



**TOBACCO
CONTROL
STATE
HIGHLIGHTS
2010**

**SURVEILLANCE & EVALUATION
SUPPLEMENT**

National Center for Chronic Disease Prevention and Health Promotion
Office on Smoking and Health



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**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

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Introduction

The *Surveillance and Evaluation Supplement* to the *Tobacco Control State Highlights 2010 (Highlights 2010)* report¹ is intended to be a resource to persons responsible for monitoring and evaluating state tobacco control programs.

Although there are many indicators used by tobacco control programs to monitor and evaluate programs, those selected for the *Highlights 2010* report are closely aligned with policy recommendations from *Best Practices for Comprehensive Tobacco Control Programs*² (*Best Practices*) and have recent and reliable data available. These indicators are a subset of the many indicators that states can use for monitoring and evaluation. A fuller set of recommended indicators and the rationale for using them is given in *Key Outcome Indicators for Evaluating Comprehensive Tobacco Control Programs (KOI)*.³

What follows is a description of each indicator and its importance for measuring progress, followed by detailed information on the data sources and definitions. Finally, measurement and evaluation considerations are presented to aid interpretation of how these data fit in with states' surveillance and evaluation activities, which include data sources and indicators beyond those included in *Highlights 2010*.

The *Highlights 2010* report is organized according to MPOWER,⁴ a framework developed by the World Health Organization that describes effective strategies that can be implemented globally. Several indicators are included for each component of MPOWER.

MPOWER

- M** = **Monitor** tobacco use and prevention policies
- P** = **Protect** people from tobacco smoke
- O** = **Offer** help to quit tobacco use
- W** = **Warn** about the dangers of tobacco
- E** = **Enforce** bans on tobacco advertising, promotion, and sponsorship
- R** = **Raise** taxes on tobacco

MPOWER and *Best Practices* are complementary tools for establishing, implementing and evaluating effective tobacco control programs. Although *Best Practices*' recommendations clearly outline the program structure for implementing evidence-based comprehensive tobacco programs and recommended levels of state investment to reduce tobacco use in each state, more specific guidance on evidence-based and highly effective interventions can be found in the MPOWER package of six policies.

What This Supplement Adds

This companion piece combines the information presented in the following two sections of the *2010 Highlights report*:

- Indicators (pages 6–10 of *Highlights 2010*)
- Data Source, Definitions, and Interpretation (pages 216–221 of *Highlights 2010*).

Additionally, new information on the utility and limitations of the indicators is included that was not in the *Highlights 2010* report. This section entitled, “Measurement and Evaluation Considerations,” is new to this report and is included for each indicator. This section contains useful information to explain the data source, data limitations, and other considerations. Finally, for indicators measured by population-based surveys, the Definition sections were supplemented by wording from the actual survey items used for these indicators.

How to Use This Supplement

Data Sources and Definitions: Information on data sources and definitions are included with sufficient detail to facilitate understanding of the methodology used for the *Highlights 2010* report. The details in this document provide explanations of why some of the data in the *Highlights 2010* report may differ from previously published data on the same indicators. This information can be especially helpful when questions arise about differences in estimates. The details in this supplement also will enable replication in cases where data are available from other years, in order to examine trends over time or if estimates from other comparable sources are available. If states have more recent data on certain indicators from the same data source (e.g., Behavioral Risk Factor Surveillance System, [BRFSS] 2009), they may want to compare those estimates to the ones here. However, they should take into account differences in the way the estimates may have been calculated.

Utility and Limitations of Indicators and Data Sources: States can use the information on utility and limitation of the indicators in the Measurement and Evaluation Considerations sections to inform and guide future evaluation and monitoring of these indicators. References to *Key Outcome Indicators (KOI)*³ also are provided to as a link to the evidence base for each indicator and to help reference data sources and specific measures that may be used to monitor related indicators.

Organization: As stated in the *Highlights 2010* report, indicators are organized according to the components of the MPOWER framework. References to the KOI indicators³ also are provided to help state programs frame the indicators according to where they fit in the evidence-based logic models of the National Tobacco Control Program (NTCP). States should continue to use the logic models provided in *KOI* to organize evaluation planning and reporting, since they have specific recommendations for indicators and evidence-based outcome pathways.

Data and Rankings: The actual state data and rankings are not reproduced here and can be found in the *Highlights 2010* report. In this supplement, only the range of highest- and lowest-ranked states are included in the description and summary of findings for each indicator, as they appear in the *Highlights 2010* report. Rankings are helpful to let states know how they fare in comparison with the other states. Rankings could help states analyze how they fare in comparison with states with similar program strategies or demographic situations in comparison with other variables of interest.

Benchmarks: When the national benchmarks for indicators are monitored with a different data source than what was used in *Highlights 2010*, this fact is noted in the Measurement and Evaluation Considerations section. Benchmarks can be used in addition to the rankings in *Highlights 2010* to help states gauge progress.

Data Sources, Definitions, and Interpretation

*Tobacco Control State Highlights 2010*¹ 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 in the *Highlights 2010* report 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.

In addition, when comparing the information in *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

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 in the *Highlights 2010* report. 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

For many rates and percentages reported in the *Highlights 2010* report, 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. Further-

more, states will have 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.⁵ 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.

Indicators and Summary of Findings

Monitor

Current Smoking Among Adults

Smoking prevalence among adults is a fundamental indicator in monitoring the population impact of tobacco use (see KOI 3.14.1).³ When assessing smoking prevalence, it is essential to consider the demographic subgroups within the population, as prevalence typically varies by age, race/ethnicity, educational status, and other factors.

The adult smoking prevalence in 2008 ranged from 9.3% in Utah to 26.5% in West Virginia. Across all states, the median prevalence was 18.4%. In general, smoking was more prevalent among those with less education and those who were younger.

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 some days.
 - ▶ “Now I would like to ask you a few questions about cigarette smoking. Have you smoked at least 100 cigarettes (5 packs) in your entire life?” and “Do you now smoke cigarettes every day, some days, or not at all?”
- 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 aged 20 years or older. For the overall prevalence and all other breakdowns, the result shown is for persons aged 18 years or 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 may differ slightly from those published previously and online in the STATE system because the prior analyses excluded adults whose exact age was unknown.⁶

Source:

- Data were drawn from the 2008 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/>. When indicated above, data from 2007 were also included for some demographic analyses.

Measurement and Evaluation Considerations:

- The BRFSS is a state-level surveillance system, and state estimates are based on independent samples drawn from each state. The median prevalence across all states for current smoking among adults aged 18 years or older from BRFSS (18.4%) is slightly lower than the national average found in the 2008 National Health Interview Survey (NHIS; 20.6%). However, a national average and a median of state prevalences are calculated differently and would not be expected to be identical.
- The NHIS is a national-level survey that provides national estimates for current smoking prevalence among U.S. adults and measures progress toward *Healthy People 2010* objectives. The *Healthy People 2010* goal (Objective 27-1)⁷ for adult smoking prevalence is 12% as measured by the NHIS.
- Although health goals are usually set for the general population, prevalence varies for subgroups within the population. *Highlights 2010* shows prevalence by age, education, sex, and race/ethnicity. Prevalence also can vary by such factors as sexual orientation, pregnancy status, immigration status, and mental health or substance abuse status.
- More than 41% of people who smoked their first cigarette in 2008 were aged 18 years or older.⁸ Therefore, young adults (e.g., 18–25 years) may still be in the process of initiating tobacco use, and the measure of smoking prevalence used here may not capture the smoking behaviors of young adults who have not yet smoked 100 cigarettes.
- This indicator does not monitor trends in other forms of tobacco use that may serve as substitutes for cigarettes in places where cigarettes are not allowed (i.e., smokeless tobacco products) or as potential gateway products (e.g., hookah, cigars, cigarillos) for young adults who are not established tobacco users.

Past Month Cigarette Use Among Youth

Tobacco use prevention among youth is a critical component of overall efforts to reduce future tobacco-related morbidity and mortality (see KOI 1.14.1).³ Smoking during adolescence not only increases the risk of long-term addiction, but causes serious near-term health problems such as reduced lung capacity and reduced physical fitness.⁹

In 2006–2007, the percentage of youth aged 12–17 years who reported smoking part or all of a cigarette in the past 30 days ranged from 6.5% in Utah to 15.9% in Kentucky. The national average was 10.1%.

Definition:

- Youth smoking is defined by the percentage of youth aged 12–17 years who reported smoking part or all of a cigarette during the past 30 days.
- Survey question: “Now think about the past 30 days— that is, from [DATE] up to and including today. During the past 30 days, have you smoked part or all of a cigarette?”

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>.

Measurement and Evaluation Considerations:

- The Youth Risk Behavior Survey (YRBS), a school-based survey, is used to measure prevalence among students in grades 9–12 to monitor the *Healthy People 2010* goal (Objective 27-2b)⁷ that 16% or fewer of adolescents smoke cigarettes.
- NSDUH data were used to identify youth prevalences in the *Highlights 2010* because representative and comparable estimates were available for all states and the District of Columbia. The NSDUH prevalences reported here are generally lower than the YRBS prevalences typically reported by states because NSDUH includes data from younger adolescents (i.e., those aged 12–17 years) than the YRBS (i.e., high school students) and because initiation, when defined as first use of a cigarette, increases during the late teen-age years and peaks at age 18.⁸ When states monitor and report trends in youth smoking, attitudes, susceptibility, and other key indicators, they should utilize the same data source (e.g., YRBS; Youth Tobacco Survey; NSDUH) for each year.
- This indicator is an important measure of youth smoking behavior. However, additional information may be required for a comprehensive picture of youth smoking within a particular state, such as asking whether youth have ever smoked a cigarette and assessing frequent smoking (i.e., smoking on at least 20 of last 30 days). Assessing tobacco-related attitudes and beliefs of youth also will provide early indicators of the impact of key policy changes and other interventions on youth tobacco use.
- This indicator does not take into account other forms of tobacco use by youth, such as smokeless tobacco, cigars (*Healthy People 2010* Objectives 27-2c and 27-2d⁷), and hookahs/waterpipes.

Smoking-Attributable Adult Mortality

Although smoking prevalence has declined dramatically since its peak in the 1960s, the number of smoking-attributable deaths has remained relatively unchanged, because the population has increased and because cohorts of smokers with the highest peak prevalence have now reached the ages with the highest incidence of smoking-attributable diseases.¹⁰

The national average for smoking-attributable deaths in 2000–2004 among adults aged 35 years or older was 248.5 per 100,000. This means for every 100,000 people aged 35 years or older, an estimated 248.5 people die annually from cigarette smoking in the United States. Average rates among states for 2000–2004 vary greatly, ranging from 138.3 per 100,000 in Utah to 370.6 per 100,000 in Kentucky.

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 (aged 35 years or older) 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/sammecc/>.

Measurement and Evaluation Considerations:

- Reduced tobacco-related morbidity and mortality are the most distal outcomes in evidence based logic models.³ Because of the distal nature of the indicator and the fact that linkages between behavioral outcomes and mortality are well established, smoking attributable mortality was not included explicitly as an outcome indicator in the *Key Outcome Indicators* report.³
- The SAMMEC application allows users to estimate smoking-attributable mortality (SAM), years of potential life lost (YPLL), medical expenditures, productivity losses, SAM rate, and YPLL rate. Therefore, states can perform their own analyses with more recent data or analyze data in several different ways according to their monitoring and evaluation needs.
- SAMMEC estimates for U.S. adults underestimate all tobacco-related mortality among adults because they do not include mortality from other forms of tobacco use, such as cigars, pipes, or smokeless tobacco, or deaths due to residential fires or secondhand smoke exposure.

Protect

State Smoke-Free Policy

Smoke-free laws covering workplaces, restaurants, and bars without exceptions are the only way to fully protect workers and the public from indoor exposure to secondhand smoke. The *Healthy People 2010* objective (Objective 27-13) was for all 50 states and the District of Columbia to establish laws on smoke-free indoor air that prohibit smoking in public places and worksites.⁷ This indicator is also KOI 2.4.1.³

In addition, comprehensive local laws provide protection for local residents and may build momentum for statewide action. Enacting local laws can increase support and demand for a statewide law by increasing awareness, demonstrating the ease of implementation and changing social norms.³ For these reasons, local smoke-free laws should not be preempted by states, as stated in *Healthy People 2010* Objective 27-19.⁷

By the end of 2009, statewide laws ranged from complete smoking bans in workplaces, restaurants, and bars (22 states), to partial coverage (4 states with 2 of the 3 areas, 6 states with 1 of the 3 areas), to no coverage (19 states with no areas completely covered).

Definition:

- State smoke-free policy is defined as a statute that prohibits smoking in workplaces, restaurants, 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 that contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

Measurement and Evaluation Considerations:

- The *Healthy People 2010* objective (Objective 27-13) uses data from CDC's STATE System and sets the target for total coverage of smoke-free policies in all states and the District of Columbia.⁷
- CDC/OSH utilizes the STATE System, which categorizes smoking restrictions by venue into four levels. The four levels are (1) no restrictions, (2) designated smoking areas required or allowed, (3) designated smoking areas allowed if separately ventilated, and (4) no smoking allowed (i.e., 100% smoke-free). Data for the STATE System are collected from state statutes. According to this classification system, smoke-free states are those that prohibit smoking in workplaces and public places, including restaurants and bars (i.e., the fourth category). The minimum standard to be considered smoke-free requires the state law to prohibit smoking in these three venues. If a state law allows exemptions for designated or ventilated smoking areas in workplaces, restaurants, or bars, it is not considered smoke-free because these approaches do not provide adequate protection from secondhand smoke. Thus, of the 19 states with no coverage, states range from inadequate coverage (e.g., designated smoking area or ventilation exemptions) to no coverage at all. Of the 19, seven states lacked a smoke-free law of any kind for these venues.
- In states where there is no statewide law or a weak statewide law, a portion of the population may be covered by strong local laws. In such cases, the proportion of the population covered by local laws could be calculated. A local smoke-free policy tracking system was developed by Americans for Nonsmokers' Rights to track such policies.¹¹ States that do not have a strong statewide law also can track their own local policies and the proportion of the population covered by them.
- This type of rating system which characterizes smoke-free laws by specific venues can be helpful in assessing coverage along certain areas of interest, but may miss common exemptions, such as those for tobacco shops, owner-operated workplaces, and casinos.

Adults Who Reported Anyone Smoking in Work Area Within Past 2 Weeks

When knowledge of the harms of secondhand smoke are communicated effectively, acceptance of and demand for smoking bans increase. As state and local smoking bans are enacted covering worksites and public places, people become educated about the need for policies to protect themselves from exposure to secondhand smoke. Though many states and localities have smoke-free laws in place, they are not all comprehensive, and as a result, some workers are left unprotected. Additionally, compliance with existing policies is essential for the policy to have a public health impact. Thus, this exposure indicator (KOI 2.7.1) reflects both compliance with policies and the existence of policies themselves.³

Nationally, 7.3% of respondents who work indoors in 2006–2007 reported anyone smoking within the past 2 weeks at their worksite. Across the states, this ranged from 2.8% in Delaware to 16.9% in Nevada.

Definition:

- The prevalence of smoking in work areas was determined by adult (aged 18 years or older) survey respondents' reports of anyone smoking in the work area within the past 2 weeks.
 - ▶ “During the past two weeks, has anyone smoked in the area in which you work? (Yes/No)”
 - ▶ Several questions asked prior to the above question to establish current employment and work area.
 - ▶ Civilian adult respondents are asked their employment status. If employed, and currently at work (as opposed to currently “absent” from work), and not self-employed, they get the following question:
 - “Which of these best describes the area in which you work MOST of the time?”
 - Mainly work indoors.
 - Mainly work outdoors.
 - Travel to different buildings or sites.
 - In a motor vehicle.
 - Somewhere else.

Source:

- Data were drawn from the 2006–2007 Tobacco Use Supplement to the Current Population Survey (TUS-CPS) conducted in 1998–1999, 2001–2002, and 2006–2007. The TUS-CPS is a National Cancer Institute-sponsored survey of tobacco use that is administered as part of the U.S. Census Bureau's Current Population Survey. Information on TUS-CPS can be found at <http://riskfactor.cancer.gov/studies/tus-cps/>.

Measurement and Evaluation Considerations:

- In addition to workplace exposure, people may be exposed to secondhand smoke in other public places (KOIs 2.7.2 and 2.7.5³) as well as homes and vehicles.

Offer

Percentage of Smokers Calling State Quitline

Although quitting smoking can decrease premature mortality, as well as tobacco-related health care costs in the near term, tobacco use is addictive and quitting is difficult. Although many smokers try to quit each year, without assistance most will relapse.² Quitlines have been shown to be effective in helping smokers stop using tobacco. State quitlines fully funded at levels recommended by CDC could serve 8% of the state's smokers (assuming 6% go on to receive counseling, and 85% of those counseled receive 2 weeks of free nicotine replacement therapy when offered).²

Nationally, the percentage of adult smokers that reported calling a quitline during a quit attempt during the previous year in 2006–2007 was 2.8%, ranging from 10.9% in Maine to 0.4% in Virginia.

Definition:

- Quitline usage is defined as the percentage of adult current smokers who made a quit attempt in the past 12 months and reported that they used a telephone help line or quitline in the attempt. Adult current smokers are defined as persons aged 18 years or older who reported ever smoking at least 100 cigarettes and who currently smoke every day or on some days.
 - ▶ “Thinking back to anytime in the past 12 months you tried to quit smoking, did you use a telephone help line or quitline? (Yes/No)”

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/>.

Measurement and Evaluation Considerations:

- This indicator measures the percentage of smokers calling a quitline with a population survey by directly asking current smokers if they have used a telephone quitline over the past year during a quit attempt. Using a population-based survey is useful for obtaining population level estimates of quitline utilization without additional analyses. Additionally, a population survey can assess knowledge and awareness of quitlines and their services, which can be useful when trying to understand why or why not particular populations may or may not be utilizing the quitline.
- States also monitor quitline calls directly through quitline caller data. Number of callers to the quitline (KOI 3.7.1³), along with assessing characteristics of those callers, and how they heard about the quitline (KOIs 3.7.2 and 3.7.3³) are common ways to track absolute utilization of the quitline. When using quitline data, additional analyses and population data are needed to assess the proportion of smokers that have been reached. The North American Quitline Consortium (NAQC) has developed a standard way to measure reach with quitline data.¹² Utilizing multiple data collection and analysis strategies can help provide a more complete picture of quitline awareness and utilization.
- States should use caution when comparing TUS-CPS estimates to the *Best Practices* benchmark of 8% because the two indicators use different denominators. *Best Practices* discusses potential quitline use by all smokers. The denominator for the measure presented in *Highlights 2010* only includes those who are current smokers and have made a quit attempt in the last year. Smokers who made no quit attempt and former smokers (including those who quit within the past year) are not included.
- Estimates of quitline use from the TUS-CPS may be different from other estimates of quitline caller data for some of the same reasons as those above. In addition, the TUS-CPS did not specify whether the quitlines called were run by states or other entities such as employers or health insurers, while usage data from quitlines are specific to that quitline. These factors should be considered when interpreting results as they can have a large impact on findings. In 2004–2005 for example, the national utilization rate (as measured by NAQC quitline caller data) was 1% of all smokers, ranging from 0.01%–4.28% across the states.¹³ These numbers are lower than the mean and range of state estimates reported in *Highlights 2010* for the percentage of smokers who made quit attempts and called a quitline.
- In states that have private quitlines operating in addition to the state-operated quitline, data from population based surveys may reflect both use of public and private quitlines, as in TUS-CPS.

Medicaid Coverage for Counseling and Medications

Despite the progress in reducing tobacco use in the general population, Medicaid enrollees continue to have a higher prevalence of smoking, probably in part because of limited access to the medications and counseling that increase the chance for a successful quit attempt.¹⁴ *Treating Tobacco Use and Dependence: 2008 Update* recommends comprehensive insurance coverage of tobacco dependence treatments without barriers that reduce utilization and subsequent success of these services by all health insurance providers, including Medicaid.¹⁵

A *Healthy People 2010* objective (Objective 27-8) was to increase insurance coverage among all 51 Medicaid programs to include all FDA-approved pharmacotherapies as well as behavioral therapies for tobacco dependence.⁷ In 2007, only seven states (Indiana, Massachusetts, Minnesota, New Mexico, Oklahoma, Oregon, and Pennsylvania) had reached this goal, while six states (Alabama, Connecticut, Georgia, Missouri, Nebraska, and Tennessee) had no Medicaid coverage for medications or counseling.

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. State Medicaid Coverage for Tobacco-Dependence Treatments—United States, 2007. *Morbidity and Mortality Weekly Report*, 2009;58(43);1199–1204.¹⁴ Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5843a1.htm>.

Measurement and Evaluation Considerations:

- This indicator represents coverage for state fee-for-service Medicaid programs only. Medicaid coverage that occurs through managed care organizations is variable with respect to cessation services, even within a single state.
- This indicator does not cover the proportion of all insurance purchasers and payers that reimburse for tobacco cessation services (KOI 3.10.1).³

Warn

Households with No-Smoking Rules

The home is the primary source of exposure to secondhand smoke for infants and children and a major source for nonsmoking adults.¹⁶ As there is no safe level of secondhand smoke exposure, creating and enforcing a smoke-free home policy is one of the most important decisions a family can make to ensure the health of the household members, including pets. Existence of no-smoking rules indicates that household members have been made aware of the dangers of smoke and smoking, see KOI 2.4.4.³

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

Nationally, an average of 77.6% of households reported having rules that smoking was not allowed inside the home in 2006–2007, ranging from 90.6% in Utah to 60.9% in Kentucky.

Definition:

- The prevalence of household no-smoking rules was determined by adult (aged 18 years or older) survey respondents' reports that no one is allowed to smoke anywhere inside their home.
 - ▶ “Which statement best describes the rules about smoking INSIDE YOUR HOME?” (Response options):
 - No one is allowed to smoke anywhere INSIDE YOUR HOME
 - Smoking is allowed in some places or at some times INSIDE YOUR HOME
 - Smoking is permitted anywhere INSIDE YOUR HOME
- Prevalence values reported here differ slightly from those published online in the STATE System because the STATE System gives results for respondents aged 15 years or older.

Source:

- Data were drawn from the 2006–2007 Tobacco Use Supplement to the Current Population Survey (TUS-CPS), conducted in 1998–1999, 2001–2002, 2003, and 2006–2007. The TUS-CPS is a National Cancer Institute sponsored survey of tobacco use that is administered as part of the U.S. Census Bureau's Current Population Survey. Information on TUS-CPS may be found at <http://riskfactor.cancer.gov/studies/tus-cps/>.

Measurement and Evaluation Considerations:

- When the danger of secondhand smoke is communicated effectively, acceptance of and demand for smoking bans are increased. As state and local smoking bans are passed in worksites and public places, people become educated about the need for policies to protect them from exposure to secondhand smoke. This indicator can be considered a short-term outcome of effective campaigns, policies, and programs that have warned the public of the negative health impacts of secondhand smoke exposure.
- Other intermediate and short-term outcomes such as compliance, enforcement, and exposure, are also important to assess. For example, households may not have a defined smoking policy, although no smoking occurs in the home. Alternately, there may be a policy that is being violated. Thus, enforcement may be important to assess if actual exposure in the home is the construct of interest. Conversely, involuntary policies, such as a building code in multiunit housing, could potentially confound the measurement of this construct as a measure of attitudes or knowledge.
- To fully measure this indicator as it appears in *Key Outcome Indicators* (KOI 2.4.4), voluntary policies in vehicles also need to be assessed.³

Tobacco Counter-Marketing Media Intensity

Well-designed, hard-hitting counter-marketing of sufficient reach, duration, and frequency can increase awareness, promote favorable attitudes toward tobacco control, and influence behavior.^{2,17} Gross rating points (GRPs) are a measure of the total intensity of a general audience media campaign, and represent total reach (the percentage of households exposed to an advertising campaign) multiplied by frequency of exposure to the advertisements. Targeted campaigns can be assessed by

tracking targeted rating points (TRPs), which measure the percentage of the targeted population that is exposed to a media campaign. The Best Practices media funding recommendations translate into approximately 800 youth TRPs (80% of the audience reached with 10 exposures each) and 1,200 general audience GRPs (80% of the audience reached with 15 exposures each) per quarter.

Nationally, 42 states and the District of Columbia had data available for 2008. (Complete data were not available for 8 states that lacked sufficiently large media markets for comparable data collection in 2008.) Among those with available data, state programs had a median of 30 TRPs per quarter for youth campaigns and 138 GRPs per quarter for general audience campaigns. The values ranged from 1,070 TRPs and 4,766 GRPs per quarter in Utah to 0 GRPs per quarter in four states (Alabama, Georgia, Mississippi, and North Dakota) and 0 TRPs per quarter in six states (Alabama, Georgia, Mississippi, North Dakota, Tennessee, and Texas).

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 advertisement. Frequency is the average number of times homes or people are exposed in a given time frame. In this document, gross rating points (GRPs) equals reach multiplied by frequency for households containing adults ages 18 years or older in the general population. Targeted rating points (TRPs) equals reach multiplied by frequency for youths aged 12–17 years. In this document, GRPs and TRPs were averaged across major media markets in each state, per quarter, for 2008.
- Measurements of TRPs and GRPs in the *Highlights 2010* report reflect state-sponsored broadcast and cable media campaigns, not media campaigns run by other organizations (e.g., Legacy); pharmaceutical advertisements; nonpaid public service announcements; tobacco industry advertisements; and other miscellaneous not-for-profit advertisements such as those developed by partner organizations (e.g., American Lung Association). It also does not cover advertisements run on spot cable (i.e., advertisements purchased in a specific market or other geographic area), radio, billboards, Internet, or transit. It does not include data for states where the media markets significantly overlapped state boundaries or where the media markets were not included in the Nielsen top 100 media markets. If multiple partners purchased an advertisement and state sponsorship was identified, the advertisement was attributed to the state. If it was determined that an advertisement by a state tobacco prevention foundation was paid for with state funds, it also was attributed to the state.

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, on the basis of rating information from Nielsen Media Research, as described elsewhere.¹⁸

Measurement and Evaluation Considerations:

- Data and rankings reflect measure of state-sponsored television campaigns only and may not reflect the total counter-marketing media exposure of residents in the state (see additional factors above that define this indicator). A low number of TRPs or GRPs could indicate a need to increase funding for media campaigns, or it could represent a state's strategic decision to use funds elsewhere because other partners were running campaigns in the state.

- Residents may be exposed to other active media campaigns in the state, to national campaigns, or to campaigns in neighboring states if media markets overlap.
- GRPs and TRPs represent outputs of media campaign activities and are process evaluation measures. Evaluating a media strategy usually includes measuring TRPs to assess whether the intended population (e.g., youth) is being reached.
- Outcome evaluations also monitor knowledge, attitudes, and behavior change linked to the media campaign. Linking the process measures of GRPs and TRPs with outcomes can help show the effect of the campaign and point to where improvements need to be made.

Enforce

State Allows Local Advertising and Promotion Laws

States may preempt the ability of local communities to enact certain local laws, including those that restrict tobacco advertising and promotion. In the latter case, preemption may have a negative effect on efforts for tobacco control. A *Healthy People 2010* objective (Objective 27-19) was to eliminate all laws that preempt local action on tobacco control.⁷

In 2009, there were several states that preempted local communities from enacting more restrictive advertising and promotion laws than those of the state: 12 preempt retail display laws, 13 preempt promotion laws, and 14 preempt sampling laws. Nine states preempt in all three of these areas.

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 that contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

Measurement and Evaluation Considerations:

- On June 22, 2009, the United States enacted the Family Smoking Prevention and Tobacco Control Act (FSPTCA).^{*} This historic legislation grants authority to the U.S. Food and Drug Administration (FDA) to regulate tobacco products. Among other things, the FSPTCA provides FDA with authority to regulate marketing and promotion of tobacco products. Through this legislation, states, and local communities are no longer preempted from imposing restrictions that are in addition to or more stringent than FDA requirements, such as specific bans or restrictions on the time, place, and manner of cigarette advertising. Because this area of implementation is relatively new for states, monitoring and evaluation systems will be needed to establish the impact of different advertising and promotion laws.

^{*} Family Smoking Prevention and Tobacco Control Act. Pub. L. No. 111-31 (June 22, 2009). Available at <http://www.gpo.gov/fdsys/pkg/PLAW-111publ31/content-detail.html>.

Retail Environment Tobacco Licensure

Laws that require businesses to obtain a license to sell tobacco products over the counter or in vending machines can help reduce illegal sales to youth and can increase compliance with local, state, and federal tobacco laws (see KOI 1.8.2).³ Because tobacco sales often represent a significant proportion of a business's revenue, there is a strong incentive to comply with the laws in order to avoid suspension or revocation of the license. License fees are often used to support the cost of compliance checks.

The number of states that require licensure for both over-the-counter sales and vending machines is 38, while 7 states do not require either type of license.

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 that contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

Measurement and Evaluation Considerations:

- This indicator does not take into account some factors that could be associated with effectiveness of the licensure, all of which may vary by state. For example, the cost of licensure may affect the degree to which businesses are willing to pay to sell tobacco. Likewise, penalties may be more or less effective in reducing noncompliance, depending on how strict they are. Finally, enforcement may vary among states, or even among communities within a state.

Raise

Amount of Cigarette Excise Tax

Because of the strength of the inverse relationship between cigarette price and smoking prevalence among young people and adults, raising the price of cigarettes with excise taxes has been one of the most effective tobacco control interventions.^{2,19} The amount of product excise tax is one of the most fundamental and reliable indicators of the success of a tobacco control program (see KOI 1.12.1 and KOI 3.12.1).³

At the close of 2009, the national average for state cigarette taxes was \$1.34. The median sales tax rate was \$1.18 per pack. Across states, the excise tax ranged from \$3.46 in Rhode Island to \$0.07 in South Carolina.

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 that contains tobacco-related epidemiologic and economic data and information on state legislation. The STATE System is available at <http://www.cdc.gov/tobacco/statesystem>.

Measurement and Evaluation Considerations:

- State excise taxes do not take any applicable federal or local taxes into consideration, the latter of which may be considerable for some locales (e.g., New York City).
- This indicator provides data on excise taxes of cigarettes but not other tobacco products. Evidence suggests that the excise taxes of other tobacco products are also important (KOI 1.12.1 and KOI 3.12.1).³ Differential tax rates may affect accessibility of products, especially for youth.
- This indicator does not measure the actual price consumers pay for tobacco products, which also may be influenced by promotions and discounting.

Minimum Price Law

Because increasing the price of tobacco is so effective at reducing prevalence and consumption, it is important that efforts to raise prices are not undermined by tobacco industry efforts to allow tobacco users to buy their products too cheaply. States have increased taxes as the primary method of raising price. Tobacco companies have utilized discounts, coupons, and other price promotions to reduce the impact excise tax increases would otherwise have on consumption and youth initiation.²⁰ State minimum price laws prohibit cigarettes from being sold below a price calculated by a formula contained in the state statute; thus, they are a means to prevent or mitigate tobacco industry efforts to keep effective prices low.

In 2009, 24 states and the District of Columbia had minimum pricing laws.

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 markup 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).

Measurement and Evaluation Considerations:

- This indicator is based on the existence of a minimum price law. These laws may differ in their impact. For example, laws that expressly prohibit trade discounts from being taken into account when calculating minimum prices have the potential to have more impact than those that expressly allow trade discounts to be taken into account.²¹ Likewise, enforcement of these laws may differ across states or over time.²¹

State Funding for Tobacco Control

CDC developed guidelines for funding a comprehensive program at levels needed to end the tobacco epidemic. In *Best Practices*, five broad categories of program components are recommended for each state, with per capita amounts for each category. State funding for tobacco control is one of the best indicators of success over time if funds have been invested appropriately. States that have made larger investments in comprehensive tobacco control programs have seen cigarette sales drop more than twice as much as in the United States as a whole, and smoking prevalence among adults and youth has declined faster as spending for tobacco control programs increased.^{22,23}

This report presents state investment in tobacco control as a percentage of actual state spending in 2007 relative to the expenditure amount recommended in *Best Practices*. In 2007, no states were funded at 100% of CDC-recommended funding. Maine ranked first with 85.5% of recommended funding, and Tennessee ranked last at 1.1%.

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*.² (Note that the amount allocated at the beginning of a fiscal year does not always exactly match the amount spent during the year.)
- The percentage of annual tobacco revenue needed to fund a state tobacco control program at the level recommended in *Best Practices* 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*.

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 percentage of annual tobacco revenue needed to fund a state tobacco control program at CDC's recommended level are drawn from *Best Practices*.²

Measurement and Evaluation Considerations:

- Only three states were funded at 75% or more of the *Best Practices*-recommended level in 2007. Thus, for this indicator, a high rank does not necessarily indicate a near-ideal situation.
- Although absolute funding has been shown to be related to greater successes in tobacco control, the impact of programs and policies funded also should be taken into account. In general, population-level interventions and policies will have more impact than services targeted towards individuals.
- Other organizations, such as foundations or advocacy groups, may provide funding that is not accounted for by these figures. As noted previously, the allocation may not exactly match the amount spent by the state. Thus the figure reported in *Highlights 2010* may not be exactly equal to the total tobacco control expenditure in the state.

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