NREPP SAMHSA's National Registry of Evidence-based Programs and Practices

Literature Review
Tribal Youth Behavioral Health

Who Are American Indian and Alaska Native Youths?

A principal challenge in determining and addressing the behavioral health needs of American Indian and Alaska Native (AI/AN)* youths involves identifying the individuals who make up this population. The results of the 2010 census revealed an AI/AN population that is growing and changing; 5.2 million people (1.7 percent of all people in the United States) identified themselves as American Indian or Alaska Native (Norris, Vines, & Hoeffel, 2012). Within this group, 2.9 million (56 percent) self-identified as AI/AN in combination with one or more other races, while 2.3 million self-identified as AI/AN alone (Norris et al., 2012), underscoring the racial diversity of this population. The Indian Health Service (IHS),† an agency within the U.S. Department of Health and Human Services (HHS), is responsible for providing federal health services to American Indians and Alaska Natives and estimates the tribal population to be closer to 2.2 million (IHS, 2015). Additionally, the census revealed a striking AI/AN population surge (38 percent between 2000 and 2010); growth that researchers suggest can be attributed only to the assumption of AI/AN identity by persons who previously did not self-identify as such (Gone & Trimble, 2012).

Attempts to define this population are further complicated by the heterogeneity among groups. Most of the 566 American Indian and Alaska Native tribes recognized by the U.S. federal government have their own distinct language and culture (IHS, 2015). The contemporary AI/AN population is also markedly diverse in terms of geographic distribution; roughly 22 percent of AI/ANs live on reservations or tribal lands (federal or state reservations, Alaska Native areas, or designated tribal statistical areas), while 78 percent of this population live outside of designated AI/AN areas, particularly in urban areas (Norris, et al., 2012).

Not only is the AI/AN population diverse, growing, and changing, but it also is relatively youthful when compared with the non–AI/AN population. The 2000 census showed that about 33 percent of this group was under 18 years old, compared with 26 percent of the total

*Throughout this literature review, the term American Indian/Alaska Native, abbreviated to AI/AN, is used to refer to individuals who trace their origins to the indigenous peoples of the United States and who sustain tribal affiliations or connections with an AI/AN community (U.S. Department of Health and Human Services, 2010).

† "The provision of health services to members of federally-recognized Tribes grew out of the special government-to-government relationship between the federal government and Indian Tribes. This relationship, established in 1787, is based on Article I, Section 8 of the Constitution, and has been given form and substance by numerous treaties, laws, Supreme Court decisions, and Executive Orders. The IHS is the principal federal health care provider and health advocate for Indian people, and its goal is to raise their health status to the highest possible level. The IHS provides a comprehensive health service delivery system for American Indians and Alaska Natives who are members of 566 federally recognized Tribes across the U.S." (IHS, n.d.)

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population, and the median age of 29 was younger than the median age of 35 among the general U.S. population (Ogunwole, 2006).

Substance Use and Mental Health Among AI/AN Youths

While research provides diagnostic behavioral health data on AI/AN youths, there are challenges to defining the scope of their behavioral health issues. Developing accurate research has been constrained by at least four factors. First, national health surveillance reports often do not include categories for AI/AN persons, given the difficulty in obtaining a representative sample of this varied population (Whitbeck, 2011). Second, the geographic isolation of many small, often rural, tribal populations hinders data collection. Third, smaller, regional studies that adequately account for the characteristics of a distinct local group of AIs and ANs cannot be generalized to the broader U.S. population of AIs and ANs (APA, 2014; HHS, 2001). Finally, many tribal leaders are skeptical about engaging in research activities after years of historical exploitation and mistreatment; as a result, researchers often must carry out lengthy approval processes with tribes that can hinder data collection (Whitbeck, 2011).

Notwithstanding these limitations in data collection, it is clear that, since their initial contact with Europeans over 500 years ago, AI/ANs have experienced an array of health disparities, and current research indicates that many of these disparities persist (Executive Office of the President, 2014; Jones, 2006). Existing data indicate that AI/AN youths also bear a larger burden of behavioral health problems than their nonnative counterparts (Executive Office of the President, 2014).

Mental Health Issues Among AI/AN Youths

Studies that sought to determine prevalence rates for mental health issues among AI/AN youths have demonstrated considerable variation across communities; however, it appears that AI/AN youths may experience similar or higher-on-average mental health issues when compared with their non–AI/AN peers (Costello et al., 1997; Gone & Trimble, 2012; HHS, 2001; Whitbeck et al., 2008). Whitbeck et al. (2008) found marked increases between early and middle adolescence in the rates of substance use disorders (3.2 percent to 27.2 percent), disruptive behavior disorders (21.4 percent to 32.7 percent), cannabis dependence (1.4 percent to 12.4 percent), alcohol dependence (0.5 percent to 7.2 percent), and major depressive disorder (3.2 percent to 7.8 percent), with these disorders affecting fully one fourth of the AI/AN youths studied. Beals and colleagues (1997) found similar rates of depressive disorders between the AI/AN adolescents studied and a national sample, but found elevated rates of ADHD, substance misuse/substance dependence disorders, conduct disorder, and oppositional defiant disorder. Moreover, several studies showed that AI/AN youths appear to experience high rates of co-occurring substance use and other behavioral health disorders (Abbott, 2007; Beals et al., 1997; Novins, Fickenscher, & Manson, 2006).

AI/AN youths experience an extremely disproportionate burden of suicide, the occurrence of which remains markedly higher than among any other racial/ethnic groups. During 2005–09, the highest rates of suicide of any racial/ethnic group occurred among AI/AN adolescents and young adults between 15 and 34 years old (Crosby, Ortega, & Stevens, 2013). In 2009, suicide ranked as the fourth-leading cause of years of potential life lost for AIs and ANs under 75 and

accounted for 6.8 percent of all years of potential life lost among AIs and ANs (Crosby et al., 2013). Rates of suicide are particularly high among AI/AN young males; between 2005 and 2009, the highest suicide rates for youths ages 10 through 24 were among AI/AN males, with 31.27 suicides per 100,000 (CDC, 2014). National data on the prevalence of suicide among AI/AN youths obscures tremendous variation in terms of suicide behaviors as they occur among different tribes, geographical regions, and over time (Gone & Trimble, 2012); however, suicide prevention is a major concern for many AI/AN communities.

Substance Use Among AI/AN Youths

Data from national and tribal studies on substance use by American Indian and Alaska Native youths demonstrate considerable variation; however, overall, the literature indicates that AI and AN youths may engage in more substance use, earlier in adolescence, when compared with non-native youth (CBHSQ, 2011). Generally and historically, AI and AN youths were understood to have high rates of substance use; however, research now shows that substance use among this population, while generally higher, follows similar patterns of increases and decreases in use among non–AI/AN youths throughout time (Beauvais et al., 2008). In 2013, the rate of current illicit drug use among AIs and ANs ages 12 and older was 12.3 percent, as compared with the rates reported for other racial/ethnic groups, which was between 3.1 percent and 17.4 percent (CBHSQ, 2014a). The use of inhalants has historically been seen as problematic among AI and AN youths; however, studies suggest that rates of inhalants use among this population are now similar to those among non–AI/AN communities (Beauvais, Wayman, Jumper Thurman, Plested, & Helm, 2002; Beauvais, Jumper Thurman, Helm, Plested, & Burnside, 2004; Beauvais et al., 2008). Researchers suggest that the downward trend is likely due to concerted prevention efforts undertaken in AI/AN communities (Beauvais et al., 2002; Beauvais et al., 2004; Beauvais et al., 2008). Several studies have revealed consistently higher rates of marijuana use among AI/AN youths (Beauvais et al., 2008; Miller, Beauvais, Jumper Thurman, & Burnside, 2008; Walls, Sittner Hartshorn, & Whitbeck, 2013). In reporting high rates of marijuana use among reservation-dwelling AI/AN youths, Beauvais et al. (2004) concluded that "on Indian reservations, marijuana use is a normative behavior" (p. 498). Research also indicates that AI/AN youths use methamphetamines at higher rates than their non–AI/AN peers (Oetting et al., 2000).

AI/AN high school students may be more likely than their peers to engage in risky behaviors linked with behavioral health issues. An analysis of national survey data indicated that AI/AN high school students are more likely than their peers to engage in drug use and early alcohol use (de Ravello, Everett Jones, Tulloch, Taylor, & Doshi, 2014).

Substance use tends to begin early and increase steadily among AIs and ANs during the adolescent years (Miller et al., 2008; Walls et al., 2013; Whitesell et al., 2007). This trend is troubling given that early onset of substance use is associated with an increased risk of various negative outcomes, including suicide, homicide, and physical and sexual assault (Executive Office of the President, 2014) as well as mental health disorders and later substance abuse (Walls et al., 2013). In 2013, the rate of substance dependence or abuse among persons age 12 and older was highest among AIs and ANs, at 14.9 percent, compared with rates reported for other racial/ethnic groups, which were between 4.6 percent and 11.3 percent (CBHSQ, 2014a).

National data show that, between 2003 and 2011, AIs and ANs were more likely to require alcohol or illicit drug use treatment than persons of other groups by age, gender, rural/urban residence, and poverty level (CBHSQ, 2012). Regional studies have provided supporting evidence for national data on rates of substance abuse among AI/AN youths (see Costello, Farmer, Angold, Burns, & Erkanli, 1997; Whitbeck, Yu, Johnson, Hoyt, & Walls, 2008).

American Indian and Alaska Native youths no longer demonstrate the highest rates of binge drinking; however, recent research (Beals, Spicer, Mitchell, Novins, & Manson, 2003; Kanny, Liu, Brewer, & Lu, 2013) suggests that they have the highest *intensity* of binge drinking (largest number of drinks consumed). Numerous regional studies have demonstrated that, while alcohol use among both AI/AN adults and adolescents varies greatly by tribe, age, and gender (Beals et al., 2003; Young & Joe, 2009), levels of alcohol use may still be higher among AI/AN youths in certain settings (Beauvais et al., 2004; Szlemko, Wood, & Jumper Thurman, 2006). AI/AN youths also experience more negative results from drinking (Szlemko et al., 2006; Young & Joe, 2009). A 2012 study found that nearly 69 percent of AI/AN youths ages 15–24, who were admitted to a substance use treatment facility, reported alcohol as a substance of abuse, compared with 45 percent for non–AI/AN admissions (CBHSQ, 2014b). AIs and ANs generally suffer from higher rates of death owing to alcohol; the age-adjusted, alcohol-related death rate for AIs and ANs was 43.7 per 100,000 between 2002 and 2004.This is 6 times the U.S.–all-races rate, with drinking taking a higher toll on AI/AN males, compared with females (IHS, 2009).

Behavioral Health Risk Factors for AI/AN Youths

Various reasons have been posited to explain the persistence of the health disparities experienced by AI and AN youths; nevertheless, there is general agreement that AIs and ANs often live in highly stressful environments, which is associated with negative impacts on their behavioral health (HHS, 2001).

AIs and ANs have lower levels of education attainment than the general population. Only 71 percent of AIs and ANs age 25 and older have at least a high school education, compared with 80 percent of the general population (Ogunwole, 2006), and the graduation rate among Bureau of Indian Education (BIE) schools is only 53 percent, compared with a national average of 80 percent (Stetser & Stillwell, 2014). AI/AN youths are more likely to grow up in poverty as well; the 2000 census recorded that more than one fourth of AIs and ANs were living in poverty, which is more than double the rate for the general population (Ogunwole, 2006). Low levels of education and income are associated with decreased access to and quality of health care; increased rates of mortality, morbidity, and risk-taking behaviors (HHS, 2001); and an increased likelihood of being exposed to trauma and developing trauma-related behavioral health issues (APA, 2013).

Research demonstrates that AI/AN youths are more likely than their non–AI/AN peers to experience a range of violent and traumatic events (Sarche & Spicer, 2008). Exposure to trauma is related generally to the development of later mental illnesses and to the development of posttraumatic stress disorder (PTSD) in particular (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The increased burden of traumatic experiences among AI/AN adults has been

well documented (Bassett, Buchwald, & Manson, 2014; Beals et al., 2005; Manson, Beals, Klein, Croy, & AI–SUPERPFP Team, 2005), and research has also found that AIs and ANs are more likely to be at an increased risk of early, broad, and repeated trauma (Beals et al., 2013). For instance, Perry (2004) found that of all races, AIs and ANs are more likely to experience violent crime victimization, with the rate of violent victimization especially high among AIs and ANs ages 18–24 (155 per 1,000 persons), when compared with the highest rate in the 12 to 17 age group for all races (94 per 1,000).

AIs and ANs may also be at an increased risk of exposure to trauma in childhood, as a result of neglect/maltreatment or of witnessing domestic violence (Children's Bureau, 2010). Some evidence suggests that AI/AN children and youths who experience trauma in childhood may be at an especially increased risk of developing PTSD (Gnanadesikan, Novins, & Beals, 2005) and that AI/AN childhood trauma may be associated with alcohol use disorders (Boyd–Ball, Manson, Noonan, & Beals, 2006).

Injury risk behaviors among AI/AN youths are high when compared with their peers, making it more likely that young AIs and ANs will experience injury themselves or witness injury (Sarche & Spicer, 2008). A study based on national survey data from the *Youth Risk Behavior Survey* found that certain risk behaviors were significantly higher among urban American Indian and Alaska Native youths than among the comparison group of white urban youths, including behaviors related to unintentional injury, safety and violence, alcohol and other drug use, and sexual behaviors (Rutman, Park, Castor, Taualii, & Forquera, 2008). AI/AN children and youths are also at an increased risk for dying as a result of preventable injuries such as motor-vehicle crashes, homicides, and suicide (CDC, 2003).

Historical trauma, defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) as the multigenerational trauma experienced by a specific cultural group (SAMHSA, n.d.) poses a risk factor for some behavioral health issues (HHS, 2010). AI/AN youths may experience higher rates of behavioral health issues attributable, in part, to the psychological suffering and unresolved grief associated with their group's historical experiences of violent colonization, forced relocations, and forcible cultural assimilation (Brave Heart, Chase, Elkins, & Altschul, 2011; SAMHSA, n.d.). Researchers are only beginning to develop tools to measure historical trauma (see Whitbeck, Adams, Hoyt, & Chen, 2004), but have also found limited evidence that indicates that reservation-dwelling AI/AN youths may experience historical trauma through frequent demoralizing thoughts about historical loss, which increases their risk of behavioral health issues (Whitbeck, Walls, Johnson, Morrisseau, & McDougall, 2009).

Access to Services

AI/AN youths may also experience inadequate access to behavioral health services. Behavioral health services are available to tribal youths through the IHS; however, these services may be insufficient in meeting the unique needs of AI/AN youths for a variety of reasons (HHS, 2001). The underfunding of the IHS has been a persistent problem throughout its history. Annual per capita expenditures for AIs and ANs are consistently significantly below those for the general population: $3,099 for AI/ANs, compared with $8,097 for the general population (IHS, 2015). A

report on IHS mental health services identified major gaps in the delivery of effective services to those AIs and ANs who need them (Levinson, 2011). Studies have also shown that behavioral health services available to AI/AN youths are often overwhelmed and ill equipped to adequately address the behavioral health needs of those youths (Whitbeck et al., 2008). Some evidence also suggests that AIs and ANs are less likely than their peers from the general population to access the behavioral health services available to them (Beals et al., 2005; HHS, 2001).

Outcome Evidence

Given the numerous behavioral health disparities experienced by American Indian and Alaska Native youths, evidence-based prevention and treatment programs and practices that address these challenges are greatly needed. However, reliable outcome evidence on the behavioral health of AI/AN youths is even scantier than diagnostic data, limiting our knowledge of how to address these health challenges effectively. Existing data are insufficient because 1) American Indians and Alaska Natives are severely underrepresented in outcomes studies (Gone & Trimble, 2012) and 2) research carried out with a particular tribal community may be inappropriate for another tribe or community, given the heterogeneity among AI and AN groups (Szlemko et al., 2006). Of the systematic reviews on behavioral health interventions for AI/AN youths researched for this literature review (Calabria, Clifford, Shakeshaft, & Doran, 2012; Clifford, Doran, & Tsey, 2013; Jackson & Hodge, 2010), none were able to obtain adequate statistical information to use the comparative effectiveness approach effectively.

Programs That Support AI/AN Youths

Despite the limitations in the available outcome data, numerous programs are showing some evidence of efficacy in addressing behavioral health outcomes of AI/AN youths. In recognition of the importance of the unique cultural context of these youths, the programs highlighted below integrate evidence-based and culturally based practices. SAMHSA distinguishes between culturally based and culturally sensitive programs; culturally based programs are those grounded in tradition and developed specifically by and for AIs and ANs, whereas culturally sensitive programs are those that were developed for a general population, achieved some level of evidence, and were then adapted for AIs and ANs (HHS, 2010). AI and AN communities and researchers, in particular, have highlighted the need for evidence-based programs and interventions to be adapted culturally for use with these communities (Gone & Trimble, 2012). As a result of their narrow focus on a specific cultural group, a principal limitation of culturally based programs is their limited applicability to communities other than those for whom they were developed (HHS, 2010). For this reason, few of these programs have undergone rigorous evaluation.

Culturally Based Substance Use Interventions

- Project Venture is an outdoor experiential youth development program that draws on traditional AI/AN values pertaining to family, the natural world, community, and self-respect in efforts to decrease substance use and encourage retention of substance use protective factors.
- Red Cliff Wellness School Curriculum is a substance use prevention intervention based in American Indian tradition and culture and designed for grades K–12. The curriculum aims

to reduce risk factors and enhance protective factors related to substance use, including success in school, increased perception of risk from substances, and identification and internalization of culturally based values and norms.

Culturally Based Suicide Prevention Interventions

- Model Adolescent Suicide Prevention Program (MASPP) is a community-wide intervention that involves surveillance of suicide-related behaviors, a school-based suicide prevention curriculum, community education, enhanced screening and clinical services, and outreach provided through health clinics, social services programs, schools, and community gatherings and events.
- American Indian Life Skills Development is a school-based suicide prevention curriculum designed to reduce suicide risk and improve protective factors among American Indian adolescents. Originally developed as the Zuni Life Skills Development program for use with adolescent members of the Zuni Pueblo in New Mexico, the American Indian Life Skills Development program has been culturally tailored for use in several other tribes.

Culturally Based Mental Health Interventions

- Family Spirit is a home-visiting intervention for American Indian teenage mothers designed to increase parenting competence, reduce maternal psychosocial and behavioral risks that could interfere with effective parenting, and promote healthy infant and toddler emotional and social adjustment.
- Cherokee Talking Circle is a school-based intervention developed in partnership with the United Keetoowah Band of Cherokee Indians designed to reduce substance misuse and encourage abstinence among adolescent members of the Band.

Conclusion

Addressing the behavioral health disparities experienced by American Indian and Alaska Native youths represents a pressing health priority (Executive Office of the President, 2014). Research is still needed with the groups that constitute this diverse population, to produce both diagnostic and outcome evidence. Increasing the presence of AIs and ANs in clinical research is also necessary. One critical step in addressing these challenges is for developers to heed the call by AI/AN communities for evidence-based programs and interventions to be culturally adapted for use with these communities (Gone & Trimble, 2012). American Indian and Alaska Native youths are part of a cultural group that, while experiencing innumerable historical and contemporary challenges, is extremely resilient and possesses several unique protective factors, including traditional culture, family ties, and community support (HHS, 2010; Whitbeck et al., 2008). The scanty outcome evidence that is available indicates that programs and interventions that are culturally adapted and that promote the strengths and resiliencies of American Indian and Alaska Native individuals and communities show some promise in preventing and treating behavioral health challenges.

Additional Resources

Substance Abuse and Mental Health Services Administration Resources

- *To Live to See the Great Day That Dawns: Preventing Suicide by American Indian and Alaska Native Youth and Young Adults.* Available at http://store.samhsa.gov/product/To-Live-To-See-the-Great-Day-That-Dawns-Preventing-Suicide-by-American-Indian-and-Alaska-Native-Youth-and-Young-Adults/SMA10-4480
- SAMHSA's Tribal Affairs Agenda: http://www.samhsa.gov/tribal-affairs

Indian Health Service, Division of Behavioral Health

http://www.ihs.gov/dbh/

Centers for Disease Control and Prevention, American Indian and Alaska Native Populations

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