

ALCOHOL POLICY CONSIDERATIONS FOR INDIAN RESERVATIONS AND BORDERTOWN COMMUNITIES

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ABSTRACT: For some topics, particularly in public health, summaries are dangerous because they may create the idea that a single or simple solution exists. This topic is one where a summary can create a false expectation of simplicity. There is no simple or easy solution to the problem of alcohol abuse in any community, especially reservation and bordertown communities in the western United States. The solution is complex, it must be comprehensive, and it will take a great deal of effort over time to reduce alcohol and substance abuse in any individual community.

Indian communities must develop a comprehensive, consistent, and clearly defined alcohol prevention/intervention policy. Such a policy must utilize a systematic, public health approach that considers the physical, mental, and social well being of each and every individual within the region. It must address all types of problematic alcohol consumption, from sporadic alcohol consumption (light and heavy) to regular alcohol abuse and chronic alcoholism, for the problems found in Indian and bordertown communities arise from a variety of different drinking patterns.

Presented in this paper are a large number of policy and prevention options that have been used successfully in human societies in various parts of the world and in the United States. The intent of the paper is to present and describe the variety of options for addressing alcohol problems that have been found to be of value in the control and reduction of alcohol abuse and related problems. The three broad categories of approach are: controlling the supply of alcoholic beverages through statute and regulation; shaping drinking practices directly; and reducing the physical and social environmental risks. Indian tribal councils and Native communities can, if they so desire, consider, debate, and enact any or all of these measures. The important issue is that they should be aware of these ideas for prevention and consider them carefully. If the preventive measures described here can be applied systematically and reasonably within the social and cultural

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contexts of a Native community, then the ultimate result should be positive.

Readers are encouraged to read this paper carefully, to study the tables and figures, and if more detail is desired, to consult some of the many references found in the back. Comprehensive and positive alcohol policy has been ignored for too long in Indian country, and the resultant toll in morbidity, mortality, and suffering is too high. This paper presents the ingredients for a comprehensive policy. Each community needs to work up its own recipe.

In a recent survey of the Navajo living in the south central portion of the main Navajo reservation, four factors seemed obvious (May & Smith, 1988). One, most Navajos surveyed had a substantial understanding of the negative health and social consequences caused by alcohol abuse. Most individuals correctly identified alcohol abuse as leading to liver disease, accidents, trauma, suicide, internal medical problems, and other individual maladies. Two, most Navajos surveyed favor prohibition over legalization (81% vs. 19%) as the one policy that should be in effect on the reservation (May & Smith, 1988). Three, many Navajo respondents (63%) believed that Indians have a physiological or biological weakness to alcohol that non-Indians do not have. Four, fewer Navajo adults drink alcohol (52%) than other people in the general population of the United States (67%).

Each of these four points is a recurring theme on many reservations. It has been my experience over the past two decades to be confronted with these issues time and time again. That is, among most tribes, the members: (1) are well aware of the individual and far-reaching effects of alcohol abuse; (2) seldom venture to debate alcohol policy at all, and when policy is discussed, it is discussed in a highly polarized, "either/or," wet-versus-dry fashion; (3) believe that Indians are more highly susceptible in the physiological sense to the intoxicating effects of alcohol (a belief shared by most bordertown and western U.S. residents); and (4) generally believe that alcohol use and abuse are much more widespread in their population than they really are.

A Plan of Action for Indian Prevention Initiatives

Since this paper is long enough without a detailed discussion of the above points, a few paragraphs building on those points will set the stage for the rest of the paper. From point one, it is clear that continued emphasis on the "facts" about the negative consequences of alcohol abuse alone will not alleviate or solve the problem. The current problems of alcohol abuse are not a result of a deficit of information about individual consequences. In fact, health education that focuses only on the negative

health consequences could probably be de-emphasized on many reservations.

The answer to this dilemma for health educators and public health officials may lie in point two. Health education and public attention might focus directly on the many options of public policy and prevention techniques that have been debated, implemented, and evaluated elsewhere in the nation and world. Thus, the whole focus of health education among tribal populations and tribal leaders could be expanded and redirected. Health education on what is possible would make for a more positive and proactive focus.

Before any major redirection of debate and policy considerations will be possible or is likely to be productive, the other two points or issues must also be considered.

Point three mentioned above is an erroneous statement. A number of studies have shown that Indian males metabolize alcohol as rapidly, or more rapidly, than non-Indians of various ethnic and racial backgrounds (Bennion & Li, 1976; Farris & Jones, 1978b; Reed, Kalant, Griffins, Kapur, & Rankin, 1976; Schaefer, 1981; Zeiner, Perrez & Cowden, 1976). Further, Indian women do not seem to suffer any special intoxication effects beyond those shown by other women, even though they did metabolize alcohol slightly faster in one study (Farris & Jones, 1978a). Finally, the livers of Indians have been studied through biopsy and seem to be similar in both structure and phenotype to those of non-Indians, even Western Europeans (Bennion & Li, 1976; Rex, Bosion, Smialek & Li, 1985). In contradiction of the above points, there is only one dissenting study. The one study that did show a slight difference (deficit) in alcohol metabolism between Canadian Indians and non-Indians (Fenna, Mix, Schaefer & Gilbert, 1971) was so flawed scientifically that it drew immediate and consistent criticism (Leiber, 1972; Bennion & Li, 1976). Therefore, three points need to be openly discussed and publicized in Indian communities to clear up these issues and open the arena for debate. These are as follows. One, that given the current scientific evidence, *Indians, as an ethnic or as tribal groupings, are no more or no less susceptible, in the biophysiological sense, to the ill effects of alcohol abuse than are non-Indians*. Two, alcohol consumption, metabolism, and the consequences of alcohol abuse affect various individuals within each ethnic group very differently; therefore, there is as much variation within an ethnic group as there is between groups (Reed, 1985). Three, given the current scientific evidence, both the causes of and solutions to alcohol abuse problems in an Indian community lie in the social and cultural realm of the community itself, the subcultures within it, and the social structures in the surrounding region (Bach & Bornstein, 1981; Bennion & Li, 1976; Dozier, 1966).

The final issue of importance (point four) is drinking prevalence. To help set the stage for public debate on alcohol policy, a discussion (and possibly a study) of the prevalence of drinking in the particular community would be very useful. Stereotypes and myths have so clouded the perceptions of most Americans, both Indian and non-Indian, that most people believe that a much greater proportion of the Indian population drinks than actually does so. Further, such thinking prohibits accurate and responsible debate and the ability to target the problems in the specific subgroups or areas where they truly exist.

Of the six studies of Indian adult-drinking prevalence published in the scientific literature, two have shown a higher prevalence of drinking (Graves, Hanson & Jessor, 1968; Longclaws, Barnes, Grieve, & Dumoff, 1980), one has shown a prevalence similar to that of the general U.S. population (Whittaker, 1962), and three have shown a lower overall prevalence (Levy & Kunitz, 1974; Whittaker, 1982; and May & Smith, 1988). All of these studies, however, have shown that the proportion of problem drinking among those Indians who do drink is consistently higher (two to three times) than in the general U.S. population. A clear and open consideration, and possibly a prevalence study, will help people understand and appreciate that all Indians do not drink. It will also open up clear and more objective thinking and help point the way to the locus of specific problems and the actual manifestations of these problems in particular subgroups and types of individuals.

In essence, Indian public health issues are both similar to and different than those of other human groups. Indian tribes and communities are certainly unique and special in their particular social and cultural appearances and content characteristics; but they are also groups of human beings that, in some ways, are not unlike others throughout the world. In terms of many alcohol-related phenomena, Indian individuals are very much like other people. They live and die from similar maladies, but in a different magnitude. In terms of general social structures such as norms, laws, values, and sanctioned behaviors, Indian communities have similar structures as do other communities, yet with a slightly different content or slant.

Indian communities also have many nonstructured parallels with other folk societies. They have social and spiritual expectations, values, ethics, and beliefs. Just as it is said in Ireland that the "Irish drink because they are Irish," it is said that "Indians drink because they are Indian" (Scheper-Hughes, 1987). Both Irish folk society and Indian folk society can change broad social structures, norms, laws, and expectations about drinking and eventually change values, beliefs, and behavior for more positive outcomes. Such changes would not necessarily detract from the

richness of either Irish or Indian folk culture. What it would do is change specific, targeted problems.

Alcohol and Human Behavior

So it is with most human beings and human groups. Alcohol and substance abuse problems have affected human groups for thousands of years. Few communities have been immune. But to a great extent, societies get the type of behavior that they allow (MacAndrew & Edgerton, 1969). Control of behavior in the mainstream and at the social margins is both possible and probable. Given the wide range of literature about alcohol and substance control policies in both national and international literature, many options are available for implementation. *Implementation of clear and specific policies under the proper conditions is what communities must pursue and achieve.*

A great deal of the literature focuses on how to shape drinking patterns. The emphasis in this literature is on how to keep people from drinking or how to keep the levels of consumption low and less problematic than heavy drinking (Peele, 1987; Moore & Gerstein, 1981; Colon, Cutter, & Jones, 1981). But the effects of alcohol on individuals who are already under the influence can also be affected.

Alcohol, and to a degree other substances, has the ability to impair certain basic functions in human beings. Hand-to-eye coordination, judgment of time and distance, and speech ability are some of the basic functions that are altered in human beings when under the influence of alcohol. The level of impairment is based on blood alcohol levels (BAL) or counts (BAC).^{*} A person who has a BAC of .10 is not as impaired as one with .18, nor as near death from toxicity as a person with a BAC of .40 to .50. However, many authors and researchers point out that physiological impairment at the lower levels of intoxication (e.g., <.25) does not automatically dictate or predict actual *behavior* when impaired.

MacAndrew and Edgerton (1969) were among the first to extensively document and popularize the notion that two people with the exact same levels of blood alcohol can behave very differently. An intoxicated individual can behave in a violent, aggressive, and flamboyant manner one moment and then be exactly opposite, even socially responsible, in the next moment — even though his blood alcohol level is the same.

MacAndrew and Edgerton and others make a strong case that *most behaviors of people under the influence are learned, socially determined*

^{*}The amount of alcohol in a person's body is generally described in terms of blood alcohol level (BAL) or counts (BAC). If a person has 8 parts of alcohol per 10,000 parts of other blood components, then he has .08 BAL or BAC, which is a way of expressing it as a percentage.

behaviors. Therefore, people who are under certain degrees of influence can be docile or mean drunks or can exhibit any number of behaviors in between. They can be either violent towards socially vulnerable targets (e.g., wives, children, or friends), or completely compliant, friendly, happy, and humble in the presence of others (priests, police, parents, or significantly respected others) who are perceived as likely to hold them more accountable for their actions (MacAndrew & Edgerton, 1969). Since much of what constitutes "drunken behavior" is learned by people from their social and cultural experiences, it can also be shaped by a society. Societies, over an extended period of time, can reinforce certain behaviors and punish others. Eventually this creates expectations that will determine people's actions when under the influence to a substantial degree. People can be socialized, convinced and even coerced to behave "within limits" when intoxicated. Therefore, flamboyant, violent, aggressive, or death-producing behavior does not have to result from drink. Drinking patterns can be shaped and so can the behavior of those under the influence.

Information and Knowledge Alone Is Not Enough

Knowledge, information, and techniques for public health programs on substance abuse behavior have increased dramatically in the past 15 years. It was once thought that alcohol and substance abuse were merely problems of a lack of knowledge. But the flood of information available from a variety of sources today has not, and will not, solve community problems of substance abuse exclusive of other changes. That is, knowledge alone will not solve the problem.

Knowledge and information must be combined with attitudes, beliefs, values, and social structures that teach, support, and reinforce appropriate use and nonuse of substances. Social structure, both formal and informal, must be consistent and *clear* in imparting these values and discouraging other values and behaviors related to substance use, abuse, and behavior while under the influence. If policy and structure are not matched with the desires, wishes, basic values, and opinions of a substantial and influential portion of the population affected, substance abuse reform will fail.

There Is No "Magic Bullet"

Many people in U.S. communities, and particularly those of us in the western United States, have longed for "magic bullet" solutions. That is, many seek *the* single explanation, program, or intervention that will eliminate the problem as a rifle bullet will down a foe in his tracks. Yes, it

would be wonderful if such technology were applicable and available. But it is not applicable, nor will it ever be, in a free society. There will be no one vaccine, pill, or treatment that will cure substance abuse in any one community. Instead, the solutions to the problems will come from concerted, coordinated, cooperative, and integrated efforts involving all major institutions in the affected communities.

Change must occur in familial, religious, social, economic, judicial (including enforcement), educational, and health care institutions working in concert. The order of the above list is important, for the bulk of the positive change and permanent results will eventually occur in primary social groups and will not emanate directly or completely from formal institutions. The formal social structures are there to assist, and in some cases to nudge, the primary institutions. *As such, the most profound and permanent social changes in public health occur from value and behavior shifts in primary social groups.*

Three Positive Examples of Mortality Reduced by Prevention

Evidence of the above change in health-related behavior can be found in at least three areas: heart disease mortality, car safety practices, and smoking behavior in the United States. Table 1 presents relevant data.

First, age-adjusted rates of death from ischemic (degenerative) heart disease in the United States have dropped substantially in recent years. The rate has dropped from 228.1 per 100,000 in 1970 to 113.9 in 1987 (U.S. Bureau of Census, 1990). Most of this has been attributed to change in life-style and values regarding work, smoking, diet, leisure, recreation, and exercise among males (Waldron, 1990).

Second, since 1970 the motor vehicle accident death rate (age-adjusted) in the United States has decreased from 27.4 to 19.5 per 100,000 (U.S. Bureau of Census, 1990). Most of this might be attributed to the increased use of seat belts, infant car seats, safer cars, and better highways. But it also stems from the integration of the use of these and other preventive practices by families, individuals, and society who have all placed an increased value on safety and stronger beliefs in prevention (Waller, 1989; National Research Council, 1985). Health education pointed out the need; the technology was made available and reinforced by statute and policy; many families and individuals have adopted the practice (habit) of using belts, and the result is a lower rate of accident mortality.

A third and final example is smoking behavior in the United States. Adult male smoking prevalence (males 20 years or older) has gone from 50.2% in 1965 (two years after the Surgeon General's first official

Table 1

Rates of Death (per 100,00) from Selected Causes and Smoking Prevalence in the U.S. for Selected Years 1965–1987

	1965	1970	1980	1987
Ischemic heart disease mortality (age-adjusted)		228.1	149.8	113.9
Motor vehicle accident mortality (age-adjusted)		27.4	22.9	19.5
Smoking prevalence (20+ years)				
% males	50.2	44.3	38.5	31.5
% females	31.9	30.8	29.0	26.2
Lung cancer mortality (males aged 35–44 years)		17.0	12.6	9.8
Emphysema mortality (age adjusted)		8.4	4.0	3.6

Source: U.S. Bureau of Census, 1990, pp. 78, 84, and 123.

warning) to 31.5% in 1987. Female gains have been more modest, decreasing from 31.9% to 26.2%. Nonsmoking has become the expected and enforced norm in most public buildings, at social gatherings, and among most families. One can certainly reflect on the gradual, step-by-step changes in the smoking attitudes, values, behaviors, laws, and practices that have come about as a result of both formal and informal changes in American society since 1963. Who would have thought 20 years ago that there would be smoke-free airplanes, public buildings and restaurants all over the United States? Because of the change in values and behaviors related to smoking, age-adjusted death rates from lung cancer for males aged 35 to 44 years have dropped from 17.0 per 100,000 in 1970 to 9.8 per 100,000 in 1987 (U.S. Bureau of Census, 1990), and the rate for those 45 to 54 years old has recently begun to drop. In addition, the emphysema death rate has also dropped dramatically while smoking has decreased (Waldron, 1990).

Many more examples of behavior-related health improvements can be given, and volumes of documentation could be presented. But the point is that changes in values, social structure, and routine behavior can have far-reaching, positive effects on a variety of health-related statistics (McKinlay, 1981). Similar changes in societal values and structures can occur in the areas of alcohol and substance use behavior. Of concern here is affecting positive change in behaviors related to substance abuse among Indian and Native populations.

The Problem Briefly Stated

Because the bulk of this paper is to be directed toward *prevention* of and *intervention* on alcohol problems, we will not dwell too long on the

problems at hand. So much has been written and presented in a variety of media on alcohol abuse problems among Indians and Alaska Natives, that it is not necessary to elaborate greatly here (*Albuquerque Tribune*, 1988; Sears & Ferguson, 1970; Jessor et al., 1968; Mills, 1980; Harding Associates, 1988; Gallup Independent, 1987). Furthermore, many social and environmental conditions in and around various reservation areas are structurally very similar because of the way they have been shaped by rather uniform reservation, federal, and state laws and policies (May, 1975, 1976, 1989c; *Anchorage Daily News*, 1988; *Albuquerque Tribune*, 1988; Braroe, 1975). It should suffice here to review the latest mortality for the various Indian regions and to redirect some common understandings about alcohol and Indians. Therefore, the following data will attempt to present mortality data in ways in which they are seldom if ever seen. This is done to try to adapt the analysis most closely to the needs of prevention through social policy.

Alcohol and substance abuse take a disproportionate toll among most groups of Indians and Alaska Natives in the western United States as compared with both the United States averages and the averages of western states in which many Indians live. In Table 2, some of the relevant and most current mortality data are summarized for Indians and Alaska Natives by age and sex-specific categories. Without dwelling too much on the details, we can conclude that the national Indian figures indicate higher rates of alcohol-related death for both Indian males and females than U.S. averages in most age categories, with the ratio of Indian to non-Indian deaths highest in the ages prior to 45 years. Indian males have substantially higher rates of death than Indian females for all types of alcohol-involved causes and in all age groups. Nevertheless, Indian females still have a substantial problem. For example, when Indian females aged 25 to 34 years are compared with non-Indian females for alcohol-involved causes, Indian females die from 1.3 to 11.7 times more frequently. Likewise, Indian males have higher rates of alcohol-involved death than other U.S. males in every age and cause category except suicide in the older age groups.

In the far right-hand section of Table 2, the actual number of deaths from these causes are given for all Indians and Alaska Natives. In all, for 1984 through 1986, motor vehicle and other accidents, suicide, homicide, and alcoholism caused 4,005 deaths for males and 1,375 deaths for females for a total of 5,380 deaths. Using an approximation of alcohol involvement gleaned from the Indian and non-Indian alcohol literature (May, 1989a), the far-right column provides an estimate of the extent of alcohol-involved death.* A total of 2,494 male deaths and 871 female deaths are estimated to have involved alcohol in these three years. Of the total of 20,561 Indian and Alaska Native deaths from all causes in

Table 2
Alcohol-Involved Causes of Death for U.S. Indians and Alaska Natives (1984-1986)
and the U.S. General Population (1985) by Age, Sex, Rates per 100,000, and Number

Cause of Death	RATES																		NUMBER		
	15-24			25-34			35-44			45-54			55-64			65-74			Total x Deaths (all ages)	Est. % alcohol-involved	Total alcohol-involved (all ages)
	Ind.	U.S.	Ratio	Ind.	U.S.	Ratio	Ind.	U.S.	Ratio	Ind.	U.S.	Ratio	Ind.	U.S.	Ratio	Ind.	U.S.	Ratio			
MALE																					
MV Accident	87.9	53.3	1.6	99.8	35.6	2.8	77.3	25.1	3.1	74.9	21.8	3.4	55.8	21.8	2.4	52.6	22.6	2.3	1310	65%	852
Other Accident	50.7	20.6	2.5	59.5	25.2	2.4	77.3	24.0	3.2	70.5	25.6	2.8	71.7	32.7	2.2	90.2	45.4	2.0	1107	25%	277
Suicide	40.9	21.4	1.9	45.2	24.5	1.8	30.4	22.3	1.4	18.2	23.5	0.8	15.9	26.8	0.6	13.5	33.3	1.4	505	75%	379
Homicide	32.2	18.9	1.7	40.8	23.1	1.8	36.2	17.9	2.0	28.3	12.8	2.2	18.6	9.1	2.1	15.0	6.4	2.5	483	80%	386
Alcoholism*	1.2	0.2	6.0	27.4	3.4	8.1	66.6	12.4	5.4	90.6	24.6	3.7	88.5	33.7	2.7	63.1	28.4	2.2	600	100%	600
Total deaths for above causes:																			4005		2494
FEMALE																					
MV Accident	32.2	18.4	1.8	34.1	10.0	3.4	34.2	9.4	3.6	25.0	8.9	2.8	23.1	9.9	2.3	9.9	13.9	0.7	511	65%	332
Other Accident	12.1	3.9	3.1	16.2	4.9	3.3	18.1	5.2	3.5	18.6	7.2	2.6	23.9	10.9	2.2	35.8	22.8	1.6	367	25%	92
Suicide	7.8	4.4	1.8	7.5	5.9	1.3	8.4	7.1	1.2	3.5	8.3	0.4	3.2	7.7	0.4	2.5	6.9	0.4	91	75%	68
Homicide	8.4	5.1	1.6	11.2	6.4	1.8	8.0	4.9	1.6	9.3	3.6	2.6	3.2	2.7	1.2	—	2.6	—	137	80%	110
Alcoholism*	0.6	0.0	—	17.6	1.5	11.7	40.1	4.2	9.5	47.7	8.6	5.5	36.6	9.9	3.7	32.1	8.3	3.9	269	100%	269
Total deaths for above causes:																			1375		871

Source: Computed from U.S. Indian Health Service, 1989.

*Alcoholism deaths include the following causes: alcohol dependence syndrome, alcoholic psychoses, and chronic liver disease and cirrhosis specified as alcoholic.

these years, 16.4% were, therefore, alcohol-involved. The differential, however, is very great between Indian males and females. Among Indian males, 20.5% of all deaths were alcohol involved, while 10.3% of deaths for females involved alcohol. This translates to a ratio of 2.86 alcohol-involved male deaths to 1 female death, which is twice the ratio for nonalcohol-involved death (1.45 to 1).

Therefore, from Table 2 the reader can conclude that: Indian males have a greater problem with alcohol-involved death than Indian females; the alcohol-involved mortality data are worse for Native Americans of both sexes, with Native Americans having higher rates of death than the general U.S. statistics for most every alcohol-involved cause; and the disparity between Indian and the U.S. general population is greatest in the younger age groups (see also May 1989a; 1986). Therefore, the need for prevention of alcohol-involved problems is one of a different magnitude and, it may possibly require slightly different approaches than among the general U.S. population.

To make a further distinction about the pattern of alcohol-involved mortality among Indians, Table 3 is concerned with the different causes of death by rate, number of deaths, and similar estimates of alcohol-involvement applied to both Indians and the United States for 1987. Considering the rates in the left-hand portion of Table 3 first, one can see that the age-adjusted rates per 100,000 for U.S. Indians are higher (1.59 to 4.82) than general U.S. population rates for all five alcohol-involved causes. In fact, the overall rate for these five causes of death is 2.73 times that of the U.S. averages. Moving to the middle section of Table 3, the actual *number* of deaths recorded for these causes is presented. For U.S. Indians, the five causes that are frequently alcohol involved accounted for 1,538 (26.7%) of all deaths in 1987. When the estimates of actual alcohol involvement from the far left column of the table are applied to each cause, the magnitude of alcohol involvement is 950 deaths, or 16.5% of all Indian mortality. This compares with the overall U.S. figures of 7.7% for the same causes and 5.1% estimated as definitely alcohol related.* Therefore, the alcohol-involved mortality, as measured both by rate and as a percentage of all deaths, is currently a greater health problem in Indian country. This should be no surprise following the sex-specific rates presented in Table 2.

The Indian Health Service (IHS) Office of Planning Evaluation and Legislation has recently tried to correct for suspected misidentification of

*Actually this estimate may be somewhat conservative for Indians, for autopsy studies of motor accident victims in progress in New Mexico are showing 70% to 85% alcohol involvement in Indian crashes. Further, other accidents might be 40% or more alcohol involved in some areas.

Table 3
Age-Adjusted Mortality (rates per 100,000) and Total Deaths from Alcoholism (Alcohol-Specific)
and Alcohol-Abusive Causes for the U.S. General Population and Indian Health Service Population, 1987

Cause of Death	Estimated % Alcohol- Involved	All IHS Areas (Rate)	All U.S. (Rate)	Ratio IHS/US	Total Indian Deaths (Number)	Total Indian Alcohol- Involved Deaths (Number)	Total U.S. Deaths (Number)	Total U.S. Alcohol- Involved Deaths (Number)	Nine IHS** Areas (Rate)	Ratio Nine Areas/U.S.	Total Deaths in 9 Areas (Number)	Total Alcohol- Involved in 9 Areas (Number)
ALCOHOL- ABUSIVE												
Accidents												
Motor Vehicle	65	57.6	19.5	2.95	561	365	48,290	31,389	75.8	3.89	435	283
Other	25	45.0	15.2	2.95	420	105	46,730	11,683	61.4	4.04	330	83
Suicide	75	18.6	11.7	1.59	186	140	30,798	23,099	23.9	2.04	142	107
Homicide	80	16.3	8.6	1.90	154	123	21,203	26,504	18.9	2.19	103	82
SUB-TOTAL (Abusive Deaths)	—	137.5	55.0	2.50	1321	733	147,021	92,675	180.0	3.27	1010	555
ALCOHOLISM* (Alcohol- Specific)	100	28.9	6.0	4.82	217	217	15,909	15,909	42.7	7.12	178	178
TOTAL (Abusive & Alcoholic)	—	166.4	61.0	2.73	1538	950	162,930	108,584	222.7	3.65	1188	733
SUMMARY OF ABOVE Deaths as a percent of total deaths (U.S. Total = 2,123,323 IHS = 5,772 9 Area IHS = 3,981)	—	—	—	—	26.7%	16.5%	7.7%	5.1%	—	—	29.8%	18.4%

Source: Computed from U.S. Indian Health Service (1990).

*Alcoholism deaths for both U.S. and I.H.S. rates include the following causes: alcohol dependence syndrome, alcoholic psychoses, and chronic liver disease and cirrhosis specified as alcoholic.

**These nine areas are the ones which I.H.S. cites as not having major problems with underreporting of Indian deaths. They are: Aberdeen (SD, ND, NE), Alaska (AK), Albuquerque (NM, CO), Bemidji (MN, MI), Billings (MT, WY), Nashville (ME, NY, NC, MS, FL, LA), Navajo (AZ, NM, UT), Phoenix (AZ, UT, NV), and Tucson (Southern AZ). Not included in the nine areas because of reporting problems are: California (CA), Oklahoma (OK, KS), and Portland (WA, OR).

Indian deaths in some areas by basing some of its data breakdowns on only nine of the 12 service areas.** This may give one a more accurate accounting of the true magnitude of the problem as it exists in the more traditional and isolated western states, and it may be more representative of reservations and Native communities where conditions are the most different from major U.S. population concentrations. Furthermore, it is also where data are more complete. In the far right of Table 3, these alternate data are presented. In these rates, deaths and percentages based on the nine service areas, it is shown that the ratio (Indian vs. the U.S. population) of alcohol-involved death is even higher than in the previous comparison (3.65), and the estimate of alcohol-involved deaths as a percent of total Indian deaths is 18.4% as compared to 5.1% for the overall U.S. population.

A final consideration from Table 3 is a very important distinction for planning, prevention, and intervention (see Westermeyer, 1976). This is a distinction between different types or categories of alcohol-involved death. In the table the deaths are divided according to predominantly alcohol-abusive (sporadic alcohol abuse) and predominantly alcohol-specific (chronic alcoholism) deaths. The three causes of death listed in the upper part of the table, the alcohol-abusive causes (accidents, suicide, and homicide), are estimated to cause substantially more mortality than the alcohol-specific. In the total Indian comparison in 1987, the alcohol-abusive causes accounted for 733 deaths and the alcohol-specific causes accounted for 217 deaths. This translates as alcohol-abusive 77.2% and alcohol specific 22.8% of all Indian alcohol-involved deaths. In the nine-area comparison the data are virtually the same: 555 (75.7%) for the alcohol-abusive and 178 (24.3%) for the alcohol specific. In the general U.S. population, the percentages are slightly different, 85.3% alcohol related, and 14.7% alcohol specific.

The real significance of the above data is great. The simple message is this. Alcoholism is not really the leading or number one health problem among Indians. *We would be much more accurate in stating that alcohol abuse and alcoholism combine to be the leading health problem among Indians.* As is true for the overall U.S. population, if health and public health professionals and citizens focus only on alcoholic behaviors (or

*Actually these estimates of alcohol involvement may overestimate U.S. alcohol-related deaths. For example, U.S. literature on suicide and homicide seldom indicates more than 50% alcohol involvement for suicide or more than 70% for homicide. Further, motor vehicle accidents are usually reported as 50% alcohol related in many states. Nevertheless, for consistency and to account for possible underrecording in various communities in the nation, these same alcohol-relatedness factors were used for both U.S. and U.S. Indian calculations. **These nine areas are: Aberdeen, Alaska, Albuquerque, Bemidji, Billings, Nashville, Navajo, Phoenix, and Tucson. Excluded are: California, Oklahoma, and Portland areas.

Table 4
Area-Specific, Age-Adjusted Mortality (rates per 100,000) and Total Deaths for Alcoholism and Alcohol-Abusive Causes for the Indian Health Service Population, 1987

CAUSE OF DEATH	Approx. Alcohol Involved	All IHS Areas	Total U.S.	Service Area** Rates of Mortality (per 100,000)											
				Aberdeen	Alaska	Albuquerque	Bemidji	Billings	California	Nashville	Navajo	Oklahoma	Phoenix	Portland	Tucson
ALCOHOL-ABUSIVE															
Accidents															
Motor Vehicle	65%	57.6	19.5	71.1	28.5	91.7	41.8	87.2	40.9	46.2	92.8	26.7	81.1	39.8	206.8
Other	25%	45.0	15.2	71.8	105.1	42.2	28.9	50.8	17.0	23.0	70.9	19.7	45.1	40.1	78.2
Suicide	75%	18.6	11.7	22.2	40.1	25.8	16.6	30.4	8.2	4.8	14.7	9.4	34.2	18.7	29.6
Homicide	80%	16.3	8.6	19.4	24.6	2.7	7.2	14.2	12.7	10.6	25.3	12.6	25.4	16.6	9.4
SUB-TOTAL (Abusive)	—	137.5	55.0	184.5	198.3	162.4	94.5	182.6	78.8	84.6	203.7	68.4	185.8	115.2	324.0
ALCOHOLISM*	100%	28.9	6.0	62.8	27.6	58.3	31.5	49.4	5.9	24.7	33.5	7.4	53.1	23.7	67.1
TOTAL RATE of Alcohol-Involved Death (Rank)		166.4	61.0	247.3 (2)	225.9 (6)	220.7 (7)	126.0 (9)	232.0 (5)	94.7 (11)	109.3 (10)	237.2 (4)	75.8 (12)	238.9 (3)	138.9 (8)	391.1 (1)
Total Estimated Alcohol-Involved Deaths (N)				99	84	61	36	57	48	24	205	90	128	80	35
TOTAL DEATHS (N)				638	533	284	326	321	264	209	916	1065	584	464	170
Alcohol-Involved Deaths as a Percent of Total Deaths in Area				15.5	15.8	21.5	11.0	17.8	18.2	11.5	22.4	8.5	21.9	17.2	20.6

Source: Computed from U.S. Indian Health Service (1990).

*Alcoholism deaths for both U.S. and I.H.S. rates include the following causes: alcohol dependence syndrome, alcoholic psychoses, and chronic liver disease and cirrhosis specified as alcoholic.

**These nine areas are the ones which I.H.S. cites as not having major problems with underreporting of Indian deaths. They are: Aberdeen (SD, ND, NE), Alaska (AK), Albuquerque (NM, CO), Bemidji (MN, MI), Billings (MT, WY), Nashville (ME, NY, NC, MS, FL, LA), Navajo (AZ, NM, UT), Phoenix (AZ, UT, NV), and Tucson (Southern AZ). Not included in the nine areas because of reporting problems are: California (CA), Oklahoma (OK, KS), and Portland (WA, OR).

chronic alcoholics), then up to three-fourths of the problem is ignored. The point is that *prevention efforts must embrace all alcoholic and alcohol-abusive behaviors*. Finally, special prevention initiatives need to be aimed at the specific characteristics of each type of alcohol-involved death. One cannot expect to improve all types of alcohol-involved death with one single type of initiative.

The final table, Table 4, presents data for the 12 different IHS service areas. This table could be used by the specific areas, or communities within them, to begin to plan for prevention/intervention. It breaks out alcohol-involved causes by type, gives an estimate of the alcohol relatedness of deaths in proportion to all deaths, and allows comparison of rates with the U.S. population and the total Indian population. If this information is supplemented with additional data from a state, reservation, or service unit, then Table 4 could be used to begin public health efforts.

A summary of the significant information in Table 4 is important. First, the areas vary widely in their experience with alcohol-involved mortality. The highest rates of alcohol-involved deaths are found in Tucson, Aberdeen, Phoenix, Navajo, and Billings, while the lowest are found in the states of Oklahoma, California, and Nashville. Second, the areas have varying rates of the different kinds of death. For example: some have high rates of both alcohol-abusive and alcohol-specific causes (Aberdeen, Albuquerque, Billings, Tucson, and Phoenix); some have low rates of both (Nashville); some, as IHS 1990 reports indicate, may be affected by underreporting (California, Oklahoma, and Portland); and others have an unequal mix of alcohol-abusive and alcohol-specific deaths (Alaska and Navajo), where the alcohol-abusive deaths far exceed the incidence of alcohol-specific. Third, the percentage of deaths that are alcohol involved varies greatly by area, from 8.5% to 21.9%. Therefore, one can further expect that variation in alcohol-involved behaviors will also vary from one reservation or community to the next (see May, 1989a). These variations must be taken into consideration when planning for, or dealing with, alcohol-related problems.

Etiological Considerations

Many variables have been explored in research to determine and explain the etiology (cause) of Indian rates and patterns of alcohol-involved behavior and mortality. First, factors such as the age of the population are important in these trends. Because the average (median) age of the population of Indians in general, and particularly among some western tribes, is below that of both the U.S. and the western states, one would expect higher crude death rates from certain behavioral causes (May, 1986, 1989a, 1989c; May & Smith, 1988; Broudy & May, 1983; May, 1982b). Therefore, the causes of death reflect those typical of youthful

populations. Second, the fact that most western Indians (the bulk of the IHS service population) live in rural areas, which have a low population density, elevates certain causes of death such as accidents and violence. Long distances to health care and long emergency medical system response times in rural areas cause up to four times as much death from injuries than if the injuries occurred close to a hospital (Waller, Curran, & Noyes, 1964).

Third, the physiological, psychological, cultural, social, and behavioral differences of the tribal and Indian subpopulations throughout the United States need to be considered, for they cause variance in the death patterns of some conditions such as diabetes, cancer, and other causes of death (see Broudy & May, 1983; May & Katz, 1979; May, 1986, 1989a, 1989c; Van Winkle and May, 1986; Becker, Wiggins, Key, & Samet, 1988, 1989, 1990; Samet, Key, Hunt, & Goodwin, 1987; Samet, Coultas, Howard, Skipper, & Havie, 1988; Samet, Wiggins, Key, & Becker, 1988; Wiggins, Becker, Key, & Samet, 1989). This is true as well in alcohol-related deaths. American Indian tribes have different patterns than Anglos of sickness and death from many diseases. Further, because of physiology (e.g., obesity influences) and behavioral patterns (e.g., smoking and risk taking), there is some aggregate variation between tribes and communities. Finally, and most important for this paper, alcohol policy directed at Indians has been rather unique. This history of alcohol policy has produced particular patterns of drinking and mortality among Indians that are still evident today. Knowing and understanding these factors are important in intervention and prevention planning. Although etiological considerations will not be elaborated upon further here, knowledge about causes is essential to prevention planning and activities. Etiological factors will be to some degree incorporated in the sections that follow.

Other Indicators of Alcohol Problems

In addition to mortality, substance abuse places a great deal of strain on health care systems by creating more illness. In emergency medical care, outpatient, inpatient, and rehabilitative medicine, the impact of substance abuse is tremendous in most areas of Indian country.

Alcohol detoxification and treatment are large unmet needs as well (May, 1986). The social and economic costs of these services affect each and every citizen, abuser and nonabuser alike. Using morbidity statistics to estimate the prevalence of problems from alcohol abuse and for the planning of prevention, however, is not as useful as using mortality data. Most morbidity data are treatment visit and hospital data that seldom capture the true prevalence, for there are many who are untreated and who, therefore, are not included in the data. In addition, most treatment data are duplicative, counting multiple visits for one person. These factors

render it more difficult to tell how many people are generating the total number of visits.

In the criminal justice area, alcohol and substance abuse contribute to a majority of the police and court activities involving Indians (May, 1976; 1982b). In all areas of Indian country, and particularly the border-towns surrounding dry reservations, the police, courts, and jails are constantly occupied with cases reflecting the consequences of substance abuse (*Albuquerque Tribune*, 1988). This has been the case for many years (Ferguson, 1968). A number of studies of these problems have been undertaken in a variety of areas where Indian and Anglo cultures mix with alcohol (Leubben, 1964; Riffenburgh, 1964; Jessor et al., 1968; Winfree & Griffiths, 1975, 1983, 1985; Forslund & Cranston, 1974; Forslund & Meyers, 1975; Williams, Chadwick, & Barr, 1979; May, 1975, 1982b; Randall & Randall, 1978; Minnis, 1963). As with morbidity data, arrest data are seldom available as unduplicated counts. That is, one alcohol abuser can account for dozens of arrests (Ferguson, 1968), so the true prevalence and incidence of the problem are not known. The targeting of broadly based prevention programs is difficult to impossible using such duplicative data.

Therefore, mortality data provide an excellent place to start preventive planning, for it is not duplicative, is easily accessed, can be manipulated to show the highest risk categories (male vs. female, age, residence, etc.) of people, and can be used to target the specific alcohol-involved problem behaviors (accidents, suicide, etc.). Clinic, hospitalization, arrest, court, and treatment data are also useful, but not so much in the epidemiological sense. What these other data can do is provide an idea of the impact of the problems on particular services and new ideas about how and where to intervene upon the consequences of certain behaviors.

The above discussion of the problem of alcohol abuse among Indians is intended only as a limited overview. It is, however, one tailored to the needs of broadly focused prevention. It is imperative that those who are attempting to understand and positively impact alcohol abuse in a community consult some of the specific sources in the references section, and, if possible, do their own research for the specific populations being targeted.

The Orientation of a Community Alcohol Plan

Any community or regionwide alcohol abuse prevention program might easily break down in the face of factionalism, limited vision, and individual interests. Therefore, a community approach must focus on a *public health perspective*. In a public health approach the goal is to apply

comprehensive strategies and programs that reduce the rates of disease and early death among total groups and aggregates of individuals (Beauchamp, 1980). In most cases the target would be all people on a particular reservation and in bordertowns within a close proximity. The focus therefore is on communities and particular geographic areas and *not* on individuals.

Communities are more than mere aggregates of individuals. A community represents an integrated, working system of people, values, norms, behaviors, laws, and traits that far surpass the sum of the individual parts. Therefore, there is an emphasis on the social relationships and *patterns* of behaviors that exist in a community and in its structures. The public health approach focuses on hazards, prevention, collective responsibility, and the idea that public health is limited by certain fundamental rights (not privilege, wants, or desires), pluralism, priority, and realism (Beauchamp, 1980, 1990). The health, well-being, and survival of all in the community must be considered, planned for, and protected from a variety of forces present in modern society. These forces are technology, the consumer goods available, environmental factors, and the behaviors that currently exist.

Forming a Consensus

With a focus on the larger community, special approaches must be planned in detail at the start of a prevention effort. Beauchamp (1980) says that a community must first work diligently toward forming a consensus on alcohol. Because American values in general, and American Indian values in particular, are conflicting and ambivalent regarding alcohol, the public health approach must begin with a consensus on which aspects of alcohol-related behavior can and must be controlled, changed, or improved for the good of the larger community. According to Beauchamp (1980), "the primary message" and goal of a program should be the *"minimal or nonuse of alcohol and a zero growth in per capita alcohol consumption."* Even though 60% to 70% of the adults in most American communities (Indian and non-Indian) are either nondrinkers or very light or occasional drinkers, the problem is one that must be addressed by all in the community.

Defining "Safe Drinking" Practices

Second, Beauchamp calls for a community definition of safe drinking. Certainly abstention is the safest approach, but the public health approach must also define other drinking patterns and behaviors that do not pose a significant threat to groups or individuals (drinkers or abstainers) in the community. In other words, some drinking patterns may not be problematic and, therefore, may not be a target for preventive efforts.

Define and Promote Specific Safe Provisions

Third, once safe practices are defined, a variety of approaches should be planned and pursued to reduce unsafe situations and to encourage safe behaviors and practices. Standard approaches used by many societies are: alcohol taxation, control of availability; a variety of prescriptive laws (that tell people how to drink and how to behave when they do drink); some proscriptive laws (that tell people when and where not to drink); control of advertising, education; and environmental protection (NIAAA, 1990; U.S. Surgeon General, 1989a; Miller & Nirenberg, 1984; Moore & Gerstein, 1981; Beauchamp, 1980).

Build Community Support

Fourth, community support and activity must be broadly based. Everyone must share in the responsibility. Not just tribal and other governments, but the private sector, churches, community groups, and families must be involved. Education of the community plays a vital role in moving these forces. As such, education and the media should define the problems in public health terms and propose possible solutions. Education should emphasize especially the collective or structural basis of the problems, and not focus on individual pathology. It should also promote the public acceptance of the fairness of control measures and a more equitable distribution of the responsibility for prevention among all who have anything to do with the community. A particular focus that might be beneficial is a partnership with those involved in the production, distribution, and consumption of alcohol. Nevertheless, the focus of education should be on the control of the substance, changes in social and institutional structures, and general improvement in the community. The movement should not dwell on the failures of the minority of individuals who suffer the greatest problems (Beauchamp, 1980).

Therefore, as Beauchamp (1980) tells us, the problem is defined collectively, and the burden of solution is a collective one as well. All must share in it, from the alcohol industry, to advertising media, to local governments, to families, to traditional leaders, to churches, and to all individuals. All must be educated, motivated, and directed in the effort. Ultimately most every individual will benefit, and the community rewards will be manifest in many ways. One particular success story of this type in the Indian world is the Alkali Lake community in Canada, which is illustrated in the film *The Honour of All* (Alkali Lake Indian Band, P.O. Box 4479, Williams Lake, B.C., Canada, V2G 2V5).

Solving the Alcohol Problem: A Drastic Change in Perception and Approach

While the above general discussion draws heavily on the ideas of one author, Beauchamp, there has been a tremendous revolution in the

academically defined approach to alcohol problems in the past two decades (Room, 1984). A great shift has occurred from a focus on "alcoholism" and individuals to "alcohol-related problems" or "alcohol problems." This shift is also characterized by an emphasis on reducing the negative health consequences of this predominantly legal drug and maintaining a policy-oriented perspective (Room, 1984). As such, the ideas above are supported by a huge volume of literature, only some of which is referenced in this paper (for summaries and a variety of references see Moore & Gerstein, 1981; Skog, 1981; Yates & Hebblethwaite, 1983, 1985; Wallack, 1984-85; Grant, 1985; Moser, 1985; Botvin, 1986; Holder & Stoll, 1988; Gould, 1989; U.S. Surgeon General, 1989a, 1989b; Moskowitz, 1989; NIAAA, 1990; and Institute of Medicine, 1989, chapters 1-6).

Oversimplification and Polarization Must Be Avoided

The body of knowledge that communities may draw upon is now both extensive and growing in its usefulness. Indian communities can be part of this movement if not leaders in it. The Alkali Lake Indian Band has certainly proven that it could shape its own destiny along these lines.

The first and major challenge to initiate change in a community is to apply these ideas to real-life situations where power, politics, economic interests, personal ideology, individual rights, and the democratic process all interact in peculiar ways (O'Gorman, 1988; Morgan, 1988; Saunders, 1989; Steddon, 1989; Warner, et al., 1990).

This is a common dilemma in many focused public health programs, from tobacco use to environmental pollution, to venereal disease and AIDS, as well as in alcohol control. The tendency among many is for political absolutism and moralism to push for simplistic, extreme, and polar solutions. But polarized stances many times lead to gridlock or stalemate, so that no progress is made in improving alcohol-related problems.

Beauchamp (1990) and others argue that one of the most important challenges of democracies is "encouraging a civil ethic of restraint." Restraint in areas such as sexual behavior, drugs, risk taking, and alcohol use have a great deal in common, and all affect the health of the public. How will restraint be advocated, put forth, implemented, and enforced in alcohol policy and programs in a particular Indian community? Regardless of the specifics, many of which will follow in this paper, the potential for influence and improvement through prevention at the local, tribal, and bordertown level is enormous (see Robinson & Thether, 1985; Bloom, 1981; Schaefer, 1981). Not only can the death, injury, and adverse consequences that are alcohol involved improve, but the attitudes, values, and behaviors of the community can also change positively over

time (Caswell, Gilmeore, Maguire, & Ransom, 1989; Caswell & Gilmore, 1989; Anderson, 1989).

Another (second) particular challenge present among many tribal communities is the need for data and research documentation to guide prevention programs (see Hazeltine, 1985; Institute of Medicine, 1989, chapter six). A good research plan or specific design from the beginning of a prevention program will help in: (1) defining the plan and in implementing, monitoring and fine-tuning the approach; (2) documenting the probable effects of particular implementations; and (3) transmitting the knowledge gained to other communities.

A third, special challenge exists regarding drastically different jurisdictions of control in the impact area. Within most states in the western United States where Indians reside, there are areas of both legal and illegal alcohol sales, and tribal, county, and municipal, state, and federal controls exist simultaneously. In addition, within each jurisdiction there exist several differing views of alcohol policy among the population (May & Smith, 1988; Pendleton, Smith, & Roberts, 1990). Policies of control approached from a strict prohibition stance or a legalization stance, while in many ways similar, have interesting and profound differences (Warner et al., 1990). Either may alienate a substantial portion of the population. Again, to plan and implement effective policy, the public health perspective must be used to address the common concerns of a majority of the citizens.

Major Policy Options Introduced

In the following three sections, the “meat” of this paper is presented. A wide range of policies and prevention techniques is explored. All of these prevention techniques have been used elsewhere in the nation or the world. All have received some positive support from various methods of evaluation research undertaken in other communities. But none of the techniques should be considered foolproof when implemented in any particular community in a particular way. The evaluation literature on alcohol policies is literally riddled with diverse findings and contradictions. Some policies that have been found to be effective in one community or nation have been less effective or totally useless in others. The literature, therefore, is a confusing and difficult set of studies to summarize.

The options presented here represent techniques that have met several criteria. First, they are options that seem feasible in Indian and Native communities and bordertowns of the western United States. That is, they can be advocated or supported by regional governments or constituents at the state or federal level. Or they can be implemented directly at the local tribal or bordertown level, without state or federal

intervention, as long as they are in relative concert with the prevailing laws, opinions, values, and capabilities of the local populace. Second, they are techniques of prevention or intervention that have received some substantial support by one or more adequate outcome evaluation studies, and they were assessed as reasonably effective in the setting(s) studied. Third, they are recommendations that have received substantial support from larger communities of scholars working in applied planning.

Virtually all of the techniques presented here appear in recommendations from one of the following documents: the National Research Council, *Beyond the Shadow of Prohibition* (Moore & Gerstein, 1981); the World Health Organization, *Alcohol Policies* (Grant, 1985) and *Alcohol Policies in National Health and Development Planning* (Moser, 1985); The National Research Council, *Injury in America* (1985); the Institute of Medicine, *Prevention & Treatment of Alcohol Problems* (1989); the Surgeon General's *Workshop on Drunk Driving* (1989a, 1989b); the National Committee for Injury Prevention and Control, *Injury Prevention: Meeting the Challenge* (1989); and the National Institute on Alcohol Abuse and Alcoholism (1990).

Indian Historical Considerations

Indian experience with alcohol policy in the past has been a special case. Because of the negative, early experience of Indians with alcohol and the strong belief in the "drunken Indian" stereotype "that Indians cannot hold their liquor," strict alcohol policy has been aimed at U.S. Indians throughout history (Fuller, 1975; May, 1976). Legislation prohibiting the sale or use of alcohol by American Indians originated in early colonial times. As early as 1645, the Connecticut colony prohibited the sale of liquor to Indians. All other colonies passed similar provisions at various times in the 1600s. By 1832 the U.S. Congress had passed a law that prohibited the sale of liquor to any and all American Indians. Much of this legislation was supported, and in some cases requested, by Indian leaders themselves. The federal law remained in effect until 1953, totally denying legal access to alcohol for Indians (May, 1976). At that time each tribe was given the power to regulate alcohol traffic on its own reservation(s). By the end of 1974 only 92 reservations (31.4%) had passed laws making alcohol legal within their borders (May, 1977), and few have been enacted since 1974.* Therefore, most reservations remain technically "dry" today. Prohibition has been the modal policy.

Despite the widespread, self-imposed prohibition of alcohol in much of Indian territory, alcohol-involved problems among many tribes continue to generate high mortality. Bootlegging and purchase off reservation are substantial supply sources (Hart, 1988). A number of tribes suffer from considerable alcohol-related mortality and morbidity in spite of total prohibition in both historical and contemporary times. Many researchers

have raised the question of whether prohibition is beneficial, for alcoholism and alcohol-abusive behavior are not stopped and might actually be encouraged by the illegality of alcohol (Bach & Bornstein, 1981; Back, 1981; Dozier, 1966; Stewart, 1964).

The major purpose of this paper is to expand the awareness and consideration of policy options available to Indian tribes, leaders, law-and policy-makers, and health professionals. A tribe that chooses to retain prohibition can use many of the options contained in Figures 1 through 3 to help tighten up its enforcement and definitions of behavior on reservation. Other options presented here can also help a tribe or community know what policies and approaches to support off-reservation. Tribes that have endorsed prohibition might work more knowledgeably on the reservation and also with the border areas, local, state, and federal officials. Conversely, a tribe that has chosen or chooses to provide legal access to alcoholic beverages can select which particular options to implement. The various options in the figures provide a "shopping list" with advice for use and implementation.

Regulating the Supply of Beverages

Probably the most common and agreed-upon approach to minimizing alcohol-involved problems both past and present among all human groups has been controlling the availability of alcoholic beverages. When most alcohol was brewed on the farm, ranch, in small operations, or far away in eastern cities when transportation was poor, the supply was relatively self-limiting. But today there are few limits to the supply of alcoholic beverages off or on reservation. In addition, advertising in a variety of media is directed at increasing the demand and consumption in a variety of groups, but especially among those who are young and those who are "social" drinkers (see NIAAA, 1990, pp. 211–123). Therefore, availability is a vital issue. Since alcohol is readily available most everywhere, how does a reservation or community deal with this seemingly unlimited supply? Figure 1 summarizes some of the possibilities.

*Research in progress by the author.

Figure 1
Regulating the Supply of Alcohol Beverages

Intervention Area	Specific Recommendations	Comments
A. Taxation Revenue and Price	<ol style="list-style-type: none"> 1. Raise federal excise tax on alcohol. 2. Raise state excise tax on alcohol. 3. Institute tribal taxes on alcohol at the retail and wholesale level. 4. Adjust for inflation each year based on Consumer Price Index. 5. Tax beverages (beer, wine, and liquor) at the same rate, relative to the amount of absolute alcohol in each beverage. 6. Continue to work to regain an increased proportion of state liquor tax money to increase resources for prevention/intervention on alcohol problems in local and tribal communities. 	<p>1-5. An increase in the price of alcoholic beverages has been shown by many studies to be the most consistent and promising way to reduce alcohol-related crash and cirrhosis fatalities. See strategies to influence these policies in U.S. Surgeon General, 1989z (pp. 19-22).</p> <p>6. More money is needed to deal with problems of substance abuse.</p>
B. Off-Premise Sales and On- Premise Sales	<ol style="list-style-type: none"> 1. Match the total number of alcohol licenses to the minimum that public opinion will support. <ol style="list-style-type: none"> a. The location, density, and transportation patterns to and from an outlet must be considered in addition to the total number of licenses. 2. Maximize sales in grocery stores. 3. Minimize sales in minimart, gas station outlets. 4. Minimize or eliminate drive-up alcohol sales. 5. Minimize sales in bars, particularly where food is not emphasized. 6. Limit sales by time and place at sporting events. 7. Minimize driving distance to on- and off-premise sales by location of establishment and/or license. 8. Strictly control hours of sale — limit or expand to control abuse. 9. On- and off-premise sales of alcohol to pregnant women should be prohibited or strongly discouraged. When refused sale, the women and all others with her should be given a simple pamphlet explaining the effects of alcohol on the fetus. 	<p>1. An excess of licensed outlets may undermine control of the problem and public support of prevention. a. Location of outlet is also important.</p> <p>2. Studies indicate less drinking in cars with grocery store purchases.</p> <p>3-5. More people convicted of DUI purchase or consume their alcohol at minimarts or on-premise bar sites. Drive-up windows need more research, but probably fit in the category of minimarts. (See NIAAA, 1990).</p> <p>6. Explicit limits set a tone of responsibility.</p> <p>7. Reduce distance at risk for impaired driving.</p> <p>8. Hours of sale affect rate and timing of accidents and other alcohol-related problems. Monitor carefully.</p> <p>9. Fetal alcohol syndrome and fetal alcohol effects are the leading, major birth defects and the greatest cause of mental deficiency in New Mexico and may be in most western states. Many governments mandate fetal alcohol syndrome warnings.</p>

Intervention Area	Specific Recommendations	Comments
	<p>10. Eliminate "happy hour," free drinks, "two for one," drink contests, and ladies' night promotions (of reduced price or accelerate-pace drinks).</p> <p>11. Pass and enforce open-container laws.</p> <p>12. Examine the seller liability laws in relation to responsible server practices in the local communities.</p>	<p>10. In some studies moderate and heavy drinkers increase their consumption at low-cost promotions but do not decrease consumption at other times to compensate.</p> <p>11. Advertise their enforcement.</p> <p>12. "Dram shop" acts have been used in many states; some are strict and others are not.</p>
C. Age of Purchase/Driving	<p>1. Keep minimum drinking age at 21 years.</p> <p>2. Consider raising the minimum legal age for driving for all youths to 16, 17, or even 18.</p> <p>3. Enforce all minimum age statutes to the fullest extent of the laws and publicize in media when this occurs.</p>	<p>1. The minimum of 21 years of age for purchase is a consistent life saver.</p> <p>2. Inexperienced drivers and inexperienced drinkers are both major factors in serious alcohol-involved crashes of youth.</p> <p>3. Adults who sell or buy for youth and youths themselves must be deterred both generally and in specific cases.</p>
D. Prohibition on Reservations	<p>1. In areas where alcohol is prohibited, consider an aggressive policy that removed the power of alcohol sales and economic rewards from illicit suppliers (bootleggers) or irresponsible bordertown vendors. Options are: a. Strict prohibition where all sanctions are very heavy, clear cut, and the maximum enforcement and penalties are exercised consistently and surely.</p> <p>2. Legalization of alcohol might be instituted in a very comprehensive and well-defined policy program that has all the elements of control, taxation, and planning outlined in this report. If undertaken, a two- to four-year planning and implementation period should precede actual sales. This will ensure anticipation of and actual planning for the reduction of immediate problems.</p> <p>3. Regardless of which policy direction is taken, the clarity of the expectations of the policy and laws, and the quality of their interpretation, administration, and enforcement are the big issues. A clear and quality program that is matched to local conditions and populations will have a high probability of success.</p>	<p>1-3. In western areas of the United States there are many "dry" areas, many of them reservations (May, 1977). Where prohibition exists and patterned evasion of the laws exist, the rates of alcohol-related morbidity, mortality, and arrest are actually higher than in some "wet" areas (May, 1976). Unclear policies, however whether they are proscriptive (dry) or prescriptive (wet), will continue to cause problems. In unenforced prohibition, for example, the bootleggers set the norms of drinking (see Hart, 1988; Albuquerque Tribune, 1988). Clear-cut norms, expectations, and penalties such as in Alkalai Lake, Canada, (prohibition) or in a comprehensive legal alcohol policy, can produce better results than currently exist (May & Smith, 1988).</p>

Intervention Area	Specific Recommendations	Comments
E. Other Considerations	<ol style="list-style-type: none"> 1. Local jurisdictions (counties and municipalities) need the power to enact regulations that are more restrictive than state laws. Tribes should attempt to work with bordertowns and communities in a partnership. 2. Strongly discourage the production, sale and distribution of "alcohol enhanced" beverages such as fortified wines. 3. Encourage use of nonalcoholic beer, wine, and fruit drinks as a substitute for alcoholic beverages. 4. The less available alcoholic beverages are, then policy for the control of other substitutes needs to be considered. Of particular concern are substances (hair spray, cough syrup, inhalants, medicines, marijuana, etc.), both legal and illegal. 	<ol style="list-style-type: none"> 1. Local jurisdictions can best adapt availability to specific problems/needs. Indian reservations have more legal power over alcohol, and therefore more latitude and options, than do other communities. 2. Literature emphasizes encouraging beverages with low alcohol content. 3. Studies (see Schaefer, 1987) cite these as being "safe" alternatives to alcoholic beverages. 4. In the western states these substances are a problem with some subsegments (youth, heavy drinkers) of the population at certain times (Sundays, after hours, underage, and in times of no money).
F. Advertising	<ol style="list-style-type: none"> 1. Monitor advertising in the local areas for content: <ol style="list-style-type: none"> a. Encourage messages of abstinence or nonproblematic drinking. b. Discourage advertising that links alcohol with behaviors associated with alcohol-related problems (e.g., driving, sex, sports, heavy drinking). c. Discourage any advertising aimed at highly vulnerable groups (e.g., youths, women of child-bearing age). d. Eliminate advertising of alcohol on college campuses or other places where a substantial number of the clients are under age. e. Eliminate tax deductions for alcohol advertising and promotions other than price and product advertising. f. Add special/locally relevant warning labels to alcohol products. 2. Provide matched, counteradvertising that gives youth and other individuals safe or nondrinking messages and the information to judge advertising claims. 	<ol style="list-style-type: none"> 1. More research is needed on the effects of advertising on individuals of various groups and subgroups. See NIAAA (1990, pp. 211-213) and the U.S. Surgeon General (1989a, pp. 27-32, 1989b, pp. 15-34) for excellent reviews. The tacit purpose of advertising is to increase demand; however, most recommendations of public health officials are quite conservative as to what should be allowed or promoted. <ol style="list-style-type: none"> e. A recommendation from the U.S. Surgeon General, 1989a. f. Special labels can be mandated by law. 2. Youths who are taught to weigh and question the content of advertising will be better citizens in general. Further, they might come up with their own countermessages as similar to those advocated by the organization D.O.C. (Doctors Ought to Care) for tobacco.

Taxation Revenue and Price

Controlling alcohol availability and consumption by price is the most agreed-upon way of reducing alcohol problems (see Figure 1, Part A). Because federal excise taxes were not adjusted for inflation from 1970 until 1991, it was an area of great opportunity. It still is an option, because the increase in 1991 was not as substantial as had been recommended by several groups, including the U.S. Surgeon General's task force (1989a). Equalizing tax rates for all beverages based on their alcohol content is recommended by many (Moore & Gerstein, 1981; U.S. Surgeon General, 1989a; NIAAA, 1990).

Calculations of the national impact of the above major changes on consumption are that the price of beverages would go up 33.6% and there would be an 11% to 21% decline in the consumption of liquor, a 12% decline in beer consumption, and an 18% to 32% decline in wine consumption. The resultant tax revenue would be more than \$20.6 billion for the federal treasury, and there would be a 19% to 25% annual decline (8,400 to 11,000 deaths) in highway deaths (U.S. Surgeon General, 1989a, pp. 23–26). Other studies predict that alcohol tax and price increase will produce declines in cirrhosis deaths as well (Colon, 1981; Rush, Gliksman, & Brock, 1986). Tribal governments that have legalized alcohol sales can use tax and pricing to reduce both supply and problems at the local level.

State alcohol excise taxes could and should also be used in a similar manner. Most states, especially in the western United States, have relatively low tax rates on alcoholic beverages. An increase in the tax on beer, wine, and spirits should have a very positive effect on both the alcohol-related problems and the money available to state and local governments. This could certainly benefit bordertowns interested in prevention and intervention.

Probably the most basic, yet difficult, area of availability is for a community to try to regulate the total number of licenses issued (Figure 1, Part B). Many bordertown communities in the West (e.g., Gallup, N.M.) have more licenses than a simple application of the state formula or sound planning would dictate. Trying to eliminate existing licenses presents many problems; nevertheless, the *number* of outlets is an important to consideration in any community.

On-Premise Versus Off-Premise Sale

Alcohol sold in bars and on-premise sites has been generally found to produce more cases of driving under the influence (DUI). Bars where alcohol is served exclusive of food generally have more problems with alcohol-related behavior than those with a restaurant atmosphere. Mini-marts or gas station sales have recently been found to be associated with higher rates of drinking in cars, while the lowest rates of drinking and

driving come from grocery store purchases (see O'Donnell, 1985; NIAAA, 1990). Location of license, density of licenses in a geographic area, hours of sale, and conditions of sale are important.

For example, one approach to density is to spread out licenses so that each village, community, or neighborhood has access to one or more outlets. This is seen as a good way to reduce exposure to and risk for intoxicated or impaired driving, for it cuts down the miles travelled. On the other hand, some communities have tried to concentrate all licenses in limited areas where the drinking can be more easily observed and policed, and the visibility of the problems is isolated from mainstream populations. Either approach has its merits. Marginally conservative approaches in these areas generally produce positive changes in alcohol-related problems (Hoadley, Fuchs, & Holder, 1984). The literature is rich with examples of studies and interventions that might be tried locally. (For more detail see Colon & Cutter, 1983; MacDonald & Whitehead, 1983; Gusfield, Rasmussen, & Kotarba, 1984; MacDonald, 1986; Rush, Glicksman, & Brook, 1986; Gliksman & Rush, 1986; Ravn, 1987; Holder & Blose, 1987; Blose & Holder, 1987; U.S. Surgeon General, 1989b; Mosher & Jernigan, 1989; Smith, Remington, Williamson, & Anda, 1990; and NIAAA, 1990.) Whatever type of approach to the location and type of sales is chosen, it should be specific, it should be monitored, and the resultant behavior should be studied.

Age of Purchase and Driving

The raising of the drinking age (Figure 1, Part C) in the late 1980s from 18 to 21 was heavily studied concerning its impact on impaired driving and alcohol-related crashes (see Klitzner, 1989; Vingilis & DeGenova, 1984; Moskowitz, 1989; Bonnie, 1985). Generally, the raising of the age has had a substantially positive effect on vehicle deaths for 18- to 20-year-olds. Little effect has been found for 16- and 17-year-olds, but such laws probably reduce overall drinking in youthful age groups (Vingilis & DeGenova, 1984; NIAAA, 1990). Since driving experience and drinking experience are both factors at risk in these situations, some authors have called for consideration and examination of raising minimum drivers' age as well as minimum drinking age. Tribes and border-towns might consider these ideas carefully.

Prohibition Versus Legalization

While obviously not the only choices available to tribal communities, this is a key decision (Figure 1, Part D). If a tribe legalizes alcohol on the reservation, it will allow much greater breadth of control, power, and economic options. While a majority of policy options in all Figures (1 through 3) in this paper are available to legalized communities, only some are totally within the control of prohibition communities. Nevertheless,

regardless of whether a tribe chooses legalization or prohibition, policy must be comprehensive, clear, and enforced consistently and surely. Prohibition as well as legalized communities should review all of the options in this paper as well as other published literature on alcohol control, enforcement, and treatment.

Other Considerations

Figure 1 includes a number of other considerations in addition to prohibition and legalization. At one end of the spectrum is tribal and local jurisdiction over a number of very specific regulatory laws targeting control of alcohol; this concept was strongly supported by the Surgeon General's Workshop participants (U.S. Surgeon General, 1989a). In addition, with the increased availability of nonalcoholic beer, wine, and reduced-alcohol spirits, attention is now being turned to their effects and safety (Schaefer, 1987). Encouraging the availability of nonalcoholic beverages should be considered.

At the opposite end, and a dangerous consequence of decreased availability, is the use of other substances as intoxicants. Studies of youths in the West (Oetting & Beauvais, 1989; Oetting, Beauvais, & Edwards, 1988; Beauvais, Oetting, & Edwards, 1985) indicate that alcohol availability may replace the use of solvents and other toxic substances by youths (see also May, 1982a; 1989a). In other words, when youths gain access to alcohol, many give up use of inhalants, solvents, and so on. Very heavy abusers of alcohol, conversely, seem to turn to cheaper and more available substances (such as hair spray, solvents, inhalants, etc.) when price of alcohol goes up or availability decreases (*Albuquerque Tribune*, 1988).

Addictive personalities will change substances based on availability. Currently in Albuquerque, New Mexico, some stores have removed many cough medicines, spray paints, and other inhalants from public access. Some are considering removing inexpensive hair sprays from store shelves on Sundays, for in New Mexico alcohol is not sold in package sales on Sunday. If the price of alcohol goes up, or its availability is prohibited or substantially reduced, monitoring of and policies regarding these other substances will likely be needed. Many reservations that have chosen prohibition have substantial problems with inhalants and solvent abuse.

Banning advertising (Figure 1, Part E) is an approach that various governmental agencies have used to regulate both tobacco and alcohol. Further, there is some growing popular support for limitations or bans on alcohol advertisement in various media such as television. The U.S. Surgeon General's recommendations (1989a) contain one whole section on advertising; the summary calls for eliminating advertising on college campuses, at public and sports events (e.g., rodeos, pow wows), and to

youths. It also calls for counteradvertising (to educate people about the dangers of alcohol abuse), an enhanced warning label system, and the monitoring of the content of advertisements by local communities.

While some research is needed, there is evidence (Atkin, Hocking, & Block, 1984; Atkins, Neuendorf, & McDermott, 1985) that advertising does influence patterns of, ideas about, and possibly the amount of consumption by individuals. Therefore, the media and advertising should be monitored by tribal and local communities. Bordertown and tribal communities might work to eliminate all alcohol advertising in local papers, on billboards, or at special events. At the very least, advertisers should be called upon by all to portray the least problematic ideas, values, and behaviors about drinking. In an ideal situation, only the best and most positive local, community values would be supported by the media.

Concepts of Safer/Appropriate Drinking

In Figure 2, Part A, techniques of safer or appropriate drinking are presented. As MacAndrew and Edgerton (1969) and many others have indicated, communities must work to define and clearly communicate what alcohol-related behaviors are totally unacceptable and those that will be allowed (Figure 2, Part A). The five behaviors that communities should consider defining as unacceptable and negatively sanction in a clear and consistent manner are: driving under the influence (DUI), chronic intoxication or inebriation, violence related to alcohol abuse, public intoxication, and drinking by women during pregnancy (see Moore & Gerstein, 1981; U.S. Surgeon General, 1981; NIAAA, 1990). Behaviors that can be tolerated with relatively minimal consequences are moderate drinking in association with foods in restaurants, and drinking that is not daily nor more than two drinks per day on days when drinking. Practices that should be encouraged include: the substitution of nonalcoholic beverages or low alcoholic beverages, abstinence (especially during childbearing years), and recreational and other activities that are free of alcohol.

Drinking and Law

Because many of the above measures have been considered important by communities over the years, laws have been passed to punish noncompliance and, hopefully, provide for general deterrence from these behaviors (Figure 2, Part B). Most current DUI laws in the United States set legal intoxication at the .10% BAC level, and a level of .05% is usually considered presumed or possible impairment. Most modern countries in

*A drink is usually defined as a 12-ounce beer, a 7-ounce glass of wine, or a mixed drink with 2 ounces of 86 proof liquor.

the world have stricter BAC levels (.08%). The American Medical Association and several committees of the Surgeon General's Task Force on Drunk Driving have recommended .05% as a legal level of impairment (U.S. Surgeon General, 1989a; Bonnie, 1985; Grant, 1985; Moser, 1985). Several states (e.g., Oregon) have recently lowered their levels to .08%; therefore, the move to stricter definitions is under-way. A tribe can set and enforce its own definitions. At the very least, drinking by under-aged persons (21 years) should also be more carefully and consistently enforced.

Figure 2
Shaping Drinking Practices Directly

Intervention Area	Specific Recommendations	Comments
A. Concepts of Safer/Appropriate Drinking	<p>1. Emphasize strongly that:</p> <ul style="list-style-type: none"> a. Drinking when driving or performing hazardous mechanical tasks is unacceptable. b. Long-term excess of drinking leads to cirrhosis, kidney problems, pancreatitis, and heart disease. c. Drunkenness is in no way and explanation or excuse for violent or aggressive behaviour in any group or for any individuals. d. Drinking by a female during pregnancy is not acceptable. 	<p>1. Items a-c are recommended approaches by the National Research Council (Moore & Gerstein, 1981). Further strict defining of "within limits" behavior, when integrated into social practices, reinforced and enforced are excellent deterrents (MacAndrew & Edgerton, 1969).</p> <p>d. Drinking during pregnancy causes fetal alcohol syndrome or fetal alcohol effects and is now gaining policy support in many localities. Fetal alcohol damage has been found to be a growing problem on Indian reservations (May, et al., 1983).</p>
	<p>2. Further, support the ideas that:</p> <ul style="list-style-type: none"> a. Drinking while eating is more acceptable than while not eating. b. Drinking more low alcohol content or no alcohol beverages is preferable. c. Substitute nonalcohol involved recreation for alcohol-centered activities. d. One should not drink every day, never exceed a per-day limit (e.g., two drinks) and should not ever drink, smoke, or take any drugs (prescription, over the counter, or illicit) when planning to have a child. e. Public intoxication should be minimized to its lowest level through innovative policy. 	<p>2. All of these have been put forth by governments at one time or another and many of the practices have strong support in the literature as being less problematic than other drinking practices.</p> <p>e. Public intoxication is unacceptable and is damaging to community values, role models, and spirit, not to mention that it creates a situation where an intoxicated person and others may be victimized.</p>

Intervention Area	Specific Recommendations	Comments
	<ol style="list-style-type: none"> 3. Distribute BAC calculation wheels and teach people to use them so they know what levels are dangerous (e.g., >.05). 4. Encourage alcohol education (especially policy) for civic leaders, employers, educators, law enforcement, judicial, and other influential decision-makers. 5. Expose people to drunk driving demonstrations such as driving trials, "the enforcer" crash test machine, etc. 	3-5. All are recommended by a variety of studies.
B. Drinking and Law	<ol style="list-style-type: none"> 1. Driving under the influence (>.10 BAC) is illegal and will be fully prosecuted. 2. Driving with a BAC of 0.5 or greater, a driver can be considered as impaired and can be prosecuted as impaired if evidence is available. 3. Try to reduce the explicit legal intoxication level to >.05 or at least >.08, if possible. 4. Driving with >.02 or more among people under 21 years of age should be illegal and receive further penalties since the person is illegally drinking and more than likely impaired by lower levels of alcohol. 	<ol style="list-style-type: none"> 1. This is the current standard in most states. 2. Current standard in most states that is very frequently ignored. 3. The American Medical Association recommends .05 level as a national standard as did several of the U.S. Surgeon General's Task Force committees. Most European countries have .08 or less as a standard. 4. Lower levels of BAC for youths were endorsed by the Surgeon General's Task Force.
	<ol style="list-style-type: none"> 5. Drastically increase the likelihood of being apprehended for DUI. <ol style="list-style-type: none"> a. Administer a breathalyzer test for drivers in any vehicular accident. 6. Use strictly and routinely or pass "per se" statutes of motor vehicle laws in most states. 7. Should public intoxication be illegal again? 8. Court-order detox, short-term treatment, or other therapy upon first or second public intoxication event within a 12-month period. 9. Increase the use of pocket breath testers and breath alcohol testing mobiles for pre-screening and screening of drivers stopped. 10. Utilize sobriety checkpoints on roads and publicize the result of these crackdowns. 	<ol style="list-style-type: none"> Current probabilities for arrest are estimated to be between 1 in 2,000 and 1 in 500 (U.S. studies) to as low as 1 in 4 in New South Wales, Australia. 6. Already in place in many states but frequently avoided. 7. Trial studies are needed. 8. This might be effective as F-2 in this figure has been found to be. 9. They can save time and money in field tests for quick checks of sobriety. 10. These have been very effective in some states, Australia, and several European countries for a 12-18-month reduction in alcohol-related crashes (Ross, 1984).

Intervention Area	Specific Recommendations	Comments
	11. In all serious and fatal events (crashes, fights, murders, suicides, etc.), record the place of prior drinking.	11. Data and knowledge of this information, over time can focus reform or license revocation efforts as well as planning of policy information.
C. Education, Information and Training	<p>1. Provide general deterrence by insisting that people know the law, what constitutes legal impairment, and that they are likely to be checked for alcohol use in certain situations.</p> <p>2. School education programs should continue, but emphasize legal knowledge and liability as well as knowledge of substances. Self-esteem and resistance training may also be emphasized.</p> <p>3. Further, school children should be called on to study and debate policy as to how to improve both the school's atmosphere and the entire community's alcohol and substance problems.</p> <p>4. Get the youths involved in research and planning. Peer leaders are valuable in these efforts.</p> <p>5. Since most behavior relating to alcohol is learned in, and modeled from, the home environment, work with families as well.</p> <p>6. Involve churches and other community groups in the education process.</p>	<p>3-4. Participation in research and active projects will produce stronger commitment and values. This is personalized health education. Have people survey seat belt use, drinking practices, opinions, etc.</p> <p>5-6. Information is best learned and reinforced in primary social groups. Consider projects such as above (C, 3-4) and also information dissemination.</p>
	<p>7. Involve mass media to a great extent — television, radio, and newspapers are all important.</p> <p>8. Incorporate more alcohol and DUI information in driver's license tests.</p> <p>9. Public opinion surveys in local communities should be done to assess what the community needs and is ready for in terms of education.</p> <p>10. An integrated, communitywide, multiple-foci, multimedia, program should be planned and carried out over a period of years. Messages must be consistent from one institution to the next.</p>	<p>7. Message should emphasize the changing values about alcohol impairment — what is being done to promote acceptable behavior, and how unacceptable behavior is being treated and punished. Media reinforce the more personalized learning methods.</p> <p>8. Petition the state to do this.</p> <p>9. Local surveys give baseline data and are an excellent way of involving local opinions and strengths. They help people gain ownership of the problems.</p> <p>10. An integrated multifaceted approach should be the most effective.</p>

Intervention Area	Specific Recommendations	Comments
	11. Utilize the resources of the National Clearinghouse of Alcohol and Drug Information, the Wisconsin Clearinghouse, the National Council on Alcoholism and federal and state governments.	11. In recent years there has been an explosion of relevant, accurate, and useful films, pamphlets, articles, posters, tapes, and information on alcohol abuse. There may be no need to develop your own materials or "start from scratch."
D. Setting a Good Example	1. An obvious, coordinated effort by public and private groups sets a positive tone for all to see and conform to. 2. As positive alcohol behavior (e.g., lack of use/abuse) is emphasized, many are less likely to focus on the minority of abusers.	1-2. People are very prone to model their behavior in keeping with ascendant norms, values, and behaviors. Further, imitation is a very contagious trait. If one community sets a positive tone, others should follow.
E. On-site Consumption Settings	1. Server (bartender) training should be a condition of employment and license. Training should include: a. General, chronic problems from alcohol, cirrhosis, gastritis, nutrition, kidney function, d.t.'s, etc.; b. Acute problems from alcohol: DUI and calculations of level of intoxication, aggressivity, violence, seizures, and black out; c. Special issues: fetal alcohol syndrome, male vs. female alcoholism, increased risk to inexperienced drivers, etc.; d. Bar atmosphere and its effect on behavior.	1. Server training programs are relatively recent approaches and are proving to be a promising approach for preventing intoxication and alcohol-related problems in on-site settings. Tribal, state or local licenses should be contingent on this type of training.
	2. Bar atmosphere should be considered and studied. A few exploratory studies have found that the following things should be avoided to keep intoxication levels down and behavior "within limits": a. Slow, sad country music with drinking themes. b. Drinking alone. c. Bars with a reputation for being "rowdy." d. Bars without clearly safe alcohol and/or behavior policies. e. Dancing and drinking encourages longer stays. 3. Bar atmosphere that should be promoted is one of a "tavern" with governing expectations and rules and interpersonal familiarity, and not that of a "saloon" where intoxication, rowdy, violent, and flamboyant behavior is tolerated or even expected.	2. See Schaefer (1988) and Single (1987) for an idea of the research and policy questions that might be raised and explored locally. This area is, to a great extent, a promising and unexplored frontier. 3. Conditional use permits can be used to help define bar, restaurant, and other atmosphere traits that are less conducive to problem drinking (see NIAAA, 1990, pp. 217-219; Moore and Gerstein, 1981, pp. 75-76). If a bar is providing a bad atmosphere, take steps to change the situation or shut it down.

Intervention Area	Specific Recommendations	Comments
F. Treatment	<ol style="list-style-type: none"> 1. Continue to improve and, for now, expand treatment facilities for all in need. Particularly consider: <ol style="list-style-type: none"> a. Equal access of women and men and appropriate training for each gender. b. A variety of short- and long-term treatment options, and outpatient and inpatient options. c. Western and Indian relevant modalities given different interests and levels of acculturation. d. Support groups for sobriety. 2. DUI driver education classes should be available, but not as a diversion from penalties. This should be used only as an adjunct/addition to appropriate criminal justice sanctions. 3. Coordination of various kinds of treatment and follow-up at regular intervals is a must. Brief as well as long-term, outpatient as well as inpatient, and many specific types of therapies are useful. 4. All treatment should be rigorously researched to determine effective outcomes. 	<ol style="list-style-type: none"> 1. In the first years of a community effort in alcohol prevention, the number who need and request treatment will increase. But treatment alone, particularly only one type, will in no way solve the larger problems that prevention addresses. Over the long run prevention should decrease the need for treatment programs, particularly inpatient. 2. Literature on DUI diversion strongly supports driver education only in concert with normal penalties. 3. The literature supports the idea that a number of treatment modalities can work if matched to the proper type of client. Fighting among different treatment camps cannot be justified or considered productive, for all have similar goals — reducing and eliminating alcohol abuse. 4. Sound research helps improve treatment and bring in more funding for programs.

For more general deterrence to occur, the likelihood of apprehension for DUI must be increased dramatically (Ross, 1984). As it is now, low levels of apprehension (estimated at 1 in 500 to 1 in 2,000) do not keep people from driving while impaired. When apprehension rates increase and when the public perceives that apprehension is quite likely, then general deterrence is maintained by a wider segment of the people and DUI is reduced (Ross, 1984). "Per se" DUI laws in some states, which call for routine and strict procedures for license confiscation, court procedure, and tracking of DUI cases are seen as enhancing deterrence (Ross & Gonzales, 1988). Unfortunately, in many cases, for example New Mexico, these procedures are not being followed consistently (Ross, 1987). The increased use of sobriety checkpoints and pocket breathalyzers by the police will help in this effort.

A final consideration in this area is this. Should public intoxication be criminalized again? It has been recently in Gallup, New Mexico, the most notorious bordertown in the Southwest, but resources have proven insufficient to enforce it adequately. A further examination of this idea is warranted, particularly if criminal penalties are used to enhance treatment for alcoholism and alcohol abuse. This combined approach —

punishment and treatment — may serve as a motivation for change among repeat offenders.

Education, Information, and Training

Education and training should continue so that children, teens, and adults know the laws, the dangers of alcohol abuse, and the positive opportunities for community improvement in this area (Figure 2, Part C). The content and material should be slightly different for Indian youths than for non-Indian youths (Winfree & Griffiths, 1983). Ownership of the problem should be widespread, with members of the community encouraged to participate in personally fulfilling prevention and intervention activities themselves (Strecher, McEvoy-DeVillis, Becker, & Rosenstock, 1986; Chassin, Tetzloff, & Hershey, 1985). Education will be most successful if it goes beyond the schools and media to also be a major focus within families, churches, peer groups, and other primary groups. When prevention ideas take hold in primary groups and are reinforced through social learning, norms, and informal sanctions, then more effective behavior change will follow (NIAAA, 1990; Akers, 1986).

Setting a Good Example

Communities that carry out major prevention efforts to reduce alcohol abuse will set a positive example for all to follow (Figure 2, Part D). As positive behavior becomes widespread, others will aspire to similar behavior. Imitation, always a common human trait, becomes a positive variable in the equation rather than a negative one, such as when people copy deviant behavior (Phillips, 1974). This is especially true for parents, for many studies have shown parental behavior to be highly influential on the drinking of their children (see Winfree, 1985; Winfree & Sellers, 1989).

Modifying On-Site Consumption Settings

A real frontier in shaping drinking behavior awaits in on-site alcohol service settings (Figure 2, Part E). In recent years some researchers have examined how server practices can be used to modify problem drinking and the intoxication levels of patrons (Waring & Sperr, 1982; Mosher, 1984a, 1984b; Saltz, 1987; Geller, Russ, & Delphos, 1987). Bar atmosphere conditions are believed to have a profound effect on alcohol-related behavior. Conditions as specific as the beat of the music played, lighting, group interaction in the bar, the clarity of behavior expectations, and whether there is dancing or not are all being considered by researchers. In the few studies done, all of the above conditions have been found to have an influence on the drinking pace, intoxication levels, and nature of behavior (aggressive versus passive, happy versus sad) (Schaefer, 1988; Single, 1987; Schaefer, 1981; Bach & Schaefer, 1979; Moore & Gerstein, 1981). This exact idea could be applied creatively to

meet the local cultures and needs of a community (Howard, 1984). Changes in bar atmosphere should be studied regarding outcome, and who is better than local citizens and communities to work on these issues (Giesbrecht & Conroy, 1987)? Bars/establishments with poor records for violence, flamboyant behavior, and misconduct might be influenced to gradually change the atmosphere and, therefore, improve drinking and post-drinking behavior. If they do not, they might be closed by license revocation.

Treatment

While the major thrust of any communitywide program is in primary prevention and early intervention (secondary prevention), treatment programs will continue to be a vital need (May, 1986). Treatment is actually tertiary prevention. Many reservations and bordertown communities need to have more and better alcoholism treatment facilities and programs. Much of the emphasis in the past has been on in-patient programs, but a variety of modalities are needed. These include long-term and short-term programs, other-directed and self-directed programs, group and individual programs, programs especially for females, and non-Indian and tribal-specific programs (Figure 2, Part F). Too often, treatment modalities are too narrow and not tailored to the specific needs of the clients. Tailoring a variety of programs is especially necessary in multicultural regions. For more information on relevant issues in treatment see Institute of Medicine (1989, Chapters 7 through 14), Harding Associates (1988), Kahn and Stephen (1981), Kahn and Fua (1985), Ferguson (1968, 1970, 1976), Bach and Bornstein (1981), Westermeyer and Peake (1983), and Glaser (1974).

It should be emphasized, however, that treatment alone will not solve the problems of alcoholism and alcohol abuse. Treatment is only one part of a comprehensive approach that includes primary and secondary prevention as well. Because treatment is one of the most expensive parts of an improvement program, it is important to consider cheaper, short-term interventions (see Miller & Hester, 1980, 1986; Institute of Medicine, 1989, Chapter 9).

In many jurisdictions, when individuals are convicted of their first offense of DUI, it is a common practice to refer them to screening, education, and treatment programs. In some cases the normal court-ordered penalties are suspended; in others the penalties are imposed in addition to the screening and education requirements. Research is now showing that for the best results *legal penalties should be imposed in addition to the DUI prevention/intervention training* (NIAAA, 1990, pp. 222–223).

Reducing Environmental Risk — Physical And Social Measures

The most indirect way, yet socially and behaviorally the most facile approach to reducing alcohol-related problems, is to reduce environmental hazards. As some authors have stated, this involves making the world "safe for drunks" (Beauchamp, 1980) and also safe from drunks. Both ideas must be considered.

Many physical, technical measures have been outlined and presented over the years to protect people in vehicle crashes (Figure 3, Parts I-A, I-B). Seat belts, infant car seats, and air bags are all passive restraint systems that have been repeatedly proven to save lives when used properly. Clear and unequivocal policies regarding their availability and use should be passed and enforced. Tribal seat belt and infant car seat programs would be excellent public health investments. Some tribes and the IHS have sponsored infant seat purchase and loaner programs in particular regions. The Navajo Nation passed a seat belt law in 1988. Road design is also an area that can help protect individuals from crash hazards. In the past five years the IHS, Office of Environmental Health, has established an Injury Control Program, which can assist tribes with knowledge and support in this area.

The literature on injury prevention is enormous (see National Committee for Injury Prevention and Control, 1989; U.S. Surgeon General, 1989a, 1989b; National Research Council, 1985; Sleet, 1984), and should be more freely and completely applied throughout Indian and Alaska Native areas. Of particular importance is local surveillance and research about road hazards. Local communities should keep track of (preferably with data) dangerous situations (intersections, pedestrian crossings, faded paint, dangerous curves, etc.) and lobby for improvement at appropriate levels of government. Such action protects drinkers and nondrinkers alike.

Figure 3
Reducing Environmental Risk

Intervention Area	Specific Recommendations	Comments
I. Damage in Physical Environment		
A. Physical Safety Environment	<ol style="list-style-type: none"> 1. Pass, strengthen, and enforce seat belt laws. 2. Strengthen and enforce infant and child car seat laws: <ol style="list-style-type: none"> a. Institute infant seat purchase/loaner programs at all hospitals and/or car dealers. b. Educate prospective and new parents on their importance and encourage purchase and constant use. 3. Encourage or require air bags on all vehicles sold in the counties, state, and nation. 4. Study and improve all road hazards where alcohol-involved and other injuries occur: <ol style="list-style-type: none"> a. Road structures (e.g., intersections and curves). b. Nonroad structures (e.g., sidewalk and fences) to protect pedestrians. 5. A simple road intervention is to keep the line markings well painted and wide to prevent crashes by impaired (and unimpaired) drivers. 6. Work closely with the state highway safety bureaus in planning and information. 	<p>1-3. Passive restraints have proven to be of great value in saving the lives of both those who are alcohol impaired and those who are not. Physical safety protects everyone in society and is not judgmental. In New Mexico injury prevention programs, the most consistent factor improved in health education has been the use of seat belts (May, 1989b).</p> <p>4. Road engineering is a well-developed area where substantial gains can be made if technology is applied to meet local and specific needs. Local advocacy in state government will be improved with local study and community involvement.</p> <p>5. See NIAAA, 1990 (pp. 225-227).</p> <p>6. Western states need to develop exemplary programs in this area.</p>
B. Social Safety Measures	<ol style="list-style-type: none"> 1. Promote designated drivers. 2. Promote "safe ride" programs. 3. Use increased public awareness to recognize and intervene upon heavy and impaired drinkers in various situations before injury or illness occurs. 4. Coordinate social protection programs with bar owners and servers. Mandate, promote, and manage server training. 	<p>1-4. Much can be done with a well-informed population who is willing to insulate or intervene on individual problem situations.</p>
II. Damage in Social Environment		
A. Victimization	<ol style="list-style-type: none"> 1. Promote the public awareness that it is good for all if alcohol problems are reduced. All citizens in society are victimized by alcohol abuse in a number of ways, and it is not only the "drunks" who are victims. 	<p>1. Alcoholism and alcohol abuse problems are public health problems. Therefore, like many diseases, it can affect many people other than the active participants and the rest of society must be protected.</p>

Intervention Area	Specific Recommendations	Comments
	2. Establish and/or strengthen programs that reduce victimization or repay victims. More emphasis on: <ol style="list-style-type: none"> Domestic violence shelters are needed; Al-Anon, Adult Children of Alcoholics, and Children of Alcoholics groups should continue and be strengthened. Victims of intoxicated drivers should be helped. 	2. Victims of alcohol abuse who were not the abusers are found in many segments of society and need help and support.
B. Public Drunkenness	<ol style="list-style-type: none"> Set up mechanisms that keep drunkenness out of mainstream view. Isolating drinking establishments in particular areas, policing them, and gradually improving the atmosphere has been attempted. 	<ol style="list-style-type: none"> Keeping obviously intoxicated from the view of impressionable people insulates their effect or modeling potential. Working to improve or eliminate the problem behavior of those who are drinking in particular establishments or areas should be vigorously undertaken.
C. De-emphasizing General Hostility	<ol style="list-style-type: none"> Heavy drinkers should not be denied normal civil liberties and privileges, except on the basis of achieved behavior such as that described above (e.g., DUI, violence, public and aggressive intoxication). 	<ol style="list-style-type: none"> Drinking itself should not be a source of major stigma when problem behavior is not present. It should be recognized in as early a stage as possible for protection/remediation.

In addition, there is an urgent need for an efficient emergency medical systems in tribal areas. Again, much has been written on this subject (U.S. Surgeon General, 1989b, pp. 180–191; National Committee for Injury Prevention and Control, 1989, pp. 271–282; National Research Council, 1985). The rural nature of most reservations and Native communities in the West presents a unique challenge for emergency medical teams, for emergency room personnel, for citizens (who should receive first aid and initial response training), and for coordination of various agencies and jurisdictions. Upgrading emergency care through grants, personnel, equipment, and training is important. Communitywide cardiopulmonary resuscitation (CPR) training and emergency care might be held in stadiums or in other public settings.

Social measures to reduce alcohol-related risks (Figure 3, Part C) are now becoming popular (see Sleet, 1989). Designated drivers, “safe ride” programs, and increased public knowledge of impairment symptoms are all excellent ways to intervene with DUI and other alcohol-related problems. However, each of the above technologies requires forethought, situational, individual, and social initiative, and in some cases confrontation. However, if these measures gain broad support in a population (including among the retailers of alcohol), they will become easier to pursue. The appropriate parallel here might be the smoking

reduction movement in the United States. For the last 26 years, interventions in the social sector and concurrent support from the media and medical and legal communities have made substantial reductions in the smoking population and have increased smoke-free environments (see Warner, 1981, 1985; Leedham, 1987; Pierce, MacCaskill, & Hill, 1990; DiFranza & Guerrero, 1990).

Damage in the Social Environment

Alcohol problems result in a variety of negative images in the social environment (Figure 3, II A–C). The negative public image often portrayed of Indians and bordertown communities in the newspapers, television, federal reports and even books (see *Anchorage Daily News*, 1988; *Albuquerque Tribune*, 1988) does tremendous damage to the communities and the outlook of those who live there. In addition, a great deal of victimization, hostility, and fatalism are present in communities with alcohol-related problems. Those problems affect drinkers and nondrinkers alike, from theft to loss of life and limb, to negative self-image. Dealing effectively with the magnitude, visibility, and consequences of alcohol abuse will go a long way to reduce all of the above problems. The entire community, however, needs to be convinced of this, so that people may claim ownership of the problem and work toward its reduction. They must give up their acceptance, support and tolerance of an alcohol abusing situation/society.

Once communities have the facilities to support and assist victims, have reduced the visibility and magnitude of the problem, and have begun to see and recognize the positive results of their work, hostility towards problem drinkers will be reduced. Hostility generally does not facilitate treatment and prevention; empathy and objectivity generally do. Therefore, the focus should always be on the welfare, atmosphere, and shared responsibility of all constituents in the community. This is the true public health approach that ultimately benefits all in the community (Beauchamp, 1980, 1990).

Discussion

From the above material one should have an idea of the general approach and the many specific techniques that communities might use for intervening on alcohol-related problems. Prevention policies do not conform to a single model, nor do they focus on a single area of society. They must focus wherever the causes or outcomes might be influenced positively. The three broad areas where this should be done have been covered here in a manner following Moore and Gerstein (1981) and consistent with a number of other summary works (NIAAA, 1990; Room, 1984). These areas are: (1) controlling the supply of alcoholic beverages

and places to drink them, (2) implementing policies aimed at shaping the drinking practices of consumers (when they do drink), and (3) altering the physical and social environment which relate to the consequences of drinking in light, moderate or heavy degrees.

Western U.S. reservations, Native communities, bordertowns, and the major units of health care, municipal, and tribal government within them must undertake a discussion of prevention ideas, policies, and techniques. Paramount in these discussions should be:

1. Are these techniques applicable?
2. Are they in keeping with local opinion and desires?
3. Are they feasible in the form used elsewhere, and if not, how might they be adapted to the specific conditions here?
4. What consensus regarding alcohol nonuse, use, and abuse can be agreed upon to implement these ideas? Can most people agree to work towards a policy that reduces the problems, yet is not polarizing and narrow?

Question number four is the most difficult to answer and to resolve in any community. It might be even more difficult to resolve in reservation bordertown areas, given their multicultural, multiethnic, and multijurisdictional nature. But let us reflect on the words of the Committee on Substance Abuse and Habitual Behavior of the National Research Council in their book, *Alcohol and Public Policy: Beyond the Shadow of Prohibition*, Moore and Gerstein (editors) (1981, pp. 115–116).

In developing and applying the prevention perspective, we have been struck by, and had to resist most forcibly, the tendency to think about policy in terms of opposed pairs: dry versus wet, prohibition versus unlimited access, treatment versus prevention, good drinking versus bad drinking. A clear-eyed examination of current policies shows them to be juxtapositions of different governing ideas. In such an architecture of compromise, it is often the case, as Miles van der Rohe has said, that "God is in the details." We are convinced that the regulation of supply, legal and pedagogical approaches to drinking practices, and interventions in the environment mediating between drinking and certain of its consequences, represent valid approaches with promise for sustained improvement. Each detailed element will fail or succeed only as it is implemented properly and thoroughly; tactics that are undertaken as part of a broad and coordinated approach are more likely to be effective than ones undertaken in isolation.

The building of effective policy thus needs a general vision as well as a fine hand. The vision that we propose is threefold:

- Alcohol problems are permanent, because drinking is an important and ineradicable part of this society and culture.
- Alcohol problems tend to be so broadly felt and distributed as to be a general social problem, even though they are excessively prevalent in a relatively small fraction of the population.
- The possibilities for reducing the problem by preventive measures are modest but real and should increase with experience; they should not be ignored because of ghosts from the past.

Thus, others have gone before us in tackling the problems that are now contemplated here. These general guidelines are useful in reminding us to be open-minded, comprehensive, and coordinated, to pay attention to detail, and to be modest in our positions and expectations.

In terms of implementation there are several suggestions that can be made.

1. Define where your community is regarding knowledge, attitudes and opinions on alcohol policy and its readiness to work for change and improvement. A survey would be of tremendous value here.
2. Develop generalizations that are held by the majority and around which a consensus can be formed.
3. Based on the specific areas of consensus, select specific topics, policy options or techniques that can be pursued and accomplished through study, debate and work plans. For example, if fetal alcohol syndrome is an area of concern and consensus, begin with it. Or, if infant car seats are deemed important, do likewise.
4. Keep community-specific data and records on:
 - a. baseline indicators of mortality, morbidity (sickness and injury), public opinion, and arrest related to alcohol;
 - b. the process of intervention on problems; and
 - c. the outcome (both intermediate and final) or outcomes of positive action taken.
5. Form explicit and positive ties between all constituencies in the community who play a role in the problem. Included should be the legal community, law enforcement, the media, business, government, schools, churches, service groups, families, and others.
6. Emphasize positive programs in the media to keep the public informed and invested.
7. Fine-tune the programs and policies from time to time, for the effectiveness of events such as DUI crackdowns recedes in the long run (12 to 18 months or longer) if the public perceives a reduction in enforcement effort, a reduced likelihood of being apprehended, or less likelihood of being negatively affected by the problem.

8. Be creative. Public policy is not a science and cannot be completely fine-tuned so that it can be totally science directed. Seek new approaches that increase the *probability* of improvement; new, creative policies can be assessed retrospectively as to their effectiveness.

Some detailed literature on local programs might be helpful (Schaefer, 1981; Wallack, 1984–85; Caswell, et al., 1989; Caswell & Gilmore, 1989; Anderson, 1989; Pendleton, et al., 1990).

There are some special issues or pitfalls in prevention that a community must avoid. These issues are very much at risk in western Indian, Native and bordertown communities. Specifically, a comprehensive program must avoid:

- Blaming any one type of individual or group, for alcohol abuse is everyone's problem.
- Championing one particular therapy, approach or ideology over other possible options, for many approaches must play a role.
- Looking for single case, "magic bullet" approaches.
- Polar arguments such as: us versus them; Indian versus non-Indian; or rural versus urban.
- Being coercive with large segments of the nondrinking or light-drinking population by enacting policy that is radically different from the views of mainstream citizens.
- Focusing narrowly on the treatment, incarceration, and processing of chronic alcoholics only.
- Expecting immediate success.
- Expecting "someone else" (e.g., experts, or the federal or state government) to solve the problem for the community.

Instituting a comprehensive prevention/intervention alcohol policy in a community will take a great deal of detailed study, work, and deliberation. It is a complex and complicated task and process. It is also a *contingent* process, that is, one decision will affect many others. Therefore, action in one part of a region will necessitate adjustment of policy in another part. A change in policy in one institution of the region (e.g., legislation) will necessitate an adjustment in other institutions (e.g., law enforcement, media, business, etc.).

One of these larger contingencies surrounds the jurisdictional differences between reservation and nonreservation. Tribal governments must play major roles in a regional planning effort. Tribes have rather exclusive power over their on-reservation laws. They may legalize, prohibit, tax, and in most every way control the flow of alcohol on the reservation. The policy options and resulting alcohol-related behaviors both on and off reservation must be discussed openly. Regardless of what policies are decided

upon, they must be comprehensive, clear, humane, directive, and enforced. It is much more complicated than just “wet” versus “dry.” Here are two general scenarios.

If a reservation or Native village debates freely and chooses to retain prohibition, then the policies of enforcement for violation of the laws and policies must be more clearly defined and direct in their consequences. Enforcement, prosecution, punishment, and treatment must be more certain, swift, and direct to emphasize the consequences of drinking and bootlegging. Off-reservation, the Indian and non-Indian communities must certainly consider the consequences of these policies on the health and welfare of all by adjusting policies to protect all human beings as best they can, given the prohibition policies on the reservations. Bordertowns in a region could choose to vote for prohibition, or may set up a detailed policy that prescribes what behaviors will be acceptable or unacceptable, and which details the consistent and fair enforcement of these standards. Most of the literature on prohibition of alcohol on reservations, however, leads one to the conclusion that it is difficult to enforce on large reservations. Large, dry reservations with relatively simple alcohol policies, in many cases, have alcohol problems of substantial proportions.

On the other hand, if tribal governments choose to legalize alcohol on the reservations, then they must devise a comprehensive, clear, and detailed plan of prescription for what is acceptable and unacceptable behavior by drinkers, servers, owners, and others. Defining what conditions of alcohol consumption will cause the fewest problems must be done by tribes utilizing experience from other human societies. This experience can be drawn from examples from other parts of the world or from other tribal communities, but both the non-Indian and tribal policies will have to consider many items including:

- how to disperse alcoholic beverage licenses throughout reservations and other towns to decrease driving distance and therefore DUI;
- how to encourage and enforce moderation in drinking among those who drink;
- environments and norms of drinking that neither promote nor allow violent, aggressive, or antisocial behavior among those who drink; and
- how to minimize the health, social, and behavioral consequences of drinking.

A variety of effective policies can be instituted in most any setting, whether it is among tribal or nontribal communities. Alcohol abuse is a human issue that has been faced by thousands of communities over the

years throughout the nation and the world. While it is popular to think that Indian reservations, cultures and bordertown communities of the western United States are unique and require totally new and special approaches, this is not a productive assumption. The situations, structures, and conditions of the West are very similar to those in other parts of the world and nation. Yes, the West has a different flavor to it, but the points of influence (laws, policies, health care, etc.) are similar.

One final guiding idea is certainly appropriate here. It comes from the book *Drunken Comportment* by MacAndrew and Edgerton (1969).

On this note, we conclude what we have to say on the subject of man qua drunkard. The moral of the piece — and there is a moral — is neatly exemplified in the following anecdote, which dates from the England of the early 1600's. The story goes that not long after James I acceded to the throne, a certain English nobleman gave a dinner party to which he invited a large number of luminaries. After the goblets had been filled and refilled several times and the liquor had taken hold, an English general named Somerset rose from his chair and proclaimed: "Gentlemen, when I am in my cups, and the generous wine begins to warm my blood, I have an absurd custom of railing against the Scottish people. Knowing my weakness, I hope no gentlemen in the company will take it amiss."

Having thus delivered himself, he sat down, and a Highland chief, one Sir Robert Blackie of Blair-Atholl, rose and with singular dispassion addressed his fellow celebrants as follows: "Gentlemen, when I am in my cups, and the generous wine begins to warm my blood, if I hear a man rail against the Scottish people, I have an absurd custom of kicking him at once out of the company, often breaking a few of his bones in the process. Knowing my weakness, I hope no gentlemen will take it amiss."

The story concludes, we need scarcely add, that General Somerset did not that night follow his usual custom of denigrating the Scottish people.

The moral, then, is this. Since societies, like individuals, get the sorts of drunken comportment that they allow, they deserve what they get.

In this anecdote the Scottish chief stated clearly what behavior he would or would not allow, and defined the consequences. Individuals and communities are clearly able to do this in their own settings. If done, then we should all see an improvement; some will benefit more than others, but all will experience an improvement.

Conclusion

No further summary of the foregoing will be presented here, for this entire document is a brief summary of a vast amount of academic

literature. It may well be too brief, for there is danger in reducing a complicated issue such as this. Yet there is virtue in brevity as the following quotes indicate. Brevity is:

Words that cover more ground than they occupy.
— Anonymous

The next best thing to silence.
— Anonymous

Almost a condition of being inspired.
— George Santayana

One hopes that this paper has covered all necessary ground, has not been too long, has inspired the reader, and will assist a number of leaders and communities in positive public health initiatives. Yet there is danger that the topic has been oversimplified. The reader is encouraged to consult other, more detailed treatments of any of the subjects related here. Many additional references have been provided for further reading, and each of them, in turn, has a long list of other references that may also be consulted. All of this search is a worthy endeavor. It represents a task that may at first complicate matters, and possibly extend confusion and lengthen deliberations over alcohol policy and programs. But ultimately, as communities become more knowledgeable and experienced with these public health approaches, some success, brevity and closure will occur in a number of the areas discussed here. Then the following quote will ring true:

Not that the story need be long, but it will take a long while to make it short.

— Henry David Thoreau

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