

STATISTICAL NEWS

Pennsylvania Department of Health ♦ Bureau of Health Statistics ♦ Vol. 24 No. 5 ♦ September 2001

Overweight & Obesity By Sex & Race Reviewed

*Higher Prevalence Measured
Among Males and Black Females*

Among Pennsylvania adults, there are higher prevalences of overweight and/or obesity among males and black females. This was confirmed in an examination of five years (1995-1999) of combined data from the annual sample telephone surveys of Pennsylvania adults, conducted via the state's Behavioral Risk Factor Surveillance System (BRFSS).

For many of the behavioral risk factors that we regularly look at in the BRFSS, the five-year sample confirms the relationships that are sometimes suggested from the highly variable estimates we obtain in the annual BRFSS sample. One such example is the proportion of overweight adult Pennsylvanians.

That blacks may be more likely to be overweight has been suggested in a number of single years of BRFSS data; however, the sample errors were usually too large to assure the differences were valid. That males may be more likely to be overweight than females has also been suggested by the annual data. Examining five years of combined data, we find that the distribution of

It appears that a lot of Pennsylvania adults have a weight problem, with more males being overweight but black females having the highest prevalence of obesity.

overweight and obesity by race and sex is more complicated than it appears in the annual data.

Statistical sampling provides a method of acquiring information about large populations that otherwise would be cost-prohibitive to obtain. We are able to use sample data like the BRFSS because we can measure the sampling error associated with the survey results. Being able to calculate the sample error associated with the estimates permits valid comparison and interpretation of the sample estimates.

We often want information for subgroups of the larger population such as an age or race group. Often these groups comprise too small a fraction of the sample to allow useful estimates or analysis. Unfor-

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Efforts to Prevent Heart Disease/Stroke Reviewed

*Aspirin and Estrogen Therapies
Show Increased Use by Residents*

Pennsylvania adults aged 35 and older have some difficulty adhering to heart healthy behaviors, according to data collected by the Pennsylvania Department of Health. However, the use of some low-dose aspirin and estrogen replacement therapies to prevent cardiovascular disease are on the increase among adult residents.

In 1999, nearly 4 out of 10 deaths to Pennsylvanians were attributable to heart disease or stroke. For Pennsylvania and the nation, heart disease and stroke are the first and third leading causes of death, respectively. Preventing or postponing heart disease and stroke (cardiovascular diseases) is largely a matter of life-style choices. The risk for cardiovascular disease (CVD) increases with age, but a healthy diet, regular physical activity, and maintaining a healthy weight have been shown to reduce this risk. Smoking cigarettes sharply increases the risk of cardiovascular disease.

As can be seen from the statewide sample survey data collected in 2000 via the Behavioral Risk Factor Surveillance System (BRFSS) and

In 1999, nearly 4 out of 10 deaths to Pennsylvanians were attributable to heart disease or stroke.

shown in the data table on page 5, Pennsylvanians 35 years of age and older have some difficulty adhering to heart healthy behaviors.

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Updated Reports Available in Print/Web Site

State/County Data for HP2010 Objectives to Be Added to Web Site Soon

On the right is a list of health statistics reports updated by the Bureau of Health Statistics that have been recently either added to our web site or made available in print (hard copy). Please note that most of our reports appear on our web site weeks or months before they are available in print.

All of these reports on the web are in PDF file format which requires Adobe Acrobat Reader software to view and download. This free software can be downloaded from the Internet and we provide links to do that on our web pages.

We also expect to have a new major addition to our web site by the end of the year on the Healthy People 2010 objectives. This new site will contain data (both current and historical) for the state and counties on the 28 different health focus areas as defined by HP2010. Much of the state data will also include figures broken down by race, sex, Hispanic origin, and age, as well as several other demographic features. Users will be able to view/download data in either PDF file or Excel spreadsheet file formats.

The Department has initiated use of a very user-friendly software that allows staff to easily update current web pages and create new web pages. Since staff of the Bureau of Health Statistics are now responsible for web changes, we hope to provide our users with more data on a more timely basis and in a more user-friendly format.

Recently updated reports now available...

on Web Site:

2001 County Health Profiles

Cancer Facts and Figures 2001

An Analysis of Cancer Incidence in PA Counties 1994-1998

Female Breast Cancer in PA

Lung Cancer in PA

Colorectal Cancer in PA

Prostate Cancer in PA

Cervical Cancer in PA

Melanoma of the Skin in PA

Hospital and Ambulatory Surgery Center Directory

Hospital and Ambulatory Surgery Center Standard Output Reports 1999/2000 and 1998/1999

Nursing Home Directory

Nursing Home Standard Output Reports 1999

in Print:

2001 County Health Profiles
(complete booklet only)

An Analysis of Cancer Incidence in PA Counties 1994-1998

PA Cancer Incidence and Mortality 1994-1998

Pocket Guide of PA and County Health Statistics 2001 Edition

NOTE: All reports available in print (except the *Pocket Guide*) can be viewed or downloaded from our web pages usually weeks or months before print copies are available. Go to www.health.state.pa.us/stats/

Please go to our main web page at www.health.state.pa.us/stats/ to access these reports and many other reports and data, as well as to find links to other health-related data sites and to use our interactive site, the Data Table Generator.

Please contact the Bureau of Health Statistics at 717-783-2548 (FAX 717-772-3258) if you would like hard copies of the reports listed here.

There is also an interactive form, *Order Form for Statistical Publications*, on our

web page that you can fill out on-line and then e-mail to us directly. You can use this on-line form to get on our lists to receive future copies of some reports via e-mail or to receive e-mail notices that a report has been updated on the web site.

PA Hospitals Ranked by Number of Live Births

Magee Women's, Abington, and Pennsylvania Hospitals Top the List

Almost five percent of all the live births that occurred in Pennsylvania during 1999 were delivered at Magee Women's Hospital in Pittsburgh. Two other hospitals in the Philadelphia area (Abington Memorial and Pennsylvania Hospital) accounted for approximately three percent each.

The number of live births that occurred in Pennsylvania hospitals during 1999 was 145,922. Of these live births, 142,606 or 97.7 percent were delivered in hospitals; 2,319 or 1.6 percent were births delivered at sites other than a hospital or birthing center, which included, but was not limited to, home births; and 997 or 0.7 percent were delivered in licensed birthing centers.

Of the 161 hospitals that reported live birth deliveries, 50 had 1,000 or more births; 42 had between 500 and 999 births; and 69 had less than 500 births.

As previously mentioned, Magee Women's Hospital in Pittsburgh had the highest number and percentage of births – 6,793 or 4.7 percent of the total number of births occurring in Pennsylvania. Abington Memorial Hospital in Montgomery County had the second highest number – 4,347 or 3.0 percent of all deliveries. Pennsylvania Hospital in Philadelphia had the third highest number – 4,014 or 2.8 percent.

Magee was the only hospital in the western part of the state to place in the top ten. Lehigh Valley Hospital had the fourth highest number/percent, followed by the Hospital of the University of Pennsylvania.

A table listing the 25 hospitals in Pennsylvania that delivered 1,500 or more live births in 1999 is shown below. Please note that these live birth figures are occurrences and, therefore, include births

to both residents and nonresidents. A listing of the number of live births occurring in every hospital in Pennsylvania for 1999 is available from the Bureau of Health Statistics upon request.

If you have any questions or would like additional information, please contact us at 717-783-2548 or visit our web pages at www.health.state.pa/stats/.

Live Births by Hospital of Occurrence Number and Percent, Pennsylvania, 1999

	<u>Number</u>	<u>Percent*</u>
State Total	145,922	100.0
Magee Women's Hospital	6,793	4.7
Abington Memorial Hospital	4,347	3.0
Pennsylvania Hospital	4,014	2.8
Lehigh Valley Hospital	3,395	2.3
Hospital of the University of PA	3,225	2.2
Pinnacle Health Hospitals	3,170	2.2
Reading Hospital & Medical Center	2,944	2.0
York Hospital	2,832	1.9
Lancaster General Hospital	2,826	1.9
St. Luke's Hospital - Bethlehem	2,574	1.8
Frankford Hospital	2,189	1.5
Temple University Hospital	2,163	1.5
Thomas Jefferson University Hospital	2,155	1.5
Western Pennsylvania Hospital	2,118	1.4
Chester County Hospital	2,102	1.4
Crozer-Chester Medical Center	2,064	1.4
Main Line Hospital Inc., Bryn Mawr	2,037	1.4
Albert Einstein Medical Center	1,890	1.3
Allegheny General Hospital	1,853	1.3
Saint Vincent Health Center	1,831	1.2
Main Line Hospital Inc., Lankenau	1,712	1.2
Nesbitt Memorial Hospital	1,664	1.1
City Avenue Hospital	1,636	1.1
St. Clair Memorial Hospital	1,541	1.1
Community Medical Center	1,506	1.0

* Percent of total live births occurring in Pennsylvania during 1999 to residents and non-residents.

Efforts to Prevent Heart Disease/Stroke Reviewed

The proportion of Pennsylvanians aged 35 and over exhibiting these behaviors has been rather constant over the past few years. Most of the 2000 BRFSS prevalence estimates for these behaviors are essentially identical to the 1998 estimates. Only "Regular and Sustained Exercise" (exercising for 30 minutes a day, 5 or more days a week, regardless of intensity) exhibited a statistically significant change since 1998. Regular and sustained exercise increased from 16.4% [with a 95% confidence interval (CI) of 14.8-18%] in 1998 to the 21.3% identified in the 2000 BRFSS survey.

There are two other CVD preventative strategies that have been widely discussed as possible *primary* and *secondary prevention* for heart disease and stroke. These two strategies are low-dose aspirin and estrogen replacement therapies. *Primary prevention* is the use of a therapy by healthy persons to avoid the first adverse health event. *Secondary prevention* employs the therapy to try to prevent recurrence of the adverse health event.

The risk for cardiovascular disease increases with age but a healthy diet, regular physical activity, and maintaining a healthy weight have been shown to reduce this risk.

Between 1998 and 2000...the use of aspirin therapy to reduce the risk of heart attack or stroke... rose from 22.4%... to 28.5%...

Low Dose Aspirin Therapy-

Since the late 1980s, when information from the *Physicians' Health Study* (Engl J Med 1989;321:129-35) regarding aspirin and heart attack became available, there has been widespread interest in aspirin as preventive therapy for cardiovascular disease. The American Heart Association (AHA) recommends aspirin as a secondary prevention for patients who have experienced a heart attack or ischemic stroke and as a consideration for all patients with cardiovascular disease. The AHA feels that the use of aspirin in primary prevention should be made by a physician on an individual basis (go to http://www.americanheart.org/Heart_and_Stroke_A_Z_Guide/aspirin.html).

The AHA cautions that aspirin use is not without its own risks which must be ruled out prior to regular aspirin therapy. In 1998, the American Diabetes Association recommended that low-dose aspirin therapy as both primary and secondary prevention for all diabetics who have no adverse indications for aspirin (go to <http://www.diabetes.org/diabetescare/supplement198/S45.htm>). The 2000

BRFSS survey results indicated that 57% (CI 49-66%) of diabetics aged 35 or older engaged in aspirin therapy as either primary or secondary prevention.

Between 1998 and 2000, when specific questions related to cardiovascular disease were asked on the annual BRFSS surveys, the reported use of aspirin therapy to reduce the risk of heart attack or stroke among persons age 35 and older rose from 22.4% (CI 20.4-26.4%) in 1998 to 28.5% (CI 26.4-30.6%) in 2000.

This increase is due to persons 35 and older using aspirin therapy as primary prevention for having a first heart attack or stroke. Although the proportion of persons with cardiovascular disease using aspirin as secondary prevention is substantial (79.0%, CI 73.0-85.0% in 2000), the increase in secondary prevention was insignificant ($p=.132$) while the increase of aspirin therapy in primary prevention rose from 16.1% (CI 14.7-17.5%) in 1998 to 21.9% (CI 19.9-23.9%) in 2000 ($p<.001$). (See Chart 1 on the opposite page.).

Estrogen Replacement Therapy (ERT) -

Over the past two decades, numerous observational studies have suggested that estrogen replacement might reduce the risk of death from heart disease. Unfortunately, estrogen replacement carries its own risks. For women who have gone through menopause, taking estrogen to help prevent chronic disease must be weighed against increasing the risk of venous

embolism or thrombosis, gallbladder disease, and suspected breast cancer risk. The large-scale randomized clinical trials that have thus far been conducted do not seem to validate the protective benefits of ERT. Recently the American Heart Association has altered its position on estrogen replacement and Hormone Replacement Therapy (HRT), which includes ERT. The recommendations issued this summer by the AHA include that "...*HRT should not be initiated for the secondary prevention of CVD... (and)... There are insufficient data to suggest that HRT should be initiated for the sole purpose of primary prevention of CVD.*" (Go to http://www.americanheart.org/Heart_and_Stroke_A_Z_Guide/estrogen.html.)

Among women who had gone through, or were going through, menopause, 21.7% (CI 19.0-24.4%) were currently taking estrogen pills in 2000 and 38.3% (CI 35.1-41.6%) had at some time been prescribed estrogen pills. There appears to be no change in the use of estrogen replacement therapy. These prevalence estimates are statistically identical to what they were on the 1998 BRFSS. However, there has been some change between 1998 and 2000 in the reasons women gave for taking estrogen.

The most prevalent reason postmenopausal women gave for taking estrogen was to reduce the effects of menopause (see Chart 2 on opposite page).

Continued on next page...

**Heart Healthy Behaviors Among Residents Aged 35+
Pennsylvania Behavioral Risk Factor Surveillance System (BRFSS), 2000**

	Lower 95% Bound	Percent Prevalence	Upper 95% Bound
Regular Exercise (30 min. 5 times a week)	19.4%	21.3%	23.0%
Healthy Weight (BMI < 25)	35.5%	37.6%	39.8%
5 servings of fruits or vegetables daily	22.9%	24.7%	26.5%
Non-Smoker	77.3%	79.0%	80.7%

Chart 1
Percent Use of Aspirin Therapy for Primary and Secondary Prevention of Heart Disease/Stroke Pennsylvania Adults Aged 35+, 1998 and 2000

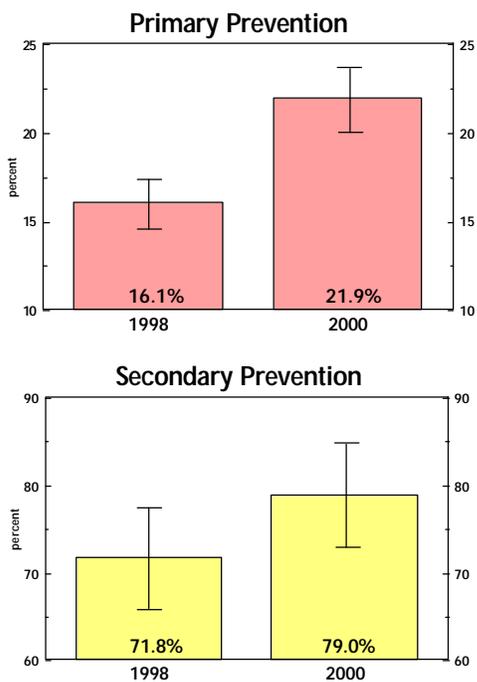
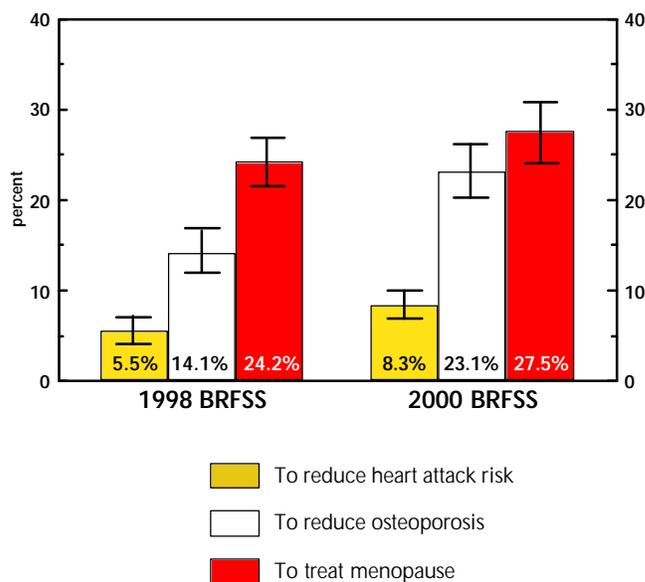


Chart 2
Percent Reasons for Taking Estrogen Pennsylvania Women*, 1998 and 2000



*who have gone through or are currently going through menopause

Continued from opposite page...

Efforts to Prevent...

This use of estrogen to treat menopause hasn't changed significantly since 1998.

Estrogen therapy to reduce osteoporosis has sharply increased since 1998. This should not be surprising as there has been an increasing awareness of osteoporosis. In the 2000 BRFSS survey, 52% (CI 49-55%) of postmenopausal women reported that their doc-

tor had counseled them about osteoporosis. Among these women, 32% (CI 28-36%) reported that they were taking or had taken estrogen for osteoporosis.

From 1998 to 2000, there has been a modest but statistically significant ($P < .02$) increase in the use of estrogen to reduce heart attack risk. Nonetheless, the proportion of

women taking estrogen to reduce heart disease risk remains small. In the wake of recent studies regarding estrogen and heart disease and the new recommendations of the American Heart Association, the use of estrogen replacement therapy to reduce heart disease will likely decline.

If you have any questions about the data presented here or the Behavioral Risk Factor Surveillance System (BRFSS), please contact the Bureau of Health Statistics at 717-783-2548.

From 1998 to 2000, there has been a modest but statistically significant increase in the use of estrogen to reduce heart attack risk. (However, recent studies have questioned the benefits of ERT and its use in the future)... will likely decline.

Overweight and Obesity

tunately, to acquire information at the same level of reliability as for the larger population, it would cost the same amount to conduct a sample survey of the subpopulation.

One group that we often want better information on is African-Americans. Lacking the resources to obtain a larger annual sample of black Pennsylvanians, we can combine data from several survey years in order to acquire a sufficient sample to assess the validity of sample estimates. The approach is limited by the number of years in which a particular question is asked and how many years back in time one is willing to use to estimate what is of interest.

It must be kept in mind that this new sample comprises five years. Long term trends in the data will tend to mute the five-year estimates. If a particular prevalence is rising or falling, the five-year prevalence estimate will be somewhat lower or higher since it is an average of the five years of data. Despite this, the multi-year sample will allow us to make prevalence estimates for subpopulations we could not measure otherwise, and the measure of the relationships between subpopulation will be unaffected. The larger sample permits insight into relationships that we cannot observe in a single year of data.

To obtain better estimates for black Pennsylvanians, we combined the data from the 1995 through 1999 BRFSS annual surveys. New sample weights were calculated using the midpoint (1997) Pennsylvania detailed population estimates to post-stratify on the race, sex, and age characteris-

tics of Pennsylvanians. Also, because the group of interest was African-Americans, the race strata used to group race was black and all other races.

The prevalence of Pennsylvania adults who are overweight and obese (Body Mass Index or BMI of 25+) indicates that both black and white males along with black females are equally likely to be overweight (see Figure 1). The overweight prevalence for these black and white males and black females is approximately 40 percent greater than that of white females. If we examine obesity (BMI of 30 or more), this distribution changes (see Figure 2). White women still have a relatively low estimate of obese prevalence but it is not statistically different than the prevalence of obesity among men. Black women, on the other hand, have a five-year prevalence of obesity of 28 percent (with a 95 percent confidence interval = 26 to 31 percent). The prevalence of obesity among black women is approximately 50 percent greater than it is for other adults.

Examining the prevalence of persons by race and sex who are overweight but not obese (BMI >25 but < 30) explains this change in the relative prevalence by race and sex (see Figure 3). Males are more likely to be overweight but not obese as are black women, compared to white women.

It appears that a lot of Pennsylvania adults have a weight problem with more males being overweight but black females having the highest prevalence of obesity. If you have any questions, please contact the Bureau at 717-783-2548.

FIGURE 1
Percent Adults Overweight and Obese
By Sex and Race, Pennsylvania BRFSS, 1995-1999

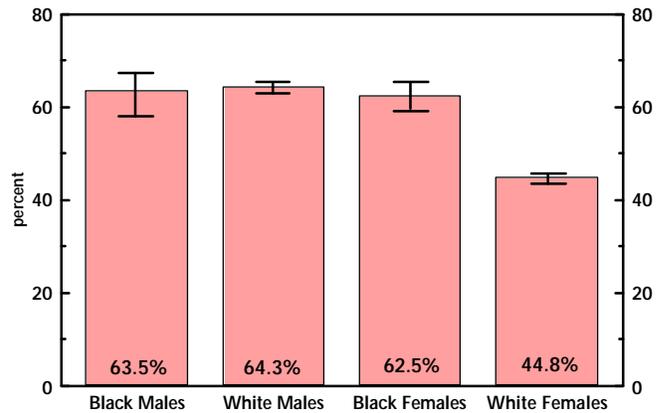


FIGURE 2
Percent Adults Who Are Obese
By Sex and Race, Pennsylvania BRFSS, 1995-1999

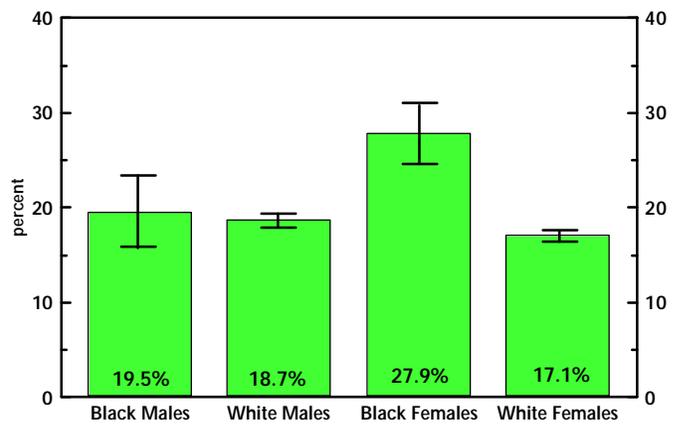
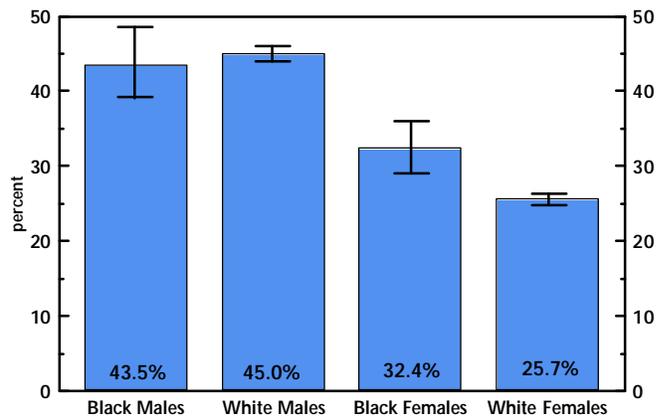


FIGURE 3
Percent Adults Who Are Overweight (But Not Obese)
By Sex and Race, Pennsylvania BRFSS, 1995-1999



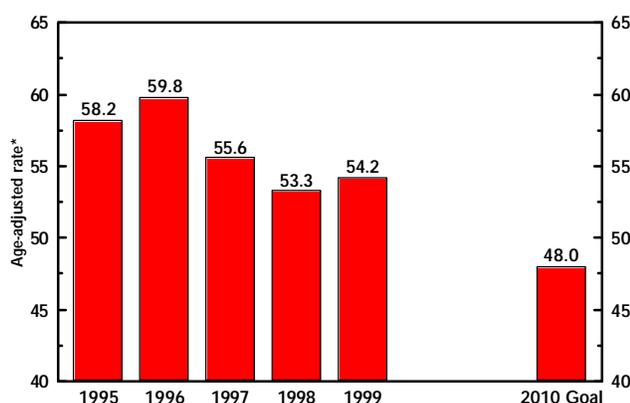
Update: Healthy People 2010 Objectives

Focus Area 12 - Heart Disease & Stroke

12-7. Reduce stroke deaths.

2010 Target: 48

Age-Adjusted Death Rate* for Stroke
Pennsylvania Residents, 1995-1999



*per 100,000 U.S. standard million 2000 population

Between 1995 and 1999, Pennsylvania's age-adjusted mortality rate for deaths due to stroke declined from 58.2 per 100,000 U.S. standard million 2000 population to 54.2. The national Healthy People 2010 objective has been set for a rate of 48. There were 8,547 deaths due to stroke (or cerebrovascular disease) among residents in 1999.

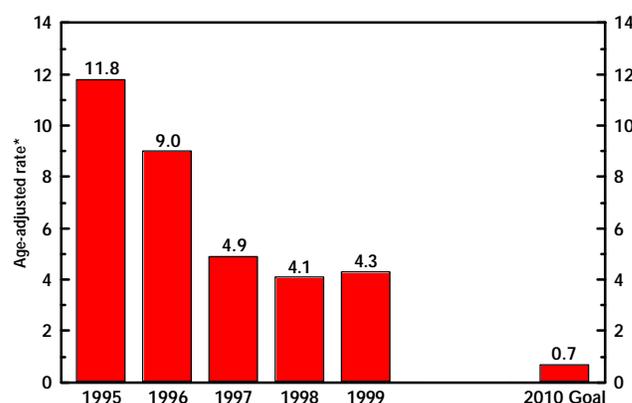
Pennsylvania's rate will have to decline by 11.4 percent in the next 11 years between 1999 and 2010 to meet the national goal. Between 1995 and 1999, the state's rate declined by 6.9 percent. If the rate continues to decline by that percentage, Pennsylvania stands a good chance of meeting this important national objective.

Focus Area 13 - HIV

13-14. Reduce deaths from HIV disease.

2010 Target: 0.7

Age-Adjusted Death Rate* for HIV Disease
Pennsylvania Residents, 1995-1999



*per 100,000 U.S. standard million 2000 population

Between 1995 and 1997, Pennsylvania's age-adjusted mortality rate for HIV disease declined dramatically, from 11.8 to 4.9 per 100,000 U.S. standard million 2000 population. However, between 1997 and 1999, the rate declined much more slowly, from 4.9 to 4.3. The earlier large declines were due, of course, to medical advances that resulted

in mortality reduction for this disease. However, further significant reductions in these mortality rates without more medical advances will become difficult. The national Healthy People 2010 objective has been set for an age-adjusted mortality rate of 0.7. Pennsylvania's rate would have to decline by 84 percent between 1999 and 2010 to reach this goal.

IMPORTANT NOTE: Please be aware that the age-adjusted rates that appear on this page were calculated based on the 2000 U. S. standard million population. Therefore, they are not comparable to other age-adjusted rates that were calculated using a different standard population (e.g., those that appeared in the Healthy People 2000 objectives).

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