

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 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% level were also calculated using SAS/SUDAAN and shown as percentages to provide a basis for quality analysis and comparability.

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 spring of 2005. A total of 2,919 adults were interviewed for this survey. 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% level were also 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 2000-2001 Pennsylvania school year, in 2002-2003, and in 2006-2007. The sample consisted of a two-stage cluster design, of middle school students and high school students. In both 2000 and 2002, 25 high schools and 25 middle schools were sampled in each of the six state health districts, and another 50 non-public high schools and 50 non-public middle schools were selected, for a total of 400 randomly selected survey schools. Of those 400 schools, 281 participated in 2000 and 325 participated in 2002.

In 2006-2007, no health district stratum were used. Statewide, 59 public high schools were sampled and 45 participated for a school participation rate of 76 percent. There were 1706 of the 2032 students chosen who participated for a student participation rate of 84 percent, and an overall high school participation rate of 64 percent. For public middle schools, 60 schools were selected and 44 participated, for a school participation rate of 73 percent. There were 1486 students of the eligible 1619 who participated, giving a student participation rate of 92 percent, and an overall middle school participation rate of 67 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 for calculating percentages, in order to adjust for under-representation of certain population subgroups in the sample. Confidence intervals at the 95% level were also 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 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. Pennsylvania has conducted these inspections annually since 1996. The survey used a complex sample design incorporating stratification, clustering, and random sampling. The sampling frame was created from the Department of Revenue's cigarette license file, and did not include vending machines in 2005 or 2006.

II. Vital Statistics Data

The Pennsylvania Department of Health's vital statistics registration system was the source for the birth and death statistics that are used in this report. The calculation of tobacco-related deaths used the vital records death certificate data, aggregating the years 2002 and 2003, which were the two most recent years available. The data were stratified by cause of death, and by sex, and summed in that form for use in calculations.

Birth certificate data were 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 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 of the resulting 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 between the affected years of data.

III. Other

Pennsylvania Department of Revenue Cigarette Tax Receipts

Data on the per capita cigarette sales rate for Pennsylvania were calculated using tobacco cigarette stamp sales and tax revenue collected by the Pennsylvania Department of Revenue. Cigarettes purchased per capita were calculated by dividing the stamp sales for the calendar year by the estimated 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.