



Smokefree Communities in Wyoming: Sheridan Survey

Report to the Wyoming Department of Health
Substance Abuse Division

By

Marcus McLean, Graduate Assistant
Laura Feldman, Ed.S., Principal Investigator
Shannon Powell, Graduate Assistant

With the assistance of

Shana Gillette, Ph.D., Assistant Research Scientist
Elissa Hansen, Graduate Assistant

Wyoming Survey & Analysis Center
University of Wyoming
710 Garfield • Suite 320
Laramie, WY 82072
(307) 742-2223 • wysac@uwyo.edu

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1. Executive Summary

In November 2005, the Wyoming Survey and Analysis Center (WYSAC) conducted a telephone survey of Sheridan residents regarding their attitudes toward smokefree environments and a smokefree ordinance. The conclusions presented are valid for the residents of Sheridan, Wyoming, but are not valid for all of Wyoming. The total sample size was 516 respondents.

The majority of adults surveyed in Sheridan

- believed that breathing second-hand smoke is harmful (89%).
- believed that a smokefree ordinance would improve Sheridan public health (68%).
- preferred completely smokefree restaurants (73%).

Although their reasons varied, 50% of all respondents said that they would be happy, 29% responded that they would be neutral, and only 21% said that they would be unhappy if Sheridan passed a smokefree ordinance. Three factors influenced respondents' feelings toward the passage of a smokefree ordinance.

The first factor concerned the debate between health and rights. A respondent's opinion on this issue was most influential when determining how he or she felt about a smokefree ordinance.

- Respondents who saw a smokefree ordinance as a health issue strongly supported implementing an ordinance.
- Those who saw a smokefree ordinance as a rights issue broke into two groups:
 - those who saw the right to smokefree air as more important than the owner's right to decide policy tended to favor a smokefree ordinance.
 - those who believed that business owners should decide smoking policies tended to be unhappy with a smokefree ordinance.

The next influential factor was an individual's smoking status (16% of respondents were smokers).

- Smokers
 - were strongly opposed to a smokefree ordinance.
 - strongly believed that support for such an ordinance to be a matter of rights, not a matter of health.
 - expected their own attendance at bars and restaurants to decrease if Sheridan passed a smokefree ordinance.
 - thought that a smokefree ordinance would have little or no effect on Sheridan public health.
- Non-smokers were much more likely to be happy with a smokefree ordinance.

Finally, the last factor that affected feelings toward a smokefree ordinance related to the anticipated economic impact from a smokefree ordinance.

- Most people believed that a smokefree ordinance would negatively affect restaurant, bar, and private club revenues; smokers felt that the impact would be more negative.
- The more negative an outcome the respondent expected, the more likely he or she was to be unhappy about smokefree legislation.
- Although most people anticipated that revenues would decrease for bars, restaurants, and private clubs, the majority of these same individuals also anticipated that *they* would *not* change how often they would go to restaurants and bars.

2. Introduction

In November 2005, the Wyoming Survey and Analysis Center (WYSAC), contracted by the Wyoming Department of Health, Substance Abuse Division (SAD), conducted a survey of Sheridan residents regarding their attitudes toward smokefree environments. WYSAC adapted the Sheridan survey from the Laramie Smoking Ordinance Survey. This report presents results and conclusions based on data from the adapted survey. The conclusions presented are valid for the residents of Sheridan, Wyoming, but are not valid for all of Wyoming.

3. Organization of Report

The remainder of this report is organized around five main sections. Section 4 describes the methods used to administer the survey and to collect data. Section 5 presents a snapshot of the respondents' demographics. Section 6 reports the key findings in five topic areas concerning respondents' feelings toward a smokefree policy:

- 6.1. Perceived health benefits from a smokefree policy
- 6.2. Smokefree legislation as a matter of health versus rights
- 6.3. Preferences for non-smoking restaurants, bars, and private clubs
- 6.4. Anticipated economic effects
- 6.5. Overall feelings toward a smokefree policy

Section 7 discusses overall conclusions suggested by the key findings and profile analysis. Section 8 contains four appendices. Appendix A provides the survey questionnaire and frequency data for each question. Appendix B lists the responses to two open-ended questions in the survey. Appendix C provides information about odds. Appendix D provides information about the statistical results.

4. Methods

WYSAC adapted the Laramie Smokefree Ordinance Survey for administration in Sheridan. The original survey, developed in consultation with SAD, assessed the impact of Laramie's smokefree ordinance, which went into effect in April 2005. In the survey adapted for use in Sheridan, all but two questions were fixed-response questions (e.g., strongly agree, agree, neutral, disagree, or strongly disagree).

Using Random Digit Dialing (RDD), WYSAC's Survey Research Center (SRC) administered the questionnaire to a representative sample of Sheridan households by telephone. Trained WYSAC interviewers called Sheridan residents, 18 and older, between November 7 and November 30, 2005. The SRC attempted to contact individuals fifteen times before excluding anyone from the sample. A total of 516 respondents completed the survey. Based on this sample, the statistical margin of error when estimating a specific percentage was approximately 4.4%.

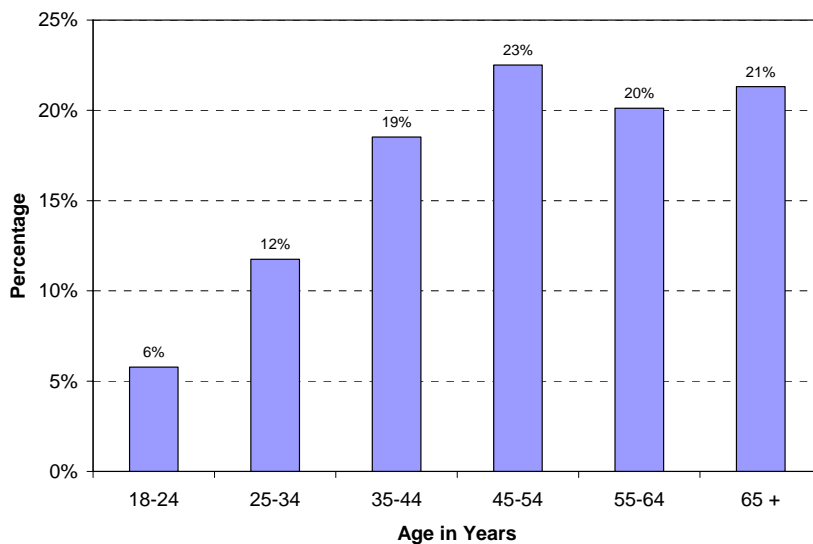
WYSAC then analyzed the data using SPSS, version 13.0. Although researchers collected and analyzed data on 22 demographic variables, we only report those variables that had a statistically significant influence on responses. Appendix A contains frequencies on all survey items. Percentage calculations excluded missing values such as "don't know" or "no response." Thus, the sample size varies across different questions. In addition, for most analyses involving smoking status, we retained the three smoking groups (smokes daily, smokes occasionally, or does not smoke). When the distinction between daily smoking and occasional smoking did not appear meaningful or statistically significant, we combined these two groups.

Statistical analyses included frequencies and cross-tabulations. Researchers used the overall Pearson chi-square test to interpret significance and used proportions tests to follow up and isolate any significant differences. WYSAC used a multinomial logistic regression model to assess the factors that influenced people's feelings (i.e. happy, neutral, or unhappy) regarding a smokefree ordinance and the extent of each factor's influence on their feelings. All results presented in the body of this report are statistically significant at the $\alpha = 0.05$ level. With any survey, the chance of spurious results exists; however, setting statistical significance at this level means that we are at least 95% confident that our results and conclusions are accurate.

5. Demographics

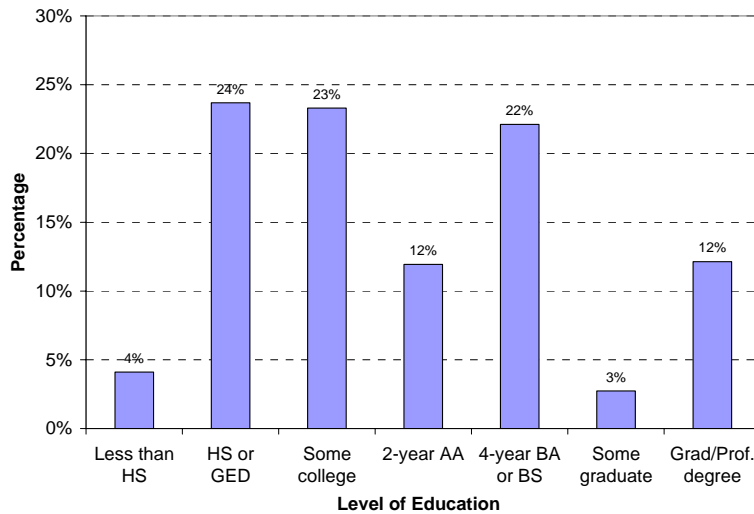
- The average age of respondents was 51 years with the largest group of respondents between 45 and 54 years old. No individuals under the age of 18 completed the survey. Figure 1 displays the age distribution.

Figure 1. Age of Respondents (n = 502)



- 56% of the respondents were female and 44% were male.
- 97% of the Sheridan respondents identified themselves as White/non-Hispanic.
- 84% of respondents reported that they do not smoke, 12% reported that they smoke every day, and 4% reported that they smoke some days.
- 48% of the respondents identified themselves as politically conservative, 20% said that they were liberal, 30% felt that they were middle-of-the-road, and 1% identified themselves as libertarian (numbers do not sum to 100% because of rounding).
- 24% of respondents reported that they had a high-school diploma or GED, and 45% had either some college or a bachelor's degree. Figure 2 shows the distribution for level of education.

Figure 2. Education of Respondents (n = 511)

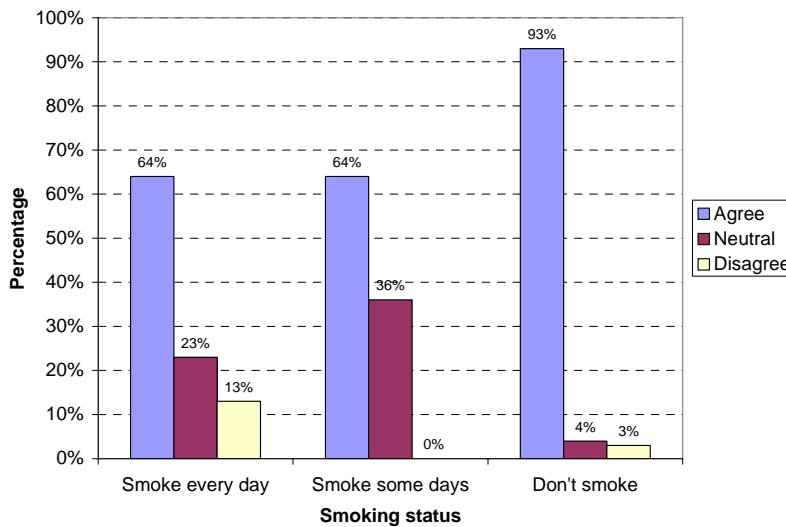


6. Key Findings

6.1. Perceived health benefits from a smokefree policy

The overwhelming majority of those surveyed (89%) responded that breathing secondhand smoke is harmful to one’s health. Figure 3 demonstrates that people’s smoking status significantly influenced their opinions of the dangers of secondhand smoke. Of survey respondents who don’t smoke, 93% felt that breathing secondhand smoke is harmful, while only 64% of survey respondents who smoke every day or those who smoke some days felt the same. “Strongly agree” and “agree” were combined into “agree,” and “disagree” and “strongly disagree” were combined into “disagree.”

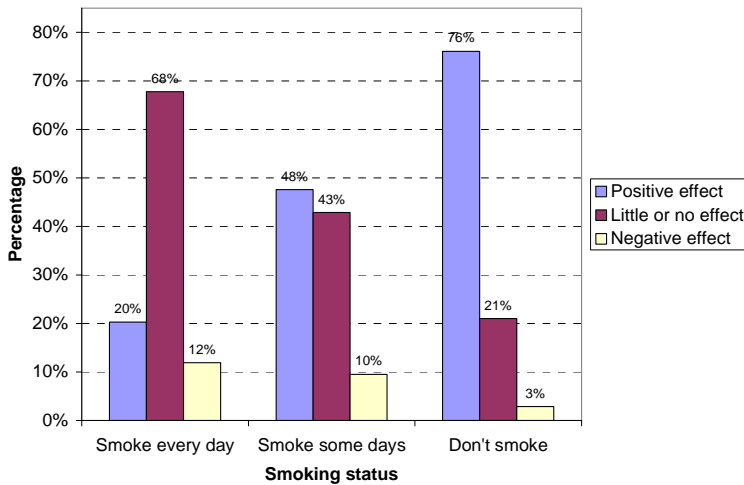
Figure 3. Responses to “Breathing Others’ Cigarette Smoke is Harmful” (n = 512)



About two-thirds (68%) of respondents also felt that a smokefree ordinance would improve Sheridan public health. However, respondents who smoke daily were significantly more likely (68%) to think that a smokefree ordinance would have little or no effect on health than occasional smokers

(43%) or non-smokers (21%) were. Non-smokers were much more likely (76%) to agree that such a law would positively affect the health of Sheridan residents. Figure 4 shows respondents' feelings on whether a smokefree law would have a positive, negligible, or negative effect on Sheridan's public health.

Figure 4. Feelings about a Smokefree Law's Effect on Sheridan Public Health (n = 499)

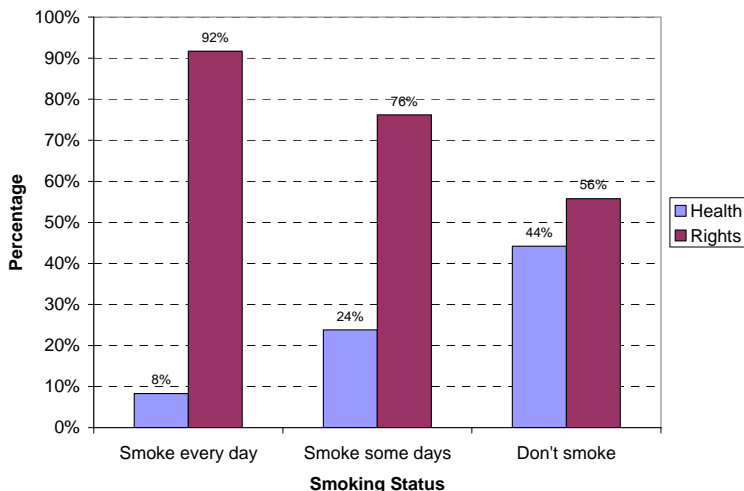


6.2. Smokefree laws as a matter of health versus rights

Although the majority of respondents felt that a smokefree ordinance would improve Sheridan's public health, when asked if they considered a smokefree ordinance a matter of rights or a matter of health, almost two-thirds (61%) characterized it as primarily a matter of rights. Smoking behavior, level of education, and sex significantly influenced respondents' opinions.

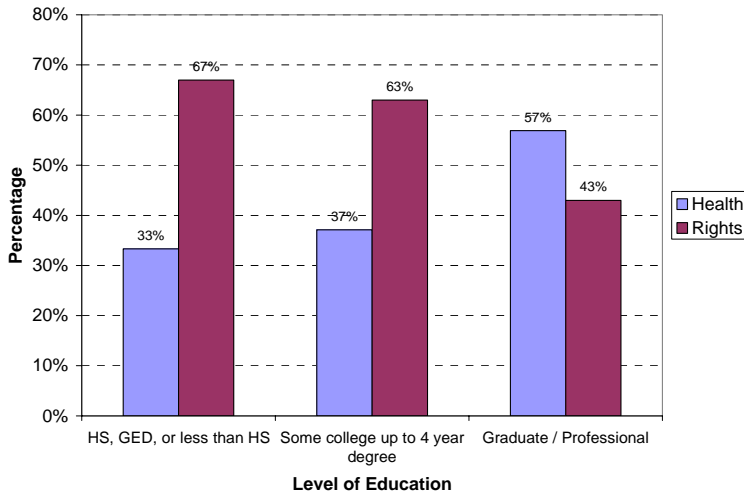
- As Figure 5 shows, daily smokers and occasional smokers strongly believed a smokefree ordinance was a question of rights (92% and 76%, respectively).
- Non-smokers' beliefs were more evenly split; 56% saw an ordinance as a matter of rights.
- Note that the difference between daily and occasional smokers was not significant.

Figure 5. Health vs. Rights by Smoking Status (n = 486)



- Respondents with less education were more likely to believe that a smokefree ordinance is a matter of rights. Those with higher levels of education were more likely to believe that it comes down to a matter of health (see Figure 6). Note that no significant differences existed between those with a 4-year degree and those with a high school diploma or less.

Figure 6. Health vs. Rights by Education Level (n = 484)



- Two-thirds (68%) of men believed that support for a smokefree ordinance is a matter of rights, while women were more evenly split (56% saw it as a matter of rights).

Although two-thirds of those in the sample believed support for a smoke-free ordinance came down to a matter of rights, respondents were evenly divided as to *whose* rights should take precedence. Overall, 55% reported that it was a business owner's right to decide whether to allow smoking, while 45% of respondents reported that it was an individual's right to breathe smokefree air. Smoking behavior significantly influenced respondents' opinions.

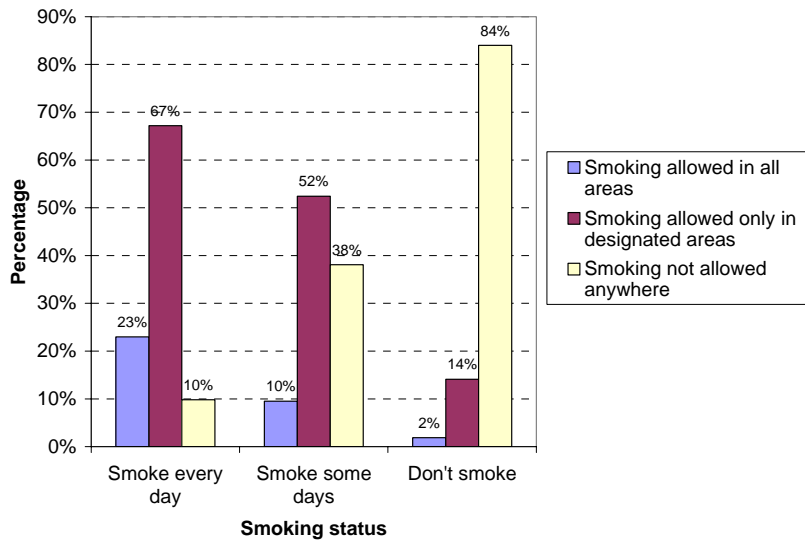
- 87% of daily smokers agreed with the statement, "Business owners should have the right to decide the smoking policy for their businesses," whereas only 49% of non-smokers agreed with the statement.

6.3. Preferences for non-smoking restaurants, bars, and private clubs

If given a choice between three identical *restaurants* that only differed in smoking policy, almost three-quarters (73%) of all respondents would choose a restaurant that did not allow smoking anywhere rather than one that allowed smoking either in designated areas or in all areas. Figure 7 shows that smokers and non-smokers held different views regarding their preferred smoking policy.

- The overwhelming majority (84%) of non-smokers preferred to eat in a restaurant that was entirely smokefree.
- Daily smokers and occasional smokers were not significantly different in their preference for restaurants that allowed smoking in designated areas (67% and 52% respectively); however, occasional smokers did show moderate support (38%) for restaurants that were entirely smokefree.

Figure 7. Smoking Preference for Restaurants by Smoking Status (n = 501)



- In addition, respondents with a high-school diploma were less likely to prefer a non-smoking restaurant (49%), while college graduates (B.A. or B.S.) were significantly more likely to prefer a non-smoking restaurant (65%).

Although most respondents (73%) preferred *restaurants* that did not allow smoking, this preference did not transfer over to *bars* or *private clubs*.

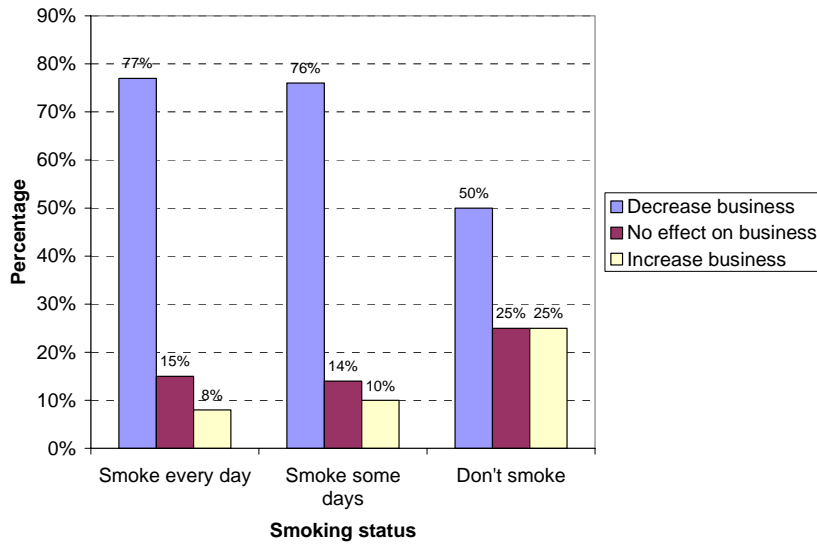
- Less than half (44%) of the respondents felt that *private clubs* should be completely smokefree. As before, daily smokers and occasional smokers strongly believed in having designated areas in private clubs (70% and 81% respectively); but non-smokers were evenly split between wanting a completely smokefree club (49%) and one with designated smoking areas (43%).
- Only a third (38%) of respondents felt that *bars* should be completely smokefree. Daily smokers strongly believed (70%) that smoking should be allowed in all areas of bars, occasional smokers most often (56%) preferred designated areas, and non-smokers were evenly split between preferring a completely smokefree bar (41%) and one with a designated smoking area (41%).

6.4. Anticipated economic effects

About half of respondents believed that a smokefree policy in Sheridan would decrease revenue for Sheridan *restaurants*. Specifically, 15% anticipated that restaurant revenue would be “down over a long time,” and 39% thought that it would be “down for a while.” Smoking behavior significantly affected these opinions (see Figure 8). The categories of “down for a while” and “down for a long time” were combined into “decrease.” The categories of “up for a while” and “up for a long time” were combined into “increase.”

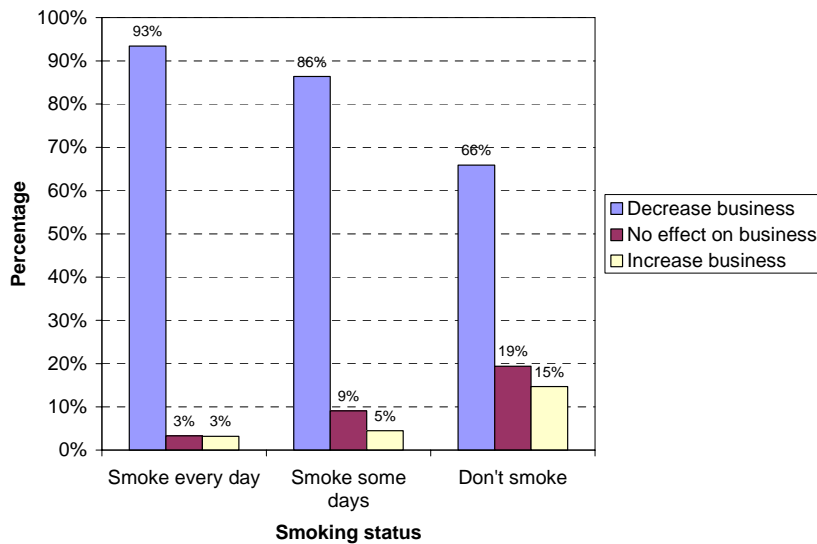
- Daily smokers (77%) and occasional smokers (76%) were much more likely to believe that a smokefree ordinance would cause business to decrease for restaurants; however, only half of non-smokers shared this belief.

Figure 8. Beliefs about the Expected Effect of a Smokefree Policy on Restaurants by Smoking Status (n = 501)



Respondents had even stronger negative opinions concerning the anticipated economic effect of a smokefree ordinance on bars. While about half of those surveyed felt that restaurant business would go down if a smokefree policy was enacted, nearly three-quarters (71%) of respondents believed that bar business would decrease if a smokefree ordinance passed. Smoking status significantly affected this anticipated effect. As seen in Figure 9, nearly all daily smokers (93%) and occasional smokers (86%) felt that a smokefree ordinance would decrease business in bars, while only two-thirds of non-smokers (66%) felt this way.

Figure 9. Beliefs about the Expected Effect of a Smokefree Policy on Bars by Smoking Status (n = 465)

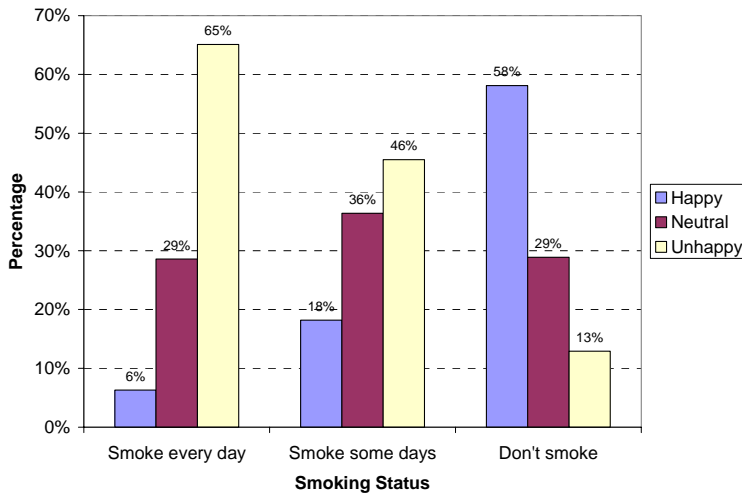


Oddly, even though many people believed that restaurant and bar revenues would decrease with the passage of a smokefree ordinance, the majority of respondents did *not* expect a smokefree ordinance to affect *their* bar attendance (76%) or *their* restaurant attendance (63%).

6.5. Overall feelings toward a smokefree policy

Half of all respondents reported that they would feel “happy,” 29% reported that they would be “neutral,” and just over a fifth (21%) reported that they would feel “unhappy” if Sheridan passed a smokefree ordinance. However, smokers were much more likely to report that they anticipated feeling “unhappy” if an ordinance passed. Non-smokers primarily responded that they would be either “happy” or “neutral” about a smokefree ordinance. Figure 10 compares smokers’ and non-smokers’ reported levels of happiness regarding the passage of a smokefree ordinance.

Figure 10. Overall Feelings toward a Smokefree Policy (n = 510)



WYSAC then evaluated the opinions and attitudes that were correlated with an individual’s feelings (i.e., happy, neutral, unhappy) toward the passage of a smokefree ordinance. The following paragraphs indicate the opinions and attitudes most associated with the three feelings (i.e., happy, neutral, and unhappy). To determine the characteristics of each group, WYSAC compared the individuals in each group with the individuals in the other groups. We first compared respondents who were happy to those who were unhappy. Next, we compared respondents who were neutral to those who were unhappy, and finally, we compared respondents who were unhappy to those who were happy. We used the information gathered from these profiles to describe the opinions and attitudes most influential in determining whether an individual would be happy, neutral, or unhappy with a smokefree ordinance.

The paragraphs below present the opinions and attitudes from most influential to least influential, as determined by how the odds changed for being in a specific group (i.e., happy, neutral, or unhappy). WYSAC used the following criterion when interpreting changes in the odds.

<p><u>If the odds of being in a certain group increased by</u></p> <ul style="list-style-type: none"> 1 to 1.999 times 2 to 2.999 times 3 to 9.999 times 10 or more times 	<p><u>Interpreted as</u></p> <ul style="list-style-type: none"> Slightly more likely More likely Much more likely Vastly more likely
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See Appendix C for further information about odds and probability. See Appendix D for further detailed information about the statistical results.

The following is a profile of the respondents who would be *happy* if a smokefree ordinance passed in Sheridan (as compared to those who would be unhappy). People who

- believed that support for a smokefree ordinance is a matter of health were vastly more likely to be happy with a smokefree ordinance.
- agreed that a smokefree ordinance is about the right to smokefree air, not about the business owners' right to decide their own smoking policies were much more likely to be happy with a smokefree ordinance.
- thought that a smokefree ordinance would have a positive effect on Sheridan public health were much more likely to be happy with a smokefree ordinance.
- believed that restaurants should be completely smokefree versus having designated smoking areas were much more likely to be happy with a smokefree ordinance.
- believed that bars should be completely smokefree versus having designated smoking areas were more likely to be happy with a smokefree ordinance.
- were non-smokers were more likely to be happy with a smokefree ordinance.
- disagreed that a smokefree ordinance takes away too much personal freedom were more likely to be happy with a smokefree ordinance.
- believed that a smokefree ordinance would have a positive effect on restaurant revenue were slightly more likely to be happy with a smokefree ordinance.

The following is a profile of the respondents who would be *neutral* if a smokefree ordinance passed in Sheridan (as compared to those who would be unhappy). People who

- believed that support for a smokefree ordinance is a matter of health were much more likely to be neutral with a smokefree ordinance.
- agreed that a smokefree ordinance is about the right to smokefree air, not about the business owners' right to decide their own smoking policies were more likely to be neutral with a smokefree ordinance.
- thought that a smokefree ordinance would have a positive effect on Sheridan public health were slightly more likely to be neutral with a smokefree ordinance.
- were non-smokers or occasional smokers were slightly more likely to be neutral with a smokefree ordinance.
- disagreed that a smokefree ordinance takes away too much personal freedom were slightly more likely to be neutral with a smokefree ordinance.
- believed that a smokefree ordinance would have a positive effect on restaurant revenue were slightly more likely to be neutral with a smokefree ordinance.

The following is a profile of the respondents who would be *unhappy* if a smokefree ordinance passed in Evanston (as compared to those who would be happy). People who

- believed that support for a smokefree ordinance is a matter of rights were vastly more likely to be unhappy with a smokefree ordinance.
- agreed that a smokefree ordinance is about the business owners' right to decide their own smoking policies, not about the right to smokefree air were much more likely to be unhappy with a smokefree ordinance.
- thought that a smokefree ordinance would have a little or no effect on Sheridan public health were much more likely to be unhappy with a smokefree ordinance.
- believed that restaurants should have designated smoking areas versus being completely smokefree were much more likely to be unhappy with a smokefree ordinance.

- believed that bars should have designated smoking areas versus being completely smokefree were much more likely to be unhappy with a smokefree ordinance.
- were daily smokers were more likely to be unhappy with a smokefree ordinance.
- agreed that a smokefree ordinance takes away too much personal freedom were more likely to be unhappy with a smokefree ordinance.
- believed that a smokefree ordinance would have a negative effect on restaurant revenue were slightly more likely to be unhappy with a smokefree ordinance.

7. Conclusions

The majority of adults surveyed in Sheridan believed that breathing second-hand smoke is harmful (89%) and that a smokefree ordinance would improve Sheridan public health (68%). They also responded that they would be happy with a smokefree ordinance (50%). In addition, most adults preferred completely smokefree restaurants (73%).

Income, employment status, and race did not significantly affect outcomes, while education and sex affected outcomes to some extent. When trying to predict whether a respondent would be happy, neutral, or unhappy with a smokefree ordinance, WYSAC's analysis of eight significant variables suggested three key factors for consideration.

The first and most influential factor concerned the debate between health and rights. Respondents who saw a smokefree ordinance as a health issue strongly supported a smokefree ordinance. Those who saw a smokefree ordinance as a rights issue broke into two groups: those who thought it was the business owner's right to choose a smokefree policy and those who thought it was an individual's right to smokefree environments. Based on their perception of the underlying issue, health or rights, WYSAC found that

- respondents who saw the right to smokefree air as more important than the business owner's right to decide policy tended to favor a smokefree ordinance.
- respondents who believed that smoking policies should be the right of business owners to decide tended to express unhappiness with a smokefree ordinance.

The second key factor that affected a person's feelings was an individual's smoking status. This factor affected responses to nearly every question in the survey. While non-smokers (84% of respondents) were much more likely to be happy with a smokefree ordinance, smokers (16% of respondents) strongly opposed such an ordinance. Smokers strongly believed that support for such an ordinance to be a matter of rights, not a matter of health. They expected that their own attendance at bars and restaurants would decrease if Sheridan passed a smokefree ordinance, and they thought that a smokefree ordinance would have little or no effect on Sheridan public health.

Finally, the third factor affecting an individual's overall feelings towards a smokefree ordinance concerned the anticipated economic impact from smokefree legislation. Most people believed that a smokefree ordinance would negatively affect restaurant, bar, and private club revenues (and smokers were far more likely to feel the impact would be negative). The more negative an outcome the respondent expected, the more likely he or she was to be unhappy about passage of a smokefree ordinance.

Although most people anticipated that revenues would decrease for bars, restaurants, and private clubs, the majority of these same individuals also anticipated that *they* would *not* change how often they would go to restaurants and bars. Non-smokers (84% of all respondents) generally anticipated attending restaurants, bars, and private clubs *more often* if a smokefree ordinance went into effect.

Thus, many factors affected people's opinions about a smokefree ordinance. Though reasons varied among individuals, 50% of all respondents said that they would be happy, 29% responded that they would be neutral, and only 21% said that they would be unhappy if Sheridan passed a smokefree ordinance.

8. Appendices

8.1 Appendix A: Frequencies

This section contains the raw frequency counts and the percentage distributions of responses to all items on the questionnaire. Survey questions appear in the same order and with the same wording as in the original survey. We excluded missing data such as “refused/no answer” or “don’t know/not sure” from the percentage calculations, representing them in the “Missing” column.

Percentages may total more or less than exactly 100% due to rounding to one decimal point.

Percentages may also total more than 100% on “check all that apply” items.

HELLO, my name is (first name) . I’m calling from the University of Wyoming, and I’m not soliciting anything. Your phone number was randomly drawn for a public opinion poll about some issues affecting your community. The survey only takes about 10 minutes. Would you be able to help me out with this tonight?

[If Yes] **First, I need to confirm. Is this a private residence in Wyoming?**

[If Yes] **That’s great! The University will keep your answers completely confidential. Also, I need to ask if I am speaking with someone 18 or older.**

[If Yes] **Survey begins.**

Frequency Distributions

1. How long have you lived in Sheridan? (q5r)

(Collapsed variable)

	Frequency	Valid Percent
Less than 1 year	16	3.2%
1–5 years	87	17.2%
6–10 years	69	13.6%
11–20 years	92	18.1%
21–30 years	98	19.3%
More than 30 years	145	28.6%
Valid Total	507	100.0%
Whole life (but age not provided)	8	
Don't know	1	
Total	516	

2. How long have you lived in Wyoming? (q10r)

(Collapsed variable)

	Frequency	Valid Percent
Less than 1 year	8	1.6%
1–5 years	51	10.2%
6–10 years	44	8.8%
11–20 years	71	14.2%
21–30 years	109	21.8%
More than 30 years	217	43.4%
Valid Total	500	100.0%
Whole life (but age not provided)	15	
Don't know	1	
Total Missing	516	

3. In the past 12 months, has anyone in your household seen a doctor, nurse, or other health professional to get any kind of care? (q15)

	Frequency	Valid Percent
Yes	451	89.1%
No	55	10.9%
Valid Total	506	100.0%
No answer	1	
Unknown	8	
Refused	1	
Total	516	

4. In the past 3 months, has anyone in your household seen a doctor, nurse, or other health professional for a heart or lung problem? (q20)

	Frequency	Valid Percent
Yes	70	15.5%
No	381	84.5%
Valid Total	451	100.0%
No answer	1	
Unknown	8	
System Missing	56	
Total	516	

5. The next few questions are about some of the service businesses in your community. In the past 30 days, about how often has anyone in your household eaten a meal in a full-service, sit-down restaurant? (q30)

	Frequency	Valid Percent
15 meals or more	35	6.8%
10–14 meals	32	6.2%
5–9 meals	85	16.6%
1–4 meals	279	54.4%
No meals in the past month	82	16.0%
Valid Total	513	100.0%
Don't know	3	
Total	516	

6. We also need to ask about places that mainly serve liquor, like bars or cocktail lounges. In the past 30 days, about how often has anyone in your household had something to drink at a bar or cocktail lounge in Sheridan? (q40)

	Frequency	Valid Percent
15 times or more	9	1.8%
10–14 times	11	2.1%
5–9 times	24	4.7%
1–4 times	131	25.5%
Not at all in the past month	339	66.0%
Valid Total	514	100.0%
Don't know	1	
No answer	1	
Total	516	

7. In the past 30 days, about how often has anyone in your household eaten a meal at a private club? (q50)

	Frequency	Valid Percent
15 meals or more	3	0.6%
10–14 meals	10	2.0%
5–9 meals	5	1.0%
1–4 meals	42	8.2%
No meals in the past month	451	88.3%
Valid Total	511	100.0%
Don't know	4	
No answer	1	
Total	516	

8. Does any member of your household work in a full-service, sit-down restaurant; a bar or cocktail lounge; or a private club? (q55)

	Frequency	Valid Percent
Yes	28	5.5%
No	483	94.5%
Valid Total	511	100.0%
No answer	5	
Total	516	

9. For the next question, I'd like you to imagine that you have traveled by yourself to a nearby community, and now it's time to pick a restaurant for your dinner. You have three almost identical restaurants to choose from, except one allows smoking anywhere, the second allows smoking only in a designated smoking area, and the third does not allow smoking at all. Which one of those three restaurants would you be most likely to pick? (q60)

	Frequency	Valid Percent
The one that allows smoking anywhere	24	4.8%
The one that allows smoking in a designated area	111	22.1%
The one that does not allow smoking in any areas	368	73.2%
Valid Total	503	100.0%
Don't know	12	
No answer	1	
Total	516	

10. There has been quite a bit of talk lately about smoking in restaurants. Which of the following statements best describes your own opinion? (q65)

	Frequency	Valid Percent
Smoking should be allowed in all areas.	8	1.6%
Smoking should be allowed only in designated areas.	194	38.3%
Smoking should not be allowed in any areas.	305	60.2%
Valid Total	507	100.0%
Don't know	8	
No answer	1	
Total	516	

11. What about in bars and cocktail lounges? Which of the following best describes your opinion on that? (q70)

	Frequency	Valid Percent
Smoking should be allowed in all areas.	101	22.6%
Smoking should be allowed only in designated areas.	177	39.7%
Smoking should not be allowed in any areas.	168	37.7%
Valid Total	446	100.0%
Don't know	54	
No answer	16	
Total	516	

12. And how about in private clubs where food is served? (q75)

	Frequency	Valid Percent
Smoking should be allowed in all areas.	36	8.4%
Smoking should be allowed only in designated areas.	203	47.5%
Smoking should not be allowed in any areas.	188	44.0%
Valid Total	427	100.0%
Don't know	66	
No answer	23	
Total	516	

13. With which of the following two statements do you agree more? (q80)

	Frequency	Valid Percent
The citizens should have the right to have smokefree air in public businesses	229	45.0%
Business owners should have the right to decide the smoking policy for their businesses.	280	55.0%
Valid Total	509	100.0%
Don't know	5	
No answer	2	
Total	516	

14. Some communities in Wyoming are considering laws to eliminate smoking from restaurants, bars, clubs that serve food, and other public places. If a law like that were passed in Sheridan, how would you feel about it? Would you be happy, unhappy, or would you be neutral about it? (q85)

	Frequency	Valid Percent
Happy	255	49.8%
Neutral	150	29.3%
Unhappy	107	20.9%
Valid Total	512	100.0%
Don't know	3	
No answer	1	
Total	516	

15. Which of the following statements *best* describes your opinion of the effect that such a law would have on the health of Sheridan? (q90)

	Frequency	Valid Percent
It would have a positive effect on the health of the citizens of Sheridan.	342	68.3%
It would have little or no effect on the health of the citizens of Sheridan.	137	27.3%
It would have a negative effect on the health of the citizens of Sheridan.	22	4.4%
Valid Total	501	100.0%
No opinion	11	
No answer	4	
Total	516	

16. Of the following statements, which one *best* describes what effect you think such a law would have on those restaurants that previously allowed smoking? (q95)

	Frequency	Valid Percent
Down over a long time	76	15.4%
Down for a while	191	38.7%
No effect	115	23.3%
Up for a while	15	3.0%
Up over a long time	97	19.6%
Valid Total	494	100.0%
No opinion	15	
No answer	7	
Total	516	

17. What about bars and cocktail lounges? I will read the same statements. Please tell me which *one* in your opinion *best* describes the effect that such a law would have on *bars* in the city of Sheridan. (q100)

	Frequency	Valid Percent
Down over a long time	152	32.6%
Down for a while	177	38.0%
No effect	78	16.7%
Up for a while	9	1.9%
Up over a long time	50	10.7%
Valid Total	466	100.0%
No opinion	42	
No answer	8	
Total	516	

18. Next, we'd like to know if you think a non-smoking law would affect how often your own household goes to sit-down restaurants in Sheridan for meals. (q105)

	Frequency	Valid Percent
No change	318	63.1%
Less often	33	6.5%
More often	42	8.3%
Not as many	14	2.8%
More different ones	97	19.2%
Valid Total	504	100.0%
Don't know/No answer	12	
Total	516	

19. We also want to know if you think such a law would affect how often your household goes to bars or cocktail lounges in Sheridan. (q120)

	Frequency	Valid Percent
No change	374	75.7%
Less often	33	6.7%
More often	53	10.7%
Not as many	7	1.4%
More different ones	27	5.5%
Valid Total	494	100.0%
Don't know/No answer	22	
Total	516	

20. Can you think of any other ways that your household's entertainment choices will be affected by the ordinance? (q125)

→ See Appendix B for complete text listings.

21. In deciding whether you favor or oppose such a law for you personally, would you say (q130)

	Frequency	Valid Percent
It comes down to a question of health	189	38.7%
It comes to a question of rights	299	61.3%
Valid Total	488	100.0%
Don't know/No answer	28	
Total	516	

22. Which of the following statements best describes the smoking policy in your own home? (q135)

	Frequency	Valid Percent
Smoking is allowed everywhere in the home.	47	9.2%
Smoking is allowed only in some areas or at some times.	61	11.9%
Smoking is not allowed anywhere in the home.	405	78.9%
Valid Total	513	100.0%
Don't know	2	
No answer	1	
Total	516	

23. Now I am going to read two statements. I would like you to tell me to what extent you agree or disagree with each of them.

"Breathing smoke from other people's cigarettes is harmful to one's health." (q140)

	Frequency	Valid Percent
Strongly agree	309	60.1%
Agree	146	28.4%
Feel neutral	39	7.6%
Disagree	17	3.3%
Strongly disagree	3	0.6%
Valid Total	514	100.0%
Don't know	2	
Total	516	

24. "A law against smoking in restaurants and bars takes away too much personal freedom from individuals." (q145)

	Frequency	Valid Percent
Strongly agree	73	14.5%
Agree	126	25.0%
Feel neutral	73	14.5%
Disagree	138	27.3%
Strongly disagree	95	18.8%
Valid Total	505	100.0%
Don't know	8	
No answer	3	
Total	516	

25. How many children age 17 or younger live in your household? (q150)

	Frequency	Valid Percent
0	324	63.0%
1	68	13.2%
2	78	15.2%
3	30	5.8%
4	12	2.3%
5	2	0.4%
Valid Total	514	100.0%
Refused	2	
Total	516	

26. *Including* yourself, how many people age 18 or older live in your household? (q155)

	Frequency	Valid Percent
1	115	22.4%
2	326	63.5%
3	55	10.7%
4	17	3.3%
Valid Total	513	100.0%
Unknown	1	
Refused	2	
Total	516	

27. I need to ask how many different phone numbers ring into this residence that can be answered by a person. Please do not count cell phones, numbers used only for a business, or fax or computer lines that cannot receive voice calls. *Including* the one we're talking on right now, how many different phone numbers ring in this residence that can be answered by a person? (q160)

	Frequency	Valid Percent
Just this one	461	90.6%
Two	39	7.7%
Three	5	1.0%
Four	2	0.4%
Five or more	2	0.4%
Valid Total	509	100.0%
Don't know/No answer	7	
Total	516	

28. What is the highest level of school you have completed or the highest degree you received? (q165)

	Frequency	Valid Percent
Less than Grade 12	21	4.1%
High-school diploma or GED	121	23.7%
Some college, no degree	119	23.3%
Community college graduate (2-year AA, technical or academic)	61	11.9%
College graduate (4-year BA or BS)	113	22.1%
Some graduate or professional school	14	2.7%
Graduate or professional degree	62	12.1%
Valid Total	511	100.0%
Don't know	1	
Refused	4	
Total	516	

29. We hear a lot these days about different political labels, like conservative, liberal, middle-of-the-road, libertarian, and so on. Which of those four labels comes closest to your own political views, most of the time? (q170)

	Frequency	Valid Percent
Conservative	208	48.4%
Liberal	86	20.0%
Middle-of-the-road	130	30.2%
Libertarian	6	1.4%
Valid Total	430	100.0%
Don't know/No answer	86	
Total	516	

30. Which of the following *best* describes your current employment status? (q175)

	Frequency	Valid Percent
Full-time employed	278	54.2%
Part-time employed	33	6.4%
Student, and also employed	16	3.1%
Student, and not employed	3	0.6%
Homemaker	29	5.7%
Retired or disabled	145	28.3%
Not currently employed and not in school	9	1.8%
Valid Total	513	100.0%
Don't know	1	
Refused	2	
Total	516	

31. Which of the following statements best describes the smoking policy in the indoor work areas where you are employed? (q180)

	Frequency	Valid Percent
Smoking is allowed in all indoor work areas.	11	3.4%
Smoking is allowed only in some of the indoor areas or at some times.	24	7.5%
Smoking is not allowed in any indoor work areas.	245	76.6%
There are no indoor work areas where I am employed.	40	12.5%
Valid Total	320	100.0%
Don't know	5	
No answer	2	
System Missing	189	
Total	516	

32. Do you smoke cigarettes every day, some days, or not at all? (q185)

	Frequency	Valid Percent
Every day	63	12.3%
Some days	22	4.3%
Not at all	429	83.5%
Valid Total	514	100.0%
Refused	2	
Total	516	

33. During the past six months, have you stopped smoking for one day or longer because you were trying to quit smoking? (q190)

	Frequency	Valid Percent
Yes	38	45.2%
No	46	54.8%
Valid Total	84	100.0%
Don't know/Not sure	1	
System Missing	431	
Total	516	

34. Are you seriously considering stopping smoking within the next six months? (q195)

	Frequency	Valid Percent
Yes	47	59.5%
No	32	40.5%
Valid Total	79	100.0%
Don't know/Not sure	6	
System Missing	431	
Total	516	

35. What is your age? (q200r)

(Collapsed variable)

	Frequency	Valid Percent
18-24	29	5.8%
25-34	59	11.8%
35-44	93	18.5%
45-54	113	22.5%
55-64	101	20.1%
65 and older	107	21.3%
Valid Total	502	100.0%
Refused	14	
Total	516	

36. And which of the following would you say best describes your race or ethnic group?
(q205)

	Frequency	Valid Percent
White, non-Hispanic	487	96.6%
Hispanic	4	0.8%
American Indian or Alaska Native	6	1.2%
Asian	2	0.4%
Black or African American	0	0%
Native Hawaiian or other Pacific Islander	0	0.0%
Other (to include 2 or more)	5	1.0%
Valid Total	504	100.0%
Refused	12	
Total	516	

37. I'm going to read a list of income ranges. Please stop me when you hear the one that best describes your household's total income, before taxes, for last year. (q210)

	Frequency	Valid Percent
Less Than \$25,000	86	19.2%
\$25,000 to \$50,000	143	31.9%
\$50,000 to \$75,000	99	22.1%
\$75,000 to \$100,000	71	15.8%
Over \$100,000	49	10.9%
Valid Total	448	100.0%
Don't know/No answer	68	
Total	516	

38. This is the end of the survey. Do you have any comments that you would like to make at this time? (q215)

→ See Appendix B for complete text listings.

39. Thank you for your cooperation! Respondent's sex (code without asking)? (q220)

	Frequency	Valid Percent
Male	229	44.4%
Female	287	55.6%
Valid Total	516	100.0%

8.2 Appendix B: Open-ended questions

This appendix presents responses to open-ended questions.

23. Can you think of any other ways that your household's entertainment choices will be affected by the ordinance? (q125)

Against non-smoking
Allergic to smoke, so might go bowling
As far as drinking, a non-smoking law would affect me also. But as far as eating, I would love to have a non-smoking law!
Bowling alley
Bowling alleys too. I'd go back to bowling if there was no smoking.
Bowling, I would go more often.
Frequent the places that were non-smoking
Get free cable
Get together as a family (extended family) in restaurants because my two children and I have asthma
Go to places less often
Going to bars and restaurants would be more pleasant.
Good if no smoking was there
Grocery stores
Have no idea
Healthier
Healthier society; restaurants would smell better
I allow to go businesses to allow the most freedom. (?)
I avoid a few places now because of the smoking. So if smoking was banned I would probably go to those places more, places including certain stores or other locations that have a cloud of smoke around them.
I don't like people making laws telling people what to do, period.
I'd go bowling more often if it was smoke-free.
I guess as a group our family would be limited for where we'd go for get-togethers.
I just think it would be healthier for me and I wouldn't have to breathe the smoke.
I might go to some places I stay away from because of smoking.
I think it would be better not to have smoking in restaurants and other public places.
I think the government should concentrate on alcohol rather than smoking. Also, we need to test for radon. We pay our taxes and we should be allowed to smoke.
I would be more comfortable going not only to restaurants but also to public events.
If that wasn't a limitation, it would change in the aspect that there would be more things that I could do with my children without me having to worry about it.
If there were more restaurants, there would be more eating out if there wasn't any smoking.
If we wanted to go out and listen to music, there is no point if you can't smoke.
In your own house, it would be up to you on whether or not you smoke.
It's better to go to non-smoking places with kids.
It would free us up; we have a daughter that's asthmatic, and I'm allergic to cigarette smoke.
It would make me not want to go out at all. I'm a smoker. I don't smoke that much but I don't think they should tell you where you can and can't smoke.
It would not affect my household at all because I live by myself.

Leave county to smoke
Less choices available
Maybe the bowling alley
Might influence who we go out to dinner with
More enjoyable events
More inclined to watch sporting events at a bar if there was no smoking
More job opportunities
More willing to go out if such a law as made
More willing to take the kids places where smoking isn't allowed
My household would be helped because my daughter has asthma and smokes so she would quit.
My wife used to like bowling and now if the law would pass there would be more recreation for us.
Nope, but it would be a lot more pleasant.
Only goes to places that does not allow smoking
Open air stadiums, rodeo grounds
Our children would benefit from the smoke-free air.
Outside cafes should still allow smoking and bars.
Overall, I would go out more to different places if there was no smoking.
Probably more like the bowling alleys; allow the kids to go more often.
Smoke is allowed in parks. Public places should [go] non-smoking.
The enjoyment for going out for a dining or entertainment experience would be improved. I've left bars early lots just because it was smoky and uncomfortable.
There would be more people in their houses doing nothing because it would be discrimination against smokers.
Thinks it would be great because if you went to a place that you didn't know if there was smoking, then you would be protected from smoke
This applies to businesses as well. People shouldn't be allowed to smoke inside or near the entrances of the building.
Watch the ranchers shoot people; that would be entertaining.
We'd be more comfortable in restaurants and places like that.
We'd go a lot more places, like the bowling alley.
We have asthmatics in our family, so it really limits where we go. So this would change where we go in public.
We might go out more.
We typically only do things that are tobacco-free. There would be more things we would do if they were tobacco-free.
We would go bowling more. We would go to more restaurants and different restaurants.
We would go out more often to places like bowling alleys.
We would go out more if there was no smoking.
We would go to the bowling alley more.
We would just stay home.
We would not go out to eat as often.
Well, it would kind of piss me off because of the fact that legislators [are] dictating what people can't do.
We'll go to more bars so [we] don't smell like an ashtray.
Won't do anything that takes too long where I cannot smoke.
Would go to bowling alley more often.

Would go to bowling alley more often.
Would [go to] more different restaurants if they were non-smoking
Would probably go out more, because husband can't be around smoking at all. Would go play bingo.
Wouldn't go out as often as we do
Wouldn't go to restaurants or bars that were non-smoking
Wouldn't have to ask for a non-smoking area
Wouldn't necessarily affect entertainment, but rights
You're taking away a person's constitutional right.

38. This is the end of the survey. Do you have any comments that you would like to make at this time? (q215)

One hundred percent in favor for people's individual rights
A no-smoking law for public places
Although I smoke, I feel very strongly about keeping my smoke away from others, including my family. All people should have the same common courtesy toward others' health.
As far as smoking in businesses, I strongly agree that it is up to the business owner to decide whether or not to allow it.
Ban all smoking!
Been a long time coming
Do not pass laws that infringe rights. We have [the] choice of being close to smokers or not. Designated areas are good. Children should be kept away from second-hand smoke.
Don't think there should be a law against smoking in public places
Get some decent people in office instead of Barbara Cubin and some Republicans instead of the Democrats.
Have fun
He believes that we [callers] need a raise.
I'd like to see them get rid of cigarettes. My husband died from lung cancer.
I'm sure that if everyone just gave up smoking, everyone would be healthier
I'm very much opposed to making towns and areas in town illegal to smoking. Concerned about conflicting research on second-hand smoke; it would be nice to have the facts in place for [the] populace.
I am opinionated because I have had many family members in my family that have suffered from smoke-caused diseases. In addition, I have owned my own business where there was a non-smoking policy and know what that is like as a business owner.
I believe smoke-free is healthy for everyone, and it really doesn't infringe on anyone's rights to ban it. I think it's a good thing to try and clear the air.
I do believe it is the business owner's right to choose if he or she allows smoking or not. However, I would frequent ones that didn't allow smoking.
I don't believe that we should take away rights from the business owners to decide how to run their businesses.
I feel that it should be up to the business owners to choose if there should be no smoking.
I feel that we should have our rights to smoke. I understand that people should not have to breathe our smoke. Food places should have ventilation so non-smokers should not have to breathe our smoke.
I find smoking in public places to be unpleasant.
I have a hard time with it because my friends smoke, so it's hard to say no smoking should be allowed at all. But I don't think it takes away too many rights from people. They can stop for an hour if they have to sit down and eat.
I just hope this survey helps make the decision that we should have no smoking; second hand smoke is just as bad as smoking itself.
I think bars should be exempt from this, but I think [in] restaurants [it] would be fair to have a non-smoking law.
I think businesses do well when they ban smoking. I think it's a good deal.
I think a person or owners of bars or restaurants have the right to tell people what they want to happen in their place. I don't think other people should be able to tell people whether they should or shouldn't smoke.
I think it will be good if they pass the smoking ban.
I think smoking is something that is proven to be detrimental to one's health, including second-hand smoke. I am all for banning smoking in both public places and private places.

I think they have gone too far to restrict my right to enjoy smoking. Wyoming should remain free; that's why I decide to live here, not anywhere else.
I think we all have our rights to do what we want to do. If people want to smoke, let them, because that is their right.
I totally support such a law for Wyoming.
I was a previous smoker and I would like to see a law.
I would like to see more information about people pushing this law.
I will never go into any restaurant or bar that allows smoking.
If the politicians want to raise the taxes on cigarettes, that's fine.
I'm glad to help with the survey.
It's good to see that the money is going to something good like this.
It's great that we're doing the survey. She would love to see a smoke free law pass in Sheridan.
It's a good idea to have surveys like this to find out what people think.
Just the question that I didn't answer should be worded better. It shouldn't be left to such a simple answer because you can look at that question various different ways.
Keep America free.
Leaders in general need to be setting good examples for kids (e.g., mayor pulled over for DUI). This would also apply to smoking.
Like to see this kind of law passed in the city of Sheridan. I think it would be a healthier place to live and the impact on smokers would [be that they would] find themselves more comfortable not smoking. Would be good passed.
Make the law pass everywhere, like even public places, even outdoors: baseball games stadiums and huge gatherings.
My brother has lung cancer from smoking.
Outdoor areas need smoking.
People should have a right to choose what they do, no matter if it hurts their health.
People should still be able to smoke in bars.
Please do something about people smoking in public in the state of Wyoming.
Regardless of whether I smoke or not, the issue of government regulation in business is poorly designed because the people have the choice to go into those business and government shouldn't regulate them.
Should allow business owner to decide whether or not to allow smoking.
Smoking should be allowed in public places and government buildings.
Smoking should be banned from all public places so that others don't get sick from the smoke.
Smoking should not be allowed in any public areas. It's hurting others' health.
Some of the questions [on this survey] are loaded.
Some of the questions seem to be redundant, overlapped.
Some of your questions are intrusive.
Survey could have addressed employee health vs. consumer health, focusing more on the employee's health and if it addressed issues about other public places, like parks, as another part of this issue.
Tell people not to smoke and drink.
The law would be fine as long as long as there [are] designated smoking areas.
Thinks it is a good idea
This whole thing is a farce.
Used to be a smoker and thought I should have the right to smoke anywhere and now regret a lot of the places I smoked.
Ventilation would solve the problem of individuals' rights. People have the right to clean air. People also have the right to smoke. If a business owner wants to not allow smoking, he has

the right to do that.

We have a lot of smokers and non-smokers here in Sheridan that don't go to the _____ Bar which is a cowboy and social bar. And there's a lot of people that just complain but don't go to this bar where they can smoke so they are two-faced!

Wish that Wyoming would have smoke-free restaurants and public places; it's a pain.

8.3 Appendix C: Explanation of Odds

Often, we hear statements such as, “If an individual has characteristic A, then the odds of that person being happy are X times greater than they would be for a person who did not have characteristic A.” To explain statements such as the one above, an explanation of both odds and probability might be helpful. Odds and probability are related, but they are not the same thing. Probabilities are numbers between 0 and 1 (or 0% to 100%), while odds can range from 0 to infinity.

When reading a statement like “a person is twice as likely to have characteristic A,” implicitly the author is using an odds interpretation. For example, if the *probability* of characteristic A is .70, this statement would leave us saying that the *probability* is doubled to 1.40. (e.g., a 140% chance of having characteristic A). However, probabilities cannot exceed 100%, so we re-construct the concept with the use of odds. Although odds can be doubled (and doubled into infinity), this doubling does affect the probability. The exact relationship between odds and probability is best expressed through an example.

The odds of an individual having a certain characteristic are calculated as follows.

$$\text{Odds} = \frac{\text{Probability of having the characteristic}}{\text{Probability of not having the characteristic}}$$

For example, if the probability of being happy with the smokefree ordinance is .67, then the odds of being happy are:

$$\text{Odds} = \frac{\text{Probability of having the characteristic}}{\text{Probability of not having the characteristic}} = \frac{0.67}{0.33} = 2$$

Now, consider the effect of being a non-smoker on these odds. For example, if being a non-smoker tripled the odds of being happy, then the odds would now be:

$$\begin{aligned} \text{New Odds} &= \text{Old odds} \times \text{Effect from the new characteristic} \\ &= 2 \times 3 \\ &= 6 \end{aligned}$$

Thus, for this example, the odds that a non-smoker was happy would be 6:1. These odds can then be transformed back into a probability with the following formula:

$$\text{Probability of having the characteristic} = \frac{\text{Odds}}{\text{Odds} + 1}$$

In this case, the probability that a non-smoker would be happy would be:

$$\text{Probability of having the characteristic} = \frac{\text{Odds}}{\text{Odds} + 1} = \frac{6}{6 + 1} = \frac{6}{7} = 0.857$$

In addition, odds can be less than 1:1. This would mean that it is relatively *unlikely* for this characteristic to occur. The closer the odds are to 0, the more unlikely the event is to occur.

Frequently occurring odds are

<u>Odds</u>	<u>Likelihood of occurring (Probability)</u>
1:1	50% chance of occurring
2:1	67% chance of occurring
10:1	91% chance of occurring
20:1	95% chance of occurring
0.5 : 1	33% chance of occurring
0.1 : 1	9% chance of occurring
0.05 : 1	5% chance of occurring

Thus, if a variable has an effect such that the odds go up by a factor of 3, then the probability that an individual has that characteristic have changed in a very meaningful manner. In this report, WYSAC used the criterion of:

<u>Odds increasing by</u>	<u>To mean</u>
1 to 2 times	Slightly more likely
2 to 3 times	More likely
3 to 10 times	Much more likely
More than 10 times	Vastly more likely

8.4 Appendix D: Logistic regression results

This section contains more information concerning the analysis in Section 6.5: Overall feelings toward a smokefree policy.

WYSAC analyzed the data with a multinomial logistic regression model using multiple predictor variables to determine which variables were most influential for predicting when individuals would be happy, neutral, or unhappy with a smokefree ordinance. A multinomial logistic regression model can be thought of as a generalization of the often-used binary logistic model. In the binary setting, the dependent variable is coded into two dichotomous categories: usually termed “success” and “failure.” Interpretations are formed based on the calculated odds (or log odds) of a person being a “success” against a person being in the reference category of “failure.” Multinomial logistic regression is similar in that comparisons are made against the reference category of “failure”; however, instead of having one category termed a “success,” we now have multiple categories of “success.” We treat these non-reference categories at the nominal level. Because of this coding system, instead of interpreting the odds ratios of being in category B vs. category A (in the binary setting), there will be *two* sets of odds ratios: one set of ratios comparing category B against the reference category A, and a second set of ratios comparing category C against category A. Thus, a multinomial logistic regression simultaneously analyzes two binary logistic regressions with the same reference category.

For the analysis of the Sheridan data set, to use the binary coding system, the dependent variable (happiness level) would need to be coded as “happy” vs. “not happy.” Thus, the original three-category coding of “not happy,” “neutral,” and “happy” would have been collapsed into a two-category coding system. In the multinomial setting, the reference category was “unhappy,” and the “success” categories were “neutral” and “happy.” While it may have been possible to perform an ordinal logistic regression, since the dependent variable was coded at the ordinal level, the assumption of consistent odds-ratios did not appear to be supported. As such, we chose to use the multinomial logistic regression procedure.

While WYSAC considered all predictor variables, we retained a reduced set of eight statistically significant variables. Because of high correlations between some of the opinion questions, it was not necessary to include every variable. Formation of the final model utilized the stepwise variable selection procedure in SPSS, version 13.0. The final model included the following variables. Coding labels are included for reference.

Response variable

Q85 Overall feeling with the ordinance (Happy, Unhappy, Neutral)

Predictor variables

Q80 Right to smokefree air (1) vs. owner’s right to decide (2)

Q90 Effect on health of Sheridan; positive = 1, no effect = 2, negative = 3

Q95 Economic effect on restaurants: 1 = down for a long time, 5 = up for a long time

Q130 Primarily an issue of health (1) vs. rights (2)

Q145 Takes away too much personal freedom: 1 = strongly agree, 5 = strongly disagree

Q185 Smoking status: 1 = daily, 2 = occasional, 3 = non-smoker

Q65 Smoking policy in restaurants: 1 = all areas, 2 = designated areas only, 3 = no areas

Q70 Smoking policy in bars: 1 = all areas, 2 = designated areas only, 3 = no areas

The overall model was highly significant, $\chi^2(16) = 339.052, p < .001$ with an overall Nagelkerke $r^2 = 0.672$. There was no significant lack of fit based on the chi-squared goodness-of-fit test, $\chi^2(446) = 433.002, p = .662$. By using the respondents' opinions on the eight predictor variables, correct classification into the appropriate group (happy, neutral, or unhappy) occurred 73.9% of the time. Thus, these eight variables are highly effective in understanding an individual's opinion concerning a smokefree ordinance.

Classification

Observed	Predicted			Percent Correct
	Happy	Neutral	Unhappy	
Happy	185	17	3	90.2%
Neutral	29	45	28	44.1%
Unhappy	6	18	56	70.0%
Overall Percentage	56.8%	20.7%	22.5%	73.9%

The parameter estimates are provided below for each variable. Comparisons are made with the reference category being “unhappy.”

Parameter Estimates

Q85: Some communities in Wyoming are considering laws to		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Happy	Intercept	.293	2.365	.015	1	.901			
	q80	-1.792	.594	9.113	1	.003	.167	.052	.533
	q90	-1.293	.407	10.113	1	.001	.274	.124	.609
	q95	.471	.194	5.862	1	.015	1.601	1.094	2.343
	q130	-2.497	.831	9.028	1	.003	.082	.016	.420
	q145	.867	.214	16.364	1	.000	2.380	1.564	3.622
	q185	.463	.366	1.603	1	.206	1.589	.776	3.255
	q65	1.202	.498	5.840	1	.016	3.328	1.255	8.825
Neutral	q70	1.048	.361	8.406	1	.004	2.851	1.404	5.788
	Intercept	3.398	2.080	2.669	1	.102			
	q80	-.834	.553	2.277	1	.131	.434	.147	1.283
	q90	-.627	.299	4.381	1	.036	.534	.297	.961
	q95	.249	.164	2.295	1	.130	1.283	.929	1.771
	q130	-1.782	.801	4.946	1	.026	.168	.035	.809
	q145	.521	.188	7.690	1	.006	1.684	1.165	2.434
	q185	.343	.211	2.627	1	.105	1.409	.931	2.132
Unhappy	q65	.035	.425	.007	1	.934	1.036	.451	2.380
	q70	.166	.302	.300	1	.584	1.180	.653	2.135

a. The reference category is: Unhappy.

Using the column labeled Exp(B), the odds ratios can be interpreted as follows.

Happy vs. Unhappy

Q80 A person who agrees that a smokefree ordinance is about the right to smokefree air (as opposed to the business owners' right to decide their own smoking policy) is 6.0 (1/0.167) times more likely to be happy with a smokefree ordinance

- Q90 A person who believes that a smokefree ordinance will have a positive effect on the public health of Sheridan (as opposed to no effect) is 3.6 times more likely to be happy with a smokefree ordinance
- Q95 The expected economic effect on restaurants was coded from 1 to 5 with 1 = down for a long time and 5 = up for a long time. For every 1 point increase in their expectation (more optimistic), the odds of being happy increase by a factor of 1.6.
- Q130 A person who believes that a smokefree ordinance is primarily an issue of health (and not rights) is 12.2 times more likely to be happy with a smokefree ordinance
- Q145 Whether a person agrees or disagrees with the statement, “A smokefree ordinance takes away too much personal freedom” was coded as 1 = strongly agree to 5 = strongly disagree. For every 1-point increase in their opinion (more disagreement), then the odds of being happy increased by a factor of 2.4.
- Q185 A person who does not smoke is 1.6 times more likely to be happy with a smokefree ordinance as compared to an occasional smoker and 2.6 times more likely to be happy with a smokefree ordinance as compared to a daily smoker.
- Q65 A person who believes restaurants should be completely non-smoking is 3.3 times more likely to be happy with a smokefree ordinance as compared to someone who believes that restaurants should have designated smoking areas. A person is 11.1 times more likely to be happy with a smokefree ordinance as compared to someone who believes that restaurants should allow smoking in all areas.
- Q70 A person who believes bars should be completely non-smoking is 2.9 times more likely to be happy with a smokefree ordinance as compared to someone who believes that bars should have designated smoking areas. A person is 8.1 times more likely to be happy with a smokefree ordinance as compared to someone who believes that bars should allow smoking in all areas.

Neutral vs. Unhappy

- Q80 A person who agrees that a smokefree ordinance is about the right to smokefree air (as opposed to the business owners’ right to decide their own smoking policy) is 2.3 times more likely to be neutral with a smokefree ordinance
- Q90 A person who believes that a smokefree ordinance will have a positive effect on the public health of Sheridan (as opposed to no effect) is 1.9 times more likely to be neutral with a smokefree ordinance
- Q95 The expected economic effect on restaurants was coded from 1 to 5 with 1 = down for a long time and 5 = up for a long time. For every 1 point increase in their expectation (more optimistic), the odds of being neutral increase by a factor of 1.3.
- Q130 A person who believes that a smokefree ordinance is primarily an issue of health (and not rights) is 6.0 times more likely to be neutral with a smokefree ordinance

- Q145 Whether a person agrees or disagrees with the statement, “A smokefree ordinance takes away too much personal freedom” was coded as 1 = strongly agree to 5 = strongly disagree. For every 1-point increase in their opinion (more disagreement), then the odds of being neutral increased by a factor of 1.7.
- Q185 A person who does not smoke is 1.4 times more likely to be neutral with a smokefree ordinance as compared to an occasional smoker and 2.0 times more likely to be neutral with a smokefree ordinance as compared to a daily smoker.
- Q65 A person who believes restaurants should be completely non-smoking is 1.04 times more likely to be neutral with a smokefree ordinance as compared to someone who believes that restaurants should have designated smoking areas. A person is 1.07 times more likely to be neutral with a smokefree ordinance as compared to someone who believes that restaurants should allow smoking in all areas.
- Q70 A person who believes bars should be completely non-smoking is 1.2 times more likely to be neutral with a smokefree ordinance as compared to someone who believes that bars should have designated smoking areas. A person is 1.4 times more likely to be neutral with a smokefree ordinance as compared to someone who believes that bars should allow smoking in all areas.

Please note that the variables Q65 (attitude towards smoking policy in restaurants) and Q70 (attitude towards smoking policy in bars) were not significant when comparing those who were neutral versus those who were unhappy, but these variables were significant when comparing those who were happy versus those who were unhappy.