

INSIGHTS: SMOKING IN WISCONSIN

A series of papers on Wisconsin tobacco use with recommendations for action, based on the 2003 Wisconsin Tobacco Survey of 8,000 Wisconsin adults.

Secondhand Smoke: Awareness, Attitudes and Exposure Among Wisconsin Residents

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UW-CTRI

Center for Tobacco Research and Intervention
University of Wisconsin Medical School



University of Wisconsin
Comprehensive Cancer Center



The Wisconsin Department
of Health and Family
Services

AWARENESS, ATTITUDES AND EXPOSURE

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EXECUTIVE SUMMARY

Since the 1986 U.S. Surgeon General's Report, *The Health Consequences of Involuntary Smoking*, first made Americans aware of the dangers of secondhand smoke, our understanding of the health consequences of environmental tobacco smoke for both nonsmoking adults and children has expanded greatly. In Wisconsin, secondhand smoke is estimated to cause 700 lung cancer and heart disease deaths each year and thousands more are made seriously ill by asthma, allergic attacks and infectious disease.¹

The 2003 Wisconsin Tobacco Survey (WTS) interviewed over 8,000 Wisconsin smokers, former smokers and never smokers regarding secondhand smoke. This report summarizes the WTS findings and offers recommendations based on those findings. According to the WTS, Wisconsin residents agree that secondhand smoke is harmful, prefer smokefree environments (especially their homes and workplaces) and support of smokefree policies. In fact, approximately 94% of Wisconsin residents overall agree that secondhand smoke is harmful, including 88% of smokers. Younger residents (18-24 year olds) are more likely to find secondhand smoke dangerous than older Wisconsinites. Exposure to secondhand smoke occurs more often, however, among workers with less education, primarily those working in the service/hospitality and manufacturing sectors. These workers are more likely to support changes in smoking policies than those working in sectors where environments are more likely to be smokefree.

Survey respondents generally support smokefree environments, especially in the home and workplace. Respondents were very likely to restrict smoking in their **homes**. Close to 70% of Wisconsin households reported that they completely prohibit smoking. An additional 10% allow smoking in some places or at some times. Only three percent of respondents allow smoking at all times in their home.

Regarding **workplaces**, close to 75% of respondents believe that smoking should not be allowed in indoor work areas (including 55% of smokers). Black respondents preferred stronger workplace policies than Whites. Workers in the entertainment, lodging and recreation industries in particular supported stronger workplace policies on smoking.

While the past ten years has seen a reduction in exposure to secondhand smoke in the workplace, this reduction has not been uniform. Employees of restaurants, taverns and manufacturing facilities, as well as racial and ethnic minorities are more often exposed to secondhand smoke than other groups. Approximately twice as many respondents with a high school education or less were exposed to secondhand smoke in their workplace compared to those with a college degree or more.

Moreover, there was strong support for smokefree **restaurants**. More than 70% of respondents reported that they would support local laws making restaurants smokefree including three-quarters of nonsmokers and half of smokers. More women support smokefree restaurants than men as do more Blacks than Whites. Smokefree restaurants were also more attractive to respondents as customers. Half said they would be more likely to dine in a smokefree restaurant while only six percent said they would be less likely.

Finally, close to two-thirds of respondents supported policies that require **bars and taverns** to be either smokefree or only allow smoking in specific areas. This contrasts with the current situation where few bars are smokefree or have smoking restrictions.

PURPOSE AND INTRODUCTION

Secondhand smoke contains more than 50 compounds that are known carcinogens. It also includes irritants and systemic toxins, some of which can cause mutations or developmental problems for the fetus. Exposure to secondhand smoke causes lung and nasal sinus cancer, heart disease and Sudden Infant Death Syndrome (SIDS). Children suffer serious health effects from secondhand smoke including bronchitis and pneumonia, middle ear infection, chronic respiratory symptoms, low birth weight and the development of asthma and worsening of attacks with continued exposure to secondhand smoke.^{2,3}

Secondhand smoke is the third leading preventable cause of death in this county, killing an estimated 53,000 nonsmokers in the U.S. each year.⁴ People exposed to secondhand smoke suffer similar health consequences as those who are active smokers. A 2004 report by the Centers for Disease Control and Prevention (CDC) found that the risk of heart attack and other heart disease increases rapidly with relatively small doses of tobacco smoke. The report warns that patients with risk of or known coronary artery disease should avoid indoor environments that permit smoking.⁵ In addition, the 2002 Environmental Health Information Service's 10th Report on Carcinogens classifies secondhand smoke as a Group A (Human) Carcinogen—a substance known to cause cancer in humans. There is no safe level of exposure for Group A toxins, such as secondhand smoke.⁶

The purpose of this report is to summarize the findings of the 2003 Wisconsin Tobacco Survey (WTS) regarding respondents' knowledge about the effects of secondhand smoke, their attitudes on public policies restricting secondhand smoke and their personal rules that govern their exposure to secondhand smoke. This report pays particular attention to how the socioeconomic characteristics of survey respondents relate to their knowledge, attitudes and exposure regarding secondhand smoke. As in the previous WTS reports, a final sample of 8048 respondents serves as the basis for this report. Racial/ethnic comparisons were limited to White and African American groups due to very limited numbers of other minorities in the WTS sample.

THE RESULTS

KNOWLEDGE OF SECONDHAND SMOKE

HARM FROM SECONDHAND SMOKE

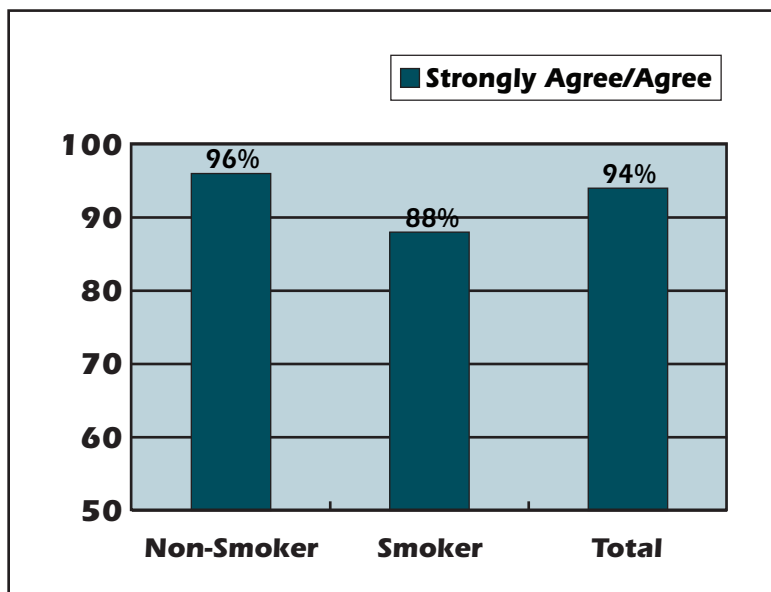
Wisconsin residents almost universally agree that secondhand smoke is harmful (Figure 1). Ninety-four percent of all respondents (96% of nonsmokers and 88% of smokers) agreed or strongly agreed that “breathing smoke from someone else’s cigarette is harmful.” In response to a similar question, only 15% of survey respondents agreed or strongly agreed with the statement that “secondhand smoke is not as dangerous as people make it out to be.”

AGE DIFFERENCES

There is a high level agreement across age groups that secondhand smoke is dangerous to health. Ninety percent of respondents over 65 and those 18-24 years old, 95% of those between the ages of 25-44 and 92% of those between the ages of 24-64 agreed about the dangerous health effects of secondhand smoke. These findings are consistent with earlier surveys of Wisconsin attitudes.⁷

Figure 1

Percent of Respondents Who Consider Secondhand Smoke Harmful, by Smoking Status



EDUCATIONAL LEVELS

As indicated in **Table 1** below, similar views are held across all educational levels on the issue of secondhand smoke. However, when the same respondents are asked how likely they are to eat in a smokefree restaurant or whether or not they allow smoking in their home, the respondents differ substantially by their level of educational attainment. Respondents with lower levels of education were

less likely to reflect their knowledge about the dangers of secondhand smoke by choosing a smokefree restaurant. In a similar finding, while almost 70% of residents overall had a total ban on smoking within their homes, smokefree homes were more common among college graduates (80%) than among residents with less than a high school education (55%).

Table 1

Opinions and Behavior Related to Secondhand Smoke by Educational Attainment

	<HS	HS	some college	college grad	Total
Believe secondhand smoke is harmful	90%	93%	95%	96%	94%
Are more likely to eat in smokefree restaurant	40%	42%	46%	63%	51%
Have a total ban on smoking in the home	55%	61%	70%	80%	69%

ATTITUDES TOWARDS SMOKEFREE ENVIRONMENTS

Consistent with their understanding of the harmfulness of secondhand smoke, Wisconsin residents generally support smoke-free indoor environments. Their support is greater for home and workplace environments but is somewhat less for restaurants and bars.

WORKPLACES

Three-quarters of respondents believed that smoking should not be allowed in any part of indoor work areas. Virtually no respondents believed that smoking should be allowed in all areas at work. Even large majorities of smokers approved worksite smoking restrictions—98% of smokers support restrictions on smoking indoors in work areas (**Table 2**). Also by a two-to-one margin, smokers preferred to strengthen as opposed to weakening smoking policies in their workplace.

Table 2

Preferences of Respondents Regarding Smoking in Indoor Work Areas, by Smoking Status

	Non-Smoker	Smoker	Total
Allow smoking in all areas	1%	2%	1%
Allow smoking in some areas	19%	43%	24%
No smoking allowed	80%	55%	75%

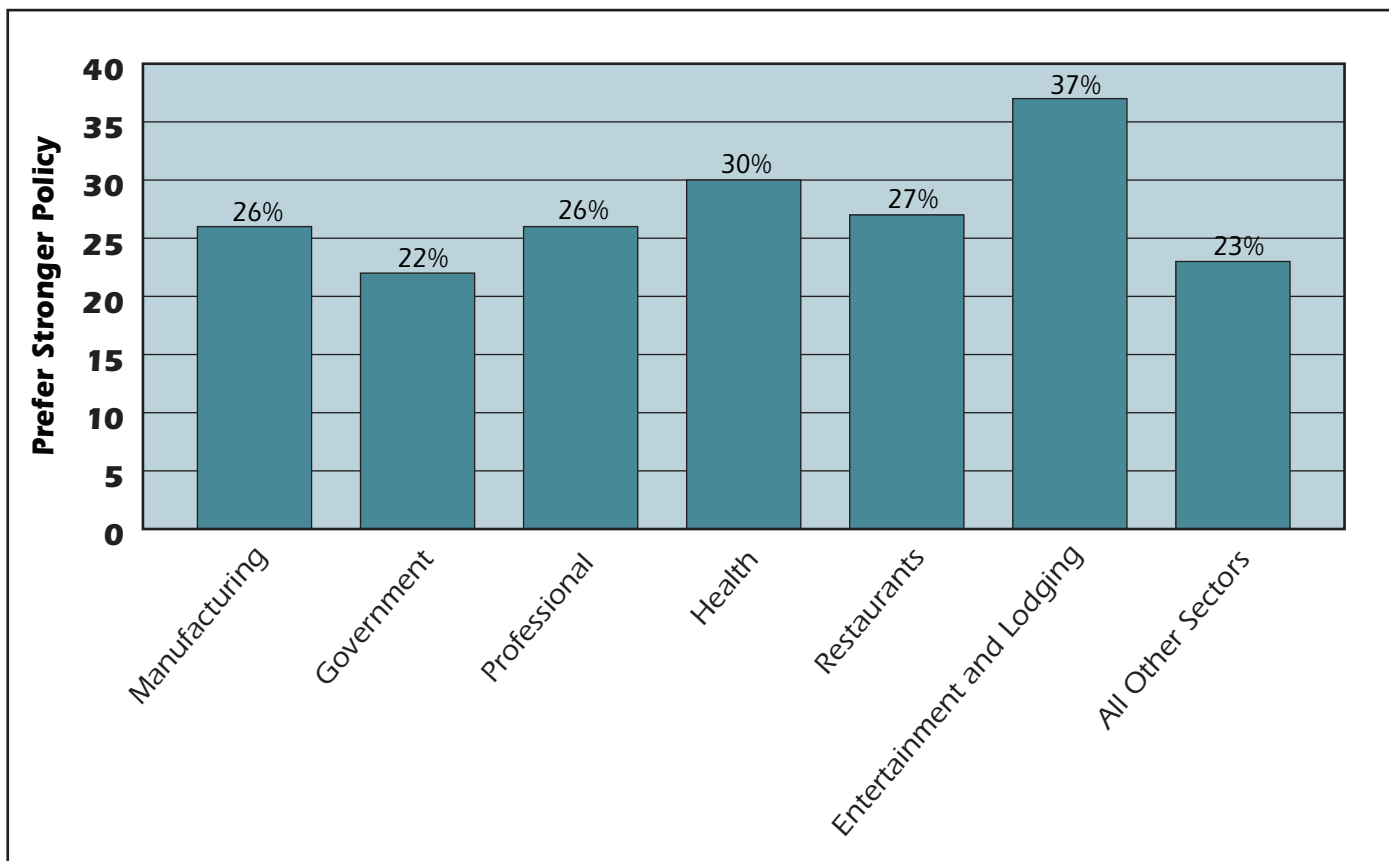
Women were more likely to support such bans as compared to men (57% vs. 43%). A greater percentage of Black respondents prefer to strengthen their workplace smoking policies than do Whites (41% vs. 26%). Views of workplace smoking restrictions do not differ substantially by the age of the respondent.

Despite the large differences in established smoking policies throughout Wisconsin, a majority of respondents do not prefer any policy changes because most workplaces are already smokefree.

However, among those who do want policy changes, support for stronger workforce policies is greatest among employees in the entertainment, recreation, and lodging industries compared to employees in nearly all other industry sectors (37% to 25%). This difference is probably due to the relatively weak policies in those employment sites (Figure 2). Only 1-2% of respondents support weaker policies.

Figure 2

Percent of Respondents Preferring Stronger Workplace Policies, by Industry



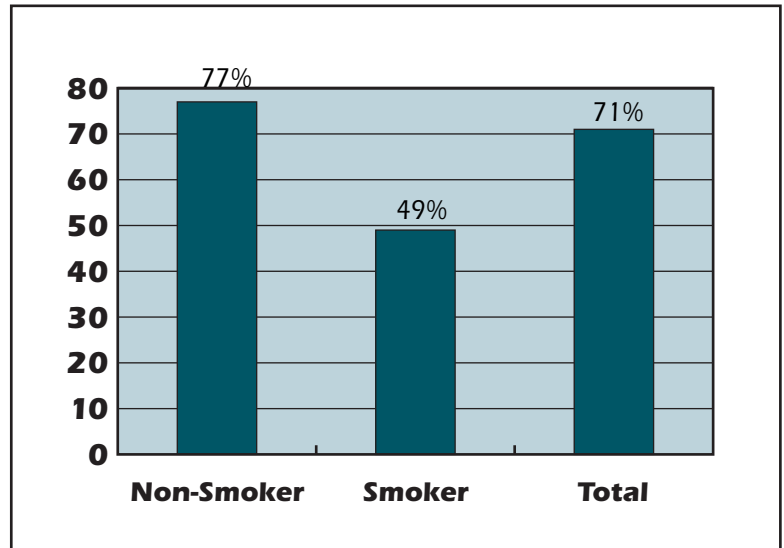
RESTAURANTS

More than 70% of respondents report that they would support local laws making restaurants smokefree. Three quarters of nonsmokers support such laws, as do half of all smokers (**Figure 3**).

Support for such laws is substantially higher among women (77%) than men (65%) and among younger respondents (78%) than those between the ages of 44-64 (68%). There is slightly greater support for such laws among Blacks than Whites (75% and 71%). Interestingly, despite substantial differences in smoking prevalence by income group and by educational attainment, support for laws requiring smokefree restaurants does not vary significantly by these measures of socioeconomic status.

Figure 3

Support for Local Ordinances Requiring Smokefree Restaurants

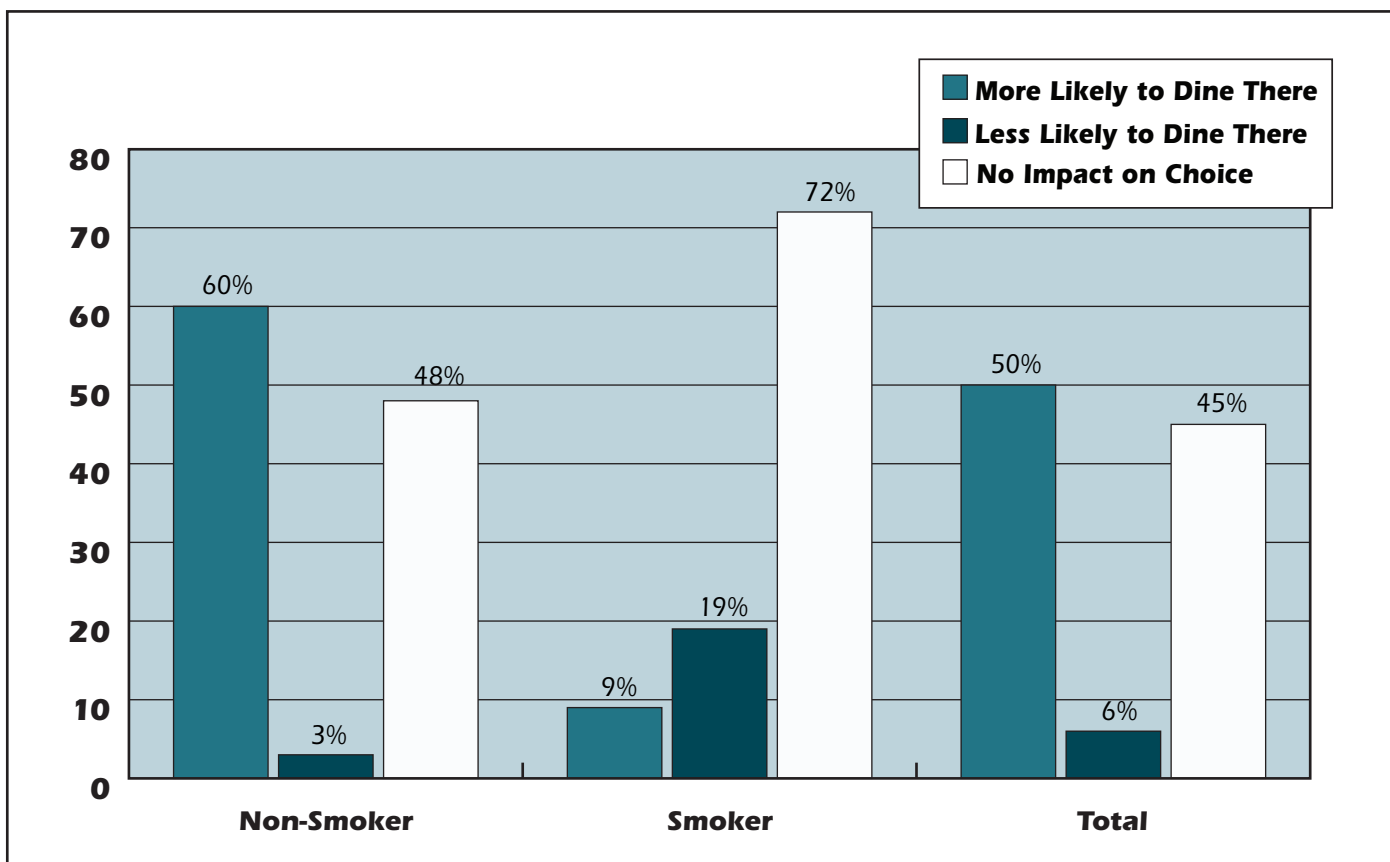


Restaurants that become smokefree are more attractive to customers according to the survey. Half of all respondents said that they are more likely to dine in a smokefree restaurant while only 6% said that they would be less likely to dine in such an establishment. Forty-five percent of all respondents said that it would have no impact on their choice.

Figure 4 presents the response of smokers and nonsmokers to the question as to whether a restaurant being smokefree would cause them to be more likely, less likely or have no impact on their dining choices. It should be noted that there are four times as many nonsmokers as smokers.

Figure 4

Percent of Respondents Likely to Dine in a Smokefree Restaurant



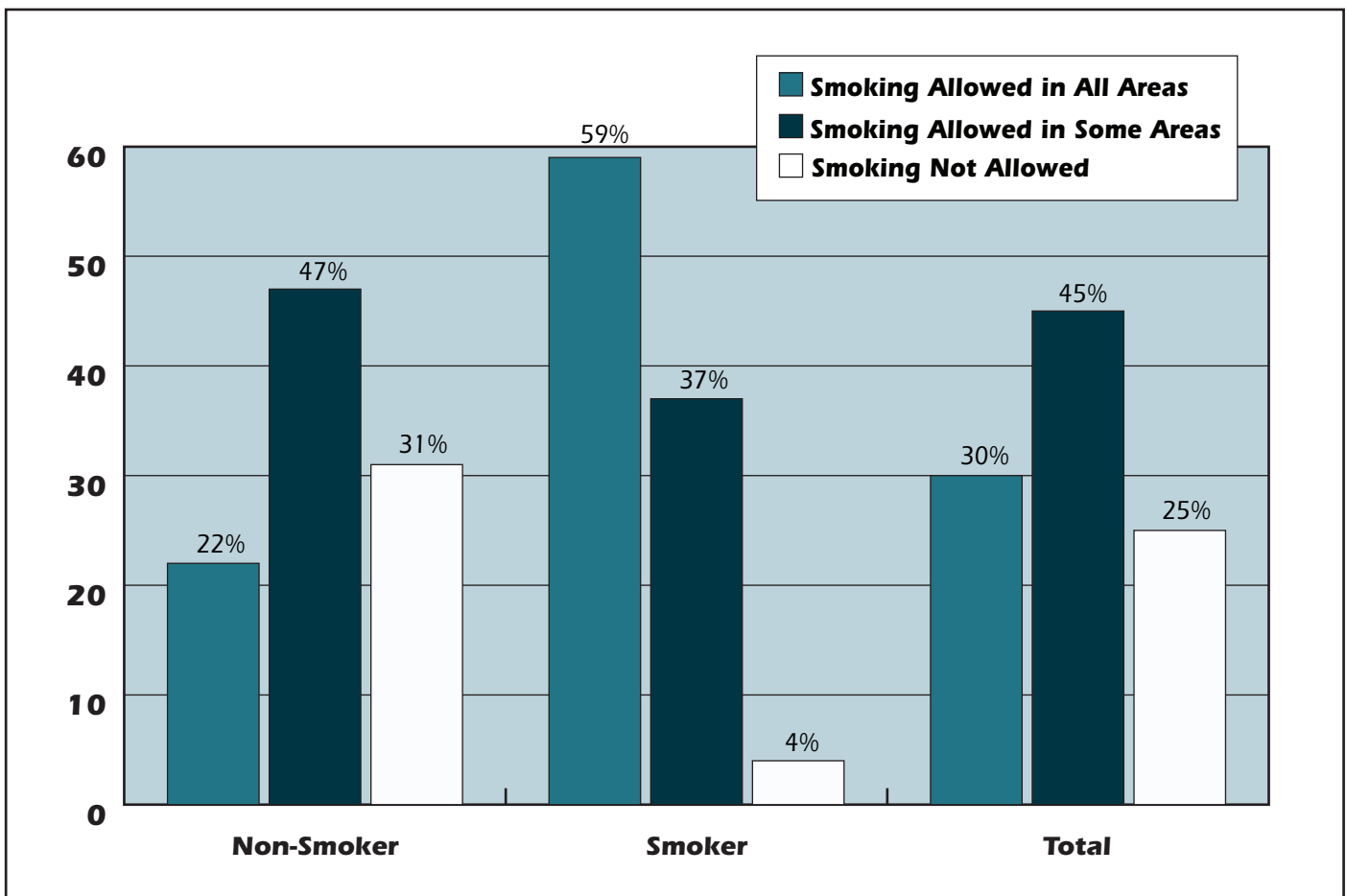
BARS AND TAVERNS

Two thirds of Wisconsinites support policies that require bars and taverns to be either smokefree or only allow smoking in specific areas. This is in sharp contrast with the actual level of accommodations in the tavern industry where few bars are either entirely smokefree or provide areas that are smokefree. Support for such policies varies little by income, educational attainment, race or gender. However, 18-24 year olds are less than half as likely

as the population as a whole to support restrictions on smoking in the entire bar. The primary difference in opinion on this issue appears to be driven by whether the respondent smokes or not. **Figure 5** depicts the response of all respondents to the question of whether smoking in bars and taverns should be limited to all areas, some areas or not allowed in any area.

Figure 5

Percent Endorsing Smokefree Policies in Bars, by Smoking Status



EXPOSURE TO SECONDHAND SMOKE

HOME

According to the 2003 WTS, close to 70% of Wisconsin households completely prohibit smoking in their home. An additional one in ten homes allows smoking in some places or at some times. Only 3% of respondents allow smoking at all times in the home. Other studies have indicated that there is a very broad range of home regulations to manage smoking in the home.⁸ This includes smoking in specific locations in the home or car at specific times of day (Table 3).

Forty percent of smokers report that they do not permit smoking in their homes. This contrasts with 76% of nonsmokers who do not allow smoking in their home. Adults with children in the home are more likely to prohibit smoking at a rate of 75% compared to 65% for those adults without children in their home. Whites are more likely than Blacks to prohibit smoking in their homes, 69% to 51%, respectively.

Higher income respondents are much more likely to prohibit smoking in their homes than lower income respondents. Similarly, 89% of high-income

respondents have rules pertaining to smoking in their home while only 74% of lower income respondents have such rules.

WORKPLACE

Despite the absence of a state policy requiring smokefree workplaces, there have been substantial advances in reducing exposure at the worksite. However, such changes have not been equal throughout all workplaces. Employees of restaurants, taverns and manufacturing facilities are much more likely to report that smoking is allowed in their workplaces than other major sectors of the economy. Some ethnic and racial minorities have substantially higher exposure to secondhand smoke in their workplaces and some industries have much greater levels of exposure. Black respondents substantially support stronger protections in the workplace than Whites. Forty-one percent of Blacks prefer stronger workplace policies while only 26% of Whites support such policies.

Table 3

Percent of Respondents Banning Smoking in Their Homes, by Smoking Status

	Non-Smoker	Smoker	Total
Not allowed anywhere in home	76%	40%	69%
Allowed in some places or at some times	7%	24%	11%
Allowed anywhere inside the home	1%	8%	3%
No rules about smoking inside the home	16%	28%	18%

WORKPLACE

As indicated in **Figure 6**, higher educational attainment is closely related to employment in worksites that prohibit smoking. Thirty percent of the survey respondents with a high school education or less were employed in areas where they were exposed to tobacco smoke in their workplace, compared to 16% of those with a college degree. This disparity in conditions is reflected in the fact that 34% of respondents with less than high school education prefer stronger workplace policies while only 27% of college graduates prefer stronger policies.

While these data indicate substantial disparities by education level, the overall percent of persons who are covered by nonsmoking policies at work has increased over the past ten years. In addition, policies and the differences between groups have narrowed in the period 1998 to 2003. During this time, protection from secondhand smoke for people with less than a high school diploma increased by 35%, for high school graduates by 12%, for employees with some college by 17%, and for college graduates, 9%.⁹

Figure 6

Respondents Reporting Smoking Allowed in Workplaces, by Education

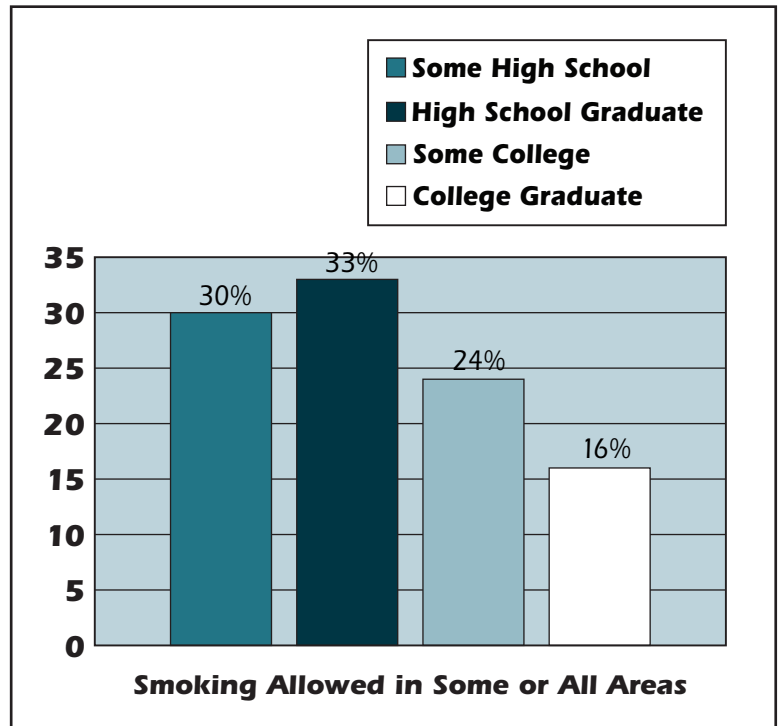
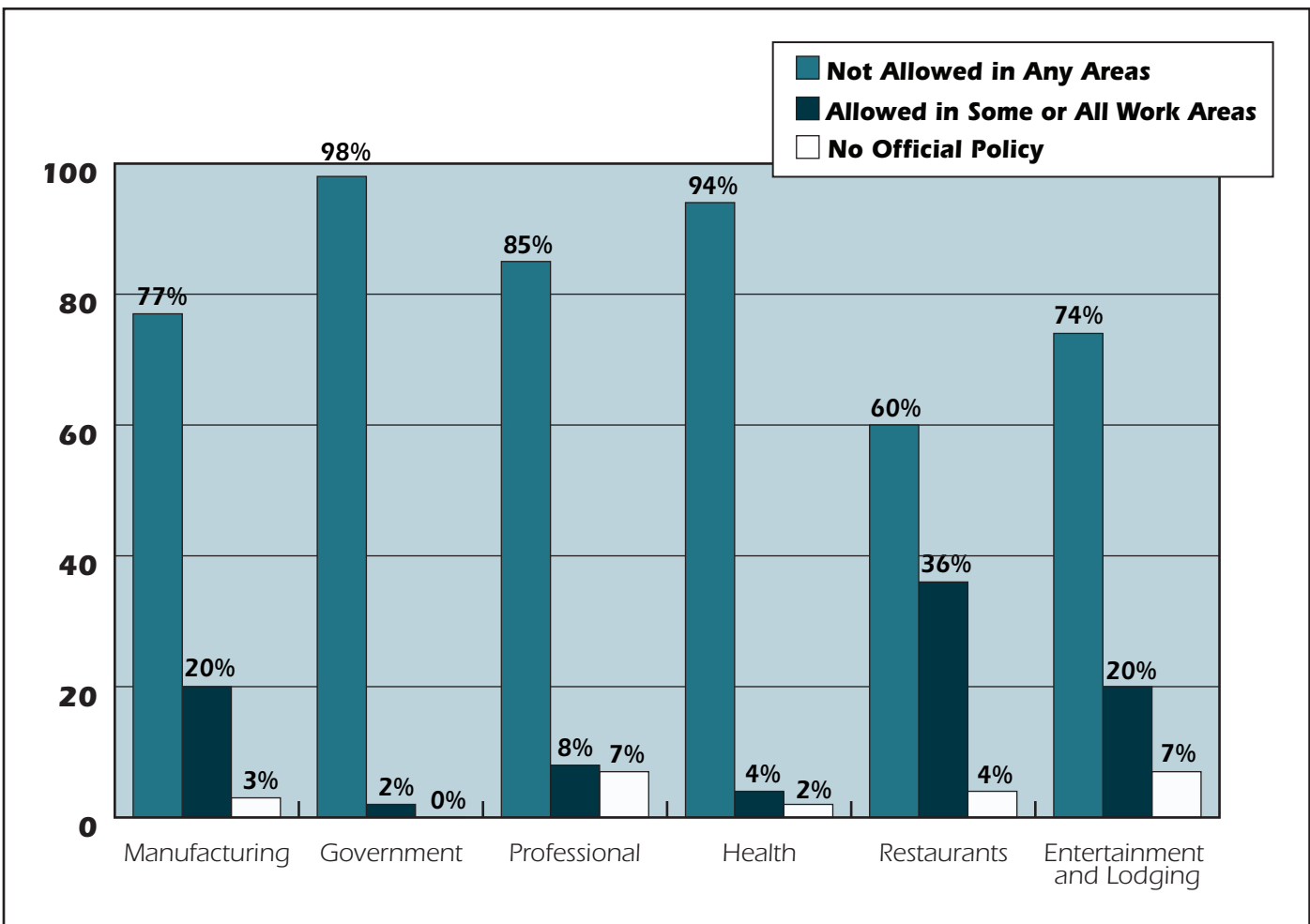


Figure 7 indicates the wide disparities in workplace exposure. One-third of restaurant and tavern employees reported that smoking is allowed in all or some of their workplace as did one-fifth of manufacturing employees. This contrasts with 2% of government and school employees and 5% of employees in health care, finance, real estate and insurance.

One third of the employees in restaurants and taverns smoke, a rate that is substantially higher than the overall adult prevalence rate of 22%. Other industries with higher rates of exposure do not have unusually high prevalence rates. For example, the smoking prevalence rate in the recreation/lodging and manufacturing industries is 25%—only a few percentage points higher than the state average.

Figure 7

Smoking Policies by Industry



CONCLUSIONS

Each year, secondhand smoke is estimated to cause 700 lung cancer and heart disease deaths in Wisconsin. In addition, thousands more individuals are made seriously ill by asthma, allergic attacks and infectious diseases caused or aggravated by tobacco smoke. Many of these instances of death and illness could be eliminated by prohibiting smoking in public places as well as promoting smokefree homes.

Wisconsinites know that secondhand smoke is harmful. The vast majority of survey respondents believe that secondhand smoke is dangerous. As such, they support policies that ban smoking in workplaces, public places such as restaurants, and in their homes. A majority of respondents support either smokefree bars or bars that require smoking to be limited to specific areas.

EXPOSURE TO SECONDHAND SMOKE

Exposure to smoke in the workplace has the potential for major health consequences because of the duration of the workweek. Policies that prohibit smoking in workplaces eliminate this preventable risk for all employees and can have the additional effect of encouraging smokers to quit and or reduce the level of consumption by those who continue to smoke.¹⁰

Until twenty years ago, exposure to environmental tobacco smoke in workplaces was pervasive. While there has been considerable progress in this area, much of the progress has taken place in the past decade. Since 1998, seven states have enacted laws requiring all private sector workplaces to be smokefree and an additional three states have limited smoking to separately ventilated break-rooms.¹¹ Wisconsin's Clean Indoor Air Act does not require smokefree workplaces; it only requires that smoking areas be posted accordingly.

Where policies prohibiting workplace smoking are weak or unenforced there are higher levels of exposure of smoke among employees in those workplaces. A 2004 study of Massachusetts employment practices found that employees in workplaces without restrictions had more than

10 times the odds of being exposed to secondhand smoke as those employees with workplace bans. Clearly, workplace bans substantially reduce both the risk and duration of exposure to secondhand smoke.¹²

Unlike the nearly universal agreement regarding policies on secondhand smoke reduction, **exposure to secondhand smoke differs by socioeconomic group and by employing industry.** Approximately one-third of the employees in the restaurant and tavern industry and one quarter in the manufacturing sector are exposed to secondhand smoke as a condition of their employment. This contrasts to the health industry and public sector where only 2-6 % of employees are exposed. Given the long hours of employment, the level of exposure to secondhand smoke may be substantial for these workers.¹³

In addition to the disparity of exposure by socioeconomic group and industry are the disparities in self-protective behavior in regard to exposure to secondhand smoke. Lower level socioeconomic groups are more likely to allow smoking in their homes despite their correct understanding of the dangers of secondhand smoke.

Opinion-leaders, policy makers and public health officials almost always work in smokefree environments. As a result, they are less likely to be aware of the actual conditions under which one-quarter of the workforce is regularly exposed to smoke. These conditions deserve increased awareness and action in order to eliminate this health hazard.

In the most comprehensive reviews of the literature on the effects of smokefree workplaces, **there is strong evidence that smoking bans and restrictions reduce exposure to secondhand smoke.**¹⁴ However, researchers have also found that heavy smokers tend to "cluster" in workplaces without smoking policies as opposed to those with smoking policies. One study estimated that smokefree workplaces policies were responsible for 13% of the 76 billion cigarette decrease in consumption that occurred between 1988 and 1994.¹⁵ If workplace bans had been universal, 420 million fewer cigarettes would be smoked annually in Wisconsin alone.¹⁶

RECOMMENDATIONS

TO PROTECT HEALTH, REQUIRE SMOKEFREE WORKPLACES

Hundreds of thousands of Wisconsinites are regularly exposed to secondhand smoke, a Class A carcinogen, to which there is no safe level of exposure. These individuals tend to work in restaurants, bars and lodging establishments and in manufacturing. The majority of these employees are nonsmokers; however smokers and nonsmokers alike would prefer stronger and more protective policies. Laws requiring smokefree workplaces are a common sense measure that have already been enacted in 10 states covering more than one-third of the United States population. Wisconsin's tradition of leading the nation in protecting health demands implementation.

TO IMPROVE HEALTH, ENCOURAGE SMOKEFREE HOMES

Secondhand smoke is associated with a host of serious childhood diseases and disorders including SIDS, asthma, bronchitis, middle ear infections and low birth weight. Children cannot protect themselves from secondhand smoke. Parents and guardians must ensure a safe environment for them by refraining from smoking in homes with children. Communities, particularly through schools and health care institutions, should promote smokefree homes as a normative condition. "Take it Outside!" and similar programs de-normalize smoking in homes.

TO PROTECT HEALTH, BROADEN PUBLIC EDUCATION CAMPAIGNS

While there is near unanimity of opinion that secondhand smoke is harmful, there is more limited support for public policies and personal practices that are natural extensions of this understanding. Wisconsin lags behind much of the nation in implementing policies that protect the public from secondhand smoke. Support for policies such as smokefree workplaces and public places can be increased through mass media campaigns and consistent advocacy by opinion leaders and health organizations.

TO IMPROVE HEALTH, PROVIDE ACCESS TO CESSATION RESOURCES

Increases in smokefree homes, workplaces and public places leads to a greater interest in quitting smoking. However, many Wisconsinites do not have adequate information, trained professional support or access to medicines that improve their ability to quit successfully. Access to a full range of proven cessation services helps to reduce secondhand exposure and improve public health.

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TECHNICAL NOTES

The 2003 Wisconsin Tobacco Survey (WTS) was conducted by the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI) in collaboration with the University of Wisconsin Comprehensive Cancer Center and the Wisconsin Department of Health and Family Services. A total of 8,111 adult Wisconsin residents were interviewed by phone from June 2003, through February 2004. The purpose of the 2003 survey was to provide current information about patterns of tobacco use and cessation, attitudes and beliefs about tobacco-related policy and other issues, and the impact of tobacco control media campaigns. The survey included 114 questions on general health; tobacco use and cessation; smokers' use of healthcare services; smoking during pregnancy; media campaigns; risk perception; and demographics. The Wisconsin Department of Health and Family Services provided funding for the 2003 WTS.

The survey identified three main groups: current cigarette smokers, former cigarette smokers, and individuals who have never smoked more than a total of 100 cigarettes. A current smoker was defined as someone who smoked 100 cigarettes in a lifetime and who reported smoking every day or some days at the time of the WTS interview. A former smoker was defined as someone who smoked 100 cigarettes in a lifetime and who reported no smoking at the time of the WTS interview. A never smoker was defined as someone who reported never having smoked more than 100 cigarettes in a lifetime. A limited number of questions about non-cigarette tobacco use (e.g., cigar smokers, pipe smokers, or snuff/chewing tobacco users) were also included. A major goal of the project was to contrast trends in behaviors and attitudes across these three different groups defined on the basis of tobacco use status.

UW-CTRI retained the University of Wisconsin Survey Center (UWSC) to conduct the 2003 WTS.

For purposes of the 2003 WTS, the UWSC obtained a sample of randomly-generated Wisconsin phone numbers from GENESYS Sampling Systems. This company also provides the sample for the Wisconsin Behavioral Risk Factor Surveillance Survey (BRFSS). GENESYS provided a sample of phone numbers selected in the same manner as the BRFSS with the only difference being that the BRFSS sample is generated monthly; for the 2003 WTS, GENESYS generated sample files quarterly. In addition, GENESYS removed numbers from the 2003 WTS sample that were duplicated in the BRFSS sample and the Wisconsin Family Health Survey (FHS) sample each quarter.

The total sample size delivered by GENESYS for the WTS was 35,800 Wisconsin phone numbers. This number included all of the cases that were fielded by the UWSC (24,220 phone numbers) plus an additional 11,580 phone numbers that were prescreened by GENESYS and found to be either nonworking or business phone numbers. These prescreened phone numbers were not called by the UWSC, but are used to calculate the selection probability in the weighting procedures.

The respondent selection procedure for the 2003 WTS was the same as the procedure used in the BRFSS. When each telephone number was called, it was first determined whether or not a working residential telephone number had been reached. Each such number was then screened to verify that it was associated with a household. Those working residential households were then further screened to determine whether there was at least one household resident who was at least 18 years old. If there were two or more persons in the household who were not of the same gender, then the gender of the targeted respondent was randomly selected. Finally, the target respondent was randomly selected within

TECHNICAL NOTES CONTINUED

gender from among those household members age 18 years or older. Only that selected person could be interviewed; no substitutions were allowed.

The 2003 WTS was designed to be a representative sample of adult Wisconsin residents. As such, the majority of WTS respondents were White (n=6904; 86% of sample). Non-white respondents included 751 African Americans (9% of sample), 63 American Indians/Alaska Natives (1%), 145 Hispanics (2%), and 165 other, non-Hispanics (2%). A group of 83 respondents declined to provide answers to questions about race/ethnicity.

The interview for the 2003 WTS was conducted using a computer-assisted telephone interviewing (CATI) system. The CATI software used by the UWSC was CASES 4.3.7 provided by the Computer-Assisted Survey Methods Program at the University of California-Berkeley. Using the CASES program, the text of the survey appeared question by question on a computer screen for the interviewer to read to the respondent. Routing through the interview was based on skip-logic that was pre-programmed into the computer. Question wording/order was adapted according to answers given previously in the interview. The system allowed for pre-coded questions, open-ended questions, and combinations of the two. In addition, the computer allowed only valid responses to be entered; when an invalid response was entered, the CATI program prompted the interviewer to reenter the response.

For the 2003 WTS, the UWSC followed recommendations of the Centers for Disease Control and Prevention (CDC) for improving response rates and data quality: (1) for each phone number, at least 15 calls were made to reach the household; (2) calls were made at different times of day and on different days of the week; (3) the UWSC attempted to convert all cases that were refused (except when a request was made not to call back); (4) when a person “hung up” on an interviewer, the interviewer called the

number back after a brief pause; and (5) the TTY relay system was used to complete interviews with hearing impaired adults.

For the purpose of this study, the Council of American Survey Research Organizations (CASRO) methodology was used to calculate response rate. The application of the CASRO response rate formula to this sample resulted in an adjusted total of 24,220 cases. A total of 8,111 respondents completed the interview, resulting in a CASRO-adjusted response rate of 51%. Data from 63 respondents were deleted from the final dataset due to inconsistencies in their responses to the tobacco use questions. A total of 8,048 valid surveys were included in the final dataset. Among those people, 4,282 were never smokers, 1,544 were current smokers and 2,222 were former cigarette smokers.

WTS data were weighted using the same basic procedures of the BRFSS to more accurately represent the population of Wisconsin. When data are used without weights, each record counts the same as any other record. The implicit assumption is that each record has an equal selection probability and that non-coverage and nonresponse are equal among all segments of the population. However, deviations from this assumption can be large enough to affect the results obtained and weighting each record appropriately can help adjust for this. Detailed information on the formula used for weighting can be found at:

www.cdc.gov/BRFSS/technical_infodata/weighting.htm.

Statistical analysis were conducted using SAS statistical software (SAS Institute Inc., Cary, NC, 2001, Version 8.2). Where appropriate, the SAS procedure PROC SURVEYMEANS was used to incorporate sample weights into the calculation of prevalence and other estimates. Differences between estimates were considered statistically significant if 95% confidence intervals were not overlapping.

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Lead author of this report: David Ahrens, M.S.

Contributing authors:

Stevens S. Smith, Ph.D., Melissa Umland, Michael C. Fiore, M.D., M.P.H., Gloria Meyer, M.A.

Collaborating Organizations and Individuals:

University of Wisconsin Center for Tobacco Research and Intervention

The Center for Tobacco Research and Intervention (UW-CTRI) was established in 1992 by the University of Wisconsin at Madison as the lead campus agency addressing tobacco use in our society. UW-CTRI is a nationally recognized authority on tobacco dependence and treatment.

Michael C. Fiore, M.D., M.P.H., UW-CTRI Director

Stevens S. Smith, Ph.D., 2003 WTS Principal Investigator

Timothy B. Baker, Ph.D.

David Fraser, M.S.

Paula Keller, M.P.H.

Gloria Meyer, M.A.

Daniel J. Nalepinski, B.S., C.C.R.C.

Lezli Redmond, M.P.H.

Tammy Sims, M.D., M.S.

Wendy Theobald, Ph.D.

Mark Zehner, M.S., C.C.R.C.

University of Wisconsin Comprehensive Cancer Center

UW-Madison's prominence in cancer research, education and treatment arises from more than six decades of diligence and discovery—beginning with the founding of the McArdle Laboratory for Cancer Research in 1940 followed by the formation of the UW Comprehensive Cancer Center (UWCCC) in 1973. The UWCCC holds the unique distinction of being the only comprehensive cancer center in Wisconsin as designated by the National Cancer Institute, the lead federal agency for cancer research. An integral part of the UW Medical School, the UWCCC unites over 200 physicians and scientists who work together in translating discoveries from research laboratories into new treatments that benefit cancer patients.

David Ahrens, M.S.

D. Paul Moberg, Ph.D.

Patrick Remington, M.D., M.P.H.

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University of Wisconsin Survey Center

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John Stevenson, B.A., UWSC Associate Director

Danna Basson, WTS Project Director

Wisconsin Department of Health and Family Services, Tobacco Control Program

The purpose of the Wisconsin Tobacco Control Program is to reduce the leading cause of chronic disease—tobacco use. The Tobacco Control Program coordinates a comprehensive, statewide effort, with multiple partnerships at the local, state and national level. The Tobacco Control Program receives federal funding from the Centers for Disease Control and Prevention (CDC).

Jennifer Ullsvik, M.S.

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For additional information on:

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contact Robin Perry at 608-265-5617 or
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UW Center for Tobacco Research and Intervention
1930 Monroe St., Suite 200
Madison, WI 53711
608-262-8673
ml3@ctri.medicine.wisc.edu

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