

# **An Observational Study of Compliance With North Dakota's Smoke-Free Law**



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## **Abstract**

The North Dakota Department of Health commissioned an observational study of selected hospitality establishments (restaurants, bowling alleys, bingo halls, and bars) and co-located hospitality establishments to assess compliance with the North Dakota smoke-free law one-year post implementation. The study also assessed indicators of support for smoke-free policy (e.g., posting signage and removing ashtrays). Trained field workers completed the observations. Systematic sampling determined the establishments to be surveyed. Compliance in hospitality establishments was high overall although it decreased substantially in co-located hospitality establishments. Exposure to secondhand smoke still occurred in some establishments intended to be smoke free. North Dakotans who work in or visit establishments that permit smoking continue to be exposed to the dangers of secondhand smoke.

# **An Observational Study of Compliance With North Dakota's Smoke-Free Law**

## **Introduction**

The adverse effects of secondhand smoke, including cancer and cardiovascular disease in adults, and adverse respiratory effects in both children and adults are well documented in the scientific literature (U.S. Department of Health and Human Services [USDHHS], 2006). With the evidence that even short exposures to secondhand smoke can be harmful (USDHHS, 2006); tobacco control advocates in North Dakota undertook efforts to educate the public and policy makers about the dangers of secondhand smoke and drafted comprehensive smoke-free legislation to be introduced in the 59<sup>th</sup> Legislative Assembly in North Dakota in 2005. Prior to the 59<sup>th</sup> Legislative Session, smoking was restricted to designated areas in public places, government buildings, health-care facilities, schools and restaurants (North Dakota Century Code [NDCC] § 23-12-09), and prohibited in licensed early childhood facilities at any time during which a child who receives services from that facility is present and receiving such services (NDCC § 50.11-02.2).

After intense debate, North Dakota's 59<sup>th</sup> Legislative Assembly passed Senate Bill 2300 to amend NDCC § 23-12-09 – Smoking in Public Places and Places of Employment to expand protections from secondhand smoke. The law was implemented on August 1, 2005, and required most public places and workplaces to be smoke free with some exemptions. These exemptions included stand-alone bars; separately enclosed bars in restaurants, hotels and bowling centers; and hotel and motel rooms and other lodging establishments.

Conclusions from a 2006 report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General* indicated there is no risk-free level of exposure to secondhand smoke. Breathing even a little secondhand smoke can be harmful. Establishing smoke-free environments is the only effective way to fully protect nonsmokers from the dangers of secondhand smoke. Smoke-free policies are the most economic and effective approach for providing protection from exposure to secondhand smoke (USDHHS, 2006). With the indisputable scientific evidence available, the North Dakota Department of Health (NDDoH) determined it was important to measure the impact of the law in protecting nonsmokers from secondhand smoke one year after implementation.

In order to evaluate the impact of the smoke-free law, the NDDoH commissioned a variety of assessments. This paper presents the findings of the statewide observational compliance study. The purpose of this study was to assess the impact of North Dakota's smoke-free law on exposure to secondhand smoke in restaurants, bowling alleys, bingo halls, and bars across the state and to monitor changes in the work place environment that support a smoke-free policy (e.g., posting signage and removing ashtrays). The NDDoH commissioned Healthy Communities International (HCI) of Minot State University to conduct the study.

## **Methods**

HCI conducted an observational study of 220 hospitality venues between July and September of 2006 to assess the impact of the smoke-free law. Systematic geopolitical sampling of restaurants, bowling alleys, bingo halls and bars in each of the state's 53

counties determined the establishments to be surveyed. The study also included co-located hospitality establishments.

Up to six establishments from each county were selected for observation. When available, the establishments included two restaurants, one bowling alley, one bingo hall and two bars from each county in North Dakota. Field workers, under guidance of the study authors, enumerated the restaurants, bowling alleys, bingo halls and bars on listings provided from the yellow pages of the local or regional telephone book. Field workers divided the total number of establishments of each type on the list by the number to be visited. The resulting number,  $n$ , was the sampling interval, such that every  $n$ th establishment on the list was selected. A random number determined the starting point and the field worker repeated the process twice. In the event the field worker determined that a selected establishment was in an unsafe location (e.g., where the field worker could harassed or harmed) or otherwise inappropriate to be included in the study, the field worker could replace that establishment with one selected in the second selection process. The initial sample consisted of 105 restaurants, 42 bowling alleys, six bingo halls and 101 bars. In the initial sample substitutions occurred due to establishments being closed in 12 percent (13) of restaurants, 16 percent (16) of the stand-alone bars, and 5 percent (2) of the bowling alleys. After adjusting for establishments that were permanently or seasonally closed and incomplete surveys, the final study population was made up of 102 restaurants, 16 bowling alleys, six bingo halls and 96 bars. During the summer months, when the study was conducted, a substantial number of bowling facilities were closed for the season.

Trained volunteer field workers completed the observations. Two field workers visited each selected establishment at a time judged to be highly active. Each field worker completed a checklist that described and quantified the presence of people smoking, compared his/her checklist for congruency with the other field worker, and submitted one final checklist for data entry. In addition, the field workers described tobacco-use related items (ashtrays and matches), along with any designated smoking or non-smoking areas. Field workers did not disclose the purpose of the visit to patrons, employees or owner/managers and participated in the activities associated with the particular establishment.

HCI formulated the observer checklists using those developed by the New York Department of Health as a resource (New York State Department of Health, n.d., 2006). The checklists for each type of establishment are included in Appendixes A - D.

Data were analyzed using frequency distributions to determine areas of noncompliance with the law. The percentage of establishments with ashtrays visible, signs visible, smoke visible and smoke odor present were calculated based on all the establishments surveyed, not just those that permitted smoking. The characterization of visible smoke or smoke odor (light, moderate, or heavy) was calculated based on only those establishments where it was detectable. Due to rounding, percentages may not always add up to 100 percent.

## Results

### Characteristics of the Establishments Surveyed

The characteristics of the establishments varied widely in communities. Table 1 reflects the findings regarding seating capacity and the number of establishments that were co-located with other hospitality venues.

**Table 1**

***Characteristics of Establishments Surveyed***

	Venue			
	Restaurants	Bowling Alleys	Bingo Halls	Bars
Number Surveyed (n)	102	16	6	96
Seating Capacity Range	0-220	15-254	200-525	12-300
Co-located Dining Area (n)		8		
Seating Capacity Range		20-69		
Co-located Bar Area (n)	20	13	1	
Seating Capacity Range	7-150	15-97	50	
Co-located Outdoor Area (n)	13			10
Seating Capacity Range	6-40			8-40

### Restaurants

Field workers conducted observations at 102 restaurants. No field workers were asked if they wanted to be seated in smoking or non-smoking sections. Smoking was permitted and observed in two percent (2) of the restaurants assessed, which was non-compliant with the state law. Smoke was visible in one percent (1) of the restaurants and was characterized as light. Smoke odor was noted in six percent (6) of the restaurants. The odor was characterized as light in sixty-seven percent (4) and as moderate in thirty-

three percent (2) of the restaurants. Five percent (5) of the restaurants had ashtrays visible and seven percent (7) had signs designating smoking policy.

#### *Co-located Bar Area of Restaurants*

Twenty percent (20) of the restaurants had a bar area. Smoking was permitted in 60 percent (12) of the bar areas. Seventy-five percent (9) of the bar areas that allowed smoking were separately enclosed; 25 percent (3) were not enclosed which was non-compliant with state law. Two-thirds (67% - 6) of the bar areas that were separately enclosed had the doors shut, but 33 percent (3) did not, which was non-compliant with state law. Seventy-five percent (9) of the bar areas that permitted smoking had individuals smoking in those areas. Twenty percent (4) of the bar areas had smoke visible. The smoke was characterized as light in 50 percent (2) and moderate in 50 percent (2) of the bar areas. Forty-five percent (9) of the bar areas had smoke odor. The odor was characterized as light in 44 percent (4) and moderate in 56 percent (5) of the bar areas. Over one-half (55% - 11) of the bar areas had ashtrays visible and fifteen percent (3) of the bar areas had signs designating smoking policy.

#### *Co-located Waiting Area of Restaurants*

Twelve percent (12) of the restaurants had waiting areas, one allowed smoking which was non-compliant with state law; however, no one was observed smoking in any of the waiting areas.

#### *Co-located Outdoor Areas of Restaurants*

Thirteen percent (13) of the restaurants assessed had outdoor areas. Smoking was permitted in 54 percent (7) of the outdoor areas. Field workers noted individuals smoking in only 29 percent (2) of the outdoor areas that permitted smoking. Smoke was

visible in eight percent (1) of the outdoor areas and was characterized as light. Smoke odor was not noted in any of the outdoor areas. Twenty-three percent (3) of the outdoor areas had ashtrays visible and no signs related to smoking policy were posted in any of the outdoor areas. The law does require that outdoor areas be smoke free or that signs be posted.

### **Bowling Alleys**

Field workers conducted observations at 15 of the 16 bowling alleys that were open. At one site the bowling alley was closed but the co-located venues were open. No one was observed smoking in 100 percent of the bowling alleys assessed and smoke was not visible in any of the bowling alleys. However, field workers reported that 33 percent (5) of the bowling alleys had smoke odor characterized as light. None of the bowling alleys had ashtrays visible and 13 percent (2) had signage designating smoking policy.

#### *Co-located Dining Area of Bowling Alleys*

Fifty percent (8) of the bowling alleys observed had a dining area. Smoking was permitted in 25 percent (2) of the dining areas, which was non-compliant with the law. In one of the two dining areas where smoking was permitted, individuals were observed smoking. Field workers reported smoke was not visible in any of the dining areas; however, smoke odor was noted in 13 percent (1) of the dining areas and was characterized as light. Ashtrays were visible in 13 percent (1) of the dining areas and no signage designating smoking policy was observed in any of the dining areas.

#### *Co-located Bar Areas of Bowling Alleys*

Bar areas were present in 81 percent (13) of the bowling alleys observed. Twelve of the 13 bar areas were observed as one bar area was closed. Of the bar areas that were

open, 83 percent (10) permitted smoking and 100 percent (10) of the bar areas were separately enclosed as required by state law. One-half (50% - 5) of the bar areas that were separately enclosed and permitted smoking (10) had the door shut; however, 50 percent (5) did not, which was non-compliant with state law. Field workers noted individuals smoking in 50 percent (5) of the bar areas where smoking was permitted. Smoke was visible in 17 percent (2) of the bar areas. The smoke was characterized as moderate in both cases. Smoke odor was noted in 75 percent (9) of the bar areas and was characterized as light 67 percent (6) and moderate 33 percent (3) in the establishments where it was noted. Ashtrays were visible in 75 percent (9) of the bars areas and eight percent (1) had signage designating smoking policy.

### **Bingo Halls**

Field workers conducted observations at six bingo halls. No one was observed smoking in 100 percent of the bingo halls assessed and smoke was not visible at any of the locations. Field workers reported a moderate level of smoke odor in 17 percent (1) of the bingo halls. None of the bingo halls had ashtrays visible and 17 percent (1) had signage designating smoking policy.

### *Co-located Bar Areas of Bingo Halls*

Seventeen percent (1) of the bingo halls had a bar area and smoking was permitted there. The bar area was enclosed with the door shut as required by state law. Field workers noted individuals smoking in the bar area. Smoke was visible and characterized as heavy. Smoke odor was present and characterized as heavy. Ashtrays were visible in the bar area of the bingo hall and signage was present designating smoking policy.

## **Stand-alone Bars**

Field workers conducted observations at 96 bars. The state law currently allows smoking in stand-alone bars. Smoking was observed at 85 percent (82) of the bars assessed. Field workers reported smoke as visible in 66 percent (63) of the bars and characterized it as light in 41 percent (26), moderate in 41 percent (26) and heavy in 17 percent (11) of the bars. Smoke odor was noted in 90 percent (86) of the bars. The odor was characterized as light in 26 percent (22), moderate in 53 percent (46) and heavy in 21 percent (18) of the bars. Ashtrays were visible in 94 percent (90) of the bars and 5 percent (5) had signage designating smoking policy.

### *Outdoor Areas of Stand-alone Bars*

Ten percent (10) of the bars had an outdoor area and all permitted smoking. One outdoor area was temporarily closed and unable to be assessed. Of the outdoor areas observed, only twenty-two percent (2) of the outdoor areas had individuals smoking. Smoke was visible and characterized as light in one establishment and not reported in the other. Smoke odor was noted in eleven percent (1) of the outdoor areas and was characterized as light. Ashtrays were visible in 67 percent (6) of the outdoor areas and signage designating smoking policy was not reported in any outdoor areas observed.

## **Discussion**

### **Compliance**

The study indicates overall compliance with the law was high, with compliance in the primary establishments assessed at 100 percent for bingo halls and bowling alleys, and 98 percent for restaurants. The state law doesn't require stand-alone bars to be smoke free; therefore, data was not gathered for compliance but as baseline for future

measurements. Compliance rates decreased substantially in the co-located establishments with only 70 percent compliance in bar areas of restaurants, 75 percent compliance in dining areas of bowling alleys and 58 percent compliance in bar areas of bowling alleys. Bar areas of bingo halls were 100 percent compliant. According to state law, conditions related to noncompliance included permitting smoking in areas required to be smoke free; not separately enclosing co-located bars; and not keeping doors of co-located establishments closed. A major area of noncompliance was the bar areas of restaurants as one-fourth were not separately enclosed and one-third did not keep the doors between the bar and restaurant shut. See Table 2 for a summary of compliance.

**Table 2**

***Establishment Compliance with North Dakota Smoke-Free Law***

	Venue		
	Restaurants	Bowling Alleys	Bingo Halls
Number Surveyed (n)	102	16	6
Percent Compliant (n) (%)	(100) (98%)	(16) (100%)	(6) (100%)
Co-located Dining Area		8	
Percent Compliant (n) (%)		(6) (75%)	
Co-located Bar Area	20	12	1
Percent Compliant (n) (%)	(14) (70%)	(7) (58%)	(1) (100%)

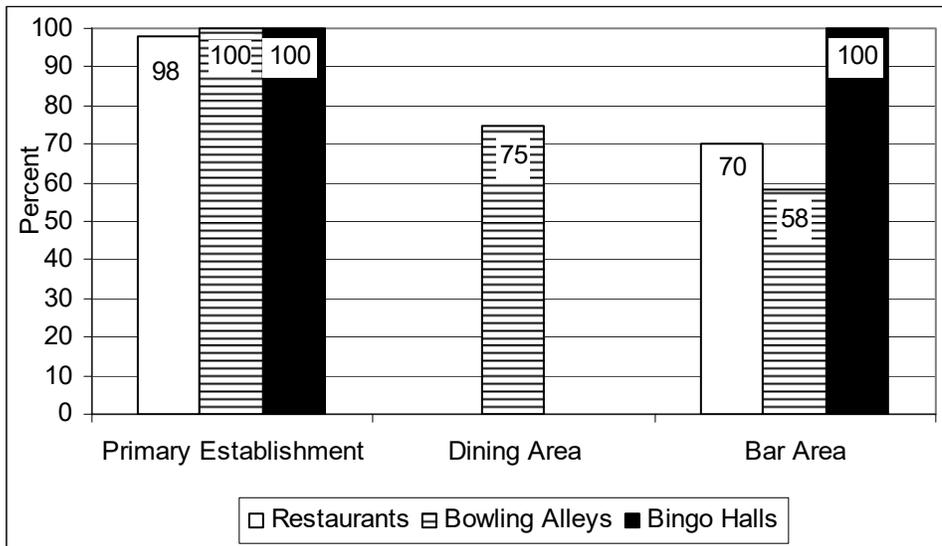
**Limitations of the Study**

The systematic geopolitical sampling methodology used resulted in a similar number of establishments observed in each county. The sample was not representative of the establishments in the county, but was a geopolitical representation of all counties in the state. A large number of bowling alleys in the state were closed for the season.

Therefore, the data for bowling alleys may not be representative of all the bowling alleys in the state, but only of those that were surveyed.

### Conclusions

The study indicates overall compliance with the smoke-free law was high (see Figure 1). However, exposure to secondhand smoke still occurred in establishments that the Legislature intended to be smoke free. North Dakotans who work in or visit establishments that permit smoking continue to be exposed to the dangers of secondhand smoke. Restaurants that still allowed smoking and bar areas that were not enclosed or did not keep doors shut evidenced this. In addition, the number of facilities that reported smoke odor when co-located with other establishments was evidence of smoke drift that may have occurred through shared ventilation systems or doors that did not remain shut.



**Figure 1. Compliance Rates of Primary and Co-located Establishments**

Noncompliance was a concern in a minority of establishments. According to *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General* (USDHHS, 2006) there is no risk-free level of exposure to secondhand

smoke. Breathing even a little secondhand smoke can be harmful. North Dakotans who work at or visit establishments that permit smoking continue to be exposed to the dangers of secondhand smoke.

### **Recommendations**

Given the high level of compliance with the current law, establishing smoke-free laws appears to be an effective method to reduce exposure to secondhand smoke. Health care advocates and policy makers should continue to work toward establishing smoke-free environments in all public places and places of employment so all workers and patrons are protected from secondhand smoke. Research indicates establishing comprehensive smoke-free policies is the most economic and effective way to fully protect nonsmokers from the dangers of secondhand smoke.

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Appendix A

**Clean Indoor Air – Observational Study Checklist for Restaurants**  
 North Dakota Department of Health  
 Division of Tobacco Prevention and Control

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Day of the week: (Should be Thursday through Sunday) \_\_\_\_\_

Date of Observation: \_\_\_\_\_

Time of Observation: (Should be during peak business hours) \_\_\_\_\_

Restaurant Name: \_\_\_\_\_

Restaurant Address: \_\_\_\_\_

Observer Name: \_\_\_\_\_

What is the maximum legal occupancy of this restaurant?	_____ Legal occupancy as posted
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**Checklist for Restaurant: Dining Area Observations**

Did wait staff inquire if you wanted to be seated in a smoking or non-smoking section?  
 \_\_Yes \_\_No

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy

3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the restaurant?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	
6.	How many patrons can be seated in this dining area?	_____ Number of seats		

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Checklist for Restaurant: Bar Area**

Is there a bar in this restaurant?  Yes  No

If Yes, complete the remainder of the questions in this section.

Is smoking permitted in the bar area of this restaurant?  Yes  No

Is the bar area completely enclosed?  Yes  No

Is the door separating the bar from the restaurant kept shut?  Yes  No

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the restaurant bar area?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	
6.	How many patrons can be seated in this bar area?	_____ Number of seats		

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Checklist for Restaurant: Waiting Area Observations**

Is there a waiting area in this restaurant?  Yes  No

If Yes, complete the remainder of the questions in this section.

Is smoking permitted in the waiting area of this restaurant?  Yes  No

		Check the correct box or fill in the correct number
1.	Is there anyone smoking in this area?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1a.	If yes to Question 1, how many people were observed smoking?	<input type="text"/> Number of people observed smoking
2.	How many people were waiting when this observation was conducted?	<input type="text"/> Number of people waiting in the waiting area

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Checklist for Restaurant: Outdoor Seating Area

Is there an outdoor seating section of this restaurant?  Yes  No

If Yes, complete the remainder of the questions in this section.

Is smoking permitted in the outdoor seating area of the restaurant?  Yes  No

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the outdoor seating area?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	
6.	How many patrons can be seated in this outdoor area?	_____ Number of seats		

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Appendix B

**Clean Indoor Air – Observational Study Checklist for Bars/Taverns**

North Dakota Department of Health  
 Division of Tobacco Prevention and Control

Day of the week: (Should be Thursday through Sunday) \_\_\_\_\_

Date of Observation: \_\_\_\_\_

Time of Observation: (Should be in the evening) \_\_\_\_\_

Bar/Tavern Name: \_\_\_\_\_

Bar/Tavern Address: \_\_\_\_\_

\_\_\_\_\_

Observer Name: \_\_\_\_\_

What is the maximum legal occupancy of this bar/tavern?	_____ Legal occupancy as posted
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**Checklist for Bar/Tavern: Bar/Tavern Area Observations**

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	

3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the bar/tavern?	Yes		No
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes		No
6.	How many patrons can be seated in this bar area?	_____ Number of seats		

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Checklist for Bar/Tavern: Outdoor Seating Area**

Is there an outdoor seating section of this bar/tavern?  Yes  No  
 If Yes, complete the remainder of the questions in this section.

Is smoking permitted in this area?  Yes  No

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the outdoor seating area?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	
6.	How many patrons can be seated in this outdoor area?	_____ Number of seats		

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Appendix C

**Clean Indoor Air – Observational Study Checklist for Bowling Alleys**

North Dakota Department of Health  
 Division of Tobacco Prevention and Control

Date of Observation: \_\_\_\_\_

Time of Observation: (Should be during peak business hours) \_\_\_\_\_

Name of Bowling Alley: \_\_\_\_\_

Bowling Alley Address: \_\_\_\_\_

\_\_\_\_\_

Observer Name: \_\_\_\_\_

**Checklist for Bowling Alley: Bowling Alley Observations**

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the bowling alley?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	

6.	How many patrons can be seated in this bowling area?	_____ Number of seats
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Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Checklist for Bowling Alley: Dining Area**

Is there a separate eating section of this bowling alley?  Yes  No

If Yes, complete the remainder of the questions in this section.

Is smoking permitted in this area?  Yes  No

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the dining area?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	
6.	How many patrons can be seated in this dining area?	_____ Number of seats		

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Checklist for Bowling Alley: Bar Area**

Is there a separate bar area of this bowling alley?  Yes  No  
 If Yes, complete the remainder of the questions in this section.

Is smoking permitted in this area?  Yes  No

Is the bar area completely enclosed?  Yes  No

Is the door separating the bar from the restaurant kept shut?  Yes  No

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes		No
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes		No
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes		No
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the bar area?	Yes		No
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes		No
6.	How many patrons can be seated in this bar area?	_____ Number of seats		

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Appendix D

**Clean Indoor Air – Observational Study Checklist for Bingo Halls**

North Dakota Department of Health  
Division of Tobacco Prevention and Control

Date of Observation: \_\_\_\_\_

Time of Observation: (Should be during peak business hours) \_\_\_\_\_

Name of Bingo Hall: \_\_\_\_\_

Bingo Hall Address: \_\_\_\_\_

\_\_\_\_\_

Observer Name: \_\_\_\_\_

**Checklist for Bingo Hall: Bingo Hall Observations**

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the bingo hall?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	

6.	How many patrons can be seated in this bingo area?	_____ Number of seats
----	--	-----------------------

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Checklist for Bingo Hall: Bar Area

Is there a separate bar area of this bingo hall?  Yes  No

If Yes, complete the remainder of the questions in this section.

Is smoking permitted in this area?  Yes  No

Is the bar area completely enclosed?  Yes  No

Is the door separating the bar from the restaurant kept shut?  Yes  No

		Check the correct box or fill in the correct number		
1.	Is there anyone smoking in this area?	Yes	No	
1a.	If yes to Question 1, how many people were observed smoking?	_____ Number of people observed smoking		
2.	Is cigarette smoke visible to the naked eye?	Yes	No	
2a.	If yes to Question 2, Characterize the presence of tobacco smoke: Light (slightly visible smoke) Moderate (moderately visible) or Heavy (thick smoke)	Light	Moderate	Heavy
3.	Do you detect the odor of cigarette smoke?	Yes	No	
3a.	If yes to Question 3, characterize the odor of cigarette smoke: Light (slight odor) Moderate (moderate odor) or Heavy (strong odor)	Light	Moderate	Heavy
4.	Are there ashtrays visible in the bar area?	Yes	No	
5.	Are there signs posted that designate smoking from non-smoking areas?	Yes	No	
6.	How many patrons can be seated in this bar area?	_____ Number of seats		

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **Author Note**

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