



American Indian/Alaskan Native Binge Drinking: Reviewing Treatment and Developing Collaborative Methodologies to Measure Outcomes

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Scholarly Report submitted in partial fulfillment of the MD Degree at Harvard Medical School

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Scholarly Report Title: American Indian/Alaskan Native Binge Drinking: Reviewing Treatment and Developing Collaborative Methodologies to Measure Outcomes

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Abstract:

American Indian/Alaskan Native Binge Drinking: Reviewing Treatment and Developing Collaborative Methodologies to Measure Outcomes

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Purpose:

The AI/AN population has a proportionally high rate of binge drinking that accounts for significant morbidity and mortality.¹ This maladaptive behavior is the result of generations of psychosocial trauma and the subsequent loss of languages, traditions, family and hope, isolation, limited positive role models, and racism. The principle aim of this project was to review how tribal beliefs and practices are integrated into current treatment strategies and propose specific methodologies to measure outcomes demonstrating a reduction in binge drinking among the AI/AN population.

Methods:

Experts in addiction psychiatry, public health, education, and AI/AN leaders and healers reviewed various tribal beliefs and practices as well as current treatment strategies including, but not limited to, somatic therapeutic modalities such as psychopharmacology as well as behavioral therapy and Alcoholics Anonymous (AA) or 12- Step Facilitation (TSF) therapy.

Results:

Several key elements for developing research methodologies to measure treatment outcomes founded in Indigenous cultural ways of knowing were examined. Notably, three were identified: recognize culture as treatment, overcome Western interpretations of research, and apply culturally appropriate research methodologies.

Conclusions:

It is time to recognize that there is more than the dominant Western worldview to approach research; Indigenous knowledge and worldview are another and must be foundational in research with American Indians and Alaskan Natives. It is such a relationship that recognizes culture as the strength it is, and that can contribute to reconciling America's research response to binge drinking among American Indians and Alaskan Natives.

¹ Many words are used interchangeably for the word indigenous through out this document, including: American Indian/Alaskan native (AI/AN), Aboriginal, First Nations, First Peoples, Inuit, Native American, and Metis.

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Description of Scholars of Medicine Project:

The Radcliffe Institute for Advanced Study at Harvard University offers a competitive grant to ladder faculty and past Radcliffe fellows to host exploratory seminars. These seminars help support the development of new research ideas and teaching. The funding (\$18,000) assists in bringing together people from across the world to attend the seminar. Seminars are an excellent opportunity to bring together practitioners, scholars and students to generate new ideas and discuss risky research endeavors.

There is limited research in the area of substance abuse in AI/AN populations. Not only has there been a lack of interest in comparison to other minority groups but also difficulty in conducting clinical trials (whether retrospective, prospective or randomized) due to inherent distrust of government and difficult navigation of tribal IRB protocols. There has been some progress into incorporating culture and traditional methods into the treatment process of AI/AN. It is widely accepted that a return to culture and knowing oneself has a significant impact on wellness of an individual. In many indigenous cultures, wellness is composed of physical, spiritual, emotional and mental health, where all components must be in balance to achieve wellness. Cultural treatment addresses these non-physical health components. However, there is minimal amount of research examining the outcomes of incorporating culture as a means of healing. We were interested in bringing together leaders in the field (psychiatrists, social workers, nurses, community health workers, social scientists, and Indian Health Service directors) to discuss their current efforts in the field, research (specifically cultural methods) and thoughts on the future of research in Indian country.

Design:**Objectives:**

- Review current treatment strategies that blend somatic, behavioral and 12- Step therapeutic modalities with tribal beliefs and culture to reduce binge drinking among AI/AN.
 - Propose research strategies to measure the outcome of these treatments.
- Identify opportunities and barriers to the implementation of research protocols and dissemination of best practices.
- Demonstrate that a professionally and ethically diverse group of individuals can meet and produce innovative research strategies that can improve the health and well-being of AI/AN.
- Formulate next steps that are practical, affordable, and sustainable.

Execution:

A literature review of current AI/AN substance abuse research was completed that focused on cultural and traditional methods of healing. A detailed proposal (see Appendix 2) was written and submitted to the Radcliffe Institute and accepted. We identified various leaders in the field to attend our seminar (See Appendix 3 for list of attendees). We constructed an agenda and focus topic for our seminar series. Our seminar took place on November 9th, 2015. From our discussions, we identified strong case models, novel research methodologies, barriers to research, and best practices for furthering study in Indian Country. Results were compiled for manuscript preparation and submission to peer reviewed scientific journals.

Analysis and Writing:

New data were not generated. However, detailed notes of the presentations and discussions were taken and shared in a Google drive with all attendees. Attendees were also able to upload documents of interest that would be helpful in determining best practices. Certain themes became apparent and became the fundamentals for best practices which are briefly discussed here (three points become the base of published paper). The manuscript of the published paper can be found in Appendix 1.

Overcoming barriers to research:

Difficulties that arise with research protocols on indigenous patients, e.g., distrust of government, patient refusal to accept western medicine, resistance to outside influences, and how this ultimately affects IRB and randomized controlled trials.

Knowing culture as treatment:

Indigenous people have an evidence base grounded in their sacred societies. Also, essential to all Indigenous cultures is their language and stories of creation. Held within both the language and story of creation is the knowledge that supports cultural based practices that are critical for addressing substance use and mental health issues. Reconnecting Indigenous people to their culture is a process of decolonization, because it is the intergenerational experience of colonization that accumulates over time, transcends generations, and cloaks the inherent strengths of Indigenous people. All stories of creation held by Indigenous people are accepted as true. There is consistency across cultures that is the strength of identity given to Indigenous people.

Recognizing the importance of relationship and trust building:

Similar to the barriers to research, the issues that drive the above relationships to fail must be addressed and worked on to develop trust between researcher and Indigenous community. The creation and utilization of designated tribal liaisons is an absolutely essential catalyst to foster a working relationship between these two groups. Also, any sort of implementation whether federal, state, or local must include tribal consultation.

Applying methods to undertake culturally competent research:

Examples of current programs across North America using Indigenous culture as a part of treatment were reviewed. Specifically, in response to the Honouring Our Strengths renewed framework and a funding call from the Canadian Institutes of Health Research (CIHR), the Thunderbird Partnership Foundation initiated a project with the Assembly of First Nations, Centre for Addiction and Mental Health, and the University of Saskatchewan, entitled Honouring Our Strengths: Indigenous Culture as Intervention in Addictions Treatment. The outcome was the Native Wellness Assessment™, which is designed to be used among Indigenous people who will benefit from feedback on their state of wellness as seen from a Native cultural perspective at a specific point in time. “The Native Wellness Assessment™ (NWA™), the first instrument that measures wellness from a foundation of Indigenous evidence and worldview, provides valuable insight for Native people seeking a sense of balance of their spirit, emotions, mental and physical being as well as service providers offering cultural interventions to promote wellness. Use of the NWA™ offers a unique opportunity to establish a national evidence base for Native people in Canada while also enhancing support across community programs.”

Committing to knowledge translation and information sharing:

There was an expressed need to develop platforms to share research and cultural resources. We looked at examples of videos and online platforms through the Department of Health and Human Services in Maine

Reconsidering definitions and Western Approaches (e.g., Westernized binge drinking definition may not apply/norms):

Westernized definitions often fall short of a whole person approach that many indigenous cultures use for their health. Wellness is not only physical health, but emotional, mental, and spiritual.

Appendix 1:

Paper Accepted to Journal of Health Care for the Poor and Underserved (In print in February or May 2017 edition)

Reconciling America's Research Response to Binge Drinking Among American Indians and Alaskan Natives

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Binge drinking

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Abstract: Binge drinking among American Indians and Alaskan Natives is an acute health issue in the United States. The Radcliffe Institute for Advanced Study at Harvard University convened a one day meeting with North American experts to identify key elements for developing research methodologies to measure treatment outcomes founded in Indigenous cultural ways of knowing. Three were identified: recognize culture as treatment, overcome Western interpretations of research, and apply culturally appropriate research methodologies. Common across the elements is respectful relationship development, which mirrors the efforts of the Canadian Truth and Reconciliation Commission that was established to address the destructive legacy of residential schools among First Nations. Reconciling America’s research response to binge drinking among American Indians and Alaskan Natives requires a similar commitment.

Key words: Binge drinking, American Indian and Alaskan Native, culture, reconciliation.

In December, 2015 the Canadian government committed to 94 Calls to Action released by the Truth and Reconciliation Commission of Canada (TRC). The TRC was set up in 2009 by the federal government to inform Canadians “about the truth of survivors, families, communities and anyone personally affected by the [Indian Residential School] experience.”¹ The Calls to Action are aimed to “redress the legacy of residential schools and advance the process of Canadian reconciliation.”^{2 [p. 1]} According to Justice Murray Sinclair, Chair of the TRC, in response to an appalling history of colonial practices, reconciliation is necessary to move forward and is “about forging and maintaining respectful relationships. There are no shortcuts.”³

It is estimated that 100 million Indigenous peoples lived in the Americas in pre-colonial times. Within the period of 100 years the population was reduced significantly, due to war, bounties, infectious disease, and institutionalized attempts at Western enculturation and assimilation. More specifically, in the United States and Canada Indigenous children were forced to attend boarding and residential schools where they were not allowed to speak in their native languages, were forced to convert to Christianity, and suffered physical, mental and sexual abuse.⁴ Consequently, a large proportion of Indigenous peoples were disconnected from their traditions and cultural heritage. This has had tragic consequences for the health, well-being, and vitality of Indigenous communities, families, and individuals, and ultimately for Indigenous cultures.

Throughout the 94 TRC recommendations is a commitment to Indigenous culture and knowledge. Recommendation 22 illustrates this: “We call upon those who can effect change within the Canadian health-care system to recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients.”^{2 [p.3]} There is also a commitment to research and advancement, which will require ongoing assessment of processes and outcomes. Recommendation 19 states: “We call upon the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal communities, and to publish annual progress reports and assess long-term trends.”^{2 [p. 3]} Although the TRC is a Canadian undertaking, there is vast similarity in the colonial histories and current binge drinking health-related challenges of Indigenous people in the U.S. and Canada, and thus it makes sense to consider the applicability of the TRC to the U.S. research response.

Notwithstanding the individual and communal strengths of culture, the impacts of multigenerational trauma have resulted in maladaptive coping strategies among Indigenous peoples, including harmful drinking patterns. In Fall, 2015 the Radcliffe Institute for Advanced Study at Harvard University brought together experts from the United States and Canada to share knowledge across disciplines to “support risk-taking inquiry into new ideas and research.”^{5 [n.p]} An exploratory seminar on

American Indian and Alaskan Native binge drinking was co-led by Harvard Medical School faculty member John A. Fromson, MD and Harvard medical student Erica Kiemele and attended by a diversity of predominately Indigenous as well as non-Indigenous experts. Titled *Reviewing Treatment and Developing Collaborative Research Methodologies to Measure Cultural Outcomes*, the seminar addressed two related questions: (1) What are the prevalent interventions that utilize tribal beliefs and modern scientific evidence based treatment? and (2) What are practical, affordable, sustainable and scientifically rigorous research protocols that can be used to determine the efficacy of blended tribal and Western scientific treatment for American Indian and Alaskan Native binge drinking? The results of the seminar overwhelmingly support the TRC Call to Action, recognizing Indigenous culture as central to wellness and establishing an evidence base recognized by Western science, and the development of respectful relationships with Indigenous people.

Alcohol abuse in the form of binge drinking is an acute health issue for Indigenous populations. Survey data from the United States demonstrate that binge drinking among American Indians and Alaskan Natives is among the highest in the country (30.6%) compared with the national average of 24.5%. Emerging data however are showing more closely comparable rates.⁶ Additionally, overall alcohol consumption is lower among American Indians and Alaskan Natives in comparison with the national average; average past month use is 43.9% and the national average is 55.2%.⁷ Some similar patterns exist in Canada.⁸ Early exposure and onset of binge drinking among youth has been linked to increased risk of binge drinking in adulthood. Tribe-specific data in the United States also suggests that binge substance use can function as a form of self-injury in adolescents.⁹ Binge drinking is connected to a substantial portion of alcohol-related deaths and is associated with alcohol poisoning, unintentional injuries, suicide, sexually transmitted diseases, fetal alcohol syndrome, and a host of medical comorbidities.

According to the 2012 National Survey on Drug Use and Health, American Indians and Alaskan Natives accessed alcohol treatment at a rate of 14.4% compared with 7.6% for all others, and for combined alcohol and illicit drugs at 17.5% and 9.3%, respectively.¹⁰ American Indians and Alaskan Natives are also more likely to require specialty treatment for substance use disorders. The situation is, again, similar in Canada.⁸ Over the past two decades, treatment programs in both countries have increasingly recognized the need to integrate traditional tribal culture and beliefs with modern interventions in treatment for binge drinking and other problematic substance use. Research strategies to develop outcome measures are needed to determine their efficacy.

In 2011, the *Honouring Our Strengths: A Renewed Framework to Address Substance Use among First Nations in Canada* was released in Canada and recommended the establishment of a culturally centered evidence base to document and demonstrate the effectiveness of cultural interventions as offered by the National Native Alcohol and Drug Abuse Program (NNADAP) and the Youth Solvent Addiction

Program (YSAP) in Canada.¹¹ The NNADAP and YSAP are the primary, national modes of treatment for First Nations and Inuit people. The programs are funded by Health Canada and controlled by First Nations communities and organizations. In the United States, Legha and Novins examined the role of Indigenous culture in addictions programs and concluded that programs emphasize the importance of relationships, open-door policies, establishing a home-like setting, and using traditional practices (e.g., ceremonies such as smudging, native languages, and traditional healers).¹² Friendship House is a national treatment model in the United States that incorporates traditional Indigenous practices and Western programming. Edwards Y. Cultural connection and transformation: substance abuse treatment at Friendship House. *J Psychoactive Drugs*. 2003;35:53–58

Indigenous research over the past two decades in both the United States and Canada has increasingly concentrated on the protective and healing role of culture. A 1998 publication on American Indians and alcohol commented that “[e]fforts to prevent and treat alcohol problems...may be more effective if native beliefs and approaches are incorporated.”¹³ [p. 253] More recently, the varied scholarship of Joseph Gone in both the United States and Canada has maintained that “...the degree that a return to indigenous tradition might benefit distressed First Nations clients...seems a promising approach worthy of further research investigation.”¹⁴ [p. 683] This focus has also been supported in formal research funding calls, for example, from the National Institute on Alcohol Abuse and Alcoholism and the Canadian Institutes of Health Research, Canada’s major health research funding body. It has also been evident in work undertaken by Indigenous-led organizations. Notably in Canada, in 2015 the *First Nations Mental Wellness Continuum Framework*—which supports the uptake of holistic, culturally grounded, and community specific wellness initiatives—was released by the Assembly of First Nations in partnership with various organizations.¹⁵ In sum, recognition of the strengths of culture is growing, with research and other commitments unfolding in both the United States and Canada.

In an attempt to contribute to this understanding, three elements emerged for consideration from the Radcliffe Institute seminar on Indigenous cultural treatment for binge drinking and the development of collaborative research methodologies to measure outcomes. These elements support the TRC’s promotion of reconciliation (i.e., respectful relationship development), and recognize Indigenous culture as central to wellness and establishing an evidence base recognized by Western science. The elements are presented here as the authors’ commitment to supporting reconciliation the United States and Canada.

(1) Recognize culture as treatment.

Indigenous people have an evidence base grounded in their sacred societies.¹⁶ Essential to all Indigenous cultures are language and stories of creation; they are interconnected and the foundation upon which all exists. [Elder J. Dumont, National Native Addictions Partnership Foundation, Honouring Our Strengths: Indigenous Culture as Intervention in Addictions Treatment Project – University of Saskatchewan.

Reference Guide. 2016. Ontario: Author. Held within both is knowledge that supports the significance of culture-based practices for individual and communal wellness. Reconnecting Indigenous people to culture is a process of decolonization. Culture is the foundation of identity, which has been given to Indigenous people by the Creator. Understanding and forging the relationship between Indigenous people and culture, and by extension cultural identity, is central to treatment for substance abuse, including binge drinking.

The findings of a 2014 scoping study of cultural interventions to treat addictions, including binge drinking, in Indigenous populations identified them as “beneficial to help improve client functioning in all areas of wellness.”¹⁷ [p. 1] Western approaches to treatment and outcome measurement have foremost focused narrowly on improvements in areas of identified individual deficit. Shifting to a holistic strengths based emphasis on cultural identity can facilitate individual wellness and measuring the extent to which it has been achieved. For example, when a residential Youth Solvent Addiction Program in Canada shifted its content from a Western deficit-focused evidence-base for treatment interventions (e.g., physical problems caused by the misuse of volatile substances) to the Creation story and language (e.g., building on clients’ inherent cultural strengths), the outcome measures for youth were significant. An individual’s completion of treatment moved from 70% to 100%, and 65% more youth participated in school post-treatment. The relationship between staff and youth also improved, with a reduction of annual staff turnover by 60% and sick time by 70%.¹⁸

(2) Overcome Western interpretations of research.

Western attempts at research are often viewed with suspicion by Indigenous tribal members and leaders. This mistrust stems from unethical research studies historically being conducted, and in some cases, a history of medical and psychological abuse.¹⁹ In some research settings today there is a continued lack of historical awareness and cultural sensitivity. For example, researchers continue to apply the Diagnostic and Statistical Manual of Mental Disorders, including alcohol use disorder, without questioning its cultural relevancy to Indigenous peoples. Although the treatment of culture has improved in the most recent version of the DSM (V), it remains problematic. [Wheeler, E., Kosterina, E, Cosgrove, L. Diagnostic and Statistical Manual of Mental Disorders (DSM), feminist critiques of. 2016. DOI: 10.1002/9781118663219.wbegss125] [Young, G. DSM-5: Basics and Critics. 2016. Unifying Causality and Psychology. DOI: 10.1007/978-3-319-24094-7_22. pp. 565-590] With the advent of Indigenous and decolonizing methodologies and tribe-facilitated research processes, dramatic improvements in sovereignty, research ethics, relationship development, intellectual property rights, and data-sharing considerations have been made in both the United States and Canada.^{20,21}

However, even in situations where tribal permission is granted and meaningful results are obtained, researchers can face publication challenges. For example, in 2015 permission from tribal leaders overseeing an Indian Health Service Adolescent Residential Treatment Center was granted to publish a

study combining a Western evidence-based treatment (Dialectical Behavioral Therapy) with traditional cultural and spiritual practices. The sample size included 229 adolescents over a three-year period and the results showed that 96% were either "recovered" or "improved" using clinically significant change criteria."²² [p. 84] Prior to the study's eventual publication, it was rejected by numerous journal editors for not being scientifically rigorous, randomized, or having a control group. While these are justifiable Western-oriented criticisms, they do not reflect an understanding of the abusive research history, cultural sensitivities, and current lack of published studies specific to Indigenous populations. A 2013 systematic review of randomized controlled trials [RCT] of health related issues within an Aboriginal context concluded there is a severe dearth of studies and for the reasons cited above.²³ It appears that some editors are demanding a publication standard that is consistent with populations that have been well studied and for whom RCT methods are accepted and trusted.

(3) Apply culturally appropriate research methodologies.

The application of culturally appropriate research methodologies to studies of substance use, including binge drinking, among American Indians and Alaskan Natives is a requisite to measure treatment outcomes founded in Indigenous cultural ways of knowing. In Canada the Institute of Aboriginal Peoples' Health adopted a two eyed seeing approach from the teachings of Elder Albert Marshall to transform Indigenous health: "To see from one eye with strengths of indigenous ways of knowing and to see from the other eye with the strengths of westerns ways of knowing and to use both of these eyes together."²⁴ [n.p] Some advanced this approach when putting it into research practice by prioritizing the Indigenous eye or ways of understanding.²⁵

To illustrate, the two-eyed seeing approach was adopted by a community-based research team led by the Thunderbird Partnership Foundation in collaboration with academic and government institutions. The study, titled *Honouring Our Strengths: Indigenous Culture as Intervention in Addictions Treatment*, developed the Native Wellness Assessment (NWA)TM, a culturally competent, statistically and psychometrically strong measure that demonstrates the efficacy of cultural interventions in NNADAP and YSAP centers. It is the first known instrument to measure wellness from a foundation of Indigenous evidence and worldview.²⁶ To achieve this, the development of open and trusting relationships between the Indigenous and non-Indigenous research team members had to be established, with acceptance by all that Indigenous ways of knowing and practice would lead all aspects of the study. Consequently the NWATM "offers a unique opportunity to establish a national evidence base to demonstrate the efficacy of culture in facilitating wellness."²⁷ [p. 15]

In conclusion, researchers and interested others are encouraged to engage with the three elements for developing research methodologies to measure treatment outcomes founded in Indigenous cultural ways of knowing. Of course none of these not come without their challenges, such as establishing the

reliability and validity of tools and processes applied. However, as shared, common across the elements is respectful relationship building. This mirrors the efforts of the TRC in Canada. It is time to recognize that there is more than the dominant Western worldview to approach research; Indigenous knowledge and worldview are another and must be foundational in research with American Indians and Alaskan Natives. Consider the young Indigenous man who navigates while fishing by using the way he was taught by his ancestors—by reading the stars. It is such a relationship that recognizes culture as the strength it is, and that can contribute to reconciling America's research response to binge drinking among American Indians and Alaskan Natives.

Contributors

All authors helped to edit and approve of the final version of the article prior to publishing within their respective expertise. Specifically, JF and EK conceived of seminar from which the ideas for this article emerged. EK, CD and JM managed the writing of the article and main editing.

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Appendix 2: Grant Proposal to Harvard University Radcliffe Institute for Advanced Study

Abstract

This Radcliffe Institute exploratory seminar will review how tribal beliefs and practices are integrated into current treatment strategies and propose specific methodologies to measure outcomes demonstrating a reduction in binge drinking among the American Indian/Alaskan Native (AI/AN) population. Experts in addiction psychiatry, public health, education, and AI/AN leaders and healers will review various tribal beliefs and practices and current treatment strategies including, but not limited to, somatic therapeutic modalities such as psychopharmacology as well as behavioral therapy and Alcoholics Anonymous (AA) or 12- Step Facilitation (TSF) therapy. Alcohol abuse in the form of binge drinking is a significant problem for AI/AN populations. While U.S. survey data demonstrates that AI/AN consumption of alcohol is actually less than the national average, the prevalence of binge drinking among AI/AN adults is among the highest. Early exposure and onset of binge drinking has been linked to the increased risk of binge drinking in adulthood. Binge drinking is linked to a substantial portion of alcohol-related deaths and is associated with alcohol poisoning, unintentional injuries, suicide, sexually transmitted diseases, fetal alcohol syndrome, and a host of medical comorbidities. Tribal-specific data suggest that binge substance use can also function as a form of self-injury in adolescent AI/AN. Current prevention and treatment regimens for binge drinking among AI/AN adolescents and adults focus on the integration of traditional tribal culture and beliefs with modern interventions. Research strategies to develop outcome measures are now needed to determine the efficacy of this approach.

Introduction to American Indian and Alaska Native Health

Health disparities among racial communities and socio-economic sub types are a significant problem in the United States, particularly among the American Indian/Alaskan Native (AI/AN) populations.² In 2010, 5.2 million individuals identified their “race” as AI or AN, alone or as a combination with another race. They comprise 1.7 percent of the total U.S population. Of this 5.2

² In North American those of indigenous descent may be called: In the US American Indian, Alaskan Native or Native American and in Canada, First Nations, First Peoples, Aboriginal, Metis or Inuit.

million, approximately 2 million are enrolled members of 566 federally recognized tribal nations.³ The percentage of AI/AN who lacked health insurance in 2010 was 29.2 percent compared to 16.9 percent of the general population below age 65 (CDC 2014b).

Compared to white counterparts, AI/AN have decreased household incomes, with more living below the poverty line, increased employment rates, and less education at both the high school and college level. Despite these psychosocial stressors, AI/AN are a relatively fast growing population. Their numbers are estimated to reach a total of 8.6 million by 2050. AI/AN is a young population with a median age of 25, a decade younger than non-Hispanic whites at 36.2 and their largest age group is between 10-19 years of age, compared to 34-45 for non-Hispanic whites. The relatively young AI/AN demographics are the result of increased birth as well as increased death rates. AI/AN populations have a 1.5 times greater birth rate compared to the U.S all-races population. Although U.S. teen pregnancy (ages 15-19) rates have been declining since the early 90's, AI/AN still have an increased rate at 38.7 per 1000 people compared to non-Hispanic whites of 23.5. However, the infant mortality rate for AI/AN women was 64 percent higher than the rate for non-Hispanic white women. Including a higher rate for infant mortality due to SIDS (2.4 times higher), unintentional injuries (2.3 times higher) and congenital malformations (48% higher) as compared to non-Hispanic whites (MacDorman 2011).

In terms of death rates due to disease or accidents, a comparison of 2002-2004 AI/AN death rates to 2003 U.S. all-races death rates were:(Indian Health Service, 2009):

- Tuberculosis – 750 percent greater
- Alcoholism – 524 percent greater
- Motor Vehicle Accidents – 234 percent greater
- Diabetes Mellitus- 193 percent greater
- Unintentional Injuries – 153 percent greater
- Homicide - 103 percent greater
- Suicide – 66 percent greater
- Pneumonia and influenza 47 % greater
- Firearm injury 28 percent greater

AI/AN also have increased uses of illicit drugs and volatile substances. The 2013 National Survey of Drug Use and Health found that AI/AN had 12.3 percent use of illicit drugs in the past month compared to the national average of 9.5 percent (SAHMSA 2013). When comparing adolescent use, there is statistically significant increase compared to national averages. Specifically, adolescents aged 12-17

³ There are many tribal nations unrecognized across the country. Also many people who identify as Native may not qualify for status or blood quantum or have been separated from their culture.

have higher last month use of tobacco (16.8 vs. 10.2 percent), marijuana (13.8 vs. 6.9 percent), and non-medical use of prescription drugs (6.1 vs. 3.3 percent) (SAHMSA 2011). These maladaptive behaviors can result in the unintended negative consequences sexually transmitted and blood-borne diseases. When compared to other racial/ethnic groups, AI/AN are ranked fifth in estimated rates of HIV infection, lower than other traditional underrepresented minorities, but higher than whites or Asians (CDC 2014).

Even in the presence of these stark health disparities, a more mainstream, cultural stereotype is that of “the drunk Indian”. This pejorative caricature has been reinforced by erroneous beliefs that AI/AN are primarily alcoholics, cannot metabolize alcohol, or that alcoholism is a native cultural trait (CBC News 2010). Evidenced based research has found that alcohol use actually varies among tribal nations and the average past month alcohol use is 43.9 percent, less than the national average of 55.2 percent (2004-2008 SAHMSA data). However, the engagement in binge drinking was higher at 30.6 percent compared to the national average of 24.5 percent (SAHMSA 2010). Risky alcohol behaviors have caused higher rates of unintentional injuries, car accidents and fetal alcohol syndrome. Fetal alcohol syndrome rates vary in the literature ranging from 1.6 -10.3/ 1000 births compared to a national average of 2.2 /1000 births, depending on the region studied (Beauvais 1998, CDC 2002, May 1991).

In 2012 the National Survey on Drug Use and Health (NSDUH) gathered information on substance use treatment need and service utilization from data gathered between 2003 to 2011. Those classified as needing substance use treatment were individuals who met diagnostic criteria for substance dependence or abuse or received treatment in the past year. AI/AN needed alcohol treatment 14.4 percent compared to 7.6 percent for other races, illicit drug use treatment 6.5 percent compared to 3.1 percent, and a combination of both at 17.5 percent to 9.3 percent. Of those who met criteria for treatment, 12.4 percent AI/AN received alcohol use treatment compared to 8.1 percent, 21.1 percent received illicit drug use treatment compared to 17.9, and 15 percent received combined treatment for illicit drug and alcohol use compared to 10.2 percent of other races (SAHMSA 2012). AI/AN were more likely to need specialty treatment for substance use disorders and to actively receive the treatment more than any other racial group.

Historical and Social Context of AI/AN Health Disparities

According to the U.S. Census Bureau’s 2010 population survey, 16.9 percent of the population lacks health insurance. However, the percentage of AI/AN who do not have health insurance is nearly double at 29.2 percent. The determinants of AI/AN health and social disparities are seen in a brief

overview of historical and multigenerational trauma to AI/AN. While scholars differ on the precise number, it is estimated that 100 million indigenous people lived in the Americas in pre-colonial times. Within a hundred years this population was reduced significantly, not only due to war, but also because of bounties placed on American Indians, lack of immunity to newly introduced infectious diseases, and relocation to lands not fit for survival. Documented atrocities abound, e.g., dissemination of “gifts” to AI/AN in the form of smallpox laden blankets, exploitative trade practices, and the introduction of liquor. To be sure, a few groups of indigenous Americans had produced their own versions of alcohol containing beverages, but none were as high in alcohol content or as easily obtainable as the alcohol that was introduced by the colonialists. The colonialists served as poor role models, often binge drinking to avoid confiscation of alcohol by authorities.

Over time, AI/AN populations were relocated often hundreds of miles away to lands less habitable. If relocation were not enough, profoundly tragic were the forced and institutionalized attempt at Western enculturation and assimilation at the expense of native culture and heritage. This was exemplified by the Carlisle Indian Boarding School in Pennsylvania that adhered to the motto, “Kill the Indian in him and save the man”. In both the U.S. and Canada, children were forced to attend these kind of “schools” often run by the Anglican church. In the U.S. children attended Indian Boarding Schools starting from the mid 1800’s well into the late 1900’s. At these schools the children were not allowed to speak in their native languages, were forced to convert to Christianity, and suffered physical, verbal and sexual abuse. Similar experiences occurred in Canada where children were placed in residential schools, also often run by the church. Most of these residential schools closed in the 1970’s, with the last one shutting its doors as late as 1996. Many AI/AN children were adopted into non-white families from 1960 through the 1980’s, which was colloquially referred to as “the 60’s scoop” in Canada (Sinclair 2007). As a result a large proportion of AI/AN and Canadian First Nations have lost their traditions and sense of cultural heritage.

A combination of family dysfunction and upheaval, generations of survivorship of trauma, fading languages and traditions, isolation, loss of hope and family, limited positive role models, and racism have all contributed to AI/AN adopting maladaptive coping strategies including harmful drinking patterns. Gene Thin Elk, in his collaboration with the Red Road (an interventional substance use program that utilizes traditional beliefs) asserts that alcoholic behavior in families affect children from an early age. This perpetuates future family instability (Thin elk 1994) and low attainment of higher education and greater rates of unemployment. These conditions engender stress within the Indian communities, that along with the aforementioned tragedies, contribute to AI/AN being highly susceptible to substance use

disorders and poor health outcomes. The effects of multigenerational damage are a concept well known in indigenous communities. Seven generations teaching is a concept of many indigenous communities in North America. E.g., the Anishnaabe, the Ojibway, Odawa, and Algonquin Peoples, who all share closely related Algonquian languages, profess that what is done today impacts seven generations to come and what happened in the past seven generations has an impact today. Thus, knowing your ancestors will guide future generations.

For some AI/AN, the multi-generational psychosocial damage they have experienced has been exacerbated by inaccessibility to health care. In 1954 the Indian Health Service (IHS), an agency within the Department of Health and Human Services, was created. It is responsible for providing federal health services to AI/AN. The IHS provides a comprehensive health service delivery system for AI/NI who are members of 566 federally recognized Tribes across the U.S. (IHS 2014). The 1975 Indian Self Determination Act allowed tribal nations to provide their own staff and manage their own IHS programs and hospitals. The 1976 Indian Health Care Improvement Act improved and expanded healthcare services. However, not all people who identify themselves as indigenous have access to this care. Basic eligibility requirements state that the individual must be of Indian descent and belong to a community that can be verified by tribal descendency or census number. They also must be an enrolled member of a tribe under Federal Supervision. Thus, those who identify as Indian but are not currently an enrolled member for any number of reasons, e.g., loss of enrollment due to outside tribal marriage, adoption, or low blood quantum, do not have access to this care. Another requirement is that the individual must reside within his/her Tribal Contract Health Service Delivery Area (CHSDA). There are of course exceptions for those who are temporarily away due to school, military service, or other factors. However, this places a barrier on Indians who reside in other areas. NB: 60 percent of the AI/AN population live in urban areas as opposed to rural reservations and this has resulted in a significant disparity for accessibility to healthcare. There are others who do have access to IHS, but do not use it. This can be due to the general distrust of the U.S. government, quality-of-care concerns, and uncertainty about the confidentiality of healthcare encounters and medical records (IHS 2009, 2014).

It is in the context of the IHS, which primarily services the minority of AI/AN who live in rural areas, and the current barriers to services, that the high rates of binge drinking by AI/AN take place. To promote prevention strategies and harm reduction from binge alcohol consumption there have been a variety of proposals calling for the incorporation of AI/AN tradition and culture into healthcare services. The main goal of these programs has been to educate those who have long forgotten or have never been exposed to their traditions.

Combining tradition with Western treatment for Substance Use Disorders

Many substance use treatment programs across North America for AI/AN incorporate culture into their programs. Legha and Novins (2012) examined the role of culture in these programs and found an emphasis on the importance of relationships, open-door-policies, establishing a home-like setting, and utilizing traditional practices, e.g., ceremonies such as smudging and the use of a talk stick in talking circles, arts and crafts, native languages, and traditional healers.

Although, the incorporation of indigenous AI/AN traditional culture is a relatively common practice, there is a paucity of scientifically based evidence of its impact on wellness, harm reduction, diminished binge drinking, or total abstinence. In Canada, Colleen Dell and colleagues are currently examining how traditions are incorporated into treatment centers and if there is a “valid instrument for measuring the impact of cultural interventions on client wellness”. They are examining 12 National Native Alcohol and Drug Abuse Program (NNADAP) and Youth Solvent Addiction Program (YSAP) treatment centers in Canada (Dell 2014).

Aim:

The AN/AI population has a proportionally high rate of binge drinking that accounts for significant morbidity and mortality. This maladaptive behavior is the result of generations of psychosocial trauma and the subsequent loss of languages, traditions, family and hope, isolation, limited positive role models, and racism. The principle aim of this Radcliffe Institute exploratory seminar is to review how tribal beliefs and practices are integrated into current treatment strategies and propose specific methodologies to measure outcomes demonstrating a reduction in binge drinking among the AI/AN population. Experts in addiction psychiatry, public health, education, and AI/AN leaders and healers will review various tribal beliefs and practices as well as current treatment strategies including, but not limited to, somatic therapeutic modalities such as psychopharmacology as well as behavioral therapy and Alcoholics Anonymous (AA) or 12- Step Facilitation (TSF) therapy. While A.A. is patently non-indigenous in its genesis and early utilization, it has slowly been adopted by AI/AN and other diverse ethnic groups throughout the world to stop drinking through a spiritual awakening. Research strategies to develop outcome measures are now needed to determine the efficacy of this approach.

Objectives:

- Review current treatment strategies that blend somatic, behavioral and 12 Step therapeutic modalities with tribal beliefs and culture to reduce binge drinking among AI/AN. Propose research strategies to measure the outcome of these treatments.
- Identify opportunities and barriers to the implementation of research protocols and dissemination of best practices.
- Demonstrate that a professionally and ethically diverse group of individuals can meet and produce innovative research strategies that can improve the health and well-being of AI/AN.
- Formulate next steps that are practical, affordable, and sustainable.

Several national agencies have organized symposiums, conferences, and collaborations to identify ways to develop grants and integrate Western medicine with AI/AN culture and beliefs, but none have focused on developing and sharing specific research methodologies to measure outcomes. Examples include

- The American Indian/Alaska Native (AI/AN) Coordinating Committee at the National Institute on Drug Abuse (NIDA), a group of NIDA and NIH staff:
 - “Building Bridges: Advancing American Indian and Alaskan Native Substance Abuse Research – State of the Science and Grant Development Workshop” Oct 2010
 - “Marking Culture Count: May 2011, workshop focused on the roles of indigenous knowledge and Western scientific knowledge on furthering knowledge related to substance abuse interventions.

Examples of Current Interventional Programs Incorporating Tradition:

The Healing of the Canoe

The Healing of the Canoe project evolved from the combined efforts of the Suquamish Tribe and the faculty and professional staff at the University of Washington’s Alcohol and Drug Abuse Institute (ADAI). The focus was on preventative youth curriculum. The Healing Canoe Project is currently in phase III of their research and this phase will conclude with collaboration with the Port Gamble S’Klallam Tribe. Since their incorporation they have designed a healing of canoe curriculum entitled “Holding up our youth: which consists of 11 sessions ending with an honoring ceremony. The sessions incorporate cognitive behavioral skills learned from counselors and traditional stories from elders in the community. Cultural related activities include food gathering, story telling, gift preparations (including beading, weaving, cedar collection, carving, etc.) and meeting with elders in the community (Healing of the canoe 2014, Thomas 2009).

- Session 1: Four Winds and Canoe Journey Metaphors
- Session 2: How I am perceived? Media Awareness & Literacy.
- Session 3: Who am I? Beginning at the Center
- Session 4: Community Help and Support: Help on the Journey
- Session 5: Who will I become? Goal Setting
- Session 6: Overcoming Obstacles: Solving Problems
- Session 7: Listening
- Session 8: Effective Communication: Expressing Your Thoughts and Feelings
- Session 9: Moods and Coping with Negative Emotions
- Session 10: Safe Journey without Alcohol and Drugs
- Session 11: Strengthening our Community
- Session 12: Honoring Ceremony

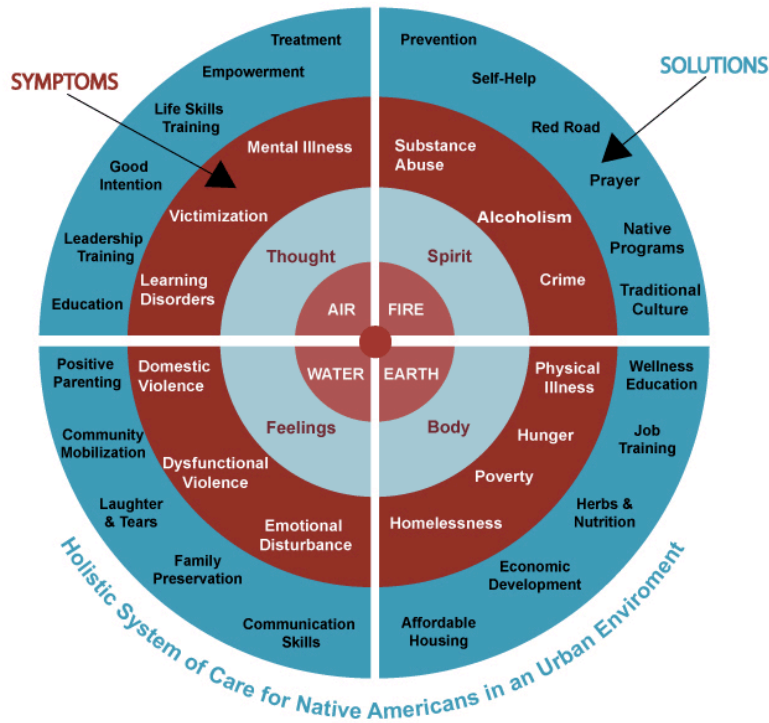
White Bison's Wellbriety centers

White Bison is an American Indian non-profit charitable organization based in Colorado Springs. They have provided healing resources since the late 1980's, opening several treatment centers around the country. Like other treatment centers White Bison's Wellbriety centers utilize tradition and culture in their work. Wellbriety means to be sober and well. They put focus on healing and the effects of having a community. They follow an Indian 12-Step method and have several guidelines incorporating a philosophy. One that makes a firm statement that culture is prevention. They also believe in the four laws of change: Change is from within, for development to occur, it must be preceded by a vision, a great learning must take place and you must create a healing garden. The healing garden is a sense of healing for a community. For example, you can remove a diseased plant from a garden or forest and nurture it back to health, but if you put it back into the sick garden it will be sick again. This stems from their focus that in order to prevent alcoholism one must work with the entire community not just the individuals who suffer from the disease (White Bison 2014).

Friendship House- Association of American Indians of San Francisco:

The Friendship House is a National Model of the incorporation of traditional practice and western programs. The Friendship house is a residential treatment program with 80 beds for adult men and

women. It offers a program up to six months that involves individual/group counseling, alcohol and drug education, modified 12-Step program intertwined with American Indian traditions. In their transitional phase, the program offers outpatient counseling and group services and support networks along with social services such as job training, housing referral, and programs to help in re-entry into the communities. This program looks at five major domains of improvement from intake to discharge and 6-month follow-ups. They assert an increased abstinence from alcohol from 39 percent to 99 percent, decreased injection drug use, increased period of clients being arrest free, enhanced social connectedness, and employment rates. Like many other programs they use a medicine wheel to demonstrate the key concepts of their approach (Friendship house 2014):



Summary:

Alcohol abuse in the form of binge drinking is a significant problem for AI/AN populations. Early exposure and onset of binge drinking has been linked to the increased risk of binge drinking in adulthood. Binge drinking is linked to a substantial portion of alcohol-related deaths and is associated with alcohol poisoning, unintentional injuries, suicide, sexually transmitted diseases, fetal alcohol syndrome, and a host of medical comorbidities. Tribal-specific data suggest that binge substance use can also function as a form of self-injury in adolescent AI/AN. This Radcliffe Institute exploratory seminar will ask experts in addiction psychiatry, public health, education, and AI/AN leaders and healers to review how tribal beliefs and practices are integrated into current treatment strategies and propose specific methodologies to measure outcomes demonstrating a reduction in binge drinking among the AI/AN population.

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Appendix 3: Seminar participants

- Laura Baez, Behavioral Health Director, Community Health Services, Alaska Native Tribal Health Consortium
- Joel Beckstead, Clinical Director, Desert Visions Youth Wellness Center;
- Rod Betonney, Northstar Substance Abuse Program, VA Salt Lake City Health Care System;
- Walter Castle, Senior Public Health Advisor, Division of Behavioral Health, Department of Health and Human Services Indian Health Service
- Beverly Cotton, Director Division of Behavioral Health, Indian Health Service;
- Colleen Dell, Professor and Research Chair in Substance Abuse, Sociology and School of Public Health, University of Saskatchewan
- John Fromson, Vice Chair for Community Psychiatry, Brigham and Women's Hospital and Chief of Psychiatry, Brigham and Women's Faulkner Hospital, Assistant Professor of Psychiatry, Harvard Medical School
- Carol Hopkins, Executive Director, Thunderbird Partnership Foundation
- Erica Kiemele, medical degree candidate 17', Harvard Medical School
- Jill MacDougall, Director, Health Department Penobscot Nation
- Kristi Ricker, Tribal Liasion, Wabanaki Public Health
- Lisa Sockabasin, Director, Office of Health Equity, Maine Centre for Disease Control