

STATISTICAL NEWS

PA Department of Health ♦ Bureau of Health Statistics and Research ♦ Vol. 31 No. 4 ♦ Jul/Aug 2008

Smoking-Related Health Indicators by Race

Smoking-Related Disease Death Rates Higher for African Americans

African Americans in Pennsylvania suffer a disproportionate share of the smoking-related health burden. In order to reduce disease and deaths caused by smoking, we need to recognize the differences in smoking behaviors associated with this population. African Americans smoke more, but also try to quit smoking more often than Whites. As high school students, they smoke less than Whites, but are more likely to think that people who smoke have more friends. African Americans represent about 10 percent of Pennsylvania's population. To reach this population with effective prevention and cessation programs, it is important to understand factors influencing the decisions to smoke and what might motivate them to quit.

Compared with Whites, African Americans have higher age-adjusted incidence rates of most smoking-related cancers including cancer of lung and bronchus, the most common smoking-related cancer. Smoking-related illnesses and smoking-related cancers are defined using the 2004, *The Health Consequences of Smoking: A Report of*

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the Surgeon General. This report used a broad range of past studies to determine which illnesses are caused, at least in part, by smoking. In addition to the higher smoking-related cancer incidence rates, African Americans are generally diagnosed later and die from these cancers and other smoking-related diseases (such as cardiovascular disease and coronary heart disease) at dramatically higher rates. Chart 1 (on page 4) shows age-adjusted rates among African American and White residents for incidences of smoking-related cancers during the three year period of 2003 through 2005. The largest differences between African

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Weight Gained During Pregnancy Reviewed

Excessive & Low Weight Gain can Negatively Affect Mother & Baby

According to the Centers for Disease Control and Prevention (CDC), both excessive and insufficient weight gain during pregnancy can negatively influence both maternal and pregnancy outcomes. Low or inadequate weight gain has been associated with an increased risk of problems such as low birth weight, intrauterine growth retardation, and perinatal mortality. The CDC also states that high weight gain by the mother has been linked to an elevated risk of cesarean delivery, shortened breast feeding duration, and long-term substantial maternal weight retention (www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_06.pdf).

The CDC states that "moderate gestational weight gain (between 16 and 40 pounds) and healthy birth weights are positively correlated." (Martin, Joyce A., et al. *Births: Final Data for 2005*. National Vital Statistics Report. Vol. 56, No. 6.) Know-

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...high weight gain by the mother has been linked to an elevated risk of cesarean delivery, shortened breast feeding duration, and long-term substantial maternal weight retention.

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2006 Pennsylvania Death Data Now Available

Top 20 Causes Show Heart Disease/Cancer/Stroke Down; Parkinson's Up

The number of deaths among Pennsylvania residents decreased 3.1 percent from 128,447 in 2005 to 124,460 in 2006. This is the lowest annual number of deaths recorded since the 1992 figure of 122,759 deaths and was the largest annual percentage decrease since 1969.

The table below ranks the top major causes of death for 2006 and 2005. The number of deaths for the following causes *increased* between 2005 and 2006:

- Parkinson's disease
- Homicide
- In Situ/benign/uncertain neoplasms
- Perinatal conditions
- Congenital malformations
- HIV disease.

The number of deaths for the following causes *decreased* between 2005 and 2006:

- Heart disease
- Cancer
- Stroke
- Chronic lower respiratory disease
- Accidents
- Diabetes mellitus
- Alzheimer's disease
- Nephritis/nephrosis
- Influenza & pneumonia
- Septicemia
- Suicide
- Chronic liver disease & cirrhosis
- Essential hypertension/HRD
- Atherosclerosis.

A large variety of data tables with 2006 mortality statistics, including data for all counties and municipalities in the state, have been added to the Health Statistics web pages. To access the 2006 data, go to www.health.state.pa.us/stats and click on "Birth, Death & Other Vital Statistics" and then "Birth and Death Statistics, 1990-2006."

A look at the decrease in the number of deaths by age shows that the age group 70+ dropped 4.4 percent from 91,943 to 87,928. Resident deaths in Clinton, Juniata, Montour, and Sullivan Counties declined over 10 percent in 2006. The number of deaths for the United States dropped in 2006, but not to the same degree as Pennsylvania. According to preliminary U.S. figures, the number of deaths dropped 0.9 percent in 2006, compared to 2005.

In 2006, Parkinson's disease had the largest percent (11%) increase for residents among the major causes of death listed below. The major cause with the largest percent (29%) decrease in deaths was Atherosclerosis.

...lowest annual number of deaths recorded (in 2006) since 1992...

Health data users can easily access the latest available single-year (2005 for cancer incidence and 2006 for births and deaths) and five-year summary (2001-2005 for cancer incidence and 2002-2006 for births and deaths) data tables in PDF file format at the Health Statistics web pages. They provide data users with an abundant variety of health statistics. In most cases you will find what you are looking for since these tables have answered most general

requests for birth, death, and cancer statistics.

Examples of mortality data currently available on the Health Statistics web pages include deaths by age, race, sex, and cause for all counties and municipalities. There are also statistics available on specific ICD codes, month of death, method of disposition, and autopsy status. In addition, there are separate data tables on infant deaths and suicides.

We also have additional data tables available that are too large for accessing on-line. Contact the Bureau of Health Statistics and Research at 717-783-2548 or via a web link from www.health.state.pa.us/stats for more information about these tables.

Top 20 Major Causes of Death Pennsylvania Residents, 2006 and 2005

2006		2005		
Total Deaths	124,460	Rank	Total Deaths	128,447
Heart Disease	33,414	1	Heart Disease	35,896
Malignant Neoplasms	28,955	2	Malignant Neoplasms	29,355
Cerebrovascular Disease	7,093	3	Cerebrovascular Disease	7,581
Chronic Lower Respiratory Disease	5,578	4	Chronic Lower Respiratory Disease	6,111
Accidents	5,143	5	Accidents	5,314
Diabetes Mellitus	3,444	6	Diabetes Mellitus	3,531
Alzheimer's Disease	3,288	7	Alzheimer's Disease	3,414
Nephritis/Nephrotic Syn/Nephrosis	3,067	8	Nephritis/Nephrotic Syn/Nephrosis	3,071
Influenza/Pneumonia	2,694	9	Influenza/Pneumonia	3,039
Septicemia	2,452	10	Septicemia	2,528
Intentional Self-Harm (Suicide)	1,372	11	Intentional Self-Harm (Suicide)	1,404
Parkinson's Disease	1,175	12	Parkinson's Disease	1,061
Chronic Liver Disease & Cirrhosis	1,040	13	Essential Hypertension/HRD	1,048
Essential Hypertension/HRD	963	14	Chronic Liver Disease & Cirrhosis	1,046
Assault (Homicide)	759	15	Assault (Homicide)	741
In Situ/Benign/Uncertain Neoplasms	754	16	In Situ/Benign/Uncertain Neoplasms	736
Perinatal Conditions	626	17	Perinatal Conditions	591
Congenital Malformations	405	18	Atherosclerosis	559
Atherosclerosis	396	19	Congenital Malformations	389
HIV Disease	360	20	HIV Disease	358

Weight Gained During Pregnancy Reviewed

ing these consequences of insufficient or excessive weight gain during pregnancy, the Institute of Medicine (IOM) in 1990 developed recommendations for a mother's gestational weight gain. The overall concept of the IOM's 1990 recommendations is that a mother should gain somewhere between 16 and 40 pounds during pregnancy. The actual recommended weight varies depending upon the mother's height and pre-pregnancy weight. The Institute of Medicine recommends that weight gain goals be tailored to each mother's individual characteristics.

Currently, the IOM is working on a 22-month study to develop new recommendations for mothers' weight gain during pregnancy. According to the Institute of Medicine, the IOM "and National Research Council (NRC), through collaborative efforts between the Food and Nutrition Board and the Board on Children, Youth, and Families, have undertaken a study to review and update the 1990 IOM recommendations for weight gain

...roughly 40 percent of all Pennsylvania mothers who had a singleton birth gained an amount of weight that fell outside what the CDC considers to be moderate weight gain (16 to 40 pounds) during 2003-2006.

during pregnancy and to recommend ways to encourage their adoption through consumer education, strategies to assist practitioners, and public health strategies." (www.iom.edu/CMS/3788/48191.aspx).

The rest of this article will focus on weight gain during pregnancy to Pennsylvania resident mothers who had singleton births between the years of 2003 and 2006, combined. The article will also provide some comparisons to similar statistics for the United States.

Overall Weight Gain:

Between 2003 and 2006, 13.5 percent of Pennsylvania mothers who had a singleton birth gained less than 16 pounds, which is considered inadequate for most women. This percentage is similar to the U.S. result of 13.0 percent of mothers in 2005.

On the other side of the spectrum are mothers who gained more than 40 pounds during pregnancy, which is considered excessive for all women. Between 2003 and 2006, 26.5 percent of resident Pennsylvania mothers who had a singleton birth fell into this excessive weight gain category. In comparison, the U.S. percent for mothers who gained more than 40 pounds was 20.6 in 2005. Of the 26.5 percent of excessive weight gain mothers in Pennsylvania, almost 66 percent had gained more than 46 pounds during pregnancy. As previously stated, high weight gain during pregnancy has been associated with long-term substantial maternal weight retention.

When both inadequate and excessive weight gain categories

are combined, roughly 40 percent of all Pennsylvania mothers who had a singleton birth gained an amount of weight that fell outside what the CDC considers to be moderate weight gain (16 to 40 pounds) during 2003-2006.

Weight Gain and Race:

Investigating race groups reveals Pennsylvania experienced a wide variety of differences in the amount of weight gained by mothers who gave birth to singletons between 2003 and 2006.

Overall, Whites had the lowest percent (11.8) of singleton births to mothers who gained under 16 pounds during 2003 and 2006. Black mothers had the highest percent at 20.7 while Asian mothers were similar to Whites, at 12.4 percent.

Looking at mothers who saw moderate weight gains of 16 to 40 pounds during pregnancy, Asian mothers had the highest percent with 70.2, followed by Whites at 60.8 percent. Black mothers had the lowest percent of singleton

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Table 1
Percent Mother's Weight Gain by Age and Race
Singleton Births, Pennsylvania Residents, 2003-2006

Mother's Race	Mother's Age								
	Under 20			20-34			35+		
	Mother's Weight Gain in Pounds			Mother's Weight Gain in Pounds			Mother's Weight Gain in Pounds		
	< 16	16-40	> 40	< 16	16-40	> 40	< 16	16-40	> 40
	%	%	%	%	%	%	%	%	%
All Races	13.7	54.6	31.7	13.4	59.9	26.7	13.6	64.3	22.2
White	10.6	53.8	35.7	11.8	60.6	27.6	12.0	65.2	22.8
Black	18.0	55.6	26.4	20.9	53.9	25.3	25.5	53.1	21.4
Asian	14.0	63.0	23.0	12.0	70.1	18.0	13.8	72.2	14.0

Notes: Approximately 75 percent of the births in the chart above occurred to women between the ages of 20-34. Unknowns excluded from calculations.

Smoking-Related Health Indicators by Race

Americans and Whites were observed for stomach, larynx, cervix uteri, and pancreatic cancers.

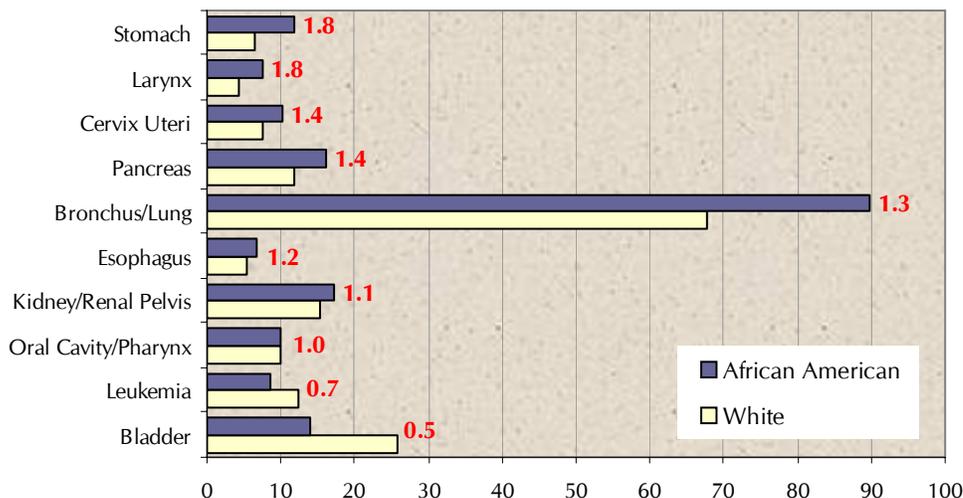
Chart 2 shows Pennsylvania age-adjusted rates among African Americans and Whites for smoking-related causes of death, including select cancers, cardiovascular diseases, and respiratory diseases between 2004 and 2006. The largest differences between African American and White mortality rates were found in cervical, stomach, and laryngeal cancers.

Among adults, a larger percentage of African American residents smoked during 2004-2006, compared to Whites (28% and 22%, respectively).

Among adults, a larger percentage of African American residents smoked during 2004-2006, compared to Whites (refer to Chart 3 on page 5). In recent years, the rate of smoking among White and African American resident adults has shown signs of decline. Using three years of Pennsylvania Behavioral Risk Factor Surveillance System (PA BRFSS) data (2001 through 2003), the smoking rate among Whites was approximately 24 percent (CI:22-24), compared with the rate among African Americans of 33 percent (CI:28-38). In the more recent three years of 2004 through 2006, the rate among Whites was approximately 22 percent (CI:21-23) and

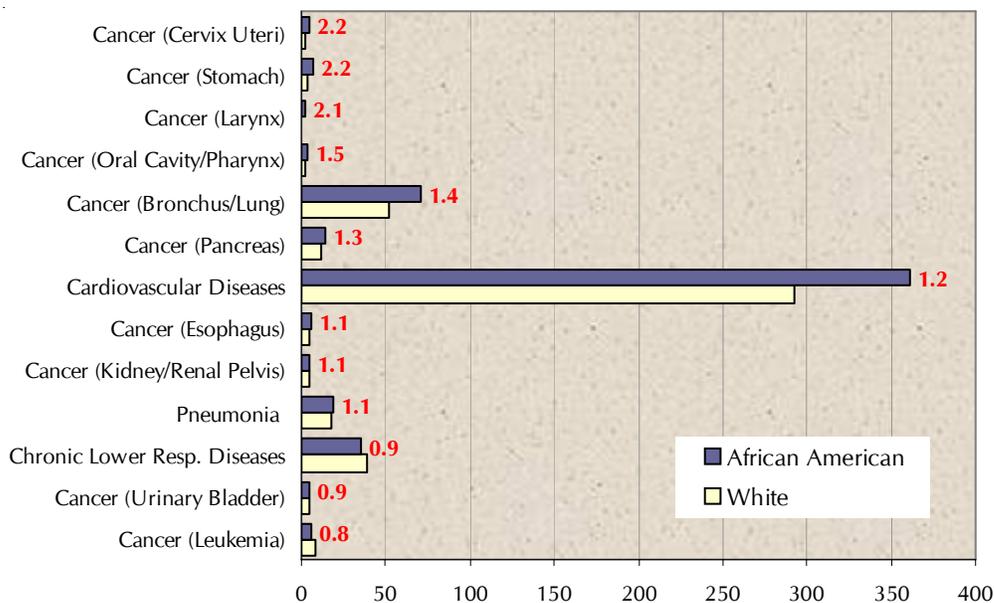
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Chart 1
Smoking-Related Cancer Incidence Rates* by Race
with African-American to White Ratio (in red), Pennsylvania, 2003-2005



* Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard million population.
Note: Mortality ratio computed by dividing the African American age-adjusted rate by the White age-adjusted rate.

Chart 2
Smoking-Related Death Rates* by Race
with African-American to White Ratio (in red), Pennsylvania, 2004-2006



* Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard million population.
Note: Mortality ratio computed by dividing the African American age-adjusted rate by the White age-adjusted rate.

Smoking-Related Health Indicators...

among African Americans it was 29 percent (CI:25-32). Also, Chart 3 below shows that based on the 2004-2006 surveys, African American residents were

more likely to have tried to quit smoking in the past year – 66 percent (CI:59-72), compared to 55 percent (CI:53-56) for Whites.

Unlike adults, Pennsylvania's African American high school students smoke significantly less than their White counterparts¹. In the 2006 Pennsylvania Youth Tobacco Survey (PAYTS), White high school students were about twice as likely as African Americans to have ever tried smoking (see Chart 4 below), and similarly two times more likely to have smoked cigarettes in the past 30 days. One contributing factor for the lower rates of smoking among the African American youth may be that they are not as often exposed to secondhand smoke. Of the students who had jobs, more African American students (68 percent, CI:56-78) than White students (41 percent, CI:36-46) worked in places where smoking was never allowed. Similarly, in the past seven days, approximately 63 percent (CI:58-67) of

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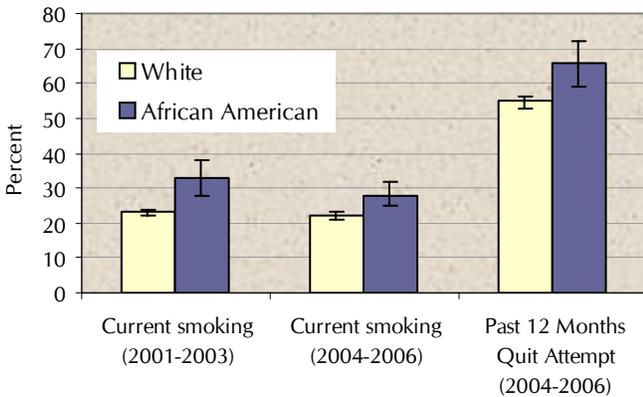
Whites shared a room with someone who smoked, compared with about 52 percent (CI:44-60) of African American students.

So if African Americans smoke less in high school, what causes them to end up smoking more? Factors that contribute to a person's decision to try cigarettes include his or her beliefs and attitudes. The 2006 PAYTS asked questions about beliefs and attitudes and found that African American high school students were about twice as likely as Whites to believe that smokers have more friends (27 percent, CI: 20-35 versus 14 percent, CI:12-16). In a similar vein, African Americans (17 percent, CI: 12-23) were more likely than Whites (9 percent, CI: 8-11) to think that smoking makes people fit in or look cool. Asked if the students knew places that sold cigarettes loose (which allow someone with little money access to cigarettes), three times more African Americans (50 percent, 38-62) than White high school students (16 percent, 14-20) knew of one or more places that sold loose cigarettes.

For questions or additional information, please contact the Bureau at 717-783-2548.

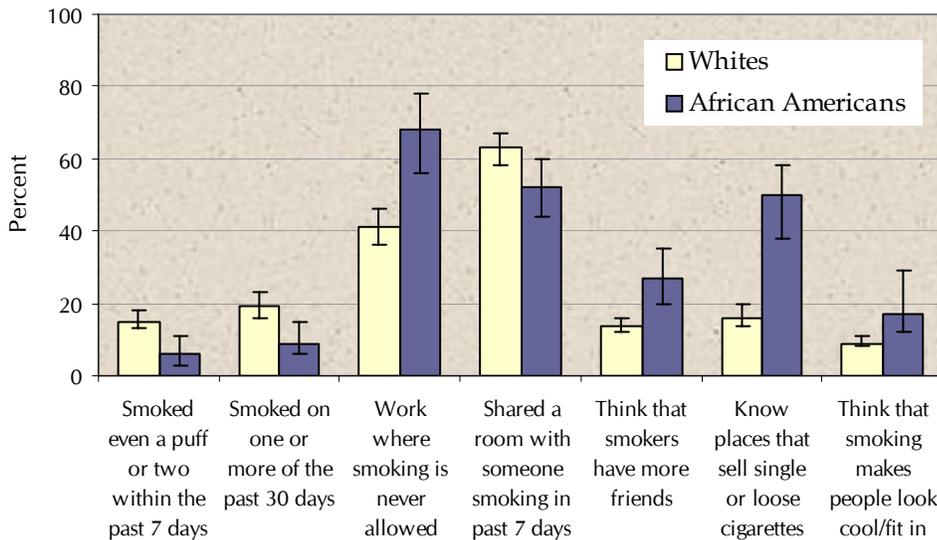
¹ Significance testing with the sample data was determined at the 95 percent level using a chi square test and by a p value of less than .05.

Chart 3
Adult Prevalence of Current Smoking and Past 12 Months Quit Attempts by Race
PA BRFSS Surveys, 2001-2003 & 2004-2006



Note: I indicates a 95% confidence interval bar.

Chart 4
Youth Prevalence of Smoking-Related Behaviors and Beliefs by Race
PA Youth Tobacco Survey, 2006



Notes: I indicates a 95% confidence interval bar. The survey was designed to obtain a representative sample of students at the state level in grades six through eight and grades 9 through 12.

Weight Gained During Pregnancy...

births falling within the 16 to 40 pound weight gain range (54.1 percent) during 2003-2006.

Excessive weight gain broken out by race shows that White mothers had the greatest percent of singleton births that fell into this category at 27.4. This was 10 percent higher than Asian mothers, who had 17.4 percent of their singleton births fall into the excessive weight gain category. Among Black mothers, 25.1 percent gained more than 40 pounds during pregnancy over the years 2003-2006.

Weight Gain and Age:

When looking at how age influences weight gain during pregnancy, between the years 2003 and 2006, the percent of singleton births to Pennsylvania mothers with low weight gain (under 16 pounds) was similar for the three age groups: under 20, 20-34, and 35+ (13.7, 13.4, and 13.6 percent, respectively). Table 1 (on page 3) displays these similar percentages across all three age groups. To better understand Table 1, note that of the singleton births to Pennsylvania residents

investigated between 2003 and 2006, approximately 75 percent occurred to mothers between the ages of 20 and 34.

Table 1 also shows that the percentage of women with moderate (acceptable) weight gain during pregnancy (16-40 pounds) increased as age increased. Conversely, the percent of mothers with excessive weight gain (more than 40 pounds) during pregnancy decreased as age increased.

Weight Gain, Full-Term Gestation, and Low Birthweight:

The birthweight of the child is important to note since low birthweight infants or large-for-gestational-age (LGA) infants have been associated with certain birth defects and other health-related problems at birth and throughout their lives. Table 2 below displays the percent of mother's weight gain during pregnancy by the race and birthweight of the child for full-term births (37+ weeks gestation). A direct relationship is apparent between the mother's weight gain and the birthweight of the child.

...the percentage of women with moderate (acceptable) weight gain during pregnancy (16-40 pounds) increased as age increased.

mothers who gained between 16 and 40 pounds. It is important to note that approximately 60 percent of the total births investigated were to mothers who gained a moderate amount of weight during pregnancy (16-40 pounds).

The amount of weight a mother gains during pregnancy is clearly important, not only for the child but also the mother. Adhering to the general pregnancy weight gain guidelines set forth by the Institute of Medicine can increase the likelihood of delivering a healthy baby.

For more information on the guidelines developed by Institute of Medicine, please visit their website at www.iom.edu. For more information concerning national level weight gain during pregnancy, visit the Centers for Disease Control and Prevention at www.cdc.gov. For additional information concerning Pennsylvania data addressed in this article or to access additional Pennsylvania data, please visit our website at www.health.state.pa.us/stats or contact us at 717-783-2548.

Table 2
Percent Mother's Weight Gain by Birthweight of Child and Race
Full-Term* Singleton Births, Pennsylvania Residents, 2003-2006

	Mother's Weight Gain in Pounds								
	<16			16-40			>40		
	Birth Weight in Grams			Birth Weight in Grams			Birth Weight in Grams		
	<2500	2500-3999	4000+	<2500	2500-3999	4000+	<2500	2500-3999	4000+
Mother's Race	%	%	%	%	%	%	%	%	%
All Races	4.0	88.5	7.5	2.4	88.8	8.8	1.3	83.0	15.7
White	3.4	87.7	9.0	2.0	88.1	9.9	1.1	81.8	17.1
Black	6.3	89.7	4.0	4.5	90.8	4.7	2.4	88.1	9.5
Asian	3.8	91.8	4.3	3.1	92.7	4.2	1.3	87.7	11.0

* Full-term is defined as 37+ weeks gestation.

Notes: Approximately 60 percent of the births in the table above occurred to mothers who gained between 16-40 pounds. Unknowns excluded from calculations.

Update: Healthy People 2010 Objectives

Focus Area 15: Injury and Violence Prevention

15-03 - Reduce firearm-related deaths.

2010 Target: 4.1

All Persons, Males, and Females:

Between 2002 and 2006, the age-adjusted rate for firearm-related deaths among Pennsylvania residents increased from a low of 9.7 in 2002 to 10.8 in 2006. Annual rates among males were approximately seven to nine times higher than the rates for females. In 2006, the rate for males was 20.2, compared to only 2.1 for females. The age-adjusted rates for males have increased during the 2002-2006 period, but the rates for females have not shown any trends.

Only the rate for females have been consistently lower than the Healthy People 2010 national goal of 4.1 per 100,000. The rates for males are well above the 2010 national goal and are steadily getting worse.

Race and Hispanic Origin:

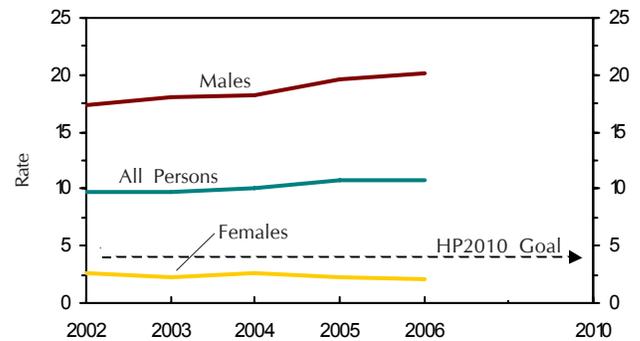
Between 2002 and 2006, the annual rates for Black residents

have been approximately four times higher than those for Whites and about three times higher than for Hispanics. The annual rates for Black residents have increased steadily during the 2002-2006 period. Among Whites and Hispanics, the annual rates have not shown any trends during this five-year period.

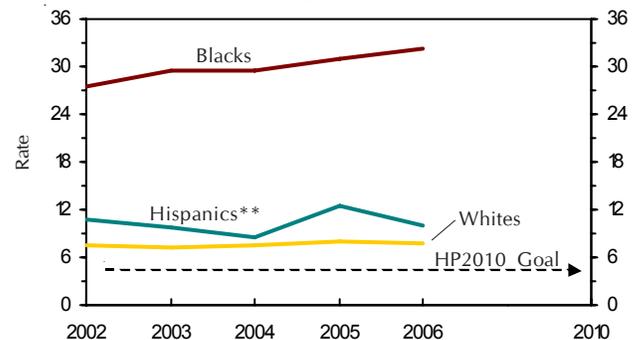
Suicides, Homicides, and Accidents:

The age-adjusted rates for firearm-related suicides have been higher than those for firearm-related homicides and much higher than the rates for accidental deaths involving firearms. The rates for suicides have remained about the same between 2002 and 2006 while the rates for homicides have been increasing and, in 2004, surpassed the national 2010 goal of 4.1. The rates for accidents have remained unchanged and are well below the national goal.

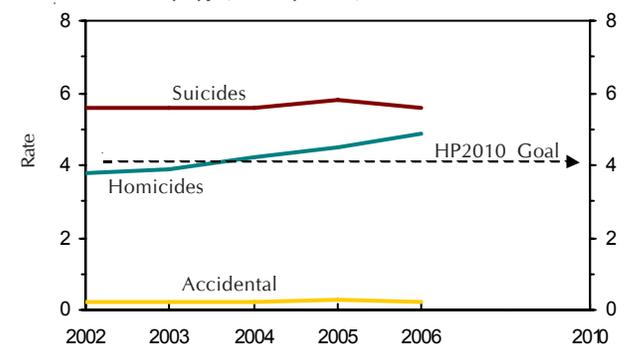
Firearm-Related Deaths, Age-Adjusted Rates*
Total and by Sex, Pennsylvania Residents, 2002-2006



By Race and Hispanic Origin**, Pennsylvania, 2002-2006



By Type, Pennsylvania, 2002-2006



* per 100,000 and age-adjusted to 2000 standard million U.S. population
** Hispanics can be of any race

Firearm-Related Deaths, Age-Adjusted Rate*
By Sex, Race/Ethnicity, and Type, Pennsylvania 2002-06

	2002	2003	2004	2005	2006
All Persons	9.7	9.8	10.1	10.7	10.8
Males	17.3	18.0	18.2	19.7	20.2
Females	2.6	2.2	2.6	2.3	2.1
Whites	7.5	7.2	7.6	7.9	7.8
Blacks	27.4	29.5	29.6	30.9	32.2
Hispanics**	10.7	9.8	8.6	12.4	10.0
Homicides	3.8	3.9	4.2	4.5	4.9
Suicides	5.6	5.6	5.6	5.8	5.6
Accidental	0.2	0.2	0.2	0.3	0.2

* per 100,000 and age-adjusted to 2000 standard million U.S. population
** Hispanics can be of any race.

HP2010 State and County Data on the Web

To access the Department of Health's web page of Healthy People 2010 statistics for the state and counties, go to www.health.state.pa.us/stats. The latest available statistics as well as trend data are shown. You can view data for the state, all counties, a specific demographic element (age, sex, race, etc.) or just for a specific county. Complete data sets for the state and counties can be downloaded. There is also a link to the national HP2010 web site.

Statistical News is published bimonthly by the Bureau of Health Statistics and Research, Pennsylvania Department of Health, 555 Walnut St., 6th Floor, Harrisburg, PA, 17101. Please write, telephone (717-783-2548) or FAX (717-772-3258) us if you have any questions regarding the contents of this newsletter. Visit the Health Statistics section of the Department's web site at www.health.state.pa.us/stats to access additional health statistics and reports.

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