significantly higher percentage for always using seatbelts (80 percent) compared to men (68 percent).
- ◆ Adults age 65+ reported a significantly higher percentage (80) compared to adults younger than 65 (18-29, 66 percent; 30-44, 74 percent; and 45-64, 77 percent). Adults age 18-29 had a significantly lower percentage compared to adults age 45-64.
- ◆ Adults with less than a high school education had a significantly lower percentage (61) compared to adults with at least some college education (some college, 74 percent; college degree, 84 percent). Adults with a college degree had a significantly higher percentage (84) compared to adults at all other education levels.
- ◆ Adults with household incomes of at least \$75,000 had a significantly higher percentage (82) compared to adults at all other household income levels (<\$15,000, 67 percent; \$15,000-\$24,999, 71 percent; \$25,000-\$49,999, 71 percent; and \$50,000-\$74,999, 74 percent).
- ◆ Non-Hispanic white adults had a significantly higher percentage (76) compared to non-Hispanic black adults (63 percent).

Those who never use seatbelts when driving or riding in a car:

- ◆ Three percent of Pennsylvania adults reported never using seatbelts when driving or riding in a car, according to the 2008 survey.
- ◆ Men had a significantly higher percentage (4) compared to women (2 percent).
- ◆ Adults with a college degree had a significantly lower percentage (1) compared to adults with no college education (<high school, 5 percent; high school, 4 percent).
- ◆ Adults with a household income of less than \$15,000 had a significantly higher percentage (6) compared to adults with household incomes of at least \$15,000 (\$15,000-\$24,999, 4 percent; \$25,000-\$49,999, 3 percent; \$50,000-\$74,999, 3 percent, and \$75,000+, 2 percent). Adults with a household income of \$15,000-\$24,999 had a significantly higher percentage compared to adults with a household income of at least \$75,000.
- ◆ There were no significant differences by race/ethnicity.

Seatbelt Use

Figure 11A: Seatbelt Use, Pennsylvania Adults, by Age, 2008

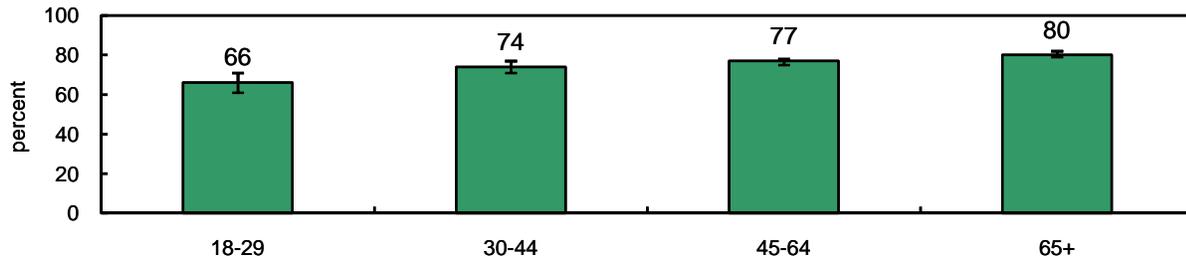


Figure 11B: Seatbelt Use, Pennsylvania Adults, by Education, 2008

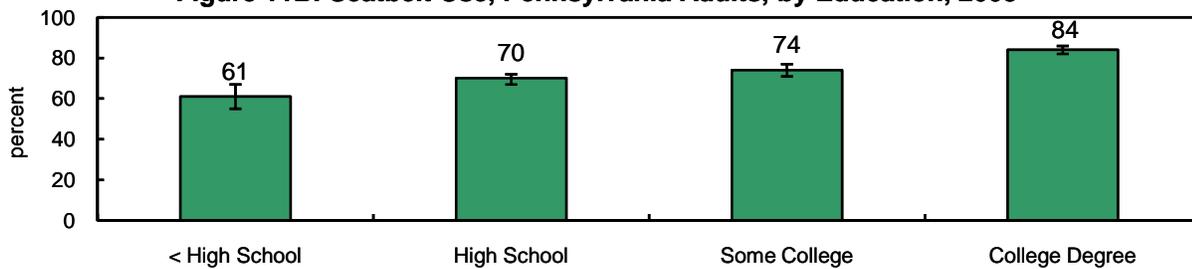


Table 11: Seatbelt Use, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Always Use Seatbelts When Driving or Riding in a Car*		Never Use Seatbelts When Driving or Riding in a Car*	
	%	CI	%	CI
All Adults	75	73-76	3	2-3
Male	68	66-71	4	3-5
Female	80	79-82	2	1-2
Age:				
18-29	66	61-71	3	2-5
30-44	74	71-77	3	2-5
45-64	77	75-78	3	2-4
65+	80	79-82	2	2-3
Education:				
<High School	61	55-67	5	3-8
High School	70	67-72	4	3-5
Some College	74	71-77	3	2-4
College Degree	84	82-86	1	1-2
Income:				
<\$15,000	67	62-72	6	4-8
\$15,000 to \$24,999	71	67-74	4	3-6
\$25,000 to \$49,999	71	68-74	3	2-4
\$50,000 to \$74,999	74	70-77	3	2-5
\$75,000+	82	79-84	2	1-2
Race:				
White, non-Hispanic	76	75-77	3	2-3
Black, non-Hispanic	63	57-69	4	2-7
Hispanic	70	59-78	1	0-4

*Excludes missing, don't know, and refused.

Asthma

Were you ever told you have asthma?

- ◆ Thirteen percent of Pennsylvania adults responded in the 2008 survey that a health care professional had told them that they had asthma.
- ◆ Women had a significantly higher percentage (16) of ever being told they had asthma compared to men (11 percent).
- ◆ Adults with household incomes less than \$15,000 who had been told they have asthma had a significantly higher percentage compared to adults with a household income of at least \$25,000 (<\$15,000 at 22 percent; \$25,000-\$49,999 at 12 percent; \$50,000-\$74,999 at 10 percent; and \$75,000+ at 13 percent). Also, adults with a household income of \$15,000-\$24,999 had a significantly higher percentage (16) compared to those with a household income of \$50,000-\$74,999 (10 percent).
- ◆ No significant differences were seen by age, education or race/ethnicity.

Do you currently have asthma?

- ◆ Nine percent of Pennsylvania adults indicated in the 2008 survey that they currently have asthma.
- ◆ Women had a significantly higher percentage of currently having asthma (12 percent) compared to men (7 percent).
- ◆ Adults with household incomes less than \$15,000 who currently have asthma had a significantly higher percentage compared to adults with a household income of at least \$25,000 (<\$15,000 at 17 percent; \$25,000-\$49,999 at 8 percent; \$50,000-\$74,999 at 6 percent; and \$75,000+ at 8 percent). Also, adults with a household income of \$15,000-\$24,999 had a significantly higher percentage (13) compared to those with a household income of \$50,000-\$74,999 (6 percent).
- ◆ Non-Hispanic black adults who currently have asthma had a significantly higher percentage (15 percent) compared to Non-Hispanic white adults (9 percent).
- ◆ No significant differences were seen by age or education.

Asthma

Figure 12A: Percent Currently Has/Ever Told Has Asthma, Pennsylvania Adults, 1999-2008

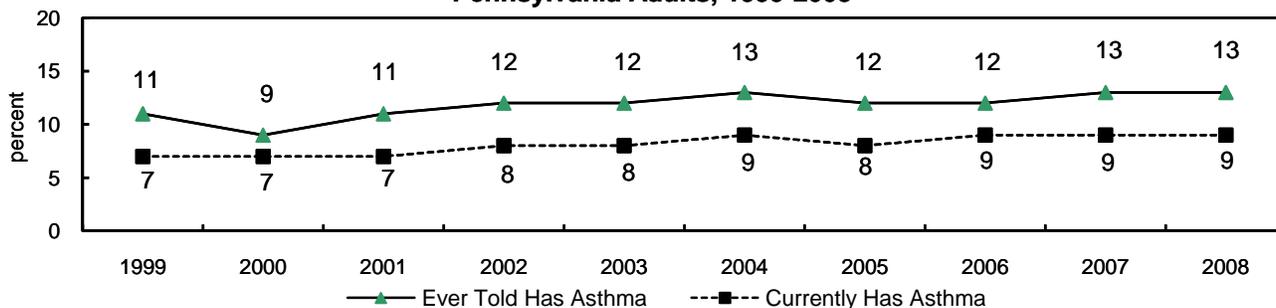


Figure 12B: Percent Currently Has Asthma, Pennsylvania Adults, by Age, 2008

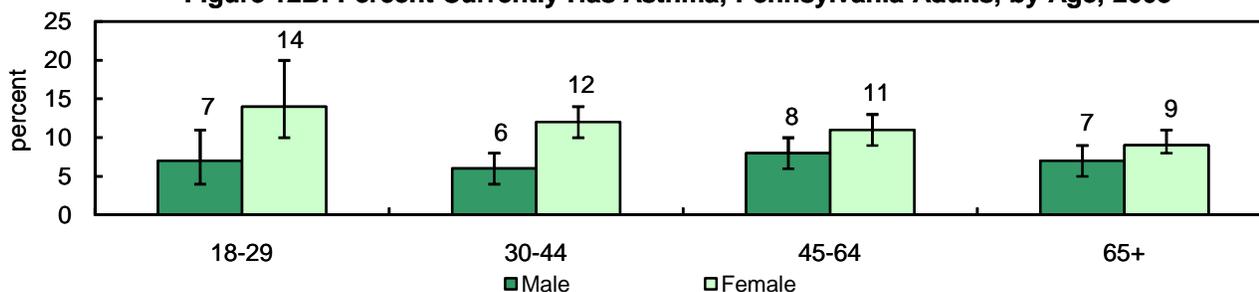


Table 12: Asthma, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Ever Told Had Asthma*		Currently Has Asthma*	
	%	CI	%	CI
All Adults	13	12-14	9	8-10
Male	11	9-12	7	6-8
Female	16	14-17	12	10-13
Age:				
18-29	16	13-20	10	8-14
30-44	13	11-15	9	8-11
45-64	13	12-14	9	8-11
65+	11	10-13	8	7-10
Education:				
<High School	18	14-22	14	10-18
High School	13	11-15	10	8-11
Some College	13	11-16	9	7-11
College Degree	12	11-14	8	7-10
Income:				
<\$15,000	22	18-26	17	14-20
\$15,000 to \$24,999	16	14-20	13	10-15
\$25,000 to \$49,999	12	10-14	8	7-10
\$50,000 to \$74,999	10	9-13	6	5-8
\$75,000+	13	11-15	8	7-10
Race:				
White, non-Hispanic	13	12-14	9	8-10
Black, non-Hispanic	19	15-24	15	11-20
Hispanic	14	9-21	9	6-15

*Excludes missing, don't know, and refused.

Disability

Are you limited in any way due to physical, mental, or emotional problems?

- ◆ Twenty-one (21) percent of Pennsylvania adults reported that they were limited due to physical, mental or emotional problems in 2008.
- ◆ Adults age 45 and older had a significantly higher percentage (ages 45-64 at 24 percent; and ages 65+ at 30 percent) compared to adults under age 45 (ages 18-29 at 14 percent; and ages 30-44 at 15 percent). In addition, adults ages 65 and older had a significantly higher percentage compared to adults ages 45-64.
- ◆ Pennsylvania adults with less than a high school education had a significantly higher percentage (33) compared to adults with at least a high school education (high school at 24 percent; some college at 20 percent; and college degree at 16 percent). Also, adults with a high school diploma had a significantly higher percentage compared to those with a college degree.
- ◆ Pennsylvania adults living in households with incomes of less than \$15,000 had a significantly higher percentage compared to those living in households with incomes of \$15,000 or more (<\$15,000 at 47 percent; \$15,000-\$24,999 at 28 percent; \$25,000-\$49,999 at 23 percent; \$50,000-\$74,999 at 15 percent; and \$75,000+ at 13 percent). Adults living in households with incomes of \$15,000-\$24,999 had a significantly higher percentage compared to adults with household incomes of \$50,000 or more. Adults living in households with incomes of \$25,000-\$49,999 had a significantly higher percentage compared to adults with household incomes of \$50,000 or more.
- ◆ No significant differences were seen by gender or race/ethnicity.

Do you have health problems requiring use of special equipment?

- ◆ Eight percent of Pennsylvania adults indicated in 2008 that they had a health problem that required them to use special equipment, such as a cane, a wheelchair, a special bed or a special telephone.
- ◆ As age increased, each age group had a health problem that required them to use special equipment at a significantly higher percentage compared to younger age groups (ages 18-29 at 1 percent; ages 30-44 at 4 percent; ages 45-64 at 9 percent; and ages 65+ at 19 percent).
- ◆ Pennsylvania adults with less than a high school education had a significantly higher percentage (14) compared to adults with at least some college education (some college at 9 percent; and college degree at 5 percent). Also, adults with a high school diploma (9 percent) or some college education had a significantly higher percentage compared to those with a college degree.
- ◆ Pennsylvania adults living in households with incomes of less than \$25,000 had significantly higher percentages compared to those living in households with incomes of \$25,000 or more (<\$15,000 at 20 percent; \$15,000-\$24,999 at 15 percent; \$25,000-\$49,999 at 8 percent; \$50,000-\$74,999 at 4 percent; and \$75,000+ at 3 percent). Adults living in households with incomes of \$25,000-\$49,999 had a significantly higher percentage compared to adults with household incomes of \$50,000 or more.
- ◆ No significant differences were seen by gender or race/ethnicity.

Disability

Figure 13A: Percent Limited Due to Health Problems, Pennsylvania Adults, 2008

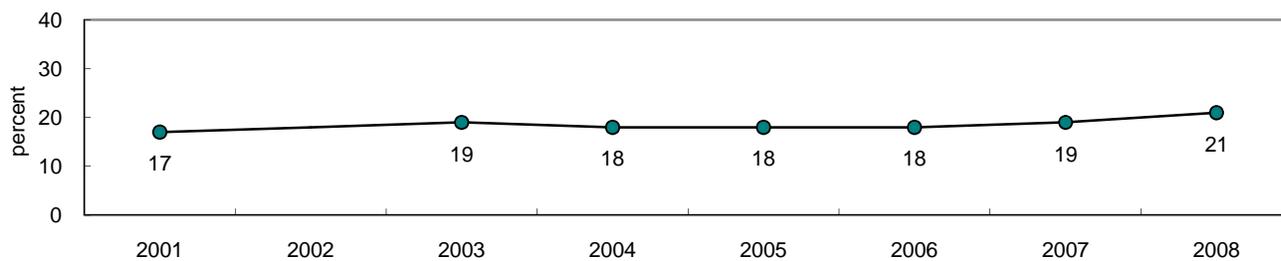
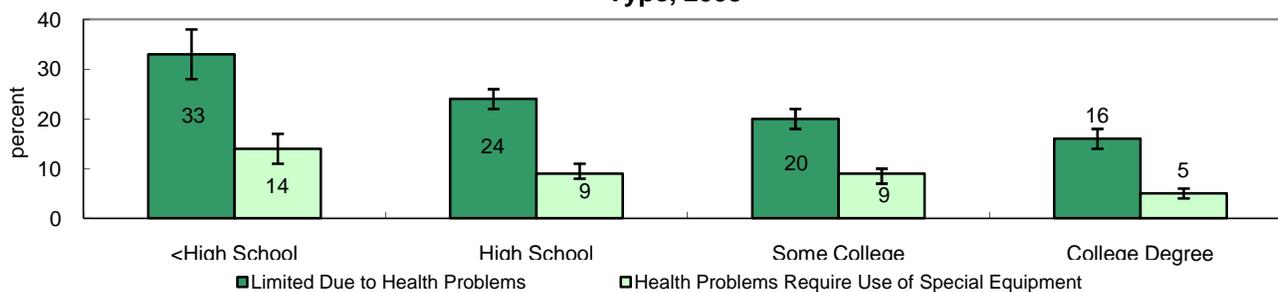


Figure 13B: Percent Limited Due to Health Problems, Pennsylvania Adults, by Education and Type, 2008



**Table 13: Disability
Pennsylvania Adults, 2008 (with 95% confidence intervals)**

	Limited Due to Health Problems*		Health Problem Requiring Use of Special Equipment*	
	%	CI	%	CI
All Adults	21	20-22	8	8-9
Male	20	18-22	7	6-8
Female	22	21-24	9	8-10
Age:				
18-29	14	11-18	1	1-2
30-44	15	13-17	4	3-5
45-64	24	23-26	9	8-10
65+	30	28-32	19	17-21
Education:				
<High School	33	28-38	14	11-17
High School	24	22-26	9	8-11
Some College	20	18-22	9	7-10
College Degree	16	14-18	5	4-6
Income:				
<\$15,000	47	43-52	20	17-24
\$15,000 to \$24,999	28	25-32	15	13-18
\$25,000 to \$49,999	23	20-25	8	7-9
\$50,000 to \$74,999	15	12-17	4	3-6
\$75,000+	13	11-15	3	3-4
Race:				
White, non-Hispanic	21	20-22	8	7-9
Black, non-Hispanic	24	20-29	12	9-16
Hispanic	25	17-34	5	3-11

*Excludes missing, don't know, and refused.

Immunization

Those age 50-64 who had a flu shot in the past year:

- ◆ Forty-three percent of adults ages 50-64 reported in 2008 that they had had a flu shot in the past year.
- ◆ There were no significant differences by gender, education, income or race/ethnicity in 2008.

Those age 65 and older who had a flu shot in the past year:

- ◆ Seventy-two percent of adults age 65+ in 2008 reported that they had had a flu shot in the past year.
- ◆ Adults age 65+ with a high school diploma who reported that they had had a flu shot in the past year had a significantly lower percentage (68) compared to adults with at least some college education (some college, 76 percent; and college degree, 77 percent).
- ◆ Adults with a household income of less than \$15,000 had a significantly lower percentage (63) compared to adults with a household income of at least \$50,000 (\$50,000-\$74,999, 79 percent; and \$75,000+, 78 percent).
- ◆ Non-Hispanic white adults had a significantly higher percentage (73) compared to Non-Hispanic black adults.
- ◆ There were no significant differences by gender.

Those age 65 and older who have ever had a pneumonia vaccination:

- ◆ Seventy-one percent of Pennsylvania adults age 65+ answered “Yes” to ever having had a pneumonia vaccination in the 2008 survey.
- ◆ No significant differences were seen for adults age 65+ who had ever had a pneumonia vaccination by gender, education, income or race/ethnicity.

Immunization

Figure 14A: Percent Who Had a Flu Shot in the Past Year, Pennsylvania Adults Ages 50-64 and 65+, 1995-2008

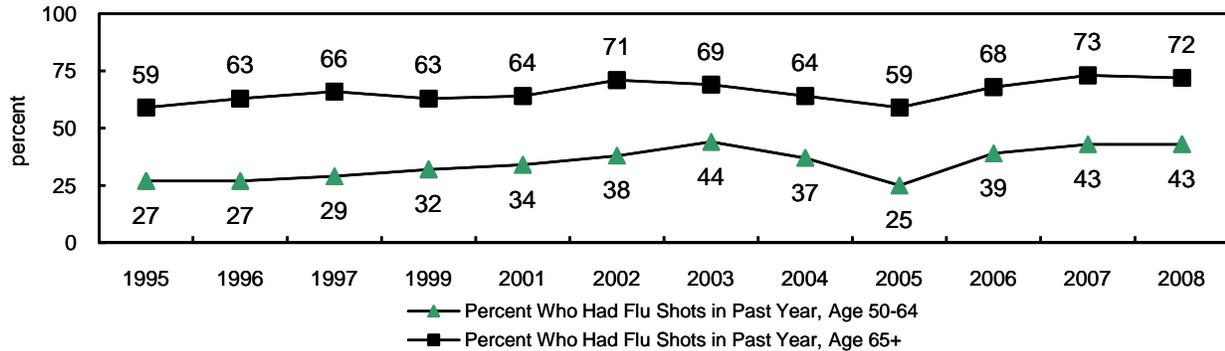


Figure 14B: Percent Who Had a Flu Shot in the Past Year, Pennsylvania Adults Ages 18+, by Health Status, 2008

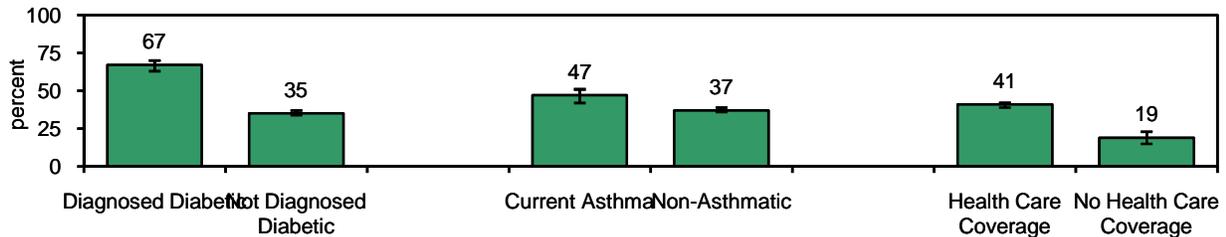


Table 14: Immunization, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Had Flu Shot in Past Year Age 50-64*		Had Flu Shot in Past Year Age 65+*		Ever had a Pneumonia Vaccination, Age 65+*	
	%	CI	%	CI	%	CI
All Adults	43	41-45	72	70-74	71	69-73
Male	42	38-46	72	68-75	68	64-71
Female	44	42-47	72	69-74	73	70-75
Education:						
<High School	41	31-52	70	64-75	70	64-75
High School	39	36-43	68	65-71	70	67-73
Some College	44	39-48	76	72-80	76	71-80
College Degree	48	44-52	77	73-81	68	64-73
Income:						
<\$15,000	43	35-50	63	57-68	70	65-75
\$15,000 to \$24,999	42	35-49	71	66-75	71	67-75
\$25,000 to \$49,999	43	39-48	72	68-76	72	68-76
\$50,000 to \$74,999	42	37-48	79	72-84	72	64-78
\$75,000+	43	38-47	78	71-84	63	55-70
Race:						
White, non-Hispanic	43	41-45	73	71-75	71	69-73
Black, non-Hispanic	55	45-66	66	47-70	70	60-78
Hispanic	#		#		#	

*Excludes missing, don't know, and refused.

#Data not reported due to N<50 or deemed unreliable (see "Technical Notes").

Falls

Those age 45+ who have fallen in the past three months

- ◆ Sixteen percent of Pennsylvania adults responded “Yes” to having fallen in the past three months during the 2008 survey.
- ◆ Adults with less than a high school education had a significantly higher percentage (22) compared to adults with with a college degree (13 percent).
- ◆ Adults with household incomes of less than \$15,000 had a significantly higher percentage (27) compared to adults with household incomes of \$15,000+ (\$15,000-\$24,999, 18 percent; \$25,000-\$49,999, 17 percent; \$50,000-\$74,999, 12 percent; \$75,000+, 13 percent).
- ◆ There were no significant differences by gender, age or race/ethnicity in 2008.

Those age 45+ who have been injured by a fall in the past three months:

- ◆ Six percent of Pennsylvania adults age 45+ said that they had been injured by a fall in the past three months.
- ◆ Adults with less than a high school education had a significantly higher percentage (8) compared to adults with with a college degree (4 percent).
- ◆ Adults with household incomes of less than \$15,000 had a significantly higher percentage (15) compared to adults with household incomes of \$15,000+ (\$15,000-\$24,999, 6 percent; \$25,000-\$49,999, 7 percent; \$50,000-\$74,999, 3 percent; \$75,000+, 4 percent).
- ◆ There were no significant differences by gender, age or race/ethnicity in 2008.

Falls

Figure 15A: Have Fallen in the Past Three Months, Pennsylvania Adults Age 45+, by Income, 2008

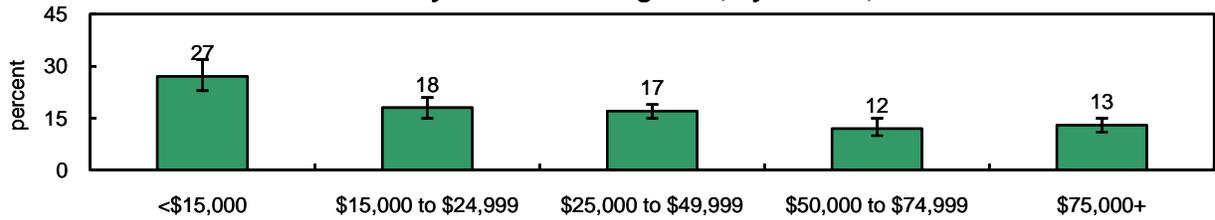
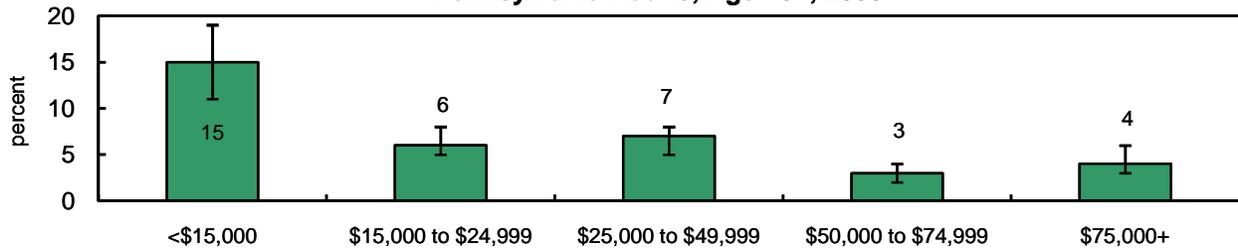


Figure 15B: Have Been Injured By a Fall in the Past Three Months, Pennsylvania Adults, Age 45+, 2008



**Table 15: Falls
Pennsylvania Adults Age 45+, 2008 (with 95% confidence intervals)**

	Have Fallen in the Past Three Months*		Have Been Injured By a Fall in the Past Three Months*	
	%	CI	%	CI
All Adults	16	15-17	6	5-6
Male	15	13-17	5	4-6
Female	16	15-18	6	6-7
Age:				
45-64	16	15-18	6	5-7
65-74	13	11-15	5	4-7
75+	17	15-19	5	4-6
Education:				
<High School	22	18-27	8	6-12
High School	16	15-18	6	5-8
Some College	16	13-18	6	5-8
College Degree	13	11-15	4	3-5
Income:				
<\$15,000	27	23-32	15	11-19
\$15,000 to \$24,999	18	15-21	6	5-8
\$25,000 to \$49,999	17	15-19	7	5-8
\$50,000 to \$74,999	12	10-15	3	2-4
\$75,000+	13	11-15	4	3-6
Race:				
White, non-Hispanic	15	14-16	5	5-6
Black, non-Hispanic	18	13-24	9	5-13
Hispanic	10	4-19	4	1-14

*Excludes missing, don't know, and refused.

Women's Health - Breast Cancer Screening

Those age 40 and older who had a clinical breast exam in past the year

- ◆ Sixty-four percent of women aged 40+ in 2008 responded “Yes” to having a clinical breast exam in the past year.
- ◆ A significantly lower percentage of women age 75+ (48 percent) reported having had a clinical breast exam during the preceding year compared to the percentages for women under age 75 (ages 40-49, 68 percent; ages 50-64, 68 percent; ages 65-74, 67 percent).
- ◆ Women age 40+ with a high school education or higher had significantly higher percentages (high school diploma, 60 percent; some college education, 68 percent; and college degree 73 percent) compared to women age 40+ with less than a high school education (48 percent). Women age 40+ with a high school diploma had a significantly lower percentage compared to women age 40+ with at least some college education.
- ◆ Women age 40+ with household incomes of \$25,000+ had significantly higher percentages (\$25,000-\$49,999, 65 percent; \$50,000-\$74,999, 72 percent; \$75,000+, 76 percent) compared to women with household incomes of less than \$25,000 (less than \$15,000, 49 percent; \$15,000-\$24,999, 52 percent).
- ◆ No significant difference was seen by race/ethnicity.

Those age 40 and older who had a mammogram in the past year

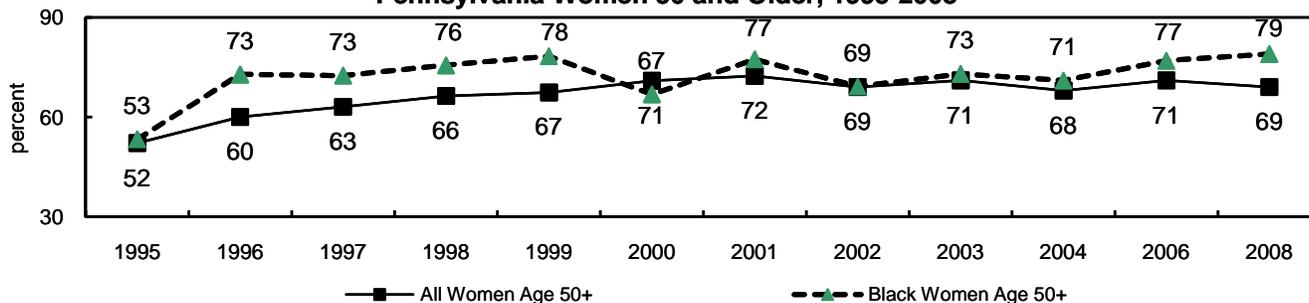
- ◆ Sixty-three percent of women age 40+ reported in 2008 that they had had a mammogram in the past year.
- ◆ Women ages 50-64 and 65-74 had significantly higher percentages (68 and 72 percent, respectively) compared to women ages 40-49 and 75+ (both 56 percent).
- ◆ Women with less than a high school education had a significantly lower percentage for having had a mammogram in the past year (51 percent) compared to women with at least a high school diploma (high school diploma, 63 percent; some college, 64 percent; and college degree, 66 percent).
- ◆ Significantly higher percentages were seen for women with household incomes of \$25,000+ (\$25,000-\$49,999, 65 percent; \$50,000-\$74,999, 66 percent; \$75,000+, 70 percent) compared to women with household incomes of less than \$25,000 (less than \$15,000, 52 percent; \$15,000-\$24,999, 54 percent).
- ◆ No significant difference was seen by race/ethnicity.

Those age 50 or older who had a clinical breast exam and mammogram in past 2 years

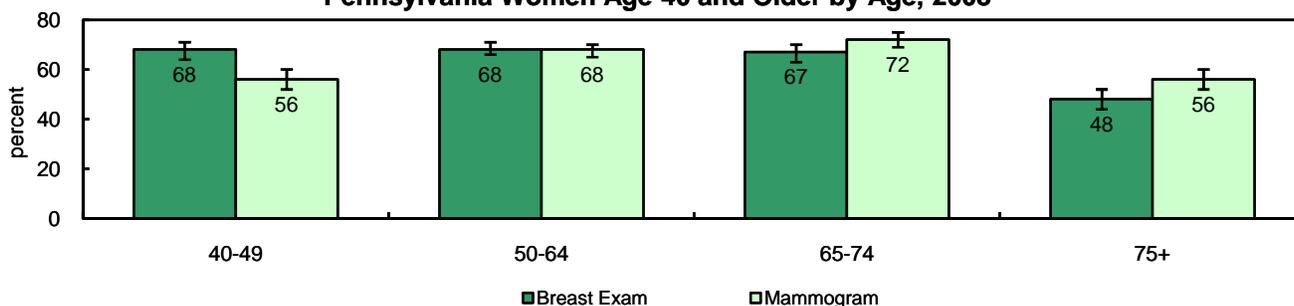
- ◆ Sixty-nine percent of Pennsylvania women age 50+ in 2008 answered “Yes” to having had both a clinical breast exam and a mammogram in the past 2 years.
- ◆ Only 55 percent of women age 75+ had had both exams in the past 2 years – significantly lower than the 75 percent for women ages 50-64 and the 73 percent for women ages 65-74.
- ◆ Women with at least a high school education had significantly higher percentages (high school diploma, 67 percent; some college education 71 percent; college degree, 77 percent) compared to women with less than a high school education (53 percent).
- ◆ Women living in households with incomes of \$25,000+ had significantly higher percentages (\$25,000-\$49,999, 73 percent; \$50,000-\$74,999, 77 percent; \$75,000+, 84 percent) compared to women with household incomes less than \$25,000 (less than \$15,000, 54 percent, \$15,000-\$24,999, 58 percent). Women with household incomes of \$25,000-\$49,999 had a significantly lower percentage compared to women with household incomes of at least \$75,000.
- ◆ Non-Hispanic white women had a significantly lower percentage (69) compare to Non-Hispanic black women (79 percent).

Women's Health - Breast Cancer Screening

**Figure 16A: Percent Had Clinical Breast Exam and Mammogram in Past 2 Years
Pennsylvania Women 50 and Older, 1995-2008**



**Figure 16B: Percent Had Clinical Breast Exam or Mammogram in Past Year
Pennsylvania Women Age 40 and Older by Age, 2008**



**Table 16: Women's Health - Breast Cancer Screening
Pennsylvania Women 40 and Older, 2008 (with 95% confidence intervals)**

	Had a Clinical Breast Exam in Past Year*		Had a Mammogram in Past Year*		Age 50+ and Had Both in Past 2 Years*	
	%	CI	%	CI	%	CI
Females Age 40+	64	63-66	63	61-65	69	67-71
Age:						
40-49	68	64-71	56	52-60	NA	NA
50-64	68	66-71	68	65-70	75	72-77
65-74	67	63-70	72	69-75	73	70-76
75+	48	44-52	56	52-60	55	51-59
Education:						
<High School	48	42-54	51	45-57	53	47-59
High School	60	57-63	63	60-65	67	65-70
Some College	68	64-71	64	60-67	71	67-75
College Degree	73	70-76	66	62-69	77	74-81
Income:						
<\$15,000	49	44-55	52	47-58	54	49-60
\$15,000 to \$24,999	52	48-56	54	50-58	58	53-62
\$25,000 to \$49,999	65	61-68	65	61-68	73	69-77
\$50,000 to \$74,999	72	67-76	66	62-71	77	71-81
\$75,000+	76	72-79	70	66-74	84	79-87
Race:						
White, non-Hispanic	64	62-65	62	61-64	69	67-70
Black, non-Hispanic	71	64-77	70	62-76	79	72-84
Hispanic	#		#		#	

*Excludes missing, don't know, and refused.

#Data not reported due to N<50 or deemed unreliable (see "Technical Notes").

Women's Health - Pap Test

Those who ever had a Pap test?

- ◆ In 2008, 94 percent of Pennsylvania adult women reported ever having had a Pap test.
- ◆ Women ages 65+ and 18-29 had significantly lower percentages (93 and 81 percent respectively) of women who ever had a Pap test compared to women ages 30-44 and 45-64 (ages 30-44, 99 percent; ages 45-64, 98 percent).
- ◆ Women with a college degree had a significantly higher percentage for having ever had a Pap test (97 percent) compared to women with less than a college degree (some college education, 93; high school diploma, 93 percent; and less than a high school education, 91 percent).
- ◆ Women with household incomes of \$50,000-\$74,999 had a significantly higher percentage (99) compared to women with household incomes less than \$25,000 (<\$15,000, 90 percent; \$15,000-\$24,999, 92 percent).
- ◆ Non-Hispanic black women had a significantly higher percentage (98) compared to Non-Hispanic white women (94 percent) and Hispanic women (89 percent).

Those who had a pap test in past three years

- ◆ Seventy-eight percent of adult women who have ever had a Pap test said that they had one within the past 3 years, according to the 2008 survey.
- ◆ Women less than age 65 had significantly higher percentages (age 18-29, 79 percent; age 30-44, 90 percent; age 45-64, 82 percent) compared to women age 65+ (56 percent). Women ages 30-44 had a significantly higher percentage compared to women ages 18-29 and 45-64.
- ◆ Significantly higher percentages of women with some college education or a college degree had a Pap test in the past three years (78 and 88 percent respectively) compared to women with a high school education or less (less than a high school education, 65 percent; and high school diploma, 72 percent). Women with a college degree had a significantly higher percentage compared to women with some college education.
- ◆ Adult women with a household income of \$25,000 or more had a significantly higher percentage (\$25,000-\$49,999, 78 percent; \$50,000-\$74,999, 88 percent; and \$75,000+, 89 percent) compared to adult women with income less than \$25,000 (less than \$15,000, 62 percent, and \$15,000-\$24,999, 67 percent). Women with household incomes of \$25,000-\$49,999 had a significantly lower percentage compared to women with household incomes of at least \$50,000.
- ◆ Non-Hispanic black women had a significantly higher percentage (86) compare to Non-Hispanic white women (77 percent) and Hispanic women (79 percent).

Those who have had a hysterectomy?

- ◆ Twenty percent of Pennsylvania adult women had had a hysterectomy according to the 2008 Pennsylvania BRFSS.
- ◆ All older adult women age groups were significantly higher in percentage compared to younger adult women age groups (ages 65+, 45 percent; ages 45-64, 23 percent; ages 30-44, 7 percent; and ages 18-29, 2 percent).
- ◆ Women with a high school education or less had significantly higher percentages of having a hysterectomy (< high school, 30 percent, and high school diploma, 26 percent) compared to women with at least some college education (some college, 18 percent; college degree, 12 percent).
- ◆ Women with household incomes of less than \$25,000 had significantly higher percentages of having a hysterectomy (less than \$15,000, 29 percent; \$15,000-\$24,999, 28 percent) compared to women with household incomes of \$50,000+ (\$50,000-\$74,999, 18 percent; \$75,000+, 10 percent).
- ◆ No significant difference was seen for race/ethnicity.

Women's Health - Pap Test

Figure 17A: Percent Having Pap Tests, Pennsylvania Women, 1995-2008

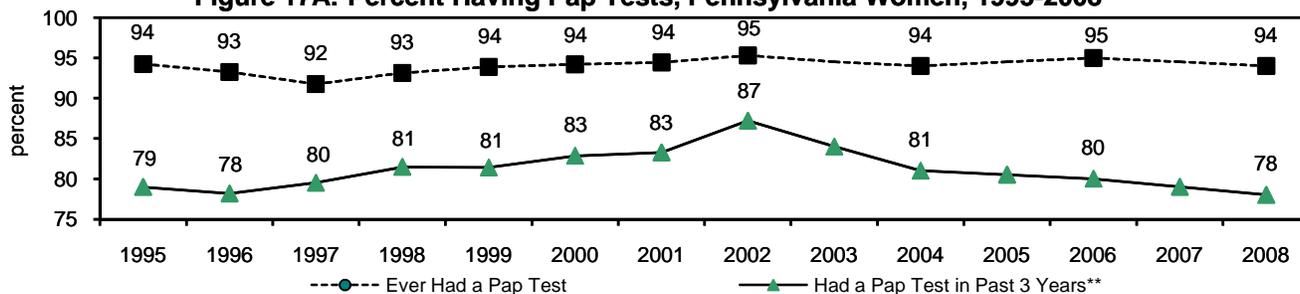


Figure 17B: Percent Who Have Had a Pap Test in the Past 3 Years Pennsylvania Women, by Education **, 2008

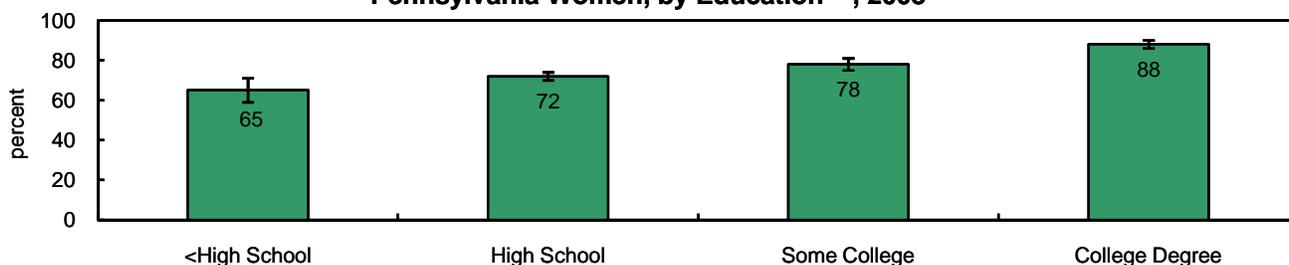


Table 17: Women's Health Pennsylvania Adult Women, 2008 (with 95% confidence intervals)

	Ever Had a Pap Test*		Had a Pap Test in Past 3 Years* **		Ever Had a Hysterectomy*	
	%	CI	%	CI	%	CI
Adult Females	94	93-95	78	76-79	20	19-21
Age:						
18-29	81	75-86	79	73-84	2	1-4
30-44	99	98-99	90	87-92	7	5-9
45-64	98	97-99	82	80-84	23	21-26
65+	93	92-95	56	54-59	45	42-48
Education:						
<High School	91	87-94	65	59-71	30	25-35
High School	93	91-95	72	70-74	26	24-28
Some College	93	89-95	78	75-81	18	15-20
College Degree	97	96-99	88	86-90	12	11-14
Income:						
<\$15,000	90	84-93	62	57-67	29	24-33
\$15,000 to \$24,999	92	89-95	67	63-71	28	24-31
\$25,000 to \$49,999	95	93-97	78	75-81	22	20-25
\$50,000 to \$74,999	99	96-100	88	85-91	18	15-22
\$75,000+	97	93-98	89	85-91	10	9-13
Race:						
White, non-Hispanic	94	93-95	77	75-78	21	19-22
Black, non-Hispanic	98	97-99	86	81-89	22	18-28
Hispanic	89	77-95	79	67-87	14	8-24

*Excludes missing, don't know, and refused. **Denominator is women who have had a Pap test.

Men's Health - Prostate Cancer Screening

Those age 50 and older who had a PSA blood test in the past year

- ◆ Sixty percent of Pennsylvania men age 50+ responded in the 2008 survey that they had a prostate specific antigen blood test in the past year.
- ◆ There were significantly higher percentages of men age 65+ (age 65-74, 72 percent; age 75+, 67 percent) compared to men age 50-64 (52 percent) who had a PSA blood test in the past year.
- ◆ Men age 50+ with a household income of less than \$15,000 had a significantly lower percentage (41) compared to men age 50+ with household incomes of at least \$15,000 (\$15,000-\$24,999, 63 percent; \$25,000-\$49,999, 58 percent; \$50,000-\$74,999, 63 percent; and \$75,000+ 61 percent).
- ◆ No significant differences were seen by education or race/ethnicity.

Those age 50 and older who had a digital rectal examination in the past year

- ◆ Fifty percent of Pennsylvania men age 50+ responded in the 2008 survey that they had a digital rectal examination in the past year.
- ◆ A significantly lower percentage was seen for adults age 50-64 (44 percent) compared to adults age 65-74 (61 percent) and age 75+ (57 percent)
- ◆ Men 50+ with a college degree had a significantly higher percentage (58) compared to men age 50+ with less than a college education (less than high school, 38 percent; high school diploma, 45 percent).
- ◆ No significant differences were seen by household income.

Those age 50 and older who have ever been told they had prostate cancer

- ◆ In the 2008 BRFSS survey, 7 percent of Pennsylvania men age 50+ reported having been told by a doctor, nurse or other health professional that he had prostate cancer.
- ◆ All older adult male age groups were significantly higher in percentage compared to younger adult male age groups (ages 75+, 19 percent; ages 65-74, 8 percent; ages 50-64, 3 percent).

Men's Health - Prostate Cancer Screening

Figure 18A: Percent Ever Had a PSA Blood Test, Pennsylvania Men 50 and Older, 1995-2008

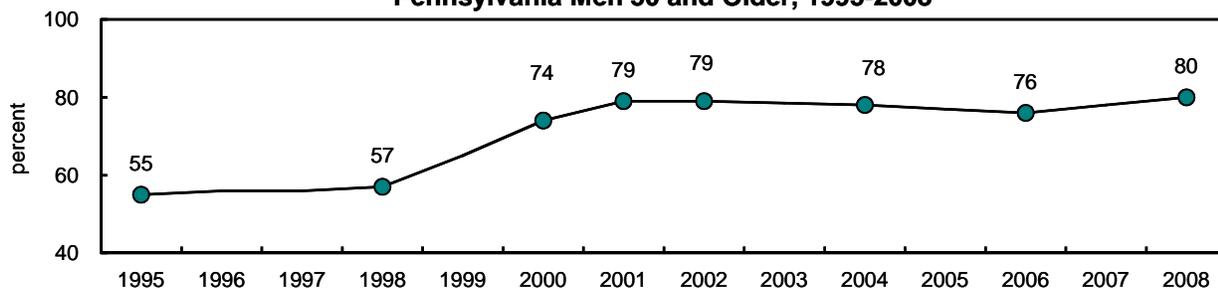


Figure 18B: Percent Ever Had a Digital Rectal Exam, Pennsylvania Men 50 and Older, 1995-2008

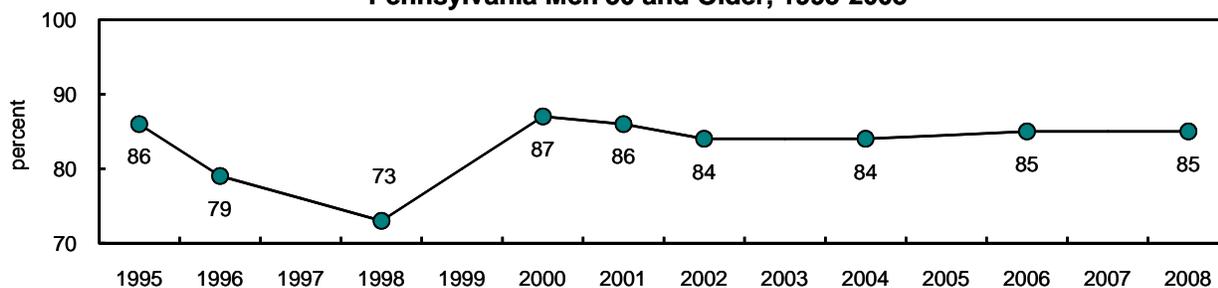


Table 18: Men's Health - Prostate Cancer Screening, Pennsylvania Men 50 and Older, 2008 (with 95% confidence intervals)

	Had a PSA Blood Test		Had a Digital Rectal Exam in Past Year*		Ever Told Had Prostate Cancer*	
	%	CI	%	CI	%	CI
Males Age 50+	60	57-62	50	47-52	7	6-8
Age:						
50-64	52	49-56	44	40-47	3	2-4
65-74	72	67-76	61	56-66	8	6-12
75+	67	62-73	57	51-62	19	15-23
Education:						
<High School	60	50-69	38	29-48	12	7-19
High School	55	50-59	45	41-49	7	6-10
Some College	62	55-67	50	44-56	4	3-7
College Degree	64	59-68	58	53-62	7	5-10
Income:						
<\$15,000	41	32-50	38	29-48	8	4-15
\$15,000 to \$24,999	63	56-69	45	38-51	10	7-15
\$25,000 to \$49,999	58	53-63	52	47-57	8	6-10
\$50,000 to \$74,999	63	56-69	50	43-56	5	3-8
\$75,000+	61	55-66	51	45-56	4	3-7
Race:						
White, non-Hispanic	59	56-62	50	48-53	7	6-8
Black, non-Hispanic	67	53-79	#		7	4-14
Hispanic	#		#		#	

*Excludes missing, don't know, and refused.

#Data not reported due to N<50 or deemed statistically unreliable (see "Technical Notes").

Colorectal Cancer Screening

Those age 50 and older who ever had a sigmoidoscopy or a colonoscopy

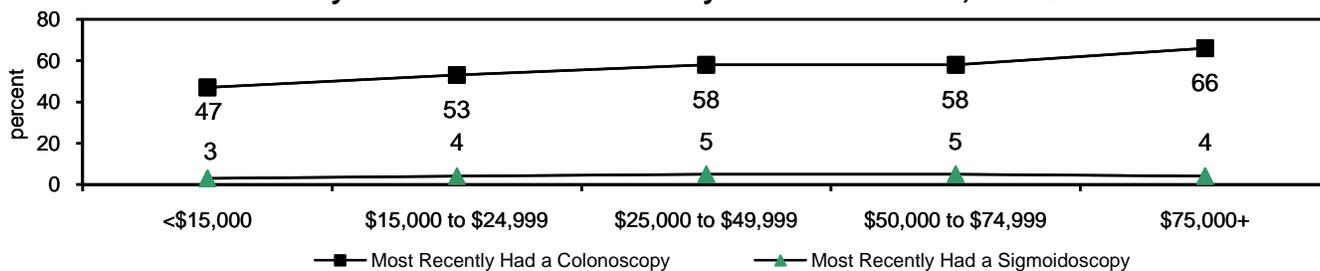
- ◆ Sixty-three percent of Pennsylvania adults age 50+ indicated in the 2008 survey that they had a sigmoidoscopy or a colonoscopy.
- ◆ Adults age 65+ had a significantly higher percentage of ever having a sigmoidoscopy or colonoscopy (age 65-74, 71 percent; age 75+, 67 percent) compared to adults age 50-64 (57 percent).
- ◆ Adults age 50+ with a college degree had a significantly higher percentage (70) compared to adults age 50+ without a college degree (less than high school, 55 percent; high school diploma, 60 percent; and some college, 61 percent).
- ◆ Adults age 50+ with household incomes of at least \$25,000 had significantly higher percentages (\$25,000-\$49,999, 64 percent; \$50,000-\$74,999, 63 percent; and \$75,000+, 70 percent) compared to adults age 50+ with a household income less than \$15,000 (51 percent). Adults age 50+ with a household income of \$15,000-\$24,999 had a significantly lower percentage (58) compared to adults age 50+ with a household income of at least \$75,000.
- ◆ No significant differences were seen by race/ethnicity.

Those age 50 and older who had a sigmoidoscopy or colonoscopy in past 5 years

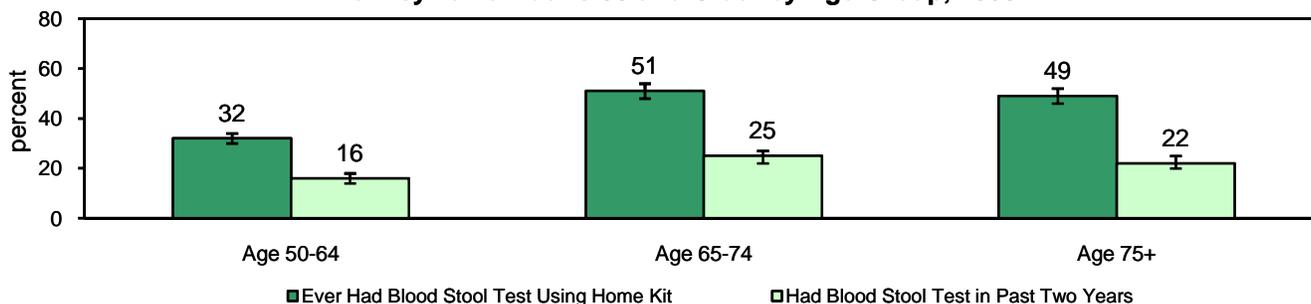
- ◆ In the 2008 survey, 53 percent of Pennsylvanians age 50+ said they had a sigmoidoscopy or a colonoscopy in the past 5 years.
- ◆ Adults ages 65+ had significantly higher percentages (age 65-74, 60 percent; age 75+ 57 percent) compared to adults age 50-64 (49 percent).
- ◆ Adults age 50+ with a college degree had a significantly higher percentage (59) compared to adults with a high school education or less (less than high school, 47 percent; high school diploma, 51 percent).
- ◆ Adults age 50+ with household incomes of at least \$25,000 had significantly higher percentages (\$25,000-\$49,999, 55 percent; \$50,000-\$74,999, 54 percent; and \$75,000+, 62 percent) compared to adults age 50+ with a household income of less than \$15,000 (43 percent). Adults age 50+ with a household income of \$15,000-\$24,999 had a significantly lower percentage compared to adults with a household income of at least \$75,000.
- ◆ No significant differences were seen by race/ethnicity.

Colorectal Cancer Screening

**Figure 19A: Percent Who Ever Had a Sigmoidoscopy or Colonoscopy
Pennsylvania Adults 50 and Older by Household Income, 1995-2008**



**Figure 19B: Had Blood Stool Test
Pennsylvania Adults 50 and Older by Age Group, 2008**



**Table 19: Colorectal Cancer Screening
Pennsylvania Adults 50 and Older, 2008 (with 95% confidence intervals)**

	Ever Had a Sigmoidoscopy or Colonoscopy*		Had a Sigmoidoscopy or Colonoscopy in the Past 5 Years*	
	%	CI	%	CI
Adults Age 50+	63	61-64	53	52-55
Male	63	60-66	55	53-58
Female	62	60-64	52	50-54
Age:				
50-64	57	55-60	49	47-51
65-74	71	68-74	60	57-63
75+	67	64-70	57	54-60
Education:				
<High School	55	50-61	47	41-53
High School	60	57-62	51	49-54
Some College	61	57-64	52	48-56
College Degree	70	67-73	59	56-62
Income:				
<\$15,000	51	46-56	43	38-47
\$15,000 to \$24,999	58	54-62	49	46-53
\$25,000 to \$49,999	64	61-67	55	52-58
\$50,000 to \$74,999	63	59-67	54	49-58
\$75,000+	70	66-73	62	58-66
Race:				
White, non-Hispanic	63	61-64	53	52-55
Black, non-Hispanic	65	57-72	60	52-68
Hispanic	#		#	

*Excludes missing, don't know, and refused.

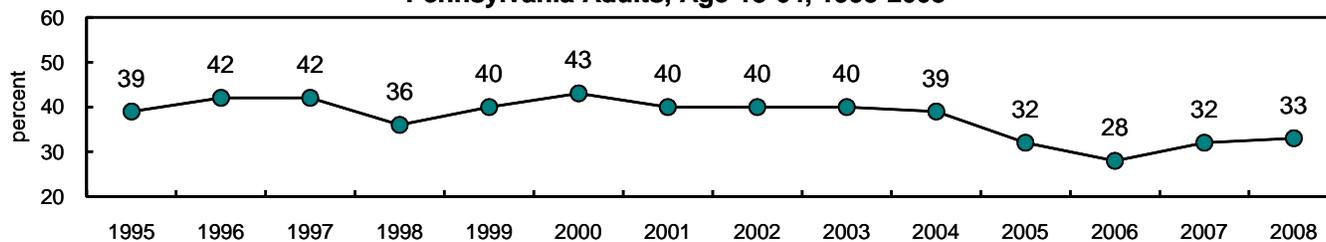
#Data not reported due to N<50 or deemed statistically unreliable (see "Technical Notes").

Those ages 18-64 who ever had their blood tested for HIV, except for blood donation

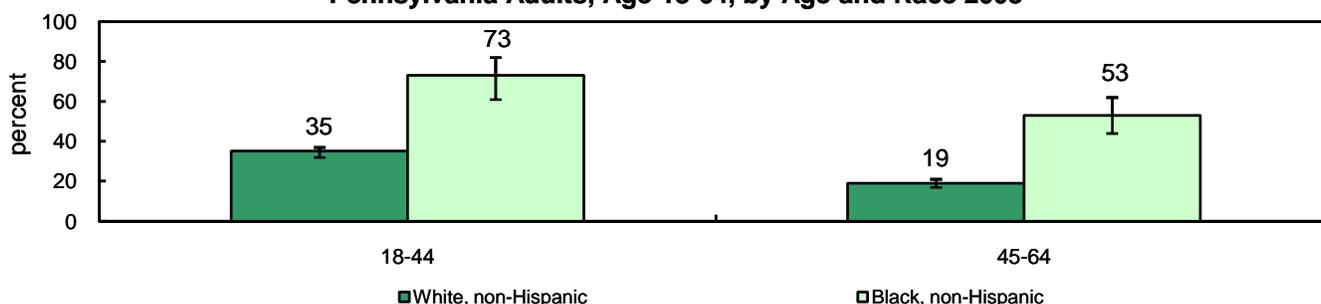
- ◆ Thirty-three percent of Pennsylvania adults ages 18-64 had an HIV blood test (excluding tests through blood donation), according to the 2008 survey.
- ◆ Women ages 18-64 who reported ever being tested for HIV (except for blood donation) had a significantly higher percentage (36) compared to men ages 18-64 (30 percent).
- ◆ Adults ages 45-64 had a significantly lower percentage (23) compared to younger adults (ages 18-29 at 35 percent; and ages 30-44 at 46 percent). Adults ages 18-29 had a significantly lower percentage compared to adults ages 30-44.
- ◆ Adults with a high school diploma had a significantly lower percentage (29) compared to adults with less than a high school education (45 percent).
- ◆ Adults ages 18-64 with household incomes of \$25,000 or more had significantly lower percentages (\$25,000-\$49,999, 32 percent; \$50,000-\$74,999, 30 percent; and \$75,000+, 33 percent) compared to adults ages 18-64 with a household income of less than \$15,000 (51 percent).
- ◆ Non-Hispanic white adults ages 18-64 had a significantly lower percentage (28 percent) compared to Non-Hispanic black adults ages 18-64 (65 percent) and Hispanic adults (58 percent).

HIV/AIDS

**Figure 20A: Percent Tested for HIV, Except Blood Donation
Pennsylvania Adults, Age 18-64, 1995-2008**



**Figure 20B: Percent Tested for HIV, Except Blood Donation
Pennsylvania Adults, Age 18-64, by Age and Race 2008**



**Table 20: HIV/AIDS
Pennsylvania Adults, Age 18-64, 2008 (with 95% confidence intervals)**

	Ever Tested for HIV Except Blood Donation*		Considered At Risk for HIV*	
	%	CI	%	CI
Adults Age 18-64	33	32-35	3	2-4
Male	30	28-33	2	2-4
Female	36	34-38	3	2-5
Age:				
18-29	35	30-40	6	4-9
30-44	46	43-49	3	2-4
45-64	23	21-25	1	1-2
Education:				
<High School	45	37-54	8	4-14
High School	29	27-32	3	2-5
Some College	35	31-39	4	2-6
College Degree	34	31-37	1	1-2
Income:				
<\$15,000	51	44-58	8	5-14
\$15,000 to \$24,999	40	34-45	6	4-8
\$25,000 to \$49,999	32	38-36	2	1-3
\$50,000 to \$74,999	30	27-34	2	1-3
\$75,000+	33	30-36	2	1-3
Race:				
White, non-Hispanic	28	26-29	2	2-3
Black, non-Hispanic	65	58-72	6	4-10
Hispanic	58	47-68	4	1-13

*Excludes missing, don't know, and refused.

Those who visited a dentist in past year:

- ◆ Seventy percent of Pennsylvania adults said in 2008 that they visited a dentist or a dental clinic in the past year.
- ◆ Adults ages 30-44 and ages 45-64 had a significantly higher percentage for dental visits (ages 30-44, 71 percent; and ages 45-64, 74 percent) compared to adults age 65+ (63 percent).
- ◆ All groups with more education were significantly higher in percentages compared to less educated groups (less than high school education, 51 percent; high school diploma, 63 percent; some college education, 73 percent; a college degree, 81 percent).
- ◆ Adults with household incomes of \$50,000+ had a significantly higher percentage (\$50,000-\$74,999, 77 percent, and \$75,000+, 85 percent) compared to adults with household incomes less than \$50,000. Adults with household incomes of \$25,000-\$49,999 had a significantly higher percent (66) compared to adults with household incomes of less than \$25,000 (less than \$15,000, 46 percent; \$15,000-\$24,999, 52 percent).
- ◆ Non-Hispanic white adults had a significantly higher percentage of dental visits in the past year (71 percent) compared to Non-Hispanic black adults (60 percent).

Those who had 0-5 permanent teeth removed:

- ◆ In 2008, percent of Pennsylvania adults responded that they had had less than six permanent teeth removed due to tooth decay or gum disease.
- ◆ There were significant differences between every age group, between every educational level and almost all income levels. Percentages declined significantly with advancing age (98 percent for 18-29 compared to 51 percent for those 65+) and increased significantly with each higher educational attainment (59 percent for adults without a high school education to 93 percent for college graduates), as well as for almost every income level (<\$15,000, 57 percent compared to 94 percent for \$75,000+).
- ◆ Non-Hispanic white adults had a significantly lower percentage (81) compared to Hispanic adults (90 percent).
- ◆ No significant difference was seen by gender.

Those who had all permanent teeth removed:

- ◆ Seven percent of Pennsylvania adults have had all of their permanent teeth removed due to tooth decay or gum disease, according to the 2008 survey.
- ◆ Women had a significantly higher percentage (9) of having had all teeth removed than men (6 percent).
- ◆ There were significantly higher percentages with increased age. Twenty-four percent of residents age 65+ had all their permanent teeth removed compared to 6 percent for ages 45-64, 1 percent for ages 30-44 and 2 percent for ages 18-29.
- ◆ Almost all groups with less education were significantly higher in percentages compared to more highly educated adults (less than a high school education, 21 percent; high school diploma, 10 percent; some college education, 5 percent; a college degree, 3 percent).
- ◆ Adults with incomes under \$25,000 had a significantly higher percentage of having had all teeth removed (less than \$15,000, 19 percent, and \$15,000-\$24,999, 18 percent) compared to all adults with household incomes of \$25,000+. Adults with household incomes of \$25,000-\$49,999 had a significantly higher percentage (7) compared to adults with household incomes of \$50,000+ (\$50,000-\$74,999, 3 percent; and \$75,000+, 1 percent).
- ◆ No significant differences were seen by sex or race/ethnicity.

Oral Health

Figure 21A: Percent Visited a Dentist in the Past Year, Pennsylvania Adults, 1999-2008

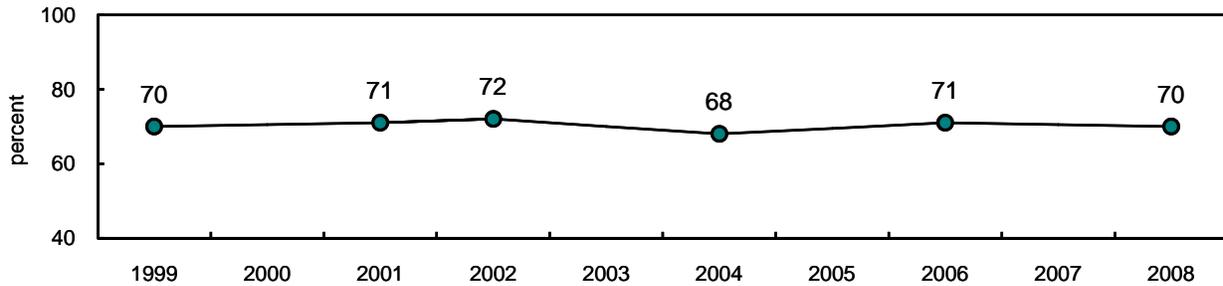


Figure 21B: Visited a Dentist in the Past Year, Pennsylvania Adults by Education, 2008

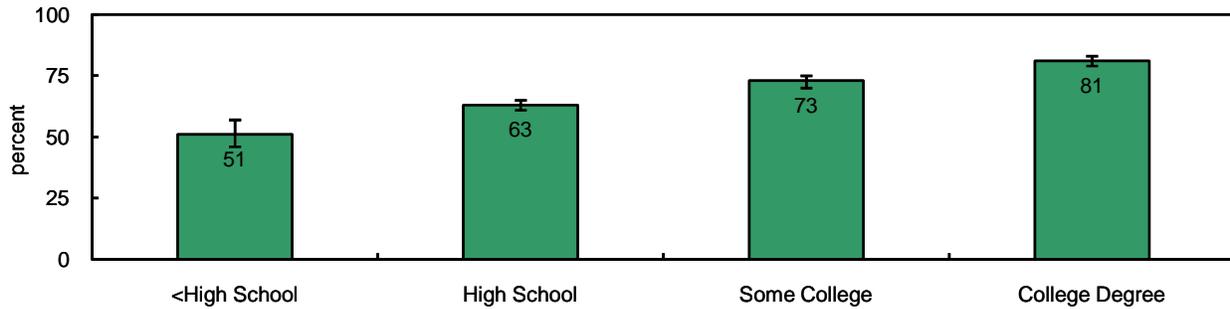


Table 21: Oral Health, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Visited Dentist in Past Year*		Have Had 0-5 Permanent Teeth Removed* **		Have Had All Permanent	
	%	CI	%	CI	%	CI
All Adults	70	69-71	82	81-82	7	7-8
Male	67	64-69	83	81-84	6	6-7
Female	73	72-75	81	79-82	9	8-9
Age:						
18-29	68	63-73	98	96-99	1	0-1
30-44	71	69-74	94	92-95	2	1-3
45-64	74	72-76	80	78-82	6	6-7
65+	63	61-65	51	49-53	24	22-26
Education:						
<High School	51	46-57	59	54-65	21	18-25
High School	63	61-65	74	72-76	10	9-11
Some College	73	70-75	86	84-87	5	4-6
College Degree	81	79-83	93	92-94	3	2-4
Income:						
<\$15,000	46	41-51	57	53-62	19	16-23
\$15,000 to \$24,999	52	48-56	66	62-69	18	15-20
\$25,000 to \$49,999	66	63-69	79	77-81	7	6-8
\$50,000 to \$74,999	77	74-80	88	86-90	3	2-4
\$75,000+	85	83-87	94	93-95	1	1-2
Race:						
White, non-Hispanic	71	69-72	81	80-82	8	7-8
Black, non-Hispanic	60	54-66	81	77-85	7	5-9
Hispanic	70	61-78	90	85-94	4	2-7

*Excludes missing, don't know, and refused.

**Due to decay or gum disease.

#No respondents reported having all their teeth removed.

Veterans' Status

Those who served active duty in the United States Armed Forces:

- ◆ Twelve percent of Pennsylvania adults in 2008 responded “Yes” to the question, “Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit.”
- ◆ Men had a significantly higher percentage (24) compared to women (1 percent) for ever having served on active duty in the United States Armed Forces (either in the regular military or in a National Guard or military reserve unit).
- ◆ Adults in younger age groups had significantly lower percentages compared to adults in older age groups (ages 18-29, 3 percent; ages 30-44, 7 percent; ages 45-64, 14 percent; age 65+, 27 percent).
- ◆ Adults with less than a high school education had a significantly lower percentage (8) compared to adults with a high school diploma (13 percent).
- ◆ Significantly lower percentages of adults with household incomes of less than \$15,000 (11 percent) and greater than \$75,000 (10 percent) served on active duty in the United States Armed Forces (either in the regular military or in a National Guard or military reserve unit) compared to adults with household incomes of \$25,000-\$49,999 (16 percent). Adults with household incomes of \$50,000-\$74,999 had significantly higher percentages (14) compared to adults with household incomes greater than \$75,000.
- ◆ No significant difference was seen by race/ethnicity.

Adult men who served active duty in the United States Armed Forces:

- ◆ Twenty-four (24) percent of all Pennsylvania adult men responded that they have ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit.
- ◆ As age increased, each age group had a significantly higher percentage compared to younger age groups (ages 18-29 at 4 percent; ages 30-44 at 12 percent; ages 45-64 at 27 percent; and ages 65+ at 64 percent).
- ◆ Men with a high school education or higher had significantly higher percentages (high school, 27 percent; some college, 27 percent) compared to men with less than a high school education (16 percent).
- ◆ Men with household incomes greater than \$75,000 had a significantly lower percentage (18) compared to men at all lower income levels (<\$15,000, 27 percent; \$15,000-\$24,999, 28 percent; \$25,000-\$49,999, 30 percent; and \$55,000-\$74,999, 26 percent).
- ◆ No significant differences were seen by race/ethnicity.

Veterans' Status

Figure 22A: Percent Who Ever Served Active Duty in the United States Armed Forces (Regular Military, National Guard, or Military Reserve Unit), Pennsylvania Adults, 2003-2008

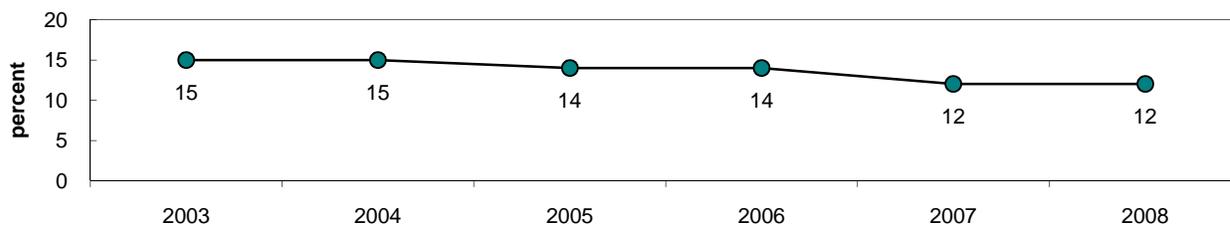


Figure 22B: Percent Who Ever Served Active Duty in the United States Armed Forces (Regular Military, National Guard, or Military Reserve Unit), Pennsylvania Males, by Age, 2008

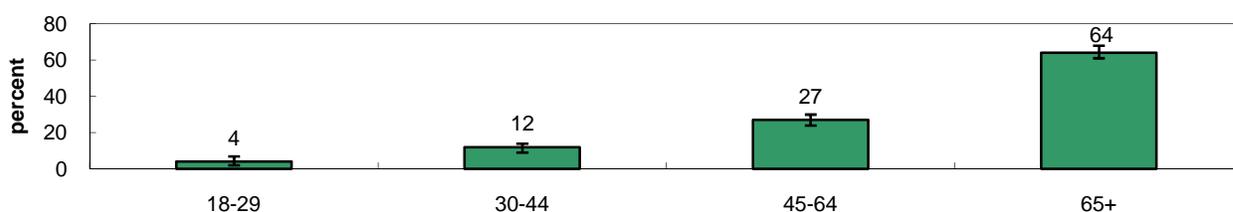


Table 22: Veterans' Status, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Served Active Duty In United States Armed Forces*		Males Served Active Duty in United States Armed Forces*	
	%	CI	%	CI
All Adults	12	12-13	24	24-26
Male	24	23-26	24	23-26
Female	1	1-2	NA	NA
Age:				
18-29	3	2-4	4	2-7
30-44	7	5-8	12	9-14
45-64	14	13-15	27	24-30
65+	27	25-29	64	61-68
Education:				
<High School	8	6-11	16	11-21
High School	13	12-15	27	24-30
Some College	13	11-15	27	23-31
College Degree	12	10-13	21	19-24
Income:				
<\$15,000	11	8-14	27	20-35
\$15,000 to \$24,999	13	11-16	28	23-34
\$25,000 to \$49,999	16	15-18	30	27-34
\$50,000 to \$74,999	14	12-17	26	22-31
\$75,000+	10	8-11	18	15-21
Race:				
White, non-Hispanic	13	12-14	26	24-28
Black, non-Hispanic	10	7-14	19	13-26
Hispanic	7	3-13	13	6-25

*Excludes missing, don't know, and refused.

Data not reported due to N<50 or deemed statistically unreliable (see "Technical Notes").

Note: "NA" indicates not applicable.

Emotional Support and Life Satisfaction

How often do you get the social and emotional support you need?

- ◆ In 2008, 49 percent of Pennsylvania adults answered “always;” 32 percent responded “usually;” 11 percent said “sometimes;” 3 percent indicated “rarely;” and 5 percent responded “never.”
- ◆ From the 2008 survey, 8 percent of adults responded that they rarely or never get the social and emotional support they needed.
- ◆ Adults age 65+, who indicated they rarely or never get the social and emotional support they need, had a significantly higher percentage (12) compared to adults ages 30-64 (ages 30-44, 6 percent; and ages 45-64, 7 percent).
- ◆ Pennsylvania adults with a high school diploma or less had significantly higher percentages (<high school, 14 percent; high school diploma, 11 percent) compared to adults with at least some college education (some college, 7 percent; and college degree 3 percent). Adults with a college degree had a significantly lower percentage compared to adults with only some college.
- ◆ Adults living in households with incomes less than \$25,000 had significantly higher percentages (<\$15,000, 18 percent; \$15,000-\$24,999, 13 percent) compared to adults with household incomes of \$50,000 or higher (\$50,000-\$74,999, 5 percent; \$75,000+, 3 percent). In addition, adults with a household income of \$25,000-\$49,999 had a significantly higher percentage (9) compared to adults living in households with an income of \$50,000 or more.
- ◆ No significant differences were seen by gender or race/ethnicity.

In general, how satisfied are you with your life?

- ◆ From the 2008 survey, 43 percent responded “very satisfied;” 51 percent said “satisfied;” 5 percent responded “dissatisfied;” and 1 percent said “very dissatisfied”.
- ◆ Ninety-four percent of Pennsylvania adults in 2008 responded that they were satisfied or very satisfied with their life.
- ◆ Adults ages 65 and older had a significantly higher percentage (96) compared to those ages 45-64 (93 percent).
- ◆ Pennsylvania adults with a college degree had a significantly higher percentage (96) compared to adults with a high school education or less (<high school, 90 percent; high school diploma, 93 percent).
- ◆ Adults living in households with incomes of \$75,000 or more had a significantly higher percentage (98) compared to adults with household incomes of less than \$50,000 (<\$15,000, 82 percent; \$15,000-\$24,999, 89 percent; and \$25,000-\$49,999, 94 percent). In addition, adults with household incomes of \$50,000-\$74,999 had a significantly higher percentage (96) compared to adults living in households with an income of less than \$25,000.
- ◆ No significant differences were seen by gender or race/ethnicity.

Emotional Support and Life Satisfaction

Figure 23A: Percent Satisfied or Very Satisfied With Their Life, Pennsylvania Adults, by Race and Education, 2008

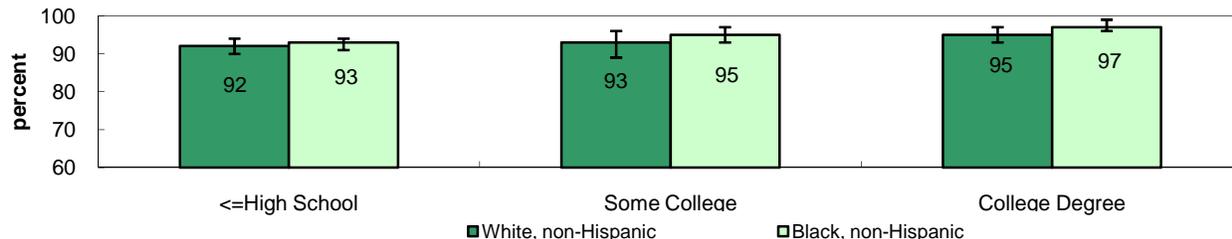


Figure 23B: Percent Rarely or Never Get the Emotional Support They Need Pennsylvania Adults, by Gender and Education, 2008

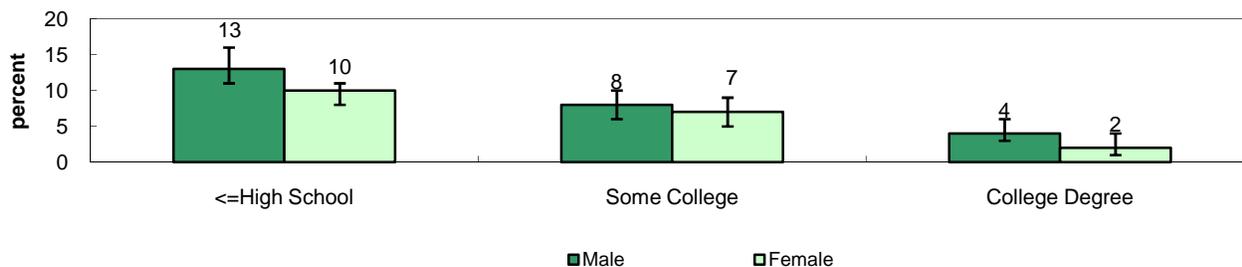


TABLE 23: Emotional Support and Life Satisfaction, Pennsylvania Adults, 2008 (with 95% confidence intervals)

	Rarely or Never Get the Emotional Support They Need*		Satisfied or Very Satisfied With Their Life*	
	%	CI	%	CI
All Adults	8	7-9	94	93-95
Males	9	8-10	93	92-95
Females	7	6-8	95	94-95
Age:				
18-29	8	5-11	94	91-96
30-44	6	5-7	94	92-95
45-64	7	6-9	93	92-94
65+	12	10-13	96	95-96
Education:				
<High School	14	10-18	90	87-93
High School	11	9-12	93	92-94
Some College	7	6-9	94	92-95
College Degree	3	3-4	96	95-97
Income:				
<\$15,000	18	14-21	82	79-85
\$15,000 to \$24,999	13	11-16	89	86-92
\$25,000 to \$49,999	9	7-11	94	92-95
\$50,000 to \$74,999	5	4-6	96	94-98
\$75,000+	3	2-5	98	97-99
Race:				
White, non-Hispanic	7	6-8	94	94-95
Black, non-Hispanic	10	7-13	90	85-93
Hispanic	13	7-23	93	88-96

*Excludes missing, don't know, and refused.

**Year 2010 Health Objectives for the Nation:
Pennsylvania State Summary of BRFSS Data, 2008**

Healthy People 2010 Objective ¹	Year 2010 Objective	Pennsylvania 2008	Objective Met ²
01-01: Percent of adults aged 18-64 with health insurance (age-adjusted to 2000 std population)	100%	86 ± 1	No
01-04c: Percent of adults with specific source of ongoing care (age-adjusted to 2000 std population)	96%	89 ± 1	No
03-11a: Percent of women aged 18+ who have ever received a Pap test (age-adjusted to 2000 std population)	97%	94 ± 1	No
03-11b: Percent of women aged 18+ who received a Pap test within past 3 years (age-adjusted to 2000 std population)	90%	82 ± 2	No
03-12a: Percent of adults aged 50+ who received a fecal occult blood test (FOBT) for colorectal cancer within the past 2 years (age-adjusted to 2000 std population)	50%	19 ± 1	No
03-12b: Percent of adults aged 50+ who ever received a sigmoidoscopy for colorectal cancer (age-adjusted to 2000 std population)	50%	63 ± 2	Yes ⁺
03-13: Percent of women aged 40+ with a mammogram in last 2 years (age-adjusted to 2000 std population)	70%	76 ± 2	Yes ⁺
05-01: Percent of adults diagnosed with diabetes who have attended a class in managing their diabetes (age-adjusted to 2000 std population)	60%	62 ± 8	Yes ⁺
05-03: Rate of adults diagnosed with diabetes (age-adjusted rate per 1,000 18+)	25	79 ± 6	No
05-12: Percent of adults with diabetes who have a glycosylated hemoglobin measurement at least once a year (age-adjusted to 2000 std population)	50%	73 ± 8	Yes ⁺
05-13: Percent of adults with diabetes who have an annual dilated eye examination (age-adjusted to 2000 std population)	75%	61 ± 9	No
05-14: Percent of adults with diabetes who have an annual foot examination (age-adjusted to 2000 std population)	75%	75 ± 8	Yes
05-17: Percent of adults with diabetes who perform self-blood-glucose-monitoring at least once daily (age-adjusted to 2000 std population)	60%	55 ± 8	Yes
06-06: Percent of adults who are limited in any way in any activities because of physical, mental, or emotional problems who are satisfied with life (age-adjusted to 2000 std population)	97%	85± 3	No
07-01: Percent of adults ages 18-24 who completed high school	90%	87 ± 5	Yes
14-29a: Percent of adults 65+ with flu shot in past year (age-adjusted to 2000 std population)	90%	71 ± 2	No
14-29b: Percent of adults 65+ ever vaccinated against pneumococcal disease (age-adjusted to 2000 std population)	90%	70 ± 2	No
14-29c: Percent of adults ages 18-64 with flu shot in the past year (age-adjusted to 2000 std population)	60%	29 ± 2	No

**Year 2010 Health Objectives for the Nation:
Pennsylvania State Summary of BRFSS Data, 2008**

Healthy People 2010 Objective ¹	Year 2010 Objective	Pennsylvania 2008	Objective Met ²
14-29d: Percent of adults ages 18-64 who ever had a vaccination against pneumococcal disease (age-adjusted to 2000 std population)	60%	14 ± 1	No
15-19: Percent of adults using safety belts (age-adjusted to 2000 std population)	92%	75 ± 1	No
19-01: Percent of adults with a healthy weight (age 20+) (age-adjusted to 2000 std population)	60%	34 ± 2	No
19-02: Percent of obese adults (age 20+) (age-adjusted to 2000 std population)	15%	29 ± 1	No
21-03: Percent of adults (aged 35-44) who have no permanent tooth extraction due to dental caries or periodontal disease	42%	62 ± 3	Yes ⁺
21-10: Percent of adults who have visited a dentist in the past year (age-adjusted to 2000 std population)	56%	70 ± 1	Yes ⁺
22-01: Percent of adults who engage in no leisure-time physical activity (age-adjusted to 2000 std population)	20%	25 ± 1	No
26-11c: Percent of adults who engaged in binge drinking³ in the past month	6%	17 ± 1	No
26-13a: Percent of adult females who exceed guidelines for low-risk drinking⁴	50%	14 ± 1	Yes ⁺
26-13b: Percent of adult males who exceed guidelines for low-risk drinking⁵	50%	26 ± 2	Yes ⁺
27-01a: Percent of adults who smoke cigarettes (age-adjusted to 2000 std population)	12%	22 ± 1	No
27-01b: Percent of adults who use smokeless (spit) tobacco (age-adjusted to 2000 population)	0.4%	4 ± 1	No
27-05: Percent of adults who attempted to quit smoking for one day or longer in past year (age-adjusted to 2000 std population)	75%	59 ± 3	No

- 1 Public Health Service. Healthy People 2010: National Health Promotion and Disease Prevention Objectives. Washington, DC: U.S. Department of Health and Human Services, 2000.
- 2 The "Yes⁺" designation refers to Pennsylvania's 2007 percentage being significantly better compared to the Healthy People 2010 goal percentage.
- 3 Binge drinking is defined as men drinking 5+ drinks or women drinking 4+ drinks on one occasion in the past month.
- 4 Low-risk drinking for females is defined as 8+ drinks per week or 4+ drinks per occasion.
- 5 Low-risk drinking for males is defined as 15+ drinks per week or 5+ drinks per occasion.

Technical Notes

Survey Management

The Behavioral Risk Factor Surveillance System (BRFSS) is a cooperative effort of the Centers for Disease Control and Prevention (CDC) and participating states. The CDC develops the core questionnaire and provides training, technical assistance, standardized data analyses and funding. The Pennsylvania Department of Health develops supplemental questions (or modules), facilitates the Pennsylvania BRFSS Local Sampling Program, performs analyses and responds to requests for data. Sampling and interviewing in 2008 were done by Clearwater Research, Incorporated which was selected by competitive bid.

Sample Selection

Respondents were selected using a two-stage random digit dialing sample design. In the first selection stage, a disproportionate stratified sample of telephone numbers was selected from two telephone number strata. One stratum consists of listed Pennsylvania residential telephone numbers. The other stratum consists of blocks of telephone numbers, known to include one or more residential telephone numbers. Both strata's telephone numbers begin with area codes and exchange prefixes specific to Pennsylvania. Cell phone numbers are not included in the BRFSS sample selection.

Under the disproportionate stratified sample design, the sample of Pennsylvania telephone numbers that is divided into the two strata described in the previous paragraph are selected based on the estimated probability that the phone number is attached to a housing unit. A larger proportion of the sample is selected from the strata of listed telephone numbers known to be connected to residential households.

In the first stage of sampling, the selected telephone numbers were called to determine if they were residential telephone numbers. Nonresidential telephone numbers were discarded from the sample. Residential numbers were subjected to the second stage of sampling wherein an adult was randomly selected as the respondent from a list of adults residing in the household. The person who answers the telephone generates this list.

Questionnaire

The survey questionnaire for the statewide survey of Pennsylvania consists of a standardized core, state-selected modules, and state-added questions. The CDC developed the core questionnaire with recommendations from all participating jurisdictions. Most of the core questions had been used during the 2007 BRFSS survey. All items new to the 2008 survey were field-tested.

Questions of interest to Pennsylvania were added as the state supplement to the core questionnaire. State-added modules and questions concerned diabetes, gambling, injury prevention, osteoporosis, tobacco use, flu shots, childhood asthma prevalence, sun protection, HIV/AIDS, general preparedness and oral health.

Response Rates

Interviews were conducted in the evenings and on weekends in order to reach people when they were more likely to be at home, as well as during the day. At least 15 calls were placed at different times of the day and night during different days of the week before any sample number was classified as "no answer."

Interviewers who were experienced in converting refusals to completed interviews re-contacted people who refused to participate in the survey.

The outcome of all telephone calls is shown on the following page. This report was prepared using data from 13,252 completed interviews. The CASRO response rate for 2008 was 46 percent.

**Disposition of All Telephone Numbers
2008 Pennsylvania Behavioral Risk Factor Survey Sample**

<u>Disposition Code</u>	<u>Number</u>	<u>Percent</u>
Interview		
Complete	12,673	15.2
Partial Complete	579	0.69
Eligible, Non-Interview		
Termination within questionnaire	1,207	1.45
Refusal after respondent selection	4,791	5.71
Selected respondent never reached or was reached but did not begin interview during interviewing period	1,180	1.42
Selected respondent away from residence during the entire interviewing period	1,384	1.66
Language problem after respondent selection	138	0.17
Selected respondent physically or mentally unable to complete an interview during the entire interviewing period	897	1.08
Hang up or termination after number of adults recorded but before respondent selection	154	0.18
Household contact after number of adults recorded but before respondent selection	8	0.01
Unknown Eligibility, Non-Interview		
Household members away from residence during entire interviewing period	301	0.36
Hang-up or termination, housing unit, unknown if eligible respondent	1,898	2.28
Household contact, eligibility undetermined	208	0.25
Language problem before respondent selection	422	0.51
Physical or mental impairment before respondent selection	357	0.43
Hang-up or termination, unknown if private residence	14,428	17.31
Contact, unknown if private residence	1,552	1.86
Telephone answering device, message confirms private residential status	1,693	2.03
Telecommunication technological barrier, message confirms private residential status	46	0.06
Telephone answering device, not sure if private residence	5,129	6.15
Telecommunication technological barrier, not sure if private residence	46	0.06
Telephone number is no longer in service or has been changed	1,253	1.50
No answer	8,010	9.61
Busy	750	0.9
Not Eligible		
Out-of-state	12	0.01
Household, no eligible respondent	32	0.04
Not a private residence	10,537	12.64
Dedicated fax/data/modem line with no human contact	4,901	5.88
Cellular Phone	483	0.58
Fast busy	1,356	1.63
Non-working/disconnected number	6,947	8.34
Total	83,342	

Sample Characteristics

The following table compares the final interview sample for the 2008 BRFSS to the 2007 Population estimates for the adult population of Pennsylvania. The weighted sample counts represent estimates of the total adult population by sex, race, Hispanic origin and age.

**Distribution of 2008 Pennsylvania BRFSS Survey Sample and
2007 Pennsylvania Adult Population Estimates For Selected Characteristics**

		2008 BRFSS Survey Sample		2007 Population Estimates	
		Number	Percent	Number	Percent
All Adults		13,172	100.00	9,590,579	100.00
Sex	Male	4,778	36.27	4,587,452	47.83
	Female	8,394	63.73	5,003,127	52.17
Race	White	11,025	83.70	8,348,586	87.05
	Black	1,388	10.54	942,024	9.82
	Other	447	3.39	299,969	3.13
	Unknown/Refused	311	2.36	NA	NA
Hispanic Origin	Yes	247	1.88	355,801	3.71
	No	12,848	97.54	9,234,778	96.29
	Unknown/Refused	77	0.58	NA	NA
Age	18-29	955	7.25	1,996,235	20.81
	30-44	2,584	19.62	2,451,390	25.56
	45-64	5,387	40.90	3,253,268	33.92
	65+	4,124	31.31	1,889,686	19.70
	Unknown/Refused	122	0.93	NA	NA

Note¹: Race data include Hispanics.

Note²: Population estimates allocate unknowns so they are included in demographic categories. This is further indicated by the use of “NA” or not applicable for the 2007 population estimate “Unknown/Refused” entries.

Determining Accuracy of the Estimates and Significance Using Confidence Intervals

Tables included in this report show the 95 percent confidence intervals associated with all reported percentages. They appear in the table columns labeled (CI).

Confidence intervals are a way to measure sampling error and define the range of values where percentages estimated by multiple samples of the same population would be found (95 percent of the time). The size of the confidence interval is directly related to the sample taken or the probability of selection and characteristics of the people surveyed within the universe being sampled. In addition, percentages for two different subgroups of the population can be determined to be significantly different if their confidence intervals or ranges do not overlap.

Confidence intervals were calculated using SUDAAN, a software package developed by the Research Triangle Institute, that properly estimates sample variances for complex sample designs.

Percentages were not calculated and shown for subgroups of the population when their sample size was less than 50 or when the portion of the sample being represented was of size greater than or equal to 50 (with the calculated percentage deemed to be statistically unreliable). The method used to determine the reliability of percentages calculated from sample sizes of 50 or more consisted of a comparison of the relative standard error of the calculated percentage with the relative standard error of the same percentage outcome for a simple random sample. If the relative standard error for the percentage being tested was smaller than the relative standard error of the same percentage outcome for the simple random sample, then the calculated percentage was considered reliable.

Data Adjustment

The data were adjusted, or weighted, to correspond to estimated age and sex distribution of the population for Pennsylvania in 2007. Because people living in households with more than one telephone or more than one adult had differing probabilities of being selected, the responses were also adjusted to reflect the number of different telephone numbers per household and the number of adults residing in the household. All of the percentages reported here were calculated with weighted data and should be representative of the adult population of Pennsylvania. It should be noted that the percentages might not add to 100, due to rounding. When calculating the percentages of prevalence for each health topic in this report, responses of “Don’t know/Not sure” and “Refused” were removed from the denominators. This is to reflect a more accurately estimated presentation of prevalence for the topics within Pennsylvania’s population. Those responses, which were removed from the denominator, tend to dilute the prevalence percentages and don’t contribute to their further understanding.

Out of the 13,172 records included in the data analysis, 122 records did not contain information on age. To avoid discarding records with age values that were unknown or refused, the mean age of all respondents in the same sex and race group was used to weight the records with unknown age for the analysis conducted by the CDC.

Data Comparison To Other Sources

Please note that different sources of behavioral risk factor surveillance system data for Pennsylvania may display percentages that are different from those displayed in this report. Other sources may use additional available data, such as the Department’s interactive web tool Epidemiological Querying and Mapping System (EpiQMS) which uses data from the Pennsylvania Behavioral Risk Factor Surveillance System (BRFSS) Local Sampling Program in conjunction with the Pennsylvania BRFSS statewide sample. This report only uses the statewide sample to compute percentages. Also, other sources may include or exclude data from the denominator data used to calculate percentages. For example, the exclusion or inclusion of “Don’t Know/Not Sure” or “Refused” responses could potentially effect the final response percentage calculation.

If you have any questions about these differences, please contact the Bureau of Health Statistics and Research by phone at 717-783-2548 or by mail at 555 Walnut Street, 6th Floor, Harrisburg, PA 17101-1914.

Synthetic Estimation Process for Local Data

The BRFSS is an ongoing telephone survey consisting of interviews conducted each month. In 2008, the sample dataset includes 13,172 surveys, 5,985 of which were from over-samples in Fayette, Luzerne, Tioga and Philadelphia Counties for the *Steps to a Healthier Pennsylvania* and *Steps to a Healthier Philadelphia* programs, funded by the Centers for Disease Control and Prevention.

On the state level, data from the BRFSS serve several purposes. BRFSS data help to identify subgroups, which should be targeted for health promotion and disease prevention programs due to elevated risks. Multiple years of BRFSS data are useful for tracking Pennsylvania's progress in achieving selected Healthy People 2010 National Health Objectives. Data from Pennsylvania, when compared to similar data from other states, identifies the need for increased health promotion and disease prevention program efforts. In 2008, comparable data were available from all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and Guam.

On the local level, BRFSS data may also be used to estimate the prevalence of risks in local areas such as counties, if the data are combined for several years or the counties or county groups of interest are over-sampled. However, for most counties, the number of respondents in the BRFSS sample data set is insufficient to produce reliable estimates.

In cases where local data on behavioral risk are not available, synthetic estimates can be computed based on either national data or statewide data from the BRFSS. Synthetic estimates are calculated using population estimates for subgroups of interest and the state or national risk factor prevalence rates for those groups. Below is an example of how one can compute synthetic estimates for a local area:

Step 1

Obtain the population estimates for the local geographic area of interest. Sum the population estimates into a table having the same breakdown as a table listing the national or state estimates (see the table below).

Step 2

To estimate the number of persons who have the behavioral risk in each subgroup, multiply the subgroup-specific rates by the population estimates for each group. For example, multiply the 2007 (latest available) Dauphin County census population of 36,320 for ages 18-29 by the 2008 fair or poor health prevalence of 8 percent (0.08) for that age group at the state level. The 2008 synthetic estimate for those in fair or poor health ages 18-29 in Dauphin County is 2,906.

Step 3

To obtain the total number of persons who indicated fair or poor health, repeat Step 2 for all subgroups and then sum the subgroup estimates to get a total estimate.

Age Group	2007 Dauphin County Census Population		Fair or Poor Health from 2008 Pa. BRFSS	=	Estimate of Dauphin County Adults Indicating Fair or Poor Health, 2008
18-29	36,320	x	8 %	=	2,906
30-44	52,408	x	12 %	=	6,289
45-64	71,275	x	18 %	=	12,830
65+	34,951	x	28 %	=	9,786
					Total 31,810

Caution: Synthetic estimates can be useful for planning purposes. However, these estimates should not be used if there is reason to believe that local rates for subgroups of interest would diverge widely from the state or national rates. The prevalence of most health-related conditions varies considerably with age, and often with other factors such as sex, race and income. A more precise estimate may be obtained using age, sex and race-specific prevalence rates. The BRFSS is not a reliable source of prevalence rates specific to age-sex-race categories; national data would be a more reliable basis for synthetic estimates.

It is important to qualify estimates whenever they are used. A clear citation of the sources of the data used to compute the local area synthetic estimates should be included in every report of the estimates.

Step 4

To calculate the synthetic estimated percentage of Dauphin County adults with fair or poor health, pull the “Total Estimated Number of Adults” and the “Total Population Age 18+” in Dauphin County from “Step 3.”

Total Synthetically Estimated Number of Adults With Fair or Poor Health in Dauphin County = **31,810**

Total Population Age 18+ in Dauphin County = **194,954**

Divide the synthetically estimated number of adults with fair or poor health by the adult population. Then multiply by 100 so that the result will be expressed as a percent.

$$\text{Synthetically Estimated Percentage With Fair or Poor Health in Dauphin County} = \frac{\text{Total Synthetically Estimated Number of Adults With Fair or Poor Health in Dauphin County}}{\text{Total Population Age 18+ in Dauphin County}} \times 100$$

$$\text{Synthetically Estimated Percentage With Fair or Poor Health in Dauphin County} = (31,810 / 194,954) \times 100$$

$$\text{Synthetically Estimated Percentage With Fair or Poor Health in Dauphin County} = \mathbf{16 \text{ Percent}}$$

This step gives you a synthetically estimated percentage of adults.

Caution: Synthetic estimates can be useful for planning purposes. However, these estimates should not be used if there is reason to believe that local rates for subgroups of interest would diverge widely from the state or national rates. The prevalence of most health-related conditions varies considerably with age, and often with other factors such as sex, race, and income. A more precise estimate may be obtained using age, sex and race-specific prevalence rates. The BRFSS is not a reliable source of prevalence rates specific to age-sex-race categories; national data would be a more reliable basis for synthetic estimates.

It is important to qualify estimates whenever they are used. A clear citation of the sources of the data used to compute the local-area synthetic estimates should be included in every report of the estimates.

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