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Indian Adolescent Drug and Alcohol Use:
Recent Patterns and Consequences
Fred Beauvais, Ph.D.

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PREFACE

This issue summarizes 17 years of research conducted by the Tri-Ethnic Center for Prevention Research at Colorado State University on drug and alcohol problems among American Indian youth. The work of the Center has been twofold: (1) to maintain an accurate record of the trends in substance abuse in this population and (2) to pursue various avenues of research aimed at understanding the origins, nature, and consequences of the behavior. It is hoped that by bringing this body of research together in one source, a greater understanding of the problem can be achieved by those in the research, treatment and prevention fields. This issue focuses on the work of the Tri-Ethnic Center and therefore does not include a comprehensive review of the literature on Indian adolescent substance abuse problems. Providing this was simply outside the scope of what could be accomplished here; however, this information is available in a number of other places.

Throughout this issue, ethnic glosses are used to describe groups. Though all ethnic glosses are bound to be inaccurate and incomplete — and particularly so when they describe broad ethnic groups — it is necessary to use simplified terms in order to communicate, even though it is known that these terms could be questioned. Trimble (1991) has discussed the problem of ethnic glosses in detail, and his paper is well worth perusing. Bea Medicine has commented specifically on the ethnic glosses used to describe American Indians and how acceptability of different terms has varied over time (1981). These papers make it clear that there is no easy answer. Any term used is bound to be “wrong” to some extent, and the appropriateness and acceptability of various terms must change over time. The problem of temporal utility occurs because, when an ethnic gloss is applied to a group that is a victim of prejudice and injustice, whatever term is selected as appropriate gradually becomes “infected” with residual prejudicial meanings and becomes unacceptable. Various groups within the affected ethnic group will find the term unacceptable and will suggest alternatives. The suggested alternatives often incorporate political meanings or purposes depending on the group proposing the term. A new term gradually achieves consensus and it then becomes the appropriate gloss. The new term then starts to accumulate negative associations until it becomes necessary to start again.

In this report the terms “American Indian” and “Indian” are used, for they are currently accepted by a reasonable number of people. “Anglo” is used to describe the rest of the sample because this term is the one most often applied to people who are not Indian or not obviously members of another minority ethnic group. Many of those to whom Anglo is applied object to its use, but it is as fair to apply this

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term used by Indians as it is for Anglos to apply the term Indian without further qualification.

FRED BEAUVAIS

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TRENDS IN INDIAN ADOLESCENT DRUG AND ALCOHOL USE

FRED BEAUVAIS, Ph.D.

Abstract: Trends in overall drug use among Indian and non-Indian youth have followed similar patterns, increasing from 1975 to the early 1980s and, for the most-used drugs, declining since then. At every point in time more reservation Indian youth are involved with drugs than are non-Indian youth. Rates for cocaine and hallucinogen use by Indian youth increase until 1990. The decline in overall drug use has occurred because a considerable number of moderate users have shifted to non-use. There has been no decrease in the proportion of high-risk users; since 1980, it has stayed between 17% and 20%. Societal changes and prevention programs are reaching casual drug users but not those susceptible to heavy drug involvement.

Alcoholism and alcohol abuse have been, historically, issues of major concern for Indians. Despite laws that until 1953 prohibited the sale of alcohol to Indian people, high rates of alcoholism continue to be observed among many tribes. Until the early 1970s, therefore, the research literature focused on the use of alcohol. Pinto (1973) was one of the first researchers to suggest that drug use might be a problem among Indian youth. But his argument was indirect, and it was based on the assumption that the same socioeconomic conditions that seemed to spawn alcohol abuse among these youth would lead to high levels of drug abuse. Only a few anecdotal reports of drug use were available at the time, and Pinto made the plea that more data were sorely needed.

Shortly after Pinto's paper appeared, Western Behavioral Studies (now the Tri-Ethnic Center for Prevention Research) at Colorado State University began to collect the first systematic data on the epidemiology of drug use among Native American youth. This project began in 1975 and continues today; it is the source of the bulk of the data presented in this volume. A list of the publications of the Tri-Ethnic Center that deal with Indian drug and alcohol use is provided in the Annotated Bibliography.

There have been a number of other studies examining the rates of drug use among Indian youth, but generally these studies have been limited to specific tribes or locations (e.g., Cockerham, Forslund, & Raboin, 1976; Longclaws et al., 1980). Some researchers have looked at single, specific drugs (e.g., Winfree and Griffiths, 1983; Kaufman, 1973), and others have drawn conclusions from small samples of Indian youth extracted from studies of general populations (e.g., Strimbu, Schoenfeldt, & Southern, 1973). Though these types of studies may be useful for examining specific hypotheses or for planning at a local level, they do not provide generalizable data on Indian youth. Nor, as they are usually one-time studies, do they give any indication of trends in drug use over time.

A recent study of note is that of Bachman et al. (1991) because it does contain a fairly large sample of Indian youth (N=1068) extracted from a random sample of students from across the United States. This study used the database from the National Senior Survey and looked at drug use rates for the various minority subsamples. For nearly every one of the 14 drugs asked about, Indian youth were showing higher rates of use than any of the other groups, including White Americans — a theme that, unfortunately, will recur throughout this issue.

In addition to interest in prevalence rates, another area of inquiry with respect to Indian adolescent drug and alcohol use has been the search for correlative or causal factors. Much of this work is provocative; however, the majority of it is not data based making it difficult to verify or refute from a research perspective.

One theme in this body of literature is that substance abuse behavior is to a large extent influenced by cultural values and norms and that rates of abuse vary by traditional cultural structures. The work of Levy and Kunitz (1971, 1974) is the best known of the anthropological studies. Their inquiry focuses mainly on homicide, suicide, and alcoholism, although their argument is equally applicable to other forms of deviance such as drug abuse. Levy and Kunitz rank Indian tribes on a continuum according to their level of social integration, that is, basically how much individual freedom do members of the tribe have with respect to their behavior. In some tribes there is very little social control over behavior, and in others behavior is highly prescribed and there is little room for deviation. The tribes in the latter group show lower levels of social problems whereas the less-integrated tribes, both currently and historically, have higher levels of homicide, suicide, and alcoholism.

Although there is a wide range of other cultural explanations of social deviance among American Indian communities, most are speculative and are based on apparent similarities between traditional practices and current problems such as substance abuse. For example, Carpenter (1959) draws the parallel between the traditional practice of seeking

dreams and becoming intoxicated among members of one eastern tribe. (See Mail and McDonald [1980] and Albaugh and Albaugh [1979] for a more complete description of cultural explanations.) Many of these explanations are intuitively appealing; however, they are mainly conjectural and have only limited descriptive power. For instance, in the example cited, to explain the widespread use of alcohol among other tribes, one would have to look at their specific cultural content to find parallel associations. Given the richness of cultural elements in most tribes, it would be relatively easy to rationalize that at least one of the multiplicity of traditional practices or beliefs explained alcohol use.

There is fairly extensive literature linking conditions of social deprivation found in many Indian communities to elevated rates of drug and alcohol use. Methodologically, this is a difficult proposition to confirm as there is little variability among these factors in most locations. Liban and Smart (1982), however, in a study they conducted in Canada, were able to provide some evidence for the hypothesis that socioeconomic factors are a strong link to drug use. When social background factors were accounted for, they found no difference between Indian and Anglo youth in rates of drug use. (See Lobb and Watts [1989] for a review and bibliography of additional studies of social factors.)

A third line of inquiry has been into the psychological or emotional variables that may predispose individuals to drug and alcohol use. At face value, factors such as depression or anxiety seem to be related to drug use; however, the research results have been disappointing. A more complete discussion of these factors begins on page 53.

In this volume I will attempt to provide a comprehensive picture of drug and alcohol use among American Indian adolescents. The data are drawn from our work over the past 17 years with thousands of Indian youth from dozens of tribes, and new data relating to Indian youth who do not live on reservations will be incorporated. The discussion will begin in this paper with the trends in drug use for reservation-based Indian youth whom we have monitored since 1975.

The Sample

For our long-standing survey of reservation Indian youth, each year we select five to seven tribes that are geographically and culturally representative of Indian youth across the country. When we report on drug use prevalence rates, we aggregate across two- or three-year periods to reduce sampling bias. We do recognize the great diversity among Indian tribes; in one sense it is not possible to obtain a sample of tribes that represent all Indian people. Indeed, if we were looking at cultural variables, we could not aggregate measures across tribes; rather we would have to deal with each tribe separately to characterize it accurately. Drug use, however, is a behavior that exists in a larger social context, and we

have found in the past that there is only small variation in use rates among tribes. This situation may change in the future, however, as some tribes launch successful prevention programs that substantially reduce drug use in specific locations.

Although we attempt to contact and enlist the cooperation of all schools within each tribe, we are not always successful for logistic or administrative reasons. Once a school agrees to cooperate, all students in the 7th–12th grades are administered the self-report survey by the classroom teacher. (See Oetting and Beauvais [1990] for a discussion of reliability and validity issues related to self-report data and the instrumentation used.) Clearly these data are lacking in information about school dropouts, and any conclusions drawn must be restricted to Indian youth who remain in school. There are theoretical reasons and anecdotal reports indicating that drug use is higher among school dropouts — an important point that must be born in mind throughout this volume. We are in the early stages of a project designed to examine drug and alcohol patterns among Indian school dropouts, and we should have preliminary data available within the next year.

Trends in Lifetime Prevalence

Table 1–1 presents the trends in lifetime prevalence for Indian 7th–12th graders since 1975. (Lifetime prevalence is the percent of youth who respond “Yes” to the question, “Have you ever used _____?”) Note that the survey was changed in 1984–85 to include the use of several additional drugs so it is difficult to discern trends for these drugs. The index of “lifetime prevalence” is very general in that it measures any level of use of a particular drug — even one-time use several years ago. It is a useful measure, however, when looking at the distribution or changing use patterns in a population or when comparing one population to another. To use an extreme example, a lifetime prevalence of 20% for marijuana in a population means something very different from a lifetime prevalence of 60% — the rates for marijuana use in 1989 for Anglo and for Indian 7th–12th graders. When the rate is 60%, it can be assumed that marijuana is highly available and that its use is the norm for that group; everyone probably has access to it, and the pressure to use is very high. A rate of 20% suggests that although the drug is not hard to get, access and pressure to use exist at much lower levels.

The results presented in Table 1–1 are somewhat mixed, but one overall trend is evident: for several of the more commonly used drugs there was a dramatic increase in use by Indian youth between 1975 and 1981, and there has been a gradual decline since then. This pattern is clear for marijuana, inhalants and stimulants. Additional data providing support for a general decline in drug use since 1981 among adolescents is provided in this chapter. There is no way to know with certainty the

Table 1-1
Percent of Reservation Indian 7th–12th Graders Reporting Lifetime
Use of Drugs: 1975–1990

	1975 %	1977–78 %	1980–81 %	1982–83 %	1984–85 %	1986–87 %	1988–90 %
Alcohol	76	79	85	81	79	81	74
Get drunk ^a					46	49	51
Marijuana	41	53	74	70	57	61	54
Inhalants	16	26	30	31	21	24	23
Cocaine	6	7	11	6	7	8	9
Stimulants ^b	10	15	24	22	21	25	16
Legal stimulants ^a					14	15	14
Sedatives ^b	6	10	9	7	10	11	7
Heroin	3	4	5	2	5	5	4
Psychedelics	7	9	9	6	9	10	12
Tranquilizers ^{a,b}		9	6	3	7	7	3
PCP ^a					10	10	7
Cigarettes ^a					79	78	67
Smokeless tobacco ^a						58	51
N	1235	3105	2159	1411	1510	2683	5768

^aData not available for earlier years.

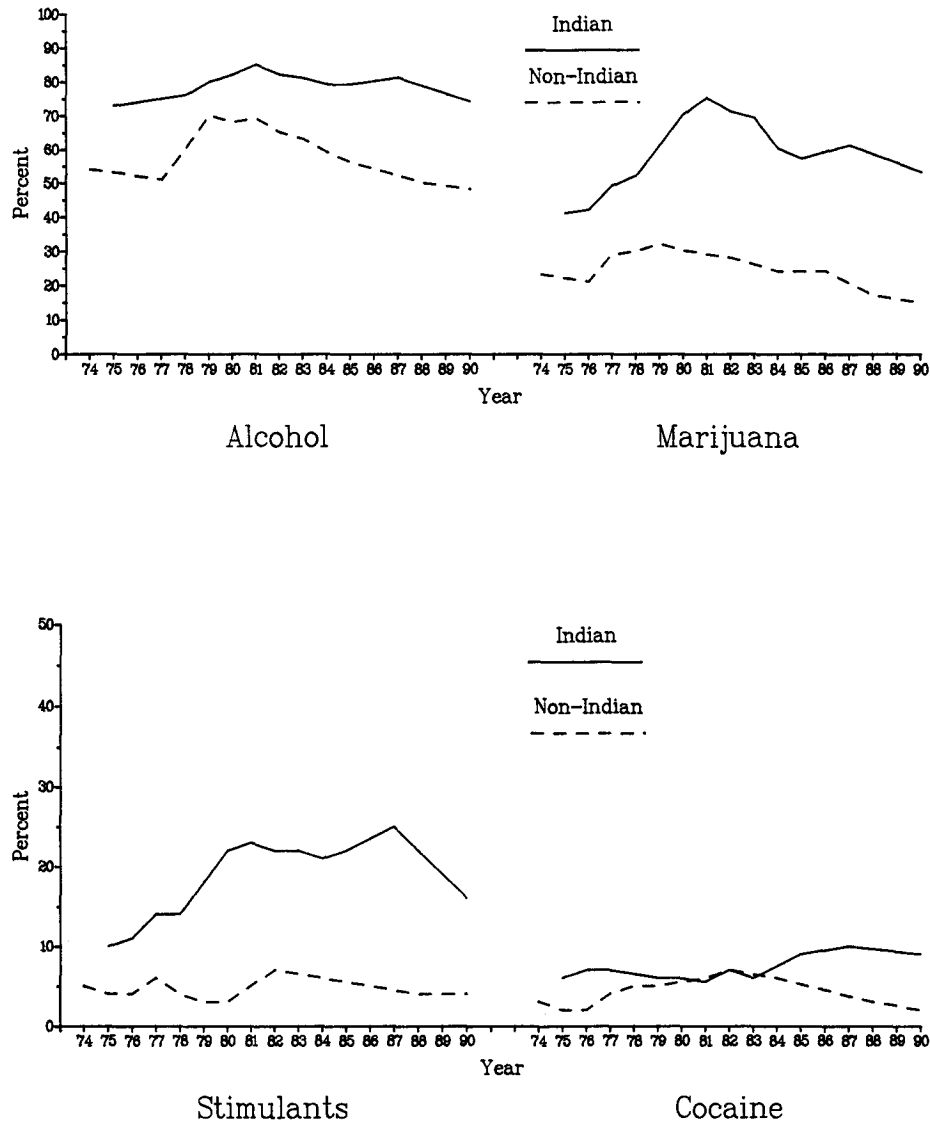
^bOnly illicit, or non-prescribed, use is included.

reasons for the upsurge and then the decline; however, it is important to recognize that this same pattern holds true for youth in general in the United States.

The National Household Survey (National Household, 1990) is given every two to three years and includes a representative sample of 12- to 17-year-old youth. The lifetime prevalence data from this survey are plotted for four drugs in Figure 1–1 and are contrasted with the data we have collected from Indian 7th–12th graders. As the methodology for collecting the data in the two surveys was different, the relative rates of use for Indian and non-Indian youth in Figure 1–1 need to be interpreted with some caution. In a number of studies, however, we have compared age and gender distributions and have found that the groups are reasonably comparable.

Indian youth have consistently higher rates of drug use. The differences in use rates are so large that they could not have occurred merely from the method used. The similarity in trends over time for the

Figure 1-1
Lifetime Prevalence Rates for Alcohol, Marijuana, Stimulants,
and Cocaine for Indian and Non-Indian Adolescents



two major drugs — alcohol and marijuana — are remarkable; the levels of use may differ, but the trends are the same. Use increased to a peak about 1981 and dropped after that. Stimulants show a decline as well, but use by Indian youth peaked somewhat later.

The other major source of data on trends in drug use in the United States population, the National Senior Survey (Johnston, O'Malley, & Bachman, 1989), also very clearly shows the decrease in drug use since the early 1980s. It appears that broad forces acting in the milieu of adolescents are having similar effects on both Indian and non-Indian youth, at least for some drugs.

The history of drug use and anti-drug use efforts in the United States may provide a clue as to why there was an increase in drug use followed by a consistent decrease. In the 1970s, as drug use became very common among younger adolescents, there were very few efforts in place to counter this use. Adults were naive about the effects of drugs and were both factually and attitudinally unprepared to confront the growing problem. Without adequate guidance from the adult community and in the absence of firm sanctions, young people were left in a value vacuum and increasingly pursued the short-term exhilaration and social pleasures provided by drugs. Gradually the adult community, bolstered by increasing medical evidence of the harm caused by drugs, mounted an ever-stronger anti-drug response. The early 1980s witnessed the rapid growth of anti-drug parent groups and many other community responses. Anti-drug laws were passed, and the penalties for possession and sale of drugs were radically increased. Federal money and other resources were rapidly mobilized to develop prevention programs. The result has been a general drop in the use of drugs. To date there is still scant evidence that any of these programs had an immediate effect in and of themselves. That is, we cannot conclude that a particular set of prevention activities — whether it is increased recreational opportunities, values clarification exercises, the building of refusal skills, legal penalties, or any of a myriad of prevention activities — has led to the declines we have seen in drug use. What is clear, however, is that through all of these efforts a national consensus was forming, and young people were getting a strong message that drug use was not a tolerable nor a valued behavior in this society.

However it was communicated, the same message seems to have gotten through to the young people in Indian country. Nearly every tribe now has some type of prevention program, and there is a growing movement of sobriety marches and calls for sober leadership on many reservations. The important point is that adolescent drug use is not immutable and that much of what works for society in general has at least some effect on Indian youth. Although there are certainly cultural differences to be recognized in addressing drug problems among Indian youth,

there are also similarities with non-Indian populations that must not be overlooked.

Not all of the drugs listed in Table 1–1 are declining in use by Indian youth. Notably, cocaine and psychedelics show small but consistent increases whereas they are decreasing in use by non-Indian youth. We have no explanation for this trend other than the observation in our early work that changes in the use of some drugs by Indian youth lag a year or two behind the national trend. This can be seen in Figure 1–1 where the peak for marijuana use among Anglo youth was about 1979 but among Indian youth was 1981. Another possible explanation for the continuing popularity of these two drugs is related to the supply pipeline. In subsequent papers we will see that marijuana use is extremely common on reservations, and it is possible that the sources of marijuana are also the sources of cocaine and hallucinogens. At least one more data point will be required in order to see whether the trends for cocaine and hallucinogen use are reversing and following the course of trends for non-Indian youth. Furthermore, although there has been a reduction in alcohol lifetime prevalence since 1985, the pattern is uneven. The more important number in Table 1–1 is the lifetime prevalence of “getting drunk.” Although many youth report having tried alcohol at some point in their lives, a better indicator of alcohol involvement is getting drunk. Unfortunately, we do not have long-term data on intoxication, but the last three data points indicate a possible increasing level of alcohol involvement. This pattern would match the anecdotal evidence from treatment workers on reservations, where there is an indication that alcohol use is increasing among adolescents.

Trends in Risk Level

As mentioned earlier, the index of lifetime prevalence does not give a complete picture of drug use patterns. Of most concern are youth who are using drugs heavily and on a regular basis as opposed to one-time use or occasional experimentation that has not continued. We have developed a classification of drug use that ranks youth on a continuum from essentially no use to continued heavy use (Oetting & Beauvais, 1983). This drug use hierarchy allows us to classify young people into three groups: (1) low-risk non-users — young people who, at the most, have tried a drug but are not currently using any drug; (2) moderate-risk users — youth who are getting drunk once a month or more often and who may be using some marijuana; and (3) high-risk users — youth who are using marijuana more than once or twice a week or who are using other drugs at least once a month. It should be noted that when we refer to moderate- or high-risk users, we mean those youth who are currently using drugs and alcohol in such a way that they may incur some physical or emotional harm from that use.

Figure 1–2 shows the percentage of Indian youth at high, moderate and low levels of risk from 1975 to 1990. This is an unusual graph and will take some getting used to. The easiest way to interpret it is to visualize the width of each band as representing the proportion of the population in each category. For instance, in 1975 about 21% of Indian students were in the moderate-risk group. With this figure a slightly different picture emerges from that presented in the previous discussion. It appears that the reductions that were seen in the lifetime prevalence data are due mainly to a drop in the number of youth in the moderate-risk category and their movement to the low-risk group.

Since about 1977 the high-risk users group has not changed substantially: between 17% and 20% of youth have used drugs enough to place them at high risk. If our hypothesis is accurate that general societal influences have reduced drug use among Indian youth, it appears that there are nevertheless a substantial number of youth — the high-risk users — who do not respond to these societal messages. At the same time, however, it appears that the majority of youth (i.e., the moderate-risk users) can be reached by prevention efforts and will change their drug use behavior.

The existence of a persistent and unchanging high-risk user group has a number of implications. The treatment professionals and people working in hospital admissions, who have been at odds with the epidemiologists for several years, see no reduction in problems even though surveys show less drug use. Both sides may be right. There has been a reduction in use, but it has been among casual users and experimenters. There has been no decrease in the number of high-risk drug users — those who end up in treatment or in the hospital.

The fact that there is no reduction in the high-risk group suggests that members of this group probably cannot be reached by the usual prevention efforts. These youth are likely to have multiple problems that need rectifying, and the usual attempts to change attitudes through advertising, by increasing penalties or by building social skills will not work. Many of these youth have probably developed antisocial tendencies and will not listen to messages about social appropriateness.

Prevention, then, must be two-pronged. We should continue what we have been doing in the hope of reaching even more of the moderate-risk youth, but we must also have much more intensive intervention aimed at the high-risk groups. Simply intensifying the usual prevention approaches will not work. Effective efforts to reduce the number of high-risk users will more likely resemble treatment approaches where the multiple and ingrained problems of these youth can be resolved.

Trends for Younger Children

The data for younger Indian children are not as complete as they are for adolescents; they are, however, revealing. Table 1–2 shows the

Table 1-2
Percent of 4th-6th Grade Indian Students Reporting Lifetime Use of
Drugs

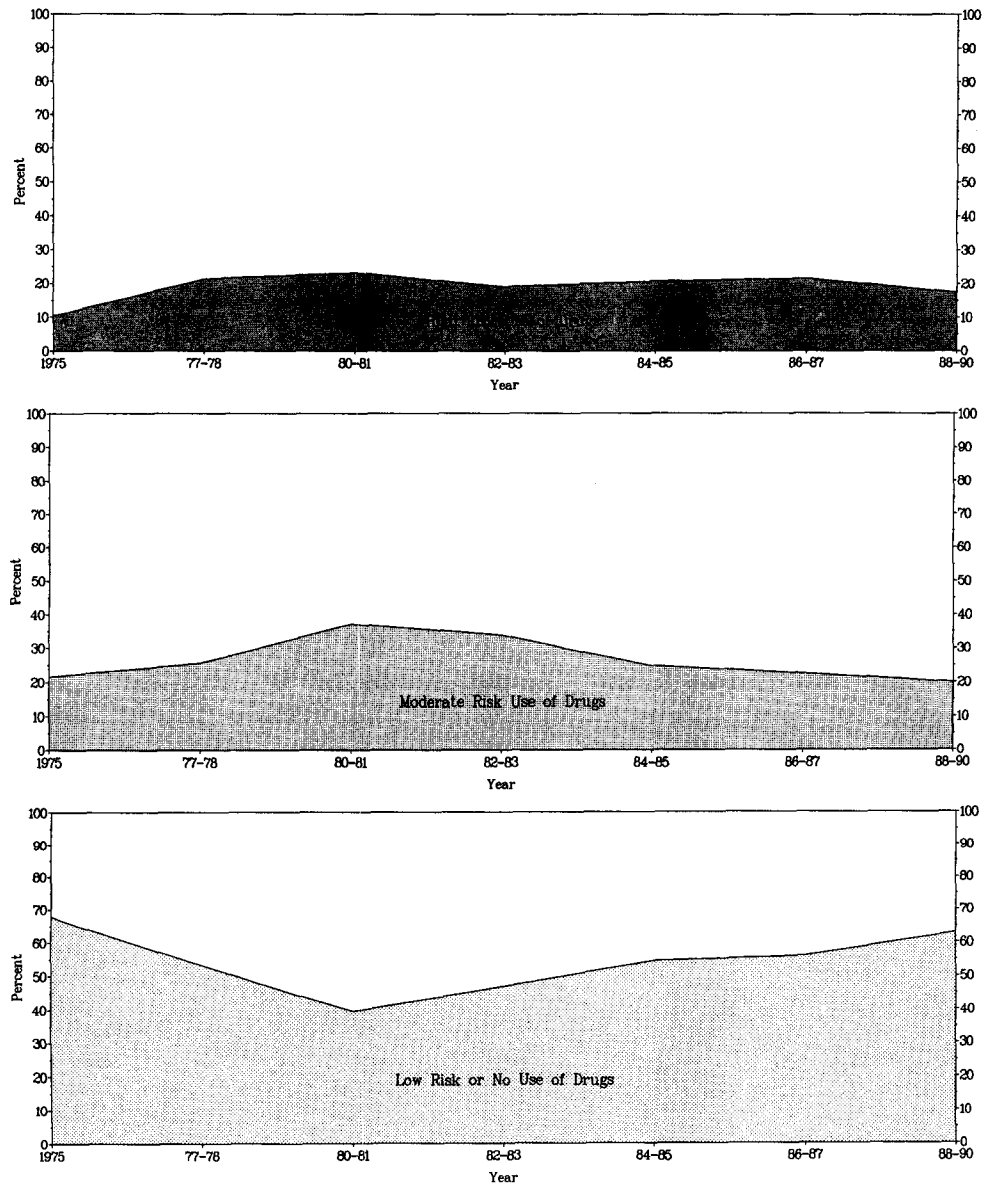
	1980-81 %	1987-88 %	1989-90 %
Alcohol	33	22	21
Marijuana	23	16	10
Inhalants	14	14	15
Cigarettes	34	33	32

lifetime prevalence for four drugs since 1980. These data show a consistent decrease for alcohol and marijuana but a stable pattern for inhalants and cigarettes. There is no obvious explanation for these differential rates, although it could be that drug prevention activities have not adequately targeted cigarettes and inhalants. Actually, other data presented later in this volume suggest that there is a strong need for increased prevention efforts aimed at Indian children for all drugs.

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Figure 1-2
Percent of Reservation Indian 7th-12th Graders at
Each Level of Risk From Their Drug Use



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COMPARISON OF DRUG USE RATES FOR RESERVATION INDIAN, NON-RESERVATION INDIAN AND ANGLO YOUTH

FRED BEAUVAIS, Ph.D.

Abstract: Rates of drug use and involvement were compared for three groups: Indian youth living on reservations, Indian youth living off reservations and Anglo youth. A consistent pattern emerged, showing the lowest rates of use among Anglo youth, higher rates among non-reservation Indian youth, and the highest rates among Indian youth on reservations. Rates of tobacco use, both smoked and smokeless, and marijuana use are especially high for Indian youth. Indian youth also show a pattern of earlier initiation to drug use. Gender differences reveal slightly higher rates of use for males, although the differences are not great enough to suggest that prevention efforts for males should have a higher priority.

The previous article in this volume provides a brief review of the history of drug and alcohol use among Indian adolescents and the trends in use since 1975. The use of alcohol, marijuana and stimulants by Indian youth is dropping, but use of other drugs may not be declining, and the number of high-risk users has remained about the same since 1977. The remainder of this volume presents a detailed review of the current use of drugs by American Indian youth. The data are from a series of recent studies we have conducted among three separate groups of students — reservation Indian (RI), non-reservation Indian (NRI), and Anglo (Ang), or White American, youth.

Sample

The samples consist of three groups of students, all of whom were surveyed in 1988–90. All three groups were given the American Drug and

The American Drug and Alcohol Survey ^{ΦM} was developed by Rocky Mountain Behavioral Sciences Institute, P.O. Box 1066, Fort Collins, CO 80522.

Alcohol Survey under similar classroom conditions. The reservation Indian sample consists of the 7th–12th grade students who live on reservations. This is the same group reported on in the previous paper for 1988–90 in the discussion of trends in drug use. The other two samples, non-reservation Indian youth and Anglo youth, come from a separate survey project serving junior and senior high schools across the United States. The students in that project are from schools that have decided to survey their students to get a detailed picture of drug use at the local level. Each year the American Drug and Alcohol Survey is administered to more than 150,000 students in nearly every state.

The surveys are administered for a variety of purposes, including community education, design of prevention programs and the evaluation of prevention program effectiveness. Some schools are aware that they have a drug problem and want to document it, and others are uncertain as to the levels of drug use among their students and are seeking further information. Given the diversity of use, the extremely large sample and the widespread geographic distribution of schools, the American Drug and Alcohol Survey database provides a good estimation of drug use rates for youth across the United States. The one exception is the underrepresentation of larger metropolitan areas, as school officials in larger cities rarely choose to survey their students regarding levels of drug use. A recent article (Oetting & Beauvais, 1990) demonstrated that the prevalence data from the American Drug and Alcohol Survey were highly similar at both the 8th- and 12th-grade levels to data from two other large studies in which the subjects were randomly selected — the National Senior Survey from the University of Michigan and the National Adolescent Student Health Survey.

Self-report surveys have been shown to be highly reliable (Mensch & Kandel, 1988), and we have taken steps to further increase the accuracy of our data. Each survey is subjected to a computerized analysis that checks for inconsistent responders and those who are exaggerating their responses. Surveys showing evidence of either of these patterns are excluded from analysis. Typically this results in a loss of about 5% of the sample; the rate is usually slightly higher at the 8th-grade level.

In the following discussions, the sample of non-reservation Indian students consists of those from the larger American Drug and Alcohol Survey sample who identified themselves as Indian, and the Anglo sample comprises the remainder of the American Drug and Alcohol Survey database. It should be noted that reservation Indian students constitute slightly over 3% of the total sample; this figure is higher than the percent of Indians in the total U.S. population, probably because the American Drug and Alcohol Survey is given more often in western and midwestern communities where there is a greater concentration of Indian

people due to the proximity of reservations. The reservation Indian sample is an important one as, with the exception of the Bachman et al. (1991) study referred to previously in this issue, to date there have been virtually no data available on Indian youth living off reservations. The limitation in the Bachman et al. data is that in order to obtain a large enough sample of Indian youth for analysis the researchers aggregated data from 1985 through 1989, a period during which drug use was dropping, so the average of use rates across that period may not accurately reflect current rates of use.

Comparative Rates of Drug Use

In this section I will discuss the comparative drug use rates for 8th and 12th graders from the three groups previously described in this chapter. These grades were selected to allow an analysis of differences by developmental level while reducing the complexity of the data.

Lifetime prevalence

Table 2–1 presents the lifetime prevalence rates. The pattern for the more commonly used drugs is clear and dramatic. For cigarettes, smokeless tobacco, marijuana, inhalants, and hallucinogens the reservation youth have the highest rates, the rates for the non-reservation Indian youth are next, and the lowest rates occur for Anglo youth. The differences are substantial. At the 8th-grade level rates for reservation Indian youth are more than three times higher than rates for Anglos for smokeless tobacco, marijuana, and hallucinogens, and the rates are twice as high for getting drunk, cigarette use, and inhalant use. A similar pattern holds at the 12th grade except that the differential for getting drunk is not as great.

Thirty-Day Prevalence

Table 2–2 compares drug use during the 30 days prior to the survey for the three groups. In general, these results parallel the results for lifetime prevalence rates, with Anglo youth having the lowest rates, non-reservation Indian youth having higher rates and Indian youth from reservations having the highest rates. Note in particular the greater than fivefold higher rate of recent marijuana use for reservation Indian 8th graders compared to Anglo youth. The rate of recent marijuana use by reservation seniors is also high — more than double that of Anglo youth. Given the relatively high rate of lifetime prevalence for cocaine among Indian youth, it is encouraging to find that current use of cocaine is fairly

Table 2-1
Lifetime Prevalence Rates for Reservation Indian (RI), Non-Reserva-
tion Indian (NRI) and Anglo (Ang) 8th and 12th Graders

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Alcohol	70	80	73	94	94	93
Got drunk	49	42	27	87	76	73
Cigarettes	74	64	46	80	71	62
Smokeless tobacco	65	30	19	74	43	34
Marijuana	47	26	13	77	58	38
Cocaine	6	6	3	15	14	8
Crack	5	4	2	4	4	2
Stimulants	10	13	6	26	22	13
Legal stimulants	12	17	9	24	28	23
Inhalants	34	20	14	20	15	10
Nitrites	6	7	3	17	14	9
Downers	7	7	3	6	9	4
Quaaludes	2	4	2	3	5	3
Tranquillizers	3	2	1	2	4	2
Hallucinogens	20	10	4	19	18	10
PCP	4	2	2	3	5	2
Heroin	3	4	2	2	4	1
Narcotics other than heroin	8	8	3	12	15	7
Steroids	4	3	2	3	3	2
N	638	942	23508	398	428	25183

rare for all groups. It is, however, higher for Indian youth. An expected, but shocking, finding is the exceptionally high rate of current inhalant use among reservation 8th graders. Inhalants have been noted as a problem for younger Indian children (Goldstein, 1978; Oetting, & Goldstein, 1979; Beauvais, Oetting, & Edwards, 1982, 1985a, 1985b; Beauvais & Oetting, 1988), and the problem continues: one of every seven Indian 8th graders is currently using inhalants. It is clear that this problem needs special attention.

Frequency of Use in Previous 30 Days

Not only are reservation youth more likely to have used drugs at some point in the 30-day period preceding the survey, but the frequency

Table 2-2
30-Day Prevalence Rates for Reservation Indian (RI), Non-Reservation Indian (NRI) and Anglo (Ang) 8th and 12th Graders

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Alcohol	42	35	28	57	61	60
Got Drunk	24	16	10	44	40	38
Marijuana	23	10	4	33	21	13
Cocaine	3	2	1	3	5	2
Crack	3	1	1	1	2	1
Stimulants	2	5	2	5	6	3
Inhalants	15	8	5	2	3	2
Nitrites	<1	1	<1	2	2	<1
Downers	3	3	1	1	3	1
Hallucinogens	6	3	1	3	6	3
PCP	2	<1	<1	<1	1	<1
Heroin	<1	1	<1	0	<1	<1
Narcotics other than Heroin	1	2	<1	1	3	<1

of use during that period is also higher. Tables 2-3 and 2-4 show this to be especially true for getting drunk among 8th graders and for marijuana use at both grade levels.

The frequency of inhalant use in the previous 30-day period illustrates the peculiar nature of inhalant use, which has been found in a number of studies (Beauvais, in press). Generally, use of drugs among adolescents increases as they get older. For instance, the 30-day prevalence for marijuana is higher among seniors than it is among 8th graders. The opposite is true for inhalants where more 8th graders report having ever tried inhalants than do 12th graders. For a variety of reasons inhalants are perceived by most older adolescents as "kiddie drugs," and they are avoided in favor of a more sophisticated drug such as marijuana or cocaine.

Risk Groups

The risk levels for the three groups appear in Figures 2-1 & 2-2, where essentially the same pattern as that found for the prevalence rates is evident. There are more Indian youth in both groups at risk from their drug use, and reservation youth are the most likely to be involved with drugs. If the high- and moderate-risk groups are combined, more than half of Indian seniors on reservations are at some level of risk due to their use of drugs. These rates would likely be even higher if those who

Table 2-3
Frequency of Drug Use in Previous 30 Days for 8th Graders

		RI %	NRI %	Ang %
Got Drunk	1-2 times	16	11	7
	3-9 times	5	4	2
	10+ times	3	1	<1
Marijuana	1-2 times	10	5	2
	3-9 times	7	2	1
	10+ times	6	2	<1
Cocaine	1-2 times	2	<1	<1
	3-9 times	<1	<1	<1
	10+ times	<1	<1	<1
Inhalants	1-2 times	10	6	3
	3-9 times	4	<1	<1
	10+ times	1	2	<1

Table 2-4
Frequency of Drug Use in Previous 30 Days for 12th Graders

		RI %	NRI %	Ang %
Drunk	1-2 times	28	22	22
	3-9 times	13	11	13
	10+ times	3	7	3
Marijuana	1-2 times	13	6	6
	3-9 times	11	5	3
	10+ times	9	11	4
Cocaine	1-2 times	2	3	2
	3-9 times	<1	<1	<1
	10+ times	<1	<1	<1
Inhalants	1-2 times	1	2	1
	3-9 times	<1	<1	<1
	10+ times	0	<1	<1

Figure 2-1
Percent of Reservation Indian, Non-reservation
Indian, and Anglo 8th Graders at Risk From
Drug and Alcohol Use

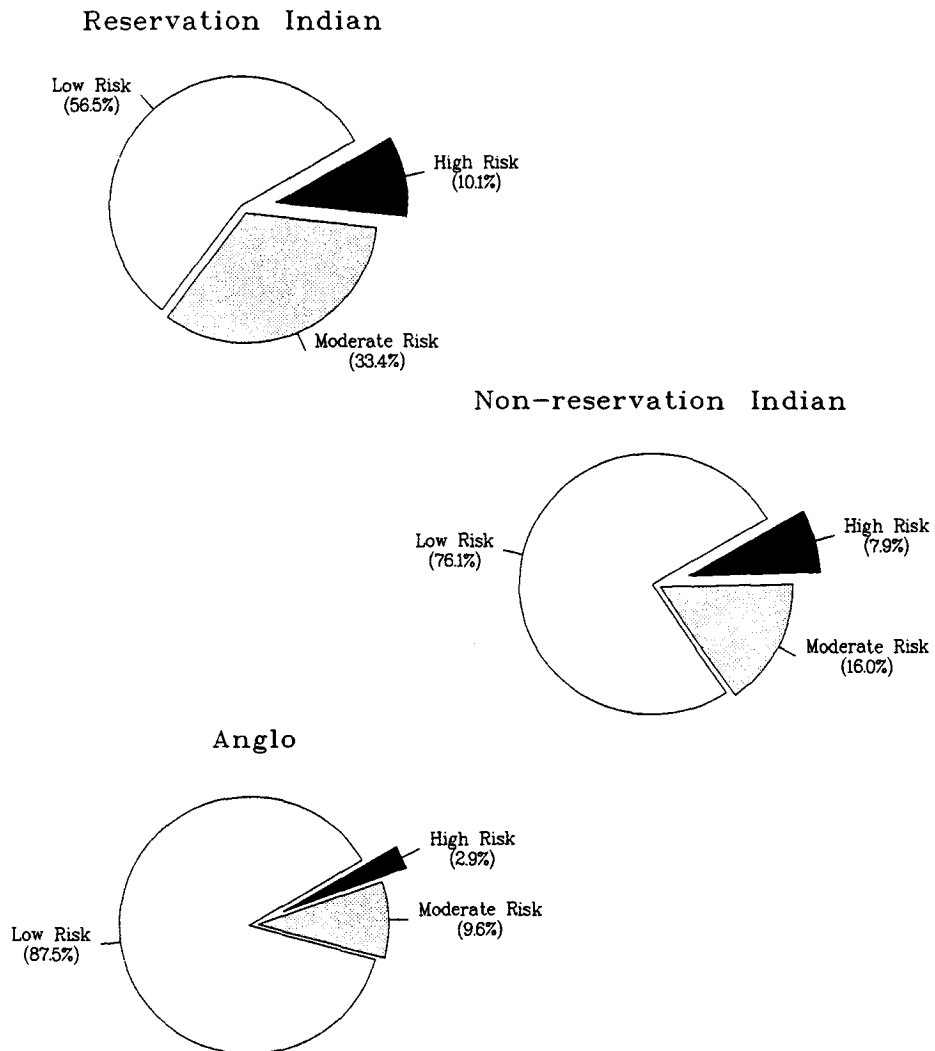


Figure 2-2
Percent of Reservation Indian, Non-reservation
Indian, and Anglo 12th Graders at Risk From
Drug and Alcohol Use

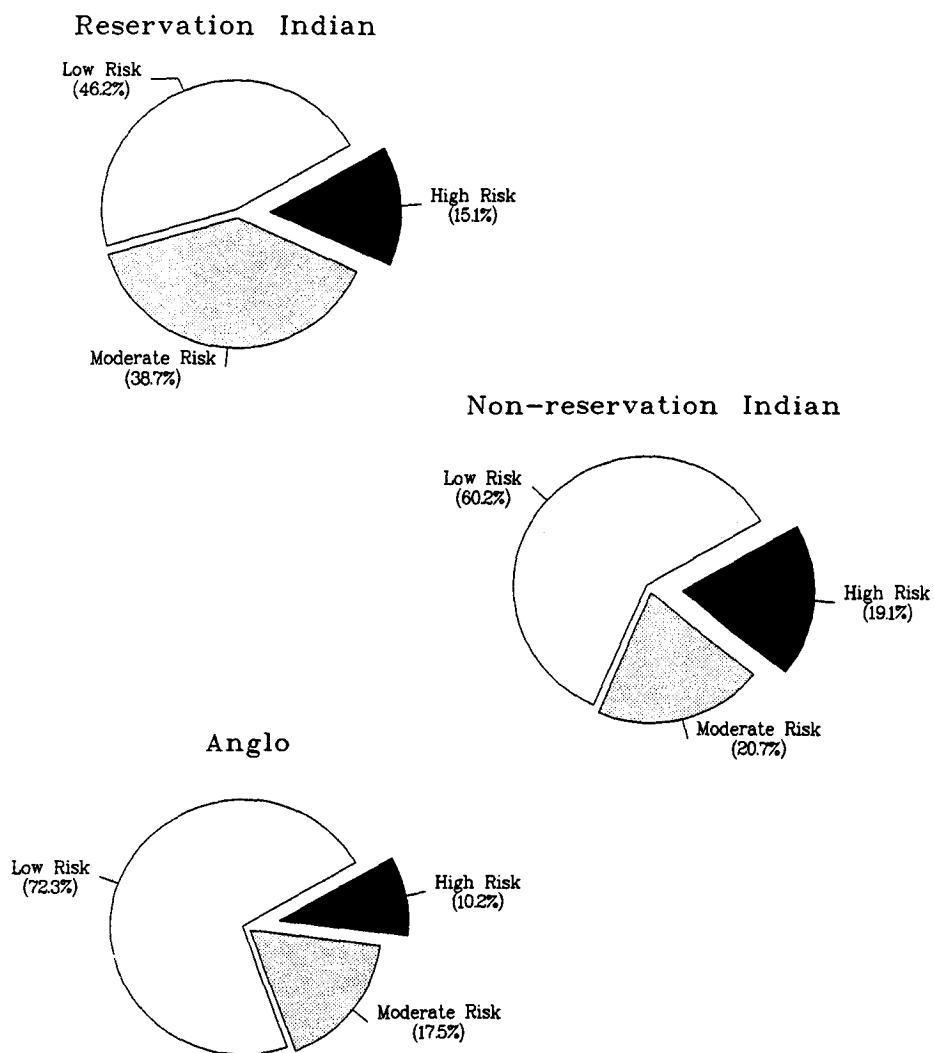


Table 2-5
Percent of Indian and Anglo 4th-6th Graders at Risk Due to Current Use of Drugs

	Indian %	Anglo %
High risk	5.7	1.6
Moderate risk	17.1	6.6
Low risk	77.3	91.8

dropped out of school were included. Note that in the highest level of risk the non-reservation Indian seniors are represented at levels twice as high as those of reservation seniors. There apparently is a small, highly vulnerable group of Indian youth living off the reservation.

Younger Children

Limited data are available for comparison of younger Indian children with non-Indian children. Data for risk-group membership and lifetime prevalence rates appear in Tables 2-5 and 2-6. The results are clear for both indices: younger Indian children are significantly more involved with drugs than are younger non-Indian children. This is especially evident in the risk-group data, where about three times more Indian children are in the moderate- and high-risk groups. The one exception to this pattern occurs for lifetime use of alcohol which shows Indian children with less experience. This finding could be due to lack of availability of alcohol or to the absence of a cultural pattern found among non-Indians in which younger children are often given small amounts of alcohol for special occasions such as holiday meals or other celebrations.

Age of First Use

Another way of examining drug use among children is to look at the age of first use. When children start taking drugs, only three substances are usually involved — alcohol, marijuana, and inhalants. The first use of any drug almost invariably involves one of these three substances, and it is very rare for a child to take any other drug before using one of these three.

Information about the first use of alcohol is trivial, as that first use can be simply a taste of beer or wine in a family setting. The age that a youth first gets drunk, however, is important. Getting drunk is not an innocent behavior, and it usually occurs with other children. If it does occur in a family setting, it is an inappropriate behavior indicative of family problems.

Table 2-7 shows the age at which 12th graders first used marijuana and inhalants or first got drunk, with a breakdown by age and,

Table 2-6
Lifetime Prevalence Rates of Drug Use for Indian and Anglo 4th-6th Graders

	Indian %	Anglo %
Alcohol	21	32
Marijuana	10	2
Inhalants	15	6
Cigarettes	32	15

in the last column, the average age of first use for those who had used. The differences between reservation Indian youth, non-reservation Indians, and Anglos are generally small but show essentially the same order that appears in other data on drug use of these youth. Reservation youth started using both inhalants and marijuana at the youngest ages, non-reservation Indian youth were next, and Anglos were likely to start use even later. This pattern does not appear for alcohol, but the fact that the age of first use is the same for reservation youth and Anglo youth may be related to the lack of availability of alcohol on reservations.

The higher rates of use for Indian youth mean that many more of them are at risk at younger ages. For example, by the time they are 12 years old, 21% of reservation children had tried marijuana compared to only 5% of Anglo children. Similarly, 11% of reservation children had tried inhalants by the time they were 12 years old compared to 4% of Anglo children. As expected, the rates for non-reservation Indian children are midway; these children are at more risk for early use than Anglo youth but at less risk than reservation children.

"Gateway" theories typically portray drug use as a progression, usually from alcohol and cigarettes to marijuana and then on to other drugs. The progression is not nearly this orderly for Indian children. Fewer youth use inhalants, but among those who use both inhalants and marijuana, inhalants are as likely to be used first as is marijuana. Indian youth may also get drunk for the first time well after trying marijuana or inhalants. The early stages described by gateway theories do not hold up well for Indian youth.

Discussion of Comparative Rates

The very high rates of use for reservation Indian youth when compared to Anglo youth are consistent with what we have found since our work began in 1974. In the previous paper it was shown that the trend in general drug use since the early 1980s tends to be downward for all youth. However, although the trends are encouraging, current rates of use are still unacceptably high. Of off-reservation seniors 40% are at some risk for problems from drug use, and more than 50% of reservation

Table 2-7
Age of First Drug Use Reported by 12th Graders

Got Drunk						
	7-9 years %	10-12 years %	13-15 years %	16 or older %	Never tried %	Average age
RI	3	12	47	27	10	14.3
NRI	4	13	40	20	22	13.9
Ang	3	8	39	23	26	14.3
Tried Marijuana						
	7-9 years %	10-12 years %	13-16 years %	16 or older %	Never tried %	Average age
RI	6	15	31	25	23	13.8
NRI	4	8	27	19	42	14.1
Ang	1	4	17	16	62	14.8
Tried Inhalants						
	7-9 years %	10-12 years %	13-16 years %	16 or older %	Never tried %	Average age
RI	4	7	9	4	73	12.5
NRI	3	4	5	5	82	13.0
Ang	2	2	5	3	88	13.4

seniors are at some level of risk. There are undoubtedly numerous consequences, including school dysfunction, medical problems, social strife, decreased job productivity, and mortality from accidents. Although intervention efforts have greatly increased in the past few years, it is clear that they have not been sufficient.

It has become recognized over the years that to be most effective drug use prevention must begin early. This observation appears to be especially true for Indian children on reservations. A significant number of these children have already begun to use drugs while in elementary school, leaving a lot of time for their drug use to get worse and to lead to a variety of other problems. Prevention efforts after elementary school have only a small chance of being effective. The important role that families can play in either initiation of or prevention of drug use is discussed later on in this volume. Strong families can protect a youth from drugs, but extended families can also represent a danger. Indian youth cannot travel easily and are thrown together with same-age relatives. It is possible that many Indian youth begin their drug use through the influence of older siblings or cousins, raising the possibility that new prevention approaches that make greater use of family interventions could be developed for Indian children.

The differences in drug use between reservation and non-reservation Indian students are intriguing, and we can only speculate on the

Table 2-8
Lifetime Prevalence Rates by Gender for 8th- and 12th-Grade Students

	RI				NRI				Ang			
	8th		12th		8th		12th		8th		12th	
	M %	F %	M %	F %	M %	F %	M %	F %	M %	F %	M %	F %
Alcohol	73	67	95	94	80	81	95	94	74	72	93	92
Got Drunk												
Cigarettes	72	76	71	87	60	67	67	75	46	46	61	63
Smokeless Tobacco	69	62	82	67	46	14	64	20	32	6	57	12
Marijuana	56	39	78	78	26	26	62	53	14	11	41	35
Cocaine	7	5	17	12	6	6	17	10	3	3	10	7
Crack	7	4	6	2	4	4	5	3	3	2	3	2
Stimulants	12	9	28	25	12	15	23	20	5	6	14	13
Legal Stimulants	14	10	22	26	16	18	30	25	9	81	23	22
Inhalants	35	35	20	21	18	22	17	12	15	13	13	8
Nitrites	8	5	16	18	6	9	17	10	3	2	10	7
Downers	8	6	6	6	5	8	9	8	3	3	4	3
Quaaludes	3	2	4	2	4	4	6	3	2	1	3	2
Tranquilizers	2	4	2	3	3	2	5	2	<1	1	3	2
Hallucinogens	23	16	22	16	10	9	22	12	4	3	12	8
PCP	4	3	4	3	4	4	4	4	2	2	3	2
Heroin	4	2	3	<1	4	4	6	2	2	2	2	<1
Narcotics other than heroin	9	6	12	13	6	9	20	11	4	3	8	6
Steroids	6	2	4	3	4	3	4	1	3	<1	3	<1
N	318	313	198	199	483	450	235	187	11,610	11,652	12,418	12,615

Table 2-9
30-Day Prevalence Rates by Gender for 8th- and 12th-Grade Students

	RI				NRI				Ang			
	8th		12th		8th		12th		8th		12th	
	M %	F %	M %	F %	M %	F %	M %	F %	M %	F %	M %	F %
Alcohol	42	43	56	59	35	36	66	54	28	28	63	57
Got drunk	25	23	45	42	16	18	47	32	10	10	41	34
Marijuana	27	18	34	32	10	10	22	21	5	4	15	11
Cocaine	3	4	2	4	2	2	5	4	1	<1	3	2
Crack	3	2	2	0	<1	<1	<1	2	<1	<1	<1	<1
Stimulants	3	1	5	4	3	7	6	5	2	2	3	3
Legal stimulants												
Inhalants	15	16	<1	3	8	8	4	3	4	5	2	1
Nitrites	2	<1	2	2	1	2	2	2	<1	<1	1	<1
Downers	4	3	1	1	2	4	4	2	1	1	1	<1
Hallucinogens	7	5	3	3	3	3	6	6	2	1	4	2
PCP	2	1	<1	<1	<1	1	1	<1	<1	<1	>1	>1
Heroin	<1	<1	0	0	1	<1	<1	0	<1	<1	>1	>1
Narcotics other than heroin	<1	<1	0	0	1	<1	<1	0	<1	<1	>1	>1

reasons. It is apparent that the more commonly used and most accessible drugs such as marijuana are being used at higher rates by reservation youth. Indian youth living off the reservation are being afforded some level of protection against these high rates. It might well be that some of the underlying socioeconomic factors such as better education and income opportunities are creating less stressful living conditions for off-reservation youth. It is also possible that non-reservation Indian students are responding to a difference in attitudes and behavioral expectations in the social milieu; that is, there is less tolerance of drug use among off-reservation youth, as reflected in the lower drug use rates, and Indian youth are conforming to those expectations.

This conclusion does not necessarily mean, however, that Indian people living on reservations condone drug use or would not try to stop it if they could. A trip through Indian country and conversations with tribal leaders and other adults would certainly reveal nearly universal, strong attitudes against the use of drugs by youth. What apparently is happening is that these attitudes are not being effectively communicated to youth. Finding ways of accomplishing this task presents a real challenge to those interested in drug abuse prevention.

The less accessible drugs — such as stimulants, legal stimulants, nitrites, PCP, and so on — have roughly comparable rates of use for both reservation and non-reservation Indian youth. However, the rates of use are so low for all youth that there is not much room for differences. What differences there are in use in the 30-day period preceding the survey tend to show higher use rates among Indian youth. Many of these drugs are more difficult to obtain in remote, rural locations, and it is possible that reservation youth would use these drugs at even higher rates if they were more readily available. This observation could in part explain the reversal in pattern found in the high-risk category where non-reservation Indian youth were more often represented. Most of the youth categorized as being at high risk were using less-common drugs such as PCP, downers, and so on. If these drugs were more readily available on reservations, even more reservation youth might appear in the high-risk group.

Tobacco Use

Recently there has been increased concern in the United States over health risks posed by tobacco use. A substance once associated with glamour, adulthood, and sexuality, tobacco is now credited with approximately 1,000 deaths a day (Resnik, 1990). And yet, there are recent estimates that nearly 57 million Americans are addicted to cigarettes.

An early estimate indicated that 3,200 youth start smoking every day (Garell, 1976). In the 1987 National Senior Survey, Johnston,

O'Malley, and Bachman (1988) found that cigarettes were used daily or almost daily by more high school seniors — 18% — than any of the other drug categories. Further, 10.6% of the respondents smoke one-half pack or more per day.

Tobacco use among Indian adolescents is of even greater concern. Schinke et al. (1986) reported that over 86% of the Indian youth in their sample had tried smokeless tobacco and that 25% used it weekly. Our data strongly confirm the high rates of tobacco use among Indian youth. Table 2-1 shows Indian 8th graders as significantly more likely than Anglos to have used cigarettes and three times more likely to have tried smokeless tobacco. Table 2-6 shows this same pattern at the 4th-6th grades for cigarettes where more than twice as many Indian youth have tried cigarettes. Data from another of our projects (not reported in this volume) indicate that 4th-6th grade Indian students use smokeless tobacco at a rate five times higher than Anglos.

Currently, there is not a clear explanation for the higher rates of tobacco use among Indian youth. We have noted, however, that in contrast to the rates for other drugs, tobacco use among Indians varies considerably from tribe to tribe. Research designed to identify the community characteristics that promote or inhibit tobacco use would be extremely useful. In the meantime, in those communities where use is high, aggressive efforts must be made immediately to develop culturally appropriate prevention programs for Indian youth.

Gender Comparisons

Tables 2-8 and 2-9 show the breakdown of lifetime prevalence and 30-day prevalence for males and females. Both sets of data indicate that there is a slight tendency toward higher use among males for all three groups. Although this pattern is consistent, the differences are not large and certainly not of the magnitude to suggest that one group should be more heavily targeted for intervention. A comprehensive look at gender differences is provided in Figures 2-3 and 2-4 where the risk group data are displayed. The higher use rate for males is shown for reservation Indian and Anglo 8th graders; however, rates are nearly comparable for both sexes in the non-reservation Indian group. A slightly different pattern exists at the 12th grade, where the high- and moderate-risk groups are comparable for reservation males and females, but in the other two groups males are twice as likely to be in the high-risk category. There is no clear explanation for these patterns. The possibility does exist, however, that in both off-reservation groups there are more sanctions against heavier drug use as females get older.

Figure 2-3
Percent of 8th Graders at Risk from
Drug and Alcohol Use by Gender

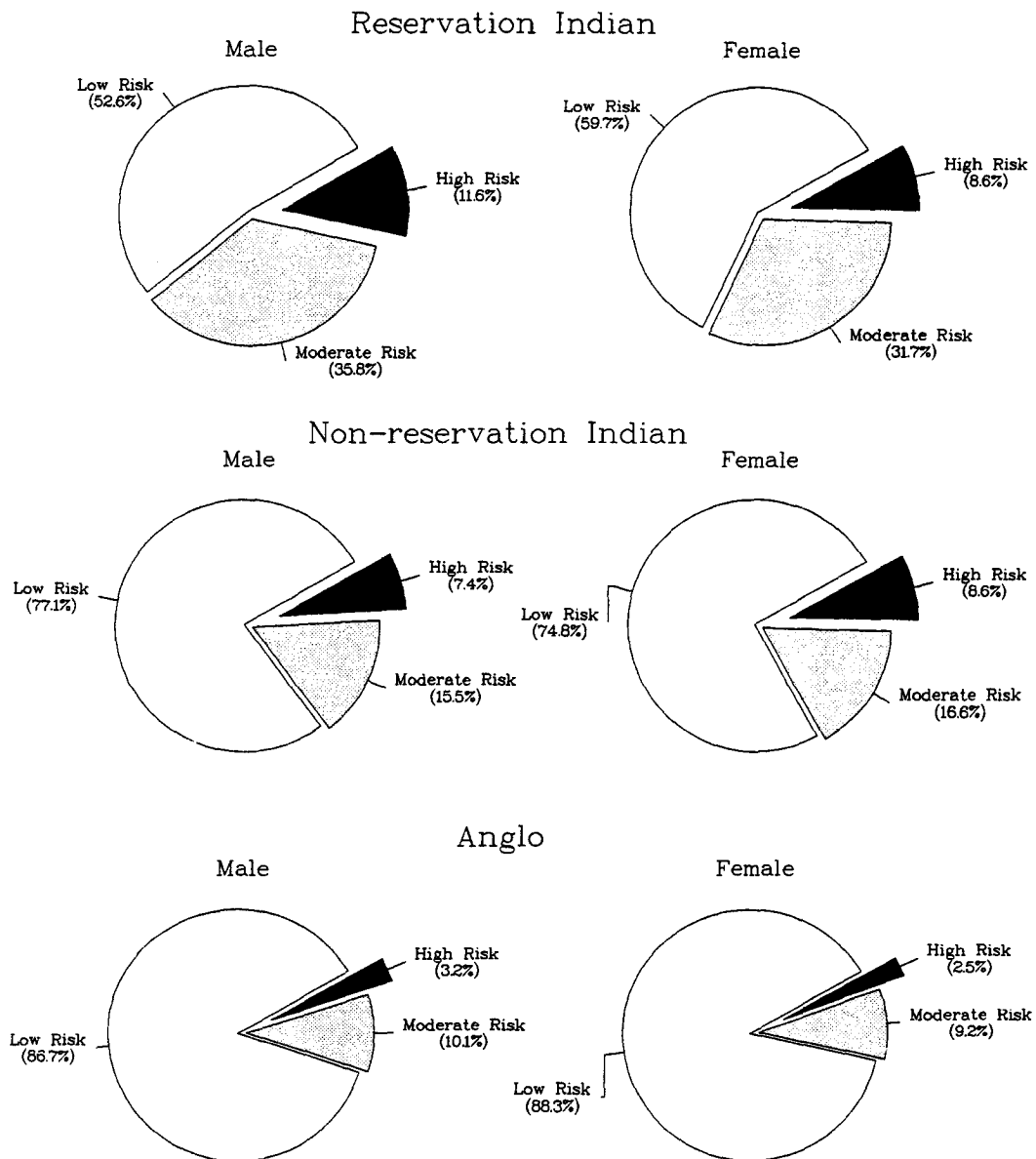
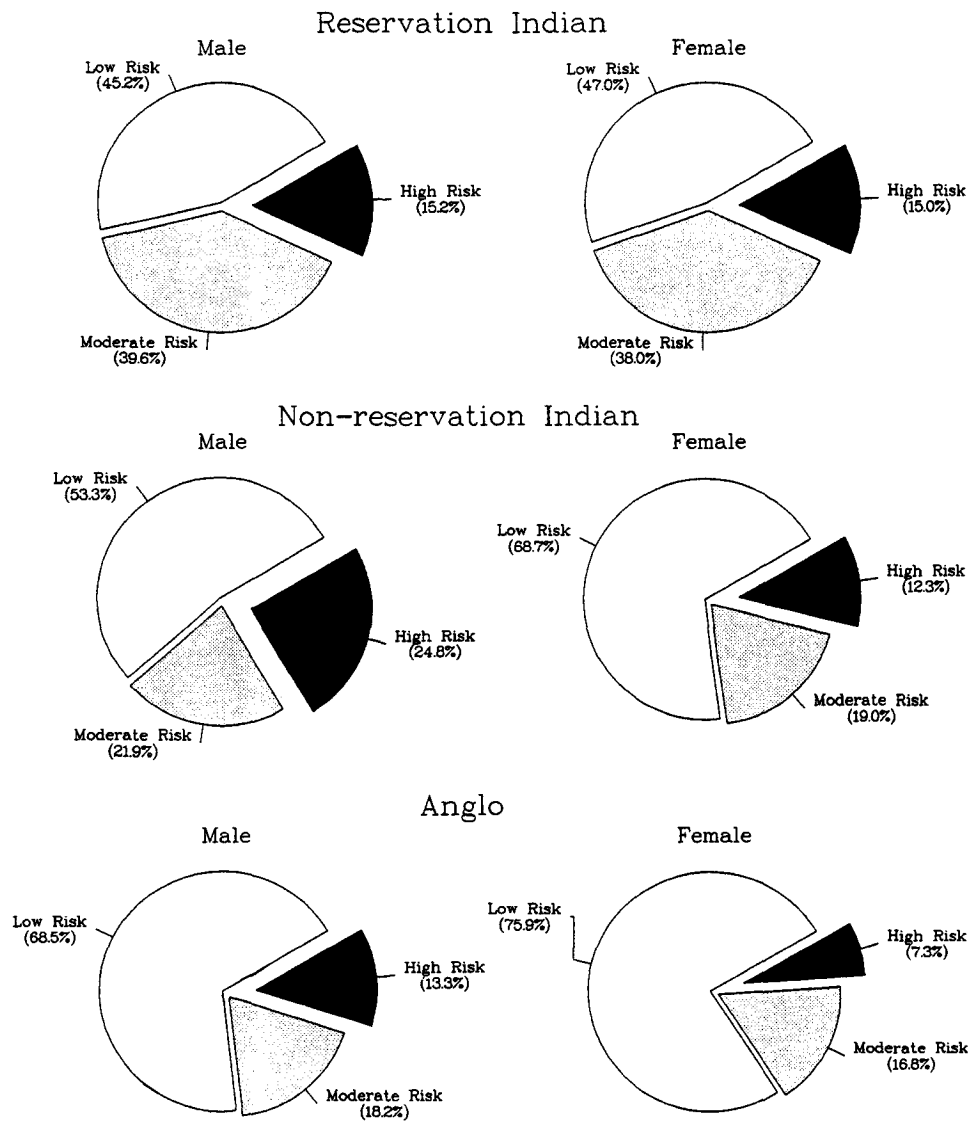


Figure 2-4
Percent of 12th Graders at Risk from
Drug and Alcohol Use by Gender



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THE CONSEQUENCES OF DRUG AND ALCOHOL USE FOR INDIAN YOUTH

FRED BEAUVAIS, Ph.D.

Abstract: Indian youth have higher rates of using alcohol and drugs in ways that increase their risk — getting very drunk, drinking while driving, and using drugs and alcohol together. The highest rate is found among reservation youth, a lower rate among non-reservation Indians, and the lowest rate among non-Indian youth. Frequency of self-reported consequences from alcohol and drug use follow the same order, with 15% of reservation seniors involved in an alcohol-related accident. The most frequent consequences involve relationship problems. Drug injection is rare in all groups.

It is not possible to know all of the problems that result from the drug use of Indian youth, who have many problems that are simply part of being a minority in a world where other groups are dominant and problems that are related to poverty and disadvantage. Drugs and alcohol must exacerbate some of these problems and cause new ones. As only one example, Native Americans have the highest rate of sexually transmitted diseases found in any ethnic group. The use of alcohol and drugs undoubtedly has an influence on this problem: it affects judgment and impulse control, increases the chances of precocious sexual activity, and lowers the chances of using methods that will protect against infection. There is no direct evidence at this time, however, of this secondary influence of alcohol and drug use.

One known consequence is economic. In 1984 the Center estimated the direct out-of-pocket cost of alcohol and drugs for reservation Indian youth. The total at that time was \$8.3 million (Loretto, Beauvais, & Oetting, 1988). This amount of money is being wasted from an economy that is already impoverished. The additional economic costs of substance use resulting from accidents, lowered productivity, holding poorer jobs because of school dropouts, and so forth have not been estimated but must add greatly to this amount.

There are also direct risks from using alcohol and drugs. Our surveys include questions asking about drug use behaviors that would increase direct risk from the use of drugs and about problems that young people feel they have encountered from drug and alcohol use. The responses show that the young people taking the survey recognize that alcohol and drugs cause problems for them.

High-Risk Drug-Using Behaviors

The use of any psychoactive substance involves inherent risks ranging from minor errors made because of poor judgment to death from overdose or hypersensitivity. There are some ways of using drugs, however, that increase those risks. Table 3–1 lists some of the high-risk drug-using behaviors and shows the percent of young people who have taken those risks.

It is clear from this table that Indian youth not only use drugs more than other youth do but also engage in some of the risky ways of using drugs more frequently. Daily alcohol use is relatively infrequent in all groups, and Indian youth are not more likely than others to be daily users. The lower access to alcohol on reservations essentially prevents a pattern of daily use. Indian youth are, however, much more likely to engage in the high-risk extremes of alcohol use. Earlier data reported a much higher frequency of getting drunk among Indian youth. The findings presented in Table 3–1 show the same pattern. Indian youth are much more likely to have passed out while drinking or to not remember what happened when drinking, both signs of very excessive alcohol use, and reservation youth show even higher rates of these behaviors.

Daily use of marijuana is found much more often among Indian youth. One in every 20 Indian seniors, on or off the reservation, used marijuana daily. Marijuana is stored in the body fat and is only slowly released, which means that a daily user of marijuana has some of it in his or her system all the time. Marijuana affects the ability to concentrate, reduces motivation, and slows reaction time. Daily users are therefore going through life in low gear, and their drug use is likely to influence their school work and their personal development.

A very large number of youth have used marijuana and alcohol together, but the rate is twice as high for Indian seniors living on reservations, half of whom have used marijuana and alcohol together. Each of these drugs is likely to enhance the effect of the other, combining to produce more problems and greater risks than does either taken alone.

The number of youth who have taken two other drugs together is much lower, but this behavior is even riskier, as drugs can act in concert to create serious danger for the user. Youth who are combining drugs are also showing a pattern of willingness to take risks and of seeking to increase the effects of the drugs; these youth are likely to continue to

Table 3-1
High-Risk Behaviors Among Students

	8th Graders			12 Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Daily alcohol use	1	<1	<1	2	4	2
Daily marijuana use	2	2	<1	5	5	2
Passed out while drinking	29	18	10	54	46	37
Couldn't remember what happened	29	19	13	58	45	41
Used marijuana and alcohol together	26	17	6	50	35	26
Took two drugs at the same time	9	8	4	14	16	10
Used a needle to inject a drug	2	2	1	2	2	1
Shared a needle	<1	<1	<1	<1	<1	<1
Used a designer drug	3	5	2	5	6	3

engage in more serious forms of drug use. Indian youth are also more likely to have engaged in this risky behavior.

Although not many youth have used a designer drug, again the rate is twice as high for Indian youth. Designer drugs are often highly potent; they can be more powerful by hundreds of times than the drugs they simulate, greatly increasing the danger of overdose. In addition, there is always a question of what is really being taken. The youth willing to take a pill produced by a street chemist is showing a willingness to engage in behaviors that are not only risky but also stupid. It was a street chemist who produced a "bad" batch of a designer drug that caused Parkinson's disease in a number of young people. It took only one or two doses to give these 20- and 30-year olds a form of brain damage that appears naturally only in a few 50- and 60-year-old patients.

There is one positive sign in this list of hazards: very few young people have used a needle to inject a drug and hardly any of them have shared a needle. Although AIDS is likely to become a serious problem among American Indian populations because sexually transmitted diseases are prevalent in this group and are implicated in the spread of AIDS, the risk to Indian youth from needle sharing — the other major AIDS vector — is fortunately minimal.

Problems From Drug and Alcohol Use

A series of questions on the survey asked students to report problems they have experienced as a consequence of drug and alcohol use. The results are provided in Tables 3-2 and 3-3. Because their rates

of drug use are higher, it might be expected that Indian youth would experience more problems and that, indeed, is what these tables show. Non-reservation Indian adolescents have considerably higher rates of experiencing all of these problems than do Anglo youth, and the rates for reservation youth are even higher. The results are consistent for both 8th- and 12th-grade students.

Drinking and driving is clearly a serious problem for reservation youth. Drinking or using drugs and driving are exceptionally dangerous combinations. The heavy drinking that shows up in other items is obviously also combined with driving all too often, particularly among reservation youth. They are more than three times more likely to have gotten a traffic ticket because of alcohol use and more than three times as likely to have been in a car accident because of alcohol or drug use.

This problem may occur sometimes because of the difficulty of getting to a bootlegger or liquor store. It is a long drive to get anywhere on many reservations, and young people who manage to make that drive and get beer or liquor are not going to wait until they get back home to use it. They are going to drink on the way. Also, young reservation Indians may have nowhere to drink and take drugs except in a car. There is no place on most reservations where they can "hang out" together.

The combination of drugs or alcohol and driving is clearly a serious health problem for Indian youth, who drive and drink and drive and use drugs. They have accidents, and there are plenty of reports of adolescent deaths from car accidents on the reservation. A prevention program is needed, but it may have to involve alternative activities for reservation youth, something that will be hard to provide with the limited funds available.

Getting traffic tickets and being in accidents are not the only legal problems being caused by alcohol and drugs. Nearly one-fourth of reservation seniors have been arrested because of alcohol use, and 6% have been arrested because of their use of drugs. Some of these arrests may relate to driving offenses and overlap with the accidents and traffic tickets previously discussed, but one of four is an incredibly high proportion of youth to have been in trouble with the law.

The rates are also very high for students who have been in trouble in school or have had their school work hurt because of drug use, but the high rates reported here may actually be underestimates of the real problem. It is to be expected that students would be at least somewhat defensive about reporting that substance use had caused problems for them, so these rates may be minimum estimates of the true level of school problems resulting from drug use.

The number of young people who broke something because of their use of substances is also very large. It is high for all groups, but more than one of every three reservation youth have experienced this problem.

Table 3-2
Admitted Problems From Drug Use

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Got a traffic ticket	<1	1	<1	2	2	1
Had a car accident	3	2	<1	5	2	1
Got arrested	5	3	1	6	5	2
Had money problems	9	5	2	18	13	7
Got you in trouble at school	12	4	2	9	7	3
Hurt your school work	14	7	3	13	11	6
Fought with other kids	14	10	4	12	12	6
Fought with your parents	9	8	4	14	12	6
Damaged a friendship	13	6	3	13	10	5
Made you break something	12	8	4	11	12	7
Had a "bad" trip	11	7	3	14	12	7

Table 3-3
Admitted Problems From Alcohol Use

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Got a traffic ticket	1	<1	<1	10	5	3
Had a car accident	5	2	<1	15	7	4
Got arrested	9	4	1	24	12	7
Had money problems	14	6	3	28	19	14
Got you in trouble in school	15	6	3	19	8	6
Hurt your school work	20	10	5	27	15	9
Fought with other kids	22	16	9	42	31	22
Fought with your parents	14	13	7	35	26	17
Damaged a friendship	18	10	5	35	19	12
Made you break something	18	16	9	35	31	28

The highest rates of all are reported for relationship problems. Alcohol and drugs have caused fights with their parents for large numbers of these adolescents, but the most crucial finding may be that about one in five 8th graders and one in three seniors has had a friendship damaged by alcohol use. Peer relationships are incredibly important to young people, and increasing the recognition among them that drugs and alcohol can do serious damage to their friendships may be one of the better ways of trying to prevent use.

It is apparent not only that alcohol and drugs are being used heavily by Indian youth but that they are causing problems. The lists presented in this chapter are not exhaustive and cover only a small range of the possible problems. Not included, for example, are emotional problems caused by substance use; a listing of those problems would only add to this sad story. The most difficult problems to assess may be the most important of all — problems in development. If alcohol and drugs are having as much admitted and direct influence on the lives of these children as we have reported, how much subtle damage are these substances causing to the development of their physical, emotional, social, and spiritual potential?

Reference

- Loretto, G., Beauvais, F., & Oetting, E. R. (1988). The primary cost of drug abuse: What Indian youth pay for drugs. *American Indian and Alaska Native Mental Health Research*, 2(1), 21–32.

ATTITUDES ABOUT DRUGS AND THE DRUG USE OF INDIAN YOUTH

FRED BEAUVAIS, Ph.D.

Abstract: Alcohol, marijuana, and inhalants are the easiest drugs to obtain, but all drugs are available to some students. Younger students felt that inhalants were easier to get than marijuana. Availability does not have a major effect on use; if there is motivation to use, drugs are available. Perceived harm is linked to use, and 8th-grade reservation youth show the lowest belief that drugs are harmful; only 51% believe that using marijuana regularly will lead to "a lot" of harm. In general, non-Indian youth show higher rates of perceived harm, congruent with their lower rates of drug use.

Prevention efforts have tended to take one of three approaches: (1) law enforcement has been aimed primarily at reducing drug availability, (2) educational efforts have been aimed at making youth see drugs as dangerous, and (3) developmental approaches have tried to make young people resistant to using drugs by improving their personal adjustment and by giving them skills to refuse drug use and, in addition, to reduce intent to use drugs. There are three attitudes that grow out of these approaches and that can be viewed as relevant to drug use of Indian youth: perceived availability of drugs, perceived harm from using drugs, and intent to use drugs.

Perceived Availability of Drugs

A question was asked on the survey as to how hard it would be for students to obtain each of the different types of drugs. Table 4-1 shows the percent of students who felt that it was either "fairly easy" or "very easy" to obtain a particular drug. As might be expected, the older students in all three groups felt that drugs were easier to obtain. The older youth are able to move around more, to get transportation into the city, and even have more money with which to buy drugs.

Table 4-1
Perceived Availability of Drugs Among 8th and 12th Graders: Percent
Marking Either "Fairly Easy" or "Very Easy" to Get Each Drug

	8th Grade			12th Grade		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Alcohol	65	81	80	90	94	96
Marijuana	47	53	40	76	80	76
Stimulants	18	39	31	29	59	56
Hallucinogens	13	21	16	16	33	30
Cocaine	17	30	24	27	47	43
Downers	20	40	33	27	55	51
Inhalants	58	70	69	66	79	79
Tranquilizers	17	33	30	20	45	46
PCP	15	26	19	15	30	27
Heroin	16	27	20	13	31	26
Narcotics other than heroin	16	31	24	19	41	36

Some substances were viewed as generally easier to get than others. Alcohol, of course, leads the list, followed closely by marijuana and inhalants. Most of the older students felt that they could get these substances without difficulty. Most younger students felt that they could get alcohol, but the next easiest substance for younger to obtain people was inhalants, which were easier to obtain than marijuana. The other drugs were harder to obtain, but it is clear that every drug is available to a significant section of these youth. If one wants to take a drug, he or she can get it.

It has already been noted earlier in this volume that reservation Indian youth show lower rates of alcohol use but higher rates for getting drunk, a pattern attributed to the physical isolation of many reservations that makes it necessary to go to considerable effort to get alcohol. Although alcohol is perceived as not hard to get, Table 4-1 shows that reservation youth do find it somewhat more difficult to obtain than do non-reservation youth. But the only behavior reduced by this lower availability is the frequency with which alcohol is used. The dangerous patterns of alcohol use that occur when youth get drunk are found more frequently among reservation youth.

Other drugs are also slightly harder to obtain on the reservation. But the rate of use of these other drugs by reservation youth is just as high as or higher than the rate of use by city youth, illustrating a major point about drug availability: although it can influence drug use, it is not the major factor in determining whether drugs will be used. Johnston, O'Malley, and Bachman (1988) have shown that, as drug use has

changed over the years, availability of drugs has not changed to the same extent or in the same direction. The data generally show that where there is motivation to use drugs, youth will somehow gain access to those drugs.

Perceived Harm From Drug Use

Although perceived availability of drugs is not particularly related to drug use, Johnston, O'Malley, and Bachman (1988) have convincingly shown that perceptions about the harmfulness of drugs are closely related to the levels of use in populations of students. These researchers have found that since 1981 drugs have been perceived as more and more harmful, and correspondingly the rates of use have gone down.

Table 4-2 shows the percent of students who believe that using a drug once or twice will lead to a lot of harm, and Table 4-3 shows the percent who believe that using a drug regularly will lead to a lot of harm. Note first that all students do discriminate between the harm that can result from different drugs. For instance, very few students believe that use of alcohol once or twice is harmful but the percentage is substantially higher with respect to other drugs. A much larger number of youth believe that regular use of drugs is harmful. Almost one-half of the students surveyed believe that taking cocaine even once or twice is harmful.

There are some interesting findings about individual drugs. Students in all three groups and at both grade levels believe that getting drunk regularly is more harmful than regular use of marijuana — a perception that may be related to the visible consequences of alcoholism on “skid row.” The consequences of long-term regular marijuana use may be observed only rarely and may not be as apparent as the “drunk tank.” Second, reservation 8th graders rate the harm from regular use of inhalants substantially below that of getting drunk regularly. To some extent, this perception may be true at the low levels that younger children use inhalants, but the danger to chronic inhalant users is much higher than reservation 8th graders perceive it. This low level of perceived harm may account in part for the longstanding problem of inhalant use among younger Indian students.

The most revealing finding in Tables 4-2 and 4-3 relates to the consistently lower rating of harm from drugs by reservation 8th graders when compared to the ratings by both the other 8th graders and the reservation Indian seniors. This perception is still evident at the 12th-grade level, but the differences are not as large. These younger Indian students do not appreciate the dangers associated with drug use to the extent that other students do.

Table 4-2
Percent of Students Who Believe That Using a Substance Once or Twice Will Lead to "A lot" of Harm

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Use alcohol	7	7	4	3	2	2
Get drunk	16	22	21	14	11	10
Marijuana	22	28	30	17	12	17
LSD	49	55	56	55	57	55
"Sniff" inhalants	32	39	37	48	43	35
Stimulants	39	39	39	41	32	31
Cocaine	42	49	50	49	49	49
PCP	50	55	55	59	64	58

Table 4-3
Percent of Students Who Believe That Using a Substance Regularly Will Lead to "A lot" of Harm

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
Use alcohol	29	45	44	42	34	37
Get drunk	65	89	93	80	83	87
Marijuana	51	70	82	62	56	70
LSD	68	82	91	83	86	91
"Sniff" inhalants	38	73	77	60	75	80
Stimulants	65	73	81	71	67	78
Cocaine	70	83	91	82	84	93
PCP	69	84	92	85	89	93

Intention to Use Drugs in the Future

Perceived harm is an attitude that relates to drug use. Another set of predictive attitudes is whether or not a young person believes that he or she will use drugs in the future. If a young person expresses a strong belief that he or she will not use drugs in the future, at least some level of protection is provided. Certainly this attitude can and does change over time, but while it is in place drug use is unlikely. The converse also holds: a young person who fully expects that he or she will use drugs at some future point will likely do so when the opportunity presents itself.

Table 4—4
8th-Graders' Intentions Regarding Drug Use

	RI %	NRI %	Ang %
Never used drugs and never will	47	67	81
Never used drugs, but may in the future	10	5	4
Used drugs, but do not plan to use them again	24	16	9
Used drugs and probably will use them again	19	12	6

Beliefs about future drug use are reported in Table 4—4. The results are remarkable and go a long way toward explaining the exceptionally high rates of drug use found among Indian youth. Nearly one-third of reservation Indian 8th graders anticipate that they will use drugs in the future compared to 17% of non-reservation Indian 8th graders and only 10% of Anglo 8th graders. From another point of view, the data show 81% of Anglo youth saying they never used drugs and never will; less than one-half of reservation children can make the same statement.

Most younger children tend to say what they think is the "right" thing to say. Among Anglo 8th graders the "right" response is, "I will not use." But one of three reservation children says, "I will use drugs," suggesting that drug use is tolerated and accepted and that all too many of these Indian children do not believe that it is the wrong thing to do.

Whatever the reason, young Indian children are developing accepting attitudes about drugs. The messages that drugs are harmful and that they should not want to use them are not getting through. There is an immediate need for more intensive drug education among young Indian children and particularly among young reservation Indian children. Changing attitudes will not by itself resolve the problems of Indian youth, but it is absolutely essential. Without a fundamental change in attitudes about drugs, it is not likely that other interventions will succeed.

Reference

- Johnston, L., O'Malley, P., & Bachman, J. (1988). *Illicit drug use, smoking, and drinking by America's high school students, college students and young adults: 1975–1987*. Rockville, MD: National Institute on Drug Abuse. (DHHS Publication No. ADM89-1602)

DRUG USE OF FRIENDS: A COMPARISON OF RESERVATION AND NON-RESERVATION INDIAN YOUTH

FRED BEAUVAIS, Ph.D.

Abstract: There is not much drug use at school, but reservation youth are most likely, non-reservation Indian youth next most likely, and non-Indian youth least likely to have used drugs at school. Alcohol and drugs are used most frequently at weekend parties and at night with friends. Reservation youth are twice as likely as the others to have used alcohol while driving around and three times more likely to have used drugs while driving around. Drugs are used with friends. Heavy drug users are more likely to have friends who use drugs and friends who encourage drug use and are less likely to have friends who would try to stop them from using drugs.

The single most consistent finding in all of the research on drug use by American youth is that the use of drugs is highly related to the use of drugs by friends. Peers obviously play an important role in using drugs, but is that role different for American Indian youth? The survey includes questions on where drugs are used and on the drug use and drug-related attitudes of friends that help answer this question.

Where Drugs Are Used

The survey contains several items asking students where they have used drugs and alcohol in the past year. Table 5–1 shows where alcohol has been used and Table 5–2 where drugs have been used. In order to show how many students use substances in these situations, the tables present the percentages of all students surveyed, not just those who have used drugs. The overall pattern for the three groups is clear: by far, more drug and alcohol use occurs in peer contexts, especially at weekend parties and at night with friends, than in other settings. The use “at home” is also almost entirely use with friends when parents are not around. In one sense this peer drug use is not surprising, as these are

Table 5-1
Where Students Have Used Drugs

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
On the way to school	7	4	2	16	10	6
During school hours	7	3	1	18	10	5
During school hours away from school	10	6	2	20	13	8
Right after school	14	8	4	24	16	10
At school events	18	5	2	23	11	6
At weekend parties	26	16	7	42	30	21
At night with friends	33	18	9	46	34	22
While driving around	17	6	3	36	20	13
At home	23	11	5	27	17	10

Table 5-2
Where Students Have Used Alcohol

	8th Graders			12th Graders		
	RI %	NRI %	Ang %	RI %	NRI %	Ang %
On the way to school	10	5	2	8	11	7
During school hours	8	4	2	8	12	6
During school hours away from school	12	8	4	19	21	15
Right after school	13	12	7	21	26	19
At school events	22	9	4	37	29	24
At weekend parties	42	38	28	79	70	70
At night with friends	48	40	33	79	70	70
While driving around	20	10	5	67	39	34
At home	35	40	37	49	48	50

unsupervised circumstances and the only controls are those provided by other youth. The very name "party" in many youth cultures implies that drug and alcohol use is expected and will be promoted.

Table 5-1 belies the common notion that schools are an active site for drug use. Even the practice of conducting drug surveys in schools can reinforce this perceived association, when in fact it is simply the easiest way to access information from youth. These data make it clear that the majority of drug and alcohol use occurs in the community and not at school. Thus, although the schools are an important element in the effort to reduce adolescent drug use, the major responsibility lies with

families and other community groups. Even the relatively high rates of use at school events are not necessarily the sole responsibility of the schools, which have, for instance, very little control over youth who arrive at school functions intoxicated.

Although the majority of drug and alcohol use does not occur at school, there is nevertheless some use there. For instance, about 10% of seniors admit to alcohol use while at school, and 20% say they have used alcohol during school hours away from school. Furthermore, a significant number of 12th graders have used drugs (most likely marijuana) at school. In addition to other problems that this pattern of use may cause, drug and alcohol use in the school has to interfere with the learning process.

The generally higher endorsement by reservation youth of having used drugs and alcohol in the various settings listed in Tables 5–1 and 5–2 is expected simply because of the higher overall rates of drug use by this group. There is, however, a pattern worth noting. Nearly one-fifth of reservation Indian 8th graders and two-thirds of seniors have used alcohol while driving around. Most of this drinking and driving probably occurs at night; with the generally poor road system on most reservations, it adds up to a lethal situation. With 77% of reservation seniors having tried marijuana and one-third using marijuana while driving around, danger is further increased by the probable combined use of alcohol and marijuana. Table 3–3 in this volume shows that this situation does cause problems; 15% of seniors have been in an alcohol-related car accident.

Drug Use of Friends

In nearly all studies of the correlates of drug use, the drug use of friends provides one of the strongest relationships. This finding can be viewed in a number of different ways. Friends could, for example, be seen as a source of “infection”; adolescents could be pressured into use by friends who use drugs. Peer selection could provide another explanation; youth who use drugs simply pick friends who also use drugs. A third possibility involves social rejection; adolescents who do not use drugs reject drug users as friends, so drug users could be forced into association with each other.

Our peer cluster theory takes a somewhat different slant (Oetting & Beauvais, 1986a, 1986b). It states that drug use takes place, to a large extent, within the confines of small groups of adolescents who are close friends. The peer cluster consists of a pair of best friends, a couple, or a small group of close friends who “hang out” together. The members of a peer cluster spend a lot of time communicating about attitudes, beliefs and behaviors and move toward sharing a lot of common ideas, including ideas about drug use. There is no special pressure to conform within a peer cluster; one person does not try to “push” drugs on

another. People in a peer cluster reach their decisions together about using drugs or alcohol, and everyone shares in the process of reaching those decisions.

To some extent, young people do pick friends who share their patterns of drug use, particularly young people who are heavily drug involved. The substance-using child who moves from one school to another will very rapidly find substance-using friends in the new environment. Drug users who move will join with other youth and form new peer clusters with similar types of drug involvement. Similarly, young people who are not drug involved at all will rarely make friends with heavy drug users. The drug users are not particularly interested in friendships that do not permit them to use drugs.

There are always exceptions to these patterns of friendship, as young people are often involved in more than one peer cluster. As an example, a young Indian woman who used drugs when she was with her close female friends was dating a young man who did not use drugs. She said, "He would kill me if he found out what I am doing with my friends." But these differences in friends are not typical. Drug-involved youth generally associate with other drug-involved youth.

Most drug use, in fact, actually takes place within these peer clusters. The peer cluster gains access to drugs, and the members share them, using drugs when doing things together. Peer cluster members are likely to suggest drug use and encourage drug involvement that matches their ideas about how drugs should be used. Close friends also influence drug use in other ways. Youth who do not use drugs are engaged in peer clusters where they have talked about drugs and built common ideas about them, and these youth have often established a group norm to try to stop each other from using drugs. Drug users are sharing drugs with their friends and would therefore not be as likely to try to stop their friends from using. It is typical, then, to find that drug users have friends who use drugs, that they have friends who encourage drug use and that their friends would not try to stop them from using drugs.

Use of Drugs by Friends of Drug Users

Table 5-3 compares heavy drug users to non-users, showing the percent who report having friends who use drugs. The heavy drug users either use marijuana more than once a week or use drugs other than marijuana more than once a month. The non-users may have had some alcohol, but they have never tried any other drug.

The results in Table 5-3 are clear. The contrast between users and non-users in exposure to drug-using friends is immense. From one-half to three-quarters of the heavy users have friends who used a drug other than marijuana, but only about 10% of non-users reported

Table 5-3
Percent of 8th- and 12th-Grade Students Who Have Friends Who Use
Drugs

	RI %	NRI %	Ang %
Friends who use marijuana			
Users	99	95	96
Non-users	44	31	28
Friends who use cocaine			
Users	66	71	73
Non-users	12	10	9
Friends who use stimulants			
Users	45	77	67
Non-users	12	12	11
Friends who use downers			
Users	42	72	57
Non-users	12	11	12

having friends who use cocaine, stimulants, or downers. It is evident that non-users avoid forming friendships with drug users.

Nearly all of the heavy drug users have friends who use marijuana, and a large proportion have friends who use the other drugs. The somewhat lower likelihood of heavy users having friends who use the other drugs would be consistent, as the heavy drug users are not using every one of these drugs themselves. If they are using a particular drug, it is likely that they have friends who use it. In other analyses of non-Indian youth we have found that if an adolescent had used a drug in the previous 30 days, the odds were better than 90% that he or she would report having a friend who also had used that drug. This conclusion may not hold up for Indian youth, however. Future research will have to address this question.

Non-users do have friends who use marijuana. The use of marijuana is not as deviant as the use of the other drugs, however, so non-users may be more tolerant of marijuana use. The difference between reservation and non-reservation youth in this respect is also interesting. A much higher proportion of non-using reservation youth have friends who use marijuana; as three-fourths of reservation youth have used the substance, however, it would be much harder for non-users to find friends who were not marijuana users.

There are other differences between reservation and non-reservation youth in the proportion of heavy users who have friends who use drugs. Two factors may be involved: on the one hand, there may be differences in the kinds of drugs being used by the heavy drug users; on the other, physical isolation and access to friendship networks may be involved. Further studies are needed to understand exactly what is going on.

Friends Suggest Use of Drugs

When friends ask an adolescent to use drugs, it is hard to say no. Table 5–4 shows how many heavy drug users and how many non-users have friends who ask them to use various drugs. Again, the contrast between users and non-users is extremely large. Hardly any non-users have friends who have asked them to use any of these drugs, including marijuana. It is interesting to note that about one-third of these non-users report having friends who use marijuana, but the friends apparently do not ask non-users to use it.

Users are far more likely to have friends who ask them to use the various drugs. Over one-half of the users have friends who ask them to use marijuana, and two to three times as many users as non-users have friends who ask them to use other drugs. There are, however, large differences between the number of users who report having friends who use a drug and the number who have friends who ask them to use drugs. As users are using drugs themselves and have friends who use drugs, it would seem that surely their friends must be asking them to use.

One hypothesis is that users are denying that their friends pressure them to use when in fact it is happening. Peer cluster theory suggests another possibility. Within a peer cluster decisions are made jointly, so that friends do not actually suggest drug use, there is no peer pressure. What is actually happening is probably a combination of these two factors. There is likely a lot of common decision making, so people are not “asked” to use, and there is also probably a considerable amount of denial. Adolescents are very protective of their friends and might see this question as involving an implied criticism of their friends. By saying that they are not “asked to use,” young people protect their friends and show their own autonomy — that the decision to use drugs is their own and not a result of peer pressure.

Would Your Friends Stop Your Drug Use?

Friends are very important to adolescents and, if their friends would try to stop young people from using drugs, it would probably reduce the chances of their taking drugs. Those who are heavily involved in drug use have friends who are also using drugs; heavy users would therefore be less likely to have friends who would try to stop them from using. Non-users, on the other hand, would be much more likely to have friends who would try to stop them from using.

Table 5–5 shows the percent of heavy users and of non-users who have friends who would try to stop them from using drugs. As might be expected, hardly any of the heavy drug users have friends who would stop their marijuana use. In contrast, most of the non-users have such friends. The differences between users and non-users are not as great

Table 5-4
Percent of 8th- and 12th-Grade Students Whose Friends Ask Them To Use Drugs

	RI %	NR %	Ang %
Ask them to use marijuana			
Users	63	53	52
Non-users	4	4	4
Ask them to use cocaine			
Users	12	17	11
Non-users	3	4	3
Ask them to use stimulants			
Users	9	19	13
Non-users	3	4	3
Ask them to use downers			
Users	6	15	10
Non-users	3	4	3

for the other drugs because many heavy users do have friends who would try to stop them from using those drugs. There are, nonetheless, large differences between users and non-users for all drugs.

The differences between drug users and non-users are also quite large for all three groups, and the results for non-reservation Indian youth look much like those for Anglo youth. The pattern for Indian youth who live on reservations, however, is somewhat different. Both users and non-users on reservations are somewhat less likely than non-reservation youth to have friends who would stop marijuana use and cocaine use, and reservation non-users are less likely to have friends who would stop their use of any of the drugs. Marijuana use is so common among reservation youth that there may be fewer peer sanctions among all youth against its use, not just among the users. The findings on perceived harm suggest also that reservation youth are less likely to feel that cocaine does a lot of harm, and this finding may help explain why cocaine sanctions also seem to be somewhat low.

The sanctions against all drugs are somewhat weaker for reservation youth who are non-users than they are for other youth who are non-users. One hypothesis is that the reservation youth are more in tune with the Indian value for autonomy and are just less willing to try to impose themselves on their friends. But this hypothesis does not explain the somewhat higher sanctions among reservation drug users against stimulants and downers. Determining what is causing these differences will require further study.

The basic principle, however, holds strong despite these minor differences. In spite of the fact that they are attending the same schools

Table 5-5
Percent of 8th- and 12th Grade Students Who Have Friends Who
Would Stop Them From Using These Drugs

	RI %	NRI %	Ang %
Friends would stop the from using marijuana			
Users	4	7	8
Non-users	54	70	74
Friends would stop them from using cocaine			
Users	35	42	44
Non-users	62	78	85
Friends would stop them from using stimulants			
Users	36	22	23
Non-users	61	73	78
Friends would stop them from using downers			
Users	40	22	27
Non-users	59	74	79

and living in the same communities, drug users and non-users live in very different worlds in which their peer environments are completely different. Drug users are much more likely to associate with friends who use drugs and are much less likely to have friends who would stop them from using. The peer environment of users clearly encourages use. Non-users have some friends who use marijuana, but they are not likely to have friends who use other drugs, and they are much more likely to have friends who would try to stop them from using drugs.

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CHARACTERISTICS OF INDIAN YOUTH AND DRUG USE

FRED BEAUVAIS, Ph.D.

Abstract: The overall high rates of drug use found among Indian youth may be accounted for in part by lack of educational and employment opportunity and other endemic problems of Indian reservations. Individual drug involvement is most highly related to membership in drug-using peer clusters; but because of physical isolation, links between drug use and close friends are weaker for Indian youth, and family influence is felt more strongly. Anxiety, depression, and low self-esteem are not related to drug involvement, but angry youth are more likely to have drug-involved peers. Risk factors for Indian youth are low family caring, age first drunk, poor school adjustment, weak family sanctions against drugs, positive attitudes toward alcohol use, risk of school dropout, father not at home, and poor religious identification.

Throughout this volume it has been clear that American Indian youth are more likely to be involved with drugs than are other American youth. Two interacting components probably underlie this drug involvement. One component involves those characteristics of Indian communities that increase the probability that their youth will get involved with drugs. The other involves those personal and social characteristics that make individual youth more likely to become drug involved. The two components are related, but they are not necessarily identical.

A major factor, for example, that increases the overall involvement with drugs is the lack of opportunity on reservations. When Indian youth look around them, what kind of future do they see? In some places there is almost no chance of finding a decent job; unemployment can be as high as 80%. There are few chances for higher education. There are scholarships, Indian community colleges and other assistance, but such opportunities are hard to realize for all but a few young people who have learned how to do well in the school system. Alcoholism has decimated the older population to the point where some small tribes have few elderly

people. Drugs may be dangerous, and they may prevent one from achieving in the future; but when the future looks this bleak, why not get drunk? Why not take drugs?

This lack of opportunity does hit some young people harder than others and may increase the individual risk of using drugs, but it has a more general effect as well. Lack of opportunity creates an atmosphere in which the chances for enjoyment are few and the immediate pleasure of getting high may be more important than any future problems that behavior may cause.

Another general social factor may involve the Indian boarding schools. Until recent years a large proportion of Indian youth had to attend boarding schools. On many reservations Indian families were physically isolated and were separated from facilities such as schools by miles of dirt roads that were likely to be drifted shut by winter snow and blocked by impassable mud from spring rains. Boarding schools were essential if Indian youth were to be provided with an education, but youth in boarding schools are separated from their families for much of the year. Their families cannot monitor them, teach moral lessons and provide sanctions against using drugs. Young people at a boarding school are not likely to impose strong sanctions against drug use by their friends, and the resulting high rates of use are apparent. Some boarding schools have shown the highest levels of drug use that we have measured anywhere.

Thus boarding school drug use can be a source of "infection" for Indian youth in general. Boarding school children come back to the reservation when school is out, they drop out of school, they move in with a relative and attend day school for a while, and some of them bring the boarding school drug culture with them. This influence is transmitted to the other youth who become their friends, creating the potential for high levels of drug involvement by other youth as well as in the youth who attended boarding school. Once these drug subcultures are well established among young people, they are transmitted to the next age cohort through siblings and cross-age friendships, and they are hard to eradicate. There is one tribe, for example, where opportunities tend to be high and where young people should have less need for drug involvement. But drug use rates are very high in this tribe, probably because until recently nearly all of the children attended boarding schools.

These societal factors, and probably others, are helping to create the generally high rates of drug use among Indian youth. But despite these high levels of use, some Indian youth manage to avoid drugs. What is it that makes some Indian youth more susceptible than others to drug involvement?

Theories of Drug Use of Indian Youth

A considerable number of theories have been called on to explain drug use of American Indian youth. Many of the theories have serious limitations and do not do a very good job of explaining drug use.

“Exotic” Cultural Element Theories

Some theorists, for example, have tried to relate drug use among youth to use of drugs in traditional Indian culture. Although it is true that psychoactive substances are used by some tribes in Indian ceremonies such as vision quests and that peyote is a sacrament of the Native American Church, there is no Indian tradition of recreational use of drugs. The fallacious logic that suggests that these ceremonial uses underlie drug use among Indians would equally suggest that alcohol problems in Anglo society are caused by the use of alcohol in church communion ceremonies.

Even tobacco, a substance native to the Americas, was used ceremonially in Indian culture, but it was not smoked for personal pleasure. There were tribes that made corn beer, but it was not used by the individual or even by small groups; rather, it was part of a large ceremony involving everyone in the tribe. Use of tobacco by the individual and use of drugs and alcohol for recreational purposes by Indian people have been adapted from western cultures; such use is not part of Indian tradition.

Genetic “Weakness” Theories

A variety of theories have attempted to explain the high rates of alcoholism among American Indians by postulating genetic differences. Early “evolutionary” theories supposed that immigrants had a long history of exposure to “hard” alcohol and had evolved a resistance to its effects, whereas Indian people had no such history and were therefore particularly susceptible. It is doubtful that evolutionary processes could have created these genetic differences in the limited time span since the invention of distillation. Rather than serving as explanations of Indian alcohol use, these theories are better understood as attempts by the invaders to denigrate Indian people by labeling them as genetically inferior.

Recent research has examined physiological and metabolic responses to alcohol in an attempt to find differences between Indians and non-Indians. Given the current emphasis on finding genetic markers, there are almost undoubtedly researchers who are now trying to identify specific genetic markers for alcohol or drug addiction in American

Indians. If such markers exist, it might be important to know about them, as it could influence both our understanding of the addictive process and potential treatments. These types of genetic explanations, however, present a more subtle problem: an underlying tone that can all too easily be read as "blaming" Indian people for their problems. If Indians and/or alcoholics can be shown to be genetically inferior, then their problems are their fault, and little or nothing needs to be done about those problems.

Although there may indeed be some genetic traits that create a peculiar susceptibility to the effects of alcohol and some drugs, great care must be taken to avoid "blaming" existing problems on genetic weakness. There are too many other factors that underlie substance use and that need to be dealt with. Genetic susceptibility, for example, can have little to do with substance use by adolescents. With rare exceptions, they have not had enough time or enough exposure to alcohol and drugs to become "addicted." In addition, their substance use is strongly related to social and personal characteristics. Further, even if there were youth who were more susceptible to addiction, they would still need to be exposed to the substances, and that exposure is related to social characteristics, not to their physiological status.

Acculturation Stress Theories

Acculturation stress theory is more acceptable since it "blames" substance use on the problems encountered in trying to adapt to a majority culture. The basic idea is that Indians are caught between Indian and Anglo cultures, that this situation creates stress and that alcohol and drug abuse occur in reaction to this stress. There is no question that American Indians are presented with a cultural-adaptation task that is sometimes a difficult one, and we have written about the problems that adolescents face in trying to adjust to two or more cultures.

As attractive as acculturation theory is, however, it does not do a particularly good job of explaining substance use. Our orthogonal cultural identification theory (Oetting & Beauvais, 1991), for example, shows that the transition between cultures does not have to be accompanied by high levels of stress. The data on cultural identification that we have collected suggest, in fact, that most Indian youth are bicultural, and with some exceptions, most youth seem to be handling the tasks of dealing with two cultures reasonably well.

The second problem with acculturation stress theory is that adolescent drug use is not related to anxiety and depression. Young people who are chronically anxious or depressed are not more likely than other youth to use alcohol and drugs.

Self-medication Theories

The findings regarding anxiety and depression also create problems for another theory so widely accepted that it has almost become a cliché. Self-medication theory holds that people take alcohol and drugs in order to assuage their feelings of anxiety and depression. This is such a central belief among treatment personnel and recovering alcoholics, for example, that it is simply assumed to be the truth. Recovering alcoholics will almost invariably say, "I drank when I was depressed." The fact is that they also drank when they were happy, and they drank when they were neither happy nor sad; they simply drank all the time. Depression or anxiety might have provided an excuse, but if those feelings were not present, there were also other excuses to drink. The relationship between emotional distress and drug use will be discussed later, but that relationship is not strong enough to make self-medication a good explanation for adolescent substance use.

Peer-Oriented Psychosocial Theories

If the theories I have described do not hold up well, then what does underlie drug use for Indian youth? If there is any consensus in the general studies of adolescent drug use, it is that drug use is highly related to the drug use of a youth's friends. This finding is also true for Indian youth. Although there is some exposure to alcohol through family use, getting drunk or using drugs almost always takes place primarily within the context of peer clusters, that is, small groups of close friends who do these things together.

Peer Clusters and Substance Use of Indian Youth

In the sections that follow I will discuss a long list of personal and social characteristics that can make a youth susceptible to drug use; of all these characteristics, however, adolescent drug use is most closely related to involvement in drug-using peer clusters. These peer clusters are small groups of people — best friends, couples, or small groups of close friends — who do things together. To assess a youth's involvement in drug-using peer clusters, questions are asked about how many of a youth's friends use different drugs, how much his or her friends encourage a young person to use drugs, and how much his or her friends would try to stop a youth from using drugs. Within these peer clusters drugs are made available, young people learn how to use drugs, and they talk about drugs and share their ideas so that the peer cluster develops a common set of attitudes, beliefs, values, and rationales for using drugs.

There are, of course, exceptions to any rule. We have identified a few families in which parents and children use marijuana together and at least one instance in which a family "passed the rag" (sniffed glue) after supper. These pathological families are, however, very rare. Indian parents are, almost without exception, against drug use by their children and, except for alcohol, do not use any drugs in the presence of their children.

It is not common for adolescents to use drugs when they are alone. Again there are exceptions. The youth who make up a peer cluster may decide that using marijuana while sitting alone in a field and pondering nature is the "right" way to use it. If so, then they will use the drug in that way. There will also be a few young people who begin to become dependent on a drug, and they, too, will use it when alone. But for the most part, drugs are used with other people; and those people, if you are an adolescent, will be your friends.

Peer clusters are also involved in the movement toward greater drug involvement. Either the members of a peer cluster will decide together to try a new drug or a youth will gradually merge with a different peer cluster that uses that new drug. Close friends will use essentially the same drugs; if they are using drugs, they are also likely to have other friends, not as close to them, who are using heavier drugs. If a youth has any urge to move toward heavier drug use, he or she will almost undoubtedly know someone who will provide access to those drugs.

The peer cluster provides the immediate "trigger" for drug use, but some Indian children will get involved with drug-using peers and some will not. What makes a youth susceptible to involvement in a drug-using peer cluster?

Problem Behaviors, Drug Use and Indian Youth

Any explanation of drug use needs to consider the fact that there are, almost certainly, different forms of drug involvement and that these forms may have different explanations and underlying roots. Drug dependency and alcohol dependency do exist; there are people who are obsessed with using these substances to the point that their use interferes with the ability of these people to function in life. There are other youth who, although not dependent, are engaged in a drug lifestyle to the point that nearly everything they do involves the use of alcohol and drugs. Young people involved with drugs this heavily are likely to have other serious problems in society as well. Drugs and alcohol, however, are also used on an occasional basis by people who do not have serious problems of any kind. Alcohol, and sometimes marijuana, can be used as part of a social life that includes parties and dating. The youth who use drugs in this way may not have any particular problems other than those inherent in being an adolescent.

Care must be used in defining problem behaviors, because a behavior that is deviant in one culture may not be deviant in another. But the kinds of problem behaviors that may be associated with heavier drug use are not acceptable in either Anglo or Indian culture — lying, cheating, stealing, or generally doing things that young people know are “wrong.” Indian youth who do these kinds of things, or who do not think that it is particularly bad to do these things are likely to get drunk more often, are more likely to use marijuana and are also likely to use other drugs.

Ten years ago marijuana was used by more than half of the youth in America. At that time, it was not at all unusual for a “good” young person to experiment with marijuana, even though he or she would not have thought of engaging in other problem behaviors. Marijuana was used in this way much as alcohol is used today. Marijuana use, however, has now become much less acceptable among American youth, and it is less likely that otherwise “good” children will experiment with it. But that change has not yet occurred among Indian youth, over one-half of whom still experiment with marijuana. That means that there are a lot of Indian youth who do not engage in other problem behaviors who are still willing to experiment with marijuana. Among younger Indian children, in fact, those who are more socially comfortable may even be somewhat more likely to try marijuana. Such children are slightly precocious socially and are imitating older children. The data on trends in use, however, show that with every year that passes American Indian children are less and less willing to experiment with drugs, including marijuana.

Although “good” kids may experiment with drugs, the regular use of marijuana or the use of other drugs is much more likely to occur among Indian youth who are also showing other problem behaviors. Those young people who are engaged in a drug lifestyle are very likely to be doing other things that are “wrong” both from an Indian and from an Anglo point of view.

The most deviant children — those with the most serious problems — are likely to be the children involved in chronic use of inhalants. Young Indian children are much more likely than other youth to experiment with inhalants, and this early use of inhalants is a warning sign and should be treated seriously. But children can grow out of that use. If they do not, and if they are still using inhalants regularly after the age of 15, it is a sign of very serious problems. Chronic inhalant users are very likely to drop out of school and are likely to become more involved with other drugs as well. They are almost never able to get along in either Indian or Anglo society. Their lives are likely to be disasters.

Socialization Links and Drug Use of Indian Youth

A child learns social attitudes, beliefs, values, and behaviors through involvement with other people. The immediate family is clearly

the most important socialization force in the young child's background, followed closely by the extended family. Later there is increased involvement in other subcultures — the school, religion, the community, and peers. For older Indian youth there may also be involvement in a clan or other cultural society. The community is an important factor, as it provides the surrounding environment in which all of these other interactions take place. The community that people live in has been shown to be related to drug involvement; when there is a general social pathology in the community, then drug use is related to the extent of that pathology. Problems in Indian reservation communities have already been discussed; clearly, those problems may have an influence on the overall extent of alcohol and drug use.

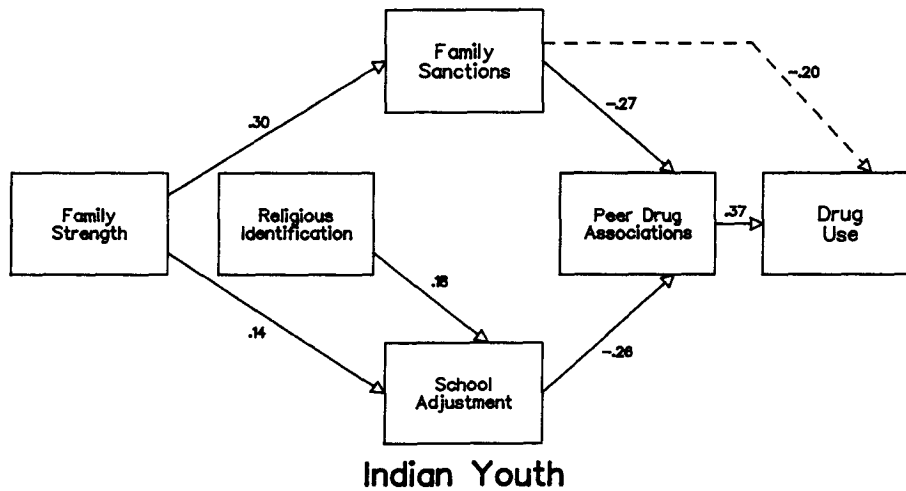
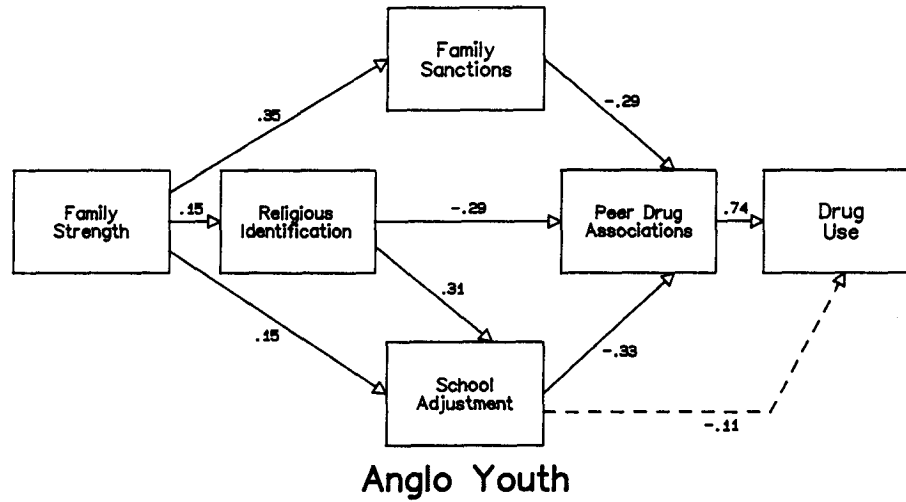
Within communities other socialization forces have a strong influence on whether a youth gets involved in drug-using peer clusters. Path diagrams are a way of illustrating how the different characteristics are linked and how they interact in relating to an outcome. The path diagram in Figure 6–1 shows how these socialization links fit together for Anglo and Indian youth. These results are valid for one set of Indian tribes; data for a different set of tribes might lead to slightly different results, but the overall patterns are likely to be similar.

In many ways the path diagrams for Anglo and Indian youth are similar. They show that the most important factor in determining drug use is whether the youth has "peer drug associations," that is, whether an adolescent is involved with drug-using friends. In showing this link, the models illustrate peer cluster theory — that is, when drugs are used, they are likely to be used with friends.

The models for Anglo and Indian youth are also similar in other ways. Drug use may be a direct consequence of having drug-involved friends, but what determines whether an adolescent will build relationships with other youth who use drugs? Among both Indian and Anglo youth, the two socialization factors that have the most potency for preventing involvement with drug-using friends are school adjustment and family sanctions against drugs. A glance at the models shows that having a strong family can be the basis for both of these factors: the strong family is likely to provide support and encouragement for its children to improve school adjustment, and the strong family is likely to provide strong sanctions against drug use.

Young people who are having trouble in school tend to find each other. They are not getting any rewards from school, and they frequently have other problems as well. They are likely to form peer clusters that have a high potential for deviance, including alcohol and drug use. The same thing is likely to happen if the family does not provide strong messages against using drugs. Nearly every Indian family is against drug use, but some families get this message across to their children better

Figure 6-1
Path Models Linking Socialization
Characteristics to Drug Use



than others. Adolescents from families that do not provide strong sanctions against drug use are likely to find each other, and the resulting peer clusters also have a higher potential for deviance and the abuse of alcohol and drugs.

Family strength is the foundation of both the Indian and the Anglo diagrams. A youth from a strong family is likely to do better in school and to have received strong messages against drug use. Good school adjustment and strong family sanctions against using drugs are the major socialization forces that act to prevent peer drug associations. Children from strong families are likely to make friends with each other instead of making friends with youth who have problems, and the resulting peer clusters are likely to avoid getting involved with drugs.

Although the basic relationships between socialization links and drug use are the same for Indian and Anglo youth, there are also some differences that can be important. Peer clusters are the primary source of drug involvement for Indian youth, but the relationship is not quite as strong as it is for other youth. Reservation Indian youth are likely to be physically isolated, making it more difficult to get together with friends. Because of the isolation, reservation youth are also more likely to depend on similar-age relatives for shared activities. They may use drugs with these family members; if they are drug involved, they may use drugs when they get together with other drug-using youth whether or not their friends are present. Therefore the direct links between peer clusters and drug use are not quite as strong among Indian youth. This may also explain why family sanctions have a direct effect on the drug use of Indian youth in addition to the effect of peer influence. This link is not present for Anglo youth. It is possible that this direct influence of the Indian family is another result of relative isolation, so that Indian adolescents associate more with family members and spend more time with same-age relatives than other youth do.

Religious identification also has less influence among Indian youth. Anglo youth who label themselves as religious and who participate heavily in religious activities are likely to make friends who have the same values. These peer clusters are likely to avoid drug use. Religious involvement, defined in this way, does not have the same effect for Indian youth, a factor that may be related to Indian culture. In the tribes that participated in this particular study, some Indian youth belong to formal churches and others do not. Many Indian youth participate in cultural activities and tribal ceremonies having an Indian religious meaning suggesting that being religious and participating in religious activities may have a different meaning to Indian youth from these tribes.

Despite the differences, the general principles hold up well for both Indian and Anglo youth. A strong family underlies and is related to doing well in school and to providing strong sanctions against drug use — factors that, in turn, help adolescents form friendships with other youth

who are less likely to use drugs. The better the youth's relationships with the various socialization links in his or her life, the less likely that youth is to get involved with drugs.

Emotional Distress and Drug Use of Indian Youth

Self-medication theory implies that people who take alcohol or drugs do so to get rid of their negative feelings. Although it has never held up well in research studies, this theory has such a strong following that it is difficult to argue against it. The theory has some apparent logic, which begins with the assumption that the people who have problems in society are more likely to get involved with alcohol and drugs. People who are having problems must feel bad about those problems; they must, therefore, suffer from anxiety, depression, and low self-esteem. Drugs and alcohol, at least initially, make people feel good. Because taking drugs makes people feel good, and people with problems must be feeling bad, then the reason that they use drugs is to make themselves feel better. This logical chain appears to be reasonable, but research results do not confirm it.

There are other reasons that people want to believe in self-medication theory. Recovering alcoholics and drug addicts remember getting high when they felt bad. Their recovery programs emphasize this relationship and try to prepare them to fight it — a reasonable goal for treatment programs because alcoholics will find any excuse to drink and “feeling bad” is a marvelous excuse. If recovering addicts were not convinced already, their treatment programs ensure that they will become convinced that negative feelings were the reason they used alcohol and drugs.

Psychologists and psychiatrists in western society also have a vested interest in self-medication theory. Their basic model is one of personal responsibility; a patient's problems occur because of a deficiency in the patient and are treated by getting rid of that deficiency. Theories of personality and psychotherapy held by psychologists and psychiatrists emphasize the importance of personality traits as sources of the deficiency and view behavior as growing out of those personality traits, so self-medication theory fits in with the professionals' own theories very well. American Indian theories of illness, however, are less likely to place the burden of responsibility for his or her illness on the patient and may be less congruent with self-medication theories.

Self-medication undoubtedly does occur. There are people who chronically feel bad and who find that alcohol or a particular drug assuages that feeling. The best example may be the tranquilizers, which sooth tension and smooth out the rough ups and downs of emotions. People under chronic stress may find tranquilizers valuable or even essential to getting along. The few people who find that an illicit drug provides this relief are in grave danger of becoming dependent on the drug.

Adolescents who are into a drug lifestyle do take drugs when they feel bad, but self-medication is only one of many reasons for their taking drugs. The most common reason for using drugs is to "have fun." Adolescents use drugs as part of being at a party. They take drugs in order to do something with friends that feels good and that involves sharing something secret. They use drugs together to rebel against the adults they are often battling. It is fun to get high, to share the wild feelings and jokes and to talk about it afterward. Adolescents even use alcohol and drugs because "there is nothing else to do around here." If these are the reasons that adolescents use drugs, then drug use is related to peer clusters and not to self-medication.

The path models provided in figure 6-2 show how emotional distress relates to drug use and are essentially the same for Indian youth and for Anglo youth. These path models show that being emotionally distressed does not directly increase the use of drugs; peer drug associations are still the major factor related to use of drugs. Drug use is a peer activity for both Indian and Anglo youth, not a response to feeling bad. Furthermore, being anxious, depressed, or having low self-esteem does not directly increase the chances that a youth will become involved in a drug-using peer cluster. The only emotional element that increases involvement with drug-using peers is anger. Angry youth may tend to find other angry youth and form peer clusters with them that are more likely to be drug involved.

Although the basic path structures are essentially the same, there are some differences between Anglo and Indian youth. As expected from the studies of socialization links, the relationship between peer drug use and drug involvement is somewhat weaker for Indian youth, but it is still the dominant relationship. The only other difference occurs in relation to depression and anxiety. Being emotionally distressed does increase the chances that a youth will also be angry, but among Anglo youth anxiety is more likely to lead to anger whereas among Indian youth depression is more likely to lead to anger. There is not enough information available at this time to explain why these paths differ for Anglo and Indian youth. The most important finding is that self-medication theory, for all of its popularity, is not a good explanation for the drug use of Indian youth.

Risk Factors and Drug Use of Indian Youth

The previous sections of this paper have indicated that there are a number of different factors that increase the risk of drug use for Indian youth. In our studies we have examined the following: (1) peer drug associations, (2) deviance, (3) low family caring, (4) age first drunk, (5) poor school adjustment, (6) weak family sanctions against drug use, (7) positive attitudes toward alcohol use, (8) risk of school dropout, (9) father

not at home, (10) anger, (11) depression, (12) anxiety, (13) low self-esteem, and (14) poor religious identification. The emotional distress characteristics had such low correlations with drug use that they were dropped from further analyses. Once those variables were dropped, the number of different risk factors present was directly related to the chances that a youth would be involved with alcohol or drugs.

As might be expected, a few of the youth who had none of these risk factors did use drugs. A fair number used alcohol and got drunk, and a few had tried marijuana or even another drug. Alcohol and drug use, particularly at parties, tends to be socially acceptable among Indian youth, and some of the adolescents who do not have problems and are not deviant in any way will try drugs in social circumstances.

Having two or three risk factors, no matter what they were, considerably increased the chances of an Indian youths' getting drunk or using marijuana but only moderately increased the chances of using other drugs. With each increase in the number of risk factors above two or three, however, the chances of heavy drug use increased greatly. Youth with five or more risk factors were likely to be in trouble, less than 2% remained entirely drug free. More than one-fourth of the youth with six or seven risk factors were using multiple drugs and were using drugs so heavily that they were probably involved in a drug lifestyle; taking drugs was a part of almost everything that they did with their friends.

Our list of risk factors is probably not exhaustive; there are likely other risk factors that we have not considered that also increase the chances of drug use. But despite that qualification, this list is important. A major point is that these are the same factors that increase drug use of non-Indian youth. Young people who have problems are more likely to get drug involved, whether or not they are American Indians. Furthermore, it is not the exact nature of the risk that is important, it is whether that risk is there. The more problems that adolescents have, the greater the chance that they will increase their problems even further by using drugs.

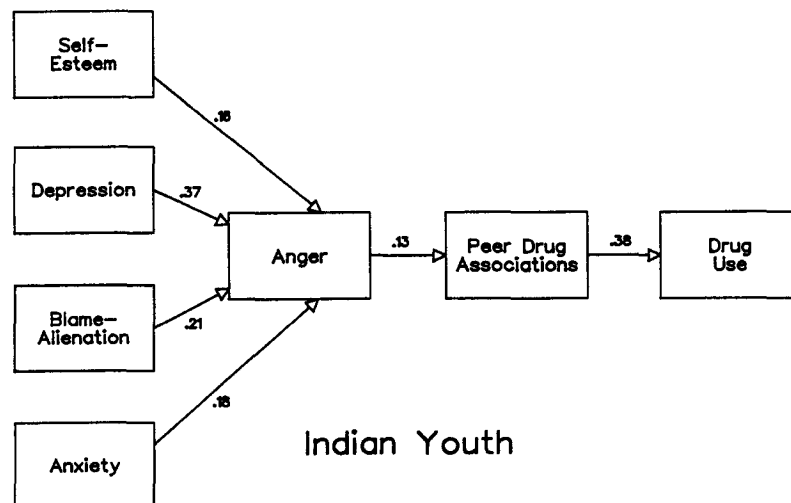
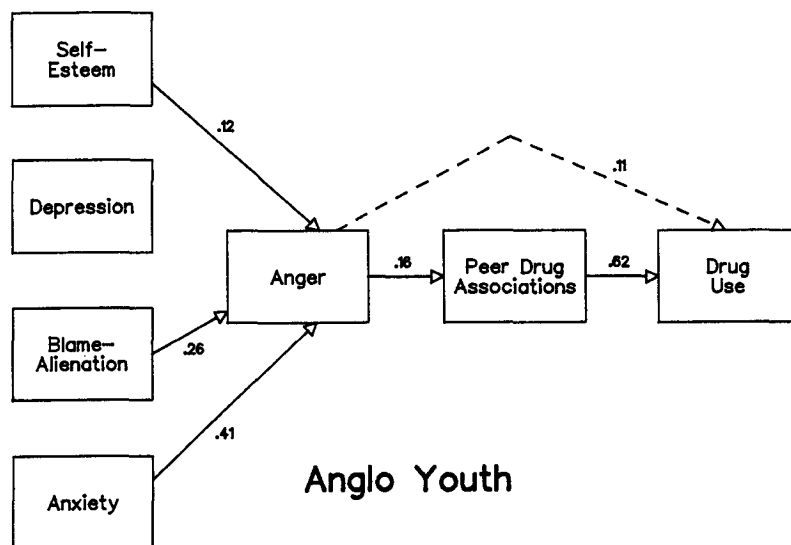
Preventing Drug Use of Indian Youth

There are two types of factors that underlie the drug use of Indian youth: (1) community characteristics that create an environment where drug use is high and (2) personal and social characteristics that increase the risk for individual Indian youth. In order to reduce the demand for drugs, it will be necessary to attack the problem at both levels.

Community Factors

At the community level, it is essential to build a basic community structure that offers future opportunities for youth — chances for employment and for rewarding involvement in community activities and Indian

Figure 6-2
Path Models Linking Emotional
Distress to Drug Use



culture. Indian communities still experience great problems in social, economic and environmental domains, and many of the problems constitute critical obstacles severely blocking potential for both tribal and individual success. Further, many Indian communities are often geographically isolated, restricting access to the economies that provide better employment, enhanced job training, and quality educational opportunities. It is essential to emphasize the development of basic opportunity within these Indian communities. In order to make progress in reduction of destructive behaviors, a primary goal must be to provide an environment that offers a secure future for American Indian youth and their families. Further, the opportunity structure of the community needs to be congruent with Indian values and goals. American Indians must be allowed to acquire the skills, expertise and proficiencies of the dominant culture without losing their identities or cultural support systems.

Reducing Risk Factors

Beyond that, if the personal demand for drugs is to be reduced for high-risk Indian youth, it is essential to develop programs that will identify youth at risk and that will alleviate the damaging effects of the risk factors that underlie drug use of Indian youth.

The family is a critical component, a source of strength and a potential source of problems. It is essential to create an atmosphere receptive to both the immediate and the long-term needs of American Indian families. This atmosphere can evolve through collaborative community efforts that begin with a local task force or council to assess community needs, identify challenges and develop strategies to plan positive actions. These partnerships should include elders, tribal programs, cultural centers, school staff, the tribal newspaper, council members, families, and youth. Cultural themes can be used for community events — art shows, children's events, family events, tribal awards, and ceremonies, fun runs or walks for wellness, and youth involvement in media efforts. Businesses and tribal agencies can be encouraged to offer support for higher education, job training, employment "internships," and "jobs for a day" for both youth and parents.

Schools must develop a written policy on drug and alcohol use that is adhered to at all times and in all instances and one that is aimed toward positive outcomes rather than strictly punitive efforts. For instance, a first offense might require an in-home family visit to apprise parents of the situation and offer prevention information. The consequence of second offense might be a family visit to the drug and alcohol center for a full assessment of the youth and his or her use. One problem is that Indian families often have weak bonds with the schools. School-family advocates should be trained and used to increase parent-school bonding, thus

allowing opportunity for greater success due to decreased dropout and school failure. Advocates might need to make home visits to get to know parents, eat with them and visit in a relaxed atmosphere in order to provide efficient community and tribal referrals for services if needed.

Curricula should not be the only intervention provided by schools, but curricula used must be culturally significant for the area and comprehensive and must focus on interpersonal and relationship skills, family communication, health and wellness, tribal traditions, decision making, stress and coping, and job readiness. Counseling efforts could include focus groups with various life skills themes and early intervention in problem behaviors. Some schools have successfully used peer leader programs and other cultural activities such as sports, dance troupes, drumming, singing traditional songs, and cooking area Indian foods.

It is essential to provide early identification and intervention at the younger ages — in preschool or Head Start programs — and to continuously track “signal events” (Pink, 1984) that initiate and establish school failure among American Indian students. Prevention of school failure and enhancement of school success for Indian youth are imperative if potential for opportunity is to be realized later.

Programs for parents might offer a “Parents’ day out” and entertainment and recreational events that allow family members to enjoy one another in a tribal or community atmosphere. Prevention messages can be subtle, with the primary focus on family and perpetuation of tradition. Opportunities must also be created for parents through job enhancement training, communication and decision-making activities. Home videos or fun workbooks can be provided for parents who find it difficult to attend because of limited transportation, but special efforts should continue to be made to get these isolated families to come to programs.

Finally, elders are often overlooked as valuable and vital resources for an Indian community. The experience and wisdom of elders can offer a wide range of insight and support in a variety of settings. Elders can teach tradition and provide positive identity models, offer family support, and teach social and moral values through storytelling and other traditions. Elders can accept the challenge of teaching American Indian youth to adopt the attitudes and characteristics that make the Indian culture valued and unique.

When these types of community interventions are implemented, they can positively impact the personal and social factors that lead to problem behaviors. There is strong evidence regarding the interrelationship between problem behaviors and the application of a multiple-risk-factor model for American Indian adolescent substance use. This evidence supports current prevention theories, stressing the need for multidimensional and traditional approaches that are focused on peers, family, school, and community. Given the level of substance use and

dropout statistics among American Indians as compared to non-Indians, it is urgent and imperative that we address the lack of opportunity for Indian youth. Although this problem certainly presents a major challenge, it is one that must be met soon in order to see positive impact in American Indian communities.

References

- Pink, W. (1984). Schools, youth, and justice. *Crime and Delinquency*, 30, 439–61.
- Oetting, E. R., & Beauvais, F. (1991). Orthogonal cultural identification theory: The cultural identification of minority adolescents. *International Journal of the Addictions*, 25 (5A & 6A), 655–685.

AN ANNOTATED BIBLIOGRAPHY OF PAPERS ON DRUG ABUSE AMONG INDIAN YOUTH BY STAFF OF THE TRI-ETHNIC CENTER FOR PREVENTION RESEARCH

FRED BEAUVAIS, Ph.D.

Abstract: References and abstracts of articles on drug and alcohol use of American Indian youth that have been published by staff of the Tri-Ethnic Center for Prevention Research are provided. Publications begin in 1978, noting high rates of use, particularly of inhalants. Subsequent papers are concerned with epidemiology, psychosocial correlates of use, prevention, and treatment. The number preceding each entry refer, to the reprint filing system of the Tri-Ethnic Center. Requests for reprints may simply list the number of each article desired. Address reprint requests to:

*Reprint Request
Tri-Ethnic Center for Prevention Research
C-78 Clark Building
Psychology Department
Colorado State University
Fort Collins, CO 80523
Fax: (303) 491-0527*

1. Goldstein, G. (1978). Inhalant abuse among the Pueblo tribes of New Mexico. In C. Sharp & L. Carroll (Eds.), *Voluntary inhalation of industrial solvents*. Rockville, MD: National Institute on Drug Abuse.

Inhalant abuse is a significant problem in the pueblos, particularly among younger children and females. Inhalant users were like users of other heavy drugs on social questions. They may have chosen inhalants because of poverty and unavailability of other drugs.
2. Goldstein, G., Oetting, E. R., Edwards, R., & Garcia-Mason, V. (1979). Drug use among Native American young adults. *International Journal of the Addictions*, 1979, 14(6), 855-860.

Young adult American Indian students at a postsecondary educational institute showed a very high level of use of all drugs when compared with other samples of college-age youth. Alcohol, marijuana, and amphetamines were drugs of choice; 31% had tried inhalants, though there was little present use; 10% were involved in a drug subculture, using multiple drugs relatively heavily. The authors' interpretation of these findings is that either the institution attracts drug users or young American Indians from relatively isolated environments have higher susceptibility to drugs when they enter an urban (non-reservation) culture.

3. Oetting, E. R., & Goldstein, G. (1979). Drug use among Native American adolescents. In G. Beschner & A. Freidman (Eds.), *Youth drug abuse*. Lexington, MA: Lexington Books.

American Indians have higher rates of use of alcohol, marijuana and inhalants and less barbiturate use. Drug use was related to family breakdown, school problems, peer drug use, religious identification, and deviant attitudes and behavior. Inhalant users had a particularly low expectancy of meeting their life goals.

4. Oetting, E. R., Edwards, R., Goldstein, G., & Garcia-Mason, V. (1980). Drug use among adolescents of five southwestern American Indian tribes. *International Journal of the Addictions*, 15(3), 449-455.

Drug use by American Indian adolescents from five southwestern tribes is compared with a large national sample. American Indians show higher use of alcohol, marijuana, and inhalants from the 7th through the 12th grade. They show lower use of barbiturates. Peyote may be seen as less dangerous than LSD. There are no significant differences for other drugs. Cultural characteristics that may influence potential danger from drug use and intervention strategies are noted.

5. Oetting, E. R., Velarde, J., & Beauvais, F. (1980). Research shows increased drug use among Native American youth. *National Indian Health Board Health Reporter*, 2(7), 4-5.

Drug abuse is known to be a severe problem throughout the country; its effects are especially detrimental to the health and well-being of young people. Results and implications of research on drug abuse among American Indians are discussed. Among other things, the writers conclude that drug abuse is at least as prevalent among American Indian adolescents as it is among youth in the general population.

6. Oetting, E. R., Beauvais, F., & Velarde, J. (1982). Marijuana use by reservation Native American youth. *Listening Post*, 4(3) (Albuquerque, NM: Indian Health Service).

There is, at present, an epidemic of marijuana use among American Indian youth. When compared with non-Indian young people, American Indians are experimenting more with the drug, more of them are using it routinely and more are using it on a daily basis. The epidemic is national in scope. Although there are some differences in drug use across tribes,

recent surveys show very high marijuana use in every tribe that we have surveyed.

7. Beauvais, F., Oetting, E. R., & Edwards, R. (1982). Boredom, poor self-image, lead young Indian girl to drugs. *National Indian Health Board Health Reporter*, 3(2), 5-6, 9.

The article graphically describes a young Indian girl who has become involved with drugs. It illustrates the problems that are faced by many American Indian children.

9. Oetting, E. R., & Beauvais, F. (1983). The drug acquisition curve: A method for the analysis and prediction of drug epidemiology. *International Journal of the Addictions*, 18(8), 1115-1129.

A method is presented to chart how a group acquires exposure to a drug. The resulting drug acquisition curve has a number of different parameters that describe the group's drug involvement. Key parameters include: (1) the age of exposure when members of the group begin to use the drug in greater numbers, probably because of exposure to drug-using peers; (2) the acquisition rate (the percent of the group members who are newly exposed each year), a rate that is surprisingly constant over as many as five years; and (3) the asymptote, establishing the total percent of the group members who will eventually try the drug. Acquisition curves for sequential age cohorts show changing trends in these parameters and can also be used to predict future drug epidemiology. A four-year prediction based on this method proved to be very accurate for two of three drugs. For the third drug a large increase in use was predicted, but the increase was even greater than expected. (Later research confirms the value of the acquisition curve for describing age of drug involvement but suggests that the prediction results were fortuitous. The differences between acquisition curves probably occur because of dropouts.)

11. Beauvais, F., & LaBoueff, S. (1985). Drug and alcohol abuse intervention in American Indian communities. *International Journal of the Addictions*, 20(1), 139-171.

Indian culture is vital and growing, but federal policy has helped lead to inertia in community action. A strong activist climate can be used to revitalize Indian culture. Alcoholism is a critical problem and drug abuse a serious problem. Interventions must attempt to restore traditional harmony with nature and include self-determination, bolstering of community spirit, and grass-roots involvement.

12. Oetting, E., Edwards, R., & Beauvais, F. (1985). Reliability and discriminant validity of the children's drug-use survey. *Psychological Reports*, 56, 751-756.

The Children's Drug Use Survey assesses involvement with alcohol, marijuana, inhalants, and "pills" and includes experimental psychosocial items. It is short, easy to read and constructed so that it does not encourage drug use. Data are presented showing that the drug-use items have high reliability and discriminant validity. The scales should be useful

for studying drug involvement among both minority and non-minority youth; the scales possess adequate reliability for use as low as the 4th grade.

13. Beauvais, F., Oetting, E. R., & Edwards, R. W. (1985). Trends in the use of inhalants among American Indian adolescents. *White Cloud Journal*, 3(4), 3–11.

Four large samples of American Indian adolescents have been surveyed since 1975 regarding their use of inhalants. When compared with non-Indian youth, Indian young people have shown much higher rates of inhalant use. Inhalant use is increasing for Indian youth, begins at a very early age and is often associated with use of other drugs. Peer and family attitudes do influence inhalant use and may possibly be employed as a means of reducing use of these dangerous chemicals.

14. Beauvais, F., Oetting, E. R., & Edwards, R. W. (1985). Trends in drug use of Indian adolescents living on reservations: 1975–1983. *American Journal of Drug and Alcohol Abuse*, 11 (3 & 4), 209–230.

Anonymous surveys on drug use were administered to 7th–12th grade students in Indian reservation schools. A large number of tribes were surveyed from 1975 through 1983. There is reason to believe the results are reasonably representative of Indian youth living on reservations. Lifetime prevalence for most drugs is higher than that for non-Indian youth throughout this period; and rates for alcohol, marijuana and inhalants, the most frequently tried drugs, were particularly high. Since 1981 there has been a slight drop in lifetime prevalence for most drugs. Current-use figures show the same trends, with increasing current use through 1981 and a drop since that time. Analysis of patterns of drug use — classifying youth according to number, type and depth of involvement with drugs — shows a similar trend, with radical increases until 1981 and then a drop in all but one of the more serious drug use types. Despite this drop, 53% of Indian youth would still be classified as “at risk” in their drug involvement, compared with 35% of non-Indian youth. Reasons probably relate to severely detrimental conditions on reservations: unemployment, prejudice, poverty, and lack of optimism about the future.

15. Oetting, E. R., & Beauvais, F. (1985, September). *Epidemiology and correlates of alcohol use among Indian adolescents living on reservations*. Paper presented at Epidemiology of Alcohol Use and Abuse Among U.S. Minorities Conference, Bethesda, MD.

Indian adolescents are compared with their non-Indian counterparts for lifetime prevalence, recent use, age of first use, and daily use of alcohol over the past 10 years. Sex differences between and within the samples are also examined. Exploration of the relationship between alcohol use and the use of other drugs shows similarities and differences between the use of alcohol and various other licit and illicit substances. A further understanding of the context of alcohol use is provided by showing the relationship of alcohol use to a variety of psychological and social factors. General domains of interest include cultural identification, family relationships, school adjustment, peer encouragement and sanctions,

personal adjustment, tolerance of deviance and deviant behavior, and expectations for the future. Implications for interventions are discussed briefly. The final sets of data provide insights into the reasons or rationales Indian adolescents give for their use of alcohol and the specific social contexts in which alcohol is used. These data sets are especially useful in understanding the forces that initiate and perpetuate Indian adolescent alcohol use.

16. Beauvais, F. (1986, April). *Social and psychological characteristics of inhalant abusers*. Paper presented at World Health Organization Advisory Group meeting on Adverse Health Consequences of Volatile Solvents/Inhalants, Mexico City.

No single description can include everyone who used inhalants. Inhalants are cheap, easily available and an easy route to relief. Those most susceptible are marked by having families from ghetto or marginal areas, poor school performance, and few opportunities to develop self-esteem. Inhalant users seek support from peers and are likely to choose dysfunctional peers. These peer clusters actively encourage each other and provide few sanctions against use. Theft and other crimes become common. Once a group use is firmly established, some youth enter long-term chronic patterns of inhalant use that extend into adulthood.

20. Oetting, E., & Beauvais, F. (1986a). Peer cluster theory: Drugs and the adolescent. *Journal of Counseling and Development*, 65(1), 17–22.

The authors review several theories advanced to explain adolescent drug use to provide background for describing peer cluster theory. Peer clusters — small subsets of peer groups, including pairs — dictate the shared beliefs, values, and behaviors that determine where, when, and with whom drugs are used and the role that drugs play in defining cluster membership. Peer cluster theory incorporates those psychosocial factors that promote or inoculate against drug use by youth.

21. Oetting, E. R., & Beauvais, F. (1986b). Clarification of peer cluster theory: A response to Peele, Cohen and Shaffer. *Journal of Counseling and Development*, 65(1), 29–30.

There is no one research paradigm or "grand theory" that will lead to progress in understanding substance use. It has multiple causes, and multiple methods are needed to understand the physical, social, and psychological factors that lead to adolescent substance use. Peer cluster theory leads to statements that can be falsified and that should be tested. Peer cluster theory implies that like children group together and that their influence on each other then determines their behavior. The youth is both seduced by and seduces his or her friends into substance use.

23. Beauvais, F. (1977). Counseling psychology in a cross cultural setting. *Counseling Psychologist*, 7(2), 80–82.

The author summarizes his experiences working as a counselor at a Navajo Community College and discusses health care training, learning problems, career development, values related to education, learning

behaviors, and cognitive patterns of Navajo students. Counselors need a broad background of training, and evaluators of programs need to be involved in the assessment of the complex and subtle interactions between people, systems, and programs rather than in controlled experimental research.

72. Oetting, E. R., Edwards, R. W., & Beauvais, F. (1988). Social and psychological factors underlying inhalant use. In R. A. Crider & B. A. Rouse (Eds.), *Epidemiology of inhalant abuse: An update*. Rockville, MD: National Institute on Drug Abuse. (Research Monograph No. 85)

Literature is reviewed and data from a study of inhalant users are presented. "Ever tried" rate drops after 8th grade, perhaps because of dropouts. Young users use with peers, and use is related to local community epidemics, disrupted families, school performance, deviance, alienation, and emotional adjustment.

73. Beauvais, F., & Oetting, E. R. (1988a). Indian youth and inhalants: An update. In R. A. Crider & B. A. Rouse (Eds.), *Epidemiology of inhalant abuse: An update*. Rockville, MD: National Institute on Drug Abuse.

Indian youth are more susceptible to inhalant use, and rates of use are increasing among younger children. About 4% of high school seniors are using inhalants heavily enough to warrant serious concern. A larger number of dropouts may be using inhalants heavily. Inhalant use may begin when children are very young, and prevention efforts need to start very early if they are to succeed.

74. Beauvais, F., & Oetting, E. R. (1988b). Inhalant abuse by young children. In R. A. Crider & B. A. Rouse (Eds.), *Epidemiology of inhalant abuse: An update*. Rockville, MD: National Institute on Drug Abuse. (Research Monograph No. 85)

Six published studies indicate that there is significant inhalant use by children younger than 12, particularly minority children. Nothing is known about the correlates of this use.

75. Binion, A., Miller, C. D., Beauvais, F., & Oetting, E. R. (1988). Rationales for the use of alcohol, marijuana and other drugs by Indian youth. *International Journal of the Addictions*, 23(1), 47–64.

This study examined rationales for alcohol, marijuana and other drug use among Indian and non-Indian youth. Differences were found between reservation Indian and rural non-Indian rationales for alcohol, marijuana, and other drug use. A majority of both Indian and non-Indian 8th graders indicate that they use drugs to enhance positive affective states, for excitement, for parties, to be with friends, to relax, and to handle negative affective states including worries and nervousness. Indian youth appear to use drugs also to cope with boredom. Unlike non-Indian youth, Indian youth have no strong rationales for their use of other drugs. Interventions will have to be impactful and pervasive in order to counter the many positive and negative rationales associated with drug use.

79. Loretto, G., Beauvais, F., & Oetting, E. R. (1988). The primary cost of drug abuse: What Indian youth pay for drugs. *American Indian and Alaska Native Mental Health Research*, 2(1), 21–32.

Based on responses to a 1984 survey on a large Indian reservation, conservative estimates are made of the total dollars spent by Indian youth (grades 7 through 12) across the country on drugs and alcohol. The total figure estimated for one year is \$8.3 million. These are only out-of-pocket expenditures and do not include other costs associated with substance abuse such as medical care, loss in productivity, accidents, or emotional and social consequences.

80. Beauvais, F., & Oetting, E. R. (1987). Toward a clear definition of inhalant abuse. *International Journal of the Addictions*, 22(8), 779.

The study of the nature and extent of the use of volatile psychoactive substances such as glue, gasoline, anesthetic gases and nitrites have all been discussed under the single rubric of "inhalant abuse." A classification scheme is proposed that differentiates users of substances such as volatile hydrocarbons (gasoline, glue, etc.) from users of the anesthetic gases and the amyl and butyl nitrites. As users of these three types of volatile chemicals differ in predisposing factors, level of dysfunction, and consequences of use, the former group should be classed generically as "inhalant" users, and the latter should be diagnosed as users of a specific drug.

81. Oetting, E. R., Beauvais, F., & Edwards, R. W. (1988). Alcohol and Indian youth: Social and psychological correlates and prevention. *Journal of Drug Issues*, 18(1), 87–101. Reprinted as a chapter in *Alcohol Problems of Minority Youth in America*, R. Wright, Jr., & T. D. Watts (Eds.), 143–163, Vol. 2 of *Interdisciplinary Studies in Alcohol Use and Abuse*. Lewiston, NY: Edwin Mellon Press.

This chapter relates psychosocial correlates to prevention. Young American Indian heavy alcohol users (ages 12 to 16) were matched with non-users. Alcohol users did not have more emotional problems, did not experience less alienation or did not feel less self-confident or less socially accepted than non-users, but they did use other drugs and were more deviant. Alcohol users more often came from broken families, felt less family caring, and had fewer family sanctions against substance use, had poorer school adjustment, had less hope for the future and had friends encouraging alcohol and drug use. Prevention programs should start very early and should focus on increasing family strength, improving school adjustment, providing opportunities for the future, breaking up deviant peer clusters, and building peer clusters that discourage alcohol and drug use.

84. Beauvais, F., & Oetting, E. R. (1987). High rate of drug use among Native American youth. National Institute on Drug Abuse, *NIDA Notes*, 2(2), 14.

The authors provide a brief review of data on drug use and Indian youth showing that, even though rates of use finally seem to be declining, nearly half of young American Indians are still at risk of becoming seriously involved in drug abuse.

96. Oetting, E. R., Swaim, R. C., Edwards, R. W., & Beauvais, F. (1989). Indian and Anglo adolescent alcohol use and emotional distress: Path models. *American Journal of Alcohol and Drug Abuse*, 15(2), 153–172.

Anonymous surveys of alcohol use and emotional distress of 11th- and 12th-grade students were administered to 327 reservation Indian adolescents and 524 Anglo adolescents. Path models based on peer cluster theory were developed and tested. Results argue against a self-medication theory of adolescent alcohol use. Emotional distress variables had little effect on alcohol involvement, with the exception of anger, which operated in opposite directions for the two groups. The highest relationship with alcohol involvement in both groups was with peer alcohol associations, confirming the a priori hypothesis that much of adolescent alcohol use is linked to peer associations. Those relationships, however, were much stronger in Anglo youth, suggesting that alcohol may be used more frequently in non-peer situations by Indian youth or at least in situations in which the peers are not those close friends who have very similar patterns of alcohol use. The most important difference between Indian and Anglo youth, however, may be the role that anger plays in alcohol involvement. In Anglo youth, anger may be associated with problem behaviors including alcohol use. In Indian youth, higher anger is linked to higher self-esteem and tends to reduce alcohol use. (This last finding may be specific to only one or two locations, or it may be a random result. It has not been confirmed in one other sample. Further studies are in progress.)

97. Beauvais, F., Oetting, E. R., Wolf, W., & Edwards, R. W. (1989). American Indian youth and drugs: 1975–1987 — A continuing problem. *American Journal of Public Health*, 79(5), 634–636.

Continuing surveillance of drug use among American Indian adolescents living on reservations show them to have rates of use higher than those of their non-Indian counterparts. Marijuana use is particularly high among Indian students. By the 7th grade a significant number of Indian youth have tried drugs, particularly marijuana and alcohol, and there are few significant differences by gender. Observed patterns of use indicate that intervention strategies need to begin in the elementary school years and target both males and females equally.

99. Oetting, E. R., Edwards, R. W., & Beauvais, F. (1989). Drugs and Native-American youth. *Drugs and Society*, 3(1-2), 5–38. Reprinted as a chapter in *Perspectives on Adolescent Drug Use*, B. Segal (Ed.). New York: Haworth Press.

Reservation American Indian youth (ages 12–17) use drugs more than other youth, particularly marijuana, inhalants, stimulants, and cocaine. Anti-drug messages may have influenced light users, whose use has dropped, but not heavy users; one in five Indian youth use drugs other than marijuana, a rate constant since 1981. Drug use is linked neither to emotional distress nor to acculturation stress. It is related to peer drug associations, though less strongly than in Anglo youth, and is linked more directly than in Anglo youth to family influence. Root causes may be poverty, prejudice, and lack of social, educational, and economic opportunity on

reservations.

101. Edwards, R. W., Oetting, E. R., Beauvais, F., & Swaim, R. C. (1988, November). Cocaine, alcohol, and drug use among American Indian and Mexican-American youth. Paper presented at *116th Annual Meeting of the American Public Health Association*, Boston, MA.

School-based studies since 1975 show that drug use increased among Indian youth to 1981 and has declined since then, but Indian youth consistently have higher rates of drug use than are found in the general population over that entire period. Dropout rates are high for Indian youth, so they may have even higher rates of drug use than these data show. In general, drug use of Mexican-American youth is not as high as it is among their non-minority counterparts, but dropout rates are high, so these rates may underestimate true rates of use. Reasons that Mexican-Americans are overrepresented in drug admissions in emergency rooms are discussed.

103. Beauvais, F. (1989). Limited notions of culture ensure research failure. *American Indian and Alaska Native Mental Health Research*, 2(3), 25–28.

Assuming that people will move from an “old” culture to a “new” one, losing one to gain the other, is inappropriate. The transition from one culture to another is not a zero-sum game. The perceived inadequacy of the Inupiat is shown by the nearly total absence of their participation in the research study. The project needed more time, a mechanism for utilization and professional rather than “press” release of data.

105. Oetting, E. R., & Beauvais, F. (1989). Orthogonal cultural identification theory: The cultural identification of minority adolescents. *International Journal of the Addictions*, 25(5A & 6A), 655–685.

A theory of cultural identification is presented indicating that identification with different cultures is orthogonal. Instead of cultures being placed at opposite ends of a continuum, cultural identification dimensions are independent of each other, and increasing identification with one culture does not require decreasing identification with another. Studies of American Indian and Mexican-American youth show that (1) identification with Anglo (White American) culture is related to having Anglo friends and to family acceptance of an Anglo marriage; (2) identification with either the minority or the majority culture is a source of personal and social strength; and (3) this greater strength, however, does not translate automatically into less drug use, because drug use is related to how much the culture that the person identifies with approves or disapproves of drugs.

111. Beauvais, F. (1989, October). An integrated model for prevention and treatment of drug abuse among American Indian youth. Paper presented at “Whatworks” Conference, New York State Division of Substance Abuse Services.

The path leading to drug use moves from social situations through socialization links through psychological factors to peer clusters, where drug use takes place. Prevention starts up this path and treatment down.

Areas that need more investigation include peer clusters, cultural identification, dropouts, and community development.

112. Beauvais, F. (1988). Inhalant abuse: A little understood behavior. *Proceedings: Oklahoma Mental Health Research Institute 1988, Professional Symposium*, Vol. 1, 47–53. Oklahoma City: Oklahoma Mental Health Research Institute.

This publication describes inhalant use and the three types of users: (1) inhalant dependent adults, (2) adolescent poly-drug users, and (3) young inhalant users. The effects of inhalants and the possibilities for treatment are discussed.

113. Oetting, E. R., & Beauvais, F. (1990). Adolescent drug use: Findings of national and local surveys. *Journal of Consulting and Clinical Psychology*, 58(4), 385–394.

Adolescent drug use increased until about 1981, but since then it has steadily declined. Current data show some drug use in the 4th and 5th grades and considerable increases from the 6th to the 9th grades. For drugs such as marijuana, cocaine, and stimulants, lifetime prevalence continues to increase through high school; for drugs such as inhalants and heroin, lifetime prevalence may decline for grades 10, 11, and 12, suggesting that students who use these drugs early may drop out. Drug use of rural youth is similar to that of other youth. Barrio, ghetto and American Indian reservation youth may have high rates of use, but use of Black and Hispanic seniors may be equivalent to or less than that of White seniors. National data and broadly defined ethnic data, however, may cover up important subgroup differences. For example, western Mexican-American girls have lower use than western Spanish-American girls, possibly because of the greater influence of *marianismo*. Different locations may also have very different patterns of adolescent drug use, calling for different types of local intervention.

119. Oetting, E. R., & Webb, J. Psychosocial characteristics and their links with inhalant use: A research agenda. To be published in a forthcoming volume.

The literature on psychosocial correlates of inhalant use is reviewed, showing great consistency over time. Inhalant users tend to be the least successful in society, the most alienated and the most emotionally disturbed of all drug-using groups. A model is presented for planning psychosocial research on inhalant use; recommending specific studies using different methods of research and aimed at the three groups of inhalant users, inhalant dependent adults, adolescent poly-drug users, and young inhalant users.

121. Swaim, R. C., Oetting, E. R., Thurman, P. J., Beauvais, F., & Edwards, R. American Indian adolescent drug use and socialization characteristics: A cross-cultural comparison. Manuscript submitted for publication.

The socialization variables of family strength, religious identification, school adjustment, family sanctions against drug use, and peer associations correlate with youth drug abuse. A path model testing the

relationships between these variables among Anglo youth has shown that peer drug associations mediate the influence of the other factors and that with minor exceptions peers are likely to be the dominating force in youth drug abuse (Oetting & Beauvais, 1987b). The current study applied the same path model to a group of American Indian youth and the findings were replicated, with two important exceptions: peer drug associations, though still dominant in the model, were not as highly correlated with drug use for Indian youth, and family sanctions against drugs had a direct influence on drug use in addition to an indirect influence. Differences in family dynamics among American Indian youth may account for the findings; Indian youth may associate more with and learn about drug use from same-aged siblings and other relatives in the extended family, and they may have a greater number of adult family figures to apply sanctions against drug use.