New York

Adult Tobacco Survey

Overview

Center for Community Health
Division of Chronic Disease and Injury Prevention Bureau
of Chronic Disease Epidemiology and Surveillance
Tobacco Surveillance, Evaluation, and Research

OPEN Data NY

New York Adult Tobacco Survey

General description

The Adult Tobacco Survey (ATS) was developed by the New York Tobacco Control Program (NY TCP) in partnership with RTI International, the independent evaluator for the NY TCP. The survey has been fielded continually since June 2003 to the non-institutionalized adult population of New York State, aged 18 years or older. The survey is designed to provide timely surveillance and evaluation data to inform the New York State Tobacco Control Program. The ATS assesses (a) adult tobacco-related behavior, attitudes, and beliefs; (b) tobacco purchasing and cessation attempt behavior; (c) health status and health-related problems; (d) attitudes toward and exposure to secondhand smoke; (e) perceptions of risk related to tobacco use; (f) recollection of exposure to tobacco advertising or anti-tobacco health communications; and (g) attitudes toward other smoking policies. Some key survey items have been included since inception (e.g., current smoking status); some questions may be included for a shorter period of time to assess a time-sensitive issue (e.g., support for tax increase), and other questions may be rotated in and out of the survey instrument as necessary.

Data collection methodology

The NY ATS is a list-assisted random-digit-dial (RDD) survey. The eligible population is New York State residents who are non-institutionalized and at least 18 years old. In the NY ATS, listed households are oversampled. Also, oversampling is conducted in certain geographical designations (block groups and counties) that have lower percentages of baccalaureate graduates. This has the effect of oversampling for smokers. Since many items on the NY ATS are for smokers only, this assures an adequate sample.

Sampling weights compensate for oversampling and allow for population-level estimates. Sampling weights account for the probability of selection, non-response, household size, and number of telephone lines. Finally, the weights are post stratified to reflect population totals based on combinations of age, race/ethnicity, gender, and geographical region.

Statistical and Analytic Issues

Unweighted data on the NY ATS represent the actual responses of each respondent, before any adjustment is made for variation in respondents' probability of selection, disproportionate selection of population subgroups relative to the state's population distribution, or nonresponse. Weighted NY ATS data represent results that have been adjusted to compensate for these issues. Use of the final weight in analysis is necessary if generalizations are to be made from the sample to the population.

The procedures for estimating variances described in most statistical texts and used in most statistical software packages are based on the assumption of simple random sampling (SRS). However, the data collected in the NY ATS are obtained through a complex sample design; therefore, the direct application of standard statistical analysis methods for variance estimation and hypothesis testing may yield misleading results. There are computer programs available that take such complex sample designs into account. SAS survey procedures (e.g., SURVEYMEANS and SURVEYREG), SUDAAN, and Epi Info's C-Sample are among those suitable for analyzing NY ATS data, though these are not the only applications available. When using these software products, users must know the stratum (geostr) and the record weight (annualwt)— which are on the public use data file. (Some surveys also require a primary sampling unit or PSU; that is not necessary for the NY ATS.) For more information on calculating variance estimations using SAS, see the *SAS/STAT Users Guide*. For information about SUDAAN, see the SUDAAN Users Manual, Release 7.5. For information about Epi Info, see *Epi Info, Version 6.0*.

Limitations of data use

Although the overall number of respondents in the NY ATS is more than sufficiently large for statistical inference purposes, subgroup analyses can lead to estimates that are unreliable. Consequently, users need to pay particular attention to the subgroup sample when analyzing subgroup data, especially within a single data year or geographic area. Small sample sizes may produce unstable estimates. Reliability of an estimate depends on the actual unweighted number of respondents in a category, not on the weighted number. Interpreting and reporting weighted numbers that are based on a small, unweighted number of respondents can mislead the reader into believing that a given finding is much more precise than it actually is. The NY ATS follows CDC guidelines of not reporting or interpreting percentages based upon a denominator of fewer than 50 respondents (unweighted sample).