

# 2017 Wyoming Adult Tobacco Survey

Wyoming Adults' Use of and Attitudes about Tobacco Products

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#### **ABOUT THIS REPORT**

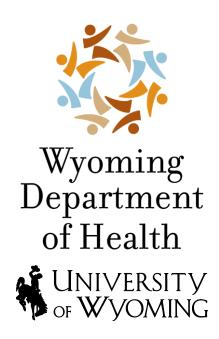
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## **Executive Summary**

## Background

The Wyoming Adult Tobacco Survey (ATS) is a key component in the evaluation of Wyoming's Tobacco Prevention and Control Program (TPCP). Under contract to the Wyoming Department of Health (WDH), the Wyoming Survey & Analysis Center (WYSAC) at the University of Wyoming called adults across the state (via cell phone and landline) to ask about their use of and attitudes about tobacco products and policies. Calling for the 2017 ATS began on April 30th, 2017, and ended on December 20th, 2017. The sample of 4,647 provides estimates for many of the state's key evaluation questions and outcome performance measures that are part of the Centers for Disease Control and Prevention (CDC)-approved programming.

Because tobacco prevention outcomes result from state government programs including the one implemented in Wyoming, the efforts of multiple federal agencies — most prominently, the U.S. Food and Drug Administration [FDA], Substance Abuse and Mental Health Services Administration [SAMHSA], CDC, and other groups (e.g., the Robert Wood Johnson Foundation, Campaign for Tobacco-Free Kids, American Nonsmokers' Rights Foundation, American Cancer Society, and American Lung Association)—changes over time reflect the cumulative impact of many sustained and new efforts to affect the key indicators. These indicators have not been revised drastically since at least 2005 (see CDC, 2007, 2014a, 2014b, 2015, 2017; Starr et al., 2005).

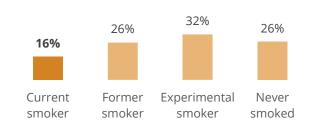
## Key Evaluation Questions

#### IS THE WY TPCP IMPACTING **TOBACCO USE RATES?**

Responses to the ATS lead to four key categories of smoking status, described in Table ES-1. In 2017, about one sixth (16%) of Wyoming adults were current smokers. About one quarter (26%) were former smokers. About one third (32%) were experimental smokers (Figure ES-1).

#### Figure ES-1: About One Sixth of **Adults Were Current Smokers in** 2017

Four-level smoking status



#### **Table ES-1: Definitions of Smoking Status**

Responses to ATS lead to four key categories of smoking status.

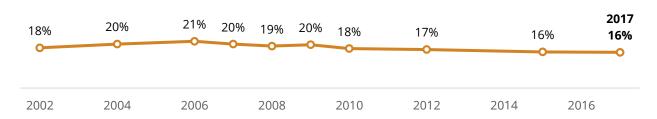
	Current Smoker	Former Smoker	Experimental Smoker	Never Smoked
Now smoke daily or some days	$\checkmark$			
Smoked at least 100 cigarettes in lifetime	✓	✓		
Ever tried smoking	✓	✓	✓	

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The adult smoking rate (current smokers) has shown a 24% decrease since the peak in 2006 (Figure ES-2). It is likely that the evidencebased programming (e.g., media campaigns, providing the Wyoming Quit Tobacco Program) implemented by the WDH and community partners contributed to this decrease.

#### Figure ES-2: Smoking Rate Decreased Since the Peak in 2006

Percentage of adults who are current smokers in survey years



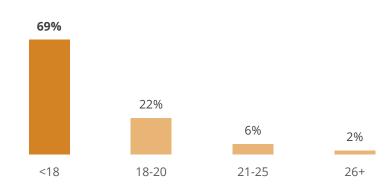
The adult smoking rate is the percentage of adults who have smoked 100 cigarettes and currently smoke every day or some

#### IS THE WY TPCP HAVING AN EFFECT ON PREVENTING WYOMINGITES FROM INITIATING **TOBACCO USE?**

The majority (69%) of adults who have ever smoked a whole cigarette smoked their first whole cigarette when they were younger than 18 (Figure ES-3). However, there was still a large group (22%) who smoked a whole cigarette for the first time between the ages of 18 and 20. In total, 91% of current, former, and experimental

#### Figure ES-3: Most Current, Former, and **Experimental Smokers Smoked Their First Whole** Cigarette as Minors

Age of smoking first whole cigarette, of those who had smoked a whole cigarette



Note: Percentages do not add to 100% because of rounding error.

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smokers (see Table ES-1 for a summary of the four smoking status categories) smoked their first whole cigarette before age 21; this pattern has not changed significantly since 2010.

Among adults who had ever smoked at least one cigarette per day for at least 30 consecutive days (including current and former smokers), 85% said they started smoking daily when younger than 21. This pattern has been stable since 2010.

The evidence-based programming (e.g., restricting youth access to tobacco products, media campaigns) implemented by the WDH and community partners has likely contributed to these favorable trends even though those efforts cannot completely prevent underage tobacco use.

#### ARE LOCAL, BUSINESS, SCHOOL, AND OTHER TOBACCO PREVENTION AND CONTROL POLICIES CHANGING?

The ATS does not directly assess the policies of businesses, schools, and other places related to tobacco. An indirect measure from the ATS for business policies is the proportion of working adults who reported smokefree indoor air policies at their workplaces. Most Wyoming adults (93%) who worked indoors reported that smoking was never allowed in indoor areas (including inside a vehicle) at their place of work. This is a relatively small but significant increase from 89% in 2010. It is likely that the evidence-based programming (e.g., educational efforts) implemented by the WDH and community partners contributed to this increase.

A key goal for changing policies regarding tobacco use is to reduce exposure to secondhand smoke (SHS). Relatively few Wyoming adults reported being exposed to SHS while at indoor or outdoor public places in the past seven days; 12% were exposed to SHS at indoor public places while 32% were exposed to SHS at outdoor public places. At both types of public places, significantly fewer adults have been exposed to SHS since 2012. It is likely that the evidence-based programming (e.g., educational efforts) implemented by the WDH and community partners and changes in smokefree indoor air polices across the state contributed to this decrease.

## ARE WY TPCP'S MEDIA AND OTHER EDUCATIONAL EFFORTS INCREASING PUBLIC AND DECISION-MAKER KNOWLEDGE ABOUT TOBACCO PREVENTION AND CONTROL ISSUES?

A key activity for the Wyoming TPCP program is to educate the public about the harms of secondhand smoke. Over the years, Wyoming adults have almost unanimously agreed that SHS is harmful to one's health. In 2017, the majority (62%) believed SHS is very harmful to one's health, 35% believed that SHS is somewhat harmful, while 4% believed that it is in no way harmful.

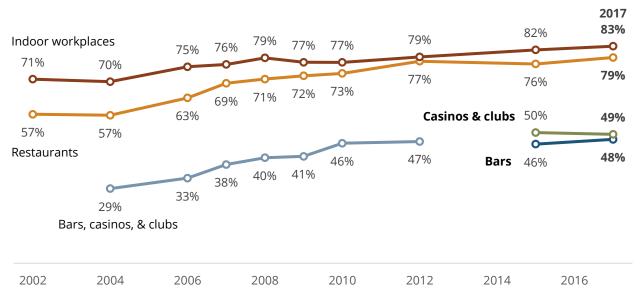
According to the CDC (2017), awareness of the harms of SHS is likely to increase support for smokefree air. Support for tobacco-free schools has been consistently high since 2010. In 2017, 85% of Wyoming adults indicated that tobacco use should be completely banned for all students, staff, and visitors on all school grounds, fields, and parking lots and at all school events. Results from questions asking about whether specific venues should have smokefree indoor air revealed that the percentage of Wyomingites who agreed that smoking indoors should never be allowed in workplaces or restaurants significantly increased from 2002 to 2017. For bars, casinos, and clubs, support for smokefree policies remained relatively stable between 2015 and 2017 and remained lower than for other venues (Figure ES-4).1

It is likely that the evidence-based programming (e.g., educational efforts) implemented by the WDH and community partners contributed to these favorable results and trends.

<sup>&</sup>lt;sup>1</sup> Between 2004 and 2012, the ATS included a single item about support for smokefree bars. Although these older estimates are not directly comparable to estimates from the related items on the 2015 and 2017 surveys, Figure ES-4 includes them as a historical reference.

#### Figure ES-4: Support for Smokefree Workplaces and Restaurants More Common than for Casinos, Clubs, and Bars

Percentage of adults who responded "never allowed" when asked if smoking should be allowed in indoor workplaces, restaurants, bars, or casinos and clubs



Note: Between 2004 and 2012, the ATS included a single item about support for smokefree bars. Although these older estimates are not directly comparable to estimates from the related items on the 2015 and 2017 surveys, this figure includes them as a historical reference.

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#### HOW ARE WYOMING'S SOCIAL NORMS CHANGING REGARDING **TOBACCO USE?**

Increasing support for smokefree indoor air in restaurants, workplaces, and other venues (Figure ES-4) indicates strengthening anti-tobacco and pro-health social norms regarding tobacco use. Additionally, the percentage of Wyoming adults who reported they do not allow smoking inside their homes has been high and has increased significantly from 72% in 2002 to 89% in 2017.

## Key Outcome Performance Measures

#### AVERAGE AGE AT WHICH YOUNG PEOPLE FIRST SMOKED A WHOLE **CIGARETTE**

In 2017, the average age at which adults who have ever smoked a whole cigarette smoked their first whole cigarette was 16 (with the median of 16 and the responses ranging from 4 to 58).

#### PROPORTION OF YOUNG PEOPLE WHO REPORT NEVER HAVING TRIED A CIGARETTE

Young adults (aged 18 to 29) are more likely than other adults (30 or older) to have never tried a cigarette: 42% of young adults have never tried a cigarette as opposed to 23% of other adults.

#### PROPORTION OF THE POPULATION REPORTING EXPOSURE TO SHS AT THE WORKPLACE

Consistently since 2010, most employed adults were not regularly exposed to SHS at their workplace either indoors or outdoors. In 2017, 20% reported that they had breathed someone else's smoke at their workplace in the past seven days. Adults who worked outdoors most of

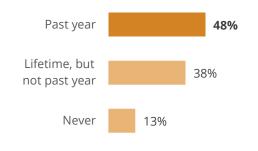
the time were more likely to be exposed to SHS than those who worked indoors (including in vehicles): 28% of adults who work primarily outdoors experienced SHS exposure, compared to 16% of those who work primarily indoors.

#### PROPORTION OF ADULT SMOKERS WHO HAVE MADE A QUIT ATTEMPT

At some point in their lives, most current smokers (87%) had stopped smoking for at least one day because they were trying to quit for good. About half of current smokers (48%) had tried to quit smoking at least once in the past year (Figure ES-5), which has not changed significantly since 2010.

#### Figure ES-5: About Half of Smokers Made at Least One Quit Attempt in the Past Year

Percentage of smokers who tried to quit in the past year, tried in their lifetime but not in the past year, or never tried to quit



Note: Percentages do not total 100% because of rounding.

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#### PROPORTION OF YOUNG SMOKERS WHO HAVE MADE A QUIT ATTEMPT

Young adult current smokers (95%) were more likely than other current smokers (84%) to have stopped smoking, at some point in their lives, for at least one day because they were trying to quit for good. Also, young adult smokers (67%) were more likely to have tried to quit smoking at least once in the past year than other smokers (43%).

## **Background**

Evidence of the ill effects of smoking has been growing since the 1950's. In 1964, the U.S. Surgeon General issued the landmark report Smoking and Health: Report of the Advisory Committee to the Surgeon General, which stated unequivocally that a link between smoking and certain cancers exists (U.S. Department of Health, Education, and Welfare, 1964). Cigarette smoking and breathing secondhand smoke (SHS) have now been causally linked to an increased risk for multiple cancers and chronic diseases and is the leading preventable cause of death in the United States (U.S. Department of Health and Human Services [USDHHS], 2010, 2014). In Wyoming, this leads to approximately 800 deaths each year and nearly \$258 million in annual healthcare costs that can be directly attributed to smoking (Centers for Disease Control and Prevention [CDC], 2014a).

The Wyoming Tobacco Prevention and Control Program (TPCP) works to reduce tobacco use in Wyoming by using a comprehensive, multi-strategy approach. The TPCP aligns its strategies around four goals that it has shared with the CDC for many years:

- 1. Preventing initiation of tobacco use (CDC, 2014b)
- Eliminating nonsmokers' exposure to secondhand smoke (CDC, 2017)
- 3. Promoting quitting among adults and young people (CDC, 2015)
- Identifying and eliminating tobacco-related disparities (CDC, 2014b, 2015, 2017)

As part of monitoring progress on these goals, the TPCP tracks the prevalence, consumption, and use of tobacco products including cigarettes, electronic nicotine delivery systems (ENDS; also known as e-cigarettes or vaping), and other forms of tobacco.

A key issue in evaluating tobacco prevention and control is monitoring the same indicators of behaviors and attitudes related to tobacco over time. Because tobacco prevention outcomes result from state government programs including the one implemented in Wyoming, the efforts of multiple federal agencies — most prominently, the U.S. Food and Drug Administration [FDA], Substance Abuse and Mental Health Services Administration [SAMHSA], CDC, and other groups (e.g., the Robert Wood Johnson Foundation, Campaign for Tobacco-Free Kids, American Nonsmokers' Rights Foundation, American Cancer Society, and American Lung Association) changes over time reflect the cumulative impact of many sustained and new efforts to affect the key indicators. These indicators have not been revised drastically since at least 2005 (see CDC, 2007, 2014a, 2014b, 2015, 2017; Starr et al., 2005).

The Wyoming Adult Tobacco Survey (ATS) is a standardized telephone survey administered by the Wyoming Survey & Analysis Center (WYSAC) at the University of Wyoming under contract to the Wyoming Department of Health, Public Health Division (PHD). Its purpose is to collect state- and county-level data pertaining to the prevalence of tobacco use, the four TPCP/CDC goals, and the broader goal of reducing tobacco-related disease and death. In addition to conducting analyses on the 2017 data, WYSAC merged data from the 2017 ATS with data from previous iterations of the survey to analyze trends. WYSAC has formatted this report similarly to previous iterations of the report to facilitate readers' efforts to compare the current results to those in previous reports. The previous report is available here:

https://wysac.uwyo.edu/wysac/reports/View/5553.

## 2017 ATS Methods

In this section, we provide a general summary of the methods used to collect and analyze the data for the 2017 ATS. Additional technical details are in Appendix B. The CDC protocols for the 2017 ATS, the 2010 National Adult Tobacco Survey, and the previous iterations of the ATS (2002, 2004, 2006–2009, 2012, 2015) were generally similar, which allowed WYSAC to perform analyses of trends for comparable questions on the surveys and reflecting the stability in key indicators related to tobacco prevention work.

## Questionnaire Development

WYSAC developed the 2017 ATS items based on CDC's core and supplemental ATS items. The Wyoming TPCP and WYSAC selected some optional questions and developed some Wyomingspecific questions based on the indicators most directly related to TPCP efforts in Wyoming. Because the national and Wyoming tobacco prevention programs have been stable since the 2015 iteration of the ATS, few changes to the survey questionnaire were required. Key changes for the 2017 ATS included adding questions about whether dual cigarette and ENDS users first used cigarettes or ENDS, adding questions about use of flavored ENDS and different ENDS brands, simplifying the questions about smoking cessation to focus on the Wyoming Quit Tobacco Program (WQTP), adding an item to assess barriers to quitting smoking, adding items to assess efforts to quit using ENDS, adding items to assess perceived harmfulness of ENDS use (overall and relative to smoking), adding an item to assess the perceived relative benefits of switching from smoking to ENDS use, adding an item to assess mental health as a key disparity in the burden of tobacco use, and shortening the survey (in an effort to improve the response rate) by eliminating questions about children in the adults' homes.

## Survey Administration

The random digit dialing (RDD) landline and RDD cell phone samples for the 2017 ATS were disproportionately stratified to produce county-level data. The goal was to complete roughly 200 surveys in each county for a statewide total of 4,600 surveys. Both samples were prescreened to avoid calling numbers that were known to be disconnected, businesses, or on WYSAC's list of people who have asked not to be surveyed. WYSAC made 356,204 call attempts for the 75,755 numbers that were left after the pre-screening process. Some numbers were called up to 27 times before they were assigned a final disposition code, which resulted in an average of 4.7 call attempts per record. Calling began on April 30th, 2017, and ended on December 20th, 2017. The final dataset contained a total of 4,647 completions (meeting the goal of 4,600 completes statewide), including 2,152 landline completions and 2,495 cell phone completions. The response rate for the landline sample was 27%, the response rate for the cell phone sample was 38%, and the overall response rate was 33%. After the completion of the data collection, the CDC contractor weighted the 2017 ATS data to make the results more representative of the Wyoming adult population. Weighting variables included selection probability; nonresponse adjustment; gender by age, race/ethnicity; educational attainment; county; and phone usage (cell phone only, landline only, and dual phone use). Weighting data does not change responses. It makes the dataset generally more reflective of the entire Wyoming adult population than the unweighted data. WYSAC received the 2017 ATS data file from the CDC contractor on February 26, 2018.

## Analysis

WYSAC analyzed the data using Stata, version 12.1 with the complex sample survey methods available in that statistical package. In the tables and figures of this report, WYSAC used weighted data to calculate estimates and associated confidence intervals. WYSAC used logistic regressions to test for trends for time periods longer than two years. Generally, trends reported in this document are based on the earliest year a comparable question was asked through 2017. WYSAC also used logistic regression to identify statistically significant associations between outcomes and their correlates. The body of this report summarizes results for evaluation indicators for the Wyoming TPCP, including the estimates from 2017 and trend analyses (when possible). Results for each survey item are reported in Appendix A as a supplement to this summary. Relationships noted as significant in the body of the report are significant, p < .05. Confidence intervals for estimates to responses for the 2018 survey are in Appendix A. Key statistical results are detailed in Appendix C.

#### Data Limitations

Most ATS survey items have been tested and validated by the CDC and reused over time. However, because ATS provides self-reported data, respondents' recollection of events and interpretation of the survey items are estimates and might include respondent bias (e.g., underreporting undesirable behaviors). Also, not all estimates have the same level of precision due to survey skip pattern, analysis of subgroups, and the combination of both. For example, questions asked of smokers or other tobacco users tend to have sample sizes smaller than other questions asked of nonsmokers or non-tobacco users. Estimates for small subgroups, e.g., African Americans in Wyoming, would be also less precise than estimates for larger subgroups, e.g., White Americans.

## **Prevalence and Consumption**

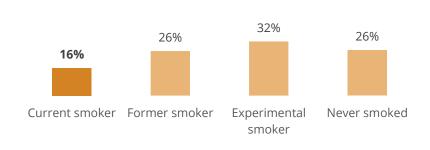
The Wyoming TPCP and the CDC track the prevalence rates and consumption of tobacco products as key indicators across their four shared goals.

## Cigarettes

Responses to the ATS lead to four key categories of smoking status, described in Table 1. In 2017, about one sixth (16%) of adults were current smokers. About one quarter (26%) were former smokers. About one third (32%) were experimental smokers (Figure 1).

#### Figure 1: About One Sixth of Adults Were Current **Smokers in 2017**

Four-level smoking status



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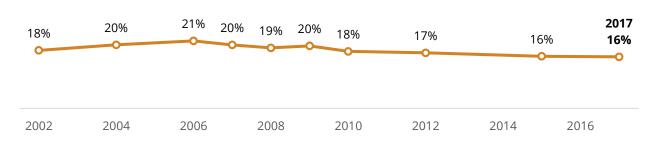
**Table 1: Definitions of Smoking Status** 

Responses to ATS lead to four key categories of smoking status.

	Current Smoker	Former Smoker	Experimental Smoker	Never Smoked
Now smoke daily or some days	$\checkmark$			
Smoked at least 100 cigarettes in lifetime	✓	✓		
Ever tried smoking	✓	✓	✓	

Figure 2: Smoking Rate Decreased Since the Peak in 2006

Percentage of adults who are current smokers in survey years



The adult smoking rate is the percentage of adults who have smoked 100 cigarettes and currently smoke every day or some days.

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The adult smoking rate (current smokers) has shown a significant decrease since peaking in 2006 (Figure 2).

## Electronic Nicotine Delivery Systems (ENDS)

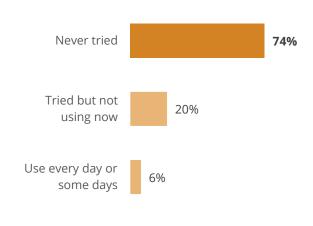
Although ENDS use is less popular than smoking cigarettes or using some other tobacco products, their relatively recent emergence on the market makes them a key tobacco prevention issue. About one in 20 adults (6%) currently use ENDS (e-cigarettes and vape pens) some days

or every day (Figure 3). About three fourths (74%) have never tried ENDS. These estimates are similar to those from 2015, but may not reflect the increased popularity of ENDS that resulted from the recent commercial success of Juul's new generation of ENDS products (LaVito, 2018). In addition, young adults (ages 18 to 29) are more likely to use ENDS than other adults (ages 30 or older): 11% of young adults currently use ENDS every day or some days, compared to 5% of other adults.

Of those current ENDS users, 86% used ENDS flavored to taste like menthol, alcohol, candy, fruit, chocolate, or other sweets. A

Figure 3: Most Adults Have Never **Tried ENDS** 

Adult 2017 ENDS use

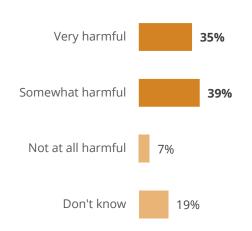


customized commercial juice or liquid from a vape shop was the most popular ENDS brand (83%). Juul was not specified as a brand because it was not a major market force at the time of drafting the 2017 ATS questionnaire.

The most popular reason to try ENDS was curiosity (Figure 4). After that, the top results show an inclination by ENDS users toward cutting down or quitting cigarette smoking. These results are not significantly different from when the questions were first asked in 2015.

#### Figure 5: Most Adults Think Using **ENDS Is Harmful to One's Health**

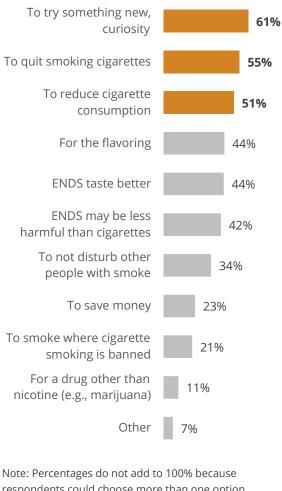
Do you think using e-cigarettes or vape pens is very harmful, somewhat harmful, or not at all harmful to one's health?



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#### Figure 4: Much ENDS Use Is Motivated by Curiosity and a Desire to Quit or Decrease Smoking

Reasons why adults use ENDS



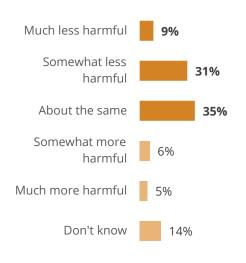
respondents could choose more than one option.

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What are adults' perceptions of harmfulness of ENDS use? The 2017 ATS asked respondents for their opinions about whether using ENDS is harmful to one's health, how harmful using ENDS would be compared to cigarette smoking, and whether switching from cigarette smoking to using ENDS is healthy. All three questions had a relatively large percentage of adults answering "Don't know / Not sure" (Figure 5; Figure 6; Figure 7). These adults are unsure about whether ENDS use is harmful to one's health and whether ENDS use or cigarette smoking has greater health risk.

#### Figure 6: Many Adults Think Using **ENDS Is As Harmful as Smoking**

Compared to smoking cigarettes, how harmful do you think using e-cigarettes or vape pens are to a person's health?



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Most adults (74%) think that using ENDS is harmful: 35% think it is very harmful and 39% think it is somewhat harmful (Figure 5). A relatively small percentage of adults (7%) think using ENDS is not at all harmful. The remaining 19% of adults were unsure about whether using ENDS is harmful to one's health.

When compared to cigarette smoking, adults were more likely to think using ENDS is less harmful to a person's health than to think it is more harmful: about 40% think using ENDS is less harmful than cigarette smoking while 11% think it is more harmful than cigarette smoking (Figure 6). Also, more adults think using ENDS is *somewhat* less harmful (31%) than those who think it is *much* less harmful (9%). Still, 35% think using ENDS is as harmful as smoking cigarettes, and 14% of

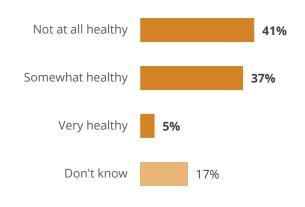
adults were unsure about health risk of using ENDS, compared to smoking cigarettes.

Opinions on the health benefits of switching *completely* from cigarette smoking to ENDS use are divided: 42% think switching

from cigarette smoking to ENDS use is somewhat or very healthy while 41% think it is not healthy at all (Figure 7). The remaining 17% of adults were unsure.

#### Figure 7: Opinions on Health Benefits of Switching from Cigarette Smoking to Using ENDS **Are Divided**

*In your opinion, how healthy is it to completely switch from* cigarette smoking to using e-cigarettes or vape pens?



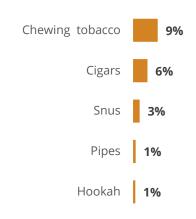
Note: Response categories are not collapsed.

## Other Tobacco **Products**

Among adults, non-cigarette, non-ENDS tobacco products are less popular than cigarettes. Relatively few adults reported using other tobacco products (Figure 8). Prevalence rates of these tobacco products have not significantly changed since comparable question were first asked in 2010. Also, few women use chewing tobacco, compared to men: 18% of

#### Figure 8: More Adults Use Chewing Tobacco than Other Tobacco Products

Percentage of adults reporting other tobacco use in the past 30 days



Note: Chewing tobacco also includes snuff and dip. Cigars also include cigarillos and very small cigars that look like cigarettes.

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men used it in the past 30 days compared to 1% of women.

Among adults who had smoked at least 100 cigarettes and had also used chewing tobacco, snuff, dip, or snus in their lifetime, 37% of them had used some form of smokeless tobacco as a substitute for smoking when they were in a place where smoking was not allowed. This substitution rate has not significantly changed since 2012.

### Flavor in Tobacco Products

About one fourth (23%) of adults who at least puffed on a cigarette in the past 30 days smoked menthol cigarettes. Young adults (ages 18 to 29) were significantly more likely to smoke menthol cigarettes than other adults (30 or older): 39% of young adults smoked menthol cigarettes while 18% of other adults did so.

About half (49%) of adults who smoked cigars (including cigarillos and very small cigars) in the past 30 days smoked cigars flavored to taste like candy, fruit, chocolate, or other sweets. Young adults (ages 18 to 29) were significantly more likely to smoke flavored cigars than other adults: 70% of young adults smoked menthol cigarettes while 30% of other adults did so.

About half (52%) of adults who had ever tried ENDS in their lifetime used ENDS for reasons related to flavor: (1) for the flavoring or (2) because they thought ENDS tasted better. Young adults (ages 18 to 29) were significantly more likely to list these flavor-related reasons than other adults: 70% of young adults listed the flavor-related reasons for trying ENDS, compared to 42% of other adults. Also, flavored ENDS use is common among current ENDS users: 86% of current ENDS users used ENDS that taste like menthol, alcohol, candy, fruit, chocolate, or other sweets in the past 30 days.

#### Conclusions

Cigarettes are still the most popular form of tobacco for adults. ENDS use is not as prevalent as cigarette smoking or smokeless tobacco use in the overall adult population. Young adults (ages 18 to 29) are more likely to use ENDS than other adults (30 or older). The majority of current

ENDS users used ENDS flavored to taste like something other than tobacco. Two of the top three reasons for using ENDS are cutting back or quitting cigarettes. While most adults would agree that ENDS use is harmful, many are unsure about whether ENDS use is harmful to one's health and

#### Adult Smoking Rate Has **Decreased in Wyoming**

The adult smoking rate has decreased 24% (from 21% to 16%) since 2006.

whether ENDS use or cigarette smoking has greater health risk. The prevalence rates of other tobacco products such as chewing tobacco, cigars, pipes, and hookahs remain relatively low, compared to cigarette smoking. Flavoring in cigarettes, cigars, and ENDS might be an important part of using those tobacco products, especially for young adults.

## **Goal Area 1: Preventing Initiation** of Tobacco Use

The Wyoming TPCP and the CDC share the goal of reducing the health burdens of tobacco use by preventing the initiation of tobacco use. A relatively recent effort in some local and state tobacco prevention programs outside of Wyoming has been to raise the legal age of purchase

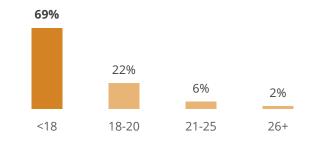
from 18 (or 19 in some jurisdictions) to 21 (see https://tobacco21.org/). We deviated from previous analytical approaches to provide data relevant to this emerging issue in tobacco prevention.

## Age of Smoking a Whole Cigarette for the First Time

The majority (69%) of adults who have ever smoked a whole cigarette smoked their first whole cigarette when they were younger than 18 (Figure 9). However, there was still a large group (22%) who smoked a whole cigarette for the first time between the ages of 18 and 20. In total, 91% of current, former, and experimental smokers (see Table 2 for a

#### Figure 9: Most Current, Former, and **Experimental Smokers Smoked** Their First Whole Cigarette as **Minors**

Age of smoking first whole cigarette, of those who had smoked a whole cigarette



Note: Percentages do not add to 100% because of rounding error.

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summary of the four smoking status categories) smoked their first whole cigarette before age 21; this pattern has not changed significantly since comparable questions were first asked in 2010.

**Table 2: Definitions of Smoking Status** 

Responses to ATS lead to four key categories of smoking status.

	Current Smoker	Former Smoker	Experimental Smoker	Never Smoked
Now smoke daily	1			
or some days	<b>Y</b>			
Smoked at least		,		
100 cigarettes in	$\checkmark$	$\checkmark$		
lifetime				
Ever tried	_/	_/		
smoking	V	V	<b>V</b>	

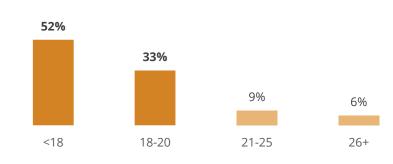
In 2017, the average age at which adults who have ever smoked a whole cigarette smoked their first whole cigarette was 16 (with the median of 16 and the responses ranging from 4 to 58).

## Age of Initiating Daily Smoking

Among adults who had ever smoked at least one cigarette per day for at least 30 consecutive days (including current and former smokers), 85% said they started smoking daily when younger than 21 (Figure 10). This pattern has been stable since comparable questions were first asked in 2010.

#### Figure 10: Most Smoking Adults Started Smoking Daily Before Age 21

Age of first smoking every day for 30 days in a row, of adults who have smoked 30 days in a row



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## Role of ENDS in Initiation of Cigarette Smoking

The 2017 ATS asked current, former, and experimental smokers (see Table 2 for a summary of the four smoking status categories) who had also tried ENDS whether they had used cigarettes or ENDS first. For most of these smokers (72%), this question was not applicable because ENDS were not on the market (to their knowledge) when they started smoking. For those smokers who thought ENDS were on the market, 54% used ENDS first and 45% tried cigarettes first. These proportions are not significantly different.

#### Conclusions

#### **Most Adults Began Smoking** before Age 21

In total, 91% of current, former, and experimental smokers smoked their first whole cigarette before age 21.

The smoking habits of the vast majority of smoking adults begin when they are under the age of 21, especially under the age of 18. Relatively few adults begin to smoke or begin to smoke daily after age 21. Although we cannot make causal inferences from these correlational data, the 2017 ATS provides some evidence in support of ENDS use as a potential gateway to smoking: 54% of current, former, and experimental smokers (see Table 2 for a summary of the four smoking status categories) who thought ENDS were available when they started smoking used ENDS before smoking a cigarette.

## **Goal Area 2: Eliminating** Nonsmokers' Exposure to **Secondhand Smoke**

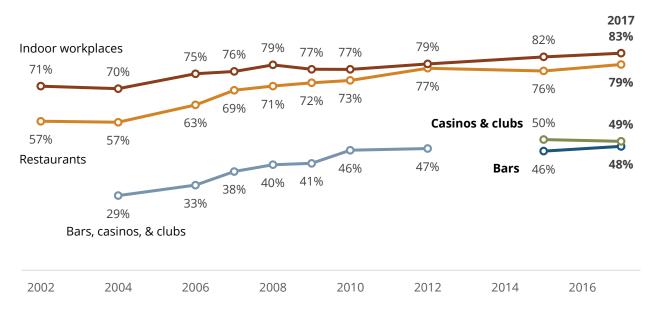
The Wyoming TPCP and the CDC share the goal of reducing the health burdens of tobacco use by eliminating nonsmokers' exposure to secondhand smoke.

## Support for Indoor Smokefree Policies and Laws

The 2017 ATS asked questions about both smokefree indoor air policies and smokefree indoor air laws. The policy questions asked respondents if they think smoking should be allowed indoors at workplaces, restaurants, bars, and casinos/clubs. (Casinos and clubs were asked as a single survey item, so WYSAC treated them as a single venue type.) The survey questions about

#### Figure 11: Support for Smokefree Workplaces and Restaurants More Common than for Casinos, Clubs, and Bars

Percentage of adults who responded "never allowed" when asked if smoking should be allowed in indoor workplaces, restaurants, bars, or casinos and clubs



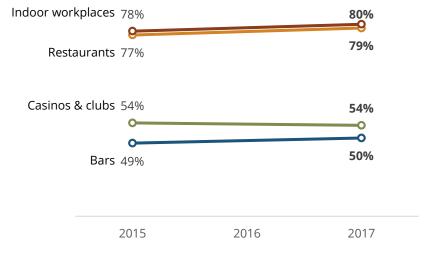
Note: Between 2004 and 2012, the ATS included a single item about support for smokefree bars. Although these older estimates are not directly comparable to estimates from the related items on the 2015 and 2017 surveys, this figure includes them as a historical reference.

smokefree laws asked respondents if they support or oppose statewide smokefree indoor air laws in Wyoming for the same venues.

Results from the policy questions revealed that the percentage of Wyomingites who agreed that smoking indoors should never be allowed in workplaces or restaurants significantly increased from when comparable questions were first asked in 2002 to 2017. For bars and for casinos/clubs, support for smokefree policies remained relatively stable between

#### Figure 12: Majority of Adults Support Statewide Smokefree Indoor Air Laws for Workplaces, Restaurants, and Casinos and Clubs in 2017

Percentage of adults who responded that they support a statewide law that makes each location smokefree indoors



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2015, when the comparable questions were first asked, and 2017, and remained lower than support for the other venues. The trend for related questions asked between 2004 and 2012 showed increasing support for smokefree indoor air in these venues (Figure 11).<sup>2</sup>

In 2017, the majority of adults supported statewide smokefree indoor air laws covering all workplaces, restaurants, or casinos and clubs. About half (50%) supported a statewide smokefree indoor air law covering all bars (Figure 12). These results are not significantly different from when comparable questions were first asked in 2015.

WYSAC performed logistic regression analyses to identify associations between support for a state smokefree indoor air law for each venue and seven demographic variables: age, gender, annual household income, education, race, ethnicity, and sexual orientation. WYSAC modeled each of the four venues in Figure 12 separately, using these seven demographic variables as predictors. When controlling for the other demographic variables, gender, education, and sexual orientation were significantly associated with support for legally protected smokefree indoor air for workplaces, restaurants, bars, and casinos/clubs. Men were less likely to support smokefree indoor air laws than women. Adults with an associate's degree or less education

<sup>&</sup>lt;sup>2</sup> Between 2004 and 2012, the ATS included a single item about support for smokefree bars. Although these older estimates are not directly comparable to estimates from the related items on the 2015 and 2017 surveys, Figure 11 includes them as a historical reference.

**Table 3: Three Demographic Groups Showed Relatively Low Support for Smokefree Indoor Air Laws** 

Percentage of adults in each group who support a statewide smokefree indoor air law covering each venue

		Workplace	Restaurants	Casinos & Clubs	Bars
Camalan	Men	74%	73%	48%	47%
Gender	Women	85%	85%	60%	58%
Education	Associate or less	78%	77%	51%	49%
	Bachelor or high	86%	84%	63%	65%
Sexual orientation	LGBT	68%	65%	35%	34%
	Straight	80%	79%	55%	53%

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were less likely to support smokefree indoor air laws than those with more education. Lesbian, gay, bisexual, and transgender (LGBT) individuals were less likely to support smokefree indoor air laws than straight individuals (Table 3). See Appendix C for detailed results.

## Support for Other Smokefree Air Policies and Laws

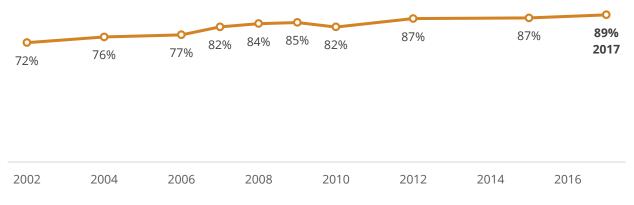
Most Wyomingites (81%) thought that smoking should be restricted at outdoor parks at least in some manner. This proportion has significantly increased from 76% in 2010. Complete restrictions are less popular than partial restrictions. In 2017, 37% of adults thought that smoking should never be allowed, and 44% of adults thought that smoking should be allowed only at some times or in some places.

Support for laws making outdoor workplaces smokefree was substantially lower than support for laws making indoor workplaces smokefree: 66% of adults opposed a state smokefree air law for all outdoor workplaces while 27% would support such a law; 7% said they were unsure. The level of support for such a law in 2017 is not significantly different from when comparable questions were first asked in 2015.

The percentage of adults who reported they do not allow smoking inside their homes has been high and has increased significantly from 72% in 2002, when the question was first asked, to 89% in 2017 (Figure 13).

#### Figure 13: Most Adults Do Not Allow Smoking Inside Their Homes

Percentage of adults reporting that smoking is never allowed indoors at home



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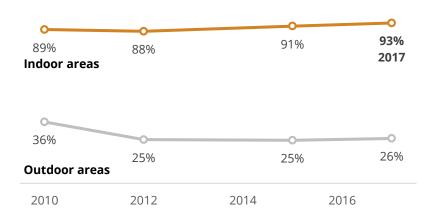
## Exposure to Secondhand Smoke

Most adults (93%) who worked indoors reported that smoking was never allowed in indoor

areas (including inside a vehicle) at their place of work (Figure 14). This is a relatively small but significant increase from 89% in 2010, when comparable questions were first asked. Conversely, relatively few (26%; including those who primarily worked outside) reported that smoking was not allowed in outdoor areas. This pattern has been consistent since 2012 after a drop from 36% in 2010, when comparable questions were first asked.

#### Figure 14: Majority of Adults Who Work Indoors **Are Covered by Smokefree Policies**

Percentage of adults who responded that smoking was never allowed indoors and outdoors at their workplaces

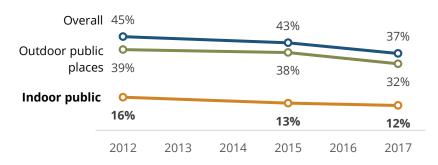


Note: The question about smokefree rules in indoor workplaces was asked only of those working indoors. The question about smokefree rules in outdoor areas was asked of all those employed.

Consistently since 2010, most employed adults were not regularly exposed to secondhand smoke (SHS) at their workplace either indoors or outdoors. In 2017, 20% of working adults reported that they had breathed someone else's smoke at their workplace in the past seven days. Adults who worked outdoors most of the time were more likely to be exposed to SHS than those who worked indoors (including in vehicles): 28% of adults who work primarily outdoors experienced SHS exposure,

#### Figure 15: Most Adults Have Not Been Exposed to Secondhand Smoke in Public Places in the Past Week

Percentage of adults who had been exposed to someone else's smoke in indoor and outdoor public places in the past seven days.



Note: Overall combines exposure at indoor and outdoor public places.

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compared to 16% of those who work primarily indoors.

Relatively few adults reported being exposed to SHS while at indoor or outdoor public places in the past seven days (Figure 15). At both types of public places, significantly fewer adults have been exposed to SHS since 2012, when comparable questions were first asked. Also, smokers are more likely to be exposed to SHS at public places than non-smokers: 47% of smokers reported exposure to SHS while 35% of non-smokers reported exposure to SHS in 2017.

#### **Conclusions**

Adults almost unanimously agree that SHS is harmful to one's health. However, opinions vary as to where and how smoking should be restricted. Adults have a high degree of support for the

idea that indoor areas of restaurants and workplaces across the state should have smokefree indoor air. Similarly, support for smokefree indoor air laws covering those venues is common. Also, support for tobaccofree schools is high. There is less support for the idea that casinos, clubs, bars, and outdoor work areas should be smokefree or that there should be a law making them smokefree. As a reference point from a different survey in

#### **Support for Tobacco-Free** Schools Is Common

Support for tobacco-free schools has been consistently high since 2010. In 2017, 85% of adults indicated that tobacco use should be completely banned at all school events for all students, staff, and visitors on all school grounds, fields, and parking lots.

#### **Adults Are Aware** Secondhand Smoke Is Harmful

Over the years, adults have almost unanimously agreed that secondhand smoke is harmful to one's health. In 2017, the majority (62%) believed secondhand smoke is very harmful to one's health and 35% believed that secondhand smoke is somewhat harmful while 4% believed that it is in no way harmful.

2014, 71% of registered voters in Wyoming said they would support a smokefree indoor air law making all public buildings, such as government offices, stores, bars, and restaurants, smokefree indoors (WYSAC, 2015). Because that question was very different from the questions for the 2017 ATS, the difference in the estimates does not necessarily show a trend in support for smokefree air.

Most adults report working in places that have smokefree indoor air policies, but outdoor smokefree air policies at workplaces

are relatively rare. Exposure to secondhand smoke is more likely to occur in outdoor areas, including at work and public places, than at indoor areas.

## **Goal Area 3: Promoting** Cessation

The Wyoming TPCP and the CDC share the goal of reducing the health burdens of tobacco use

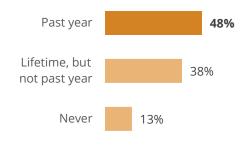
by promoting quitting among adults and young people.

## Smokers' Cessation Efforts

The majority (69%) of current smokers stated they wanted to quit, 26% said they did not, and 6% said they did not know or were not sure. At some point in their lives, most current smokers (87%) had stopped smoking for at least one day because they were trying to quit for good. About half of current smokers (48%) had tried to quit smoking at least once in the past year (Figure 16), which has not changed significantly since comparable questions were first asked in 2010. Relatively few smokers who had tried to

#### Figure 16: About Half of Smokers Made at Least One Quit Attempt in the Past Year

Percentage of smokers who tried to quit in the past year, tried in their lifetime but not in the past year, or never tried to quit



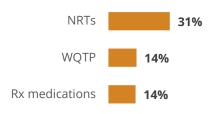
Note: Percentages do not total 100% because of rounding error.

quit in the past year had used proven cessation aids (Figure 17). When they did use proven cessation aids, nicotine replacement therapy (NRT) was the most often used, consistently since 2012, when comparable questions were first asked.

When they had tried to quit or wanted to quit, most smokers faced obstacles to quitting cigarette smoking. The most common barriers were loss of a way to handle stress and cravings for a cigarette, followed by other people smoking around them (Figure 18). Thus, smokefree indoor air policies and reducing exposure to secondhand smoke could help many smokers who are trying to quit.

#### **Figure 17: Nicotine Replacement** Therapies (NRTs) Are Most Used **Cessation Aid**

Percentage of smokers who said they utilized each proven cessation aid the last time they tried to quit in the past year

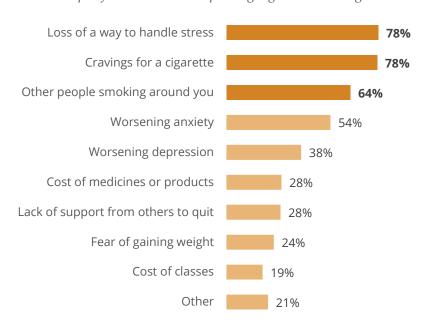


Note: Percentages do not total 100% because respondents could identify more than one option.

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#### Figure 18: Loss of a way to handle stress, cravings for a cigarette, and other people smoking around them made quitting hard for most smokers

Percentage of smokers who had tried to quit in their lifetime or wanted to quit faced obstacles to quitting cigarette smoking



Note: Percentages do not add to 100% because respondents could choose more than one option.

## ENDS Users' Cessation Efforts

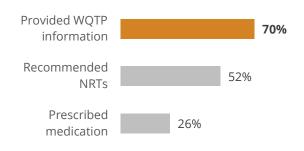
Although the adult population of current ENDS users is relatively small (6% of adults) and ENDS are a relatively new type of tobacco product, some of them still tried to quit using ENDS for good. At some point in their lives, about one quarter of current ENDS users (24%) had stopped using ENDS for at least one day because they were trying to quit for good. About one fifth of current ENDS users (19%) had tried to quit using ENDS at least once in the past year.

## Involvement of Healthcare Providers in Tobacco Cessation

The ATS asked tobacco users if they had seen a healthcare professional in the past year and if so, if they received advice to quit from a healthcare professional. The majority (75%) of tobacco users had seen a healthcare professional in the past year. About half (55%) of these tobacco users were advised by a health professional to quit using tobacco. This result has remained stable since comparable questions were first asked in 2010. These respondents then answered more detailed questions about whether and how healthcare providers provided assistance. In 2017, 63% of tobacco users who were advised to quit were also offered assistance to quit from their healthcare providers. These tobacco users most often received information

#### Figure 19: Tobacco Users Most Often **Receive WQTP information from Healthcare Providers as Help to Quit Smoking**

Percentage of tobacco users who were advised to quit and offered each type of assistance



Note: Percentages do not total 100% because respondents could identify more than one option.

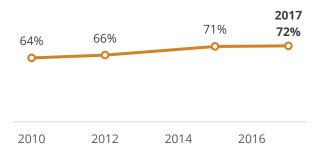
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about the Wyoming Quit Tobacco Program (WQTP) from their healthcare providers (Figure 19).

In a separate line of questioning, in the past year, 72% of tobacco users who were not advised to

#### Figure 20: Most Patients Are Asked by Health Professionals about Whether They Use Tobacco

*Percentage of tobacco users (not advised to quit)* and non-tobacco-using adults who reported that, in the past year, a health professional asked them whether they used any tobacco products



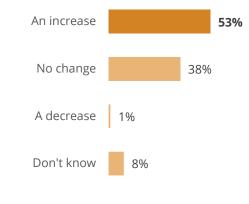
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quit and non-tobacco-using adults reported that a health professional asked them whether they smoked cigarettes or used other forms of tobacco (Figure 20). This is a significant increase over time, going from 64% in 2010, when comparable questions were first asked, to 72% in 2017. Thus, healthcare professionals seem to be more frequently screening their patients for tobacco use. This increase coincides with changes related to the Patient Protection and Affordable Care Act of 2010, though we cannot make a causal attribution to the requirements of that law. Still, 13% of tobacco users were not advised to quit nor screened for tobacco use.

#### Tobacco Cessation and Tobacco Tax

#### Figure 21: Over Half of Adults **Support a Cigarette Excise Tax Increase**

Percentage of adults who would support ...



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Increasing the price of tobacco products is one method of encouraging the cessation of tobacco use (CDC, 2015) and discouraging the initiation of tobacco use (CDC, 2014b). Since 2003, the state of Wyoming has taxed cigarettes with an excise tax of \$0.60 per pack. When asked how much of an increase above \$0.60 they would approve, over half (53%) of adults would approve an increase of some amount (Figure 21). The most popular amount was an increase of \$1.50 or more, with 20% of adults supporting that change. For smokeless tobacco,<sup>3</sup> over half (55%) of adults indicated that they were "for" an increase in the tax while 38% said they were "against," and 7% said that they did not know or were not sure.

Appendix A includes data on price smokers paid for a pack or carton of cigarettes and use of special promotions to buy cigarettes.

#### Conclusions

The majority of smokers have tried to quit at some point in their lives and want to quit for good. However, the use of proven cessation aids is relatively low. When they had tried to quit or wanted to quit, most smokers faced obstacles such as loss of a way to handle stress, cravings for

a cigarette, and other people smoking around them. Although it may be difficult for tobacco prevention efforts to help with the first two obstacles, reducing exposure to secondhand smoke could help many smokers who are trying to quit.

Many tobacco users are not receiving screening and assistance from healthcare

#### Awareness of Quitlines

About half (49%) of non-tobacco users and three fourths (77%) of tobacco users say they are aware of telephone guitline services that are available to help people quit using tobacco.

providers to help them quit. About half of tobacco users who saw a healthcare professional in

<sup>&</sup>lt;sup>3</sup> Smokeless tobacco is currently taxed at 60 cents per ounce with a minimum tax of 60 cents even if sold as less than one ounce.

the previous year were advised to quit, and about one third of those were not offered assistance. Greater collaboration with health professionals could result in more tobacco users becoming aware of, and receptive to, cessation services (CDC, 2015).

Awareness of tobacco quitlines is another area for potential improvement. About half of nontobacco users were aware that a quitline existed. Friends and family of tobacco users (which would include non-tobacco users) are key referral sources for many WQTP enrollees (WYSAC, 2017). If more non-tobacco users knew about the existence of this proven cessation aid, then they could inform and encourage tobacco users who may not know about it.

## Goal Area 4: Identifying and **Eliminating Tobacco-Related Disparities**

The fourth goal of the Wyoming TPCP and the CDC is to reduce tobacco use and associated health burdens among populations that are disparately affected by tobacco and related disease and death. For each of

Wyoming's high-priority subpopulations, we report on the key indicators of smoking prevalence compared to the rest of the adult population, quit attempts, and exposure to SHS at work. As reference points, the overall estimates for each of these indicators are presented in Table 4.

#### **Table 4: TPCP Key Indicators**

Percentage of ...

Current smokers who tried to quit in lifetime	87%
Current smokers who tried to quit in past year	48%
Workers exposed to SHS at work	20%

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Because of the relatively small number of smokers within each subpopulation, there is a high degree of uncertainty around the estimates for most of the subgroups. Often, this makes interpretation of statistical tests problematic. Therefore, we took a conservative approach and chose not to provide interpretations for statistical tests in which we had a low degree of confidence.

#### American Indian

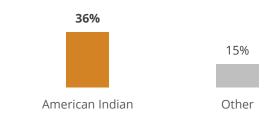
To produce estimates for American Indians in Wyoming, WYSAC analyzed adults who considered themselves to be American Indian, including those who self-identified as multiracial including American Indian, regardless of whether they reported Hispanic ethnicity.

In 2017, 36% of American Indians smoked cigarettes, about double the smoking rate of the rest of the population 15% (Figure 22).

At some point in their lives, about nine out of every ten American Indian current smokers

#### Figure 22: Smoking Rate Is Higher among American Indians than Other **Adults**

Smoking prevalence by race



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(89%) had stopped smoking for at least one day because they were trying to quit for good. About two thirds (63%) of American Indian current smokers had tried to quit smoking at least once in the past year.

Most employed American Indian adults were not regularly exposed to SHS at their workplace either indoors or outdoors. In 2017, 34% reported they had breathed someone else's smoke at their workplace in the past seven days. American Indian workers were significantly more likely to be exposed to SHS than other workers.

#### Mental Health

The 2017 ATS asked respondents "Do you have any mental health conditions, such as anxiety

#### Figure 23: Smoking Rate Is Higher among Adults with Mental Health **Conditions than Those without Them**

Smoking prevalence by mental health condition



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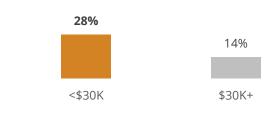
disorder, depression disorder, bipolar disorder, alcohol abuse, drug abuse, or schizophrenia?" About one fifth (18%) of adults reported having at least one mental health condition.

In 2017, 37% of adults with self-reported mental health conditions smoked cigarettes, more than double the smoking rate (12%) of those without self-reported mental health conditions (Figure 23).

At some point in their lives, about eight out of ten (82%) current smokers with mental health

#### Figure 24: Smoking Rate Is Higher among Adults with Income Less Than \$30,000 than Those with A **Higher Income**

Smoking prevalence by annual household income



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conditions had stopped smoking for at least one day because they were trying to quit for good. About half (48%) of current smokers with mental health conditions had tried to quit smoking at least once in the past year.

Most employed adults with mental health conditions were not regularly exposed to SHS at their workplace either indoors or outdoors. In 2017, 32% reported they had breathed someone else's smoke at their workplace in the past seven days. Workers with mental health conditions were significantly more likely to be exposed to SHS than those with no mental health conditions.

#### Annual Household Income

In 2017, 28% of adults with annual household income less than \$30,000 smoked cigarettes, about double the smoking rate (14%) of those with a higher income (Figure 24).

At some point in their lives, about nine out of ten (89%) current smokers with income less than \$30,000 had stopped smoking for at least one day because they were trying to quit for good; 44% had tried to quit smoking at least once in the past year.

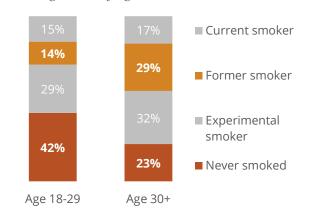
Most employed adults with income less than \$30,000 were not regularly exposed to SHS at their workplace either indoors or outdoors. In 2017, 26% reported that they had breathed someone else's smoke at their workplace in the past seven days. For employed adults with income of \$30,000 or more, 19% reported that they were exposed to SHS at their workplace. The difference by income was not statistically significant.

## Young Adults

In 2017, 15% of young adults (ages 18 to 29) smoked cigarettes, comparable to the smoking rate (17%) of other adults (ages 30 or older; Figure 25). Young adults are more

#### Figure 25: Young Adults Are More **Likely to Have Never Tried A** Cigarette, but Are Less Likely to Be **Former Smokers**

Smoking status by age



likely to have never tried a cigarette: 42% of young adults have never tried a cigarette as opposed to 23% of other adults. Because so few adults begin smoking after the age of 21, this difference between age cohorts may indicate that experimentation with tobacco products is becoming less common over time. Or, it may reflect experimentation that occurs at a later age and does not develop into regular smoking. Young adults are also less likely to be former smokers than other adults: 14% of young adults are formers smokers, compared to 29% of other adults. This disparity between age cohorts may reflect greater motivation to quit, such as in response to more noticeable health effects of smoking as people age.

At some point in their lives, young adult current smokers (95%) were more likely than other current smokers (84%) to have stopped smoking for at least one day because they were trying to quit for good. Also, young adult smokers (67%) were more likely than other smokers (43%) to have tried to quit smoking at least once in the past year.

Significantly more young adults were exposed to SHS at their workplace (30%) than other working adults (17%).

#### **Conclusions**

American Indians, adults with mental health conditions, and those with annual household income less than \$30,000 have relatively high smoking rates. Therefore, members of these populations are likely to suffer more from the health and economic burdens of tobacco use than are other adults. Many young adults (ages 18 to 29) have never tried a cigarette, but the smoking rate for young adults is comparable to the smoking rate for other adults (ages 30 or older). Preventing initiation and promoting cessation among young adults may reduce tobaccorelated health risks later in their life.

Most current smokers have tried to quit cigarette smoking at some point in their lives. Young adult smokers are more likely to try to quit smoking than other adults. Focused efforts to help them succeed may reduce the risk of them developing smoking-related diseases later in life.

American Indians, adults with mental health conditions, and young adults have a higher risk of being exposed to SHS at their workplace either indoors or outdoors. While efforts to reduce secondhand smoke exposure in the workplace would benefit all Wyoming residents, these populations could see the most benefit from instituting such policies.

# **Health Consequences of Smoking**

The U.S. Surgeon General has concluded that smoking is harmful to nearly every organ in the

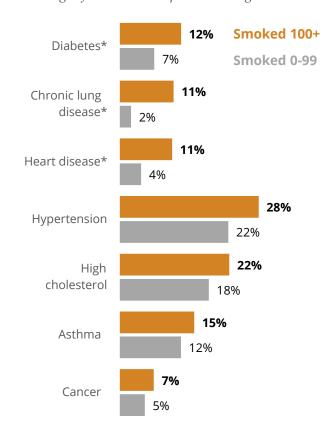
body, causes disease, and worsens existing illnesses (USDHHS, 2014). The Wyoming TPCP collects data about the prevalence of several chronic diseases to demonstrate the burden and consequences of tobacco use for Wyoming adults.

Adults who had smoked at least 100 cigarettes (current and former smokers) reported worse overall health than those who had not. One fifth (20%) of all adults who had smoked at least 100 cigarettes reported being in fair or poor health, about double the percentage (9%) of nonsmokers.

WYSAC created seven logistic regression models based on data from the 2017 ATS (see Appendix C for detailed, technical results). When controlling for age, the models found that diabetes, chronic lung disease, and heart disease were significantly more common among people who had

#### Figure 26: Diabetes, Chronic Lung Disease, and **Heart Disease Are More Common among Current** and Former Smokers

Percentage of adults who reported having ...



Note: Cancer = cancer, other than skin cancer; diabetes = diabetes or sugar diabetes; chronic lung disease = a chronic lung disease, such as emphysema, chronic bronchitis, or chronic obstructive pulmonary disease, also known as COPD; hypertension = high blood pressure or hypertension.

Chronic diseases are not mutually exclusive. Respondents could report more than one chronic disease.

\* Statistically significant difference between adults who had smoked at least 100 cigarettes in their lifetime and adults who had not when controlling for age, based on logistic regression. For the logistic regression of diabetes, WYSAC combined gestational diabetes with not having diabetes.

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smoked at least 100 cigarettes (current and former smokers), compared to nonsmokers. The relative risk for diabetes was 1.7 times higher for current and former smokers than experimental smokers and those who never smoked. The relative risk for chronic lung disease was 5.5 times higher for current and former smokers than experimental smokers and those who never smoked. The relative risk for heart disease was 2.8 times higher for current and former smokers than experimental smokers and those who never smoked (Figure 26).

## Conclusions

Smokers tend to feel less healthy overall and report more chronic illnesses than nonsmokers. Reducing the prevalence of smoking will, over time, reduce the burden of chronic disease in Wyoming and help Wyomingites feel healthier.

# **Summary and Discussion**

The adult smoking rate (adults who have smoked 100 cigarettes and currently smoke every day or some days) has shown a 24% decrease from a high of 21% in 2006 to 16% in 2017. Cigarettes are still the most popular form of tobacco use in Wyoming. Smokeless tobacco, (including chewing tobacco, snuff and dip) is the second most popular product type, and is especially popular among men.

Among Wyoming adults, current ENDS use is not as prominent as cigarette smoking or smokeless tobacco use, and most adults have never tried ENDS. Young adults (ages 18 to 29) are more likely to use ENDS than other adults (ages 30 or older). The majority of current ENDS users use products flavored like something other than tobacco. Curiosity was the most popular reason for trying ENDS. Two other common reasons are cutting back on or quitting cigarettes. Most Wyoming adults think that using ENDS is harmful to one's health, but many are still unsure about whether using ENDS is harmful and whether ENDS use or cigarette smoking has greater health risk. As the marketplace for ENDS evolves, continued surveillance of ENDS use could help TPCPC efforts by better understanding ENDS prevalence.

Products flavored to taste like mint, candy, or other sweets are more popular among ENDS users and cigar smokers than among cigarette smokers. Young adults are more likely to use menthol cigarettes, flavored cigars, and flavored ENDS than other adults. Flavoring in cigarettes, cigars, and ENDS might be an important part of using those tobacco products, especially for younger adults.

The smoking habits of the vast majority of Wyoming adults begin when they are younger than 21, and especially before the age of 18. After age 21, very few adults begin to smoke or begin to smoke daily. A continued focus on preventing the initiation of smoking by youth and young

adults and helping them quit using tobacco products could, over time, reduce the prevalence of smoking and associated health problems.

Wyoming adults almost unanimously agree that secondhand smoke is harmful to one's health. However, opinions vary as to where and how smoking should be restricted. Wyoming adults have a high degree of agreement that indoor areas of restaurants and workplaces across the state should have smokefree indoor air and that all school grounds should be smokefree. There is less support for smokefree air in casinos, clubs, bars, and outdoor work areas. Most adults report working in places that have smokefree policies but outdoor areas rarely do. Most exposure to secondhand smoke occurs in outdoor areas, including at work and public places.

The majority of smokers have tried to quit and want to quit for good. When they had tried to quit or wanted to quit, most smokers faced obstacles such as loss of a way to handle stress, cravings for cigarette, and other people smoking around them. Thus, reducing exposure to secondhand smoke could help many smokers who are trying to quit. Also, the use of proven cessation aids is relatively low, and many tobacco users are not receiving screenings and assistance from healthcare providers to help them quit. Only half of current tobacco users who saw a healthcare professional in the previous year were advised to quit, but over half of those were offered assistance. Greater collaboration with health professionals could result in more tobacco users becoming aware of, and receptive to, proven cessation aids and services.

Awareness of tobacco quitlines is an area of potential improvement. About half of non-tobacco users were aware that a quitline (local or national) existed. Friends and family of tobacco users (which would include non-tobacco users) are key referral sources for many WQTP enrollees (WYSAC, 2017). If more nonsmokers knew about the existence of this proven cessation aid, then they could inform and encourage tobacco users who may not know about it.

American Indians, adults with mental health conditions, and those with annual household income less than \$30,000 have relatively high smoking rates. Most current smokers have tried to quit cigarette smoking at some point in their lives, but young adult smokers are more likely to try smoking cessation than other adults. Promoting quitting and reducing initiation among these groups will, over time, reduce the disparities in tobacco use and its health consequences. American Indians, adults with mental health conditions, and young adults have a higher risk of being exposed to SHS at their workplace either indoors or outdoors.

The health consequences of smoking in Wyoming are similar to reports in the medical literature (e.g., USDHHS, 2014). Compared to nonsmokers, Wyoming smokers tend to be less healthy overall and report more chronic illness. Reducing the prevalence of smoking will, over time, reduce the health and economic burden of smoking-attributable chronic disease in Wyoming.

# Recommendations

Many of the trends show continued, though slow, progress regarding the goals of the Wyoming and national tobacco prevention and control programs:

- 1. Preventing initiation of tobacco use (CDC, 2014b)
- 2. Eliminating nonsmokers' exposure to secondhand smoke (CDC, 2017)
- 3. Promoting quitting among adults and young people (CDC, 2015)
- Identifying and eliminating tobacco-related disparities (CDC, 2014b, 2015, 2017)

This progress is especially clear with the downward trend in cigarette smoking. Continued efforts will likely continue this progress. Breakthroughs in tobacco prevention and control, such as increased community mobilization or policy enforcement and regulatory action, could speed this progress (see <a href="https://www.thecommunityguide.org/topic/tobacco">https://www.thecommunityguide.org/topic/tobacco</a> for empirically-based, specific suggestions). The Wyoming Department of Health is implementing a new approach to community mobilization for tobacco prevention. The next iteration of the ATS may be used as part of an evaluation of these efforts with the 2017 data serving as a baseline.

ENDS are an emerging tobacco product with a volatile market and regulatory environment (LaVito, 2018). Many adults are unsure about the safety of ENDS, both overall and relative to cigarettes. As part of a comprehensive approach to tobacco prevention, disseminating educational media about the risks of ENDS use may improve the public's knowledge about these risks. Ideally, such a media campaign would be guided by the growing body of science and developing regulatory approaches to ENDS. For example, media about the regulations could highlight that no ENDS use, possession, or purchases are legal for minors.

## Goal 1: Preventing Initiation of Tobacco Use

Because the smoking habits of the vast majority of Wyoming adults begin when they are younger than 21, and especially before the age of 18, a continued focus on preventing the initiation of smoking by youth and young adults could, over time, reduce the prevalence of smoking and associated health problems. Specific actions to consider for this goal include activities to reduce and counteract pro-tobacco messages, dissemination of pro-health messages, promoting tobacco-free policies, promoting anti-tobacco curricula in all levels of school (including higher education), implementing and enforcing restrictions on tobacco sales and availability, and increasing the price of tobacco (CDC, 2014b).

## Goal 2: Eliminating Nonsmokers' Exposure to Secondhand Smoke

Secondhand smoke is a health hazard in its own right (USDHHS, 2010, 2014). Educating the public and decision makers about the harms of SHS, such as through media campaigns, may provide people with motivation to avoid SHS. The Wyoming Department of Health is currently running and developing such media campaigns. The next iteration of the ATS may be used as part of an evaluation of these efforts with the 2017 data serving as a baseline. In 2017, men were less likely to support smokefree indoor air laws than women. Adults with an associate's degree or less education were less likely to support smokefree indoor air laws than those with more education. Lesbian, gay, bisexual, and transgender (LGBT) individuals were less likely to support smokefree indoor air laws than straight individuals. The Wyoming Department of Health may especially benefit from focusing educational efforts on these groups. Support for smokefree indoor air in schools, workplaces, and restaurants is very high. Communities may be able to mobilize around this support.

# Goal 3: Promoting Quitting Among Adults and Young People

The Wyoming Department of Health has invested substantially in the WQTP. ATS data indicate that promoting this program to young adults, who are more likely than other adults to try to quit smoking, might be especially useful in helping a distinct population quit using tobacco products and avoid the related diseases and death later in life. Health care professionals are an important referral source for the WQTP. Increased screening for tobacco use and encouraging tobacco-using patients to quit with help from the WQTP could be beneficial.

# Goal 4: Identifying and Eliminating Tobacco-Related **Disparities**

The CDC recommends considering disparities in the use and burden of tobacco in all prevention work (CDC, 2014a, 2015, 2017). Recommendations are therefore included above (e.g., focusing WQTP promotion to young adults).

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# **Appendix A: Wyoming 2017 ATS Frequency Tables**

Appendix A consists of tables reporting Wyoming's state-level unweighted counts, weighted percentages, and 95% confidence intervals (CIs) for weighted percentages for every survey item and WYSAC-calculated variable. The unweighted counts represent the exact number of respondents who gave each response. The weighted 2017 ATS data are reflective of the Wyoming adult population (see Appendix B: Methods for more details); therefore, WYSAC uses them when reporting percentages and throughout the body of the report.

WYSAC lists questions and response options in the order they were asked of the 4,647 respondents (except where response option order was randomized, as indicated below). WYSAC also includes the abbreviated variable names for the data in parentheses following each question.

The survey involved a complex skip pattern; certain respondents (as indicated below) were asked particular questions based on their answers to earlier survey questions. Respondents who were not asked a particular question are excluded from the percentage calculations. In the tables, "system missing" generally means that respondents were not asked a given question based on their prior responses. System missing also includes absent responses that do not have clear reasons. WYSAC generally treated responses of "don't know / not sure" and "refused" as missing data. However, if "don't know/not sure" accounted for at least 5% of valid responses after inclusion, then WYSAC did not treat the answers as missing. Percentages may total more than 100% on variables where respondents could choose more than one response option. On other items, percentages may not total 100% because of rounding. Estimates with few observations in the Frequency column may also appear as 0% due to rounding.

## General Health

#### 1. Would you say that in general your health is excellent, very good, good, fair, or poor? (genhealth)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Excellent	19%	17%	21%	865
Very good	35%	33%	37%	1,635
Good	33%	30%	35%	1,460
Fair	10%	8%	11%	488
Poor	4%	3%	5%	182
Valid total	100%			4,630
Don't know / Not sure				10
Refused				6
System missing			***************************************	1
Total				4,647

### 1a. Would you say that in general your health is excellent, very good, good, fair, or poor? (Collapsed; genhealth\_2cat)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Excellent / Very good / Good	86%	85%	88%	3,960
Fair / Poor	14%	12%	16%	670
Valid total	100%			4,630
Don't know / Not sure				10
Refused				6
System missing				1
Total				4.647

# Tobacco Prevalence and Consumption

#### **CIGARETTE SMOKING**

#### 2. Have you smoked at least 100 cigarettes in your entire life? (smok100)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	42%	40%	45%	1,831
No	58%	55%	60%	2,801
Valid total	100%			4,632
Don't know / Not sure				15
Refused				0
System missing				0
Total				4,647

#### 3. Do you now smoke cigarettes every day, some days, or not at all? (Do NOT use this table to report prevalence; smoknow)

Asked of respondents who had smoked at least 100 cigarettes in their lifetime.

	Estimate	Lower CI	Upper CI	Frequency
Every day	31%	27%	35%	431
Some days	7%	5%	9%	111
Not at all	62%	57%	66%	1,288
Valid total	100%			1,830
Don't know / Not sure				1
Refused				0
System missing				2,816
Total				4,647

#### 3a. Current smoking status. (Calculated; smoknow\_2cat)

Of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Current smoker (Every day or Some	16%	14%	18%	542
days)	16%	1470	1070	542
Non-smoker (Former, Experimental, or	84%	82%	86%	4.000
Never)	04%	0290	80%	4,069
Valid total	100%			4,631
Don't know / Not sure				0
Refused	***************************************	***************************************	•••••	0
System missing				16
Total				4,647

Current smokers: Respondents who had smoked at least 100 cigarettes in their lifetime (Q2) and now smoke cigarettes every day or some days (Q3).

Former smokers: Respondents who had smoked at least 100 cigarettes in their lifetime (Q2) but now do not smoke cigarettes at all (Q3).

Experimental smokers: Respondents who had not smoked at least 100 cigarettes in their lifetime (Q2) but had tried cigarette smoking, even one or two puffs (Q5).

Never smokers: Respondents who had not smoked at least 100 cigarettes in their lifetime (Q2) and had never tried cigarette smoking, not even a puff (Q5).

#### 4. On the average, about how many cigarettes a day do you now smoke? (Collapsed; smokperday)

Asked of current everyday smokers.

	Estimate	Lower CI	Upper CI	- 1 7
0	0%	0%	0%	0
1 - 4	3%	1%	6%	22
5 - 9	10%	6%	14%	52
10 - 19	38%	30%	46%	164
20 - 39	46%	37%	55%	176
40+	2%	1%	4%	12
Valid total	100%			426
Don't know / Not sure				5
Refused				0
System missing				4,216
Total				4,647

#### 5. Have you ever tried cigarette smoking, even one or two puffs? (smokever)

Asked of respondents who had not smoked 100 cigarettes in their lifetime.

	Estimate	Lower CI	Upper CI	Frequency
Yes (experimental smoker)	54%	51%	57%	1,560
No (never smoker)	46%	43%	49%	1,251
Valid total	100%			2,811
Don't know / Not sure				4
Refused				1
System missing				1,831
Total				4,647

#### 6. Have you ever smoked a whole cigarette? (smokwholcig)

Asked of experimental smokers.

	Estimate	Lower CI	Upper CI	Frequency
Yes	46%	42%	50%	647
No	54%	50%	58%	892
Valid total	100%			1,539
Don't know / Not sure				21
Refused				0
System missing			•	3,087
Total				4,647

#### 7. How old were you when you smoked a whole cigarette for the first time? (Collapsed; smokwholage)

Asked of experimental smokers who had ever smoked one whole cigarette and respondents who had smoked at least 100 cigarettes in their lifetime.

	Estimate	Lower CI	Upper CI	Frequency
1 - 9	4%	2%	5%	76
10 - 15	43%	39%	46%	949
16 - 17	23%	20%	26%	519
18 - 20	22%	19%	25%	612
21 - 25	6%	5%	8%	184
26+	2%	1%	3%	71
Valid total	100%			2,411
Never smoked a whole cigarette				3
Don't know / Not sure				63
Refused				1
System missing			***************************************	2,169
Total				4,647

#### 8. Was the last time you smoked a cigarette, even one or two puffs ...? (Cleaned; smoklast\_c)

Asked of experimental smokers and former smokers.

	Estimate	Lower CI	Upper CI	Frequency
Within the past 24 hours	0%	0%	0%	3
Within the past 7 days	1%	0%	2%	16
Within the past 30 days	2%	1%	3%	28
Within the past 3 months	3%	2%	4%	56
Within the past 6 months	2%	1%	3%	48
Within the past year	4%	3%	6%	81
Within the past 2 years	6%	5%	8%	108
Within the past 5 years	8%	7%	10%	172
Within the past 10 years	11%	9%	13%	247
Within the past 15 years	6%	4%	7%	146
More than 15 years ago	57%	54%	60%	1,936
Other (specify)	0%	0%	0%	2
Valid total	100%			2,843
Don't know / Not sure				6
Refused				0
System missing				1,798
Total		***************************************	***************************************	4,647

Note: WYSAC reclassified 16 respondents who reported "other" into one of the listed response options based on their specified responses (e.g., provided a quit date instead of the time elapsed since the quit date). Fourteen of these "other" responses were classified into "More than 15 years ago."

### 9. Since the last time you smoked a cigarette, have you decided that you are going to stop smoking cigarettes completely? (smokorquit)

Asked of experimental smokers and former smokers who at least puffed on a cigarette during the past year.

	Estimate	Lower CI	Upper CI	Frequency
Yes	80%	72%	88%	179
No	20%	12%	28%	48
Valid total	100%			227
Don't know / Not sure				5
Refused				0
System missing				4,415
Total				4,647

#### 10. During the past 30 days, that is, since [DATE FILL], on how many days did you smoke cigarettes? (Collapsed; smokdays30)

Asked of current some-day smokers, experimental smokers, and former smokers who at least puffed on a cigarette in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
0	1%	0%	2%	4
1 - 4	43%	31%	56%	61
5 - 10	17%	8%	27%	22
11 - 15	9%	3%	16%	20
16 - 29	17%	6%	28%	24
On all 30	12%	3%	21%	16
Valid total	100%			147
Don't know / Not sure				11
Refused		300000000000000000000000000000000000000	***************************************	0
System missing				4,489
Total				4,647

### 11. On the average, on days when you smoked during the past 30 days, that is, since [DATE FILL], about how many cigarettes did you smoke a day? (Collapsed; smoksomeday)

Asked of current some-day smokers, experimental smokers, and former smokers who at least puffed on a cigarette in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Less than one cigarette a day	13%	2%	24%	13
1 - 4	54%	40%	68%	79
5 - 9	17%	8%	26%	26
10 - 19	12%	2%	22%	18
20 - 39	4%	0%	9%	6
40+	0%	0%	0%	0
Valid total	100%			142
Don't know / Not sure				1
Refused				0
System missing				4,504
Total				4,647

#### 12. Have you ever smoked at least one cigarette every day for 30 days in a row? (smok30dever)

Asked of current some-day smokers and former smokers.

	Estimate	Lower CI	Upper CI	Frequency
Yes	86%	83%	89%	1,204
No	14%	11%	17%	190
Valid total	100%			1,394
Don't know / Not sure				6
Refused				0
System missing				3,247
Total				4,647

#### 13. How old were you when you first smoked at least one cigarette every day for 30 days in a row? (Collapsed; smok30dage)

Asked of current everyday smokers, current some-day smokers, and former smokers who had ever smoked at least one cigarette every day for 30 days in a row.

	Estimate	Lower CI	Upper CI	Frequency
1 - 9	2%	0%	3%	9
10 - 15	24%	20%	28%	303
16 - 17	27%	23%	31%	364
18 - 20	33%	29%	37%	573
21 - 25	9%	7%	11%	212
26+	6%	4%	8%	98
Valid total	100%			1,559
Never smoked at least one cigarette				0
every day for 30 days in a row				0
Don't know / Not sure				76
Refused	300000000000000000000000000000000000000		320000000000000000000000000000000000000	0
System missing				3,012
Total		••••••••••••••••••••••••••••••	***************************************	4,647

#### 14. Around this time last year, were you smoking cigarettes every day, some days, or not at all? (smokyrago)

Asked of current smokers, experimental smokers, and former smokers who at least puffed on a cigarette in the past year.

	Estimate	Lower CI	Upper CI	Frequency
Every day	59%	53%	65%	473
Some days	17%	12%	22%	118
Not at all	24%	19%	29%	182
Valid total	100%			773
Don't know / Not sure				1
Refused				0
System missing				3,873
Total				4,647

#### 15. During the past 30 days, that is, since [DATE FILL], were the cigarettes that you usually smoked menthol? (mentholcigs2)

Asked of current smokers, experimental smokers, and former smokers who at least puffed on a cigarette in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	23%	16%	29%	112
No	77%	71%	84%	476
Valid total	100%			588
Don't know / Not sure				1
Refused				0
System missing				4,058
Total				4,647

#### 16. Were any of the cigarettes that you smoked in the past 30 days flavored to taste like candy, fruit, chocolate, or other sweets? (cigflavor)

Asked of current smokers, experimental smokers, and former smokers who at least puffed on a cigarette in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	6%	1%	11%	18
No	94%	89%	99%	570
Valid total	100%			588
Don't know / Not sure				1
Refused				0
System missing				4,058
Total				4,647

#### 17. Have you bought any cigarettes for yourself in the past 30 days, that is, since [DATE FILL]? (bghtpast30d)

Asked of experimental smokers and former smokers who at least puffed on a cigarette in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	14%	0%	28%	6
No	86%	72%	100%	40
Valid total	100%			46
Don't know / Not sure				1
Refused				0
System missing				4,600
Total				4,647

#### 18. The last time you bought cigarettes for yourself, did you buy them by the pack or by the carton? (buyquant2)

Asked of current smokers, and experimental smokers and former smokers who at least puffed on a cigarette and bought cigarettes for themselves in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
By the pack	75%	69%	82%	376
By the carton	24%	18%	30%	161
Other (specify)	1%	0%	2%	11
Valid total	100%			548
Don't know / Not sure				0
Refused				0
System missing				4,099
Total				4,647

Note: "Other" includes purchase units such as a bag of tobacco, roll-your-own/loose tobacco, singles, a 30-carton case, by the carton and the pack, and by the can.

#### 19. What price did you pay for the last pack of cigarettes you bought? (Collapsed; costpack2)

Asked of respondents who bought cigarettes by the pack when they last bought cigarettes for themselves.

	Estimate	Lower CI	Upper CI	Frequency
\$0.01 - \$3.99	8%	3%	13%	31
\$4.00 - \$4.99	14%	9%	20%	61
\$5.00 - \$5.99	51%	42%	59%	167
\$6.00+	18%	13%	24%	98
Don't know / Not sure (valid)	9%	2%	15%	19
Valid total	100%			376
Refused				0
System missing				4,271
Total				4.647

#### 20. What price did you pay for the last carton of cigarettes you bought? (Collapsed; costcarton2)

Asked of respondents who bought cigarettes by the carton when they last bought cigarettes for themselves.

	Estimate	Lower CI	Upper CI	Frequency
\$10.00 - \$19.99	2%	0%	7%	2
\$20.00 - \$29.99	3%	0%	7%	4
\$30.00 - \$39.99	9%	2%	16%	16
\$40.00 - \$49.99	27%	17%	36%	59
\$50.00 - \$59.99	48%	32%	63%	59
\$60.00 - \$69.99	2%	0%	4%	9
\$70.00+	1%	0%	4%	2
Don't know / Not sure (valid)	8%	0%	18%	10
Valid total	100%			161
Refused				0
System missing				4,486
Total				4,647

#### 21. The last time you bought cigarettes, did you take advantage of coupons, rebates, buy 1 get 1 free, 2 for 1, or any other special promotions for cigarettes? (specoffers)

Asked of current smokers, experimental smokers, and former smokers who at least puffed on a cigarette and bought cigarettes for themselves in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	22%	15%	29%	91
No	78%	71%	85%	457
Valid total	100%			548
Don't know / Not sure				0
Refused				0
System missing				4,099
Total				4,647

#### OTHER TOBACCO USE

(Read to respondents) Now I would like to ask you some questions about your use of other tobacco products.

#### 22. Have you ever tried chewing tobacco, snuff, or dip, such as Skoal, Copenhagen, Grizzly, Levi Garrett, Red Man, or Day's Work, even just one time in your entire life? (sltever2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	40%	38%	43%	1,701
No	60%	57%	62%	2,943
Valid total	100%			4,644
Don't know / Not sure				3
Refused		***************************************		0
System missing				0
Total		***************************************		4,647

#### 23. During the past 30 days, that is, since [DATE FILL], on how many days did you use chewing tobacco, snuff, or dip? (Do NOT use this table to report prevalence; collapsed; sltnodays)

Asked of respondents who had ever tried chewing tobacco, snuff, or dip.

	Estimate	Lower CI	Upper CI	Frequency
0	76%	73%	80%	1,372
1 - 4	4%	2%	6%	46
5 - 10	1%	0%	2%	24
11 - 15	2%	0%	3%	17
16 - 29	1%	0%	2%	9
On all 30	15%	13%	18%	231
Valid total	100%			1,699
Don't know / Not sure				2
Refused				0
System missing				2,946
Total				4,647

#### 23a. Current smokeless tobacco use. (Calculated; sltstatus\_2cat)

Of all respondents. Current smokeless tobacco users are defined as those who had ever tried chewing tobacco, snuff, or dip and used it in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Current smokeless tobacco user	9%	8%	11%	327
Non-user (former or never)	91%	89%	92%	4,315
Valid total	100%			4,642
Don't know / Not sure				2
Refused				0
System missing				3
Total		***************************************	***************************************	4 647

#### 24. Have you ever tried snus, even just one time in your entire life? (snusever)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	17%	15%	19%	685
No	83%	81%	85%	3,928
Valid total	100%			4,613
Don't know / Not sure				34
Refused				0
System missing				0
Total				4.647

#### 25. During the past 30 days, that is, since [DATE FILL], on how many days did you use snus? (Do NOT use this table to report prevalence; collapsed; snusnodays)

Asked of respondents who had ever tried snus.

	Estimate	Lower CI	Upper CI	Frequency
0	85%	80%	90%	600
1 - 4	6%	3%	9%	31
5 - 10	2%	0%	4%	7
11 - 15	1%	0%	1%	3
16 - 29	2%	0%	4%	3
On all 30	5%	3%	7%	40
Valid total	100%			684
Don't know / Not sure				1
Refused				0
System missing				3,962
Total				4.647

#### 25a. Current snus use. (Calculated; snusstatus\_2cat)

Of all respondents. Current snus users are defined as those who had ever tried snus and used it in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Current snus user	3%	2%	3%	84
Non-user (former or never)	97%	97%	98%	4,528
Valid total	100%			4,612
Don't know / Not sure				1
Refused				0
System missing				34
Total	***************************************			4.647

#### 26. Have you ever used chewing tobacco, snuff, dip, or snus instead of smoking a cigarette or other tobacco product because you were in a place where smoking was not allowed? (sltsub)

Asked of respondents who had smoked at least 100 cigarettes in their lifetime and had ever used smokeless tobacco or snus.

	Estimate	Lower CI	Upper CI	Frequency
Yes	37%	32%	43%	325
No	63%	57%	68%	626
Valid total	100%			951
Don't know / Not sure				4
Refused				0
System missing				3,692
Total				4.647

#### 27. Have you ever tried smoking cigars, cigarillos, or very small cigars that look like cigarettes in your entire life, even one or two puffs? (cigarever)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	51%	49%	54%	2,141
No	49%	47%	51%	2,499
Valid total	100%			4,640
Don't know / Not sure				7
Refused				0
System missing				0
Total				4,647

Note: If a respondent was unsure what cigarillos were, the interviewer read the following: "Cigarillos are small, regular cigars. They are usually sold individually or in packs of 5 or 8. Some common brands are Black and Mild's, Swisher Sweets Cigarillos, and Phillies Blunts, but there are others." If a respondent was unsure what very small cigars that look like cigarettes were, the interviewer read the following: "Very small cigars that look like cigarettes are usually brown in color and have a spongy filter like a cigarette. They are about the same size as cigarettes and are often sold in packs of 20. Some common brands are Prime Time little filter cigars and Winchester little filter cigars, but there are others."

#### 28. During the past 30 days, that is, since [DATE FILL], on how many days did you smoke cigars, cigarillos, or very small cigars that look like cigarettes? (Do NOT use this table to report prevalence; collapsed; cigarnodays)

Asked of respondents who had ever smoked cigars, cigarillos, or very small cigars.

	Estimate	Lower CI	Upper CI	Frequency
0	89%	86%	92%	1,999
1 - 4	8%	6%	11%	97
5 - 10	1%	0%	2%	18
11 - 15	1%	0%	2%	5
16 - 29	0%	0%	1%	5
On all 30	1%	0%	1%	14
Valid total	100%			2,138
Don't know / Not sure				3
Refused				0
System missing				2,506
Total				4,647

Note: If a respondent was unsure what cigarillos were, the interviewer read the following: "Cigarillos are small, regular cigars. They are usually sold individually or in packs of 5 or 8. Some common brands are Black and Mild's, Swisher Sweets Cigarillos, and Phillies Blunts, but there are others." If a respondent was unsure what very small cigars that look like cigarettes were, the interviewer read the following: "Very small cigars that look like cigarettes are usually brown in color and have a spongy filter like a cigarette. They are about the same size as cigarettes and are often sold in packs of 20. Some common brands are Prime Time little filter cigars and Winchester little filter cigars, but there are others."

#### 28a. Current cigar use. (Calculated; cigarstatus\_2cat)

Of all respondents. Current cigar users are defined as those who had ever tried cigars, cigarillos, or very small cigars and used it in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Current cigar smoker	6%	4%	7%	139
Non-user (former or never)	94%	93%	96%	4,498
Valid total	100%			4,637
Don't know / Not sure				3
Refused				0
System missing				7
Total	***************************************			4.647

#### 29. Were any of the cigars, cigarillos, or very small cigars that look like cigarettes that you smoked in the past 30 days flavored to taste like candy, fruit, chocolate, or other sweets? (cigarflavr)

Asked of respondents who had smoked cigars, cigarillos, or very small cigars in the past 30 days (current cigar users).

	Estimate	Lower CI	Upper CI	Frequency
Yes	49%	34%	64%	61
No	51%	36%	66%	78
Valid total	100%			139
Don't know / Not sure				0
Refused				0
System missing				4,508
Total				4,647

(Read to respondents) The next few questions ask about smoking tobacco in pipes. The next one or two questions ask about a regular pipe. After that, there are one or two questions asking about a hookah or other water pipe.

#### 30. Have you ever smoked tobacco in a regular pipe in your entire life, even one or two puffs? (piperegever)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	20%	18%	22%	945
No	80%	78%	82%	3,694
Valid total	100%			4,639
Don't know / Not sure				6
Refused				2
System missing				0
Total				4.647

#### 31. During the past 30 days, that is, since [DATE FILL], on how many days did you smoke tobacco in a regular pipe? (Do NOT use this table to report prevalence; collapsed; piperegdays)

Asked of respondents who had ever smoked tobacco in a regular pipe.

	Estimate	Lower CI	Upper CI	Frequency
0	95%	92%	98%	909
1 - 4	5%	2%	8%	23
5 - 10	0%	0%	0%	6
11 - 15	0%	0%	0%	0
16 - 29	0%	0%	0%	0
On all 30	0%	0%	0%	3
Valid total	100%			941
Don't know / Not sure				3
Refused				1
System missing				3,702
Total				4,647

#### **31a.** Current pipe use. (Calculated; piperegstatus\_2cat)

Of all respondents. Current pipe users are defined as those who had ever tried a regular pipe and used it in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Current regular pipe user	1%	0%	2%	32
Non-user (former or never)	99%	98%	100%	4,603
Valid total	100%			4,635
Don't know / Not sure				3
Refused				1
System missing				8
Total		***************************************	***************************************	4 647

#### 32. Have you ever smoked tobacco in a hookah or other water pipe in your entire life, even one or two puffs? (pipewtrever)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	14%	12%	16%	414
No	86%	84%	88%	4,219
Valid total	100%			4,633
Don't know / Not sure				14
Refused				0
System missing				0
Total				4 647

#### 33. During the past 30 days, that is, since [DATE FILL], on how many days did you smoke tobacco in a hookah or other water pipe? (Do NOT use this table to report prevalence; collapsed; pipewtrdays)

Asked of respondents who had ever smoked tobacco in a water pipe.

	Estimate	Lower CI	Upper CI	Frequency
0	94%	90%	98%	398
1 - 4	3%	0%	6%	8
5 - 10	0%	0%	1%	1
11 - 15	0%	0%	0%	1
16 - 29	2%	0%	5%	1
On all 30	1%	0%	2%	4
Valid total	100%			413
Don't know / Not sure				1
Refused				0
System missing				4,233
Total				4,647

#### 33a. Current hookah or other water pipe use. (Calculated; pipewtrstatus\_2cat)

Asked of all respondents. Current hookah or other water pipe users are defined as those who had ever tried a hookah or other water pipe and used it in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Current water pipe user	1%	0%	1%	15
Non-user (former or never)	99%	99%	100%	4,617
Valid total	100%			4,632
Don't know / Not sure				1
Refused				0
System missing				14
Total	***************************************		***************************************	4 647

### 34. Have you ever tried e-cigarettes or vape pens, even just one time in your entire life? (wyecigever)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	26%	24%	28%	776
No	74%	72%	76%	3,862
Valid total	100%			4,638
Don't know / Not sure				9
Refused				0
System missing				0
Total				4,647

Note: If a respondent was unsure what electronic cigarettes were, the interviewer read the following: "Electronic cigarettes, also known as e-cigarettes, are battery-operated products designed to deliver nicotine, flavor, and other chemicals. They turn nicotine and other chemicals into a vapor that is inhaled by the user."

#### 35. You said you have at least tried cigarettes and e-cigarettes or vape pens. Which did you use first? (wyecigseq1)

Asked of current smokers, former smokers, and experimental smokers who had ever tried ENDS.

	Estimate	Lower CI	Upper CI	Frequency
Cigarettes	85%	81%	89%	606
E-cigarettes or vape pens	15%	11%	19%	124
Valid total	100%			730
Don't know / Not sure				3
Refused				1
System missing				3,913
Total				4,647

#### 36. When you started using tobacco, were e-cigarettes or vape pens on the market? (wyecigseq2)

Asked of current, former, and experimental smokers who began using cigarettes first before trying ENDS.

	Estimate	Lower CI	Upper CI	Frequency
Yes	15%	10%	19%	80
No	85%	81%	90%	521
Valid total	100%			601
Don't know / Not sure				5
Refused				0
System missing				4,041
Total				4,647

Note: If a respondent was unsure when electronic cigarettes became available, the interviewer informed the respondent that e-cigarettes came to market in roughly 2007.

#### 37. Do you now use e-cigarettes or vape pens every day, some days, or not at all? (Do NOT use this table to report prevalence; wyecignow)

Asked of respondents who had ever tried ENDS.

	Estimate	Lower CI	Upper CI	Frequency
Every day	9%	6%	12%	62
Some days	13%	9%	17%	85
Not at all	78%	73%	82%	629
Valid total	100%			776
Don't know / Not sure				0
Refused				0
System missing		••••••	***************************************	3,871
Total				4,647

#### 37a. Current ENDS use. (Calculated; wyecigstatus)

Of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Currently use e-cigarettes every day	2%	2%	3%	62
Currently use e-cigarettes some days	3%	2%	5%	85
Currently do not use e-cigarettes	20%	18%	22%	629
Never tried e-cigarettes	74%	72%	76%	3,862
Valid total	100%			4,638
Unknown				9
System missing				0
Total				4,647

#### 38. Were any of the e-cigarettes or vape pens that you used in the past 30 days flavored to taste like menthol, mint, alcohol, wine, cognac, candy, fruit, chocolate, or other sweets? (wyecigflavr)

Asked of respondents who now use ENDS every day or some days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	86%	79%	93%	108
No	14%	7%	21%	32
Valid total	100%			140
Didn't use in the past 30 days				4
Don't know / Not sure				3
Refused				0
System missing		••••••	•••••	4,500
Total				4,647

#### 39. During the past 30 days, what brand of e-cigarettes or vape pens did you use most often? (wyecigwhat)

Asked of respondents who now use ENDS every day or some days and did not answer "didn't use in the past 30 days" to Q38. Respondents were allowed to provide multiple reasons.

#### 39-1. A juice or liquid you blended yourself. (wyecigwhat\_1)

	Estimate	Lower CI	Upper CI	Frequency
Yes	15%	5%	24%	16
No	85%	76%	95%	127
Valid total	100%			143
Don't know / Not sure				0
Refused				0
System missing				4,504
Total				4,647

#### 39-2. A customized commercial juice or liquid, like from a vape shop. (wyecigwhat\_2)

	Estimate	Lower CI	Upper CI	Frequency
Yes	83%	76%	91%	101
No	17%	9%	24%	40
Valid total	100%			141
Don't know / Not sure				2
Refused		•	••••••••••••••••	0
System missing				4,504
Total				4,647

### 39-3. Vuse. (wyecigwhat\_3)

	Estimate	Lower CI	Upper CI	Frequency
Yes	9%	4%	15%	19
No	91%	85%	96%	115
Valid total	100%			134
Don't know / Not sure				9
Refused				0
System missing				4,504
Total				4,647

#### 39-4. Blu. (wyecigwhat\_4)

	Estimate	Lower CI	Upper CI	Frequency
Yes	13%	6%	19%	23
No	87%	81%	94%	116
Valid total	100%			139
Don't know / Not sure				4
Refused				0
System missing				4,504
Total				4,647

#### 39-5. Logic. (wyecigwhat\_5)

	Estimate	Lower CI	Upper CI	Frequency
Yes	3%	0%	6%	4
No	97%	94%	100%	136
Valid total	100%			140
Don't know / Not sure				3
Refused				0
System missing				4,504
Total		***************************************		4,647

#### 39-6. Altria. (wyecigwhat\_6)

	Estimate	Lower CI	Upper CI	Frequency
Yes	0%	0%	1%	1
No	100%	99%	100%	140
Valid total	100%			141
Don't know / Not sure				2
Refused				0
System missing				4,504
Total				4,647

#### 39-7. MarkTen. (wyecigwhat\_7)

	Estimate	Lower CI	Upper CI	Frequency
Yes	3%	0%	6%	7
No	97%	94%	100%	132
Valid total	100%			139
Don't know / Not sure				4
Refused				0
System missing				4,504
Total		***************************************		4,647

#### 39-8. Other juice for a cigalike. (wyecigwhat\_8)

	Estimate	Lower CI	Upper CI	Frequency
Yes	1%	0%	3%	5
No	99%	97%	100%	129
Valid total	100%			134
Don't know / Not sure				9
Refused				0
System missing				4,504
Total				4,647

#### 39-9. Other juice for a mod or similar device. (wyecigwhat\_9)

	Estimate	Lower CI	Upper CI	Frequency
Yes	43%	30%	55%	56
No	57%	45%	70%	77
Valid total	100%			133
Don't know / Not sure				10
Refused				0
System missing				4,504
Total				4,647

### 39-10. Other (specify). (wyecigwhat\_10)

	Estimate	Lower CI	Upper CI	Frequency
Yes	14%	7%	21%	27
No	86%	79%	93%	113
Valid total	100%			140
Don't know / Not sure				3
Refused				0
System missing				4,504
Total				4,647

#### 40. Which of the following are your reasons for using e-cigarettes or vape pens? (wyecigwhy2)

Asked of respondents who had ever tried ENDS. Respondents were allowed to provide multiple reasons.

#### 40-1. To quit smoking cigarettes. (wyecigwhy2\_1)

	Estimate	Lower CI	Upper CI	Frequency
Yes	55%	50%	61%	418
No	45%	39%	50%	357
Valid total	100%			775
Don't know / Not sure				1
Refused				0
System missing				3,871
Total				4,647

#### 40-2. To reduce cigarette consumption. (wyecigwhy2\_2)

	Estimate	Lower CI	Upper CI	Frequency
Yes	51%	45%	57%	397
No	49%	43%	55%	379
Valid total	100%			776
Don't know / Not sure				0
Refused				0
System missing				3,871
Total				4,647

#### 40-2a. To quit smoking cigarettes or to reduce cigarette consumption. (wyecigwhy2\_2a)

	Estimate	Lower CI	Upper CI	Frequency
Yes	58%	53%	64%	456
No	42%	36%	47%	319
Valid total	100%			775
Unknown				1
System missing				3,871
Total				4,647

#### 40-3. To try something new: curious. (wyecigwhy2\_3)

	Estimate	Lower CI	Upper CI	Frequency
Yes	58%	53%	64%	456
No	42%	36%	47%	319
Valid total	100%			775
Unknown				1
System missing		***************************************	***************************************	3,871
Total				4,647

### 40-4. To not disturb other people with smoke. (wyecigwhy2\_4)

	Estimate	Lower CI	Upper CI	Frequency
Yes	34%	29%	40%	248
No	66%	60%	71%	527
Valid total	100%			775
Don't know / Not sure				1
Refused				0
System missing				3,871
Total				4.647

#### 40-5. To smoke in a place where cigarette smoking is banned. (wyecigwhy2\_5)

	Estimate	Lower CI	Upper CI	Frequency
Yes	21%	16%	25%	182
No	79%	75%	84%	592
Valid total	100%			774
Don't know / Not sure				1
Refused		***************************************	***************************************	1
System missing				3,871
Total				4,647

#### 40-6. To save money. (wyecigwhy2\_6)

	Estimate	Lower CI	Upper CI	Frequency
Yes	23%	18%	28%	158
No	77%	72%	82%	611
Valid total	100%			769
Don't know / Not sure				5
Refused				2
System missing				3,871
Total				4.647

#### 40-7. E-cigarettes or vape pens might be less harmful than cigarettes. (wyecigwhy2\_7)

	Estimate	Lower CI	Upper CI	Frequency
Yes	42%	36%	47%	300
No	52%	46%	58%	428
Don't know / Not sure (valid)	6%	4%	9%	48
Valid total	100%			776
Refused				0
System missing	***************************************			3,871
Total				4,647

#### 40-8. E-cigarettes or vape pens taste better. (wyecigwhy2\_8)

	Estimate	Lower CI	Upper CI	Frequency
Yes	44%	38%	49%	284
No	56%	51%	62%	475
Valid total	100%			759
Don't know / Not sure				17
Refused				0
System missing				3,871
Total		***************************************	***************************************	4,647

#### 40-9. For the flavoring. (wyecigwhy2\_10)

	Estimate	Lower CI	Upper CI	Frequency
Yes	44%	38%	50%	303
No	56%	50%	62%	462
Valid total	100%			765
Don't know / Not sure				10
Refused				1
System missing				3,871
Total				4,647

#### 40-9a. E-cigarettes or vape pens taste better or for the flavoring. (wyecigwhy2\_10a)

	Estimate	Lower CI	Upper CI	Frequency
Yes	52%	46%	58%	343
No	48%	42%	54%	406
Valid total	100%			749
Unknown				27
System missing				3,871
Total				4,647

### 40-10. For a drug other than nicotine. For example, marijuana. (wyecigwhy2\_11)

	Estimate	Lower CI	Upper CI	Frequency
Yes	11%	6%	15%	67
No	89%	85%	94%	701
Valid total	100%			768
Don't know / Not sure				4
Refused				4
System missing				3,871
Total				4,647

#### 40-11. Other (specify). (wyecigwhy2\_9)

	Estimate	Lower CI	Upper CI	Frequency
Yes	7%	4%	9%	55
No	93%	91%	96%	718
Valid total	100%			773
Don't know / Not sure				1
Refused				2
System missing				3,871
Total				4,647

Note: "Other" includes reasons such as a friend offered it/someone else purchased it, peer pressure, health reasons, to maintain productivity, more convenient, to quit chewing tobacco, to avoid or not to blow secondhand smoke, it doesn't smell as bad as cigarettes, and to try the different flavors.

#### Cessation

#### AWARENESS OF QUITLINES AND COUNTER MARKETING

(Read to respondents) A telephone quitline is a free telephone-based service that connects people who smoke cigarettes or use other tobacco products with someone who can help them quit.

#### 41. Are you aware of any telephone quitline services that are available to help people quit using tobacco? (qtlineawrnt)

Asked of respondents who had never used any type of tobacco or had not used tobacco in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	49%	46%	51%	1,764
No	51%	49%	54%	1,925
Valid total	100%			3,689
Don't know / Not sure				23
Refused		***************************************	***************************************	2
System missing				933
Total				4,647

#### 42. Are you aware of any telephone quitline services that are available to help you quit using tobacco? (qtlineawrt)

Asked of tobacco users who had used any type of tobacco in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	77%	72%	81%	702
No	23%	19%	28%	228
Valid total	100%			930
Don't know / Not sure				2
Refused				1
System missing			***************************************	3,714
Total				4,647

#### **QUIT ATTEMPTS**

#### 43. In your whole life, how many times have you stopped smoking for one day or longer because you were trying to quit smoking cigarettes for good? (Collapsed; qtatt2)

Asked of current smokers, experimental smokers, and former smokers who at least puffed on a cigarette in the past year.

	Estimate	Lower CI	Upper CI	Frequency
None	17%	12%	22%	122
1 - 5 times	55%	49%	61%	399
6 - 10 times	10%	7%	14%	86
11 - 20 times	7%	3%	11%	56
More than 20 times	5%	3%	7%	56
Don't know / Not sure (valid)	5%	3%	8%	52
Valid total	100%			771
Refused	***************************************	***************************************		3
System missing				3,873
Total				4,647

Note: If a respondent provided a range or was unsure, the interviewer read the following: "You said you have tried to quit smoking cigarettes about x to y times in your entire life. Your answer doesn't have to be exact, but I do need to report one number. What is your best guess of the number of times in your whole life that you have stopped smoking for one day or longer because you were trying to quit smoking cigarettes for good?."

#### 44. During the past 12 months, that is, since [DATE FILL], how many times have you stopped smoking for one day or longer because you were trying to quit smoking cigarettes for good? (Collapsed; qt12mos)

Asked of current smokers, experimental smokers, and former smokers who at least puffed on a cigarette in the past year and had tried to quit in their lifetime.

	Estimate	Lower CI	Upper CI	Frequency
None	40%	34%	47%	272
1 - 5 times	55%	49%	62%	282
6 - 10 times	2%	0%	3%	16
11 - 20 times	2%	0%	4%	9
More than 20 times	1%	0%	2%	8
Valid total	100%			587
Don't know / Not sure				10
Refused				0
System missing				4,050
Total				4,647

Note: If a respondent provided a range or was unsure, the interviewer read the following: "You said you have tried to quit smoking cigarettes about x to y times in the past 12 months. Your answer doesn't have to be exact, but I do need to report one number. What is your best guess of the number of times in the past 12 months that you have stopped smoking for one day or longer because you were trying to quit smoking cigarettes for good?."

#### 45. When you guit smoking [The last time you tried to guit smoking], did you use the Wyoming Quit Tobacco Program? (wyqtline)

Asked of current smokers, experimental smokers, and former smokers who had tried to quit in the past year.

	Estimate	Lower CI	Upper CI	Frequency
Yes	15%	8%	21%	48
No	85%	79%	92%	266
Valid total	100%			314
Don't know / Not sure				1
Refused				0
System missing				4,332
Total		***************************************	***************************************	4,647

#### 46. When you quit smoking [The last time you tried to quit smoking], did you use any of the following medications: a nicotine patch, nicotine gum, nicotine lozenges, nicotine nasal spray, or a nicotine inhaler to help you quit? (wyqtmed2)

Asked of current smokers, experimental smokers, and former smokers who had tried to quit in the past year.

	Estimate	Lower CI	Upper CI	Frequency
Yes	27%	19%	35%	94
No	73%	65%	81%	221
Valid total	100%			315
Don't know / Not sure				0
Refused				0
System missing				4,332
Total				4,647

#### 47. When you quit smoking [The last time you tried to quit smoking], did you use pills such as Wellbutrin, Zyban, buproprion, Chantix, or varenicline to help you quit? (wyqtmed3)

Asked of current smokers, experimental smokers, and former smokers who had tried to quit in the past year.

	Estimate	Lower CI	Upper CI	Frequency
Yes	13%	8%	18%	54
No	87%	82%	92%	261
Valid total	100%			315
Don't know / Not sure				0
Refused				0
System missing			***************************************	4,332
Total	***************************************			4.647

#### 48. Do you want to quit smoking cigarettes for good? (qtwant)

Asked of current smokers, and experimental smokers and former smokers who had at least puffed on a cigarette in the past year and had not decided to quit completely (according to Q9).

	Estimate	Lower CI	Upper CI	Frequency
Yes	67%	60%	73%	361
No	27%	21%	34%	190
Don't know / Not sure (valid)	6%	3%	9%	42
Valid total	100%			593
Refused				2
System missing				4,052
Total	000000000000000000000000000000000000000	***************************************	200000000000000000000000000000000000000	4,647

#### 49. I'm about to ask about some things that can make it hard for some people to quit smoking. Which of the following has made it hard for you to quit smoking? (wyqtobst)

Asked of current smokers, and experimental smokers and former smokers who had tried to quit in their lifetime or wanted to quit smoking cigarettes for good. Respondents were allowed to provide multiple reasons.

#### 49-1. Cost of medicines or products to help with quitting. (wyqtobst\_1)

	Estimate	Lower CI	Upper CI	Frequency
Yes	25%	19%	31%	152
No	75%	69%	81%	485
Valid total	100%			637
Don't know / Not sure				2
Refused		***************************************	***************************************	0
System missing	***************************************	000000000000000000000000000000000000000	000000000000000000000000000000000000000	4,008
Total				4,647

#### 49-2. Cost of classes to help with quitting. (wyqtobst\_2)

	Estimate	Lower CI	Upper CI	Frequency
Yes	14%	8%	20%	64
No	86%	80%	92%	563
Valid total	100%			627
Don't know / Not sure				12
Refused				0
System missing				4,008
Total				4,647

#### 49-3. Fear of gaining weight. (wyqtobst\_3)

	Estimate	Lower CI	Upper CI	Frequency
Yes	21%	16%	27%	147
No	79%	73%	84%	491
Valid total	100%			638
Don't know / Not sure				0
Refused				1
System missing				4,008
Total		***************************************		4.647

### 49-4. Loss of a way to handle stress. (wyqtobst\_4)

	Estimate	Lower CI	Upper CI	Frequency
Yes	71%	66%	77%	408
No	29%	23%	34%	229
Valid total	100%			637
Don't know / Not sure				2
Refused				0
System missing				4,008
Total				4,647

### 49-5. Other people smoking around you. (wyqtobst\_5)

	Estimate	Lower CI	Upper CI	Frequency
Yes	62%	55%	68%	342
No	38%	32%	45%	296
Valid total	100%			638
Don't know / Not sure				1
Refused				0
System missing				4,008
Total				4,647

#### 49-6. Cravings for a cigarette. (wyqtobst\_6)

	Estimate	Lower CI	Upper CI	Frequency
Yes	71%	65%	78%	466
No	29%	22%	35%	171
Valid total	100%			637
Don't know / Not sure				2
Refused				0
System missing		•••••••••••••••••••••••••••••••••••••••		4,008
Total				4,647

### 49-7. Lack of support from others to quit. (wyqtobst\_7)

	Estimate	Lower CI	Upper CI	Frequency
Yes	25%	19%	31%	128
No	75%	69%	81%	508
Valid total	100%			636
Don't know / Not sure				3
Refused				0
System missing				4,008
Total		***************************************	•	4,647

### 49-8. Worsening depression. (wyqtobst\_8)

	Estimate	Lower CI	Upper CI	Frequency
Yes	34%	27%	41%	176
No	66%	59%	73%	459
Valid total	100%			635
Don't know / Not sure				3
Refused				1
System missing				4,008
Total				4,647

#### 49-9. Worsening anxiety. (wyqtobst\_9)

	Estimate	Lower CI	Upper CI	Frequency
Yes	47%	40%	54%	275
No	53%	46%	60%	359
Valid total	100%			634
Don't know / Not sure				5
Refused				0
System missing	***************************************		***************************************	4,008
Total				4,647

#### 49-10. Other (specify). (wyqtobst\_10)

	Estimate	Lower CI	Upper CI	Frequency
Yes	20%	14%	26%	127
No	80%	74%	86%	506
Valid total	100%			633
Don't know / Not sure				5
Refused				1
System missing				4,008
Total				4,647

Note: "Other" includes reasons such as habit, boredom, nicotine addiction, alcohol use, family influence, health reasons, enjoyment, lack of will or desire to quit, and stress/fear.

#### 50. In your whole life, how many times have you stopped using e-cigarettes or vape pens for one day or longer because you were trying to quit using ecigarettes or vape pens for good? (Collapsed; wyecigqtatt2)

Asked of respondents who now use ENDS every day or some days.

	Estimate	Lower CI	Upper CI	Frequency
None	68%	58%	79%	102
1 - 5 times	18%	9%	26%	28
6 - 10 times	6%	0%	13%	6
11+ times	0%	0%	0%	0
Don't know / Not sure (valid)	8%	2%	14%	11
Valid total	100%			147
Refused				0
System missing				4,500
Total				4,647

# 51. During the past 12 months, that is, since [DATE FILL], how many times have you stopped using e-cigarettes or vape pens for one day or longer because you were trying to quit using e-cigarettes or vape pens for good? (Collapsed; wyecigqt12mos)

Asked of respondents who now use ENDS every day or some days and had tried to quit in their lifetime.

	Estimate	Lower CI	Upper CI	Frequency
None	19%	0%	38%	6
1 - 5 times	64%	47%	81%	23
6 - 10 times	17%	0%	40%	4
11+ times	0%	0%	0%	0
Valid total	100%			33
Don't know / Not sure				1
Refused				0
System missing				4,613
Total				4,647

#### HEALTH PROFESSIONAL ADVICE TO QUIT

#### 52. In the past 12 months, that is, since [DATE FILL], have you seen a doctor, dentist, nurse, or other health professional? (hcwcare2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	85%	83%	87%	4,079
No	15%	13%	17%	560
Valid total	100%			4,639
Don't know / Not sure				5
Refused		***************************************	***************************************	3
System missing				0
Total				4,647

#### 53. In the past 12 months, that is, since [DATE FILL], did any doctor, dentist, nurse, or other health professional advise you to quit smoking cigarettes or using any other tobacco products? (hcwadvise2)

Asked of tobacco users (smoked cigarettes sometime in the past year or used other tobacco in the past 30 days) who had visited a health professional in the past year.

	Estimate	Lower CI	Upper CI	Frequency
Yes	55%	50%	61%	417
No	45%	40%	50%	430
Valid total	100%			847
Don't know / Not sure				5
Refused				0
System missing		***************************************	***************************************	3,795
Total				4,647

#### 54. The last time a health professional advised you to quit using tobacco, did they also ask if you wanted to try to quit? (hcwqtask)

Asked of tobacco users (smoked cigarettes sometime in the past year or used other tobacco in the past 30 days) who a health professional had advised to quit.

	Estimate	Lower CI	Upper CI	Frequency
Yes	67%	59%	74%	265
No	33%	26%	41%	143
Valid total	100%			408
Don't know / Not sure				9
Refused				0
System missing				4,230
Total				4,647

#### 55. The last time a health professional advised you to quit using tobacco, did they also offer any assistance, information, or additional advice to help you quit? (hcwmoradvice)

Asked of tobacco users (smoked cigarettes sometime in the past year or used other tobacco in the past 30 days) who a health professional had advised to quit.

	Estimate	Lower CI	Upper CI	Frequency
Yes	63%	56%	70%	237
No	37%	30%	44%	175
Valid total	100%	***************************************	***************************************	412
Don't know / Not sure				5
Refused				0
System missing		***************************************		4,230
Total	***************************************	200000000000000000000000000000000000000	***************************************	4,647

# 56. The last time a health professional advised you to quit using tobacco, did they provide you with information about the Wyoming Quit Tobacco Program? For example, a brochure, phone number, or web address? (wyhcwwqtp)

Asked of tobacco users (smoked cigarettes sometime in the past year or used other tobacco in the past 30 days) who had been offered assistance to quit by a health professional.

	Estimate	Lower CI	Upper CI	Frequency
Yes	70%	62%	79%	158
No	30%	21%	38%	72
Valid total	100%			230
Don't know / Not sure				6
Refused				0
System missing				4,411
Total				4.647

#### 57. Did they recommend a nicotine patch, nicotine gum, lozenges, nasal spray, or an inhaler (wyhcwmed2)

Asked of tobacco users (smoked cigarettes sometime in the past year or used other tobacco in the past 30 days) who had been offered assistance to quit by a health professional.

	Estimate	Lower CI	Upper CI	Frequency
Yes	52%	41%	63%	119
No	48%	37%	59%	114
Valid total	100%			233
Don't know / Not sure				3
Refused				1
System missing				4,410
Total	***************************************	***************************************	000000000000000000000000000000000000000	4,647

#### 58. Did they prescribe pills such as Wellbutrin, Zyban, buproprion, Chantix, or varenicline (wyhcwmed3)

Asked of tobacco users (smoked cigarettes sometime in the past year or used other tobacco in the past 30 days) who had been offered assistance to quit by a health professional.

	Estimate	Lower CI	Upper CI	Frequency
Yes	26%	17%	35%	76
No	74%	65%	83%	161
Valid total	100%			237
Don't know / Not sure				0
Refused				0
System missing				4,410
Total				4,647

# 59. In the past 12 months, that is, since [DATE FILL], did any doctor, dentist, nurse, or other health professional ask if you smoke cigarettes or use any other tobacco products? (hcwask)

Asked of respondents who saw a health professional during the past year, but who are non-tobacco users (did not smoke cigarettes in the past year or use any other type of tobacco in the past 30 days), and tobacco users who were not advised to quit.

	Estimate	Lower CI	Upper CI	Frequency
Yes	72%	69%	74%	2,346
No	28%	26%	31%	1,203
Valid total	100%			3,549
Don't know / Not sure				113
Refused				0
System missing		000000000000000000000000000000000000000		985
Total				4,647

# Secondhand Smoke and Tobacco-Free Policies

#### AT HOME

(Read to respondents) Now I'm going to ask you some questions about smoking inside the home.

### 60. Not counting decks, porches, or garages, during the past 7 days, that is, since last [TODAY'S DAY OF WEEK], on how many days did someone other than you smoke tobacco inside your home while you were at home? (Collapsed; smokhome7d2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
None	94%	92%	96%	4,423
1 - 6 days	2%	1%	3%	87
On all 7 days	4%	3%	5%	126
Valid total	100%			4,636
Don't know / Not sure				11
Refused				0
System missing				0
Total				4,647

#### 61. Not counting decks, porches, or garages, inside your home, is smoking always allowed, allowed only at some times or in some places, or never allowed? (homerules2)

	Estimate	Lower CI	Upper CI	Frequency
Always allowed	7%	5%	8%	268
Allowed only at some times or in some	Δ%	3%	5%	232
places	470	370	570	232
Never allowed	89%	87%	91%	4,109
Valid total	100%			4,609
Don't know / Not sure				31
Refused				7
System missing				0
Total				4.647

#### 62. In your opinion, inside a home, should smoking always be allowed, be allowed only at some times or in some places, or never be allowed? (homerulesopn)

Asked of all respondents. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Always be allowed	2%	2%	3%	107
Be allowed only at some times or in	8%	7%	10%	200
some places		7 70	1070	300
Never be allowed	71%	69%	73%	3,253
Whatever the people who live in the	18%	16%	20%	850
home decide (voluntary response)	18%	1070	2070	659
Valid total	100%			4,579
Don't know / Not sure				51
Refused				17
System missing				0
Total				4,647

Note: The interviewer did not read the response "Smoking restrictions in home should be whatever people live there decide" to a respondent. The interviewer recorded this response only if the respondent volunteered it.

#### IN THE WORKPLACE

#### 63. Are you currently working for pay or are you self-employed, either parttime or full-time? (employ2)

	Estimate	Lower CI	Upper CI	Frequency
Yes	69%	67%	71%	2,732
No	31%	29%	33%	1,906
Valid total	100%			4,638
Don't know / Not sure				2
Refused				7
System missing				0
Total				4,647

#### 64. Do you currently have one job or more than one job? (nojobs)

Asked of respondents who are employed or self-employed.

	Estimate	Lower CI	Upper CI	Frequency
One job	81%	78%	83%	2,207
More than one job	19%	17%	22%	520
Valid total	100%			2,727
Don't know / Not sure				2
Refused				3
System missing				1,915
Total		***************************************		4,647

(Read to respondents if they have more than one job) Please answer the following questions for the job at which you spend the most time.

### 65. Most of the time, do you work outdoors, in a vehicle, indoors at home, indoors in a place like an office building, retail store, restaurant, or factory, or somewhere else? (workplace)

Asked of respondents who are employed or self-employed and did not answer don't know/not sure to Q64. The interviewer told respondents who had multiple jobs to answer this question for the job at which they spent the most time.

	Estimate	Lower CI	Upper CI	Frequency	
Outdoors	25%	22%	28%	657	
In a vehicle	7%	5%	8%	167	
Indoors at home	5%	4%	6%	196	
Indoors in a place like an office building,	58%	E 0 0 %	55%	61%	1.536
retail store, restaurant, or factory		JJ70	0170	1,550	
Somewhere else (specify)	6%	4%	8%	161	
Valid total	100%			2,717	
Don't know / Not sure				6	
Refused				4	
System missing				1,920	
Total				4,647	

Note: If a respondent provided multiple settings, the interviewer read the following: "Please choose the setting in which you spend the most time?" If the time spent is equal between the settings, the interviewer asked which job/setting the respondent has been the longest. If the respondent still couldn't choose, the interviewer asked which job/setting the respondent liked the

"Somewhere else" includes responses such as the time is spent equally among multiple settings/jobs, buildings/facilities such as home, hospital, prison, school, shop, and other facilities, and describing job titles/duties/setting.

(Read to respondents if they work in a vehicle most of the time) The next two questions refer to smoking in indoor areas. When answering the questions, please count your vehicle as an indoor area.

# 66. Now I'm going to ask you about smoke you might have breathed at work because someone else was smoking, either indoors or outdoors. During the past 7 days, that is, since last [TODAY'S DAY OF WEEK], on how many days did you breathe the smoke at your workplace from someone other than you who was smoking tobacco? (Collapsed; shsexpwork)

Asked of respondents who are employed or self-employed and did not answer don't know/not sure to Q65. Working in a vehicle was considered as working indoors.

	Estimate	Lower CI	Upper CI	Frequency
None	80%	78%	83%	2,335
1 - 6 days	14%	12%	17%	287
On all 7 days	5%	4%	7%	84
Valid total	100%			2,706
Don't know / Not sure		•••••••••••••••	•••••••••••••••••	11
Refused				0
System missing			***************************************	1,930
Total				4,647

#### 67. At your workplace, is smoking in indoor areas always allowed, allowed only at some times or in some places, or never allowed? (worksmokind)

Asked of employed respondents who work mostly indoors. Working in a vehicle was considered as working indoors. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Always allowed	2%	1%	2%	46
Allowed only at some times or in some	6%	404	7%	106
places	070	490	, ,,	100
Never allowed	93%	91%	95%	1,894
Valid total	100%			2,046
Don't know / Not sure	***************************************			13
Refused				1
System missing				2,587
Total				4,647

#### 68. At your workplace, is smoking in outdoor areas always allowed, allowed only at some times or in some places, or never allowed? (worksmokout)

Asked of respondents who are employed or self-employed and did not answer don't know/not sure to Q65. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Always allowed	40%	36%	43%	932
Allowed only at some times or in some		31%	37%	022
places	34%	31%	3/%	833
Never allowed	26%	23%	29%	840
Valid total	100%			2,605
Don't know / Not sure				103
Refused		***************************************	•	9
System missing				1,930
Total				4,647

(Read to respondents) The next two questions ask for your opinion about smoking at all workplaces.

#### 69. At workplaces, do you think smoking indoors should be always allowed, allowed only at some times or in some places, or never allowed? (workindopn2)

	Estimate	Lower CI	Upper CI	Frequency
Always allowed	1%	1%	2%	58
Allowed only at some times or in some	15%	14%	17%	738
places	15%	1490	1 / %	/30
Never allowed	83%	81%	85%	3,691
Valid total	100%			4,487
Don't know / Not sure				114
Refused				46
System missing				0
Total				4,647

#### 70. Do you support or oppose a state law in Wyoming banning smoking in all indoor workplaces? (wyworkindlawopn2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Support	80%	78%	82%	3,503
Oppose	20%	18%	22%	930
Valid total	100%			4,433
Don't know / Not sure				171
Refused				43
System missing				0
Total				4,647

#### 71. At workplaces, do you think smoking outdoors should be always allowed, allowed only at some times or in some places, or never allowed? (workoutdopn2)

Asked of all respondents. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Always allowed	31%	29%	33%	1,331
Allowed only at some times or in some	55%	53%	58%	2,464
places	55%	55%	30%	2,404
Never allowed	14%	12%	15%	687
Valid total	100%			4,482
Don't know / Not sure				124
Refused				41
System missing				0
Total				4.647

#### 72. Do you support or oppose a state law in Wyoming banning smoking in all outdoor workplaces? (wyworkoutlawopn2)

	Estimate	Lower CI	Upper CI	Frequency
Support	27%	25%	29%	1,328
Oppose	66%	63%	68%	2,930
Don't know / Not sure (valid)	7%	6%	9%	330
Valid total	100%			4,588
Refused				59
System missing				0
Total	***************************************			4,647

#### IN PUBLIC PLACES

(Read to respondents) The next several questions ask about tobacco use in indoor and outdoor public places. Examples of indoor public places are the indoor areas of stores, restaurants, bars, casinos, clubs, and sports arenas. Examples of outdoor public places are stadiums and parks.

### 73. [Not counting times while you were at work,] during the past 7 days, that is, since last [TODAY'S DAY OF WEEK], on how many days did you breathe the smoke from someone else who was smoking in an indoor public place? (Collapsed; wyshsexppub)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
None	88%	86%	90%	4,130
1 - 6 days	11%	9%	12%	428
On all 7 days	1%	0%	2%	39
Valid total	100%			4,597
Don't know / Not sure				44
Refused				6
System missing				0
Total				4,647

## 74. [Not counting times while you were at work,] during the past 7 days, that is, since last [TODAY'S DAY OF WEEK], on how many days did you breathe the smoke from someone else who was smoking in an outdoor public place? (Collapsed; wyshsexppub2)

	Estimate	Lower CI	Upper CI	Frequency
None	68%	65%	70%	3,386
1 - 6 days	29%	26%	31%	1,096
On all 7 days	4%	2%	5%	95
Valid total	100%			4,577
Don't know / Not sure				67
Refused				3
System missing	000000000000000000000000000000000000000	***************************************	000000000000000000000000000000000000000	0
Total				4,647

#### 74a. Exposure to secondhand smoke (SHS) in an indoor or outdoor public place in the past 7 days. (Calculated; wyshsexppub\_indoutd)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Not exposed to secondhand smoke	63%	60%	65%	3,146
Exposed to secondhand smoke	37%	35%	40%	1,406
Valid total	100%			4,552
Unknown				95
System missing				0
Total				4,647

(Read to respondents) Now we have a few questions about your opinions on smoking in indoor public places.

#### 75. Should smoking indoors in restaurants always be allowed, be allowed only at some times or in some places, or never be allowed? (shsindropn1)

Asked of all respondents. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Always be allowed	2%	1%	2%	77
Be allowed only at some times or in	10%	17%	22%	803
some places	1970	1 7 70	2270	803
Never be allowed	79%	77%	81%	3,634
Valid total	100%			4,514
Don't know / Not sure	***************************************			90
Refused				43
System missing				0
Total	***************************************			4,647

#### 76. Do you support or oppose a state law in Wyoming banning smoking in all restaurants? (wyreslawopn2)

	Estimate	Lower CI	Upper CI	Frequency
Support	79%	76%	81%	3,587
Oppose	21%	19%	24%	962
Valid total	100%			4,549
Don't know / Not sure				72
Refused		***************************************	***************************************	26
System missing				0
Total				4,647

#### 77. Should smoking indoors in bars always be allowed, be allowed only at some times or in some places, or never be allowed? (wyshsindropn2)

Asked of all respondents. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Always be allowed	11%	10%	13%	477
Be allowed only at some times or in	36%	34%	39%	1 575
some places	30%	34%	39%	1,575
Never be allowed	48%	45%	50%	2,280
Don't know / Not sure (valid)	5%	3%	6%	241
Valid total	100%			4,573
Refused				74
System missing				0
Total				4 647

#### 78. Do you support or oppose a state law in Wyoming banning smoking in all bars? (wybarlawopn2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Support	50%	48%	53%	2,411
Oppose	46%	43%	48%	1,982
Don't know / Not sure (valid)	4%	3%	5%	205
Valid total	100%			4,598
Refused				49
System missing			***************************************	0
Total				4,647

#### 79. Should smoking indoors in casinos and clubs always be allowed, be allowed only at some times or in some places, or never be allowed? (wyshsindropn3)

	Estimate	Lower CI	Upper CI	Frequency
Always be allowed	10%	8%	11%	377
Be allowed only at some times or in some places	41%	38%	43%	1,668
Never be allowed	49%	47%	52%	2,338
Valid total	100%			4,383
Don't know / Not sure				204
Refused				60
System missing				0
Total				4,647

### 80. Do you support or oppose a state law in Wyoming banning smoking in all casinos and clubs? (wyclublawopn2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Support	54%	51%	56%	2,488
Oppose	46%	44%	49%	1,915
Valid total	100%			4,403
Don't know / Not sure				206
Refused				38
System missing				0
Total				4.647

#### 81. Should smoking at parks always be allowed, be allowed only at some times or in some places, or never be allowed? (shsoutdropn)

	Estimate	Lower CI	Upper CI	Frequency
Always be allowed	19%	17%	21%	839
Be allowed only at some times or in	44%	41%	16%	1.980
some places	44%	4190	40%	1,960
Never be allowed	37%	35%	40%	1,692
Valid total	100%			4,511
Don't know / Not sure				102
Refused				34
System missing				0
Total				4.647

#### GENERAL KNOWLEDGE AND ATTITUDES

(Read to respondents) Now we have some general questions about smoking and tobacco use.

#### 82. Do you think that breathing smoke from other people's cigarettes or from other tobacco products is very harmful, somewhat harmful, or not at all harmful to one's health? (shsharmopn)

Asked of all respondents. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Not at all harmful to one's health	4%	3%	5%	170
Somewhat harmful to one's health	35%	32%	37%	1,564
Very harmful to one's health	62%	59%	64%	2,795
Valid total	100%			4,529
Don't know / Not sure				105
Refused				13
System missing				0
Total				4,647

#### 83. Do you think using e-cigarettes or vape pens is very harmful, somewhat harmful, or not at all harmful to one's health? (wyharmecig)

	Estimate	Lower CI	Upper CI	Frequency
Not at all harmful to one's health	7%	6%	8%	247
Somewhat harmful to one's health	39%	37%	42%	1,539
Very harmful to one's health	35%	32%	37%	1,761
Don't know / Not sure (valid)	19%	17%	21%	1,077
Valid total	100%			4,624
Refused				23
System missing				0
Total				4,647

#### 84. In your opinion, how healthy is it to completely switch from cigarette smoking to using e-cigarettes or vape pens? (wyhealthyecig)

Asked of all respondents. The order of the response options for this question was randomly reversed.

	Estimate	Lower CI	Upper CI	Frequency
Not at all healthy	41%	39%	43%	2,015
Somewhat healthy	37%	34%	39%	1,429
Very healthy	5%	4%	7%	165
Don't know / Not sure (valid)	17%	15%	19%	1,017
Valid total	100%			4,626
Refused				21
System missing				0
Total				4.647

# 85. Compared to smoking cigarettes, how harmful do you think using ecigarettes or vape pens are to a person's health? Would you say much less harmful, somewhat less harmful, about the same, somewhat more harmful, or much more harmful than cigarettes? (wyecigmoreharm)

	Estimate	Lower CI	Upper CI	Frequency
Much less harmful than cigarettes	9%	7%	10%	285
Somewhat less harmful	31%	28%	33%	1,241
About the same	35%	33%	38%	1,661
Somewhat more harmful	6%	5%	8%	280
Much more harmful than cigarettes	5%	4%	6%	234
Don't know / Not sure (valid)	14%	12%	15%	928
Valid total	100%			4,629
Refused				18
System missing	***************************************	***************************************		0
Total				4,647

# Demographics

(Read to respondents) Now I would like to ask you some questions about yourself and your family. Please remember that your answers will be private and that no one will be able to identify you from any published reports.

#### 86. Are you now ...? (marital2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Married	56%	53%	58%	2,629
Living with a partner	8%	7%	10%	256
Divorced	9%	8%	10%	509
Widowed	6%	5%	7%	585
Separated	1%	0%	2%	42
Single, that is, never married and not	19%	17%	21%	593
now	1370	1770	2170	3,3
Other (specify)	0%	0%	1%	8
Valid total	100%			4,622
Don't know / Not sure	***************************************			3
Refused		***************************************		22
System missing	***************************************			0
Total				4,647

#### 87. Are you Hispanic or Latino? (hispanic)

	Estimate	Lower CI	Upper CI	Frequency
Yes	8%	7%	10%	199
No	92%	90%	93%	4,406
Valid total	100%			4,605
Don't know / Not sure				7
Refused				35
System missing				0
Total				4,647

### 88. I'm going to read a list of racial categories. Which one more of the following do you consider yourself to be? (racemulti)

Asked of all respondents.

#### 88-1. White. (racemulti\_1)

	Estimate	Lower CI	Upper CI	Frequency
Yes	94%	93%	96%	4,411
No	6%	4%	7%	187
Valid total	100%			4,598
Don't know / Not sure				3
Refused				46
System missing				0
Total				4,647

#### 88-2. Black or African American (racemulti\_2)

	Estimate	Lower CI	Upper CI	Frequency
Yes	1%	0%	1%	29
No	99%	99%	100%	4,562
Valid total	100%			4,591
Don't know / Not sure				7
Refused				49
System missing				0
Total				4,647

#### 88-3. Asian (racemulti\_3)

	Estimate	Lower CI	Upper CI	Frequency
Yes	1%	0%	1%	34
No	99%	99%	100%	4,556
Valid total	100%			4,590
Don't know / Not sure				8
Refused				49
System missing				0
Total				4,647

#### 88-4. Native Hawaiian or other Pacific Islander (racemulti\_4)

	Estimate	Lower CI	Upper CI	Frequency
Yes	1%	0%	1%	24
No	99%	99%	100%	4,564
Valid total	100%			4,588
Don't know / Not sure				9
Refused				50
System missing				0
Total	***************************************	***************************************	***************************************	4,647

### 88-5. American Indian or Alaska Native (racemulti\_5)

	Estimate	Lower CI	Upper CI	Frequency
Yes	5%	4%	6%	295
No	95%	94%	96%	4,290
Valid total	100%			4,585
Don't know / Not sure				13
Refused				49
System missing				0
Total				4.647

#### 88-6. Some other racial cateogry (racemulti\_6)

	Estimate	Lower CI	Upper CI	Frequency
Yes	4%	3%	6%	153
No	96%	94%	97%	4,436
Valid total	100%			4,589
Don't know / Not sure				6
Refused				52
System missing				0
Total				4,647

# 88a. Multiple race. (Calculated into mutually exclusive categories; racemulti\_7cat)

	Estimate	Lower CI	Upper CI	Frequency
White only	89%	88%	91%	4,085
Black or African American only	0%	0%	0%	7
Asian only	0%	0%	0%	11
Native Hawaiian or other Pacific Islander	004	0%	0%	1
only	0%	0%	0%	1
American Indian, Alaska Native only	1%	1%	2%	47
Other race only	3%	2%	4%	66
Multiracial	6%	5%	8%	344
Valid total	100%			4,561
Unknown				86
System missing				0
Total				4,647

# 88b. Race/Ethnicity. (Calculated; raceethnic\_8cat)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
White only, non-hispanic	84%	82%	86%	3,967
Black only, non-hispanic	0%	0%	0%	7
Asian only, non-hispanic	0%	0%	0%	11
Native Hawaiian or other Pacific	0%	0%	0%	0
Islander; only, non-hispanic	U%0	0%	0%	U
American Indian, Alaska Native; only,	1.0/-	0%	1%	40
non-hispanic	1%	U70	1 70	40
Other race only, non-hispanic	1%	0%	2%	34
Multiracial, non-hispanic	5%	4%	6%	308
Hispanic	8%	7%	10%	199
Valid total	100%	***************************************		4,566
Unknown			•	81
System missing				0
Total				4,647

### 88c. Race/Ethnicity. (Calculated; raceethnic\_5cat)

	Estimate	Lower CI	Upper CI	Frequency
White only, non-hispanic	84%	82%	86%	3,967
Black only, non-hispanic	0%	0%	0%	7
Asian only, non-hispanic	0%	0%	0%	11
Other, non-hispanic	7%	6%	8%	382
Hispanic	8%	7%	10%	199
Valid total	100%			4,566
Unknown				81
System missing	000000000000000000000000000000000000000	000000000000000000000000000000000000000		0
Total				4,647

# 89. What is the highest level of school you have completed or the highest degree you have received? (Collapsed; educa2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Less than high school diploma, GED, or	9%	7%	11%	184
equivalent	9%	7 %0	1 1 70	104
GED or equivalent	4%	3%	5%	112
High school diploma	26%	23%	28%	1,034
Some college, no degree	19%	17%	21%	891
Post high school certificate or diploma,	100/	17%	21%	806
or associate degree	19%	1 / 90	2190	800
Bachelor's degree	15%	14%	17%	1,038
Master's, professional, or doctoral	8%	7%	00/	F.6.0
degree	8%	7%	9%	569
Valid total	100%			4,634
Don't know / Not sure				3
Refused				10
System missing				0
Total				4,647

#### 90. What is your age? (Collapsed; age)

	Estimate	Lower CI	Upper CI	Frequency
18-24 years	13%	11%	15%	297
25-34 years	19%	16%	21%	439
35-44 years	16%	14%	18%	536
45-54 years	16%	14%	18%	660
55-64 years	18%	16%	20%	998
65+ years	19%	17%	20%	1,641
Valid total	100%	200000000000000000000000000000000000000	200000000000000000000000000000000000000	4,571
Unknown	***************************************			76
System missing		300000000000000000000000000000000000000	320000000000000000000000000000000000000	0
Total				4,647

#### 91. Are you male or female? (gender)

Recorded for all respondents. (Respondents' gender was usually recorded without asking; interviewers read the question only if necessary).

	Estimate	Lower CI	Upper CI	Frequency
Male	51%	48%	53%	2,127
Female	49%	47%	52%	2,520
Other (specify)	0%	0%	0%	0
Valid total	100%			4,647
Don't know / Not sure				0
Refused				0
System missing		•••••	***************************************	0
Total				4,647

### 92. Do you have more than one landline telephone number in your household? (telnosgt1)

Asked of landline respondents only.

	Estimate	Lower CI	Upper CI	Frequency
Yes	2%	1%	3%	77
No	98%	97%	99%	2,055
Valid total	100%			2,132
Don't know / Not sure				1
Refused				17
System missing				2,497
Total				4,647

Note: Landline telephone numbers do not include numbers that are only used by a computer or fax machine.

#### 93. How many of these are residential numbers? (telnosres)

Asked if respondents indicated having more than one landline telephone number in their household.

	Estimate	Lower CI	Upper CI	Frequency
1	65%	49%	81%	37
2	29%	14%	44%	31
3	4%	0%	9%	4
4	0%	0%	1%	1
6	2%	0%	4%	2
Valid total	100%			75
Don't know / Not sure				1
Refused				1
System missing				4,570
Total				4,647

### 94. What county do you live in? (Cleaned; county)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Albany	7%	6%	8%	257
Big Horn	2%	2%	2%	297
Campbell	8%	7%	9%	199
Carbon	3%	2%	3%	182
Converse	2%	2%	3%	175
Crook	1%	1%	2%	192
Fremont	7%	6%	7%	226
Goshen	2%	2%	3%	195
Hot Springs	1%	1%	1%	187
Johnson	2%	1%	2%	191
Laramie	17%	15%	18%	249
Lincoln	3%	3%	4%	224
Natrona	14%	13%	15%	234
Niobrara	0%	0%	1%	147
Park	5%	4%	6%	174
Platte	2%	1%	2%	183
Sheridan	5%	5%	6%	205
Sublette	2%	1%	2%	180
Sweetwater	7%	7%	8%	204
Teton	4%	3%	5%	164
Uinta	3%	3%	4%	182
Washakie	1%	1%	2%	187
Weston	1%	1%	2%	213
Valid total	100%			4,647
Don't know / Not sure				0
Refused				0
System missing				0
Total				4,647

Note: Responses to this question originally included don't know / not sure, refused, and system missing. WYSAC and the CDC contractor backfilled these missing responses during their data cleaning process. Because of the missing responses and backfilling, the counts for the town questions below are not always consistent with the counts in this table.

#### 95. Do you live in Burlington? (wyburlington)

Asked of respondents who live in Big Horn County.

	Estimate	Lower CI	Upper CI	Frequency
Yes	9%	1%	17%	22
No	91%	83%	99%	272
Valid total	100%			294
Don't know / Not sure				0
Refused				0
System missing				4,353
Total				4.647

#### 96. Do you live in Cheyenne? (wycheyenne)

Asked of respondents who live in Laramie County.

	Estimate	Lower CI	Upper CI	Frequency
Yes	87%	81%	92%	217
No	13%	8%	19%	31
Valid total	100%			248
Don't know / Not sure				0
Refused				0
System missing				4,399
Total				4,647

### 97. Do you live in Evanston? (wyevanston)

Asked of respondents who live in Uinta County.

	Estimate	Lower CI	Upper CI	Frequency
Yes	66%	57%	75%	113
No	34%	25%	43%	67
Valid total	100%			180
Don't know / Not sure				0
Refused				0
System missing				4,467
Total				4,647

#### 98. Do you live in Mountain View? (wymv)

Asked of respondents who live in Uinta County, but not in Evanston.

	Estimate	Lower CI	Upper CI	Frequency
Yes	31%	18%	45%	20
No	69%	55%	82%	44
Valid total	100%			64
Don't know / Not sure				1
Refused				0
System missing				4,582
Total				4.647

#### 99. Do you live in Laramie? (wylaramie)

Asked of respondents who live in Albany County.

	Estimate	Lower CI	Upper CI	Frequency
Yes	92%	86%	98%	228
No	8%	2%	14%	26
Valid total	100%			254
Don't know / Not sure				0
Refused				1
System missing				4,392
Total				4,647

#### 100. Do you live in Afton? (wyafton)

Asked of respondents who live in Lincoln County.

	Estimate	Lower CI	Upper CI	Frequency
Yes	26%	16%	36%	47
No	74%	64%	84%	174
Valid total	100%			221
Don't know / Not sure				0
Refused				2
System missing				4,424
Total				4,647

#### 101. Do you live in Casper? (wycasper)

Asked of respondents who live in Natrona County.

	Estimate	Lower CI	Upper CI	Frequency
Yes	84%	78%	90%	194
No	16%	10%	22%	40
Valid total	100%			234
Don't know / Not sure				0
Refused				0
System missing			***************************************	4,413
Total				4,647

#### 102. Do you live in Rock Springs? (wyrs)

Asked of respondents who live in Sweetwater County.

	Estimate	Lower CI	Upper CI	Frequency
Yes	65%	57%	73%	127
No	35%	27%	43%	75
Valid total	100%			202
Don't know / Not sure				0
Refused				0
System missing				4,445
Total				4,647

### 103. Do you live in Green River? (wygr)

Asked of respondents who live in Sweetwater County, but not in Rock Springs.

	Estimate	Lower CI	Upper CI	Frequency
Yes	71%	57%	85%	50
No	29%	15%	43%	25
Valid total	100%			75
Don't know / Not sure				0
Refused				0
System missing				4,572
Total				4,647

# Existing Chronic Conditions and Diseases

(Read to respondents) Now I want to ask you some questions about chronic conditions or diseases you might have.

#### 104. Have you ever been told by a doctor or other health professional that you have heart disease? (heartdisease)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	7%	6%	8%	513
No	93%	92%	94%	4,088
Valid total	100%			4,601
Don't know / Not sure				12
Refused				20
System missing				14
Total	***************************************	***************************************	***************************************	4,647

#### 105. Have you ever been told by a doctor or other health professional that you have cancer, other than skin cancer? (cancer)

	Estimate	Lower CI	Upper CI	Frequency
Yes	6%	5%	7%	419
No	94%	93%	95%	4,191
Valid total	100%			4,610
Don't know / Not sure				3
Refused				20
System missing				14
Total				4,647

#### 106. Have you ever been told by a doctor or other health professional that you have diabetes, or sugar diabetes? (diabetes\_c)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	9%	8%	11%	541
Yes, but female told only during	1%	004	1%	20
pregnancy	1 90	0%	1 70	29
No	90%	89%	92%	4,022
Valid total	100%			4,592
Don't know / Not sure				4
Refused				21
System missing				30
Total				4,647

# 107. Have you ever been told by a doctor or other health professional that you have a chronic lung disease, such as emphysema, chronic bronchitis, or chronic obstructive pulmonary disease, also known as c-o-p-d? (respdisease)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	6%	5%	7%	323
No	94%	93%	95%	4,279
Valid total	100%			4,602
Don't know / Not sure				11
Refused				19
System missing				15
Total				4,647

#### 108. Have you ever been told by a doctor or other health professional that you have asthma? (asthma)

	Estimate	Lower CI	Upper CI	Frequency
Yes	14%	12%	15%	564
No	86%	85%	88%	4,040
Valid total	100%			4,604
Don't know / Not sure				8
Refused				20
System missing				15
Total				4.647

### 109. Have you ever been told by a doctor or other health professional that you have high cholesterol? (cholesterol)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	20%	18%	22%	1,241
No	80%	78%	82%	3,328
Valid total	100%			4,569
Don't know / Not sure				39
Refused				23
System missing				16
Total				4,647

#### 110. Have you ever been told by a doctor or other health professional that you have high blood pressure, or hypertension? (hypertension)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	25%	23%	27%	1,479
No	75%	73%	77%	3,120
Valid total	100%			4,599
Don't know / Not sure				9
Refused				23
System missing			***************************************	16
Total				4,647

#### 111. Do you have any mental health conditions, such as anxiety disorder, depression disorder, bipolar disorder, alcohol abuse, drug abuse, or schizophrenia? (mentalhealth)

	Estimate	Lower CI	Upper CI	Frequency
Yes	18%	16%	20%	623
No	82%	80%	84%	3,972
Valid total	100%			4,595
Don't know / Not sure				7
Refused		•	•••••••••••••••	29
System missing				16
Total				4,647

# Opinions and Attitudes Related to Tobacco

(Read to respondents) Now I would like to ask you a few more questions about your opinions and attitudes related to tobacco.

#### **EXCISE TAXES**

#### 112. Currently Wyoming's cigarette tax is 60 cents per pack. How much of an increase in tax per pack would you approve, if any? (wycigtaxopn3a)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
No increase in the tax	38%	35%	40%	1,538
Up to 50 cents	15%	13%	17%	678
50 cents to 1 dollar	14%	13%	16%	657
\$1.01 to \$1.50	4%	3%	5%	212
More than \$1.50	20%	18%	22%	962
Decrease the tax (volunteered only)	1%	0%	1%	37
Don't know / Not sure (valid)	8%	7%	9%	454
Valid total	100%			4,538
Refused				91
System missing				18
Total	***************************************	***************************************	***************************************	4,647

### 113. Are you for or against an increase in the tax on chewing tobacco, snuff, dip, or snus? (wyslttaxopn)

	Estimate	Lower CI	Upper CI	Frequency
For	55%	52%	57%	2,595
Against	38%	36%	41%	1,574
Don't know / Not sure (valid)	7%	6%	8%	383
Valid total	100%			4,552
Refused		***************************************	***************************************	72
System missing				23
Total	000000000000000000000000000000000000000	***************************************	***************************************	4,647

# 114. Should tobacco use be completely banned on school grounds, including fields and parking lots, and at all school events, even for teachers and other adults? (schoolopn2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Yes	85%	83%	87%	3,912
No	15%	13%	17%	582
Valid total	100%			4,494
Don't know / Not sure				104
Refused				25
System missing				24
Total				4,647

# 115. In order to help someone you know to stop smoking or using other tobacco products, would you like the 1-800 quitline telephone number or the address for a website? (helpnontobac)

Asked of respondents who had never used any type of tobacco or had not used tobacco in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	10%	8%	11%	322
No	90%	89%	92%	3,370
Valid total	100%			3,692
Don't know / Not sure				0
Refused		***************************************	***************************************	0
System missing				955
Total				4,647

Note: If respondents answered "Yes," the interviewer read "The quitline number is 1-800-QUIT NOW OR 1-800-784-8669. A website that tells you about help you can get to stop smoking is www.quitwyo.org."

# 116. In order to get help to stop using tobacco for good, would you like the 1-800 quitline telephone number or the address for a website? (helptobac)

Asked of tobacco users who had used any type of tobacco in the past 30 days.

	Estimate	Lower CI	Upper CI	Frequency
Yes	13%	10%	16%	125
No	87%	84%	90%	806
Valid total	100%			931
Don't know / Not sure				0
Refused				0
System missing				3,716
Total				4,647

Note: If respondents answered "Yes," the interviewer read "The quitline number is 1-800-QUIT NOW OR 1-800-784-8669. A website that tells you about help you can get to stop smoking is www.quitwyo.org."

# Additional Sociodemograhpic Questions

(Read to participants) I have two final questions that are important to the CDC to develop effective programs. Please remember that all answers are private.

### 117. Now I would like to ask about the combined income of everybody who lives with you. Is your annual household income from all sources ...? (income2)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Less than \$20,000	8%	6%	9%	381
\$20,000 to less than \$30,000	8%	7%	10%	382
\$30,000 to less than \$40,000	11%	9%	13%	460
\$40,000 to less than \$50,000	13%	11%	15%	531
\$50,000 to less than \$70,000	17%	15%	19%	718
\$70,000 to less than \$100,000	20%	18%	22%	821
\$100,000 to less than \$150,000	15%	13%	17%	548
\$150,000 or more	8%	7%	9%	312
Valid total	100%			4,153
Don't know / Not sure				177
Refused		***************************************	***************************************	291
System missing				26
Total		***************************************	***************************************	4,647

#### 118. Do you consider yourself to be ...? (sexualorient)

Asked of all respondents.

	Estimate	Lower CI	Upper CI	Frequency
Heterosexual, or straight	96%	94%	97%	4,283
Gay or lesbian	1%	0%	2%	31
Bisexual	2%	1%	3%	46
Transgender	0%	0%	0%	4
Other (specify)	1%	0%	1%	41
Valid total	100%			4,405
Respondent does not understand				27
responses				57
Don't know / Not sure				19
Refused				160
System missing				26
Total				4,647

# **Appendix B: Methods**

## Questionnaire Development

WYSAC developed the 2017 Adult Tobacco Survey (ATS) items based on CDC's core and supplemental ATS items. The Wyoming TPCP and WYSAC selected some optional questions and developed some Wyoming-specific questions based on the indicators most directly related to TPCP efforts in Wyoming. Because the national and Wyoming tobacco prevention programs had been stable since the 2015 iteration of the ATS, few changes to the survey questionnaire were required. Additionally, a key use of the ATS is to monitor trends over time, which requires the relevant questions and skip patterns to remain stable. Adding questions to the survey can create difficulties in achieving goals for completed surveys, providing a disincentive to add interesting, but nonessential, items. Key changes for the 2017 ATS included adding questions about whether dual cigarette and ENDS users first used cigarettes or ENDS, adding questions about use of flavored ENDS and different ENDS brands, simplifying the questions about smoking cessation to focus on the Wyoming Quit Tobacco Program (WQTP), adding an item to assess barriers to quitting smoking, adding items to assess efforts to quit using ENDS, adding items to assess perceived harmfulness of ENDS use (overall and relative to smoking), adding an item to assess the perceived relative benefits of switching from smoking to ENDS use, adding an item to assess mental health as a key disparity in the burden of tobacco use, and shortening the survey (in an effort to improve the response rate) by eliminating questions about children in the adults' homes.

### Survey Administration

#### SAMPLE DESIGN

The random digit dialing (RDD) landline and RDD cell phone samples for the 2017 Wyoming ATS were disproportionately stratified to produce county-level data. The goal was to complete roughly 200 surveys in each geostrata (county) for a statewide total of 4,600 surveys. Marketing Systems Group (M-S-G) generated the sample under direction of the CDC.

#### SAMPLE MANAGEMENT

As WYSAC received the sample from the CDC in waves, each wave was release and worked until nearly exhausted before the next wave was released. After the first two waves of both the landline and cellular samples were nearly exhausted, WYSAC calculated response rates by geostrata and phone type and provided them to the CDC. The CDC then adjusted the sample

proportions for the upcoming waves of sample to achieve the target number of completions in each geostrata.

WYSAC released and worked the sample, following CDC guidelines. (Guidelines for Conducting General Population State Adult Tobacco Telephone Surveys, produced by the CDC in 2011, includes these guidelines, but is not readily available to the public.) For the landline sample, WYSAC released only numbers which were not pre-screened as disconnected, cell phone, or businesses for calling. M-S-G identified cell phone numbers and added them to the cell phone sample before delivery. For the cellular sample, M-S-G's CellWINS screening service was used to prescreen non-working cellular numbers from the cellular sample prior to fielding. WYSAC attempted calling all numbers until a final disposition was achieved. WYSAC released complete replicates (subsets of the sample). Replicates were never broken. The reasoning behind this rule is that each replicate is a probability sample in itself. Once a replicate of phone numbers was released for calling, WYSAC called all released numbers until they received a final disposition code. Final disposition codes were assigned to landline telephone numbers which had not already received a final disposition only after (a) at least five calling occasions (each consisting of no more than three attempts at least one hour apart) for a minimum total of 15 call attempts, and (b) the 15 or more call attempts consisting of at least three weekday calls, three weeknight calls, and three weekend calls. The rules governing the assignment of final disposition codes are imbedded in the Ci3 program of the questionnaire and follow the CDC's guidelines.

The CDC's guidelines require attempting soft refusals (for example, potential respondents who say they do not have time to complete a survey when first called) again in an effort at refusal conversion. WYSAC's most experienced and specially trained interviewers handled these soft refusals. WYSAC attempted these numbers until receiving a second refusal (final), a completed survey, or other final disposition.

In total, 155,880 landline and cellular telephone numbers were generated for this study. Of those, the sample provider pre-screened 73,195 as disconnected, non-working, or business numbers; therefore, these telephone numbers were not attempted. WYSAC did not attempt an additional 6,930 numbers due to replicates not being released or the number appearing on WYSAC's internal Do Not Call list generated from other surveys where people have asked not to be called again. A total of 356,204 attempts were made on the remaining 75,755 numbers in the effort to reach a final disposition. WYSAC called some numbers up to 27 times before assigning a final disposition code, which resulted in a 4.7 average number of call attempts per record.

#### FIELDING PERIOD

Well-trained WYSAC telephone interviewers conducted the telephone interviews. Most interviewers had significant experience on previous Adult Tobacco Surveys conducted by WYSAC for other states in recent years. Calling began on April 30th, 2017, and ended on December 20th, 2017. Over the course of the fielding period, calling took place on Sunday through Thursday evenings until 9:00 pm, as well as Tuesday, Thursday, Friday, and Saturday afternoons beginning at noon.

### Response Rates

After the CDC contractor finalized the dataset, the final dataset contained a total of 4,647 completes (meeting the goal of 4,600 completes statewide), including 2,152 landline completes and 2,495 cell phone completes. The American Association for Public Opinion Research Response Rate 3 (AAPOR RR3) for the landline sample was 27% while the AAPOR RR3 for the cell phone sample was 38%. The AAPOR RR3 was 33% overall. (The 2017 Wyoming Adult Tobacco Survey Weighting Specifications, produced by the CDC contractor in 2018, includes these response rates and the weighting method used for the 2017 Wyoming ATS, but is not readily available to the public.) The average interview length was 18 minutes and 48 seconds.

## Weighting

After the completion of the data collection, the CDC contractor weighted the 2017 ATS data to make the results more representative of the Wyoming adult population. The contractor calculated the final analytic weights, based on selection probability, nonresponse adjustment, and post-stratification demographic characteristics (2017 Wyoming Adult Tobacco Survey Weighting Specifications).

Post-stratification demographic characteristics included county, phone usage (cell phone only, landline only, and dual phone use), gender by age, race/ethnicity, and educational attainment (2017 Wyoming Adult Tobacco Survey Weighting Specifications). The contractor used population estimates for these characteristics as benchmarks to adjust sampling weights. Population estimates for county, age by gender, and race correspond to the U.S. Census Bureau's population estimates as of July 1, 2015. The contractor derived the phone usage data from 2015 estimates provided by the National Health Interview Survey Early Release Program. The contractor based population estimates for educational attainment on the 2015 American Community Survey (ACS) One-Year Summary File.

The weighting process involves computing and assigning a weight to each survey respondent. The weight does not change a respondent's answers; it is the number of population units (e.g., individuals) represented by the respondent. Data that have been adjusted by using the weights are called weighted data. Weighted data for the 2017 ATS are generally more reflective of the entire Wyoming adult population than the unweighted data and should be used when reporting statewide percentages.

### Analysis

WYSAC analyzed the data using Stata, version 12.1, with the complex sample survey methods available in that statistical package. In the tables and figures of this report, WYSAC used weighted data to calculate estimates and associated confidence intervals. To calculate 95% confidence intervals around point estimates, WYSAC calculated margins of error (ME) using the formula ME = 1.96 \* SE, where SE is the linearized standard error of the estimate.

WYSAC used logistic regressions to test for trends for time periods longer than two years. Generally, trends reported in this document are based on the earliest year a comparable question was asked through 2017. WYSAC also used logistic regression to identify statistically significant associations between outcomes and their correlates.

The CDC protocols for the 2017 ATS, the 2010 National Adult Tobacco Survey, and the previous iterations of the ATS (2002, 2004, 2006–2009, 2012, 2015) were generally similar, which allowed WYSAC to perform analyses of trends for comparable questions on the surveys. For analyses of trends, WYSAC merged data files from the various years when item content and skip patterns were similar.

# **Appendix C: Detailed Statistical** Results

WYSAC performed two sets of logistic regression, one to analyze support for smokefree indoor laws and another to analyze chronic diseases. Appendix C provides details of these statistical analyses summarized in the body of the report. WYSAC does not provide interpretations of the results in Appendix C because they are provided in the body of the report.

## Support for Smokefree Laws

WYSAC performed logistic regression analyses to identify associations between supporting state smoke free air laws in different venues (dependent variable) and demographic groups (independent variables). We developed a model for each of the four venues (a) indoor workplaces, (b) restaurants, (c) bars, and (d) casinos and clubs. WYSAC modeled each of these dependent variables as a function of dummy-coded demographic variables: age, gender, annual household income, highest level of education completed, race, ethnicity, and sexual orientation.

Tables C1 to C4 report the logistic regression results. Each table reports group size; percentages of Wyoming adults in each demographic group supporting a state smokefree air law for the specified venue and their 95% confidence intervals (CIs); and logistic regression results including the odds ratios (ORs) for each level of independent variable (except for reference groups), their 95% CIs, and their p-values. Logistic regression produces estimates for each independent variable while controlling for all other independent variables. WYSAC used p < .05 to determine statistical significance.

### Table C1: Support for A State Smokefree Indoor Air Law Covering Indoor Workplaces

Do you support or oppose a state law in Wyoming banning smoking in all indoor workplaces?

***************************************										
							Logistic R	egress	ion	
		Group	% of	Support	t		(n = 3	3,791)		
Demographics	;	Size	Estimate	959	% CI	OR	95%	CI	P-value	
Age	18-24	286	88%	83%	94%	2.85	1.60	5.08	<.001	
	25-34	421	76%	69%	82%	0.90	0.58	1.38	0.627	
	35-44	516	83%	78%	87%	1.28	0.83	1.97	0.272	
	45-54	636	82%	77%	87%	1.16	0.77	1.74	0.476	
	55-64	953	75%	70%	80%	0.92	0.63	1.33	0.649	
	65+	1,553	77%	74%	81%		Age Re	ference	2	
Gender	Men	2,024	74%	71%	77%	0.48	0.37	0.64	<.001	
	Women	2,409	85%	83%	88%		Gender F	Referen	erence	
Income	<\$30,000	713	75%	68%	81%	0.62	0.43	0.91	0.014	
	\$30,000+	3,267	81%	79%	84%		Income F	Referen	ce	
Education	Associate or less	2,877	78%	75%	80%	0.57	0.42	0.78	<.001	
	Bachelor or higher	1,546	86%	83%	89%	Е	ducation	Refere	nce	
Race	White	3,905	81%	79%	83%		Race Re	eferenc	е	
	Non-White	446	73%	64%	82%	0.71	0.43	1.19	0.196	
Ethnicity	Hispanic	189	83%	75%	91%	0.99	0.50	1.97	0.973	
	Non-Hispanic	4,205	80%	77%	82%	Ethnicity Reference			nce	
Sexual	Straight	4,100	80%	78%	82%	Sexuality Reference			nce	
orientation	LGBT	117	68%	50%	85%	0.42	0.18	0.96	0.040	

Note. OR = odds ratio; CI = confidence interval.

### Table C2: Support for A State Smokefree Indoor Air Law Covering Restaurants

Do you support or oppose a state law in Wyoming banning smoking in all restaurants?

***************************************			***************************************				Logistic R	egress	ion
		Group	% of	Support	t			3,879)	
Demographics	5	Size	Estimate	95% CI		OR			P-value
Age	18-24	292	80%	73%	88%	1.84	1.06	3.20	0.031
	25-34	433	76%	69%	82%	0.96	0.63	1.47	0.859
	35-44	527	82%	77%	87%	1.10	0.73	1.67	0.638
	45-54	647	84%	79%	88%	1.27	0.82	1.96	0.278
	55-64	981	75%	70%	80%	0.84	0.58	1.21	0.344
	65+	1,598	76%	72%	80%		Age Re	ference	9
Gender	Men	2,077	73%	69%	76%	0.42	0.32	0.56	<.001
	Women	2,472	85%	82%	88%		Gender I	Referen	ice
Income	<\$30,000	734	70%	63%	76%	0.50	0.35	0.72	<.001
	\$30,000+	3,342	81%	79%	83%		Income F	Referen	ice
Education	Associate or less	2,956	77%	74%	80%	0.71	0.53	0.95	0.023
	Bachelor or higher	1,581	84%	81%	87%	E	ducation	Refere	nce
Race	White	4,000	79%	77%	82%		Race Re	eferenc	e
	Non-White	466	73%	65%	81%	0.65	0.41	1.03	0.069
Ethnicity	Hispanic	195	87%	81%	94%	1.81	0.91	3.58	0.090
	Non-Hispanic	4,317	78%	76%	80%	Ethnicity Reference			nce
Sexual	Straight	4,202	79%	77%	82%	Sexuality Reference			nce
orientation	LGBT	120	65%	47%	82%	0.36	0.17	0.75	0.007

Note. OR = odds ratio; CI = confidence interval.

Table C3: Support for A State Smokefree Indoor Air Law Covering Bars

Do you support or oppose a state law in Wyoming banning smoking in all bars?

									·
		_		_			Logistic R	U	ion
		Group	% of	Support	t	(n = 3,755)			
Demographics	5	Size	Estimate	959	% CI	OR	95%	CI	P-value
Age	18-24	284	47%	38%	55%	1.09	0.71	1.68	0.679
	25-34	425	47%	40%	54%	0.79	0.56	1.11	0.174
	35-44	515	54%	48%	61%	0.82	0.58	1.14	0.235
	45-54	623	56%	49%	62%	0.92	0.65	1.31	0.651
	55-64	954	53%	48%	59%	0.91	0.68	1.23	0.542
	65+	1,523	55%	51%	60%		Age Re	ference	е
Gender	Men	2,023	47%	43%	50%	0.61	0.49	0.76	<.001
	Women	2,370	58%	54%	62%		Gender I	Referer	ice
Income	<\$30,000	718	44%	37%	50%	0.62	0.45	0.86	0.004
	\$30,000+	3,227	54%	52%	57%		Income F	Referen	ice
Education	Associate or less	2,854	49%	46%	52%	0.56	0.45	0.71	<.001
	Bachelor or higher	1,528	65%	61%	68%	Е	ducation	Refere	nce
Race	White	3,871	53%	50%	55%		Race Re	eferenc	е
	Non-White	441	52%	43%	61%	1.08	0.72	1.61	0.710
Ethnicity	Hispanic	189	57%	46%	67%	1.30	0.75	2.26	0.347
	Non-Hispanic	4,168	52%	49%	55%	Ethnicity Reference			nce
Sexual	Straight	4,064	53%	51%	56%	Sexuality Reference			nce
orientation	LGBT	118	34%	21%	47%	0.41	0.22	0.76	0.005

Note. OR = odds ratio; CI = confidence interval.

### Table C4: Support for A State Smokefree Indoor Air Law Covering Casinos and Clubs

Do you support or oppose a state law in Wyoming banning smoking in all casinos and clubs?

***************************************					***************************************		Logistic F	)oarocc	ion
		Cuann	0/ 04	· C	_		Logistic F	.egress 3,760)	1011
		Group	ļ	Suppor			***************************************		
Demographics		Size	Estimate	959	% CI	OR	95%	CI	P-value
Age	18-24	284	45%	37%	54%	0.74	0.49	1.13	0.166
	25-34	424	47%	40%	54%	0.73	0.52	1.02	0.069
	35-44	514	56%	50%	62%	0.85	0.61	1.19	0.339
	45-54	626	58%	52%	64%	0.86	0.61	1.21	0.388
	55-64	957	54%	49%	60%	0.85	0.63	1.14	0.271
	65+	1,530	58%	54%	63%		Age Re	ference	9
Gender	Men	2,028	48%	44%	51%	0.60	0.49	0.75	<.001
	Women	2,375	60%	56%	63%		Gender I	Referen	ice
Income	<\$30,000	723	49%	42%	56%	0.83	0.61	1.13	0.239
	\$30,000+	3,231	55%	52%	57%		Income F	Referen	ce
Education	Associate or less	2,863	51%	48%	54%	0.64	0.51	0.80	<.001
	Bachelor or higher	1,529	63%	59%	66%	E	ducation	Refere	nce
Race	White	3,878	54%	52%	57%		Race Re	eferenc	e
	Non-White	446	46%	37%	55%	0.73	0.49	1.09	0.126
Ethnicity	Hispanic	183	57%	47%	68%	1.11	0.64	1.91	0.707
	Non-Hispanic	4,183	53%	51%	56%	Ethnicity Reference			nce
Sexual	Straight	4,062	55%	52%	57%	Sexuality Reference			nce
orientation	LGBT	121	35%	22%	48%	0.48	0.25	0.91	0.024

Note. OR = odds ratio; CI = confidence interval.

### Chronic Diseases

WYSAC performed logistic regression analyses to identify associations between adults' selfreported chronic disease diagnoses and having smoked at least 100 cigarettes when controlling for age. WYSAC produced a model for each of seven dependent variables: (a) heart disease, (b) cancer other than skin cancer, (c) diabetes or sugar diabetes, (d) a chronic lung disease, (e) asthma, (f) high cholesterol, and (g) high blood pressure or hypertension. Data were based on respondents' saying whether they have been told by a health professional that they have each chronic disease. For these analyses, Tables C5 to C11 present results of the seven logistic regression models reporting group size; percentage of Wyoming adults having each chronic disease and their 95% CIs; and logistic regression results including ORs (except for reference groups), their 95% CIs, and their p-values. Logistic regression produces estimates for each independent variable while controlling for all other independent variables. WYSAC used p < .05 to determine statistical significance.

Table C5: Association between Heart Disease and Having Smoked at Least 100 Cigarettes in Lifetime

*Have you ever been told by a doctor or other health professional that you have heart disease?* 

***************************************			***************************************	•••••••	***************************************	l	Logistic F	Regress	ion
		Group	% of	Disease	9		(n = 4	4,515)	
Demographics		Size	Estimate	959	% CI	OR	95%	CI	P-value
Smoking	Smoked 100+ cigarettes	1,816	11%	9%	13%	2.35	1.73	3.19	<.001
	Smoked 0-99 cigarettes	2,770	4%	3%	5%	Smoker Reference			
Age	18-24	294	1%	0%	2%	0.04	0.01	0.11	<.001
	25-34	437	1%	0%	2%	0.03	0.01	0.07	<.001
	35-44	533	1%	0%	2%	0.04	0.01	0.11	<.001
	45-54	656	3%	1%	4%	0.10	0.06	0.18	<.001
	55-64	987	10%	7%	13%	0.36	0.25	0.53	<.001
	65+	1,623	23%	20%	27%		Age Re	ference	5

Note: OR = odds ratio; CI = confidence interval.

### Table C6: Association between Cancer and Having Smoked at Least 100 **Cigarettes in Lifetime**

Have you ever been told by a doctor or other health professional that you have cancer, other than skin cancer?

						l	₋ogistic F		ion
		Group	% of	Disease	į		(n = 4	4,523)	
Demographics		Size	Estimate	959	% CI	OR	95%	Cl	P-value
Smoking	Smoked 100+ cigarettes	1,823	7%	5%	8%	1.13	0.79	1.62	0.496
	Smoked 0-99 cigarettes	2,772	5%	4%	6%	Smoking Reference			
Age	18-24	294	1%	0%	3%	0.06	0.02	0.22	<.001
	25-34	437	1%	0%	1%	0.03	0.01	0.07	<.001
	35-44	535	1%	0%	2%	0.05	0.02	0.13	<.001
	45-54	656	4%	2%	6%	0.19	0.11	0.33	<.001
	55-64	988	7%	5%	10%	0.36	0.23	0.57	<.001
	65+	1,628	18%	15%	22%		Age Re	ference	9

Note: OR = odds ratio; CI = confidence interval.

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### Table C7: Association between Diabetes and Having Smoked at Least 100 **Cigarettes in Lifetime**

Have you ever been told by a doctor or other health professional that you have diabetes, or sugar diabetes?

***************************************			***************************************	***************************************		ı	_ogistic F	egress	ion
		Group	% of Disease			(n = 4,506)			
Demographic	Demographics		Estimate	ate 95% CI		OR	95%	CI	P-value
Smoking	Smoked 100+ cigarettes	1,818	12%	10%	15%	1.66	1.19	2.32	0.003
	Smoked 0-99 cigarettes	2,759	7%	6%	8%	9	Smoking	Reference	
Age	18-24	291	3%	0%	5%	0.12	0.05	0.31	<.001
	25-34	433	2%	1%	4%	0.10	0.04	0.21	<.001
	35-44	534	5%	2%	9%	0.22	0.10	0.48	<.001
	45-54	655	8%	5%	12%	0.35	0.21	0.60	<.001
	55-64	985	13%	10%	17%	0.60	0.41	0.87	0.007
	65+	1,623	21%	17%	24%		Age Re	ference	е

Note: OR = odds ratio; CI = confidence interval.

Note: For the logistic regression of diabetes, WYSAC combined gestational diabetes with not having diabetes.

### Table C8: Association between Chronic Lung Disease and Having Smoked at **Least 100 Cigarettes in Lifetime**

Have you ever been told by a doctor or other health professional that you have a chronic lung disease, such as emphysema, chronic bronchitis, or chronic obstructive pulmonary disease, also known as COPD?

***************************************					***************************************	Logistic Regress			ion
		Group	% of Disease			(n = 4,516)			
Demographic	S	Size	Estimate	959	95% CI		95%	CI	P-value
Smoking	Smoked 100+ cigarettes	1,816	11%	8%	14%	5.44	3.03	9.77	<.001
	Smoked 0-99 cigarettes	2,771	2%	1%	3%	Smoking Reference			nce
Age	18-24	293	4%	0%	10%	0.37	0.06	2.28	0.283
	25-34	436	1%	0%	2%	0.07	0.03	0.15	<.001
	35-44	533	1%	0%	2%	0.06	0.02	0.17	<.001
	45-54	657	5%	2%	8%	0.37	0.18	0.75	0.006
	55-64	989	9%	6%	12%	0.66	0.42	1.03	0.069
	65+	1,623	14%	11%	17%		Age Re	ference	5

Note: OR = odds ratio; CI = confidence interval.

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### Table C9: Association between Asthma and Having Smoked at Least 100 **Cigarettes in Lifetime**

Have you ever been told by a doctor or other health professional that you have asthma?

						l	₋ogistic F	Regress	ion
		Group	% of	Disease	<u> </u>		(n = 4	4,519)	
Demographics		Size	Estimate 95% CI		OR	95%	CI	P-value	
Smoking	Smoked 100+ cigarettes	1,819	15%	11%	19%	1.34	0.93	1.93	0.119
	Smoked 0-99 cigarettes	2,770	12%	10%	14%	Smoking Reference			nce
Age	18-24	293	17%	10%	25%	1.66	0.88	3.13	0.120
	25-34	437	17%	11%	24%	1.50	0.89	2.54	0.129
	35-44	533	9%	6%	12%	0.73	0.47	1.15	0.174
	45-54	657	12%	9%	16%	1.04	0.67	1.62	0.853
	55-64	990	14%	10%	17%	1.16	0.78	1.70	0.468
	65+	1,624	12%	10%	15%		Age Re	ference	е

Note: OR = odds ratio; CI = confidence interval.

### Table C10: Association between High Cholesterol and Having Smoked at **Least 100 Cigarettes in Lifetime**

Have you ever been told by a doctor or other health professional that you have high cholesterol?

***************************************					***************************************	ı	ogistic R	egress	ion	
		Group	% of Disease			(n = 4,485)				
Demographic	s	Size	Estimate	95% CI		OR	95%	CI	P-value	
Smoking	Smoked 100+ cigarettes	1,803	22%	19%	25%	1.08	0.85	1.36	0.543	
	Smoked 0-99 cigarettes	2,751	18%	16%	20%	9	moking	Refere	ence	
Age	18-24	294	2%	0%	4%	0.02	0.01	0.07	<.001	
	25-34	434	3%	2%	5%	0.04	0.03	0.08	<.001	
	35-44	532	11%	7%	15%	0.15	0.10	0.24	<.001	
	45-54	654	18%	13%	22%	0.28	0.19	0.40	<.001	
	55-64	979	35%	30%	40%	0.69	0.53	0.91	0.007	
	65+	1,607	44%	40%	48%		Age Re	ference	5	

Note: OR = odds ratio; CI = confidence interval.

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### Table C11: Association between Hypertension and Having Smoked at Least 100 Cigarettes in Lifetime

Have you ever been told by a doctor or other health professional that you have high blood pressure, or hypertension?

					***************************************	L	ogistic R	egress	ion
		Group	% of Disease		(n = 4,515)				
Demographics		Size	Estimate	95% CI		OR	95%	Cl	P-value
Smoking	Smoked 100+ cigarettes	1,818	28%	25%	31%	1.18	0.93	1.49	0.164
	Smoked 0-99 cigarettes	2,766	22%	20%	24%	Smoking Reference			
Age	18-24	294	3%	1%	6%	0.03	0.01	0.07	<.001
	25-34	436	8%	5%	12%	0.08	0.05	0.13	<.001
	35-44	534	14%	10%	19%	0.14	0.10	0.21	<.001
	45-54	657	23%	18%	29%	0.27	0.19	0.37	<.001
	55-64	987	37%	32%	42%	0.51	0.39	0.68	<.001
	65+	1,622	54%	50%	58%	Age Reference			

Note: OR = odds ratio; CI = confidence interval.