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# Tobacco Use Policies and Practices in Diverse Indian Settings

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## INTRODUCTION

Cigarette smoke is an equal opportunity killer. Although health data on American Indian populations are less comprehensive than desirable, it is clear that smoking-related diseases are a major cause of mortality.<sup>1</sup> Because norms in the social environment are crucial in determining behaviors that lead to health or to illness, this paper reports data on policies that Indian agencies have implemented to regulate the personal use of tobacco products within their sites. Also reported are observations at Indian sites showing how policies are expressed.

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Tobacco is a plant that Native Americans used, grew, and revered for many centuries before the arrival of Europeans in North America.<sup>2</sup> Ethnographic records suggest that native cultures understood the physiological effects of tobacco and respected them. As a result, tobacco was reserved for important occasions and had spiritual, ceremonial, and medicinal functions. Individual or consumer use, which is the focus of this study, is a different category of belief and practice from traditional uses, which are considered private and sacred by many native people and are not the focus of this study.

### **Consumer Use of Tobacco in Native American Settings**

The beginnings of habitual, individual use of tobacco by American Indian people date to the arrival of Europeans and the involvement of Indian people in the cultural practices of Europeans. These practices include an increased availability of tobacco through the plantation system of growing large quantities of tobacco specifically to sell internationally and use in trade. For example, in the Northwest in the early 1800s, Scottish botanist David Douglas was supplied with tobacco with which to pay native people to transport him in canoes, to gather plants for his botanical collection, and to purchase food during his travels. He also established camaraderie with native informants through mutual use of tobacco, which became a meeting point between members of different cultures.<sup>3</sup>

While smoking of tobacco in the general American population has been decreasing over the past two decades,<sup>4</sup> it has stayed high among Indian people, particularly among women. Data from the Behavioral Risk Factor Surveillance System and from community health surveys indicate that non-Indian smoking rates are lower than Indian smoking rates in all areas of the U.S. except the Southwest;<sup>5</sup> outside the Southwest, lung cancer has been found to be a common form of cancer among Indian people.<sup>6</sup>

The foregoing data indicate a serious health risk to Indian people from tobacco products. It appears that changing norms in the general U.S. community regarding tobacco use do not automatically transfer to the Indian community. Efforts to work with tribal settings to develop policies and programs to reduce the prevalence of tobacco use must recognize and acknowledge the traditional value that native people have placed upon this sub-

stance. American Indian health professionals have taken the lead in recognizing the need for further research to document Indian health status and in developing culturally sensitive interventions to reduce personal, habitual use of tobacco and improve health.<sup>7</sup>

### **Background of the Study**

In 1987, the Portland Area Indian Health Board, with a grant from the Indian Health Service, investigated the increasing use of smokeless tobacco products by Northwest Indian youth.<sup>8</sup> At a symposium the health board organized to share results of that study with board representatives and health educators from the Northwest tribes, the issue of protecting young people from situations that promote tobacco experimentation was raised. Initially, it was suggested that grade school children should be taught refusal skills (i.e., lessons in how to decline offers of tobacco or other substances) to help them avoid smokeless tobacco products. Then a health educator said she would like to see tribal authorities control the social environment so that children do not have to bear the entire burden of avoiding unhealthy practices. Because it provided an opportunity for tribal staff to voice their feelings and it indicated the nature of the intervention that was needed, that meeting was the conceptual origin for the tribal policy project.

The next step occurred when staff of the Northwest Portland Area Indian Health Board and Oregon State University, who had collaborated on the smokeless tobacco research, invited the Oregon Research Institute, which had considerable experience in tobacco research, to help in the development of research projects that would address the health risk from tobacco use that the previous study had identified. The team decided to address policy issues. The approach that the team developed differs from many projects that are concerned with reducing cancer risk in that the intervention is directed at the tribal government rather than the individual. Policies of interest are those developed by American Indian agencies, not those set by state, local, or federal governments. The underlying concept is that, if the concerned Indian community set high standards regarding personal use of tobacco, the rate of habitual tobacco usage—and corresponding health problems that stem from it—also would be reduced.

The National Cancer Institute's "Primary Prevention in Native American Settings" program offered an opportunity to develop a research program addressing cancer reduction in American Indian populations in the form of tobacco-control policies. In this process, the tobacco policy project collaborated with three other primary prevention projects. The four projects differ in settings, aims, methods, and procedures, but all focus on modifying health-related behaviors with the goal of reducing cancer risks in Indian populations. Two of the four projects deal with tobacco use as well as with nutrition of youth, one in urban Indian centers (Northeast) and the second in schools (Southwest); the third project offers smoking cessation programs through (non-Indian Health Service) Indian health clinics (California); and the fourth explicitly focuses on tobacco use policies in tribal buildings and tribally managed work settings (Northwest).

While each project had a unique goal, the four projects used a common strategy to assess agency policies and personal tobacco practices within their collaborative agencies. This report is a joint paper developed by the four grantees under the cooperative agreement mechanism. The purpose of this paper is to describe the 1990-92 tobacco policies of four geographically and culturally diverse American Indian settings. We also report observational data from these settings and evaluate the relationship of policies to observed tobacco use and antismoking signs and messages.

A major reason to focus on policies in addressing tobacco and health issues in Indian people is the growing evidence about the health consequences of exposure to environmental tobacco smoke (ETS).<sup>9</sup> The high rate of smoking among Native Americans indicates that this is a serious problem. Culturally sensitive tobacco use policies can reduce ETS exposure of both smokers and non-smokers. Tobacco use policies may have long-term effects on tobacco attitudes and use patterns. Restrictive tobacco use policies sometimes enhance participation in smoking cessation programs.<sup>10</sup> Smoking policies can help establish nonuse of tobacco as a social norm and make it less likely that young persons will take up the habit.<sup>11</sup> Greater environmental support for nonsmoking and reduced availability of smoking models could result in reduced relapse rates among persons who stop smoking.

Although both the prevalence and the stringency of smoking policies in non-Indian settings have increased in recent years,<sup>12</sup> little is known about the long-term effects of such policies. Most reports have focused on a small number of "early adopter"

worksites,<sup>13</sup> hospitals,<sup>14</sup> or communities<sup>15</sup> and suggest that restrictive smoking policies, if implemented with employee involvement and sufficient lead time and notification, are well accepted by both smokers and nonsmokers.<sup>16</sup> Implementation of a smoking policy by itself does not always have an immediate effect on the number of people in a group who are smokers but may reduce the amount of smoking that occurs.<sup>17</sup>

## METHODS

### Policy Data

Ethical considerations required the full participation of all parties in all aspects of the National Cancer Institute primary prevention studies. Research settings were chosen in the course of collaborative development of primary prevention programs, in which representatives of the American Indian agencies that were the settings for the research helped to develop as well as authorize the projects. Each agency also submitted its research protocol to its own human subjects committee. For these reasons, research settings necessarily represent a convenience sample.

Data on tobacco-control policies were obtained from thirty-nine Indian tribes in Washington, Idaho, and Oregon; eighteen California Indian health clinics; eight Southwest schools attended by American Indians; and six Northeast urban Indian centers. We conducted standardized telephone or face-to-face interviews in each setting with persons from the organization who were knowledgeable about tobacco policies and health promotion activities. Anonymity of interviewees was guaranteed.

The tobacco policy interview was adopted from an instrument developed by the Oregon (Northwest) Project.<sup>18</sup> In most settings, two informants were interviewed to assess reliability (in the six New York sites and one Oregon site, only one interview was conducted; 135 in all). The interviewees differed according to the type of collaborative agency in each area. For the Northwest, they were primarily tribal health directors (56 percent) or general managers (28 percent). For the Northeast, they were directors (50 percent); for the Southwest, they were school principals (47 percent); and for Indian health clinics, they were directors (28 percent) or receptionists (44 percent). Telephone interviews were employed in the Northwest, where settings were geographically

dispersed over a large area, making face-to-face interviews unfeasible. In the other three sites, face-to-face interviews were conducted. Such interviews to ascertain smoking policies have been successfully employed in previous surveys of worksite smoking policies.<sup>19</sup>

The interview consisted of 15–20 questions (with some variance across sites) covering existing tobacco policy and policy adherence. The interview, which took approximately ten minutes to complete, included a set of common or core questions followed by some optional, site-specific items. This paper reports on the key core items. Guidelines were developed for resolving discrepancies between the two informants (e.g., averaging scores on scales; assigning priority to the informant with the most knowledge of the situation on dichotomous items).

### **Classification of Tobacco Policies**

Questions were asked about the stringency of smoking policies in different areas (e.g., council meeting rooms, reception areas, private work areas, tribal schools, bingo halls). Within each area, policies were classified as smokefree, moderately restrictive (e.g., smoking only allowed in separate or ventilated rooms), or lenient/no policy.

### **Observational Methods**

An observational recording form was developed by the Oregon site and then utilized by the other three projects. The observation checklist required only a few minutes of time for a staff member to fill out during a regular visit to an agency with which the project was working. One research staff person made the observations at each setting, so no reliability check was possible. The observer entered or passed through several specific locations—e.g., meeting rooms, lounges, or private offices, in the course of business at the setting. Shortly after leaving the setting, the observer completed a standardized checklist (table 1). Observations were objective and straightforward, noting the presence or absence of a feature or an activity (the presence of signs, posters, or other antismoking educational material; tobacco use [smoking/chewing], ashtrays, or cigarette stubs). No observation required as-





sumptions, interpretations, or interviews with individuals at the agency. These procedures were instituted to reduce the possibility of bias as well as to keep the time involved to a minimum.

Each location within a site (room, hallway, outdoor parking area, etc.) was coded as a separate observation; at seventy-five sites, 383 separate locations were observed. The Northwest project made observations at thirty-seven tribes in 1991; the California project was second in the number of agencies visited, with twenty-two sites; the Southwestern project had nine; and the Northeastern project had seven. The diversity of types of sites and of observational locations within sites reflects the emphases of the four projects and the agencies and populations with which they work.

## RESULTS

### **Tobacco Policies**

All settings had at least informal policies regarding smoking, and the majority (68 percent) had written policies. Schools (New Mexico) and health clinics (California) nearly always had written policies, whereas the urban centers in the Northeast usually did not. Table 2 displays the summary of policy scores for the four sites. Across the three sites that employed two informants, mean agreement on core items ranged from 53 percent to 86 percent, with a median of 69 percent. As can be seen, most written policies were implemented since 1989. There was considerable variability across settings. Smoking was most stringently restricted in schools and health clinics and least restricted in common areas in tribal offices (Northwest) and urban Indian centers (Northeast). Reported adherence to the policies varied considerably but was generally high. If a violation occurred, an explicit verbal reprimand was most likely to be given in schools and medical clinics.

### **Practices: Observational Data**

Table 3 summarizes the frequency of signs, posters, and other anti-tobacco educational activities by type of area for the four projects. Statistics are descriptive, not inferential. The Northwest tribes and California clinics contribute heavily to these summaries,

**Table 2**  
**Tobacco Policy Characteristics at**  
**Four American Indian Primary Prevention Project Settings**

<b>Variable</b>	<b>New Mexico Schools (N=8)</b>	<b>California Clinics (N=18)</b>	<b>Northwest Tribes (N=39)</b>	<b>Northwest Centers (N=6)</b>
% units having written smoking policy (.83) <sup>a</sup>	88%	83%	64%	17%
% written policies implemented in 1989 or later (.56)	83%	85%	58%	--
% sites smoking "not allowed anywhere" in: common areas (.66)	75%	61%	23%	17%
private offices (.86)	88%	100%	51%	67%
% reporting persons "always" adhere to policy (.61)	63%	78%	36%	100%
If policy violation, % reporting consequences of "verbal or written reprimand" (.53)	88%	67%	44%	50%
% sites smokeless (chewing) tobacco "not allowed" in common areas (.69)	100%	28%	not available	no policies
% sites where smoking in school (clinic) "not allowed at all" by students (patient) (.86)	100%	(50%)	92%	20%
staff (.70)	75%	50%	50%	20%

<sup>a</sup>Mean agreement between two informants for that item.

**Table 3**  
**Observations of Antitobacco Signs, Posters, and Other Educational Activities**  
**by Type of Area and Project (in percentages)**

Type of Area	Observed Indicators			N
	Signs	Posters	Other Activities	
<b>Indoor Common Areas</b>				
Northwest	46	10	6	146
California	53	77	21	47
Southwest	38	15	19	26
Northeast	16	0	0	19
All Projects	44	23	10	238
<b>Staff Offices</b>				
Northwest	36	14	8	36
California	60	60	20	10
Southwest	31	0	0	13
Northeast	33	0	0	6
All Projects	38	17	8	65
<b>Outdoor Areas</b>				
Northwest	7	2	0	44
California	12	0	18	17
Southwest	0	0	0	9
Northeast	0	0	0	10
All Projects	6	1	4	80

**Note:** Indoor common areas are open to general visitors and include reception and meeting rooms, classrooms, health offices, and hallways; staff offices are assigned to specific persons; outdoor areas are parking lots and outdoor porch or entrance areas. Other activities include notices and sign-up sheets for smoking cessation classes.

because there are so many more observations in these settings. Signs, observed in approximately 40 percent of indoor areas, were the most frequent of the three antitobacco use activities and were followed by posters (20 percent of indoor areas). Posters were observed much more frequently in California clinics than in other settings, as were other antitobacco educational activities.

Table 4 displays similar data for evidence of consumer tobacco use: observation of smoking, ashtrays, and cigarette stubs. Indica-

**Table 4**  
**Observations of Use of Tobacco, Ashtrays, and Cigarette Stubs**  
**by Type of Area and Project (in percentages)**

Type of Area	Observations (percent)			N
	Use of Tobacco	Ashtrays	Cigarette Stubs	
<b>Indoor Common Areas</b>				
Northwest	15	17	18	146
California	0	2	2	47
Southwest	0	0	0	26
Northeast	5	5	5	19
All Projects	10	11	12	238
<b>Staff Offices</b>				
Northwest	14	17	17	36
California	0	0	0	10
Southwest	0	8	8	13
Northeast	0	0	0	6
All Projects	8	11	11	65
<b>Outdoor Areas</b>				
Northwest	34	18	66	44
California	41	24	53	17
Southwest	0	0	0	9
Northeast	20	10	10	10
All Projects	30	16	49	80

**Note:** Indoor common areas are open to general visitors and include reception and meeting rooms, classrooms, health offices, and hallways; staff offices are assigned to specific persons; outdoor areas are parking lots and outdoor porch or entrance areas.

tors of smoking were seen most often in outdoor areas (from all projects except schools in the Southwest) and second most frequently in some Northwest indoor common areas and staff offices. The California clinic data suggest good compliance with policies; there was much evidence of smoking outdoors but little evidence of tobacco use indoors.

### **Congruence of Policy with Practice**

We were interested in examining the congruence or association of reported policy and observed practices at the setting—e.g., school,

clinic-level. To compare results on similar items from the policy interviews and the observation checklist, composite variables were formed from the observation codes. A summary score indicating level of tobacco use was formed by computing the percentage of cases in which the following were observed: ash-trays, cigarette stubs, and actual use. Separate summary scores for each project were formed for tobacco use in indoor and outdoor areas and for private offices.

In parallel fashion, scores were formed for observation of antitobacco activities (tobacco discouragement) by averaging the percent of observations in which antismoking posters, no-smoking signs, or other evidence of tobacco use discouragement were present. Again, separate summary scores were formed for indoor areas, outdoor areas, and private offices. The project-level composite scores for tobacco use and for discouragement of tobacco use were then correlated with the policy variables.

The policy item on stringency of reported smoking policy was correlated positively with two of the six composite observation variables. Higher levels of indoor use were observed in organizations having more lenient smoking policies (Spearman rho = .43,  $p < .001$ ). There was also a tendency for greater evidence of tobacco discouragement in indoor areas in organizations having more stringent smoking policies (Spearman rho = .21,  $< .06$ ). In both cases, organizations having no or lenient policies were associated with considerably more tobacco use and substantially less evidence of tobacco discouragement than other organizations.

No other correlations were statistically significant. There was no evidence of 'compensatory smoking,' whereby greater tobacco use in outdoor settings resulted from stringent indoor smoking policies. In fact, although nonsignificant, more stringent policies tended to be associated with less observed outdoor tobacco use ( $r = -.13$ ).

## DISCUSSION

Our data provided a rare opportunity to compare tobacco control policies with practices in specific Indian-controlled settings. We found modest relationships between observed indoor use and leniency (or absence) of policies, and between presence of no-smoking signs and stringency of indoor smoking policies. These findings indicate a statistically significant link between policies

and practices and suggest that increasing the stringency of policies could lead to healthier indoor environments in tribal buildings. One of the most important findings of this study was that Indian agencies are exerting control over personal use of tobacco products within their sites. They have moved toward the goal that a health educator called for in the background section of this paper by starting to control tribal social environments so that individual young people do not have to bear the entire burden of making healthy choices.

This study extends previous reports on tobacco policies in Northwest Indian tribes.<sup>20</sup> Although the earlier papers included policy and observational data from Northwest offices and worksites, here we present policy and observational data from three additional Indian settings: tribal community centers (Northeast), health clinics (California), and schools (Southwest). In addition, we examine the relationship between policy and practice with setting as the unit of analysis.

It is encouraging that 68 percent of the agencies studied had written tobacco policies. As in other sectors of society, major developments have occurred in the last few years.<sup>21</sup> In settings with tobacco policies, reported adherence was high. The majority of sites reported that smokers always adhered to a no-smoking policy. But the data also suggest that outside of schools and health clinics, policies are relatively lenient or may not exist at all. No-smoking signs were the most frequently observed antitobacco activity, especially in health clinics and Northwest tribal offices, but posters were also frequently observed in clinics. The relatively low frequency of no-smoking signs in schools probably reflects the strong no-smoking norms in educational settings for young children. Evidence of tobacco use was seen more in tribal offices, infrequently in clinics, and rarely in schools. Evidence of smoking was also prominent in outdoor areas where tobacco use is routinely permitted.

There are some important limitations of this report. Neither the tribes studied nor the areas observed constitute a representative sample of American Indian settings, so we cannot generalize from these samples to all Indian organizations. The observational data were obtained during very brief occasions by only one observer. Also, the agreement between policy informants was low for a few items, especially those having to do with the time when the policy was instituted, adherence to the policy, and consequences for violation. We did, however, follow a priori rules for handling

disagreements such as averaging or using the most authoritative (e.g., school principal) informant.

Indian tribes are separate political entities. Therefore, it is important to study and encourage policy adoption by tribes, since they may not be affected strongly by broader governmental processes such as clean indoor air acts. Indian settings such as urban health clinics, community centers, and tribally operated worksites could benefit from policies that protect nonsmokers. The considerable policy activity since 1989 noted in our data suggests growing tribal awareness of the consequences of environmental tobacco smoke. The categorization of ETS as a class A carcinogen by the Environmental Protection Agency may spur further efforts.<sup>22</sup> On the other hand, many tribes receive income from tobacco sales, which is likely to be a barrier to stringent policy enactment. Tribal health committees and community health representatives constitute existing structures that can mobilize their populations to develop tobacco use policies for tribal settings.

This study has occurred at a critical time in terms of the changing norms regarding consumer use of tobacco in public settings. The considerable policy activity since 1989 noted in our data suggests growing tribal awareness of the consequences of environmental tobacco smoke. The ultimate goal, and our personal hope, is that policy development will create environments for Indian youth that discourage habitual consumer use of tobacco. Further studies of tobacco control policies and practices should be made in conjunction with surveys of consumer tobacco use and improved surveillance of the health status of American Indians to determine the long-term significance of policy changes.

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