



Smoke-Free Policies in the Workplace and in the Home among American Indians

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Abstract

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Methods: We examined correlates of smoke-free policies at home and work in a sample of American Indians in the Midwest using a community-based participatory research approach.

Results: 66.7% were nonsmokers, 15.6% smoked on some days, and 17.6% smoked every day. The majority (72.4%) had complete smoke-free home policies, 13.1% had partial restrictions, and 14.5% had no rules. Moreover, 62.7% had complete smoke-free worksite policies, 27.9% had partial policies, and 9.4% had no worksite smoke-free policies. Factors associated with having a complete smoke-free home policy included being a college graduate ($p=.005$) and a nonsmoker versus a nondaily ($p=.006$) or a daily smoker (p

Conclusions: Having complete worksite policies was related to having smoke-free home policies; both were associated with being a nonsmoker.

Keywords

American Indians; Indians of North America; Nonsmoking areas; Passive smoking; Secondhand smoke; Smoke-free policies; Smoking; Smoking in the workplace



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Smoke-Free Policies in the Workplace and in the Home among American Indians

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ABSTRACT

Objectives: American Indians are more likely to smoke, less likely to have smoke-free homes, and potentially less likely to have worksite smoke-free policies. We examined correlates of smoke-free policies at home and work among a community-based sample of American Indians in the Midwest.

Methods: We examined correlates of smoke-free policies at home and work in a sample of American Indians in the Midwest using a community-based participatory research approach.

Results: 66.7% were nonsmokers, 15.6% smoked on some days, and 17.6% smoked every day. The majority (72.4%) had complete smoke-free home policies, 13.1% had partial restrictions, and 14.5% had no rules. Moreover, 62.7% had complete smoke-free worksite policies, 27.9% had partial policies, and 9.4% had no worksite smoke-free policies. Factors associated with having a complete smoke-free home policy included being a college graduate ($p=.005$) and a nonsmoker versus a nondaily ($p=.006$) or a daily smoker ($p<.001$). Correlates of having a complete smoke-free worksite policy included being female ($p=.005$) and a nonsmoker versus a nondaily ($p=.03$) or a daily smoker ($p<.001$). Having complete worksite policies was associated with having smoke-free homes ($p<.001$).

Conclusions: Having complete worksite policies was related to having smoke-free home policies; both were associated with being a nonsmoker.

Keywords: Smoking, smoke-free policies, secondhand smoke, American Indians

INTRODUCTION

Cigarette smoking remains one of the leading causes of preventable disease in the United States **Error! Bookmark not defined.** Despite substantial efforts to decrease its prevalence, 20.6% of Americans continue to smoke (Centers for Disease Control and Prevention, 2010). More American Indian/Alaska Native adults smoke (23.2%) than any other racial or ethnic group (22.1% of White adults, 21.3% of Black adults, 14.5% of Hispanic adults, 12.0% of Asian adults) (Centers for Disease Control and Prevention, 2010).

Exposure to secondhand smoke (SHS), a known human carcinogen (U.S. Department of Health and Human Services, 2006), has been linked to a variety of chronic illnesses including cancer (Kasim, Levallois, Abdous, Auger, & Johnson, 2005), cardiovascular disease (Ong & Glantz, 2004), asthma (Choudhry et al., 2005), and chronic obstructive pulmonary disease (Eisner et al., 2005). Approximately 60% of nonsmokers – more than 126 million nonsmokers – in the U.S. have biologic evidence of exposure to SHS (i.e., escalated carbon monoxide and tobacco-specific carcinogen levels) (U.S. Department of Health and Human Services, 2006). An estimated 22% of children are exposed to SHS in their homes (U.S. Department of Health and Human Services, 2006), which may lead to unnecessary cases of bronchitis, pneumonia, otitis media, and worsened asthma.

Since the release of the 1986 Surgeon General's report and then the 2006 Surgeon General's report, public attitude toward secondhand smoke exposure has changed significantly (Office on Smoking and Health, 1986; U.S. Department of Health and Human Services, 2006). The health consequences of exposure to SHS have led government agencies and many employers to establish policies that restrict cigarette smoking in public areas and workplaces (U.S. Department of Health and Human Services, 2006). In addition to smoke-free policies reducing SHS exposure, smoking restrictions have been associated with a reduction in the prevalence of smoking and in the number of cigarettes smoked among workers who do not completely quit. For example, a 10% reduction in daily cigarette consumption occurred in the first two years a worksites participating in the healthy workers project that changed from non-restrictive to restrictive smoking policies (Jeffery et al., 1994). Workplace smoking restrictions may also be associated with a lower overall prevalence of current smoking, higher lifetime quit rates, more recent quit attempts, and lower daily cigarette consumption (Farrelly, Evans, & Sfekas, 1999; Fichtenberg & Glantz, 2002; Jeffery, et al., 1994).

Although the potential health benefits of a smoke-free workplace are clear (Ong & Glantz, 2004), the presence of policies that restrict smoking in the workplace may vary by geographical region, occupation, industry (Delnevo, Hrywna, & Lewis, 2004), and socioeconomic status (Shavers et al., 2006). For example, blue collar workers may have higher exposure to secondhand smoke in manufacturing and assembly workplaces because smoking restrictions either do not exist or are may not be strictly enforced in these settings (Aakko, Schafer, Gyarmathy, Narita, & Remington, 2001; U.S. Department of Health and Human Services, 2006).

Although tobacco control efforts that promote smoke-free homes may give family members leverage to influence others not to smoke in the home (Levy, Romano, & Mumford, 2004), the prevalence of home smoking restrictions still vary widely among population subgroups (Gilman, Abrams, & Buka, 2003). American Indians are less likely to have smoke-free homes than other racial/ethnic groups. For example, one study found that fewer American Indian/Alaska Native women (59.4%) reported home smoking restrictions than did White

(64.0%), Black (64.4%), Hispanic (78.0%), and Asian/Pacific Islander (79.2%) women (Shavers, et al., 2006). Another study documented only 48.0% of American Indians reporting smoke-free home policies (Baker, Forster, Rhodes, & Davey, 2006).

The present study aimed to examine correlates of having complete smoke-free home policies and having smoke-free worksite policies among a community-based sample of American Indians residing in the Midwest.

METHODS

Study Participants

This study used a community-based participatory research approach, with community members collaborating in the design of the survey, determining the recruitment strategies of the study, administering the survey, assisting with data management and analysis, and helping with dissemination. We have successfully been using this approach with American Indians in this region for over seven years (Daley et al., 2010a, 2010b, 2011). In the case of this study, the use of surveys at different community events to help community members learn about us and our research was suggested by our Community Advisory Board. While we gathered data, people came to see us and learned about all of the other things that we do with the community. American Indian members of our research team helped us to determine which questions should be included in the surveys and members of our Community Advisory Board helped us to pilot test the survey.

We used multiple methods to recruit participants – both smokers and nonsmokers – into this study, including pow wows, focus groups, health fairs, new student orientation for American Indian students, and other American Indian events in the region. This approach was chosen because there is no comprehensive list of American Indian residents of Kansas or the region. We, therefore, asked our Community Advisory Board members and American Indian members of our research team to determine methods of recruitment. We recruited 207 participants from pow wows in Kansas and the region, 211 participants from focus groups, 124 participants from health fairs and physicals, 275 participants from career fairs and conferences, and 181 participants from other events and through snowball sampling. All recruitment was done by American Indian members of the research team. We recruited a total of 998 American Indians from May 2008 to December 2009. The cooperation rate for this study was approximately 76% across all methods of recruitment. Each participant completed a self-administered survey that took approximately 20 to 30 minutes to complete. Participants were reimbursed with a \$10 gift card for their time and participation.

Men and women who self-identified as American Indian (only or in part) and were at least 18 years of age were eligible to participate in the study. The survey included questions about general health, participant demographics, traditional tobacco use, commercial tobacco use, knowledge and attitudes related to cancer, use of the internet, source of health information and health care, and other health related behaviors. This study was approved by IRBs of the University of Kansas Medical Center and multiple American Indian Nations.

Measures

Sociodemographics

We assessed age, gender, education level, where participants grew up (urban areas, rural areas, or reservations), marital status, whether there were children present in the home, and

whether they had insurance and/or access to the Indian Health Service or tribal health care (outpatient health programs/facilities operated by tribal organizations [638 clinics]).

Smoking Characteristics

To assess current smoking status, participants were asked, “Do you now smoke cigarettes.... every day, some days, or not at all.” Current (recreational) smokers are those who answered “every day or some days” (Substance Abuse and Mental Health Services Administration, 2009). Among smokers, we determined level of smoking by the question, “On average, how many cigarettes do you now smoke in one day?” (Substance Abuse and Mental Health Services Administration, 2009). We estimated nicotine dependence by asking, “How soon after you wake up do you smoke your first cigarette? Within 5 minutes, 6-30 minutes, 31-60 minutes, after 60 minutes” (Fagerstrom & Schneider, 1989).

To assess quitting intentions and history, participants were asked, “Are you seriously thinking about quitting in the next 30 days?” (Prochaska & DiClemente, 1984) and “In the last 12 months, how many times have you tried to quit smoking for at least one day?” (California Department of Health and Human Services. Tobacco Control Section, 1999).

To assess ceremonial or traditional use of tobacco, we asked, “Do you use tobacco for traditional purposes, such as ceremonial, spiritual, or prayer, etc.?” (Faseru, Daley, Gajewski, Pacheco, & Choi). We also asked, “How many people in your house smoke non-traditionally (including you)?” to ascertain if there were others smokers present in the home.

Perceived Harm of Smoking and Secondhand Smoke

To assess perceived harm of secondhand smoke exposure, participants were asked, “Is secondhand smoke harmful?” and “Compared to smoking cigarettes, do you believe secondhand smoke is...as harmful, more harmful, less harmful?”

Home Smoking Restrictions

Participants were asked, “Which statement best describes the rules about smoking inside your home? No one is allowed to smoke anywhere inside your home; smoking is allowed in some places or at some times inside your home; or smoking is allowed anywhere and anytime inside your home” (Shavers, et al., 2006).

Worksite Smoking Policies

To assess worksite smoking policies, participants were asked a series of questions adapted from prior research (Shavers, et al., 2006), listed below.

- “Does your place of work have an official policy that restricts smoking in any way?”
- “During the past 2 weeks, has anyone smoked in your work area?”
- “Which of these best describes your place of work's smoking policy for indoor public or common areas, such as lobbies, rest rooms, and lunch rooms? Not allowed in any public areas, allowed in some public areas, allowed in all public areas.”
- “Which of these best describes your place of work's smoking policy for work areas? Not allowed in any work areas, allowed in some work areas, allowed in all work areas.”
- “During the past year, has your employer offered any stop smoking program or any other help to employees who want to quit smoking?”

Data Analysis

Our outcome variables of interest included (1) having complete home smoking restrictions and (2) having worksite policies completely restricting smoking in all public places. Participant characteristics were summarized using means and standard deviations and *N* and percentages. We then conducted bivariate analyses examining differences between participants

who had complete home smoke-free policies vs. having partial or no home smoke-free policies and differences between participants who had complete worksite smoke-free policies in all public places vs. having partial or no smoke-free policies in these areas. Finally, we conducted two binary logistic regression models examining factors related to having complete home smoking restrictions and factors related to having complete worksite smoking restrictions in public areas. We forced gender, age, and education level into the models and then used forwards stepwise entry for factors that were significant at $p < 0.10$ in the bivariate analyses, allowing only those variables that significantly contribute to the models at $p < 0.05$ to remain in the models. We also examined interactions between smoking status (nonsmoker vs. smoker) and other important factors. All analyses were conducted using SAS version 9.1.

RESULTS

Participant socio-demographic and smoking-related characteristics, as well as bivariate analyses, are displayed in Tables 1 and 2, respectively. In this sample, 66.7% were nonsmokers, 15.6% smoked on some days, and 17.6% smoked every day. In regard to home smoke-free policies, 72.4% had complete smoke-free policies, 13.1% had partial smoke-free policies, and 14.5% had no rules about smoking. We also found that 62.7% had complete smoke-free policies at work, 27.9% had partial policies, and 9.4% had no worksite smoke-free policies.

Table 1. Participant sociodemographics and bivariate analysis of smoke-free policies in the home and at the worksite, N=998

Variable	All N (%) or Mean (SD)	Home		p	Work		p
		Complete ban N (%) or M (SD)	No/partial ban N (%) or M (SD)		Complete ban N (%) or M (SD)	No/partial ban N (%) or M (SD)	
Age (SD)	33.50 (15.51)	32.52 (15.05)	34.78 (15.47)	.056	35.53 (15.05)	34.78 (15.47)	.059
Gender (%)				.395			.001
Male	419 (42.2)	276 (41.9)	114 (45.1)		195 (38.8)	153 (50.8)	
Female	574 (57.8)	382 (58.1)	139 (54.9)		308 (61.2)	148 (49.2)	
Education level (%)				.003			.060
≤ High school	326 (33.0)	193 (29.4)	102 (40.8)		145 (28.8)	95 (32)	
Some college	518 (52.4)	357 (54.4)	121 (48.4)		268 (53.2)	167 (56.2)	
College graduate	145 (14.7)	106 (16.2)	27 (10.8)		91 (18.1)	35 (11.8)	
Where did you grow up (%)				.092			.237
Urban/Suburban area	310 (33.2)	204 (32.7)	77 (33.2)		161 (34.2)	81 (28.3)	
Rural area	191 (20.4)	120 (19.2)	59 (25.4)		95 (20.2)	65 (22.7)	
Reservation	434 (46.4)	300 (48.1)	96 (41.4)		215 (45.6)	140 (49)	
Marital status (%)				.445			.003
Married/living with partner	322 (32.6)	218 (33.3)	77 (30.7)		183 (36.3)	77 (26.1)	
Other	665 (67.4)	436 (66.7)	174 (69.3)		321 (63.7)	218 (73.9)	
Have children (%)				.835			.040
No	470 (48.4)	314 (48.6)	121 (49.4)		231 (46.6)	156 (54.2)	
Yes	502 (51.6)	332 (51.4)	124 (50.6)		265 (53.4)	132 (45.8)	
Insurance				.130			.454
None	16 (1.6)	8 (1.2)	8 (3.2)		8 (1.6)	2 (0.7)	
IHS	295 (29.6)	198 (29.9)	73 (28.9)		154 (30.5)	98 (32.6)	
Other	687 (68.8)	456 (68.9)	172 (68.0)		343 (67.9)	201 (66.8)	

Note: Discrepancies in total N indicates missing data.

Table 2. Participant smoking characteristics and bivariate analysis of smoke-free policies in the home and at the worksite, N=998

Variable	All N (%)	Home		p	Work		p
		Complete ban N (%)	No/partial ban N (%)		Complete ban N (%)	No/partial ban N (%)	
Current smoking status				<.001			<.001
Smokes every day	176 (17.6)	76 (11.5)	96 (37.9)		71 (14.1)	70 (23.3)	
Smokes some days	156 (15.6)	105 (15.9)	47 (18.6)		76 (15.0)	62 (20.6)	
Did not smoke at all	666 (66.7)	481 (72.7)	110 (43.5)		358 (70.9)	169 (56.1)	
Quit attempt in past year *				.732			.102
No	213 (64.16)	116 (64.09)	89 (62.24)		84 (57.14)	88 (66.67)	
Yes	119 (35.84)	65 (35.91)	54 (37.76)		63 (42.86)	44 (33.33)	
Readiness to quit in next 30 days *				.080			.749
No	191 (60.25)	95 (56.21)	93 (65.96)		83 (59.29)	74 (57.36)	
Yes	126 (39.75)	74 (43.79)	48 (34.04)		57 (40.71)	55 (42.64)	
Ave. CPD (M, SD) *	10.13 (13.20)	7.79 (11.45)	12.89 (14.56)	.001	9.40 (14.17)	9.85 (13.22)	.796
Ceremonial use of tobacco				.039			.283
No	237 (30.8)	166 (32.5)	50 (24.6)		123 (31.2)	65 (27.2)	
Yes	532 (69.2)	345 (67.5)	153 (75.4)		271 (68.8)	174 (72.8)	
Other smokers in home				<.001			.369
No	642 (64.3)	489 (73.9)	75 (29.6)		323 (64.0)	183 (60.8)	
Yes	356 (35.6)	173 (26.1)	178 (70.4)		182 (36.0)	118 (39.2)	
Perceived Risk							
SHS is harmful				.197			.110
No	38 (4.1)	22 (3.4)	13 (5.3)		17 (3.4)	17 (5.8)	
Yes	885 (95.9)	621 (96.6)	232 (94.7)		484 (96.6)	278 (94.2)	
Compared to smoking, believe SHS is				<.001			.226
As harmful	516 (56.2)	379 (59.2)	119 (48.4)		292 (58.8)	156 (52.9)	
More harmful	314 (34.2)	213 (33.3)	89 (36.2)		162 (32.6)	106 (35.9)	
Less harmful	89 (9.7)	48 (7.5)	38 (15.4)		43 (8.7)	33 (11.2)	
Smoke-Free Policies							
Home smoking rules							<.001
Complete ban	662 (72.4)	--	--	--	394 (79.8)	183 (63.3)	
Partial ban	120 (13.1)				47 (9.5)	59 (20.4)	
No rules	133 (14.5)				53 (10.7)	47 (16.3)	
Worksite policy in public areas				<.001	--	--	--
Complete ban	505 (62.7)	394 (68.3)	100 (48.5)				
Partial ban	225 (27.9)	143 (24.8)	75 (36.4)				
No rules	76 (9.4)	40 (6.9)	31 (6.9)				
Worksite smoking policy in work areas				<.001			<.001
Complete ban	557 (69.0)	423 (73.1)	121 (59.0)		454 (90.3)	97 (33)	
Partial ban	191 (23.7)	130 (22.5)	56 (27.3)		43 (8.5)	145 (49.3)	
No rules	59 (7.3)	26 (4.5)	28 (13.7)		6 (1.2)	52 (17.7)	
Any official work policy				<.001			<.001
No	236 (29.1)	142 (24.7)	84 (39.8)		87 (18)	130 (45)	
Yes	574 (7.3)	434 (75.3)	127 (60.2)		397 (82)	159 (55)	
Any smoking at work in past 2 weeks				.002			<.001
No	621 (77.1)	463 (80.0)	142 (69.3)		427 (86.6)	180 (61.6)	
Yes	185 (22.9)	116 (20.0)	63 (30.7)		66 (13.4)	112 (38.4)	
Employer offered cessation services				.137			<.001
No	655 (81.7)	452 (80.4)	182 (85.0)		371 (77.8)	251 (86.6)	
Yes	147 (18.3)	110 (19.6)	32 (15.0)		106 (22.2)	39 (13.4)	

* Among smokers.

Note: Discrepancies in total N indicate missing data.

Correlates of having complete smoke-free policies in the home included higher education ($p = 0.003$), not having other smokers in the home ($p < 0.001$), being a nonsmoker or a nondaily smoker ($p < 0.001$), fewer cigarettes per day among smokers ($p = 0.001$), no ceremonial use of tobacco ($p = 0.04$), perceiving secondhand smoke as being at least as harmful as smoking ($p < 0.001$), having some type of worksite smoke-free policy ($p < 0.001$), and not recently being exposed to smoking at work ($p = 0.002$; see Tables 1 and 2). Factors associated with having worksite smoke-free policies in all areas included being female ($p = 0.001$), being married ($p = 0.003$), having children ($p = 0.04$), being a nonsmoker or nondaily smoker ($p < 0.001$), having a ban in work areas at work ($p < 0.001$), not having been exposed to smoking recently at work ($p < 0.001$), and having cessation services available at work ($p < 0.001$; see Tables 1 and 2). Table 3 displays the logistic regression models comparing participants with complete home smoke-free

policies versus those without complete home smoke-free policies and comparing those with complete work smoke-free policies versus those without complete work smoke-free policies. Factors associated with having a complete smoke-free home policy included being a college graduate ($p = 0.005$) and being a nonsmoker versus a nondaily smoker ($p = 0.006$) or a daily smoker ($p < 0.001$). Correlates of having a complete smoke-free policy at work included being female ($p = 0.005$) and being a nonsmoker versus a nondaily smoker ($p = 0.03$) or a daily smoker ($p < 0.001$). No significant interactions were found between smoking status and other important factors associated with having smoke-free policies in the home or at work.

Table 3. Logistic regression predicting complete smoke-free policies in the home and at the worksite

Variable	OR	95% CI	p
<i>Correlates of smoke-free home policies</i>			
Age	0.99	0.98, 1.00	.063
Gender			
Male	Ref	—	—
Female	1.26	0.90, 1.77	.177
Education level			
≤ High school	Ref	—	—
Some college	1.42	0.99, 2.04	.057
College graduate	2.28	1.29, 4.01	.005
Smokes			
Not at all	Ref	—	—
Smokes some days	0.53	0.34, 0.83	.006
Smokes every days	0.19	0.13, 0.28	<.001
<i>Correlates of smoke-free worksite policies</i>			
Age	1.01	1.00, 1.02	.205
Gender			
Male	Ref	—	—
Female	1.59	1.15, 2.18	.005
Education level			
≤ High school	Ref	—	—
Some college	1.12	0.78, 1.61	.528
College graduate	1.55	0.91, 2.63	.108
Smokes			
Not at all	Ref	—	—
Smokes some days	0.62	0.40, 0.96	.030
Smokes every days	0.41	0.27, 0.61	<.001

DISCUSSION

The current study documented the prevalence and correlates of having smoke-free policies at home and at work among a community-based sample of American Indians living in the Midwest. Roughly 72.0% of this sample had smoke-free policies at home, which is a much higher prevalence than documented in 2006 literature (e.g., 48.0% to 59.4%) (Baker, et al., 2006; Shavers, et al., 2006). This rate is also higher than previously found among Whites (64.0%) and Blacks (64.4%) but lower than previously found among Hispanics (78.0%) and Asian/Pacific Islanders (79.2%) (Shavers, et al., 2006). Also, 63.0% of this sample had smoke-free policies at work. The increase in smoke-free home policies documented in the current sample relative to prior research might reflect changing social norms, perceived health risk, and acceptability of

exposure to ETS. Our sample found a high rate of smoking among this sample (33.2%: 15.6% nondaily and 17.6% daily smokers), albeit lower than documented in a national data set in 2008 (41.5%) (Substance Abuse and Mental Health Services Administration, 2009). Thus, we might hypothesize that the higher rates of smoke-free home policies found here might be related to decreased smoking prevalence.

We found that more educated individuals and nonsmokers were more likely to implement smoke-free homes. This supports prior research indicating that having smoke-free home policies is associated with being a nonsmoker (Baker, et al., 2006) and being from a higher socioeconomic background (Shavers, et al., 2006). Bivariate analyses also indicated that perceiving secondhand smoke exposure as more harmful was associated with having a smoke-free home. This might be due to more educated individuals being more likely to implement smoke-free home policies. Thus, the current findings are line with prior research.

We also found that females and nonsmokers were more likely to have smoke-free policies at work. The gender finding might be reflective of the different occupations typically held by men and women, such that men may be more likely to have blue collar jobs involving manufacturing or outdoor work, and smoking restrictions are often not strictly enforced or applicable in these settings (Aakko, et al., 2001). Other research has documented the association of decreased smoking prevalence among those employed at worksites with smoke-free policies (Farrelly, et al., 1999; Jeffery, et al., 1994).

Likewise, we found that having smoke-free policies at work was related to having a smoke-free policy at home. The smoke-free policies were also related to less likelihood of being a smoker, particularly a daily smoker, and fewer cigarettes smoked per day. Unfortunately, the cross-sectional nature of the study does not allow us to decipher the directionality of these relationships. For example, we cannot ascertain whether having worksite policies influence the adoption of a smoke-free home or if having these policies in place increase cessation or hinder uptake. Longitudinal studies in other populations have suggested this previously (Centers for Disease Control and Prevention, 2007; Farkas, Pierce, & Zhu, 1996; Norman, Ribisl, Howard-Pitney, Howard, & Unger, 2000); however, longitudinal studies of this type have not been done in the American Indian population. To address these questions, we are now beginning a longitudinal study of tobacco use and exposure among American Indian tribal college students who will be followed past their years in school (Faseru et al., 2010).

Limitations

Some limitations to this research exist. Our recruitment methods (a convenience sample from pow wows, focus groups, health fairs, student orientations for American Indian students, etc.) suggest that our sample may not be representative of American Indians from other regions in the U.S. However, because our sample included Native people living on reservations, in urban/suburban areas, and in rural, non-reservation areas, and our recruitment was done at many different Native-focused events, we are confident that we captured a more diverse sample than has previously been studied. Thus, we believe our results offer a clearer picture of exposure to secondhand smoke among American Indians than previously reported. Finally, the cross-sectional nature of the study does not allow for us to ascertain causal relationships.

Strengths

There is a paucity of data on American Indians and smoking-related information with respect to smoke-free homes and workplaces. Thus, this study is unique and important, as it includes a significant number of American Indians representing the Midwest region. The Native

population in this region is unique in its diversity. Because of the longstanding presence of the collaborating tribal college, more American Indian Nations are represented in this area than in most other parts of the United States, including both students at the university and many families who remained in the area long after graduation. Also, we had high rates of participation (76%) and had less trust barriers to American Indians participating in research, likely due to the level of participation of community members as both advisors and research team members. Therefore, our sample is likely more representative of Native people than other studies that do not use these techniques.

Conclusions

This study highlights important and novel findings regarding the potential for ETS exposure in the home and in the workplace among American Indians. Of particular note, prevalence of smoke-free homes among our participants was much higher than previously documented in the general population, despite the fact that smoking rates found were as high (or higher) than the rates in the general population. Moreover, having worksite policies was related to having home smoke-free policies, and both were related to being a nonsmoker (or a less frequent smoker). Given that perceived harm of secondhand smoke exposure in comparison to smoking was a predictor of having a smoke-free home, education and knowledge remain critical to promoting adoption of smoke-free policies at home.

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