

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 [®] 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
Majjuana	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

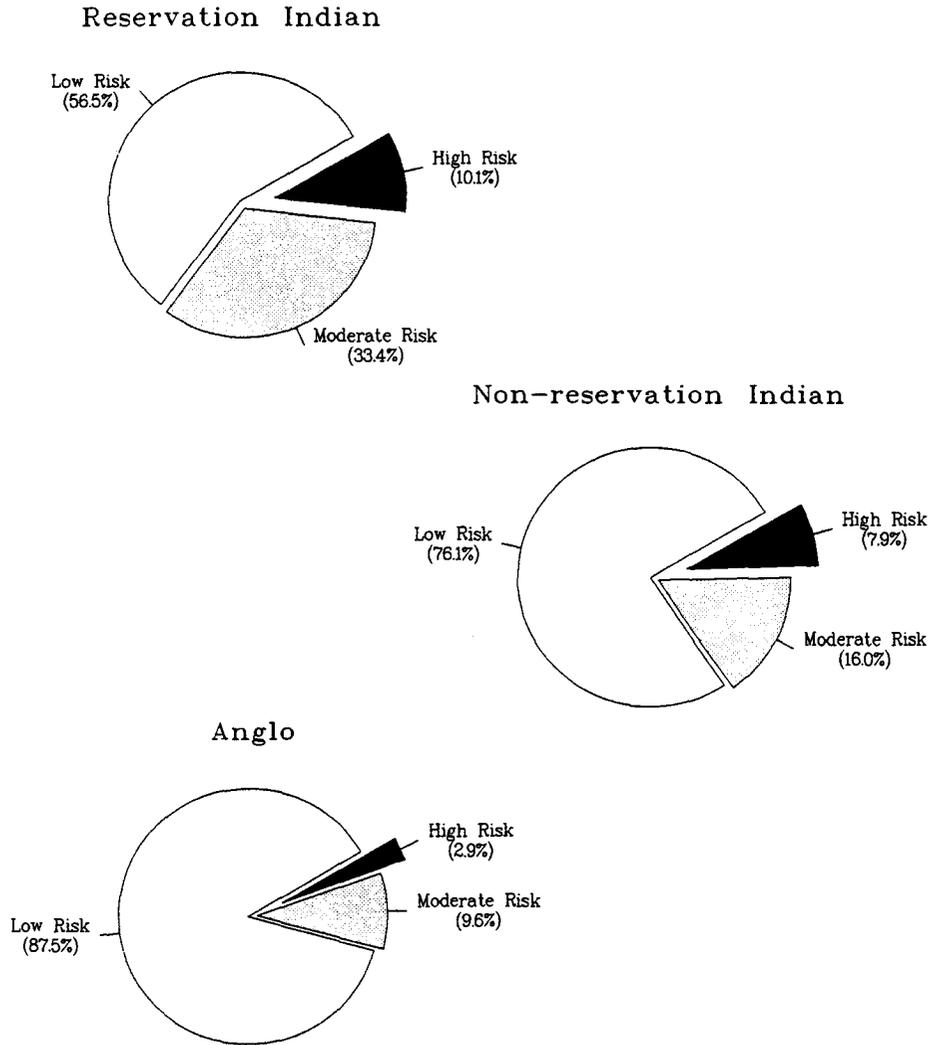


Figure 2-2
 Percent of Reservation Indian, Non-reservation Indian, and Anglo 12th Graders at Risk From Drug and Alcohol Use

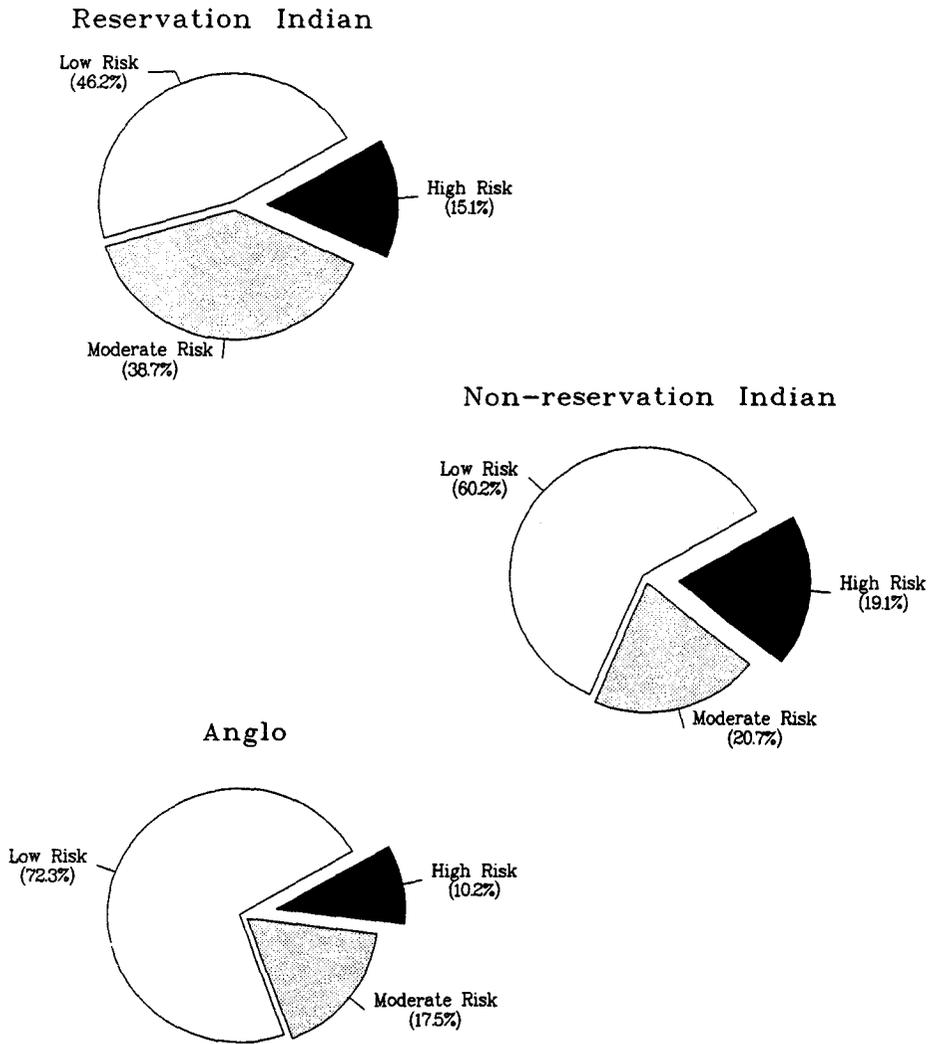


Table 2-5
Percent of Indian and Anglo 4th-6th Graders at Risk Due to Current Use of Drugs

	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	78	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 %										
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

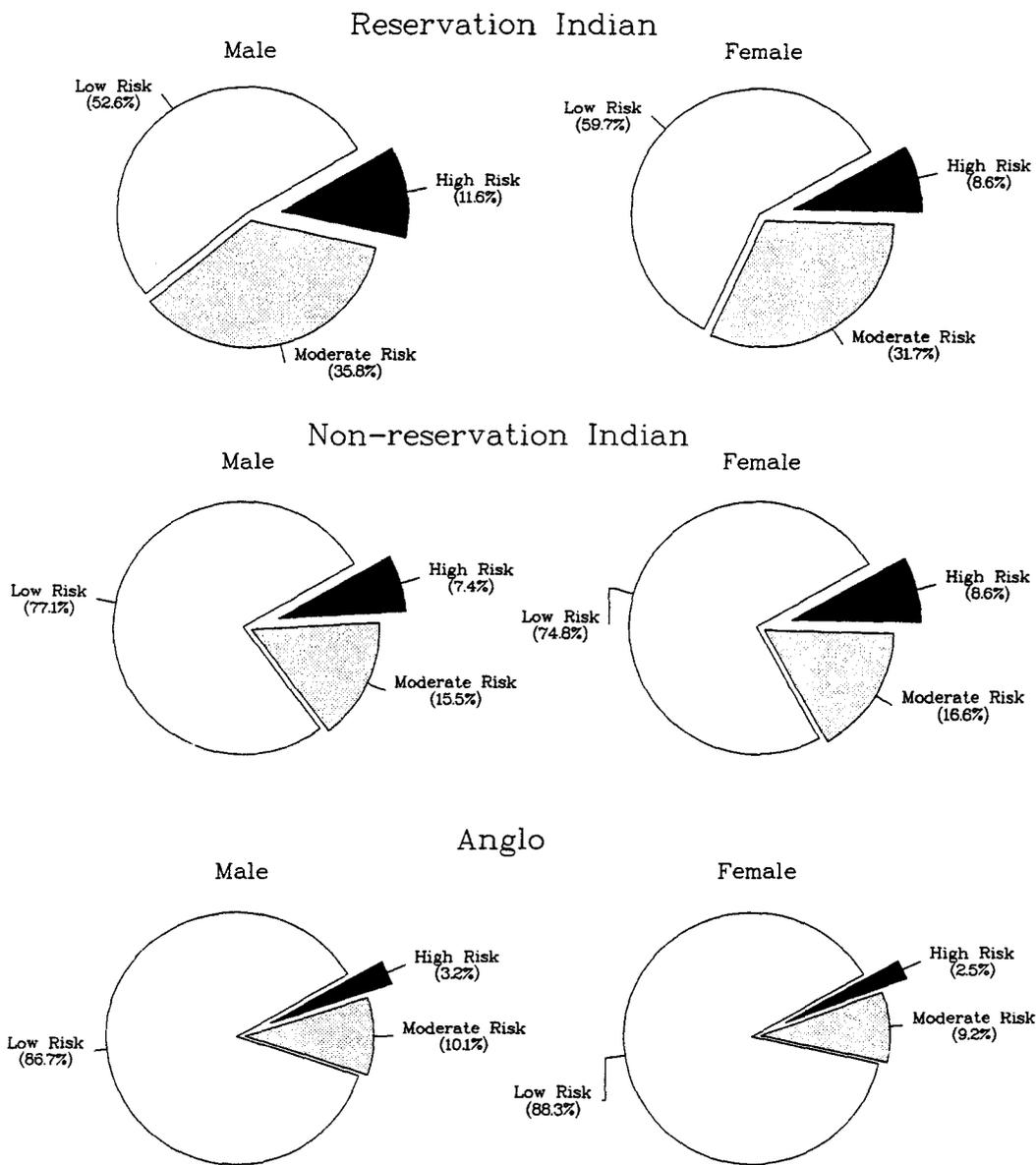
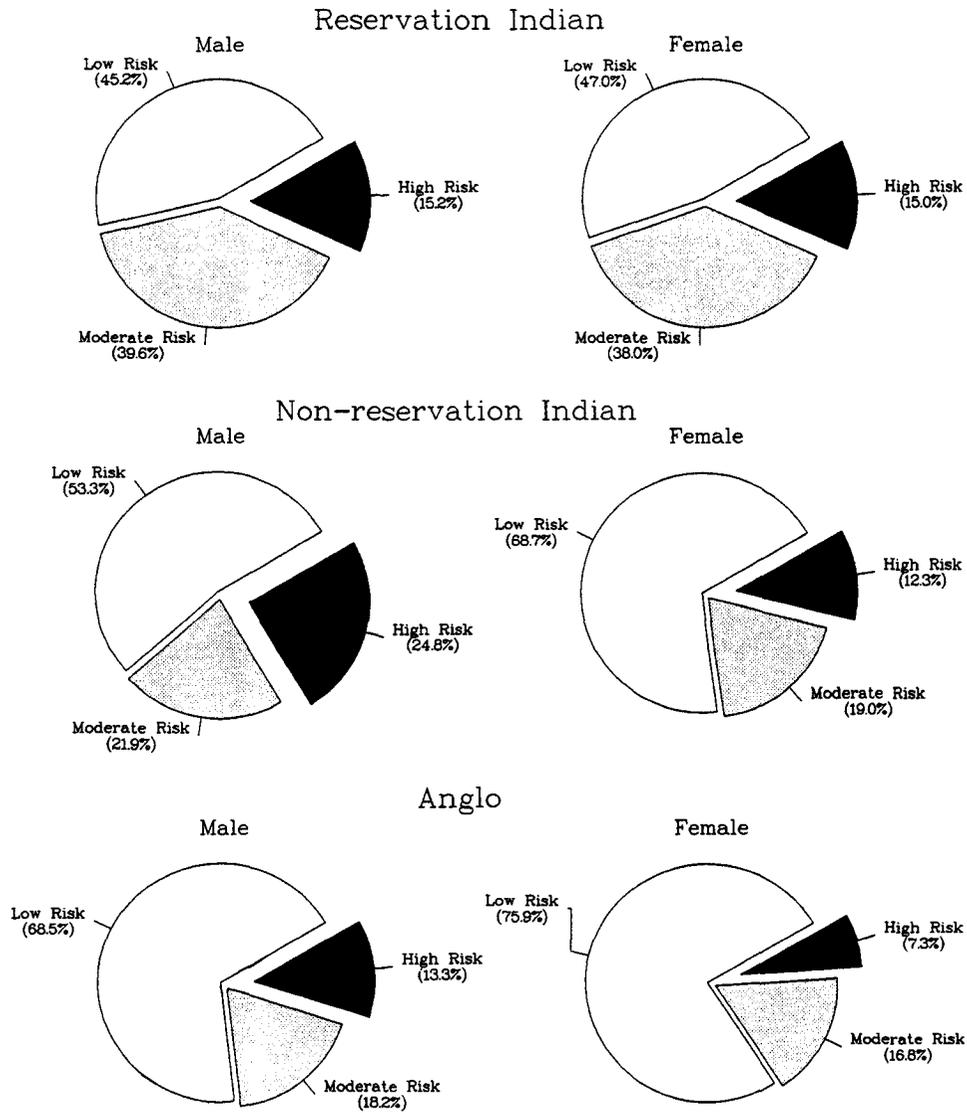


Figure 2-4
 Percent of 12th Graders at Risk from
 Drug and Alcohol Use by Gender



References

- Bachman, J., Wallace, J., O'Malley, P., Johnston, L., Kurth, C., & Neighbors, H. (1991). *American Journal of Public Health*, 81, 372-377.
- Beauvais, F. (in press). Volatile solvent abuse: Trends and patterns. In C. Sharp & R. Spence (Eds.), *Inhalant Abuse Review* (NIDA Research Monograph). Rockville, MD: National Institute on Drug Abuse.
- 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.
- Beauvais, F., Oetting, E. R., & Edwards, R. W. (1985a). Trends in the use of inhalants among American Indian adolescents. *White Cloud Journal*, 3(4), 3-11.
- Beauvais, F., Oetting, E. R., & Edwards, R. W. (1985b). Trends in drug use of Indian adolescents living on reservations: 1975-1983. *American Journal of Drug and Alcohol Abuse*, 11 (3 & 4), 209-230.
- Beauvais, F., & Oetting, E. R. (1988). 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)
- Garell, D. (1976). A new approach to teen-age smoking. *Pediatrics*, 57, 465-466.
- 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.
- 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)
- Mensch, B., & Kandel, D. (1988). Underreporting of substance use in a national longitudinal youth cohort: Individual and interviewer effects. *Public Opinion Quarterly*, 52, 100-124.
- 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.
- 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.

Resnik, H. (1990). Youth and drugs: Society's mixed messages. *OSAP Prevention Monograph, 6*, 68–79

Schinke, S., Gilchrist, L., Schilling, R., Walker, R., Locklear, V., & Kitajima, E. (1986). Smokeless tobacco use among Native American adolescents. *New England Journal of Medicine, 314*, 1051.