

American Indian Youth Substance Abuse: Community-Driven Interventions

Dakotah C. Lane, BS,¹ and John Simmons, BS²

¹Weill-Cornell Medical College, New York, NY

²University of Washington, Olympia, WA

OUTLINE

AMERICAN INDIAN RELATIONSHIP WITH FEDERAL
GOVERNMENT AND SUBSTANCE ABUSE POLICY
CONSIDERATIONS

HISTORICAL AND CONTEMPORARY TRAUMA OF
AMERICAN INDIAN YOUTH TODAY

STATE OF AMERICAN INDIAN YOUTH SUBSTANCE
ABUSE AND INTERVENTIONS TODAY

THE PACIFIC NORTHWEST TRIBES: LOCAL
RESPONSES TO SUBSTANCE ABUSE

FUTURE POLICIES

CONCLUSION

ABSTRACT

Substance abuse among American Indians has a long history that dates back to the colonial era. American Indian youth today continue to have one of the highest substance abuse rates when compared with other groups. Researchers have implemented American Indian youth substance abuse interventions that previously have worked in the general population, but studies have found that they are generally unprepared and poorly designed for American Indian populations. The lack of inclusion of American Indian populations in the interventional studies, poor understanding of American Indian diversity and cultures, and lack of consideration for the unique historical and sociopolitical context of each tribe were cited as reasons the interventions failed. It has been suggested that historical trauma plays a considerable role in American Indian youth substance abuse; however,

much of this theoretical framework has yet to be rigorously tested. Contemporary trauma appears to contribute significantly more to American Indian youth substance abuse. The data on American Indian substance abuse are limited, but what is currently available appears to show a vast heterogeneity in the level of substance abuse among American Indian youth that varies across different American Indian tribes and geographical distribution. In summary, this article seeks to describe the special relationship American Indian tribes have with the federal government, review historical and contemporary trauma, review American Indian youth substance abuse and interventions today, and finally describe a unique intervention strategy that tribes in the Pacific Northwest are implementing in order to combat American Indian youth substance abuse. *Mt Sinai J Med* 78:362–372, 2011. © 2011 Mount Sinai School of Medicine

Key Words: American Indians, community-based interventions, Native Americans, public health policy, substance abuse, youth.

The history of American Indian (AI) substance abuse began during the early days of colonization and continues to affect the health of AI today. The distilled and highly potent alcohol introduced by the early settlers was virtually unknown to the AI population, leaving them with “little time to develop social, legal or moral guidelines to regulate alcohol use.”¹ During the expansion of the United States, AI and US leaders were keenly aware of alcohol’s effect on Indian tribes. Health policies were implemented to restrict alcohol sales within AI communities, but they were never enforced.² Thus began the dynamic relationship between AI communities, the federal government, and the substance use that is still seen today.

Today, there are currently 565 federally recognized AI tribes and an additional 200 state-recognized tribes.³ According to the 2006 US Census Bureau report, there are about 4.3 million AI, which make up about 1.5% of the US population.⁴ Of the total AI

Address Correspondence to:

Dakotah C. Lane
Weill-Cornell Medical College
New York, NY
Email: dcl2003@med.cornell.edu

Table 1. Selected Morbidity/Mortality Statistics from IHS Trends Data 2004.⁷

	1970s AI Mortality/Morbidity	2003–2004 AI Mortality/Morbidity	2003–2004 General Population Mortality/Morbidity
Maternal deaths (per 100,000 births)	28.5	11.1	12.1
Infant deaths (per 1000 births)	25.0	8.3	6.9
Tuberculosis deaths (per 100,000)	6.8	1.7	0.2
Alcohol-induced deaths (per 100,000)	77.5	43.4	7.0
Suicides (per 100,000)	18.5	17.9	10.8
Homicides (per 100,000)	23.5	11.8	6.0

Abbreviations: AI, American Indian; IHS, Indian Health Service.

population, 1.4 million (32%) are aged ≤ 18 years.⁴ A common belief is that many AI live on federally designated reservations, when in fact more than half live in urban, suburban, or rural non-reservation areas.⁵ More than 25% of AI live below the official poverty level, compared with 12% of the general population.^{4,6} Despite improvements in health statistics over the past century, AI continue to suffer disproportionately when compared with the general population, including substance abuse⁷ (Table 1).

Although the problems caused by substance abuse are multifaceted, to view the problems and solutions of AI substance abuse as similar to the general population is oversimplistic. American Indian tribes have different traditions and customs, have their own histories, and have different rates of substance abuse. A review article by Beauvais attributed the differences in AI alcohol rates in each tribe to “different levels of tolerance toward

American Indian youth bear a heavier burden of mental health issues when compared with the general population; these include suicide, substance abuse, child abuse and neglect, post-traumatic stress disorder, depression, and other mental health issues.

deviant behavior” and socioeconomic conditions on the reservations.¹ A systematic review found that the proportion of “current drinkers” across various AI reservations in the United States ranged from 30% to 84%.⁸ In addition, AI youth bear a heavier burden of mental health issues when compared

with the general population; these include suicide, substance abuse, child abuse and neglect, post-traumatic stress disorder, depression, and other mental health issues.^{1,9–14}

American Indian youth (aged 15–24 years) have the highest suicide rate, at 34.3 deaths per 100,000 compared with 9.8 deaths per 100,000 for the general population of the same age range, with suicide being the second leading cause of death among AI youth.⁷ Parental histories of problematic substance use and childhood traumatic events are associated with increased substance use, depression, and risk of suicide among AI youth.⁹

Many researchers have been increasingly able to recognize the poor correlation between evidence-based research and the realities facing AI youth. Researchers state that part of the problem is due to the under-representation of the AI population in evidence-based interventions, which leads to the conundrum of no available evidence-based interventions for AI.^{9,13,15,16} Researchers and academics alarmed at the high substance abuse rates have attempted to study and provide interventions to improve the well-being of AI communities. However, studies have found that researchers may lack the cultural sensitivity that is required to work with AI communities, leaving them unprepared to handle the demands of this population.^{10,11,16–19} Some of the barriers highlighted in these studies include poor understanding of AI customs and traditions, tribal sovereignty, and the historical and political context of each AI tribe.

Finally, there has been a long history over the last century of studies and interventions by non-Native researchers in the AI community that were either misguided, the outcomes did not benefit the tribe, and/or the study caused harm to the participating tribes. American Indian communities felt taken advantage of and culturally exploited, as the

data from these studies were used to advance the careers of the researchers and in some cases led to stereotyping, with serious negative consequences for the tribe.^{19–23} Due to this history, many tribes have developed a high level of mistrust toward non-Native researchers.^{18–21,24} Fortunately, several researchers have developed and designed processes that describe how to ethically approach culturally diverse AI communities.^{10,16,19,25–27}

It should be noted that many of the sources used in this article may appear outdated or limited. However, this is a reflection on the dearth of literature available on AI youth substance abuse. This article will describe the current relationship that AI tribes have with the federal government, review the concept of historical trauma, the state of AI youth substance abuse and interventions today, and report what tribes of the Pacific Northwest are doing to combat substance abuse problems among AI youth.

AMERICAN INDIAN RELATIONSHIP WITH FEDERAL GOVERNMENT AND SUBSTANCE ABUSE POLICY CONSIDERATIONS

When considering AI youth substance abuse policies and future interventions, one must examine the larger surrounding policy environment and the history behind those policies. During the westward expansion, the federal government used its constitutional powers to negotiate treaties with tribes. These treaties stated the federal government would provide security and services such as healthcare. In return AI tribes agreed to move, sometimes by the use of force, off of their land onto federally designated

reservations.^{2,15,28,29} Therefore, the history of public health and policy interventions of AI involved working through the US Congress. Multiple laws have been passed by the US congress are briefly reviewed in Table 2.

Since the passage of the 1976 Indian Health Care Improvement Act (IHCIA), the federal government provided an infusion of funds, healthcare personnel, and stronger public health policies for AI that has led to a significant reduction in morbidity and mortality rates since the creation of the Indian Health Service (IHS) (Table 1).⁷ Despite these improvements in healthcare, Table 1 still shows that compared with the general population, the AI population continues to suffer from disproportionately high levels of morbidity and mortality, including alcohol-related deaths and injuries.

In some cases, AI tribes felt that the national goals of the IHS did not meet the local needs of the community, causing them to fight for the passage of Public Law 93-638 in 1994, which gave the tribes the ability to “contract” directly from the IHS funds rather than allow IHS to manage said funds.^{5,30,31} Contracting gave tribes the ability to assume control of federal funds that would have normally had been controlled and administered by the IHS. As a result of Public Law 93-638, AI tribes currently manage >50% of the total IHS budget for fiscal year 2010.³¹ The result of this law has been health policies and interventions being driven by the tribal communities themselves rather than by the federal government. One study found that 10 of the 12 nationally available AI youth treatment centers are run by tribal entities.²

Regardless of changes and improvements made to federal laws, AI healthcare continues to be grossly underfunded. A 2003 report by the United States Commission on Civil Rights shows that IHS spends

Table 2. *Important Laws That Have Shaped Contemporary AI Health Policies.*^{2,29}

Year	Name of Law	Description
1921	Snyder Act	Permanent authorization of funding for Indian healthcare
1954	Transfer Act	Creation of IHS
1975	Indian Self-Determination and Education Assistance Act	Recognition of tribal governments' right to self-governance and control of federal funds designated for social, legal, and health services
1976	IHCIA	Declaration by US Congress that it is a national policy to bring the health status of American Indians up to the same level as the US general population
2010	Permanent authorization of IHCIA	Improves on original IHCIA by allowing tribes to utilize Medicaid/Medicare, appropriating funds for youth suicide and mental health services, and developing culturally appropriate youth substance-abuse interventions ³⁴

Abbreviations: AI, American Indian; IHCIA, Indian Health Care Improvement Act; IHS, Indian Health Service; US, United States.

about \$1914 per person per year (pppy). Contrast this with the federal spending for Medicare (\$5915 pppy), Veterans Affairs (\$5214 pppy), the US general population (\$5065 pppy), Medicaid (\$3879 pppy), and federal prisoners (\$3803 pppy). The federal government is willing to cover the healthcare of its prisoners at more than twice the rate of AI healthcare.³² Additionally, Congress failed to account for medical inflation and population growth among the AI population. According to a budget analysis by the Northwest Portland Area Indian Health Board in 2009, the fiscal year 2010 IHS budget has lost \$6 billion in purchasing power over the past 20 years due to the growing AI population and medical-cost inflation.³³ Therefore, not only is the federal government chronically underfunding services for the AI population, but it also is not adjusting for inflation, creating an ever-tightening budget for the IHS as costs rise yearly for the same services.

The federal government is not only chronically underfunding services for the American Indian population, but it also is not adjusting for inflation, creating an ever-tightening budget for the Indian Health Service as costs rise yearly for the same services.

In March 2010, the Obama Administration attempted to address the access to care shortfall by permanently reauthorizing IHCA in the Patient Protection and Affordable Patient Care Act (PPACA). The new reform authorizes tribes to utilize Medicare and Medicaid to cover healthcare costs and use IHS funds as a “payer of last resort.” The IHCA 2010 reauthorization also authorizes the use of IHS appropriations for youth suicide prevention and mental health services that were not previously available. Finally, PPACA authorizes funding to increase the number of healthcare professionals, and requires the government to establish demonstration programs through the Substance Abuse and Mental Health Services Administration (SAMHSA) to test culturally appropriate AI youth substance abuse interventions.³⁴ The new IHCA of 2010 only addresses how IHS is allowed to allocate its money; it does not appropriate resources to pay for these services, which are under the control of Congress, which sets the budget priorities.

HISTORICAL AND CONTEMPORARY TRAUMA OF AMERICAN INDIAN YOUTH TODAY

The concept of “historical trauma” (HT) has been suggested as a possible contributor to the high rates of substance abuse among AI youth. In 1998, Brave Heart *et al.* was the first to conceptualize HT among the AI population, basing much of her research on the studies of the Holocaust survivors.¹⁰ She described HT in Indian country as a unique individual experience associated with a traumatic event or enduring condition of unresolved grief that occurs across generations. Historical trauma is often interwoven with cultural, historical, or intergenerational trauma that has accumulated in AI communities through centuries of exposure to racism, warfare, starvation, violence, and catastrophic disease.¹⁰ American Indian communities have experienced significant levels of HT over a period of 400 years that can only be described as genocide that was legal and systematic.^{1,10,13,14,29,35} For example, in 1870 the creation of AI boarding schools by the federal government was culturally destructive, as AI youth were forcibly removed from their families to attend these schools. Captain William Henry, who was heavily involved in boarding school policies, best summarized the goal of boarding schools as to “kill the Indian, save the man.”^{15,36}

Initially, studies linked the symptoms of HT to psychiatric disorders associated with post-traumatic stress disorder (depression, hypervigilance, anxiety), unresolved grief, and theoretical links with substance abuse.^{10,13,35}

Studies have linked the symptoms of historical trauma to psychiatric disorders associated with post-traumatic stress disorder (depression, hypervigilance, anxiety), unresolved grief, and theoretical links with substance abuse.

However, researchers are beginning to find ways to quantify, measure, and analyze this theoretical framework. Interviews of multiple AI found HT to be associated with negative feelings, depression, and psychological distress.¹³ A study of adolescents aged 11–13 years found that perceived historical loss had independent effects on an adolescent’s depressive

symptoms.²⁴ Finally, a bivariate analysis found that HT was found to be positively associated with alcohol abuse for men ($\beta = 0.45$, $P < 0.01$) and women ($\beta = 0.33$, $P < 0.01$).³⁷ Although these studies suggest that HT does have a moderate association with substance abuse, it remains mostly an interesting theoretical framework that needs further study.

It should be noted that contemporary trauma appears to have a larger contribution to the poor mental health status and substance abuse of AI youth. Trauma has been defined as experiencing a threat of injury, witnessing an injury, intentional injury, or experiencing sexual abuse.³⁸ One study found that AI youth reported an average of 4.1 lifetime traumas.³⁸ Another study found that AI youth and adults who experience ≥ 3 severe traumatic events had about 4 $\times$ the risk of having an alcohol-use disorder (odds ratio [OR]: 4.6, 95% confidence interval [CI]: 2.5–8.7).³⁹

Contemporary trauma appears to make a larger contribution to the poor mental health status and substance abuse of American Indian youth. One study found that American Indian youth and adults who experience ≥ 3 severe traumatic events had about 4 $\times$ the risk of having an alcohol-use disorder.

A 2010 study done in California of 118 urban AI youth being treated for mental health services found that those who experienced ≥ 3 traumatic events significantly increased their odds of alcohol-use disorders compared with those experiencing no traumatic events.⁴⁰ A review article concluded that AI are more likely to live in environments that place them at high risk for exposure to trauma and harmful health sequelae when compared with the overall US population.⁴¹ The impact of trauma can result in health problems including physical, psychosocial, cognitive, and behavioral problems; reduced emotional competence; and impaired relationships.^{35,38} Fortunately, researchers are starting to conceptualize a way forward by developing culturally appropriate health and substance abuse interventions that address HT and contemporary trauma among AI communities, although rigorous review and analysis of these interventions have yet to be conducted.^{13,19,27}

STATE OF AMERICAN INDIAN YOUTH SUBSTANCE ABUSE AND INTERVENTIONS TODAY

According to SAMHSA analysis of data from 1999 to 2001, AI youth have the highest rates of substance use when compared with other groups in virtually all categories (Figures 1 and 2).⁴² In addition, AI youth suffer disproportionately from substance

According to an analysis of data from 1999 to 2001 by the Substance Abuse and Mental Health Services Administration, American Indian youth have the highest rates of substance use when compared with other groups in virtually all categories.

abuse disorders compared with other racial groups in the United States. From 2002 to 2005, AI aged

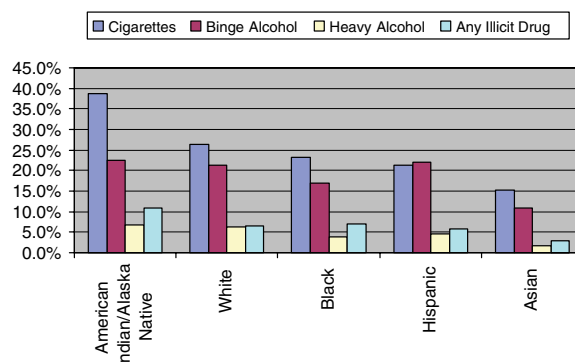


Fig 1. Percentages of persons aged ≥ 12 years reporting past month substance use, by race/ethnicity: annual averages based on 1999, 2000, and 2001 National Household Survey on Drug Abuse⁴².

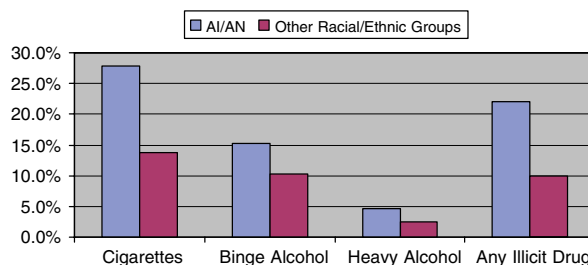


Fig 2. Percentages of youths aged 12–17 reporting substance abuse, by race/ethnicity: annual averages based on 1999, 2000, and 2001 National Household Survey on Drug Abuse.⁴² **Abbreviations:** AI, American Indian; AN, Alaska Native.

12–17 years were more likely to have an alcohol-use disorder (8.5% versus 5.8%) and illicit drug-use disorder (8.2% versus 5.1%) than members of other racial groups.⁴³

A study based on an anonymous drug use survey from 1974 to 1994 administered to AI youth from the seventh through 12th grade found that they had considerably higher rates of substance abuse, with 15% of AI youth having consumed alcohol or used drugs at least once by the age of 12, 62% having been intoxicated at least once by age 15, 71% of having used alcohol during their lifetime, and 20% of the youth having been heavily involved with drugs.¹ Recall that >50% of AI live off reservation⁵ and it has been found that drinking varies between reservation and nonreservation AI youth. Beauvais found that of AI eighth- and 12th-graders, nonreservation AI were more likely to report lifetime alcohol use (80%) compared with reservation AI (70%) or whites (73%). On the other hand, of the eighth- and 12th-grade AI youth reporting having been drunk in their lifetime, reservation AI were found to have a higher rate (49% of eighth graders, 87% of 12th graders) compared with nonreservation AI (42% and 76%, respectively) or whites (27% and 73%, respectively).⁴⁴

Marijuana use among AI youth also appears to be significantly higher when compared with the general population. Data from the same AI seventh- to 12th-grade survey found that roughly 50% of AI youth have tried marijuana at least once.⁴⁵ This data appears to correlate with another study of urban AI youth receiving mental health services in a California metropolitan area, which found that alcohol (69%) and marijuana (50%) were the most commonly used substances.⁴⁰ A 2003 study comparing a Southwest tribe to a Northern Plains tribe of AIs aged 15–57 years found there was a wide range in lifetime uses of marijuana (36.9%–57.5%), cocaine (4.3%–21.5%), inhalants (3.6%–17.0%), and heroin (0.5%–2.1%).⁴⁶

With data showing such high levels of substance use among AI youth, there has been limited financial resources to provide mental health support and services to this population. The IHS serves as the primary funder for substance abuse services, but faces the daunting challenge of having limited financial resources (see previous section on AI relationships with federal government). In 2003, IHS devoted 7% of its budget to mental health services.¹⁵ For the 2010 fiscal year budget, this percentage remains relatively unchanged, with \$267 million devoted to mental health services out of a budget of \$4.05 billion (or 6.6%).³¹ Despite the limited resources, in 2009 the IHS, along with SAMHSA, implemented the Methamphetamine and Suicide

Prevention Initiative (MSPI), which funds 127 IHS clinics and tribal and urban Indian health pilot programs across the nation.⁴⁷ The MSPI project promotes the development of evidence-based and practice-based models that represent culturally appropriate prevention and treatment for methamphetamine abuse and suicide prevention.⁴⁷

With regard to access to care, it has been estimated that only 1 in 5 AI report access to IHS mental health services.⁵ As of 2001, the IHS had roughly 300 full time staff members within its behavioral health program which include psychiatrist, psychologist, and social workers.¹⁵ In 1998, it was estimated that there were approximately 101 mental health providers (psychiatrists, psychologists, psychiatric nurses, and social workers) per 100,000 members of AI tribes, compared with 173 per 100,000 for whites.⁴⁸ Among all physicians, a report in 2008 by the American Medical Association estimated that despite AI making up 1.5% of the population, AI physicians make up only 0.02% of the total physician workforce nationally.⁴⁹ Given that AI prefer to be treated by AI mental health counselors,⁵⁰ the lack of available healthcare professionals presents a significant obstacle to AI youth who are seeking care.

Given that American Indians prefer to be treated by American Indian mental health counselors, the lack of available healthcare professionals presents a significant obstacle to American Indian youth who are seeking care.

As a result of the low level of financial support and poor access to care, some tribes have moved to begin their own traditional and spiritual recovery interventions. Recent evidence supports this line of thought. Use of traditional practices and healers is high among AI populations.^{51,52} The youth with a high level of cultural and spiritual orientation had a reduced prevalence of suicide compared with those with a low level of cultural spiritual orientation (OR: 0.5, 95% CI: 0.3–0.9).⁵³ A study of Navajo adolescents showed high levels of cultural identity were associated with a modest effect in reducing depression.⁵⁴ A bivariate analysis found that enculturation had a moderately negative effect on alcohol abuse (women $\beta = -0.31$, men $\beta = -0.12$, $P < 0.01$).³⁷ Therefore, there has been recent support by tribes and funding/grant agencies to provide support to the AI population for the development

of their own culturally appropriate programs to help reduce substance abuse.

THE PACIFIC NORTHWEST TRIBES: LOCAL RESPONSES TO SUBSTANCE ABUSE

The South Puget Intertribal Planning Agency (SPIPA), which is responsible for healthcare of multiple tribes, acquired many such supportive grants, of which several are allocated to youth and young adults. Recently, the Centers for Disease Control and Prevention, along with participating tribal governments and casinos, have provided funding to finance a annual youth conference called Promoting Outreach and Wellness Empowerment at the Reservations (POWER) that seeks to empower 50–100 youth per year. The 2-day conference focuses on cigarette smoking, marijuana use, and alcohol consumption, as well as other health-related issues. The youth are encouraged to learn and prepare traditional AI foods that are highly nutritious, with the belief that it will help spiritually connect today's youth to the traditions of the tribe.

The unpublished data from an end-of-the-conference survey showed that, in the short term, many of the youth participants learned from this conference. Survey respondents agreed with the following statements as indicated: "I enjoyed participating in this conference and want to attend another like this one," 93.9%; "I want to work with other kids at my tribe to help raise awareness about controlling smoking and drug use that can also help prevent cancer," 75.0%; "[I] want to try to live a healthy lifestyle to stay well and prevent diseases like addiction and cancer," 97.9%; and "[I] learned healthy lifestyle behaviors that prevents unhealthy access to tobacco and alcohol," 85.7% (SPIPA Youth Survey 2010; unpublished data).

Canoe travel was a significant part of the culture of the Pacific Northwest tribes. Tribes used canoes to hunt and fish, and for transportation to visit other communities in order to trade and share knowledge between groups.⁵⁵ In fact, the Northwest Coast tribes traveled so frequently between villages that they created a highly developed code of hospitality. For example, the travelers would stop in the water just off a foreign beach, raise their paddles up to signify peaceful intent, call a greeting to the local tribe, and ask the tribe for permission to land on their beach. In turn, the host tribe had certain designated responses that invited the travelers ashore, where they would be provided with food and shelter. In

the modern canoe journeys, this code of hospitality has been revived and has served as an opportunity to use traditional languages. When Europeans began exploring the region, the tribes were accustomed to meeting and welcoming strangers who arrived by boat.

Many tribal governments have turned to the elders for support and have asked them to provide education and awareness of their traditions.

Many tribal governments have turned to the elders for support and have asked them to provide education and awareness of their traditions.

These governments have been particularly concerned with the free time youth have, and believe the extra time may increase the chance of substance-abuse initiation. One program, developed by all of the tribes in the Pacific Northwest in the last couple of decades, is the annual summer Canoe Journey. Each tribe begins their canoe journey from their reservation and paddles through the islands of Puget Sound to the tribe that is hosting the event. Canoe Journey has exceeded many of the tribes' expectations, growing to approximately 50–60 canoes, with tribes from the United States and Canada participating.

In 1989, Washington State celebrated its centennial. As part of this celebration, the tribes and the state signed the Centennial Accord, which recognized the sovereignty of the tribes.⁵⁶ The tribes decided to commemorate their history by hosting a traditional canoe journey, called the Paddle to Seattle. Many of the canoes began the journey to Seattle from La Push, Washington, while others started from their tribal homes. The journey lasted several days and involved stops at traditional villages along the way. The Paddle to Seattle was an unqualified success, as demonstrated today by the fact that an intertribal canoe journey now takes place every summer with a different tribe acting as the host.

The canoe journeys have also revived the art of canoe carving. Although canoes can last many years, some tribes had become so far removed from the canoe culture that they no longer possessed their own canoes. Building a new canoe can be an extremely long process (especially when firsthand knowledge of the craft has been lost from the tribe). Rather than excluding tribes without their own canoes, tribes with extra canoes loan them to needful tribes. These canoe journeys have helped build a strong sense of community across tribes. Tribes with extensive

canoe-carving experience have worked hard to share that knowledge with the extended community. For example, the Bella Bella tribe has sent carvers to other tribes to teach them about canoe carving.^{57,58} Building a new canoe is no longer a one-tribe task: members from other tribes often contribute help toward completing a canoe.

One of the Canoe Journey's goals is to demonstrate to the youth and others how the AI used the waters as their traditional highway. The youth who paddle the canoes spend about 3 months training and paddling to the host site. All of the tribes who participate have adopted a zero-tolerance policy when it comes to substance abuse. Each participant in the Canoe Journey must promise not to use cigarettes, drugs, or alcohol while participating on the journey. Anyone discovered using any of the substances and wishing to continue on the canoe journey must stand before their tribal elders and explain why he or she should be able to continue. Once the elders convene, the youth is presented with the terms of punishment for violating the substance-abuse policy; should the youth choose not to accept the punishment, that individual must immediately leave the Canoe Journey and return to their home tribe, where he or she must enroll in a substance-abuse program at their respective tribe.

Much of Canoe Journey was created by a grassroots movement among tribes to reclaim their traditional cultures. However, there has been very little data or research into whether or not it is reaching one of its stated goals: reducing substance abuse. Fortunately, there is an innovative multiyear study, funded by the National Institutes of Health National Center on Minority Health and Health Disparities, currently in progress by researchers at University of Washington and the Suquamish tribe.¹⁶ They describe in their intervention the use of community-based participatory research (CBPR) and tribal participatory research (TPR). CBPR allows the researcher to focus on the concerns and needs of a community while at the same time identifying the local strengths and resources. This approach does not focus on the "problem" of the community; rather, it builds on what is currently working in the community.¹⁶ TPR indicates that there is tribal oversight of the process that allows the tribal council, as these are sovereign nations, to approve and support the intended research, as well as to "assure ethical behavior on the part of the researcher."¹⁶ Recall that many tribes can be suspicious of the researchers' intent, and, as TPR demonstrates, tribes want to make sure that they benefit from the research. By using CBPR and TPR, a clear understanding has been established that both parties, the researchers and the Suquamish Tribe,

will benefit from the project. This project has 2 more years of funding, where the researchers and members of the Suquamish tribe are now expected to design, develop, implement, and evaluate a youth substance-abuse intervention through Canoe Journey. Though the data will not be published for a couple more years, the approach presents a possible new way forward for designing and implementing AI youth substance-abuse interventions that is community-driven and sustainable over the long term.

Canoe Journey highlights one of the many interventions through which tribes are reviving their traditional ways to enhance the health and well-being of their youth. The Puget Sound tribes in the Pacific Northwest have shown an initiative to combat substance abuse on and around their reservations through their cultural and traditional teachings. With the help of the annual Youth POWER conference, along with the Canoe Journey and other health and wellness conferences, these tribes are in a better position to educate their tribal members about substance-abuse awareness.

FUTURE POLICIES

American Indian youth continue to bear a significant burden of health disparities. There are certain policy initiatives that tribes, researchers, and congressional policy-makers have recognized in moving forward. Starting with the congressional recognition for tribes to self-govern in 1975, there continues to be a shift toward allowing tribes to take control of healthcare funding to be used according to their own priorities.

Starting with the congressional recognition for tribes to self-govern in 1975, there continues to be a shift toward allowing tribes to take control of healthcare funding to be used according to their own priorities.

Although the Obama Administration did make the IHCA permanent in 2010, it is unlikely that even this will meet the funding needs of tribal healthcare due to medical-cost inflation and population growth. The 112th US Congress is currently considering budget cuts across all governmental services, including PPACA, of which IHCA is part. It remains to be seen if the IHCA will be fully funded in the coming year. Congress would do well to live up to the

original goals of IHCIA, which promised to bring AI healthcare up to the level of the general population and to fully fund the 2010 IHCIA.

Researchers and healthcare funding agencies such as the Centers for Disease Control and National Institutes of Health have recognized the need in providing culturally appropriate and competent interventions. The University of Washington CBPR/TPR approach presents a promising way forward for researchers and physicians to integrate their skills into a tribal community based on their needs. Additionally, with the new data supporting that many AI use traditional healers, there should be mechanisms in place to allow reimbursements for traditional healers who fill the cultural health needs. Active tribal participation has the potential to reduce the levels of youth substance abuse.

Levels of American Indian youth substance abuse may be significantly reduced by active tribal participation.

CONCLUSION

The youth represent the future and dreams of any modern community. Health problems faced by the younger generation have the potential to shape the future health of the community. In the case of AI communities, their youth continue to bear a heavier burden of substance abuse today. The academic community initially attempted to use many of the substance-abuse interventions that worked on the general population, but soon found that they were poorly designed for the complexities of AI communities. However, new research and interventions, as demonstrated by Thomas *et al.*, represent a way for researchers and physicians to provide support to AI youth interventions.¹⁶ American Indian communities are aware of the problems facing their youth, and are rediscovering their own traditions and cultures with the hopes that they will provide a way forward for their youth. The Canoe Journey represents a region-wide innovative approach by the AI tribes of the Pacific Northwest as a way to reclaim their traditional cultures, as well as a way to fight youth substance abuse.

Although working within AI communities is challenging, it may also be extremely rewarding. As highlighted earlier, many physicians and researchers may be unprepared for working with AI communities. However, such obstacles can be overcome by

building trust and having a good understanding of the historical and sociopolitical contexts that brought AI communities to where they are today. As with any physician-patient relationship, where fostering trust is of paramount importance, a trusting relationship is necessary between the academic community and AI community. American Indian tribes are aware of the skills that physicians and researchers may bring to their communities. The CBPR/TPR approach presents one way forward when designing and implementing culturally competent substance-abuse interventions.

It is important to recognize that each tribe should be empowered to implement its own culturally appropriate youth substance-abuse interventions. In many cases, evidence-based interventions targeting AI youth are not available. Therefore, it is important for physicians to support and assist the efforts of the AI community by providing the necessary health education and resources that they have to offer.

DISCLOSURES

Potential conflict of interest: Dakotah C. Lane is a recipient of the IHS Health Profession Scholarship.

REFERENCES

1. Beauvais F. American Indians and alcohol. *Alcohol Health Res World* 1998; 22: 253–259.
2. Thierry J, Brennenman G, Rhoades E, et al. History, law, and policy as a foundation for health care delivery for American Indian and Alaska Native children. *Pediatr Clin North Am* 2009; 56: 1539–1559.
3. US Department of Health and Human Services, Office of Minority Health. American Indian/Alaska Native profile, 2010. <http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=52>. Updated February 9, 2011. Accessed December 28, 2010.
4. US Department of Commerce, US Census Bureau, Ogunwale S. *We the People: American Indians and Alaska Natives in the United States*. <http://www.census.gov/prod/2006pubs/censr-28.pdf>. Published February 2006. Accessed December 27, 2010.
5. US Department of Health and Human Services, Office of the Surgeon General, Substance Abuse and Mental Health Services Administration. *Mental Health: Culture, Race, and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General*. Rockville, MD: Center for Mental Health Services, National Institute of Mental Health; 2001.
6. US Department of Commerce, US Census Bureau. *The American Community—American Indians and Alaska Natives: 2004*. <http://www.census.gov/prod/2007pubs/acs-07.pdf>. Published May 2007. Accessed November 12, 2010.
7. US Department of Health and Human Services, Indian Health Service. *Trends in Indian Health, 2002–2003 Edition*. Washington, DC: Government Printing Office; 2009. Accessed October 5, 2010.

8. May P. Overview of alcohol abuse epidemiology for American Indian populations. In: Sandefur GD, Rindfuss RR, Cohen B, eds. *Changing Numbers, Changing Needs: American Indian Demography and Public Health*. Washington, DC: National Academy Press; 1996; 235–261.
9. Goodkind JR, Ross-Toledo K, John S, et al. Promoting healing and restoring trust: policy recommendations for improving behavioral health care for American Indian/Alaska Native adolescents. *Am J Community Psychol* 2010; 46: 386–394.
10. Brave Heart MY, DeBruyn LM. The American Indian Holocaust: healing historical unresolved grief. *Am Indian Alsk Native Ment Health Res* 1998; 8: 56–78.
11. Beals J, Novins DK, Whitesell NR, et al. Prevalence of mental disorders and utilization of mental health services in two American Indian reservation populations: mental health disparities in a national context. *Am J Psychiatry* 2005; 162: 1723–1732.
12. Beauvais F, Jumper-Thurman P, Helm H, et al. Surveillance of drug use among American Indian adolescents: patterns over 25 years. *J Adolesc Health* 2004; 34: 493–500.
13. Gone JP. A community-based treatment for Native American historical trauma: prospects for evidence-based practice. *J Consult Clin Psychol* 2009; 77: 751–762.
14. Szlemko WJ, Wood JW, Thurman PJ. Native Americans and alcohol: past, present, and future. *J Gen Psychol* 2006; 133: 435–451.
15. Gone JP. Mental health services for Native Americans in the 21st century United States. *Prof Psychol Res Pract* 2004; 35: 10–18.
16. Thomas LR, Donovan DM, Sigo RL, et al. The community pulling together: a tribal community–university partnership project to reduce substance abuse and promote good health in a reservation tribal community. *J Ethn Subst Abuse* 2009; 8: 283–300.
17. Beals J, Manson SM, Mitchell CM, et al. Cultural specificity and comparison in psychiatric epidemiology: walking the tightrope in American Indian research. *Cult Med Psychiatry* 2003; 27: 259–289.
18. Manson SM, Garrouette E, Goins RT, et al. Access, relevance, and control in the research process: lessons from Indian country. *J Aging Health* 2004; 16(5 suppl): 58S–77S.
19. Whitbeck LB. Some guiding assumptions and a theoretical model for developing culturally specific preventions with Native American people. *J Commun Psychol* 2006; 34: 183–192.
20. Deloria V Jr. Commentary: research, redskins, and reality. *Am Indian Quart* 1991; 15: 457–468.
21. Foulks EF. Misalliances in the Barrow Alcohol Study. *Am Indian Alsk Native Ment Health Res* 1989; 2: 7–17.
22. Mello MM, Wolf LE. The Havasupai Indian tribe case—lessons for research involving stored biologic samples. *N Engl J Med* 2010; 363: 204–207.
23. Glenn D. Blood feud: a controversy over South American DNA samples held in North American laboratories ripples through anthropology. *Chron High Educ* 2006; 52: A14–A16, A18.
24. Whitbeck LB, Walls ML, Johnson KD, et al. Depressed affect and historical loss among North American Indigenous adolescents. *Am Indian Alsk Native Ment Health Res* 2009; 16: 16–41.
25. Beauvais F. Obtaining consent and other ethical issues in the conduct of research in American Indian communities. *Drugs Society* 1998; 14: 167–184.
26. Norton IM, Manson SM. Research in American Indian and Alaska Native communities: navigating the cultural universe of values and process. *J Consult Clin Psychol* 1996; 64: 856–860.
27. Morgan R, Freeman L. The healing of our people: substance abuse and historical trauma. *Subst Use Misuse* 2009; 44: 84–98.
28. Bryan RT, Schaefer RM, DeBruyn L, et al. Public health legal preparedness in Indian country. *Am J Public Health* 2009; 99: 607–614.
29. Kunitz SJ. The history and politics of US health care policy for American Indians and Alaskan Natives. *Am J Public Health* 1996; 86: 1464–1473.
30. Public Law 93-638. Indian Self-Determination and Education Assistance Act. 1994.
31. US Department of Health and Human Services, Indian Health Service. Indian Health Service FY 2010 budget. <http://info.ihs.gov/Budget10.asp>. Accessed February 19, 2011.
32. US Commission on Civil Rights. *A Quiet Crisis: Federal Funding and Unmet Needs in Indian Country*. Washington, DC: US Commission on Civil Rights; 2003; 44.
33. Northwest Portland Area Indian Health Board. *The FY 2010 Indian Health Service Budget: Analysis and Recommendations*. Portland, OR: Northwest Portland Area Indian Health Board; 2009.
34. Heisler EJ, Walke R. *Indian Health Care Improvement Act Provisions in the Patient Protection and Affordable Care Act (P.L. 111-148)*. Washington, DC: Congressional Research Service; 2010.
35. Whitbeck LB, Adams GW, Hoyt DR, et al. Conceptualizing and measuring historical trauma among American Indian people. *Am J Commun Psychol* 2004; 33: 119–130.
36. Hawkins EH, Cummins LH, Marlatt GA. Preventing substance abuse in American Indian and Alaska Native youth: promising strategies for healthier communities. *Psychol Bull* 2004; 130: 304–323.
37. Whitbeck LB, Chen X, Hoyt DR, et al. Discrimination, historical loss and enculturation: culturally specific risk and resiliency factors for alcohol abuse among American Indians. *J Stud Alcohol* 2004; 65: 409–419.
38. Deters PB, Novins DK, Fickenscher A, et al. Trauma and posttraumatic stress disorder symptomatology: patterns among American Indian adolescents in substance abuse treatment. *Am J Orthopsychiatry* 2006; 76: 335–345.
39. Boyd-Ball AJ, Manson SM, Noonan C, et al. Traumatic events and alcohol use disorders among American Indian adolescents and young adults. *J Trauma Stress* 2006; 19: 937–947.
40. Dickerson DL, Johnson CL. Mental health and substance abuse characteristics among a clinical sample of urban American Indian/Alaska Native youths in a large California metropolitan area: a descriptive study. *Community Ment Health J* 2010; doi:10.1007/s10597-010-9368-3.
41. Manson SM, Beals J, Klein SA, et al. Social epidemiology of trauma among 2 American Indian

- reservation populations. *Am J Public Health* 2005; 95: 851–859.
42. US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, National Household Survey on Drug Abuse. *Substance Use Among American Indians or Alaska Natives*. Rockville, MD: SAMHSA Office of Applied Studies; 2003.
 43. US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. *Substance Use and Substance Use Disorders Among American Indians and Alaska Natives*. Rockville, MD: SAMHSA Office of Applied Studies; 2007.
 44. Beauvais F. Comparison of drug use rates for reservation Indian, non-reservation Indian and Anglo youth. *Amer Indian Alsk Native Ment Health Res* 1992; 5: 13–31.
 45. Beauvais P. Trends in drug use among American Indian students and dropouts, 1975 to 1994. *Am J Public Health* 1996; 86: 1594–1598.
 46. Mitchell CM, Beals J, Novins DK, et al. Drug use among two American Indian populations: prevalence of lifetime use and DSM-IV substance use disorders. *Drug Alcohol Depend* 2003; 69: 29–41.
 47. US Department of Health and Human Services, Indian Health Service. Methamphetamine and Suicide Prevention Initiative 2009, fact sheet. <http://info.ihs.gov/Bhealth.asp>. Accessed February 27, 2011.
 48. Manderscheid RW, Henderson MJ, eds. *Mental Health, United States, 1998*. Rockville, MD: Center for Mental Health Services, Substance Abuse and Public Health Service, Substance Abuse and Mental Health Services Administration; 1998.
 49. Sellers J, Smart D. *Physician Characteristics and Distribution in the US*. Chicago, IL: American Medical Association; 2008.
 50. Haviland MG, Horswill RK, O'Connell JJ, et al. Native American college students' preference for counselor race and sex and the likelihood of their use of a counseling center. *J Counsel Psychol* 1983; 30: 267–270.
 51. Buchwald D, Beals J, Manson SM. Use of traditional health practices among Native Americans in a primary care setting. *Med Care* 2000; 38: 1191–1199.
 52. Marbella AM, Harris MC, Diehr S, et al. Use of Native American healers among Native American patients in an urban Native American health center. *Arch Fam Med* 1998; 7: 182–185.
 53. Garrouette EM, Goldberg J, Beals J, et al. Spirituality and attempted suicide among American Indians. *Soc Sci Med* 2003; 56: 1571–1579.
 54. Rieckmann TR, Wadsworth ME, Deyhle D. Cultural identity, explanatory style, and depression in Navajo adolescents. *Cultur Divers Ethnic Minor Psychol* 2004; 10: 365–382.
 55. Steelquist R. Tribal Journeys: Welcoming. Ocean Explorer 2002. <http://oceanexplorer.noaa.gov/projects/02tribal/welcoming/welcoming.html>. Accessed January 13, 2010.
 56. Wray J. *Native Peoples of the Olympic Peninsula: Who We Are*. Norman, OK: University of Oklahoma Press; 2003.
 57. Preston D. Cedar transforms canoe, carvers. *Northwest Indian Fisheries Commission News* Summer 2002; 5.
 58. Wheeler T. American Indians pull with pride in Elwha. *People's Weekly World* August 26, 2005. <http://peoplesworld.org/american-indians-pull-with-pride-in-elwha>.

Copyright of Mount Sinai Journal of Medicine is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.