Pennsylvania Tobacco Facts 2009/2010

Bureau of Health Statistics and Research

and

Division of Tobacco Prevention and Control

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Executive Summary

This report provides tobacco information regarding rates of cigarette and other tobacco products use, resulting health and financial costs, and exposure to secondhand smoke among Pennsylvania adults and youth residents. Data have been gathered from surveys, vital statistics, tax receipts and sales inspections reports (Synar) for this report. These data sources are described in detail in Appendix A.

The information included is intended for tobacco control program staff, researchers, healthcare providers, local health departments, community partners and concerned private citizens. The data can be used to plan and evaluate tobacco control measures in the areas of risk assessment and prevention, as well as professional and public education.

Pennsylvania Tobacco Facts supports the programmatic goals of the Pennsylvania State Tobacco Prevention and Control Program, which are to 1) prevent the initiation of tobacco use among young people, 2) promote quitting among adults and young people, 3) eliminate nonsmokers' exposure to secondhand smoke and 4) identify and eliminate tobacco-related disparities.

Key findings for Pennsylvania from this report show:

- **Cigarette sales in Pennsylvania declined by 28 percent between 2002 and 2009.**
- **Between 2003 and 2008, there was a statistically significant drop in smoking prevalence among adults in Pennsylvania ($p<0.05$)*.**
- **Approximately 20,000 Pennsylvania adults die annually, at a rate of 16 percent, from smoking-related causes.**
- **Tobacco-related personal health care costs total approximately 4.7 billion dollars annually in Pennsylvania.**
- **Smoking attributable productivity losses in Pennsylvania total 4.7 billion dollars annually.**
- **Smoking attributable years of potential life lost totaled approximately 266,000 years annually for Pennsylvania adults aged 35 and older.**
- **Statistically significant ($p<0.05$)* disparities exist in smoking rates based on age (lower rates are associated with older ages), race (higher rates of smoking are shown in African Americans compared to Whites), education (increasing education is associated with lower rates of smoking), income (higher income is associated with lower smoking rates) and health care coverage (lack of coverage is associated with higher smoking rates).**
- **Youth cigarette use in both Pennsylvania middle schools and high schools did not change between school year 2006-2007 and 2008-2009.**
- **Rates of illegal sales of cigarettes in Pennsylvania to minors have fallen dramatically from over 50 percent in 1996 to an estimated 5 percent in 2008.**
- **Approximately 86 percent of Pennsylvania adults said that smoking is not permitted at their workplace in late 2008 and early 2009.**
- **Among adults who have children at home, about 85 percent said that smoking was not permitted in their home in late 2008 and early 2009.**

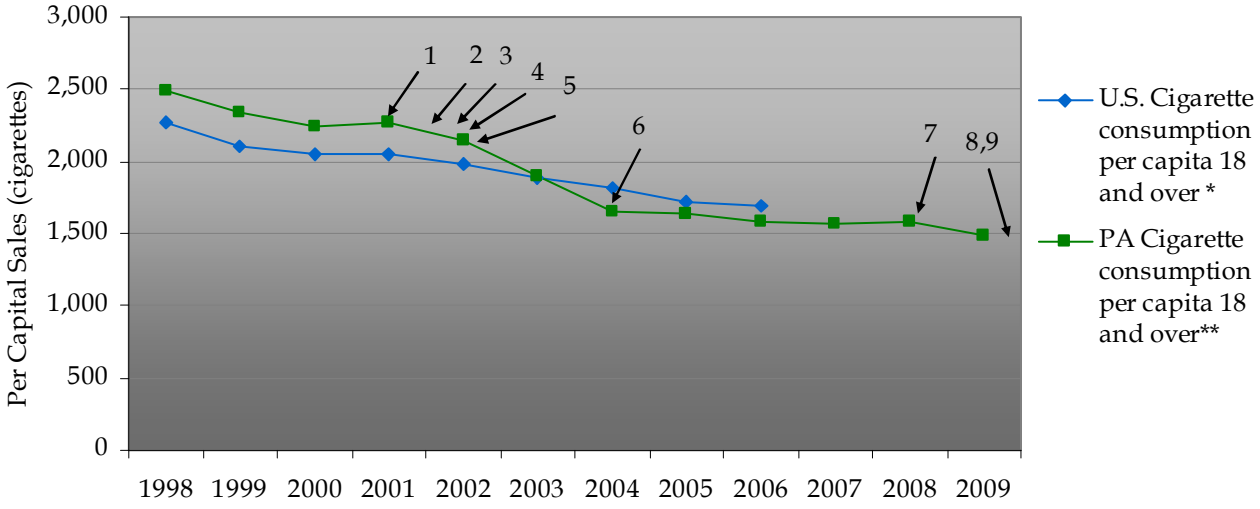
* p is the probability that a difference was found when no differences actually exist.

1. Cigarette Sales

Cigarette sales are falling in the United States as well as in Pennsylvania, as displayed in the figure and table on the next page. Figure 1-1 illustrates per capita sales of cigarettes, using population 18 years and older and records of stamp and internet sales from the Pennsylvania Department of Revenue. Pennsylvania sales dropped dramatically between 2002 and 2004, when Tobacco Settlement Act funds were distributed to counties for tobacco control and cessation programs and after a significant increase in cigarette excise tax. In 2004, Pennsylvania per capita cigarette sales fell below that of the nation, but calculation of national per capita sales was discontinued in 2007.

Table 1-2 shows sales of cigarettes in Pennsylvania between 2002 and 2009, using sales and revenue from the Pennsylvania Department of Revenue. Since 2005, non-stamped sales of cigarettes sold through the internet have been tracked by Revenue and are included in these sales figures. Pennsylvania smokers purchased 723 million packs of cigarettes in 2009, a drop of 28 percent since 2002. Between 2002 and 2009, per capita sales of cigarettes declined 30 percent. Despite the decline in cigarette purchases, excise taxes collected on the purchase of cigarettes has grown to almost a billion dollars due to cigarette tax rate increases.

***Figure 1-1*. Trends in Annual Per Capita Sales of Cigarettes Pennsylvania and the United States, 1998-2009**



Related Events Noted on Chart:

1. June 2001: Enactment of Act 77 of 2001, the Tobacco Settlement Act, established a special fund and account for money received by Pennsylvania from the Master Settlement Agreement with tobacco manufacturers.
2. January 2002: $0.69 per pack cigarette excise tax increase, from $0.31 to $1.
3. May 2002: 67 counties receive tobacco funds to establish comprehensive tobacco programs.
4. June 2002: Launch of Pennsylvania Free Quitline (1-800-QUIT-NOW).
5. July 2002: Act 112 of 2002, amended Youth Access to Tobacco law.
6. July 2004: $0.35 per pack cigarette excise tax increase, from $1 to $1.35.
7. September 2008: Enactment of Clean Indoor Air Act banning smoking in most indoor public places.
8. November 2009: Cigarette taxes went up $0.25 to $1.60 a pack of 20.
9. November 2009: Little cigars went from zero to $0.08 a stick or $1.60 per pack of 20.

Sources:

*U.S. per capita data are from U.S. Department of Agriculture, Economic Research Service; The Economics of Food, Farming, Natural Resources and Rural America. The data are provided based on per capita, using adults aged 18 and over, in terms of total cigarettes sold. This can be found at http://usda.mannlib.cornell.edu/usda/current/TBS/TBS-10-24-2007.pdf, Table 2.

** PA per capita sales are from PA Department of Revenue stamp and internet sales for each year, divided by Census Bureau population estimates for Pennsylvanians 18 and over.

***Table 1-2*. Cigarette Sales, Pennsylvania, Change From 2002 to 2009**

	State Tax-paid Cigarette Sales	Annual PA Per Capita Cigarette Sales	Annual Cigarette Excise Tax Collected
2002	1.011 billion packs	2,144 cigarettes	$600 million
2009	723 million packs	1,493 cigarettes	$998 million
Change from 2002 to 2009	288 million fewer packs	651 fewer cigarettes	$398 million increase

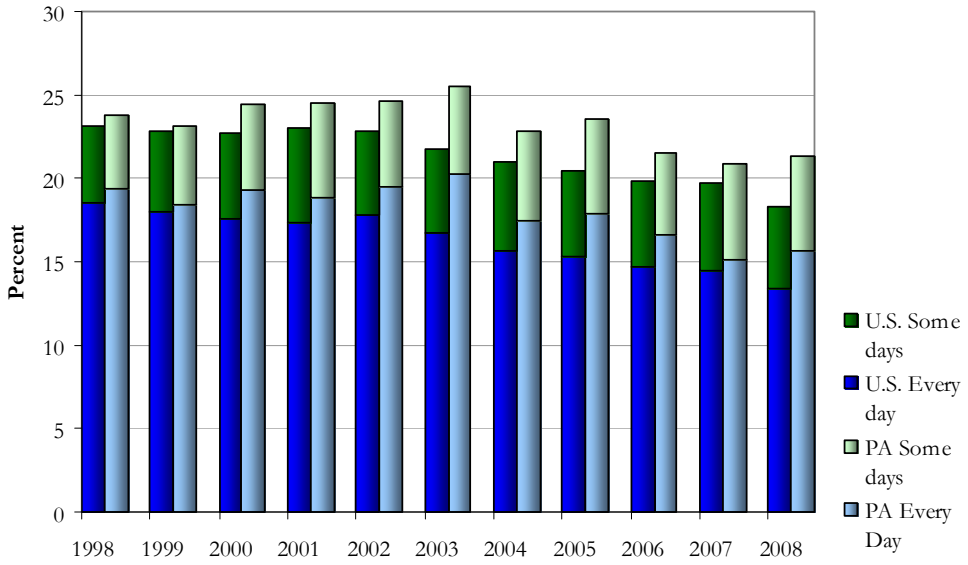
Source: Cigarette sales data are from the Pennsylvania Department of Revenue and include stamp sales and, starting in 2005, also include sales of cigarettes through the internet which have been taxed. Annual Per Capita sales are the sales divided by Census Bureau population estimates for Pennsylvanians 18 and over.

2. Prevalence of Adult Tobacco Use

Figure 2-1 illustrates the trend in Pennsylvania and nationwide toward fewer every day cigarette smokers, especially in Pennsylvania during the past six years. From 2003 to 2008, the Pennsylvania adult rate of smoking among the every day smokers declined significantly (at the 95 percent confidence level) from 20.2 to 15.6, while the rate of cigarette smoking among some days smokers has held fairly steady, at about 5.5 percent (see table B-1).

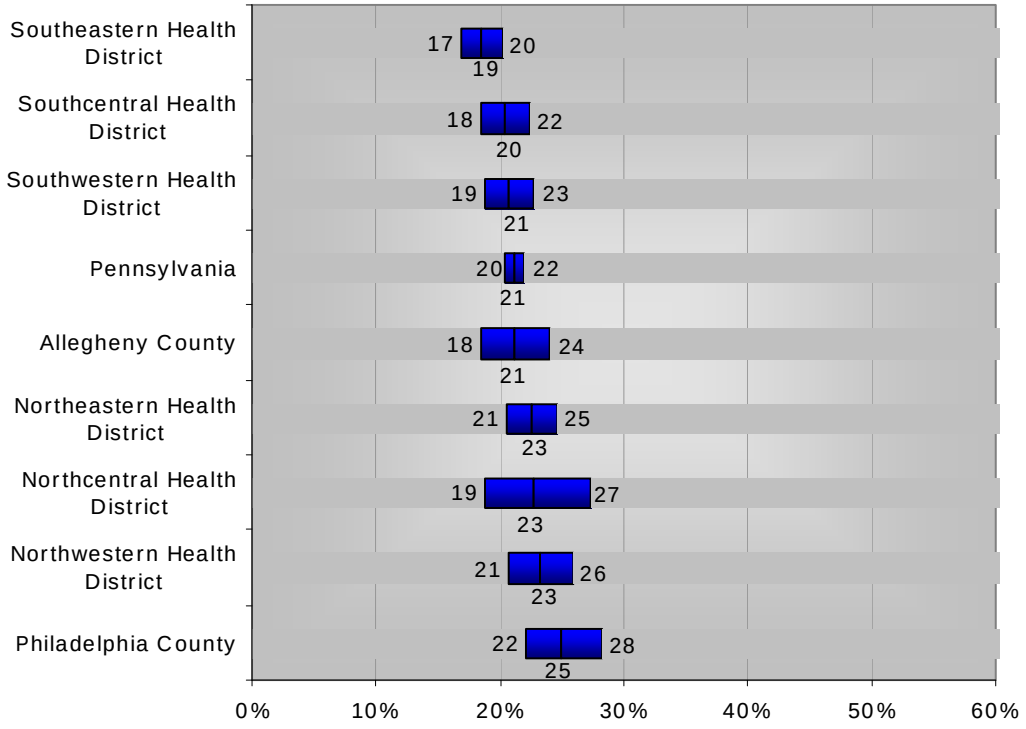
Throughout the state only modest differences in cigarette smoking prevalence rates were observed among the state health districts and select counties as seen in Figure 2-2 (next page). The Southeastern Health District, with Philadelphia excluded, had a slightly lower smoking prevalence rate than the rest of the state, while Philadelphia itself had a higher smoking rate.

Figure 2-1. **Percentage of Adults Who Smoke Cigarettes, by Year, Pennsylvania and United States, BRFSS 1998-2008**



Source:
1) Current smoking prevalence, Behavioral Risk Factor Surveillance System, 1998-2008, Pennsylvania Department of Health, Bureau of Health Statistics and Research.
2) Median current smoking prevalence among 53 states, DC and territories, Behavioral Risk Factor Surveillance System, 1998-2008, U.S. Centers for Disease Control and Prevention.

Figure 2-2. **Current Adult Cigarette Smoking Prevalence in Pennsylvania by Health District BRFSS 2006-2008**

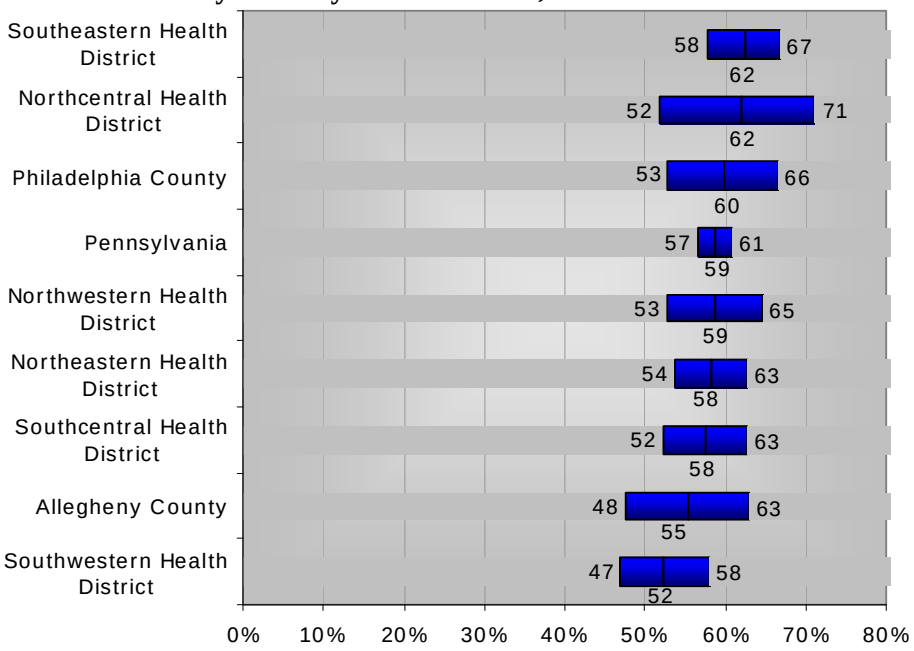


Note: The lower and upper numbers are the range of the 95% confidence interval, and the middle number is the estimated value of the prevalence of smoking in that district.
Source: Pennsylvania Behavioral Risk Surveillance Survey, aggregated data 2006, 2007 and 2008, Pennsylvania Department of Health, Bureau of Health Statistics and Research.

- **Northwestern Health District** includes Warren, Clearfield, Lawrence, Mercer, Venango, Forest, McKean, Elk, Erie, Cameron, Clarion, Jefferson and Crawford counties.
- **Northeastern Health District** includes Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Susquehanna, Wayne and Wyoming counties.
- **Southwestern Health District** includes Washington, Westmoreland, Cambria, Indiana, Armstrong, Butler, Fayette, Green, Beaver and Somerset counties. For the above illustration, Allegheny County was analyzed separately.
- **Southcentral Health District** includes York, Franklin, Fulton, Bedford, Adams, Perry, Lebanon, Huntington, Juniata, Cumberland, Dauphin, Blair and Mifflin counties.
- **Southeastern Health District** includes Berks, Bucks, Chester, Delaware, Lancaster, Montgomery and Schuylkill counties. For the above illustration, Philadelphia County was analyzed separately.
- **Northcentral Health District** includes Synder, Northumberland, Union, Columbia, Montour, Sullivan, Bradford, Tioga, Lycoming, Centre, Clinton and Potter counties.

Many adults around the state have tried to quit smoking cigarettes. The geographical distribution of current smokers with at least one attempt to quit in the past year, based on 2006-2008 sample data, is shown below. Only small differences were observed regionally in numbers of smokers who were attempting to quit, varying from 52 percent in the Southwestern Health District to 62 percent in the Southeastern Health District.

Figure 2-3. **Percent of Adult Cigarette Smokers with One or More Attempts to Quit Pennsylvania by Health District, BRFSS 2006-2008**



Note: The lower and upper numbers are the 95% confidence interval, and the middle number is the estimated prevalence of at least one quit attempt in that district. Quitting is defined as stopping smoking cigarettes for one or more days because they were trying to quit. All every day and some day smokers are included in the denominator.
Source: Pennsylvania Behavioral Risk Surveillance Survey, aggregated data 2006, 2007 and 2008, Pennsylvania Department of Health, Bureau of Health Statistics and Research.

Almost two of every three adult smokers in Pennsylvania seriously considered quitting in the next six months, and nearly a third planned to quit in the next 30 days (Table 2-4).

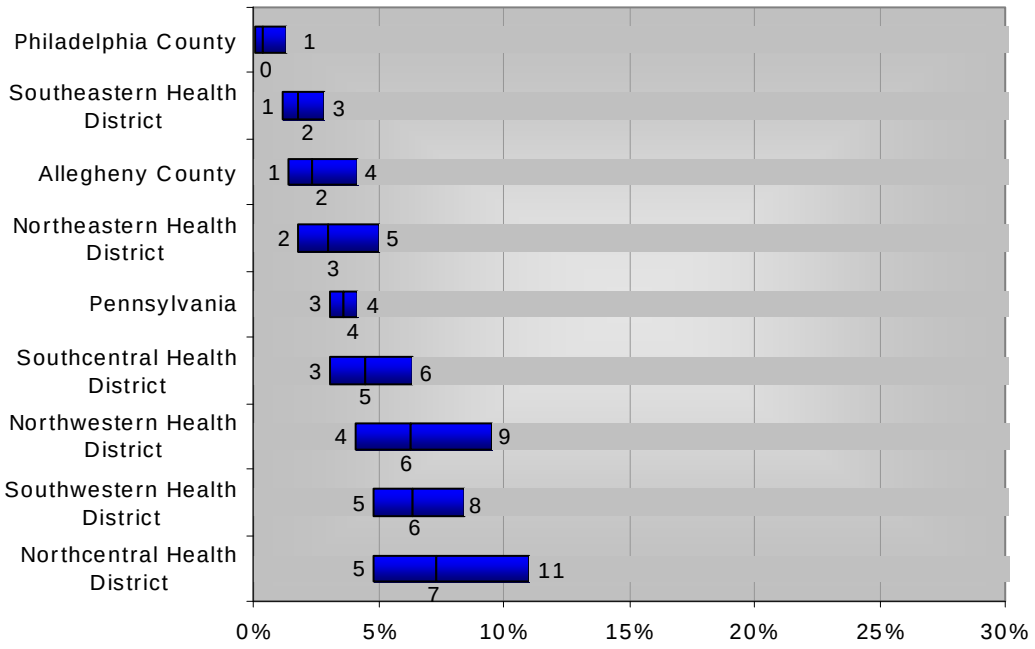
Table 2-4. **Selected Quitting Characteristics of Pennsylvania Adult Cigarette Smokers, ATS 2008**

	Percent	95% Confidence Interval
Current smokers who were seriously considering to stop smoking in the next six months	64%	59% - 70%
Current smokers who planned to stop smoking in the next thirty days	31%	26% - 36%
Current or former smokers who used assistance, either counseling or medication, the last time they tried to quit smoking	28%	24% - 33%

Source: Adult Tobacco Survey, 2008, Pennsylvania Department of Health, Bureau of Health Promotion and Risk Reduction, Division of Tobacco Prevention and Control.

After cigarettes, the second most commonly used tobacco product among Pennsylvania adults is smokeless tobacco. Approximately four percent of Pennsylvania adults used smokeless tobacco in the past 30 days. Rural parts of the state had higher rates of use compared to urban areas. Geographically, Northwestern, Southwestern and Northcentral areas had higher rates of smokeless tobacco use, and Philadelphia County had lower rates when compared to the state.

Figure 2-5. **Current Adult Use of Smokeless Tobacco Prevalence in Pennsylvania by Health District, 2007-2008**



Note: The lower and upper numbers are the range of the 95% confidence interval, and the middle number is the estimated value of the prevalence of smokeless tobacco use in that geographic area.
Source: Pennsylvania Behavioral Risk Surveillance Survey, 2007 and 2008, Pennsylvania Department of Health, Bureau of Health Statistics and Research.

3. Tobacco-Related Deaths and Economic Costs

During 2002 and 2003, it is estimated that in Pennsylvania more than 20,000 lives were lost annually because of the effects of smoking. In comparison, in 2002, there were 1,650 deaths due to motor vehicle accidents, 629 homicides and 1,326 suicides, according to Pennsylvania Department of Health, Bureau of Health Statistics and Research. Smoking-related deaths, by far, lead the list of preventable deaths. Table 3-1 depicts the average annual number of total deaths in each health district and in Philadelphia and Allegheny counties for the years 2002 and 2003. Using those death counts, along with the associated causes of death and the smoking prevalence rate for the two years, smoking-related deaths were calculated using a standard formula adopted by the Center for Disease Control and Prevention (Smoking Attributable Morbidity, Mortality and Economic Costs [SAMMEC]: Adult SAMMEC software) for the state and for the eight regions of the state. The SAMMEC model is applied only to adults aged 35 and over and does not include deaths due to burns or second-hand smoke. There was only a modest geographic difference in the percent of deaths due to smoking.

***Table 3-1*. Estimated Average Annual Smoking-Related Deaths by Geographic Area Pennsylvania, 2002-2003**

Area	Current Smoking Prevalence [1]	Smoking-Related Mortality [2]	Number All Deaths [3]	Percent Smoking-Related Deaths
Pennsylvania	25% (±1)	20,318	129,143	16%
Southeastern Health District (Excluding Philadelphia County)	23% (±2)	4,811	30,967	16%
Northeastern Health District	27% (±3)	2,658	16,656	16%
Southcentral Health District	23% (±3)	2,251	15,031	15%
Northcentral Health District	23% (±5)	1,002	6,724	15%
Northwestern Health District	28% (±4)	1,557	10,320	15%
Southwestern Health District (Excluding Allegheny County)	24% (±2)	2,830	17,743	16%
Allegheny County	25% (±3)	2,429	15,102	16%
Philadelphia County	29% (±4)	2,784	16,600	17%

1. Current smoking prevalence, based on aggregated BRFSS, 2002 and 2003 data, Division of Statistical Support, Bureau of Health Statistics and Research, including 95% confidence interval.
2. Calculated using the Center for Disease Control and Prevention, Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC): Adult SAMMEC software. Calculation is based on current smoking prevalence and deaths attributable to smoking-related causes.
3. Average annual deaths, based on death certificate data, 2002-2003, Division of Vital Records, Bureau of Health Statistics and Research.

Table 3-2, on the next page, lists the diseases and associated ICD-10 codes that have been shown to cause death due to smoking, according to the 2004 Surgeon General's report, *The Health Consequences of Smoking*[1]. These health effects do not cause deaths in equal proportions. Each disease has a relative risk fraction associated that is used by the SAMMEC software formula to calculate the number of deaths.

Table 3-2. **Smoking Attributable Diseases and ICD-10 Codes**

Malignant Neoplasms	**ICD-10**	**Cardiovascular Diseases (continued)**	**ICD-10**
Lip/Oral cavity/Pharynx	C00-C14	Cerebrovascular Disease	I60-I69
Esophagus	C15	Aortic Aneurysm	I71
Stomach	C16	Rheumatic Heart Disease	I00-I09
Pancreas	C25	Other Heart Disease	I29-I51
Larynx	C32	Atherosclerosis	I70
Trachea/Lung/Bronchus	C33-C34	Other Circulatory Diseases	I72-I78
Cervix Uteri	C53	**Respiratory Diseases**	
Kidney & Renal Pelvis	C64-C65	Influenza	J10-J11
Bladder	C67	Bronchitis	J40-J42
Acute Myeloid Leukemia	C92.0	Chronic Airways Obstruction	J44
Cardiovascular Diseases		Pneumonia	J12-J18
Ischemic Heart Disease	I20-I25	Emphysema	J43
Pulmonary Heart Disease	I26-I28		

Source: Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC): Adult SAMMEC and Maternal and Child Health (MCH) SAMMEC software, 2007. Available at http://apps.nccd.cdc.gov/sammec/

The direct medical expenses, shown in Table 3-3, are those personal health care costs associated with smoking-related illnesses for adults aged 35 and over. In 2004, direct medical expenses due to smoking reached approximately $4.69 billion in Pennsylvania. These direct health care costs include ambulatory care, hospital care, prescription drugs, nursing home care and other care (such as home health, nonprescription drugs and non-durable medical products).

Table 3-3. **Smoking-Related Personal Health Care Costs, Pennsylvania, 2004**

	Smoking-Attributable Personal Health Care Expenditure
Ambulatory care	$666,000,000
Hospital care	$2,390,000,000
Prescription drugs	$743,000,000
Nursing Home	$549,000,000
Other	$339,000,000
Total	$4,687,000,000

Source: Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC): Adult SAMMEC and Maternal and Child Health (MCH) SAMMEC software, 2007. Available at http://apps.nccd.cdc.gov/sammec/

In addition to direct health care costs, lost productivity due to smoking-related illness is estimated for Pennsylvania to be over $4.7 billion annually (see Table 3-4) from 2000 through 2004. CDC's documentation of SAMMEC defines productivity losses as 'the present value of foregone future earnings (PVFE) from paid labor and of foregone future imputed earnings from unpaid household work.'

Smoking-attributable years of potential life lost (YPLL) is a measure of years of life lost for premature deaths attributable to cigarette smoking. Table 3-5 lists the major smoking-related health risks and an estimated number of years of life lost due to those smoking-related diseases and the prevalence of smoking in Pennsylvania, including approximately 266,000 years statewide. These calculations include adults aged 35 and over and do not include deaths due to burns or second-hand smoke.

***Table 3-4*. Average Annual Smoking-Attributable Productivity Losses by Major Illness Category, Pennsylvania, 2000-2004 [1,2]**

Disease Category	Productivity Loss
Malignant Neoplasms	$2,302,474,000
Cardiovascular Diseases	$1,769,221,000
Respiratory Diseases	$665,271,000
Total	$4,736,966,000

Source: Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC): Adult SAMMEC and Maternal and Child Health (MCH) SAMMEC software, 2007. Available at http://apps.nccd.cdc.gov/sammec/

1. Among adults age 35 and older. 2. Does not include burns or second-hand smoke deaths.

***Table 3-5*. Average Annual Smoking-Attributable Years of Potential Life Lost by Major Illness Category, Pennsylvania, 2000-2004 [1,2]**

Disease Category	Years of Productive Life Lost
Malignant Neoplasms	120,355
Cardiovascular Diseases	92,692
Respiratory Diseases	53,007
Total	266,054

Source: Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC): Adult SAMMEC and Maternal and Child Health (MCH) SAMMEC software, 2007. Available at http://apps.nccd.cdc.gov/sammec/.

1. Among adults age 35 and older. 2. Does not include burns or second hand-smoke deaths.

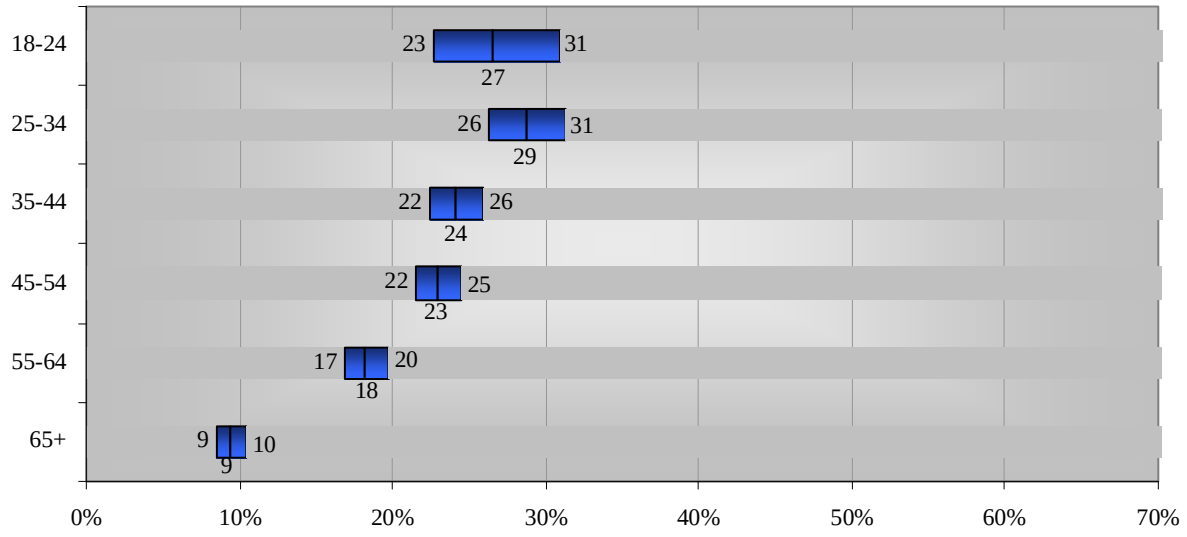
1. The health consequences of smoking: a report of the Surgeon General. [Atlanta, Ga.]: Dept. of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; Washington, D.C.

4. Smoking-Related Disparities

Different population groups use and are affected by tobacco products at different rates. The disparity impacts the health and well-being of some populations substantially more than others. In order to target and deliver appropriate tobacco education and control programs, it is important to identify the most affected groups of the population.

The charts below and on the following pages show the 95 percent confidence intervals of current cigarette use among the various populations, including age, race, education, income and health care coverage. In this report, differences of prevalence are considered statistically significant when the confidence intervals do not overlap. For example, among Pennsylvania residents aged 25 to 34, based on three years (2006-2008) of BRFSS survey data, it was estimated that between 26 and 31 percent were current cigarette smokers. This is statistically higher than the smoking rate estimated for either 55 to 64 year olds (17 to 20 percent) or those over 65 (9 to 10 percent), but not statistically different that those in the 18 to 24 year age group (23 to 31 percent).

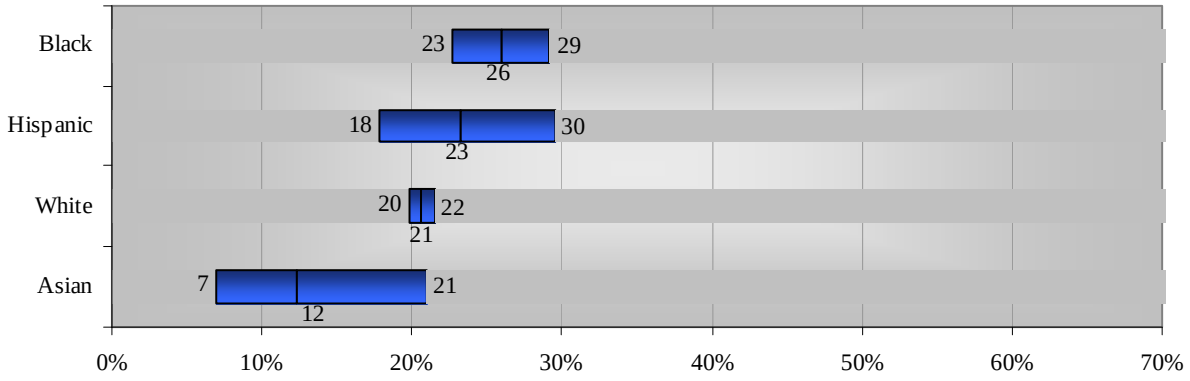
***Figure 4-1*. Percentage of Current Smoking* by Age, Pennsylvania Adults, 2006-2008**



Source: Behavioral Risk Factor Surveillance System (BRFSS), 2006, 2007 and 2008, Division of Statistical Support, Bureau of Health Statistics and Research.
* Percentage of adults who smoked some days or every day of the 30 days prior to the survey and had smoked 100 or more cigarettes in lifetime.

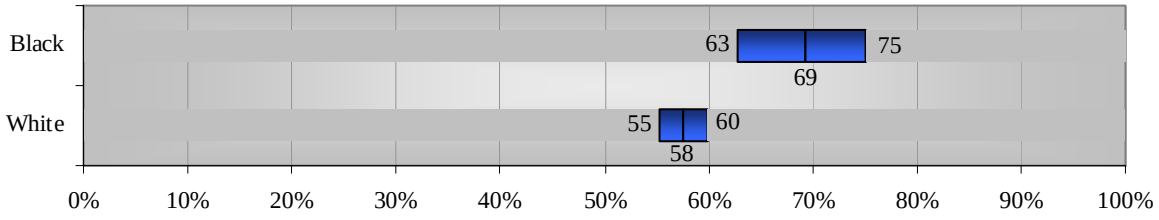
Black adults in Pennsylvania smoked cigarettes at significantly higher rates than whites. The larger confidence intervals shown in Figures 4-2 for Hispanic and Asian populations are the result of smaller population samples, which result in larger sample errors and less information about those populations. Perhaps because of that, no differences were found between smoking rates among Hispanics or Asians compared to whites. Figure 4-3 shows the adults who quit smoking for at least a day in the past twelve months. Blacks had a higher rate of quit attempts than whites during this three-year period.

Figure 4-2. **Percentage of Current Cigarette Smoking* by Race, Pennsylvania Adults, 2006-2008**



Source: Behavioral Risk Factor Surveillance System (BRFSS), 2006, 2007 and 2008, Division of Statistical Support, Bureau of Health Statistics and Research.
* Percentage of adults who smoked some days or every day of the 30 days prior to the survey and had smoked 100 or more cigarettes in lifetime.
Note: The racial groups of black, white, and Asian in this chart exclude those with Hispanic ethnicity.

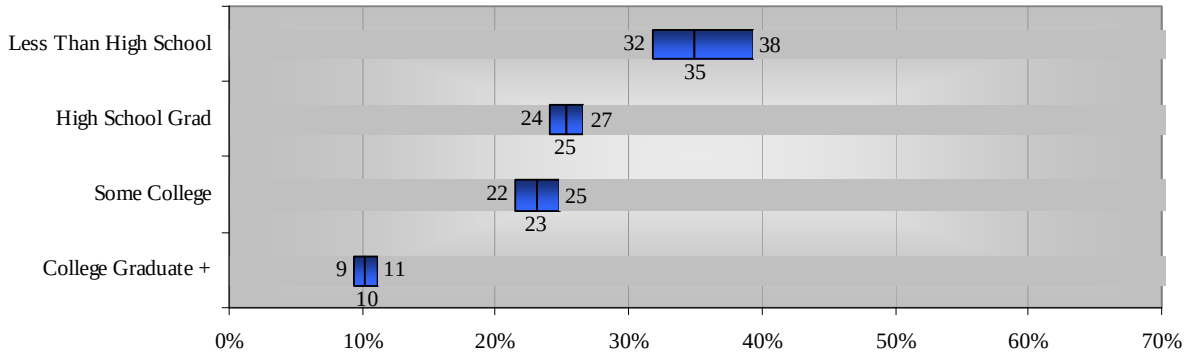
Figure 4-3. **Percentage of Current Cigarette Smokers* Who Stopped Smoking One or More Times in Past 12 Months by Race, Pennsylvania Adults, 2006-2008**



Source: Behavioral Risk Factor Surveillance System (BRFSS), 2006, 2007 and 2008, Division of Statistical Support, Bureau of Health Statistics and Research.
* Percentage of adults who smoked some days or every day of the 30 days prior to the survey and had smoked 100 or more cigarettes in lifetime.
Note: The racial groups of black and white in this chart exclude those with Hispanic ethnicity.

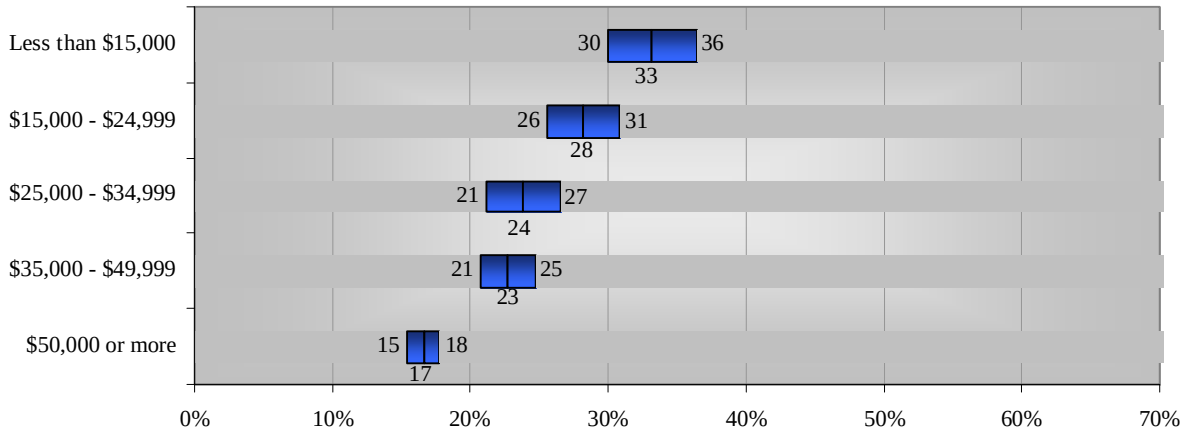
Notable differences in smoking prevalence have also been found based on education and income. Adults who reported having less than a high school diploma had significantly higher rates of current cigarette use than those with more education. In fact, adults with less than a high school education were over three times more likely than college graduates to have been current smokers, as seen in Figure 4-4 below. As with education, when smoking prevalence is broken out by household income, there is a similar trend toward higher rates of current cigarette smoking for adults with lower incomes and lower rates of smoking associated with higher incomes (see Figure 4-5).

Figure 4-4. **Percentage of Current Cigarette Smoking* by Educational Status**
Pennsylvania Adults, 2006-2008



Source: Behavioral Risk Factor Surveillance System (BRFSS), 2006, 2007 and 2008, Division of Statistical Support, Bureau of Health Statistics and Research.
* Percentage of adults who are 25 years old or older, who smoked some days or every day of the 30 days prior to the survey and had smoked 100 or more cigarettes in lifetime.

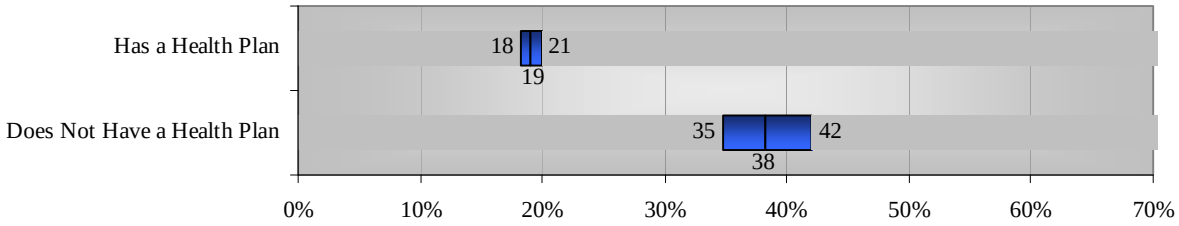
Figure 4-5. **Percentage of Current Cigarette Smoking* by Household Income**
Pennsylvania Adults, 2006-2008



Source: Behavioral Risk Factor Surveillance System (BRFSS), 2006, 2007 and 2008, Division of Statistical Support, Bureau of Health Statistics and Research.
* Percentage of adults who smoked some days or every day of the 30 days prior to the survey and had smoked 100 or more cigarettes in lifetime.

Current smoking rates among Pennsylvania adults by whether or not they have a healthcare plan were also reviewed. Pennsylvanians who are not enrolled in either a private health insurance plan or a publicly funded plan such as Medicare or Medicaid have a smoking prevalence about twice as high as those with a health plan.

Figure 4-6. **Percentage of Current Cigarette Smoking* by Healthcare Plan Status**
Pennsylvania Adults, 2006-2008



Source: Behavioral Risk Factor Surveillance System (BRFSS), 2006, 2007 and 2008, Division of Statistical Support, Bureau of Health Statistics and Research.
* Percentage of adults who smoked some days or every day of the 30 days prior to the survey and had smoked 100 or more cigarettes in lifetime.

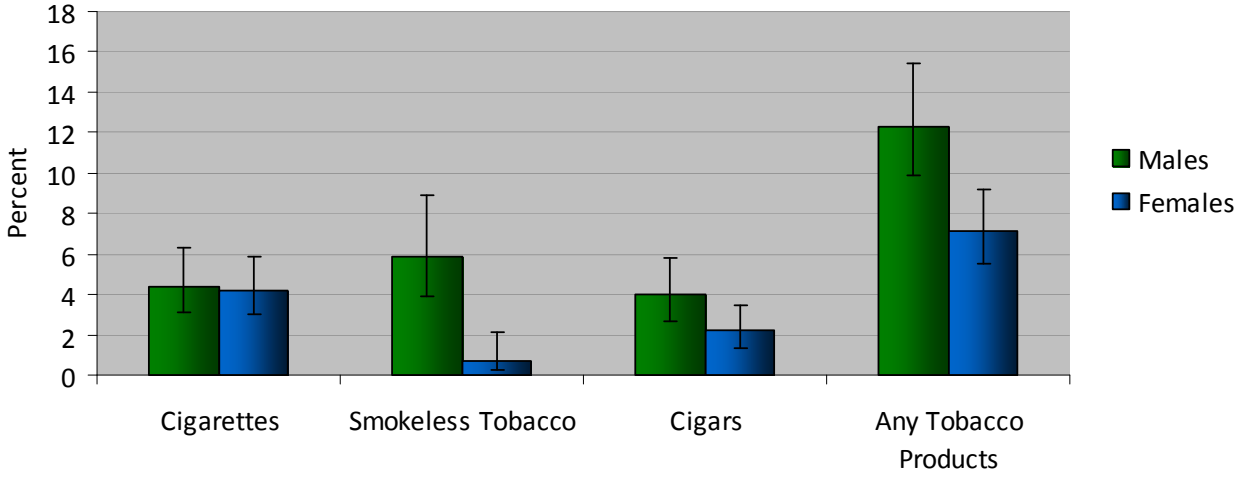
5. Youth Tobacco Use

The 2008-2009 Pennsylvania Youth Tobacco Survey (2008 PA YTS) found that approximately four percent of middle school boys and girls smoked cigarettes in the past 30 days, as shown in Figure 5-1. Among high school students about 20 percent of boys and 15 percent of girls had smoked in the past 30 days (see Figure 5-2), although the different rates between boys and girls were not statistically significant.

Smokeless tobacco use among males more than doubled between middle school, when about six percent used it, and high school, when about 14 percent of males said that they used smokeless tobacco during the past 30 days. Current use of cigars went up fourfold between middle school and high school for males, from about four percent in middle school to about 17 percent of high school males.

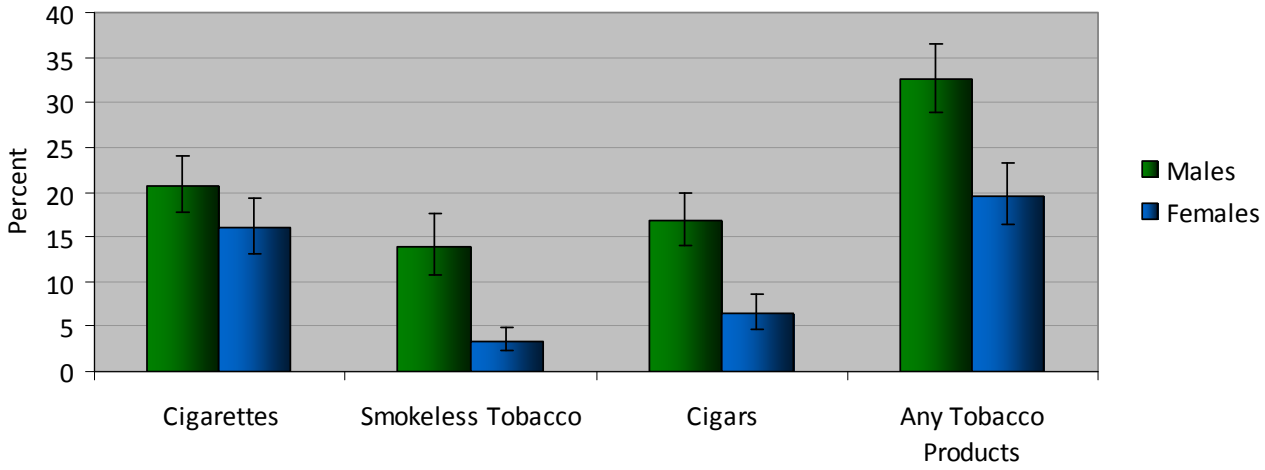
Considering all tobacco products (cigarettes, smokeless, cigars, pipes, bidis and kreteks), approximately one of every eight boys in middle school and about one of every three boys in high school had used a tobacco product in the past 30 days. Girls used tobacco at significantly lower rates than boys, but nevertheless, about one of every five high school girls had used some tobacco product in the past 30 days.

Figure 5-1. **Percentage of Middle School Students (Grades 6-8) Who Used Tobacco Products During the Past 30 Days, Pennsylvania, 2008-2009**



Source: Pennsylvania Youth Tobacco Survey, 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control.
Note: Any tobacco includes cigarettes, smokeless, cigars, pipes, bidis and kreteks. The I denotes 95% confidence interval.

***Figure 5-2*. Percentage of High School Students (Grades 9-12) Who Used Tobacco Products During the Past 30 Days, Pennsylvania, 2008-2009**

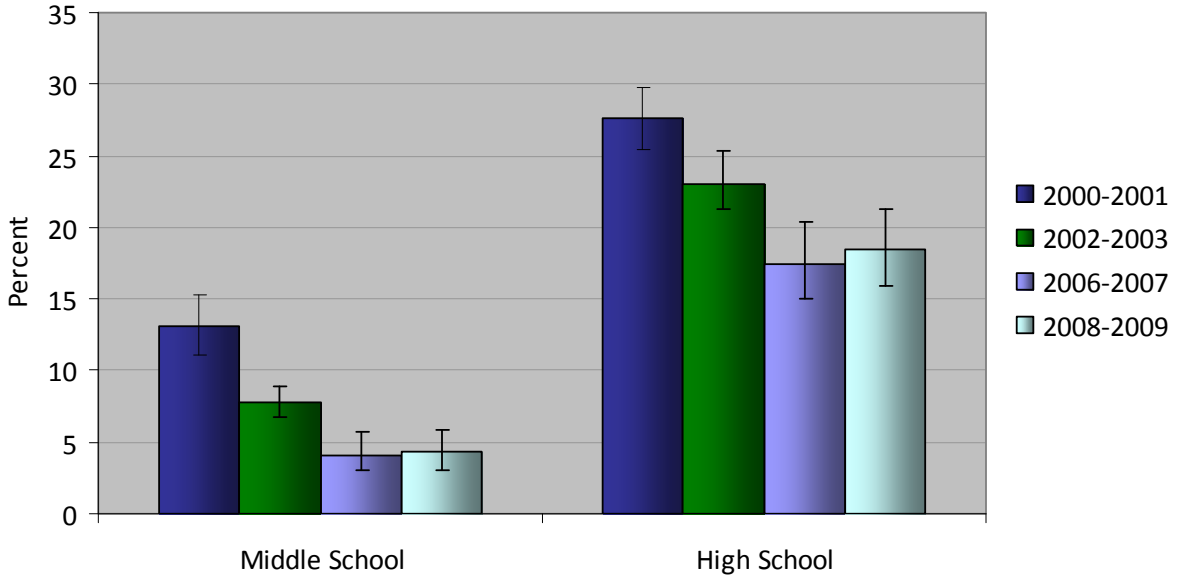


Source: Pennsylvania Youth Tobacco Survey, 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control.

Note: Any tobacco includes cigarettes, smokeless, cigars, pipes, bidis and kreteks. The I denotes 95% confidence interval. Bidis are thin hand-rolled cigarettes from South Asia and often come in flavors, such as chocolate or mango. Kreteks are cigarettes made of a mix of tobacco and cloves.

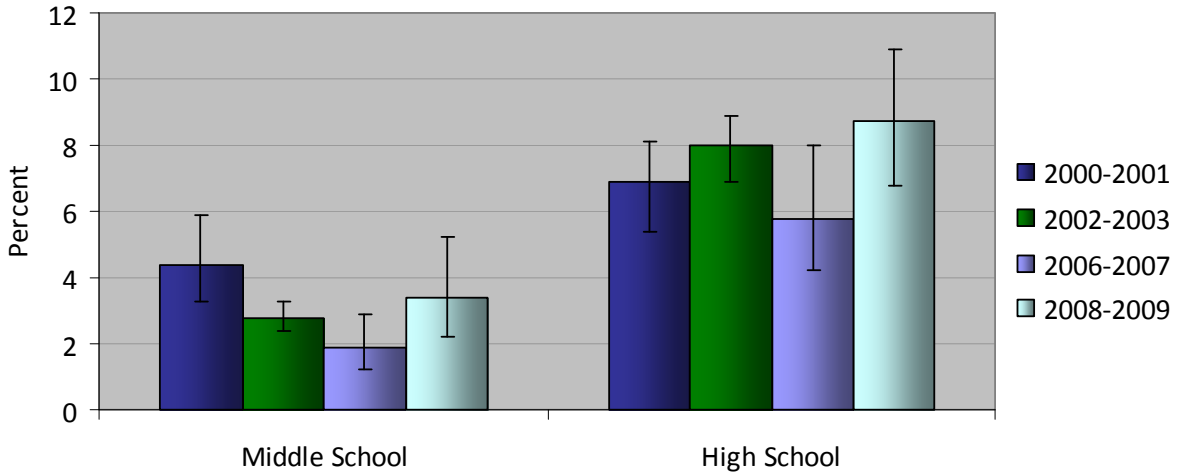
The 2008 PA YTS showed rates of cigarette smoking, use of smokeless tobacco products, cigar use and use of any tobacco product among middle school students and high school students all to be statistically unchanged since the survey for the 2006-2007 school year, as shown on Figures 5-3, 5-4, 5-5 and 5-6. After declining significantly earlier in the decade, the use of tobacco among youth appears to have leveled out, at least for the present. In fact, the use of smokeless tobacco may have increased, but the change is not statistically significant, since the 95 percent confidence intervals do not overlap.

Figure 5-3. **Trends of Middle School (Grades 6-8) and High School (Grades 9-12) Students Who Smoked Cigarettes in the Past 30 Days, Pennsylvania, 2000-2008**



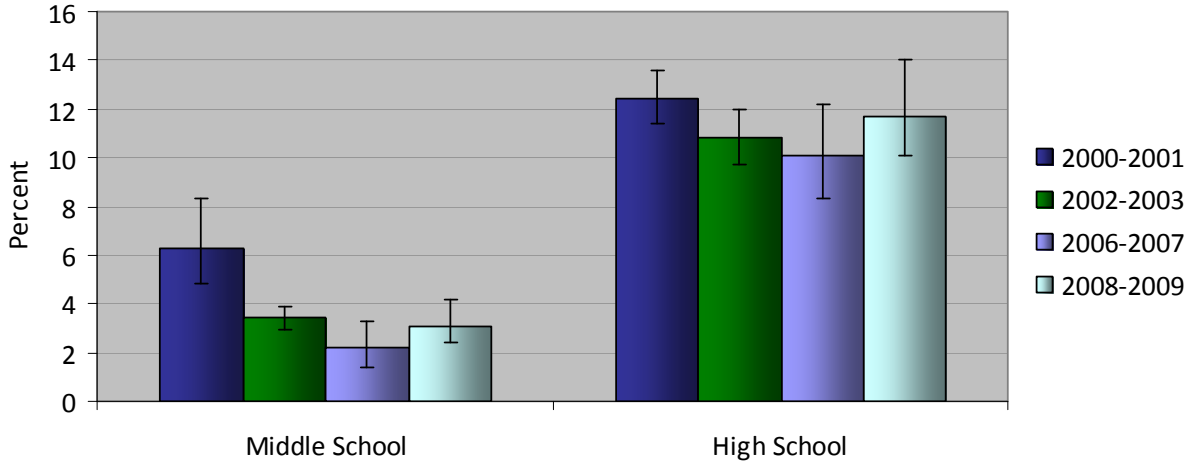
Source: Pennsylvania Youth Tobacco Survey, 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control. The I denotes 95% confidence interval.

Figure 5-4. **Trends of Middle School (Grades 6-8) and High School (Grades 9-12) Students Who Used Smokeless Tobacco in the Past 30 Days, Pennsylvania, 2000-2008**



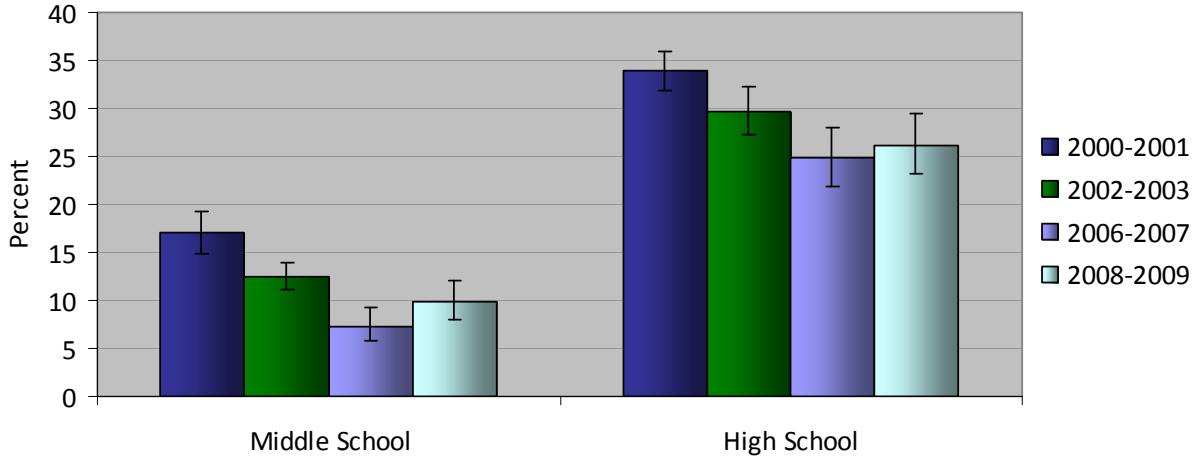
Source: Pennsylvania Youth Tobacco Survey, 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control. The I denotes 95% confidence interval.

Figure 5-5. **Trends of Middle School (Grades 6-8) and High School (Grades 9-12) Students Who Smoked Cigars in the Past 30 Days, Pennsylvania, 2000-2008**



Source: Pennsylvania Youth Tobacco Survey, 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control. The I denotes 95% confidence interval.

Figure 5-6. **Trends of Middle School (Grades 6-8) and High School (Grades 9-12) Students Who Used Any Tobacco Products in the Past 30 Days, Pennsylvania, 2000-2008**

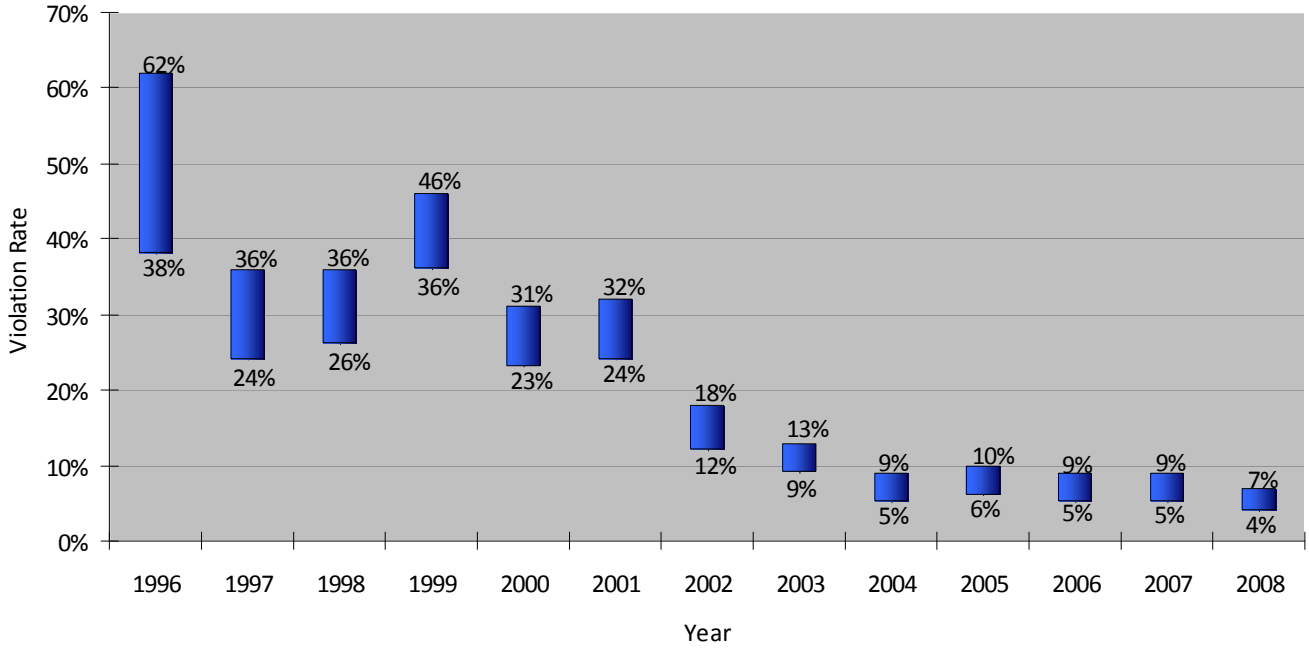


Source: Pennsylvania Youth Tobacco Survey, 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control. The I denotes 95% confidence interval.

6. Youth Access to Tobacco

Cigarette use among youth has declined, and one reason for that drop may be that fewer retailers are selling cigarettes to minors. The Federal Synar Regulation requires that each state annually conduct random, unannounced inspections, using hired youth inspectors, to assess their compliance with the state's access law. States are required to meet annual target inspection failure rates established by the federal government. Failure to meet requirements of the Synar Regulation can result in a penalty of 40 percent of a state's substance abuse prevention and treatment block grant allocation. Figure 6-1, below, shows a dramatic decline in the proportion of retailers making illegal sales to minors between 1996 and 2008, as found by the annual PA Synar surveys. The figure shows the confidence intervals of rates of illegal sales, with the 2008 violation rate of between 4 and 7 percent.

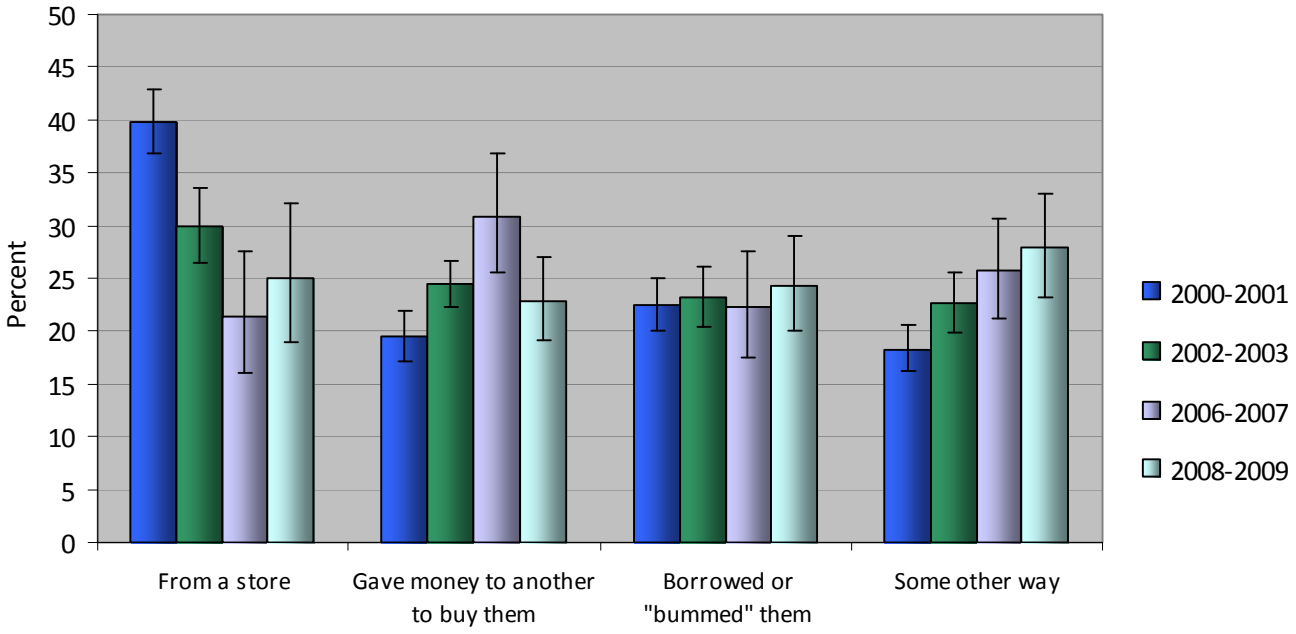
Figure 6-1. **Annual Synar Compliance Checks of Tobacco Sales to Minors Pennsylvania, 1996-2008**



Source: Synar Survey, 1996-2008, Pennsylvania Department of Health, Bureau of Health Statistics and Research.

While fewer stores are selling cigarettes to minors, about one of every four high school students who smoked still obtained their cigarettes by purchasing them in a store, as shown in Figure 6-2 below. About one of every four high school smokers gave money to another person to get their cigarettes. Another quarter of the students usually got their cigarettes by borrowing or 'bumming' them, and the remaining quarter got them by other means.

***Figure 6-2*. Percentage of Methods High School Students Used to Obtain Cigarettes Pennsylvania, 2000-2001, 2002-2003, 2006-2007 and 2008-2009**



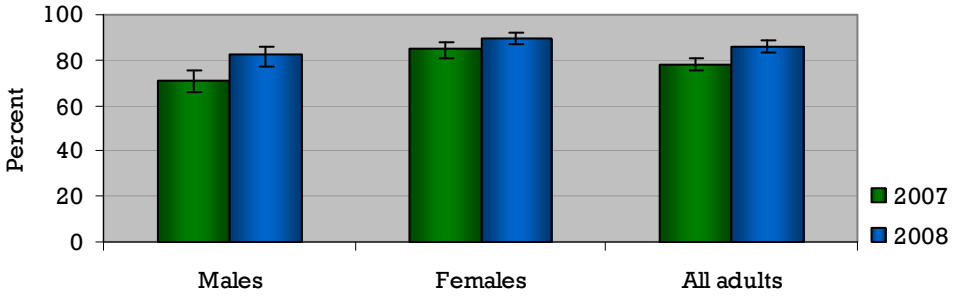
Source: Pennsylvania Youth Tobacco Survey, 2000-2001, 2002-2003, 2006-2007 and 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control.
The I denotes 95% confidence interval.

7. Secondhand Smoke

In order to protect the health of PA residents, in September 2008 the Clean Indoor Air Act (CIAA) was enacted. The Act prohibits smoking in most indoor public places, allowing exceptions in places such as some rooms in hotels, certain bars, restaurants with separate bar areas and some private clubs. Smoking is permitted on up to 50 percent of gambling floors of casinos, in private residences and in places where tobacco is manufactured or sold. These are places of employment, so the employees are unprotected from secondhand smoke hazards.

The Pennsylvania Adult Tobacco Survey (PA ATS) was conducted during seven months prior to CIAA enactment and the seven months after in order to measure possible changes in tobacco-related attitudes and behaviors. In the year since enactment of the CIAA, the number of adult indoor workers protected from secondhand smoke in the workplace increased from 78 percent (95 percent CI=75-81 percent) to 86 percent (CI=84-89 percent), see Figure below. Females were found to be more likely than males to work in a place that does not allow smoking, and males had the greater increase in such protection during that year.

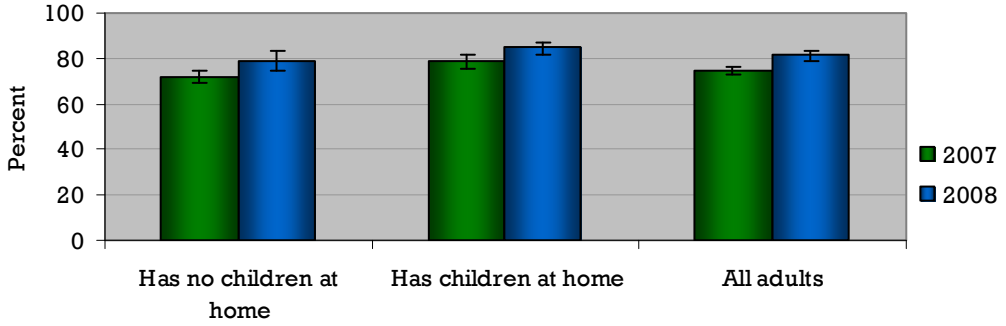
Table 7-1. **Indoor Workers Whose Workplace Bans Smoking**
Pennsylvania Adult Tobacco Survey, 2007 and 2008



Note: ATS 2007 was conducted October 2007 through May 2008, and ATS 2008 was conducted October 2008 through May 2009.The I represents the 95% confidence interval.

While the CIAA pertains only to smoking in public places, an interesting finding in this survey was the 7 percentage point increase among adults who banned smoking in their home. In the seven months prior to May 2009, 81 percent (CI: 80-83 percent) of adults reported not allowing smoke in the home compared with 75 percent (CI: 73-76 percent) the earlier year. More adults with children in the homes – 85 percent (CI: 81-88 percent) – have made this restriction.

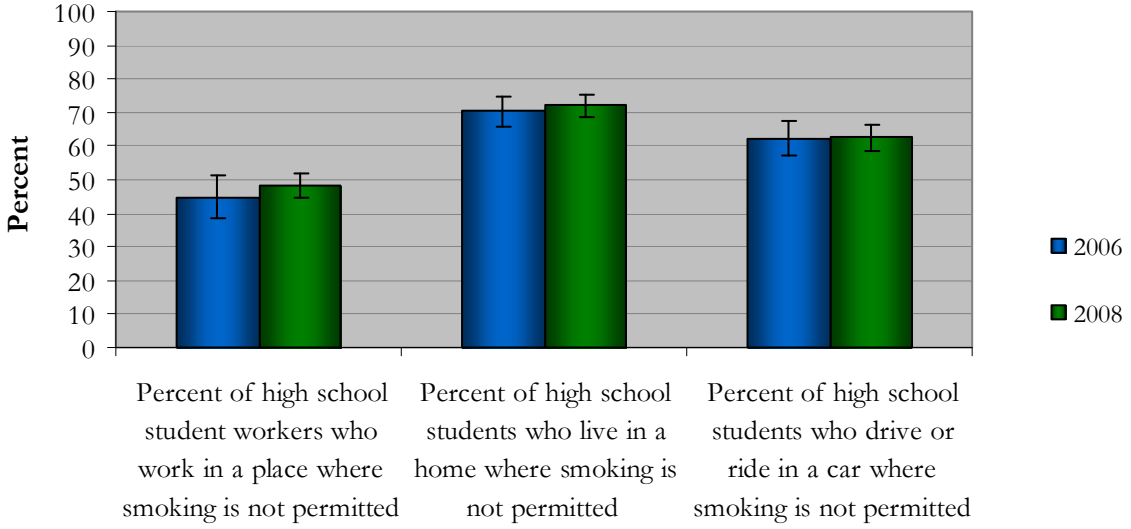
Table 7-2. **Pennsylvania Adults Who Do Not Allow Smoking in the Home**
Pennsylvania Adult Tobacco Survey, 2007 and 2008



Note: ATS 2007 was conducted in October 2007 through May 2008, and ATS 2008 was conducted in October 2008 through May 2009.The I represents the 95% confidence interval.

In the Youth Tobacco Survey, a school based survey conducted September 2008 through January 2009, students were asked about rules concerning cigarette smoking in their work places, their homes and their cars. The same questions were asked two years earlier, and students answers were virtually unchanged in that two year period. Of particular concern are the high school students who have jobs. Almost 50 percent of the students who work have rules prohibiting smoking in their workplaces, which means that approximately half do not have rules protecting them from secondhand smoke. About 70 percent of students reported living in a home which does not allow smoking, and just over 60 percent say that smoking is not permitted in the vehicle in which they ride or drive.

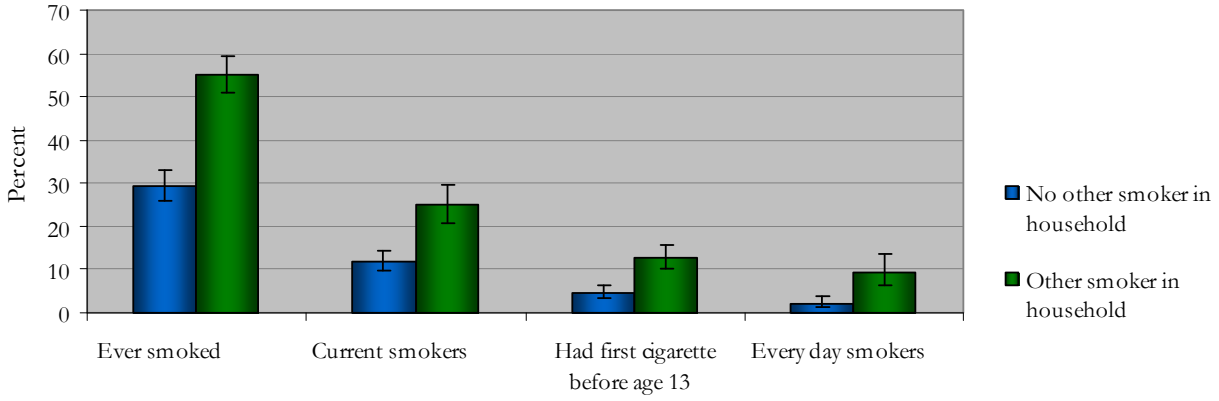
***Figure 7-3*. Rules about Cigarette Smoking in High School Students' Workplaces, Homes and Vehicles, Pennsylvania, 2006 and 2008**



Source: Pennsylvania Youth Tobacco Survey, 2006-2007 and 2008-2009, Pennsylvania Department of Health, Division of Tobacco Control and Prevention. The I denotes 95% confidence interval.

The presence of others in the household who smoke has a tremendous effect on youth cigarette use. High school students who participated in the Youth Tobacco Survey were asked if there were other smokers in their home. Students who lived with another smoker were over twice as likely to smoke, as shown in Figure 7-4. The presence of other smokers in the household was associated with much higher percentages of ever having tried a cigarette; these students were also more than twice as likely to have started smoking before age thirteen. In addition, they were over four times as likely to be every day smokers.

***Figure 7-4*. Effects on High School Students by Whether or Not Other Smokers Live in the Household, Pennsylvania, 2008**



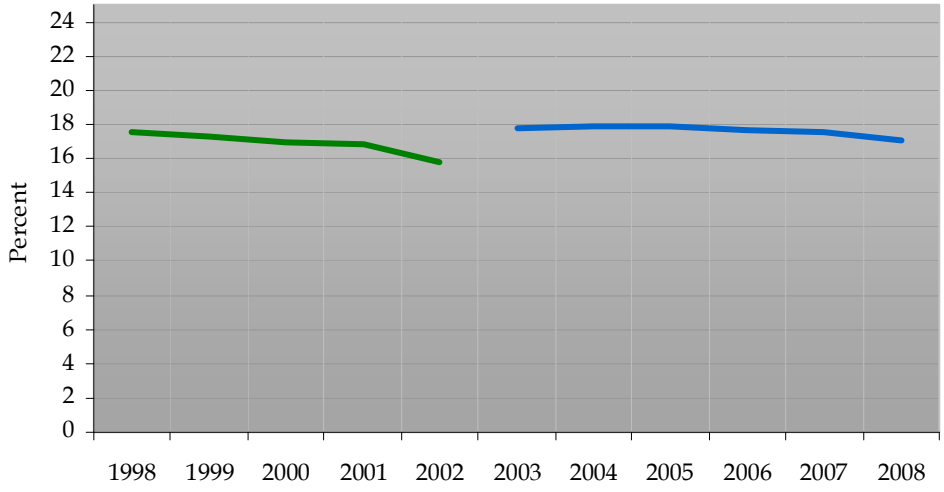
Source: Pennsylvania Youth Tobacco Survey, 2008-2009 Pennsylvania Department of Health, Division of Tobacco Control and Prevention. I denotes 95% confidence interval.

8. Tobacco Use During Pregnancy

The rate of cigarette use among pregnant women who had a live birth is only slightly lower than that of the general population. In 2008, about 17 percent of Pennsylvania resident women who gave birth had smoked during their pregnancy. The figure below shows the rate of smoking among women who gave birth between 1998 and 2008. Maternal smoking fell slowly between 1998 and 2002. In 2003 the method of collecting smoking information on the birth certificate changed, which may or may not account for the slight increase shown in 2003.

Prior to 2003 women were asked simply if they smoked during their pregnancy. Since 2003, women are asked more specifically if they smoked in the three months prior and each of the three trimesters of the pregnancy. Now women who smoked in any of the three trimesters of pregnancy are considered to have smoked during the pregnancy, even if they quit at some point. Since this 2003 change, the rate of smoking among pregnant women who had a live birth was unchanged between 2003 and 2005, but has recently declined slightly.

***Figure 8-1*. Percentage of Live Births to Mothers Who Smoked During Pregnancy Pennsylvania Residents, 1998 through 2008**



Source: Pennsylvania Certificate of Live Birth, Pennsylvania Department of Health, Bureau of Health Statistics and Research, Division of Statistical Support, 1998-2008.
Notes: Unknowns are excluded from calculations. Data prior to 2003 is not directly comparable to data from 2003 or later due to changes in questions.

The table below shows the total number of births to pregnant women who smoked, as well as what percent those smokers represent of all births to mothers of known smoking status – by age, marital status, race and ethnicity, education and trimester that prenatal care began. Older women smoked less than younger and more educated adults smoked less than less educated women. In the general population, black adults have a higher rate of smoking; among pregnant women who had a live birth, white women had a higher rate.

***Table 8-2*. Number & Percentage of Live Births to Pregnant Women Who Smoked During Pregnancy by Maternal Characteristics, PA Residents, 2004, 2006 and 2008**

	2004		**2006**		**2008**	
Characteristic	**# smoked**	**% smoked**	**# smoked**	**% smoked**	**# smoked**	**% smoked**
Age						
<20	3,574	29	3,426	26	3,040	23
20-24	8,987	29	9,084	28	8,899	27
25-29	6,197	17	6,674	17	6,916	17
30-34	3,666	10	3,586	10	3,402	10
35-39	1,853	10	1,848	10	1,676	9
40+	461	12	410	10	344	9
Marital Status						
Married	8,167	9	7,587	9	6,728	8
Unmarried	16,523	34	17,449	32	17,335	30
Race/Ethnicity						
American Indian	49	26	54	27	53	25
Asian	109	2	208	4	133	3
Black	3,318	18	3,273	16	3,092	15
Hispanic	1,363	12	1,393	11	1,328	10
White	20,132	19	20,351	19	19,706	19
Education						
< High school	6,820	31	6,761	29	6,215	28
High school graduate	10,662	28	10,918	28	10,555	28
Some college	6,003	17	6,124	17	6,354	17
College graduate +	1,128	3	1,121	3	1,049	2
Prenatal Care Begun						
1st Trimester	15,353	16	14,894	16	14,543	15
2nd Trimester	3,755	23	3,893	22	3,912	21
3rd Trimester	909	24	868	22	896	21
No Prenatal Visits	497	37	584	38	531	30
Total	**24,760**	**18**	**25,051**	**18**	**24,284**	**17**

Source: Pennsylvania Certificate of Live Birth, Pennsylvania Department of Health, Bureau of Health Statistics and Research, Division of Statistical Support, 1996-2008.
Notes: 1) Hispanics can be of any race. 2) Percents may not compute with numbers on chart due to rounding. 3) Starting with 2003, the collection process for education data and smoking status changed and data may not be comparable to previous years.

The table below shows the rate of smoking among women who gave birth during 2007 by eight health regions in Pennsylvania. These health regions are described in Chapter 2 of this report.

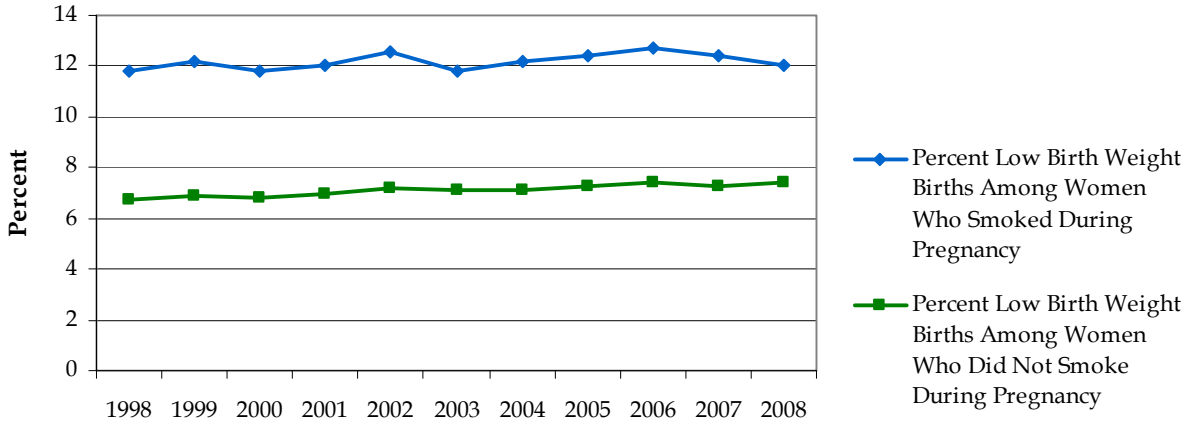
***Table 8-3*. Percent of Live Births to Women who Smoked During Pregnancy by Health Region, Pennsylvania Residents, 2007**

Health Region	Percent	95% Lower Confidence Interval	95% Upper Confidence Interval
Southeast Health Region	12	11	12
Philadelphia County	13	13	14
Allegheny County	18	17	19
South Central Health Region	19	19	20
Northeast Health Region	20	20	21
North Central Health Region	22	21	23
Southwest Health Region	24	24	25
Northwest Health Region	29	28	30

Source: Pennsylvania Certificate of Live Birth, Pennsylvania Department of Health, Bureau of Health Statistics and Research, Division of Statistical Support, 2007.

Women who reported smoking one or more cigarettes during pregnancy had a greater likelihood of having babies born with low birth weight. Low birth weight is defined as a baby weighing less than 2500 grams. Of births to Pennsylvania residents, approximately 12 percent of mothers who smoked during pregnancy gave birth to a baby less than 2500 grams, compared with 7 percent of mothers who did not smoke.

***Figure 8-4*. Maternal Smoking and Low Birth Weight by Year Pennsylvania 1998-2008**



Source: Pennsylvania Certificate of Live Birth, Pennsylvania Department of Health, Bureau of Health Statistics and Research, Division of Statistical Support, 1998-2008.

Appendix A: Data Sources

I. Survey Data

Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing random-digit dialed telephone survey of adults concerning health-related behaviors. The BRFSS was developed and is partially funded by the Centers for Disease Control and Prevention (CDC) and is conducted in all states in the U.S. The sample data were weighted to reflect unequal probabilities of selection. Post-stratification weights were computed to adjust for over and under-representation of certain population subgroups in the samples. Confidence intervals at the 95 percent level were also calculated using SAS/SUDAAN and shown as percentages to provide a basis for quality analysis and comparability. This report used 2008 BRFSS which had 13,252 completed interviews and a CASRO rate of 46 percent. For more information on Pennsylvania BRFSS refer to www.health.state.pa.us/stats, look at Behavioral Risk and Injury statistics, Behavioral Health Risks of Pennsylvania Adults, and review the Technical Notes.

Adult Tobacco Survey

The Pennsylvania Adult Tobacco Survey (ATS) is a point-in-time random-digit dialed telephone survey of adults in Pennsylvania concerning tobacco use and related behaviors and attitudes. The ATS was developed by CDC and conducted in fall and winter of 2008-2009. A total of 4,004 adults were interviewed for this survey, with a CASRO rate of 39 percent. The sample data were weighted to reflect unequal probabilities of selection. Post-stratification weights were computed to adjust for over and under-representation of certain population subgroups in the samples. Confidence intervals at the 95 percent level were calculated using SAS/SUDAAN and shown as percentages to provide a basis for quality analysis and comparability.

Youth Tobacco Survey

The Youth Tobacco Survey (YTS) was developed by CDC and was conducted in the 2008-2009 school year. The sample consisted of a two-stage cluster design of middle school students and high school students. Statewide, 90 public high schools were sampled and 76 participated for a school participation rate of 84 percent. There were 2,465 of the 3,133 students chosen who participated yielding a student participation rate of 79 percent and an overall high school participation rate of 66 percent. For public middle schools, 84 schools were selected and 71 participated, for a school participation rate of 85 percent. There were 2,389 students of the eligible 2,829 who participated, giving a student participation rate of 84 percent and an overall middle school participation rate of 71 percent.

Generally, second period classes at each school were randomly selected, so that each student had an equal chance of selection. The sample data were weighted to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of nonresponse. Confidence intervals at the 95 percent level were calculated using SAS/SUDAAN and shown as percentages to provide a basis for quality analysis and comparability.

Synar

The Federal Synar Regulation requires that each state annually conduct a probability survey of stores using hired youth inspectors to assess compliance with the states' laws restricting cigarettes sales to minors. States are required to meet annual target inspection failure rates established by the federal government. Failure to meet requirements of the Synar Regulation can result in a penalty of 40 percent of a state's substance abuse prevention and treatment block grant allocation. Pennsylvania has conducted these inspections annually since 1996. The survey uses a complex sample design incorporating stratification, clustering and random sampling. The sampling frame is created yearly from the Department of Revenue's cigarette license file and has not included vending machines since 2005, when they were outlawed in places accessible to youth.

II. Vital Statistics Data

The Pennsylvania Department of Health's vital statistics registration system is the source of the birth and death statistics in this report. Birth certificate data are used to analyze tobacco use during pregnancy. In 2003, changes were made in the birth certificate, including the way the tobacco use question was asked. Now mothers are asked whether they smoked in the three months prior to pregnancy and during each of the three trimesters, rather than whether they used tobacco during pregnancy. This difference in the way the question is asked causes some concern about the comparability with previous years of birth data. Also, prior to 2003, mothers were asked to report the highest grade completed. The 2003 certificate includes a series of check boxes to report the highest level of education completed at the time of delivery. The check boxes include degrees completed, rather than years of schooling. This change also leads to concern about comparability with the education-related data prior to 2003.

III. Other

Pennsylvania Department of Revenue Cigarette Tax Receipts

Data on the per capita cigarette sales rate for Pennsylvania are calculated using tobacco cigarette stamp sales, internet sales reports and tax revenue collected by the Pennsylvania Department of Revenue. Cigarettes purchased per capita were calculated by dividing the known sales of packs of cigarettes for the calendar year by the estimated adult population, aged 18 and over, of the state.

Smoking-Attributable Morbidity, Mortality, and Economic Costs (SAMMEC)

SAMMEC software was developed by CDC. Adult SAMMEC calculates annual smoking-attributable deaths, years of potential life lost, smoking-attributable expenditures and productivity losses for adults in the United States, individual states and user-defined populations. The following data items were computed and entered into the SAMMEC software to calculate smoking attributable deaths: smoker and former smoker prevalence, by sex and by age for each state health district, and death counts per area by smoking related cause and age. These same data items, smoking prevalence and numbers of deaths, were used with SAMMEC to compute the years of potential life lost. This software is available at http://apps.nccd.cdc.gov/sammec/.

Appendix B: Tables with Confidence Intervals

Table B-1. **Percentage of Adults Who Smoke, Pennsylvania and United States, 1998-2008**

	PA Every Day Smoking Prevalence	PA Every Day Smoking 95% Confidence Intervals	PA Some Days Smoking Prevalence	PA Some Days Smoking 95% Confidence Intervals	US Every Day Smoking Prevalence	US Some Days Smoking Prevalence
1998	19.4	18-21	4.4	4-5	18.5	4.6
1999	18.4	17-20	4.7	4-6	18	4.8
2000	19.3	17.8-20.8	5.1	4.3-6.0	17.6	5.1
2001	18.9	17.5-20.5	5.6	4.7-6.6	17.4	5.6
2002	19.5	18.5-20.4	5.1	4.6-5.6	17.8	5
2003	20.2	18.7-21.7	5.3	4.4-6.2	16.7	5.1
2004	17.5	16.3-18.7	5.3	4.6-6.0	15.6	5.4
2005	17.9	16.9-19.0	5.7	5.1-6.4	15.3	5.2
2006	16.6	15.3-17.9	4.9	4.2-5.8	14.7	5.1
2007	15.1	14.1-16.3	5.8	5.0-6.7	14.5	5.2
2008	15.6	14.5-16.8	5.7	5.0-6.5	13.4	4.9

Sources:
Behavioral Risk Factor Surveillance System, 1998-2008, Pennsylvania Department of Health, Bureau of Health Statistics and Research

U.S. Centers for Disease Control and Prevention, 1998-2008, www.cdc.gov/brfss.

***Table B-2*. Current Tobacco Use Among Middle School Students (Grades 6-8)**
Pennsylvania, 2000-2001, 2002-2003, 2006-2007 and 2008-2009

	Cigarette Use		Smokeless Tobacco		Cigar Use		Any Tobacco Use	
	%	95% C.I.	%	95% C.I.	%	95% C.I.	%	95% C.I.
PA 2000-2001	13.1	± 2.1	4.4	± 1.1	6.3	± 2.0	16.9	± 2.2
Male	13.4	± 1.9	6.8	± 2.2	8.9	± 3.6	19.3	± 2.6
Female	12.7	± 2.8	1.8	± 1.2	3.5	± 1.4	14.3	± 2.2
PA 2002-2003	7.8	±1.1	2.8	± 0.5	3.4	± 1.5	12.4	± 1.3
Male	7.5	±1.3	4.5	± 0.9	4.5	± 0.8	13.2	± 1.5
Female	8.0	±1.3	1.0	± 0.5	2.2	± 0.7	11.4	± 1.5
PA 2006-2007	4.1	±1.6	1.9	±1.0	2.2	±1.1	7.3	±2.0
Male	4.0	±2.2	3.1	±2.1	2.2	±2.0	8.1	±3.4
Female	4.3	±2.2	0.7	±1.0	2.2	±1.6	6.3	±1.9
PA 2008-2009	4.3	±1.6	3.4	±1.8	3.1	±1.1	9.8	±2.2
Male	4.4	±1.9	5.9	±3.0	4.0	±1.8	12.3	±3.1
Female	4.2	±1.7	0.7	±1.4	2.2	±1.3	7.1	±2.1
U.S. 2000-2001	11.0	± 1.2	3.6	± 0.9	7.1	± 1.0	15.1	± 1.5
Male	11.7	± 1.7	5.7	± 1.8	9.7	± 1.5	17.6	± 2.2
Female	10.2	± 1.3	1.5	± 0.3	4.6	± 0.8	12.7	± 1.5
U.S. 2002-2003	10.1	± 1.2	3.7	± 0.8	6.0	± 0.7	13.3	± 1.4
Male	10.2	± 1.3	5.6	± 1.3	7.9	± 1.1	14.8	± 1.6
Female	10.0	± 1.4	1.8	± 0.4	4.1	± 0.7	11.8	± 1.4
U.S. 2006-2007	6.3	±1.2	2.6	±0.6	4.0	±0.6	9.5	±1.5
Male	6.3	±1.2	4.1	±1.0	5.3	±0.9	10.9	±1.7
Female	6.4	±1.4	1.2	±0.3	2.7	±0.5	8.2	±1.5

Sources:
Pennsylvania Youth Tobacco Survey, 2000-2001, 2002-2003, 2006-2007 and 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control.

U.S. Centers for Disease Control and Prevention. CDC Surveillance Summaries, November 14, 2003. MMWR 2003; 52(45);1096-1098 and for US 2006 data, http://www.cdc.gov/tobacco/data_statistics/surveys/nyts/pdfs/indicators.pdf, referenced on January 15, 2010.

Note: Current tobacco use is defined as using cigarettes, smokeless tobacco, cigars or other tobacco products on one or more days of the past 30 days prior to the survey. Any tobacco includes cigarettes, smokeless, cigars, pipes, bidis and kreteks. Prevalence and confidence intervals were rounded to the nearest tenth.

***Table B-3*. Current Tobacco Use Among High School Students (Grades 9-12)**
Pennsylvania, 2000-2001, 2002-2003, 2006-2007 and 2008-2009

	Cigarette Use		Smokeless Tobacco		Cigar Use		Any Tobacco Use	
	%	95% C.I.	%	95% C.I.	%	95% C.I.	%	95% C.I.
PA 2000-2001	27.6	± 2.2	6.8	± 1.5	12.4	± 1.1	33.9	± 2.1
Male	26.9	± 2.5	12.3	± 2.4	17.6	± 1.9	36.8	± 2.6
Female	28.3	± 2.8	1.3	± 0.6	7.0	± 1.5	31.0	± 2.5
PA 2002-2003	23.1	±2.2	7.9	± 1.1	10.7	± 1.1	29.7	± 2.5
Male	22.4	±2.5	13.8	± 1.6	15.9	± 1.8	32.9	± 3.3
Female	23.8	±2.5	1.9	± 0.8	5.2	± 0.8	26.3	± 2.3
PA 2006-2007	17.5	±2.9	5.8	±2.2	10.1	±2.1	24.8	±3.2
Male	17.7	±4.3	10.3	±4.4	13.8	±3.6	29.0	±4.8
Female	17.3	±3.5	1.2	±1.5	6.3	±2.2	20.4	±3.4
PA 2008-2009	18.4	±2.8	8.7	±2.2	11.7	±2.3	26.2	±3.2
Male	20.7	±3.3	13.8	±3.7	16.8	±3.4	32.6	±4.1
Female	16.0	±3.4	3.4	±1.4	6.4	±2.2	19.5	±3.8
U.S. 2000	28.0	± 1.7	6.6	± 0.9	14.8	± 1.1	34.5	± 1.9
Male	28.8	± 1.9	11.8	± 1.7	22.0	± 1.5	39.1	± 2.2
Female	27.3	± 2.0	1.4	± 0.4	7.3	± 0.9	29.8	± 1.9
U.S. 2002	22.9	± 1.6	6.1	± 1.1	11.6	± 0.9	28.4	± 1.7
Male	24.6	± 2.1	10.8	± 2.0	16.9	± 1.4	32.9	± 2.3
Female	21.2	± 1.8	1.4	± 0.4	6.2	± 0.9	23.9	± 1.8
U.S. 2006	19.7	±1.7	6.1	±1.0	11.8	±0.8	25.6	±1.8
Male	21.2	±1.8	11.0	±1.9	16.6	±1.3	30.2	±2.1
Female	18.4	±2.0	1.5	±0.4	7.2	±0.9	21.3	±2.1

Sources:
Pennsylvania Youth Tobacco Survey, 2000-2001, 2002-2003, 2006-2007 and 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control.

U.S. Centers for Disease Control and Prevention. CDC Surveillance Summaries, November 14, 2003. MMWR 2003; 52(45);1096-1098 and for US 2006 data, http://www.cdc.gov/tobacco/data_statistics/surveys/nyts/pdfs/indicators.pdf, referenced on January 15, 2010.

Note: Current tobacco use is defined as using cigarettes, smokeless tobacco, cigars or other tobacco products on one or more days of the past 30 days prior to the survey. Any tobacco includes cigarettes, smokeless, cigars, pipes, bidis and kreteks. Prevalence and confidence intervals were rounded to the nearest tenth.

***Table B-4*. Results of Annual Synar* Compliance Checks of Tobacco Sales to Minors Pennsylvania, 1996-2008**

	Illegal Sales Percent	95% Confidence Interval
1996	56%	38-62
1997	30%	24-36
1998	32%	26-36
1999	41%	36-46
2000	27%	23-31
2001	28%	24-32
2002	15%	12-18
2003	11%	9-13
2004	7%	5-9
2005	8%	6-10
2006	7%	5-9
2007	7%	5-9
2008	5%	4-7

Source: Synar Survey, 1996-2008, Pennsylvania Department of Health, Bureau of Health Statistics and Research.
* The Federal Synar Regulation requires that each state annually conduct random, unannounced inspections, using hired youth inspectors, to assess their compliance with the state's access law. States are required to meet annual target inspection failure rates established by the federal government. Failure to meet requirements of the Synar Regulation can result in a penalty of 40% of a state's substance abuse prevention and treatment block grant allocation.

***Table B-5*. Methods High School Students Used to Obtain Cigarettes Pennsylvania, 2000-2001, 2002-2003, 2006-2007, 2008-2009**

Method Used	2000-2001	2000-2001 95% C.I.	2002-2003	2002-2003 95% C.I.	2006-2007	2006-2007 95% C.I.	2008-2009	2006-2007 95% C.I.
From a store	39.8%	±3.1	29.9%	±3.6	21.3%	±6.3	25.0%	±7.2
Gave money to another to buy them	19.5%	±2.4	24.4%	±2.3	30.9%	±5.9	22.8%	±4.2
Borrowed or "bummed" them	22.4%	±2.6	23.2%	±2.9	22.2%	±5.4	24.3%	±4.7
Some other way	18.3%	±2.3	22.6%	±2.9	25.7%	±5.0	27.9%	±5.2

Source: Pennsylvania Youth Tobacco Survey, 2000-2001, 2002-2003, 2006-2007 and 2008-2009, Pennsylvania Department of Health, Division of Tobacco Prevention and Control.

Table B-6. **Pennsylvania Indoor Workers Whose Workplace Bans Smoking**
Pennsylvania Adult Tobacco Survey, 2007 and 2008

	2007	2007 95% Confidence Interval	2008	2008 95% Confidence Interval
All Adults	78.1%	75.1-80.8%	86.2%	83.6-88.5%
Males	71.0%	66.2-75.3%	82.1%	77.5-85.9%
Females	84.7%	81.0-87.8%	89.9%	87.1-92.1%

Source: Pennsylvania Adult Tobacco Survey, 2007 and 2008, Pennsylvania Department of Health, Division of Tobacco Control and Prevention.

Table B-7. **Pennsylvania Adults Who Do Not Allow Smoking in the Home**
Pennsylvania Adult Tobacco Survey, 2007 and 2008

	2007	2007 95% Confidence Interval	2008	2008 95% Confidence Interval
All Adults	74.5%	72.5-76.4%	81.3%	79.5-82.9%
Has no children in the home	72.1%	69.6-74.4%	79.2%	77.2-81.1%
Has children in the home	78.7%	75.2-81.7%	84.7%	81.2-87.7%

Source: Pennsylvania Adult Tobacco Survey, 2007 and 2008, Pennsylvania Department of Health, Division of Tobacco Control and Prevention.

***Table B-8*. Rules about Cigarette Smoking in High School Students' Workplaces, Homes and Vehicles, Pennsylvania, 2006 and 2008**

Location	2006 YTS	2006 95% Confidence Interval	2008 YTS	2008 95% Confidence Interval
Of high school students who work, their workplace does not permit smoking	44.8%	38.7-51.1%	48.3%	44.8-51.9%
High school students who live in a home where smoking is not permitted	70.4%	65.7-74.7%	72.3%	68.9-75.5%
High school students who drive or ride in a car where smoking is not permitted	62.3%	57.1-67.3%	62.6%	58.7-66.5%

Source: Pennsylvania Youth Tobacco Survey, 2006-2007 and 2008-2009, Pennsylvania Department of Health, Division of Tobacco Control and Prevention.

***Table B-9*. Effects on High School Students of Other Smokers in the Household Pennsylvania, 2008**

	No other smoker in the household	95% Confidence Interval	Other smoker in the household	2008 95% Confidence Interval
Ever Smoked	29.4%	±3.5	55.1%	±4.2
Initiated before age 13	4.8%	±1.7	12.7%	±2.6
Current smoker	11.8%	±2.3	24.9%	±4.2
Every Day smoker	2.1%	±1.6	9.3%	±4.3

Source: Pennsylvania Youth Tobacco Survey, 2008-2009, Pennsylvania Department of Health, Division of Tobacco Control and Prevention.