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Project Venture:

Evaluation of a Positive, Culture-Based Approach to  
Substance Abuse Prevention with American Indian Youth

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Substance misuse has been identified as one of the most troubling health issues facing American Indian (AI) communities. Herman-Stahl and Chong (2002) reported that 17% to 19% of all American Indians' deaths are related to alcohol. Some epidemiological studies among adolescents indicate that American Indian youth initiate substance use at earlier ages, have more frequent rates or problem use among those who do use, are more likely to have tried multiple substances, and experience more negative social consequences from substance use (Beauvais, Jumper-Thurman, Helm, Plested & Burnside, 2004; May & Moran, 1995; Plunkett & Mitchell, 2000; Oetting, Edwards & Beauvais, 1989; Wallace et al., 2003). Despite reported higher rates of use overall, patterns of drug use for American Indian youth across time parallel patterns seen in the general population of youth (Beauvais et al., 2004; Wallace et al., 2003). Rates and patterns of use, as well as associated mortality rates, demonstrate a continuing and significant need for innovative development, generous funding, and proliferate implementation of effective prevention efforts targeting American Indian youth.

This article is the first known empirical contribution showing support for an AI-developed positive prevention program. Various obstacles will be reviewed that have impeded the development of effective, science-based prevention programming specifically for AI youth. In addition, a deficit-based prevention approach based on mainstream models has prevailed in the literature and in practice. More recent research will be presented that suggests that the integration of culture and the development of

positive behaviors (as opposed to reduction of problem behaviors) may be more effective for AI youth. Results from this study were derived from participation in the larger three-year High Risk Youth study (SAMHSA, 2002). Findings demonstrate the positive effects of Project Venture on participants' alcohol and substance use. The potential impact of a culturally-tailored program with a positive youth development approach on AI youth is discussed in light of the present findings.

#### *Impediments to Prevention Program Development*

Several significant factors have inhibited the development and implementation of prevention programs for American Indian youth. First and foremost, although there have been many studies on the alarming rates of alcohol and drug use among American Indian youth, little is known about effective prevention for this population. Most research on interventions has been conducted primarily with White middle-class adolescents, and therefore, most prevention models are based on results from these populations (Botvin, G.J., Griffin, K.W., Diaz, T. & Ifill-Williams, M., 2001; Roosa, M.W., Dumka, L.E., Gonzales, N.A. & Knight., 2002). Second, Moran and Reaman (2002) found that most published and unpublished evaluations of programs including American Indian youth participants, were developed for mainstream or multi-ethnic populations, rather than specifically for AI youth. Furthermore, many substance abuse prevention efforts with American Indian youth do not reach publication (Moran & Reaman, 2002). A fourth difficulty is that programs developed for AI youth are often adaptations of mainstream programs with the addition of a "cultural element", which may be as minimal as the inclusion of beadwork classes and museum visits (Moran & Reaman, 2002).

Roosa et al. (2002) note that few programs have been created that fit the present values, socio-cultural contexts, and “ecological niches” of minority groups. Although the need for comprehensive and locally tailored cultural content in prevention programs is recognized, few of those programs that have been culturally-based have been designated as “science-based”. The fact that AI-specific efforts documented by Schinke, Tepevac & Cole (2000), Trimble (1992), Dorpat (1994), Petosky, Van Stelle and De Jong (1998), and others have not sought “science-based” designation, provided through various federal review processes such as the National Registry of Effective Programs, limits their exposure, their funding sources, and replication possibilities. The general lack of research and recognition of prevention efforts in American Indian communities leads to a deficit in scientific knowledge of strategies that have been tested, their effectiveness, and a broader understanding of important cultural components that is necessary for developing effective prevention.

#### *Culturally Appropriate Prevention*

Relatively little is understood about why, how, or even if culturally-relevant models add to prevention program effectiveness with minority youth. The integration of a cultural component is assumed to address culture-specific risk factors such as cultural loss, cultural identity, acculturation, alienation and discrimination (U.S. Department of Health and Human Services, 2001; Hawkins, Cummins & Marlatt, 2004). Treatment utilization studies indicate that more culturally appropriate services may increase trust, access, utilization, client satisfaction, and positive outcomes (Tolman & Reedy, 1998; U.S. DHHS, 1999). Findings from a Center for Substance Abuse Prevention (CSAP) national cross-site evaluation of 48 prevention programs across a sample of 10,500

youth provide evidence that American Indian and other minority youth participating in culturally-specific substance abuse prevention programs were more satisfied with their programs and found their involvement more personally meaningful than minority youth participating in non-culturally specific programs (Springer, Sale, & Kasim, 2004).

Various reviews of prevention programs targeting American Indian youth have concluded that the degree and appropriateness of cultural elements, including the development of bicultural competence, are important factors in program effectiveness (Hawkins et al., 2004; May & Moran, 1995; Moran & Reaman, 2002). Research on American Indian perspectives in counseling and education have identified values commonly held among most tribes, such as connectedness, cooperation, reciprocity, leadership, and spirituality (Cajete, 2000; Cleary & Peacock, 1998; Garrett, 1999; Sue & Sue, 2003), which may provide a common underlying orientation upon which to base prevention efforts. However, few culturally grounded prevention efforts have had the opportunity for structured outcome studies that meet scientific standards. More outcome studies are needed in order to move beyond promising theory into “effective” action.

### *Positive Youth Development*

Resilience and positive youth development approaches are relatively new trends within the literature, and there is growing evidence of their promise (Catalano, Bergland, Ryan, Lonczak & Hawkins, 2002; Crozier Kegler et al., 2005; Weissberg & O'Brien, 2004). Additionally, a positive approach to prevention may be more culturally congruent and effective for American Indian youth. The Surgeon General (2001) advocated advancements in prevention through new perspectives that promote strengths and resilience in recognition that “preventive and promotive approaches strike a resonant

chord in the hearts of [American Indians] and their communities.” (p. 97). In fact, a study by Mitchell and Beals (1997) indicated that positive behaviors (e.g. cultural activities, competencies, community-mindedness) were more predictive of psychosocial outcomes than problem behaviors (e.g. drug and alcohol use). These findings suggest that an approach based on building strengths may be more compelling toward positive outcomes than programs focused on eliminating undesirable behaviors (e.g., Drug Abuse Resistance Education or DARE). Repeatedly, studies have found that pure problem-focused programs using information dissemination (educating about negative consequences) or drug resistance skills techniques have no or limited effectiveness (Beauvais, 2001; Moran & Reaman, 2002). In contrast, programs utilizing life-skills strategies that include the development of globally applicable positive skills demonstrate better substance use prevention outcomes (Moran & Reaman, 2002; SAMHSA, 2002). Yet, as reflected in the list of CSAP model programs, and in most prevention program literature, current programs still retain a primarily deficit-oriented cognitive/behavioral approach that involves some manner of direct drug and alcohol education, correction of drug norm misperceptions, and drug resistance skills (Small & Memmo, 2004). Even though a strengths-based approach that cultivates positive behaviors, skills, and values appears to have theoretical promise with preventing substance use among American Indian youth, empirical evidence does not yet exist.

### *Project Venture*

Project Venture (PV) is an outdoor/experiential youth development program for at-risk youth that was first fully implemented in 1990 by the National Indian Youth Leadership Project (NIYLP). The program has operated without interruption, serving

over 4,000 American Indian and other youth in New Mexico and has been adopted in more than 50 AI and other communities throughout the United States. The model is guided by American Indian traditional values such as family, learning from the natural world, spiritual awareness, service to others, and respect. Key components include classroom-based and outdoor experiential learning, adventure camps and wilderness treks, and community-oriented service learning. PV's primary target group is 5<sup>th</sup> through 8<sup>th</sup> graders, although it has been adapted for older teens as well. Program content includes: 1) in-school problem-solving games and initiatives delivered weekly, 2) after-school, weekend and summer skill-building experiential activities delivered weekly; and challenge activities (e.g. hiking, recreation, camping) delivered monthly, 3) summer camp immersion lasting three to ten days, and 4) service leadership projects throughout the year that involve several age cohorts of youth and adult participants.

In contrast to most other prevention approaches to substance use, Project Venture *does not* provide specific, direct drug and alcohol education, resistance skills, or antidrug norms components. Rather than dwelling on the negative “don’t” messages, PV adheres to the traditional worldview where “humans can create a positive environment through a process of thinking or conceptualizing, speaking and singing about desired outcomes” (Hall, 2000). The program model is based, in part, on a concept referred to as “habilitation” in the youth development literature (Glenn & Warner, 1982). In contrast to “rehabilitation,” habilitation puts its emphasis on preventive, positive approaches. From this perspective, the program aims to help youth develop a positive self-concept, effective social and communication skills, a community service ethic, self-efficacy, and increased decision-making and problem-solving skills to

build generalized resilience which can then be transferred to resistance of alcohol, tobacco, and other drugs (ATOD) as well as other prevention and youth development outcomes. Although direct ATOD messages regarding specific substance reduction are not used, PV has been of greatest interest to communities seeking strategies to prevent alcohol abuse.

A primary strategy utilized by PV for indirect, positive teaching is the outdoor experiential education model, which somewhat resembles models used by groups such as Outward Bound, the National Outdoor Leadership School, and others involved with wilderness therapy, but is derived from traditional American Indian teachings. PV culturally adapts the model to emphasize AI values by using American Indian stories and metaphors, as well as instituting a metaphorical “rite of passage” which builds on traditional ceremonies and other markers for coming of age. In addition, the key component of service learning is congruent with American Indian perspectives of leadership. Other culturally-grounded PV characteristics include:

- a holistic, life skills learning approach
- an emphasis on building community through intensive and positive peer interaction, as well as role modeling and intergenerational community events
- indirect teaching (storytelling and metaphor) to reflect on activities and process learning
- involvement of school, peers, parents, and community
- staffing by majority American Indian leaders
- comprehensive programming year-round.

The model is realized through the idea that the indirect, positive approach of experiential learning is one of the most powerful and culturally appropriate means of education and development for American Indian youth.

### *Implementing Project Venture*

Typically PV staff identify teachers who are interested in the PV model and who are willing to give up one class session per week for PV activities. PV staff deliver a minimum of 20 hourly sessions throughout the school year to all students within these selected classes. Students are recruited from the school based program to participate in additional weekly after school and monthly weekend sessions which are more intensive and culminate in multi-day wilderness experiential outings and community service learning projects for which youth have prepared throughout the school year. Summer activities continue the wilderness and service learning activities and include a seven to ten day leadership camp – the highlight of the year. PV believes in youth self-selection into the program rather than asking for referrals from counselors, teachers, and parents. This eliminates the stigma often attached to programs for at-risk youth and ensures that there will be a mix of risk levels. Staff do, however, act on informal referrals from teachers and others and often provide extra encouragement for these youth to participate. After a year of participation, youth have the opportunity to become “service staff” or peer leaders in subsequent years. A Project Venture Replication Manual guides the implementation of PV for staff.

### Method

In 1996, the National Indian Youth Leadership Project was invited by the Center for Substance Abuse Prevention to participate in the National Cross-Site Study of High

Risk Youth Programs (SAMHSA, 2002) since NIYLP was already receiving CSAP funds to implement Project Venture with middle school youth in and around Gallup, New Mexico. CSAP, through its contractors, EMT and Associates and Macro International, provided funding and training for a local American Indian research assistant who was supervised by NIYLP's Evaluation Coordinator. They also established design and data collection protocols to be used by each of the 48 participating sites. Findings include those related to Project Venture specifically, and to Project Venture compared to the other 47 prevention programs in the study.

### *Procedure*

Two public middle schools were randomly assigned to either treatment or control condition. Treatment youth received weekly classroom based sessions throughout the school year. Treatment youth were also enrolled in weekly after school challenge activities as well as monthly outings on weekends and wilderness camp during the summer. Careful dosage records were maintained and youth with low participation rates were removed from the study.

CSAP's National Youth Survey (NYS) was administered at baseline, six months after exit, and eighteen months after exit to youth in both conditions (Springer, Sambrano, Sale, Kasim & Hermann, 2001). The NYS was adapted from an instrument created by Delbert Elliott, University of Colorado, and assesses actual substance use as well as related risk and protective factors. Elliott and Huizinga (1984) reported that alpha reliabilities for all scales in the NYS were greater than .60. Elliott, Huizinga, and Menard (1989) found that alcohol and marijuana prevalence rates from the NYS were not significantly different from those in the Monitoring the Future Study. The survey was

read aloud to students in group classroom settings, with at least two proctors at each administration. Treatment group youth were enrolled in Project Venture for one year. Control group youth did not receive any services, however, their teachers received gift certificates for local stores to buy supplies for their classes as an incentive for participation in the surveys.

### *Participants*

A total of 397 sixth graders (N = 262 treatment and N = 135 control) completed the baseline assessment in the fall of 1996. The six month follow-up survey was completed by 222 treatment and 124 control youth. The eighteen month follow-up was completed by 162 treatment and 98 control youth. Ethnic distribution for all study participants includes 75.5% American Indian, 0.3% Asian or Pacific Islander, 15.8% Hispanic, 5.3% White, non-Hispanic, and 3.3% other.

### Results

A Repeated Measures GLM design was used to examine the longitudinal effectiveness of Project Venture. This analysis produces a multivariate test for significant differences in treatment and control group trends on a number of substance abuse indicators, and also produces an individual test for differences in trend on each of the individual variables in the set. This technique is stronger than individual tests of each outcome alone, because the initial multivariate test protects against potential biases resulting from sequential tests of multiple outcomes. The analysis was conducted across three time points- baseline, six-month follow-up, and 18 month follow-up. A propensity score that adjusts for treatment and control group non-equivalence at baseline was entered as a covariate. N=162 treatment youth completed all three

surveys (baseline, six months post exit, and eighteen months post exit) as did n=98 control group youth. Each of the n=162 treatment youth participated in the school-based component of Project Venture, with some also participating in the after school component.

### *Composite Substance Use*

As shown in Table 1, the multivariate analysis revealed a significant difference between the substance use patterns of treatment and control participants across time, with treatment youth demonstrating less growth in substance use as measured by the four outcomes measures taken together.

### *Alcohol Use*

Post hoc analysis indicates that Project Venture had a significant effect particularly with respect to alcohol use. Specifically, the alcohol use of the control group increased significantly across time, whereas the treatment group participants leveled off in their alcohol use from the six-month follow-up to the 18-month follow-up. The difference between the linear trends was statistically significant ( $p < .05$ ), as illustrated in Figure 1. Participants were asked, "On how many DAYS in the LAST MONTH (30 days) did you have an alcoholic drink?". Response categories included, 0) none, 1) 1-2 days, 3) 6-9 days, 4) 10-19 days, 5) 20-31 days.

## Discussion

Findings from the three-year controlled comparison study indicated that substance use (composite of cigarette, marijuana, alcohol, and other illicit substance use) increased over time for both treatment and control groups. The treatment group showed significantly less growth of substance use over time compared to the control

group. In addition, this trend was significant for alcohol use, with less growth over time observed for treatment youth. Results for other substances had similar, but nonsignificant trends and are, therefore, not reported in this study. These findings indicate that Project Venture was most effective with respect to alcohol. This result is consistent with Project Venture's prevention aims, with alcohol reduction being the primary substance use goal. The overall trend of positive effects on substance use are especially noteworthy in light of the fact that Project Venture does not target substance use with traditionally utilized direct prevention strategies such as drug resistance skills and drug education. Instead, it appears that focusing on the development of positive leadership skills such as problem-solving, positive peer interactions, and service learning within a framework of Native values can also lead to reductions in substance use, and specifically alcohol use.

This study provides an essential contribution to the literature because there are few published outcome studies of prevention programs targeting AI youth that include baseline and comparison or control group data (Hawkins et al., 2004; Moran & Reaman, 2002). In addition, the positive response from youth participants and communities in which PV exists, as well as the number of new sites requesting to replicate and adapt PV attest to the importance of having a prevention program developed by American Indian preventionists, piloted and tested with AI target groups, and addressing the special needs of AI youth. Furthermore, preliminary analyses of subsequent evaluation data collection over the past nine years continue to demonstrate positive effects on alcohol use, as well as on other positive skills development areas.

Limitations in study design make it difficult to generalize results beyond the communities within which effects were observed. In addition, study design and methods were shaped by this program's inclusion in the larger HRY study. If this program had not been chosen for inclusion, lack of funding and other necessary resources would have restricted NIYLP's ability to carry out a randomized control trial study needed for empirical validation. Unlike other published prevention efforts, Project Venture was not developed under controlled conditions, but grew and took shape according to the needs of the Cherokee community within which it originated. It has continued to take shape according to the needs of the specific AI communities in which it is implemented. Although the call for implementation and appropriate evaluation of culturally-based prevention programs is strong (Hawkins et al., 2004; Terrell, 1993), many grassroots prevention efforts confronting the practical realities of their communities find it impossible to meet scientific standards. Yet, as Bernal and Scharron-del-Rio (2001) argue in their critique of empirically supported treatments that have not been validated for ethnic minority populations, to advance our knowledge of what works, we need to step beyond the conventional research paradigms, focus on treatments that work with specific ethnic populations (rather than comparative approaches), and use discovery-oriented and qualitative designs to find out what makes these programs work.

Now that there is some evidence for the effectiveness of PV with AI youth, the next step will be to discover what aspects of the program make it effective. Meta-analysis of all 48 programs in the High Risk Youth Study identified six design and implementation characteristics with statistically significant association with larger

program effect sizes on self-reported 30-day substance use (Springer et al., 2001).

These characteristics include:

- Life Skills Focus
- Emphasis on Building Connections (youth to youth, youth to adult)
- Coherent Program Design and Implementation
- Introspective Learning
- Intensive contact
- After-School Setting

Project Venture was one of only four programs that incorporated all six design and implementation characteristics correlated with the greatest program effectiveness as identified in the HRY Study. Although these are common characteristics shared by all effective programs, it is essential to develop ways of assessing and measuring the impact of cultural components on youth outcomes. Further evaluation studies elucidating the degree and type of cultural integration into prevention, as well as the degree of homogeneity among the youth participants, would contribute to a better understanding of building culturally appropriate programs that are effective and generalizable to AI youth, regardless of tribal affiliation, and other minority youth. PV replication sites would be ideal for further study of the implementation process, especially cultural adaptations that occur as it is adapted to the needs of communities representing many different AI nations. Although our current ability to measure the effects of cultural components on youth participants is limited, Roosa et al. (2002) suggest understanding cultural change and how cultural change may affect risk and resilience is essential for designing appropriate interventions for minority populations.

Assessing PV participants' cultural change (e.g. ethnic identity, cultural pride, acculturation) may be another avenue for insight into the program's cultural impact.

Project Venture arose out of the desire to create a Native values-based leadership program to offer positive development opportunities for American Indian youth who are more often targeted for their presumed deficits and risks. Because of consistent positive results in some of the most high risk target communities in the American Southwest, PV has reached model program status on the National Registry of Effective Prevention Programs and in 2005 was selected as one of ten Effective Practices and Models in Communities of Color by the First Nations Behavioral Health Association. Yet, evaluations have remained unpublished until the present. This study represents a great leap from committed practice developed from an AI cultural perspective to science-based research and validation. Findings suggest that positive youth development is effective in preventing substance use with AI youth. Although the positive youth development and positive psychology movement is relatively new within the scientific literature, educational strategies that encourage holistic growth of strengths have existed within American Indian traditions for generations (Brendtro, Brokenleg & Van Bockern, 1991). This study suggests that a positive youth development approach may be more culturally appropriate for AI youth. However, further studies are needed to differentiate the effects of cultural components and a positive program orientation. In addition, this study provides an alternative prevention model for AI communities that is not based on mainstream models or majority populations. It suggests that an experientially-based program integrating pan-Indian values and traditions is an effective base for prevention efforts in AI communities.

Finally, findings from this study support those who advocate for a change from the deficit-based approach that still characterizes most prevention efforts. More studies are needed to provide evidence that positive approaches are effective, not only for American Indian youth, but all youth.

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Table Caption

*Table 1.* Univariate Tests, Effects of Past 30 Day Substance Use Over Time

Effect	F	Sig	Eta <sup>2</sup>
Time	1.054	0.175	.008
Time x Propensity Score	3.355	0.018*	.026
Time x Group	2.572	0.039*	.020

\*p < .05

Figure Caption

Figure 1. Comparison of treatment and control group means for past 30 day alcohol use over time.

