

TRENDS IN INDIAN ADOLESCENT DRUG AND ALCOHOL USE

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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.

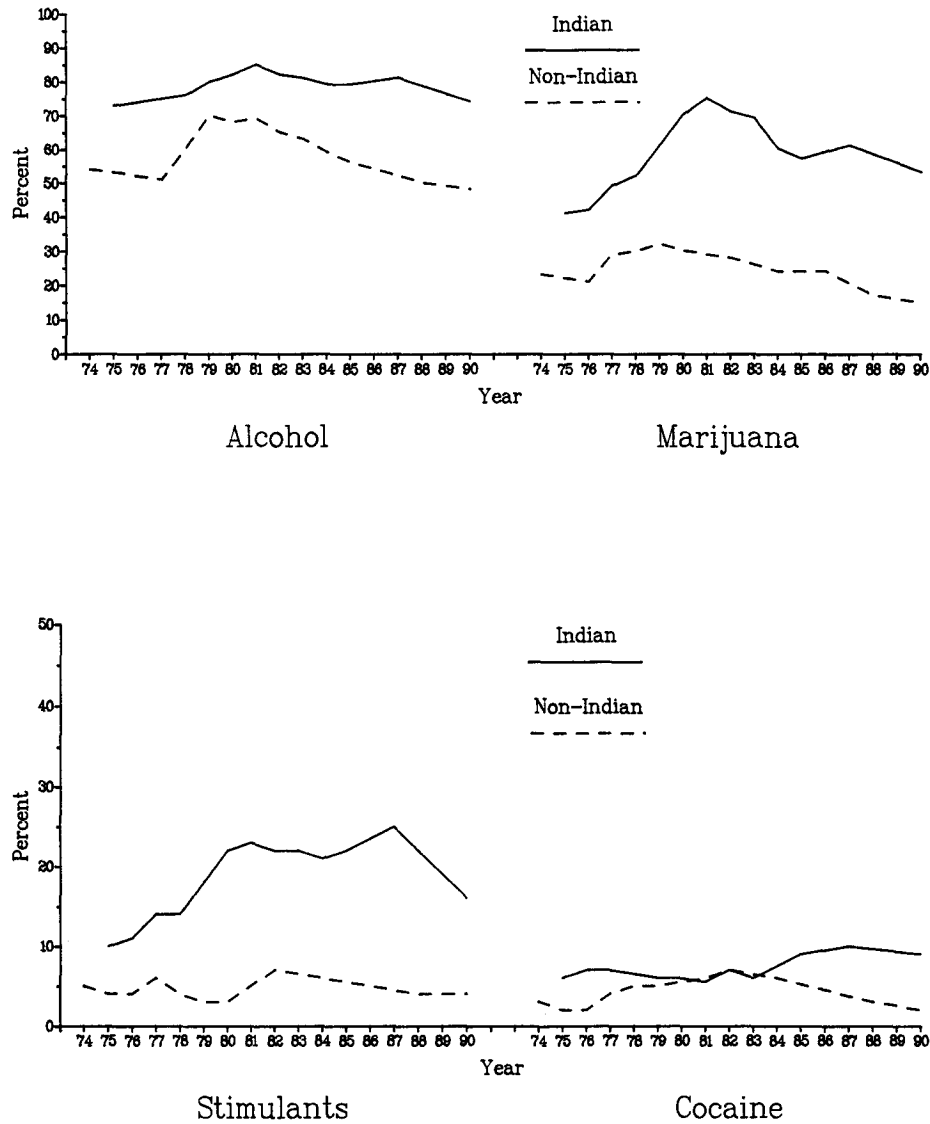
^bOnly illicit, or non-prescribed, use is included.

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

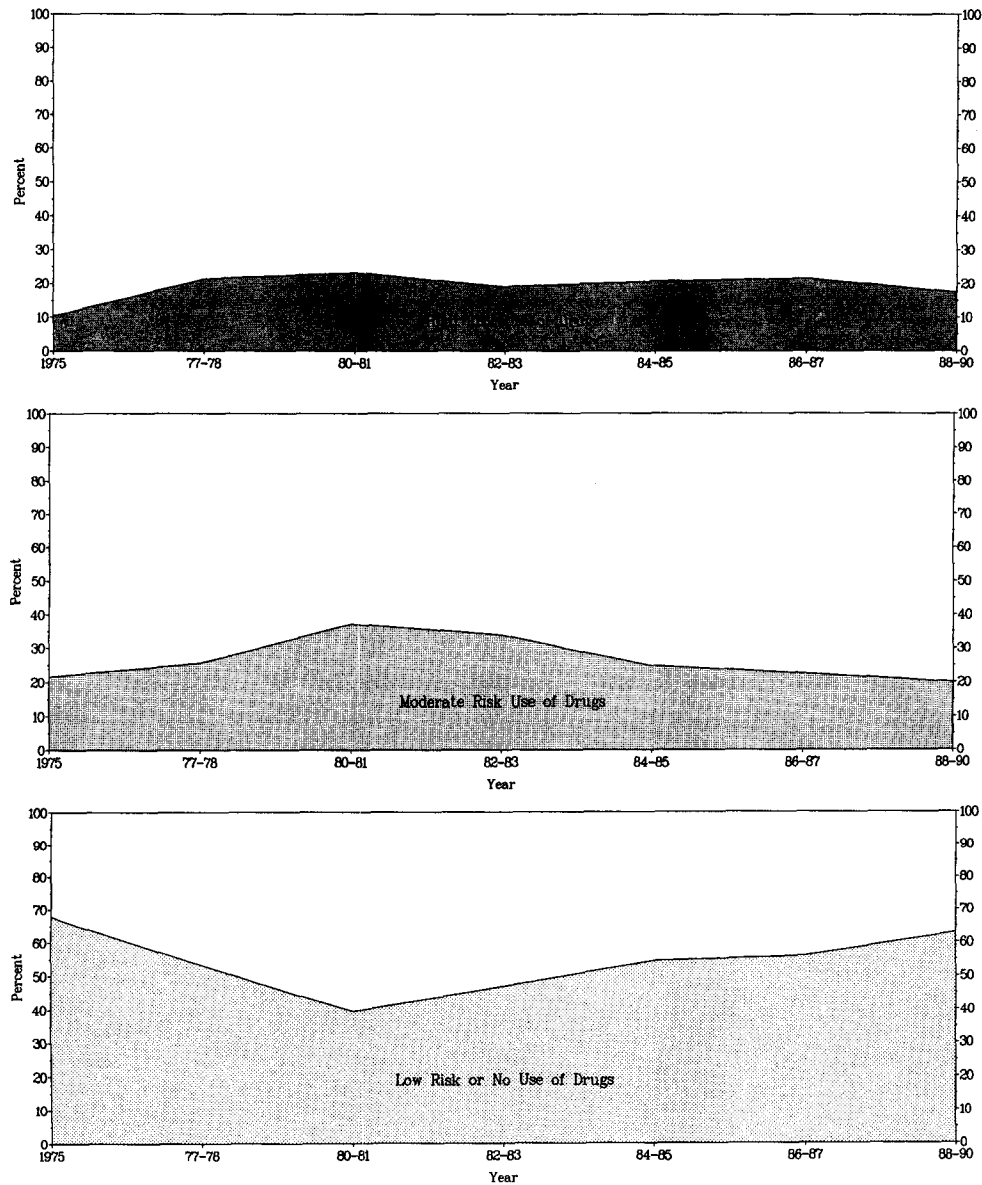
	1980-81 %	1987-88 %	1989-90 %
Alcohol	33	22	21
Marijuana	23	16	10
Inhalants	14	14	15
Cigarettes	34	33	32

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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