

# Data Sources, Definitions and Interpretation

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*Tobacco Control State Highlights, 2010* is intended to assist tobacco control programs in the 50 states and the District of Columbia in monitoring their progress with respect to the high-impact strategies laid out in *Best Practices* and MPOWER. The document is also intended to provide policymakers with useful and accessible state-level data to assist with decision-making. The data presented here allow readers to see how their own state performs relative to established standards as well as relative to other states and to the nation as a whole.

*Tobacco Control State Highlights, 2010* includes relevant indicators for which comparable, recent data were available on a state-by-state basis during document development. It should be noted that there are other indicators and other data sources that can be used to monitor progress. Moreover, availability of data varies by source and year. Thus, future publications of tobacco control state highlights may differ from this document in choice of indicators and data sources.

In addition, when comparing the information in *Tobacco Control State Highlights, 2010* to that in other publications, it is important to keep in mind that data are affected by the source's methodology and target population. For example, a youth survey that targets teens in high school will yield different results from a youth survey that includes younger teens and/or those not attending school. Surveys can vary in the completeness of their coverage of a target population (e.g. total population versus households possessing landline telephones), the response rate, and the sample size. These factors can affect the validity and the precision of the result. The mode of administration of a survey (e.g. a self-administered form versus an interviewer-administered form) can also affect responses. Thus, readers should use caution in attempting "apples-to-oranges" comparisons.

## Understanding Confidence Intervals

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For some indicators, such as the excise tax rate, the metric is an exactly known quantity, available in the public record, and data interpretation is straightforward. For other indicators, such as prevalence of tobacco use, the metric cannot be known exactly because it is impossible to query every single youth or adult resident in every state. Data for these metrics rely on estimates from population-based surveys. Because they are estimates, they are presented with 95% confidence intervals. These are interpreted as indicating that there is a 95% likelihood that the true prevalence is within the interval. In other words, the point estimate may be inexact but it is expected to be close to the true value, and the width of the interval indicates the likely precision of the point estimate. In this report, 95% confidence intervals are displayed on the graphics with black lines spanning the point estimates.

## Understanding State Ranks

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For many rates and percentages reported in this document, values for the 50 states and the District of Columbia are ranked from best (1) to worst (51). Caution is needed in interpreting rank scores. Although a low-number rank is always preferable to a high-number rank, a "good" rank does not necessarily indicate a near-ideal situation. For issues on which all states face challenges, a low-number rank may be achieved even though the state's situation needs improvement. The converse is true for high-number ranks.

A second consideration is that a state's rank score depends not only upon its own situation but also upon those of the other states. Thus, a state's rank can change from year to year even if its own situation remains static, simply because the situation in other states has changed. Furthermore, states necessarily achieve different ranks for rates and prevalences even if the absolute values of those metrics are very similar.

A third caution is that some of the metrics are derived from population surveys. Surveys produce estimates with some uncertainty, which is represented by the 95% confidence interval. When two states have differing point estimates but overlapping confidence intervals, it is likely that the difference between the states is not statistically significant. However, the rank score does not take the imprecision of point estimates into account. Thus, different ranks do not necessarily represent a real or meaningful difference between states for all metrics.<sup>30</sup> To better understand how each state is faring, and to assess how meaningful rank differences are, it is advisable to examine the point estimates and their confidence intervals for survey-derived estimates as well as the ranks.

Similarly, in a few instances, one or more states may have point estimates that are slightly different but appear the same when rounded for presentation. In this case, the states receive different ranks. When multiple states are exactly tied, they receive the same rank.

## **Monitor**

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### **Current Smoking among Adults**

- Definition:
  - ▶ Overall adult smoking prevalence is the percentage of adults who are current smokers. Current smokers are defined as persons who reported smoking at least 100 cigarettes in their life and who currently smoke every day or on some days.
  - ▶ When adult smoking prevalence is presented by race/ethnicity, the result shown is for years 2007 and 2008 combined. For the overall prevalence and all other breakdowns, the result shown is for 2008 alone.
  - ▶ When adult smoking prevalence is presented by education level, the result shown is for persons ages 20 years and older. For the overall prevalence and all other breakdowns, the result shown is for persons ages 18 years and older.
  - ▶ For the race/ethnicity breakdown, persons who reported Hispanic ethnicity are included in the Hispanic category and not in any of the other race categories. Numbers are not shown for any categories that included fewer than 50 respondents.
  - ▶ Prevalence values reported here differ slightly from those published previously and online in the STATE system because the prior analyses excluded adults whose exact age was unknown.<sup>31</sup>
- Source:
  - ▶ Data were drawn from the Behavioral Risk Factor Surveillance System (BRFSS), a population-based survey that provides descriptive data on health risk behaviors for each state. Information on BRFSS can be found at <http://www.cdc.gov/brfss/>.

### **Past-Month Cigarette Use among Youth Ages 12-17**

- Definition:
  - ▶ Youth smoking is defined by the percentage of youth ages 12-17 years who reported smoking part or all of a cigarette during the past 30 days.

- Source:
  - ▶ Estimates were taken from published data from the 2006 and 2007 National Survey on Drug Use and Health (NSDUH), available at <http://www.oas.samhsa.gov/2k7/state/ageTabs.htm>. NSDUH is a national survey administered by the Substance Abuse and Mental Health Services Administration (SAMHSA) that provides data on the prevalence, patterns, knowledge and attitudes, and consequences of drug and alcohol use and abuse in the United States. Information on NSDUH may be found at <http://www.oas.samhsa.gov/NSDUH.HTM>.

## **Smoking-Attributable Adult (35+) Mortality**

- Definition:
  - ▶ Smoking-attributable mortality is defined as the average total number of deaths among adults aged 35 years or older from 19 diseases caused by cigarette smoking in 2000-2004. It was calculated by multiplying the total number of deaths from these diseases by the percentage of such deaths believed due to smoking, the “smoking-attributable fraction.”
  - ▶ The smoking-attributable mortality rate was calculated by dividing the number of smoking-related deaths by the adult (35+ years of age) population. The result is presented per 100,000 population.
- Source:
  - ▶ Estimates were derived from the Smoking-Attributable Mortality, Morbidity, and Economic Cost (SAMMEC) online application maintained by CDC at <http://apps.nccd.cdc.gov/sammec/>.

## **Protect**

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### **State Smoke-free Policy**

- Definition:
  - ▶ State smoke-free policy is defined as a statute that prohibits smoking in workplaces, restaurants, and/or bars. (If a state statute allows exemptions for designated or ventilated smoking areas in workplaces, restaurants or bars, the state is not considered smoke-free.)
  - ▶ Preemption is defined as a state having a statute or judicial opinion that prevents local jurisdictions from enacting smoking restrictions that would be more stringent than, or different from, state law.
- Source:
  - ▶ Data were drawn from the State Tobacco Activities Tracking and Evaluation System (STATE System), an electronic data warehouse which contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

### **Adults Who Reported Anyone Smoking in Work Area within Past Two Weeks**

- Definition:
  - ▶ The prevalence of smoking in work areas was determined by adult (ages 18 years and older) survey respondents’ reports of anyone smoking in the work area within the past two weeks.

- Source:
  - ▶ Data were drawn from the 2006-2007 Tobacco Use Supplement to the Current Population Survey (TUS-CPS), which is a National Cancer Institute-sponsored survey of tobacco use that is administered as part of the US Census Bureau's Current Population Survey. Information on TUS-CPS may be found at <http://riskfactor.cancer.gov/studies/tus-cps/>.

## Offer

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### Percent of Smokers Calling Quitline

- Definition:
  - ▶ Quitline usage is defined by the percent of adult current smokers who made a quit attempt in the past 12 months and reported that they used a telephone help line or quit line in the attempt. Adult current smokers are defined as persons aged 18 years and older who reported ever smoking at least 100 cigarettes and who currently smoke every day or on some days.
- Source:
  - ▶ Data were drawn from the 2006-2007 Tobacco Use Supplement to the Current Population Survey (TUS-CPS), which is a National Cancer Institute-sponsored survey of tobacco use that is administered as part of the US Census Bureau's Current Population Survey. Information on TUS-CPS may be found at <http://riskfactor.cancer.gov/studies/tus-cps/>.

### Medicaid Coverage for Counseling and Medications

- Definition:
  - ▶ Medicaid coverage is defined as coverage within the state fee-for-service Medicaid plan during 2007 for nicotine replacement therapy, varenicline (Chantix™),\* bupropion (Zyban™ or its generic equivalent), and counseling. Nicotine replacement therapies include nicotine gum, patch, nasal spray, inhaler, and lozenge. Counseling includes group, individual, or telephone counseling.
- Source:
  - ▶ Centers for Disease Control and Prevention (CDC). State Medicaid Coverage for Tobacco Dependence Treatments—United States, 2007. Morbidity & Mortality Weekly Report (MMWR), 2009; 58(43):1199-1204.<sup>24</sup>  
Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5843a1.htm>.

## Warn

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### Households with No-Smoking Rules

- Definition:
  - ▶ The prevalence of household no-smoking rules was determined by adult (ages 18 years and older) survey respondents' reports that no one is allowed to smoke anywhere inside their home.
  - ▶ Prevalence values reported here differ slightly from those published online in the STATE system because the STATE system gives results for respondents ages 15 years and older.

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\* Use of trade names is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

- Source:
  - ▶ Data were drawn from the 2006-2007 Tobacco Use Supplement to the Current Population Survey (TUS-CPS), which is a National Cancer Institute-sponsored survey of tobacco use that is administered as part of the US Census Bureau's Current Population Survey. Information on TUS-CPS may be found at <http://riskfactor.cancer.gov/studies/tus-cps/>.

## Anti-Tobacco Media Campaign Intensity, Per Quarter

- Definition:
  - ▶ Media campaign intensity is defined by rating points, a composite metric combining reach and frequency of campaign exposure. *Reach* is the percentage of homes or people exposed at least once to a particular ad. *Frequency* is the average number of times homes or people are exposed in a given time frame. In this document, gross rating points (GRPs) = reach multiplied by frequency for households containing adults ages 18+ in the general population. Targeted rating points (TRPs) = reach multiplied by frequency for youths ages 12-17. In this document, GRPs and TRPs were averaged across major media markets in each state, per quarter, for 2008.
- Source:
  - ▶ Centers for Disease Control and Prevention (CDC), Office on Smoking and Health (OSH).
  - ▶ These data were developed by the Institute for Health Research and Policy, University of Illinois at Chicago School of Public Health, based on rating information from Nielsen Media Research, as described elsewhere.<sup>32</sup>

## Enforce

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### State Allows Local Advertising and Promotion Laws

- Definition:
  - ▶ A state is defined as allowing local policies regarding the sampling, promotion, or display of tobacco products if the state does not have a statute that preempts local policies.
  - ▶ Preemption is defined as a state having a statute that prevents local jurisdictions from enacting advertising restrictions that would be more stringent than, or different from, state law.
- Source:
  - ▶ Data were drawn from the State Tobacco Activities Tracking and Evaluation System (STATE System), an electronic data warehouse which contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

### Retail Environment Tobacco Licensure

- Definition:
  - ▶ An over the counter retail license is defined as a state statute that requires retailers to obtain a license to sell tobacco products directly to consumers.
  - ▶ A vending machine retail license is defined as a state statute that requires operators to obtain a license to sell tobacco products through tobacco vending machines.

- Source:
  - ▶ Data were drawn from the State Tobacco Activities Tracking and Evaluation System (STATE System), an electronic data warehouse which contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

## **Raise**

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### **Amount of Cigarette Excise Tax**

- Definition:
  - ▶ State cigarette excise tax is defined as the amount of tax levied on a pack of 20 cigarettes.
  - ▶ The national average sales tax was calculated as a simple average of the 51 state taxes.
- Source:
  - ▶ Data were drawn from the State Tobacco Activities Tracking and Evaluation System (STATE System), an electronic data warehouse which contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

### **Minimum Price Law for Cigarettes**

- Definition:
  - ▶ A state minimum price law is defined as a policy that establishes a formula in state statute to set the minimum amount that retailers or wholesalers can charge for a pack of cigarettes, such as a minimum mark up or a requirement that packs not be sold for less than the wholesale price.
- Source:
  - ▶ Centers for Disease Control and Prevention (CDC), Office on Smoking and Health (OSH).

### **State Funding for Tobacco Control**

- Definition:
  - ▶ The state funding percentage is the amount of funds allocated by states for tobacco control activities for 2007 divided by the expenditure amount recommended in *Best Practices for Comprehensive Tobacco Control Programs – 2007*. (Note that the amount allocated at the beginning of a fiscal year does not always exactly match the amount spent during the year.)
  - ▶ The percent of annual tobacco revenue needed to fund a state tobacco control program at the *Best Practices*-recommended level is the amount a state collected in tobacco tax revenue and tobacco industry settlement payments in 2006, divided by the expenditure amount recommended in *Best Practices for Comprehensive Tobacco Control Programs – 2007*.
- Source:
  - ▶ Centers for Disease Control and Prevention (CDC), Office on Smoking and Health (OSH).
  - ▶ The data on amount allocated by states for tobacco control were provided by the Institute for Health Research and Policy, University of Illinois at Chicago School of Public Health.
  - ▶ The data on percent of annual tobacco revenue needed to fund a state tobacco control program at CDC's recommended level are drawn from *Best Practices for Comprehensive Tobacco Control Programs – 2007*.<sup>7</sup>