



Published in final edited form as:

*J Community Health*. 2017 December ; 42(6): 1133–1140. doi:10.1007/s10900-017-0362-3.

## American Indian Knowledge, Attitudes, and Beliefs About Smokeless Tobacco: A Comparison of Two Focus Group Studies

Kathryn Rollins<sup>1,2,3</sup>, Charley Lewis<sup>1,2</sup>, Ryan Goeckner<sup>1,2,4,5</sup>, Joseph Pacheco<sup>1,2</sup>, T. Edward Smith<sup>1,8</sup>, Jason Hale<sup>1,2</sup>, Sean Makosky Daley<sup>1,8</sup>, Won S. Choi<sup>2,6,7</sup>, and Christine Makosky Daley<sup>1,2,9,10</sup>

<sup>1</sup>American Indian Health Research and Education Alliance, University of Kansas Medical Center, Kansas City, KS, USA

<sup>2</sup>Center for American Indian Community Health, University of Kansas Medical Center, 3901 Rainbow Blvd, Mailstop 1030, Kansas City, KS 66160, USA

<sup>3</sup>Department of Family Medicine, University of Kansas Medical Center, Kansas City, KS, USA

<sup>4</sup>Center for American Indian Studies, University of Kansas, Lawrence, KS, USA

<sup>5</sup>Department of Religious Studies, University of Kansas, Lawrence, KS, USA

<sup>6</sup>Preventive Medicine and Public Health, University of Kansas Medical Center, Kansas City, KS, USA

<sup>7</sup>Master of Public Health Program, University of Kansas Medical Center, Kansas City, KS, USA

<sup>8</sup>Center for American Indian Studies, Johnson County Community College, Overland Park, KS, USA

<sup>9</sup>Family Medicine, Preventive Medicine and Public Health, University of Kansas Medical Center, Kansas City, KS, USA

<sup>10</sup>Indigenous Studies, University of Kansas, Lawrence, KS, USA

### Abstract

Though smokeless tobacco (SLT) use has decreased in many communities, concern for American Indian (AI) SLT use remains, as this population continues to be disproportionately affected by SLT-related diseases. Tobacco has cultural significance to many AI tribes, therefore tobacco cessation messages portraying tobacco as entirely negative may be ineffective. As a part of our formative research for an SLT cessation intervention, we sought to gain a better understanding of the knowledge, attitudes, and beliefs about SLT among AI community members. We describe two independent focus group studies conducted in Montana (ten focus groups, 54 participants) and Kansas (six focus groups, 27 participants). Predominant themes emerged from three major topic areas (SLT use, program development, and recreational SLT use) during the discussions from both studies. The formative approach and data from these studies will allow us to more appropriately address SLT-related health disparities across multiple AI communities.

---

**Compliance with Ethical Standards:** Conflict of interest: The authors declare that they have no conflict of interest.

## Keywords

Smokeless tobacco; American Indian; Formative research; Focus groups

---

## Introduction

American Indians (AI) have the highest rates of smokeless tobacco (SLT) use of any major racial/ethnic group in the US. The rate of SLT use among AI is almost double that of non-Hispanic whites (7.1 vs. 4.6%, respectively) [5]. Over the last 30 years, rates of SLT use have been rising in some tribal communities with historically low rates [11, 16]. As a result of increasing SLT use, the number of health disparities in the AI community is growing. Mortality among AI due to tobacco use is double that of others in the US, [19] 40% of AI die from tobacco use. SLT-related diseases including cancer, diabetes, cardiovascular, and periodontal diseases are considerably higher in AI. AI have significantly higher incidence of oral cavity and pharynx cancers (13.9) than non-Hispanic whites (NHW, 10.5); higher rates of nasopharyngeal cancer compared with NHW are noted in the Southern Plains (RR, 2.03) and Pacific Coast (RR, 2.14); [17] and significantly higher incidence rates compared to NHW rates for tonsillar cancer in the Northern Plains (RR, 1.74). Pancreatic cancer rates among AI age 20–44 exceed those of NHW of the same age; [21] trends show rising incidence among AI compared to NHW [13]. Additionally, a greater prevalence of cardiovascular disease [4, 7] and mortality as a result of diabetes [20] have been seen and are increasing regionally.

Although the negative health consequences of SLT use have been widely acknowledged [1, 3] and the high rates of SLT use among AI are clear, there is insufficient evidence of culturally appropriate programs designed and tested for efficacy specifically to help AI SLT users quit.

Tobacco holds cultural significance in many AI tribes, as many individuals see it as a sacred plant that must be respected [14, 15]. Tobacco is used for ceremonial purposes and may be considered a gift. Because of this, typical SLT cessation messages and programs portraying tobacco as entirely negative are inappropriate and culturally insensitive. Our own research has shown that AI smokers are more likely to quit if they participate in a culturally tailored cessation program [6], and we believe the same will be true of SLT users.

Despite the designation as a homogeneous group of people, AI communities are quite diverse. Therefore tailoring interventions to the AI community is impossible without taking diversity into account. A collaborative approach, in which community members and researchers equally contribute expertise, is the recommended method for developing culturally tailored research designs in American Indian communities [2]. Community involvement and direction is crucial from concept development to analysis and dissemination, increasing the likelihood of participation and sustainability [18]. Therefore, this study was designed to gather formative research directly from the community's perspective to develop a culturally appropriate SLT cessation program for a diverse group of AI. Here, we report on part of our formative research, a comparative study that explores any

differences between the knowledge, attitudes, and beliefs of participants across two AI communities.

## Method

From 2013 to 2015, our research team conducted two focus group studies with a total of 16 groups and 85 participants. A few participants were unable to attend the scheduled focus groups; therefore, four individual interviews were conducted as well. Focus groups and interviews were conducted among adults living in rural Montana and northeastern Kansas. Locations were selected based on areas in which the research team was currently conducting other tobacco research. This study was approved by the institutional review boards of the University of Kansas Medical Center and the tribal college in Montana where focus groups were conducted prior to the study taking place. Signed informed consent was obtained prior to the focus groups and interviews. A copy of the informed consent was also offered to all participants.

## Facilitators

Each focus group was moderated by an AI research team member from the University of Kansas Medical Center (KUMC) who was assisted by an additional research team member who in some cases was AI and in some cases was not. In preparation for each study, the PI formally trained moderators and assistant moderators for data collection. The moderator's guide was specific to AI, the location of each study, and SLT cessation. Moderator's guides were co-written by members of the research team and the lead investigator, consisting of open-ended questions based on our previous experience and research. Example questions from our moderator's guides are included in Table 1.

## Participants

**Montana**—American Indians (AI) were recruited from a rural tribal college in Montana as part of a larger longitudinal study that sought to examine the knowledge, attitudes, and beliefs about all types of tobacco use. Participants were recruited through flyers, school email, and word-of-mouth across campus. Eligible participants were: (1) 18 years of age; (2) self-identified as AI; (3) tribal college students; and (4) current or former SLT users, or had never used SLT. Participants were screened in person and provided written informed consent. Those individuals who met eligibility criteria and were interested in participating were provided with additional study information, including potential meeting dates for the focus groups.

We conducted ten focus groups of 2–8 participants each, for a total of 54 adults during the fall of 2013. Focus groups were stratified based on previous or current use of SLT and gender and broken down as follows: (1) male current or former smokeless tobacco user; (2) female current or former smokeless tobacco user; (3) male never user; and (4) female never user. Two participants were unable to attend the schedule focus group times; therefore, individual interviews with these participants were conducted because we felt these participants offered useful insight to our study and we wanted to ensure their opinions were heard.

**Kansas**—AI community members residing in Kansas were recruited to participate in a similar series of focus groups. Recruitment strategies incorporated typical activities including posters, flyers, and word-of-mouth at Native-specific events (AI and Native will be used interchangeably when describing the people in this article), particularly pow-wows. Eligible participants were: (1) 18 years of age; (2) self-identified as AI; and (3) identified as a current or former smokeless tobacco user (defined as quitting within the last 5 years). Participants were screened in person and provided written informed consent. Those individuals who met eligibility criteria and were interested in participating were provided with additional study information, including potential meeting dates for the focus groups.

Six focus groups of 3–5 participants each, for a total of 27 adults, were conducted over a 7 month period in 2014–2015. Focus groups were stratified by age, gender, and smokeless tobacco use status, in the following manner: (1) 18–29 year male current or former smokeless tobacco user; (2) 18–29 year female current or former smokeless tobacco user; (3) 30 year male current or former smokeless tobacco user; and (4) 30 year female current or former smokeless tobacco user. Additionally, two individual interviews were conducted to include eligible participants who were unable to meet at a scheduled focus group time.

## Procedures

After consenting to participate in the study, each participant was asked to complete a short baseline survey containing demographic information, tribal affiliation, recreational and traditional tobacco use, and previous attempts to quit. The duration of each focus group was between 60 and 75 min and each interview last approximately 15–30 min. Discussions were audio-recorded, transcribed verbatim, and supplemented by handwritten facilitator notes. All participant identifiers were excluded from transcription to protect the anonymity of the participants. Participants were provided a meal and a \$25 gift card for their time.

The facilitators followed a moderator's guide (see Table 1), using a semi-structured format, to elicit responses and information pertinent to AI. Participants were encouraged, but not required, to respond to each question. The facilitator expanded upon the responses if needed to encourage group discussion or responses from the individual interviews. A co-facilitator was also present to take notes and sum up topics covered at the end of the sessions.

## Analysis

Data were analyzed through a combination of methods, including constant comparative method data analysis [9] triangulation [12], and a CBPR protocol previously developed by the research team [8, 10]. Initially, coding was used to systematically organize and review each transcript. Three independent researchers (primary, secondary, and tertiary coder), blinded to each other, coded the data. Each coder was a member of the research team, either an AI community researcher or a non-AI academic researcher. Coders grouped data into the major content areas and inductively coded for themes. Both an etic (“outsider”) and emic (“insider”) reviewer then examined the coded transcripts and initial theme development. The emic reviewer specifically assessed the themes for cultural appropriateness, determining if statements accurately and respectfully described things from the perspective of someone within the culture. The etic reviewer focused more on wording of the themes and if they

accurately represented the original raw data. Themes and their interpretation were finalized through consensus of the research team. There were no significant differences found among strata or location; therefore, themes across the groups were analyzed together.

## Results

### Total Sample

The demographic summary of the focus group and interview participants is presented in Table 2. A total of 85 participants, a majority of whom were male (67%), participated in focus groups and interviews. Over half of the participants were in the age range of 18–29 (60%), with the remainder in the 30+ age range (39%). One participant did not list an age. Most participants had some experience with SLT use. Of the adults who participated, 61% were current or former SLT users and 39% had never used SLT. Additionally, 46 different tribes were represented across both groups.

### Themes

Findings from across the 16 focus groups and four interviews were compared. Results are summarized according to the major themes expressed across all participants. Four predominant themes emerged from the three major topic areas (SLT use, program development, and recreational SLT use) and include: (1) knowledge, attitudes, and beliefs about smokeless tobacco and smokeless tobacco users; (2) beliefs about initiation of use and barriers to quitting; (3) attitudes regarding the relationship between policy and tobacco use and (4) suggestions for the creation of a culturally tailored SLT cessation program. The primary themes are presented in Table 3 and are discussed in detail below.

### Knowledge, Attitudes, and Beliefs about SLT Use

Participants across the groups, despite tobacco use status, easily defined SLT, SLT use and an SLT user. Many participants felt that the definition of use should include individuals who purchase and chew tobacco on any basis, whether occasional or frequent. One participant stated a user should be defined as “someone who uses anytime, more than once”, while another felt “a tobacco users is someone who chews tobacco on a consistent regular basis”. The opinion of quantity was not comparable among the groups; responses clearly diverted from one another and were often not numerically defined.

### Initiation and Continued Use

The majority of participants initially began SLT use in social situations with friends or family members. More specifically, these outside influences included family gatherings, sporting events or playing sports, and work environments. One participant explained that his use was influenced from friends on a sports team, “I started playing baseball when I was in high school, that's when I first tried it”, while another started using due to the “influence from elders” in the community.

Addiction, habit, and social influence were seen as the largest barriers to quit SLT by most participants. Participants across the groups were aware of the impact that addiction and habit have on SLT use and the ability to quit. One participant stated that SLT is “an addiction, and

your body needs the nicotine kick”. Another participant, referencing an experience with a family member, believed “it just becomes habit, especially if you've done it most of your life”. Participants reached consensus that individuals continue to use SLT due to social influence. An individual who has never used tobacco believed that social influence may cause current users to keep using SLT, “They're around it with family and friends. It's something that they might get used to doing. Part of their everyday life”. In comparison, another participant who was a current user, stated “if I stop, I'll lose all my friends”.

Participants were aware of the negative health effects of SLT. Across the sessions, individuals identified “varying types of cancer, oral disease, and ulcers” as frequent health problems associated with SLT use. However, discussions relating to health and SLT use revealed a prominent sub-theme. Several current users indicated that they continue to use SLT instead of cigarettes because they believe SLT has less harmful side effects. One participant stated, “you see a lot of baseball players chewing, some people see it as a safer alternative to smoking, they'd much rather have their jaw taken out than their lungs”. Further discussions regarding the severity of SLT use in comparison to smoking showed varying knowledge among the study participants, particularly between current users and non-users.

### Quit Program Recommendations

Participants in most sessions were asked questions specific to the development of a culturally-based SLT cessation program in order to gather recommendations for program improvement and how to tailor the program to a more diverse group of AI SLT users. Individuals from Montana who had never used SLT, did not provide feedback regarding a cessation program experience. Without any personal knowledge of SLT use, it would be difficult for the participants to make recommendations on what type of cessation program would be best for AI.

Participants who were able to address what they wanted in a cessation program from a first-hand perspective discussed a variety of recommendations for what would become the All Nations Snuff out Smokeless (ANSOS) program. Most participants felt a group-based program would be more successful for the majority of individuals. One participant stated, “One big reason that we all started in the first place was because of group influence, it would be easier to quit as a group as well”. Participants felt support for the group-based program could further include additional online and phone-based resources due to the possibility of time constraints for some individuals.

Although the program being developed was to be Native-specific, the majority of participants felt it was more important to have a program facilitator that was a former SLT user, than one who was AI. One participant stated, “I think it's more important that they used to smoke or chew, more than anything else. You don't want to hear from somebody who doesn't know the struggle”. In comparison, another participant thought “Someone who used to chew, because they know what you're going through and actually have been through it, personal experience”.

Recommendations for program length varied heavily across the groups. Participants did not reach consensus on the overall program length, nor the number of meetings on a weekly

basis. Suggestions for program length spanned from a short program occurring for 1–2 weeks to a program meeting every other day over a long period of time. For example, one participant said, “I’ve tried a 6 week program and I didn’t feel it was long enough”, while another stated, “once a week would be all that I could handle”. However, participants recognized scheduling inflexibility as a barrier to program success. Most participants felt that no matter the program length, the schedule should be flexible to meet each participant’s needs.

Lastly, participants offered numerous suggestions regarding program topics and incentives. The most common program topics included statistics on tobacco and health, as well as healthy alternatives to chewing. “Positive topics. Healthy things to do instead of quitting or going straight to all candy. A healthy way to deal with quitting.” Participants also frequently mentioned using scare-tactic photos in the program curriculum. One participant suggested, “Topics showing facts. Pictures of cancer or sports figures with no jaw”, while others agreed that scare tactics are important because “they are reality”. Food, financial rewards, and positive recognition for meeting milestones were seen as good incentives; participants in the younger age groups also mentioned exercise videos. Participants offered specific suggestions such as, “if you haven’t chewed in 6 months, then you get something”, “gift cards to get groceries, just simple stuff you earned”, and “something to do with exercise”.

### **Policy and Tobacco**

Participants saw a complex relationship among smoking, smoke-free policies, and use of chewing tobacco. Participants identified both similarities and differences between smoking and SLT use. Overall, participants in both groups noted that both forms of tobacco contain nicotine and can lead to addiction. Participants also agreed that individuals might use SLT over cigarettes due to less harmful side effects related to secondhand smoke, as well as the ability to be discrete about chewing. In reference to tobacco substitutions, one participant stated, “That’s what I do, because I’m both a smoker and a chewer. I have two crutches. When I can’t have one crutch, I’ll throw in a pinch of the other.” However, participants had varying opinions regarding the physical health effects of cigarettes versus chew. For example, one participant in a Kansas focus group felt that “chewing is safer than smoking because it is less damaging to the lungs”, while other participants stated, “it still has the same chemicals” and “chew is just another source of nicotine”. Participants also felt that using one form of tobacco can be a gateway to another form, or act as a replacement if the preferred form is unavailable. Several participant statements reiterated this belief. “I don’t like to smoke when I’m working cause it makes me tired, so I throw in a dip”, “I can chew instead of standing out in the cold with a cigarette”, “instead of having a cigarette hanging out of my mouth or having to hold it and try to work, I can just throw in the chew and get to work”, and “the coach would get mad if he smelled cigarette smoke on us, so I would just chew”.

Participants across the groups were familiar with the existence of tobacco-free policies at their places of employment and/or campuses if they were students; however, they were often unsure of specific policy rules and regulations. Participants reached consensus that the majority of schools and business have smoke-free or tobacco-free policies, although they did

not discuss the differences between the policy types. They felt that policies should include all types of tobacco use. “I think anywhere they're going to have policies for smokers, they should include smokeless too”. Participants in both groups felt the frequency of SLT use is not a problem in most locations; they also admit they might not be able to identify users. “If you ran into a chewer, you wouldn't really see it”. Additionally, current smoke-free or tobacco-free policies were not seen as discouraging to SLT users because it can be done discretely without anyone noticing. “When you're in class, they don't notice you're chewing”. Participants who are current users stated, “there are tobacco free zones, but I sat there and chewed, no one ever said anything to me”, “you weren't allowed to have it, but you can be discreet about it”, and “I just try to hide it”.

## Discussion

AI communities face an ongoing challenge of effectively addressing tobacco related health disparities. Effective approaches to the prevention of tobacco related disease in this community requires a specific and tailored cessation program. It is critical to identify and describe the influence of cultural perspectives within the community. Cultural knowledge and beliefs have a direct influence on the ways communities choose to access health education and treatment services.

To our knowledge, this comparative study is the first to compare and contrast knowledge, attitudes, and beliefs of SLT and SLT programming among AI residents living across two distinct settings. The use of interviews and focus groups in this study provided several findings that should help with the development of SLT cessation programs for AI. Although the sample of participants was small, there was strong convergence among the groups regarding their opinions about SLT and SLT use in the AI community. Key findings voiced by participants in both locations established the need for SLT cessation program development, provided insight into community opinions regarding SLT use and programming, and offered suggestions regarding the creation of a culturally tailored SLT cessation program. Our comparative study findings indicate that regardless of geographical location and tribal affiliation, individuals share many of the same opinions about SLT cessation program development.

## Conclusions and Implications for Practice

AI have a unique history and cultural ties with tobacco. The most difficult aspect of designing a cessation program for participants is often tailoring or targeting the program to the specific community. The methodology used in this study resulted in gathering useful information for development of a SLT cessation program for multi-tribal AI communities. The strategies for involving community members in all phases of the research process can be used by other CBPR teams, particularly those teams working with marginalized communities. Although this is a rigorous process, this approach might prove valuable to the development of sustainable and effective approaches to the embedded health disparities facing AI and other underrepresented groups across the U.S.



Overall, we believe our comparative approach to gather formative data across populations has resulted in the successful gathering of information that will contribute to future SLT cessation program development and implementation. Interview and focus group participants in Montana and Kansas had specific knowledge, attitudes, and beliefs about SLT and SLT use. In addition, participants expressed opinions that should be considered when developing a culturally tailored SLT cessation program.

The shared voices and lived experiences of study participants provide content and structure to the development of future cessation programs. The significance of using a community-based approach cannot be overemphasize in developing meaningful partnerships in AI communities that address current health disparities that are important to the health of their members. The resulting outcomes might prove valuable to the development of sustainable and effective approaches to the embedded health disparities facing AI and other underrepresented groups across the United States.

## Acknowledgments

**Funding:** This study was funded by the National Institute on Minority Health and Health Disparities (R01MD007800; PI: CM Daley and P20MD004805; PI: Daley, Greiner).

## References

1. Boffetta P, Hecht S, Gray N, Gupta P, Straif K. Smokeless tobacco and cancer. *Lancet Oncology*. 2008; 9(7):667–675. DOI: 10.1016/s1470-2045(08)70173-6 [PubMed: 18598931]
2. Burhansstipanov L, Christopher S, Schumacher SA. Lessons learned from community-based participatory research in Indian country. *Cancer Control*. 2005; 12(Suppl 2):70–76. [PubMed: 16327753]
3. CDC. Smokeless tobacco: Health effects fact sheet. 2014. Retrieved from [http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/smokeless/health\\_effects/index.htm](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/smokeless/health_effects/index.htm)
4. CDC. American Indian and Alaska Native Heart Disease and Stroke Fact Sheet. 2016. Retrieved from [http://www.cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/fs\\_aian.htm](http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_aian.htm)
5. Center for Behavioral Health Statistics and Quality. 2014 National Survey on Drug Use and Health: Detailed Tables. Substance Abuse and Mental Health Services Administration; Rockville, MD: 2015. Intext: (CBHSQ, 2015)
6. Choi WS, Beebe LA, Nazir N, Kaur B, Hopkins M, Talawyma M, et al. Daley CM. All nations breath of life: A randomized trial of smoking cessation for American Indians. *American Journal of Preventive Medicine*. 2016; 51(5):743–751. DOI: 10.1016/j.amepre.2016.05.021 [PubMed: 27436332]
7. Denny CH, Holtzman D, Cobb N. Surveillance for health behaviors of American Indians and Alaska Natives. Findings from the Behavioral Risk Factor Surveillance System, 1997–2000. *Morbidity and mortality weekly report Surveillance summaries*, (Washington, DC: 2002). 2003; 52(7):1–13.
8. Glaser, BG. The discovery of grounded theory: Strategies for qualitative resea. New York: Aldine de Gruyter; 1967.
9. Kolb SM. Grounded theory and the constant comparative method: Valid research strategies for educators. *Journal of Emerging Trends in Educational Research and Policy Studies*. 2012; 3(1):83.
10. Makosky Daley C, James AS, Ulrey E, Joseph S, Talawyma A, Choi WS, Coe MK. Using focus groups in community-based participatory research: challenges and resolutions. *Qualitative Health Research*. 2010; 20(5):697–706. DOI: 10.1177/1049732310361468 [PubMed: 20154299]
11. Mendlein JM, Freedman DS, Peter DG, Allen B, Percy CA, Ballew C, et al. White LL. Risk factors for coronary heart disease among Navajo Indians: findings from the Navajo Health and Nutrition Survey. *Journal of Nutrition*. 1997; 127(10 Suppl):2099S–2105S. [PubMed: 9339176]

12. Merriam, SB. *Qualitative research: A guide to design and implementation: Revised and expanded from qualitative research and case study applications in education*. San Francisco: Jossey-Bass; 2009.
13. Paltoo D, Chu KC. Patterns in cancer incidence among American Indians/Alaska Natives, United States, 1992–1999. *Public Health Reports*. 2004; 119(4):443–451. [PubMed: 15219802]
14. Pego CM, Hill RF, Solomon GW, Chisholm RM, Ivey SE. Tobacco, culture, and health among american-indians—a historical review. *American Indian Culture and Research Journal*. 1995; 19(2):143–164.
15. Powers, WK. *Yuwipi: Vision and experience in Oglala ritual*. Lincoln: UNP of Nebraska Press; 1984.
16. Redwood D, Lanier AP, Renner C, Smith J, Tom-Orme L, Slattery ML. Differences in cigarette and smokeless tobacco use among American Indian and Alaska Native people living in Alaska and the Southwest United States. *Nicotine & Tobacco Research*. 2010; 12(7):791–796. DOI: 10.1093/ntr/ntq087 [PubMed: 20525781]
17. Reichman M, Kelly J, Kosary C, Coughlin S, Jim M, Lanier A. Incidence of cancer of the oral cavity and pharynx among American Indians and Alaska Natives, 1999–2004. *Cancer*. 2008; 1(5 Suppl):1256–1265.
18. Sahota, PC. *Community-based participatory research in American Indian and Alaska Native communities*. Washington DC: NCAI Policy Research Center; 2010.
19. USDHHS. *Tobacco use among U.S racial ethnic minority groups African Americans, American Indians, and Alaskan Natives, Asian Americans, and Pacific Islanders and Hispanics: A report of the surgeon general*. Washington, D.C: Government Printing Office; 1998.
20. USDHHS. *Diabetes in American Indians and Alaskan Natives Facts at a Glance: Indian health service division of diabetes treatment and prevention*. 2012. Retrieved from [http://www.ihs.gov/medicalprograms/diabetes/HomeDocs/Resources/FactSheets/2012/Fact\\_sheet\\_AIAN\\_508c.pdf](http://www.ihs.gov/medicalprograms/diabetes/HomeDocs/Resources/FactSheets/2012/Fact_sheet_AIAN_508c.pdf)
21. Weir H, Jim MA, Marrett LD, Fairley T. Cancer in American Indian and Alaska Native young adults (ages 20–44 years): US, 1999–2004. *Cancer*. 2008; 113(S5):1153–1167. [PubMed: 18720386]

**Table 1**  
**Moderator's guide primary questions**

Location	Classification	Questions
Montana	Current or former SLT users	How do you define a “smokeless tobacco user”? Why did you start using SLT? Do you consider yourself to be addicted to smokeless tobacco? What are the benefits to using smokeless tobacco? Do you want to quit using smokeless tobacco? Why or why not? Do you/did you ever smoke cigarettes? What kind of programs would help people quit using chewing tobacco? Why? What types of incentives/aids would you want to help you quit using? What knowledge, attitudes, and beliefs do AIs have about chewing tobacco? What type of cessation program would help AIs quit using SLT? What type of motivation would help AIs quit using?
	Non-SLT users	What is the first thing you think of when you think about SLT? How do you define a “smokeless tobacco users”? How does smokeless tobacco relate to cigarettes? Why do you think people start using SLT? Why do they continue? What health problems do you know of that are affected by SLT use? What do you think are the benefits of using SLT? Why do you think it's so hard to quit using SLT? Is it harder or easier than quitting cigarettes? How many of your close friends and family members use SLT? Is SLT use a problem for tribal college students? Is so, how? Do you think a lot of college students use SLT? Why or why not? Should colleges have a policy about SLT use on campus?
Kansas	Current or former SLT users	How do you define a “chewing tobacco user”? Are you a regular user, if so, why did you start using chewing tobacco? What are the benefits and drawbacks to using chewing tobacco? Do you want to quit using chewing tobacco? Why or why not? Are you familiar with chewing tobacco policies at home, school, work, etc.? Do you use other tobacco or nicotine products? What kind of programs would help people quit using chewing tobacco? Why? What types of incentives/aids would you want to help you quit using? What knowledge, attitudes, and beliefs do AIs have about chewing tobacco? What type of cessation program would help AIs quit using SLT? What type of motivation would help AIs quit using?

Eligibility criteria for each study differed slightly according to the purpose of each individual study. Both studies included participants ages 18 years of age and older, who self-identified as AI. However, Montana participants were college students who were current, former, or never SLT users, whereas Kansas participants included non-students and students, and only current or former SLT users

**Table 2**  
**Comparative demographics across studies (N = 85)**

Characteristics	Montana (n)	Montana (%)	Kansas (n)	Kansas (%)
Gender				
Male	31	55.4	26	89.7
Female	25	44.6	3	10.3
Age				
18–29	32	57.1	19	65.5
30+	23	41.1	10	34.5
No answer	1	1.8		
Gender and age				
Male 18–29	10	17.9	16	55.2
Male 30+	4	7.1	10	34.5
No answer	1	1.8	0	0
Female 18–29	6	10.7	3	10.3
Female 30+	12	21.4	0	0
SLT use status				
Never	33	58.9	0	0
Current/Former	23	41.1	29	100
Interview type				
Focus groups				
Male 18–29	21	37.5	16	59.3
Male 30+	9	16.1	9	33.3
No answer	1	1.8	0	0
Female 18–29	11	19.6	2	7.4
Female 30+	12	21.4	0	0
Interview				
Male 18–29	0	0	0	0
Male 30+	0	0	1	50
Female 18–29	0	0	1	50
Female 30+	2	3.6	0	0

**Table 3**  
**Primary themes from focus groups and interviews on smokeless tobacco cessation**

Topic	Theme
SLT use	<p>Participants described a user of chewing tobacco to be someone who purchases and uses it on an occasional or regular basis, in no particular quantity</p> <p>Participants believe individuals start using SLT primarily due to the influence of people around them and continue to chew due to addiction, habit, or social influence; despite known health effects</p>
Program development	Participants had numerous suggestions for creating a culturally tailored program to quit using smokeless tobacco
Recreational SLT use	Participants saw a complex relationship among smoking, smoke-free policies, and use of chewing tobacco

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript