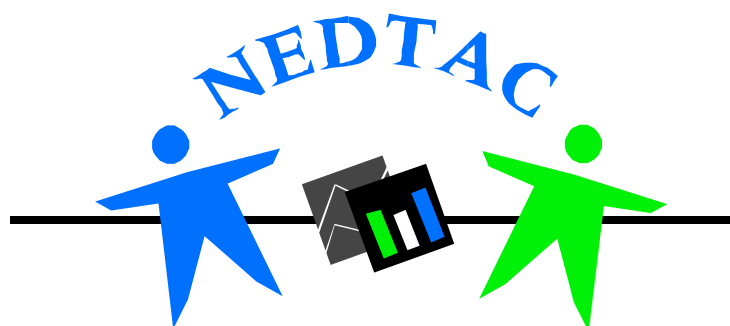


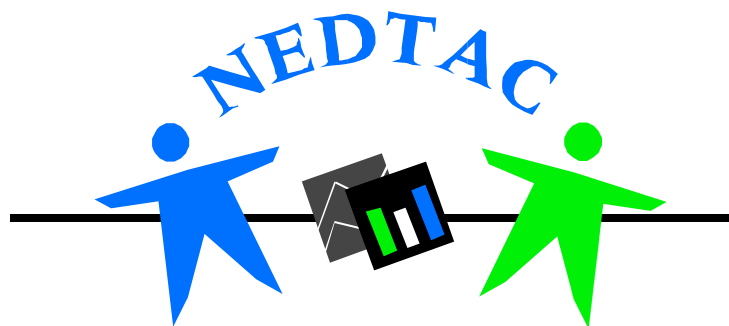
**NATIONAL EVALUATION DATA AND
TECHNICAL ASSISTANCE CENTER**



**RURAL, REMOTE, AND CULTURALLY DISTINCT:
SELECTED BIBLIOGRAPHIES, 1990-1998**

April 1999

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CSAT
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FOREWORD

One of the missions of the Center for Substance Abuse Treatment is to enhance the nation's substance abuse treatment system by identifying, developing, and supporting appropriate policies, approaches, and programs. In short, for the field of substance abuse treatment, CSAT seeks to determine what works, for whom, how well, and at what cost.

Building knowledge through evaluation is the key to answering these questions. From CSAT's perspective, evaluation—including cost analysis and performance measurement—is an integral component of program management and part of an ongoing process of knowledge development, assessment, and improvement. Toward this end, CSAT's Program Evaluation Branch established the National Evaluation Data and Technical Assistance Center (NEDTAC) to advance state-of-the-art evaluation in the field of substance abuse treatment.

As part of its mission to further the development and dissemination of knowledge in the treatment field, NEDTAC produced a series of bibliographies in key topic areas. This document belongs to that series. This annotated and selected bibliography lists books, articles, and research studies that focus on treatment services for rural and migrant populations, and for culturally distinct populations, such as Native Americans and Alaska Natives. The information also encompasses the ways in which managed care impacts these services. We hope this document will assist professionals within the substance abuse treatment community to think about effective and appropriate ways to serve diverse client populations and will lead to increased knowledge about ways to enhance treatment effectiveness among culturally distinct populations.

This bibliography, along with others in the series, was developed under the guidance and direction of Ron Smith, Ph.D., the NEDTAC Government Project Officer, Program Evaluation Branch, Office of Evaluation, Scientific Analysis, and Synthesis. We also wish to thank Tracy Fenwick for compiling and Beth Archibald Tang for reviewing this document.

Sharon Bishop
Project Director
National Evaluation Data and
Technical Assistance Center (NEDTAC)

**I. RURAL, REMOTE, AND CULTURALLY DISTINCT:
ANNOTATED BIBLIOGRAPHY**

I. RURAL, REMOTE, AND CULTURALLY DISTINCT: ANNOTATED BIBLIOGRAPHY

Abbey, A., Scott, R.O., & Smith, M.J. (1993). Physical, subjective, and social availability: Their relationship to alcohol consumption in rural and urban areas. Addiction, 88, 489-499.

The alcohol availability literature indicates that under some conditions, physical availability is positively associated with per capita alcohol consumption. The study examined the simultaneous effects of physical, subjective, and social availability on alcohol consumption. Standardized telephone interviews were conducted with adult drinkers. As hypothesized, physical availability was not a significant multivariate predictor of alcohol consumption for residents of high, medium, and low alcohol outlet density counties in Michigan. Subjective and social availability indicators were significant predictors of alcohol consumption. Similar patterns of results were found in multiple regression analyses for blacks and whites and women and men, although blacks and women consumed less alcohol than did whites and men. The theoretical and practical implications of these results are discussed.

Beauvais, F. (1992). Attitudes about drugs and the drug use of Indian youth. American Indian and Alaska Native Mental Health Research, 5, 38-42.

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

Beauvais, F. (1992). Comparison of drug use rates for reservation Indian, non-reservation Indian, and Anglo youth. American Indian and Alaska Native Mental Health Research, 5, 13-31.

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

Beauvais, F. (1992). Integrated model for prevention and treatment of drug abuse among American Indian youth. Journal of Addictive Diseases, 11(3), 63-79.

American Indian youth have been shown to be at high risk for drug abuse. Epidemiological studies of Indian school students over the past 2 decades have revealed rates of use consistently higher than those found for other youth. Socioeconomic and historical factors have led to conditions that put a great deal of stress on the family and other support systems, which in part account for the seriousness of the problem. A model is presented that can guide both prevention and treatment efforts addressing drug abuse in American-Indian communities. Five variable domains, social structure, socialization factors, psychological variables, peer associations, and drug use, are related in an integrated structure. By following the progression of the etiological variables, a stepwise plan can be developed to organize interventions. Although the model has immediate utility, a number of further research questions are outlined that will enhance its application.

Berry, D.E. (1993). The emerging epidemiology of rural AIDS. Journal of Rural Health, 9, 293-304.

The incidence of AIDS in rural areas is increasing rapidly. However, historically, it has been overshadowed by AIDS in the epicenters. From 1991–1992 the increased percentage of cases was higher in non-metropolitan areas than in any other areas of residence. The rate per 100,000 also increased at almost the same rate in rural areas as it did in the largest metropolitan areas (defined by the Centers for Disease Control and Prevention, or CDC, as a population of more than 500,000) and in other metropolitan areas of 50,000 to 500,000 population. To date, the epidemiology of AIDS in rural areas has not been defined. This information is necessary to develop effective policies and programs. The research reviews the literature on AIDS in specific areas and populations at risk as a basis for generating hypotheses for further study. The first wave of the epidemic, primarily affecting homosexual or bisexual men, is strongly evident in many rural locations. The second wave of the epidemic is strongly evident in the South and can be seen among high-risk groups such as black women, adolescents, migrant and seasonal farm workers, people who abuse alcohol, intravenous drug users, and users of crack cocaine, including those who trade sex for drugs. Poverty is a common characteristic of the second-wave population. Proximity to interstate highways as well as metropolitan areas may also be associated.

Berryhill-Paapke, E., & Johnson, M.E. (1995). Comparison of values of Alaska Native and non-Native alcoholics and counselors. International Journal of the Addictions, 30, 481-488.

Values of 42 Alaska Native clients, 30 Alaska Native counselors, and 19 non-Native counselors at seven Indian Health Service inpatient alcoholism treatment programs in Alaska are compared. Using the Rokeach Value Survey, differences were revealed on six instrumental values and six terminal values. The primary value disparities were between the Alaska Native groups and non-Native counselors. Specifically, both Alaska Native groups placed greater importance on values

that were others-focused, while the non-Native counselors placed more importance on values that were self-focused. Minor differences were noted between clients and both groups of counselors. Therapeutic implications of such value disparities are discussed, as are possible avenues to remediate the problem.

Bloch, L.P., Crockett, L.J., & Vicary, J.R. (1991). Antecedents of rural adolescent alcohol use: A risk factor approach. Journal of Drug Education, *21*, 361-377.

The present study examines the association between risk factors and alcohol use for a sample of young adolescents in a rural Eastern community. Family relations, family structure, grades in school, participation in academic activities, frequency of church attendance, and deviant behavior were found to be significantly associated with alcohol use 2 years later. No gender or age differences were found in these predictors of alcohol use. Implications for the risk factor approach, prevention, and intervention are discussed.

Botvin, G.J., Malgady, R.G., Griffin, K.W., Scheier, L.M., & Epstein, J.A. (1998). Alcohol and marijuana use among rural youth: Interaction of social and intrapersonal influences. Addictive Behaviors, *23*, 379-387.

Epidemiological research indicates that the rate of drug use among adolescents has risen steadily and, although alcohol use has stabilized, it is still highly prevalent. Psychosocial etiological models have typically examined the main effects of risk and protective factors. This study examined moderating effects of intrapersonal skills on peer and parental risks associated with alcohol and marijuana use among eighth-grade rural adolescents, an understudied population. Results showed that the relationships between peer and parental attitudes and peer usage to alcohol and marijuana use were moderated by adolescents' decision-making and self-reinforcement skills. Social risk factors were strongly associated with increased alcohol and marijuana use among adolescents with poor intrapersonal skills; however, good decision-making and self-reinforcement skills diminished the influence of social risk factors on substance use. Results are discussed in terms of implications for psychosocial models of alcohol and drug use.

Brady, M. (1995). Culture in treatment, culture as treatment. A critical appraisal of developments in addictions programs for indigenous North Americans and Australians. Social Science and Medicine, *41*, 1487-1498.

Indigenous people in Australia and North America have been creating innovative interventions in the addictions field for several years—incorporating traditional healing practices and cultural values into otherwise Western programs—although this process is more developed in Canada and the United States than in Australia. Through a process of cultural diffusion, Australian Aborigines have incorporated many ideas from Native Canadian treatment models. As a result, residential treatment that utilizes adapted forms of the 12 steps of Alcoholics Anonymous is being

promoted by indigenous Australians. This paper examines comparative material on the uses of culture as a form of healing and traces the rationale for the argument that cultural wholeness can serve as a preventive, or even curing, agent in drug and alcohol abuse.

Edwards, R.W. (Ed.). (1992). Drug use in rural American communities. Binghamton, NY: Haworth Press.

This book brings together experts in the field to look at what is known about drug use in rural areas of the United States and to make recommendations for future research needs and policy making. The book provides information and insights useful for researchers, lawmakers, government officials, field practitioners, and others involved with rural populations to make decisions about research, policy, and services with respect to alcohol and other drug use in rural populations.

Farrell, A.D., Anchors, D.M., Danish, S.J., & Howard, C.W. (1992). Risk factors for drug use in rural adolescents. Journal of Drug Education, 22, 313-328.

This study tested the relevance of a risk factor model for predicting drug use among rural adolescents. A questionnaire assessing drug use and the presence/absence of 20 risk factors derived from a previous study of urban adolescents was administered to a sample of seventh graders in the public school system of a rural community. All but one of these risk factors were found to be significantly associated with the prevalence and frequency of use for cigarettes, beer and wine, hard liquor, marijuana, and other drugs. These findings support the generalizability of a risk factor approach to predicting drug use and underscore the need for increased prevention and research efforts directed at rural adolescents.

Fredlund, E.V. (1994). Volatile substance abuse among the Kickapoo people in the Eagle Pass, Texas area, 1993. Austin: Texas Commission on Alcohol and Drug Abuse.

Although heavy use of spray paint is a pattern of substance abuse rarely seen among adults, a significant number of Kickapoo people living in the Eagle Pass, Texas, area are volatile solvent abusers (VSAs). The Kickapoo Traditional Tribe of Texas has identified chronic use of spray paint as the most pernicious problem the tribe currently faces. This study, primarily ethnographic in nature, documented the lives of Kickapoo chronic VSAs, examined their substance abuse patterns and the problems they experienced because of this abuse. The study also estimated the number of Kickapoo adult VSAs in need of chemical dependency treatment and suggested appropriate treatment for this culturally distinct population.

Gill, K., Elk, M.E., & Deitrich, R.A. (1997). A description of alcohol/drug use and family history of alcoholism among urban American Indians. American Indian and Alaskan Native Mental Health Research, 8(1), 41-52.

The patterns of alcohol consumption, family history of alcoholism, and lifetime and current diagnoses of substance dependence were determined in a sample of American Indians (N=105). Patients were interviewed regarding their education, employment, past and present drug and alcohol use (including frequency/quantity, beverage type, and pattern of intake) and family history of alcoholism. The drug and alcohol sections of the Diagnostic Interview Schedule were administered in order to determine lifetime and current prevalence of substance dependence. Although there are limits to the generalizability of these data due to the use of a non-random sampling method, the results indicate that approximately half of the sample (51%) were abstinent or irregular drinkers with moderate intake (3 drinks per occasion). Binge drinkers (4%) consumed large amounts of alcohol per occasion, with a mean of 22 drinks. Also, 46 percent of the sample were regular drinkers (at least once per week) with a mean of 11 standard drinks per occasion. The rate of current alcohol dependence (33%) and other drug dependence (18%) was relatively high with cocaine and cannabis being the primary drugs of abuse. The most striking aspect of the sample was the very high rate of family history of alcoholism (61% had at least one alcoholic parent) and only 11 percent had no primary or secondary alcoholic family members. (Author abstract modified)

Grella, C.E., Annon, J.J., & Anglin, M.D. (1995). Ethnic differences in HIV risk behaviors, self-perceptions, and treatment outcomes among women in methadone maintenance treatment. Journal of Psychoactive Drugs, 27, 421-433.

This study examined the HIV risk profiles of white, African-American, and Latina women enrolled in an enhanced methadone maintenance project, with the goal of reducing risk of HIV infection and/or transmission. Each group demonstrated distinct patterns associated with family relationships, sources of income, sexual and injection behaviors, and self-perceptions, although they were similar in their employment, drug use, mental health, and criminal behavior histories. In general, Latinas were more likely to report familial influences and to display evidence of low self-esteem and self-efficacy, inconsistent condom use, and high-risk injection behavior. White women reported the highest levels of regular condom use at follow-up; however, they were the least likely to report safer injection practices. African-American women expressed the highest levels of self-esteem, yet they reported more alcohol use at intake and crack cocaine use both before and after treatment entry. They showed the greatest gains in adopting safer injection practices and were the least likely to report multiple sex partners after treatment entry. These findings can be used to improve the potential of methadone maintenance treatment for HIV risk reduction for women and to aid in developing culturally sensitive treatment protocols.

Gutierrez, S.E., Russon, N.F., & Urbanski, L. (1994). Sociocultural and psychological factors in American Indian drug use: Implications for treatment. International Journal of the Addictions, 29, 1761-1786.

Use of alcohol and other drugs has been acknowledged as a serious problem among American Indian populations. This study was designed to compare female and male American Indian substance users in residential treatment on psychological variables (self-esteem, depression, attributional cycle) and sociocultural variables (demographics, personal drug use history, family history, acculturation); and examine relationships of the psychological and sociocultural variables with program completion. Results showed that females experienced more family dysfunction (family members' misuse of substances, and emotional, physical, and sexual abuse) than males. Both females and males showed positive change on the psychological measures from treatment entry to treatment completion. The factors predicting dropout before program completion were divorce, use of cocaine and depressants, and living in foster care as a child. Implications for prevention, intervention, and training of treatment service providers are discussed.

Haarhoff, G., & London, M. (1995). A comparative study of injecting opiate and amphetamine users in a rural area. Addictions Research, 3, 33-38.

The behavior of 71 intravenous drug users not in contact with treatment services were analyzed and the users of opiates and amphetamines compared. The findings were similar to other research reports, except in two important respects: Intravenous amphetamine users were older and engaged in more high-risk needle sharing. Existing research from large cities suggests that this group of drug users are younger and cause more harm in their needle sharing than opiate injectors. Various explanations are considered, such as this being a rural phenomenon. The findings highlight the need for local research to determine policies on drug misuse and HIV.

Harlow, K.C., & Christie, J.P. (1994, September). Centers of Excellence: New approach to cocaine treatment fits managed care trends. Control of costs ultimately will depend on prevention of relapse through use of proven treatment facilities. Employee Assistance, 27-30.

A "Center of Excellence" is a treatment provider that has been identified as representing best practice in addressing a specific health problem. The Centers of Excellence approach is being adapted as an approach to cocaine treatment. Four phases for the implementation of the Centers of Excellence approach are identified: finding what works; program review and dialogue; plan design; and research and evaluation.

Hollingsworth, E.J. (1997). Services for clients of community support programs in rural Wisconsin. Journal of Mental Health Administration, 24(1), 55-63.

The author hypothesized that only a few types of services would be used in large quantity by mentally ill clients (N=966) of 13 rural community support programs. The types of mental health services identified from local and Medicaid sources ranged from community support to assistance for alcohol and other drug problems, from evaluation for treatment planning to inpatient or institutional psychiatric care. Results showed that the major types of services received during 1 year in terms of percentage of clients and average hours per year were case management, community support, medication counseling, counseling, and medication checks. The less common services received were evaluation, day treatment, and assistance with alcohol or drug problems. Overall, 99 percent of community support program clients received some outpatient service during the year and annual amounts of service averaged 92 hours per client. Results also showed that the differences between type and amount of service use between new and established clients are not significant, contrary to previous assumptions. The hypotheses that only a few services are used by a substantial proportion of community support program clients and that services are provided in substantial quantity either to clients overall or clients receiving specific services are supported by these data.

Irwin, P.P. (1997). Internal program evaluation techniques in an adolescent substance abuse treatment program in rural Illinois. In Bringing excellence to substance abuse services in rural and frontier America: 1996 Award for Excellence Papers (Technical Assistance Publication No. 20, pp. 71-81). Rockville, MD: Center for Substance Abuse Treatment.

This chapter investigated the provision of substance abuse treatment to youth in a rural outpatient setting through an internal evaluation examining attainment of program goals, demographics of the population served, and clients' patterns and predictors of early termination. Philosophies guiding the primary program innovations and goals are also discussed. Enhancement goals were to create age- and gender-specific group formats and contents, improve social support systems in continuing care phases, and enhance family services. Innovative treatment strategies were developed based on enhancements specific to substance-abusing adolescents and their families within the rural context. Data were gathered from 30 adolescent clients who successfully completed the treatment program and were compared with data from 30 matched clients who voluntarily terminated the program. Results show a statistically significant relationship between complex client characteristics and program completion versus dropout. In other areas, the program attained its goals beyond the projected expectations.

Kaspro, W.J., & Rosenheck, R. (1998). Substance use and psychiatric problems of homeless Native American veterans. Psychiatric Services, 49, 345-350.

This study estimated the proportion and representation of Native Americans among homeless veterans and compared their psychiatric and substance abuse problems with those of other ethnic

groups of homeless veterans. Alcohol, drug, and psychiatric problems of Native American veterans (n=950) reported during intake assessment were compared with problems reported by white, black, and Hispanic veterans (n=36,938). The results indicated that Native Americans constituted 1.6 percent of veterans in the program. Age-adjusted analyses suggested that relative to the general veteran population (of which 1.3 percent are Native Americans), Native Americans are overrepresented in the homeless population by approximately 19 percent. Regression analyses controlling for demographic characteristics found that Native American veterans reported more current alcohol abuse, more previous hospitalizations for alcohol dependence, and more days of recent alcohol intoxication than members of other ethnic groups. In contrast, Native American veterans reported fewer drug dependence problems than other minority groups and fewer current psychiatric problems and previous psychiatric hospitalizations than the reference group of white homeless veterans. The authors concluded that Native Americans are overrepresented in the homeless veteran population. They have more severe alcohol problems than other minority groups but somewhat fewer psychiatric problems.

Kirby, M. (1996). Working effectively with managed care. *The Counselor*, 14(1), 29-31.

Managed care conserved treatment benefits by authorizing only medically necessary services that are targeted to address specific problem areas within a particular time frame for a specific patient who reasonably can be expected to benefit from the intervention. To be reimbursed, a counselor or treatment program must be able to communicate about a client's problems and provide treatment within those parameters. Medical necessity parameters require diagnostic sophistication, the ability to formulate goal-oriented treatment plans, and the availability of multiple treatment modalities that can be mixed and matched to a client's particular needs and severity of symptoms. Centralizing communications with managed care by designating one person to handle contracting and another for ongoing utilization reviews might improve customer satisfaction significantly with managed care. Tracking followup reviews is critical and requires a system that will document days/sessions of care certified and flag the required date of the next review. And all client staff must be trained to document their behavior observations pertaining to a client's problems and improvement.

Leukefeld, C.G., & Godlaski, T. (1997). Perceptions of rural addictions and related HIV. *Substance Use and Misuse*, 32, 83-88.

Rural addictions and related HIV behaviors, including drug use and sexual behaviors, have received limited attention in rural areas when compared with urban areas; however, prevalence rates are similar for substance abuse. The perception of policy makers and others is generally that drug use and HIV are urban problems, and resources are more likely to be directed to urban areas than rural areas. A major trend for the future is the continued expectation of limited resources for rural areas.

Matti, L.K., & Caspersen, V.M. (1993). Prevalence of drug use among pregnant women in a rural area. Journal of Obstetrics, Gynecology and Neonatal Nursing, 22, 510-514.

The objective of this study was to determine the prevalence of alcohol and illegal drug use among pregnant women in a rural Midwestern area, using a descriptive, prospective study. Participants were 202 women who enrolled for prenatal care. It was hypothesized that the prevalence of alcohol and illegal drug use by pregnant women in a rural Midwestern area may be similar to the prevalence in urban areas. It was found that the prevalence for perinatal drug use among the sample was 3.9 percent, with a 95 percent exact binomial confidence interval of 1.7 percent to 7.7 percent. The 3.9 percent prevalence level is significantly lower than the 11 percent prevalence levels projected by urban studies. Additional studies need to be conducted on rural populations, however, with periodic testing performed throughout pregnancy. Further studies should examine, through self-reporting, prevalence rates of tobacco and alcohol use during pregnancy. (Author abstract modified)

May, P.A., & Moran, J.R. (1995). Prevention of alcohol misuse: A review of health promotion efforts among American Indians. American Journal of Health Promotion, 9, 288-299.

The purpose of this review is to provide an overview of a wide range of potentially useful strategies to address the prevention of alcohol misuse among American Indians. This broad approach to the review is useful because the extreme heterogeneity of the American Indian population requires that health promotion professionals explore many options and tailor their activities to specific communities. As a group, American Indians experience many health problems that are related to alcohol misuse. Comparison of Indians to non-Indians shows that the age of first involvement with alcohol is younger, the frequency and amount of drinking is greater, and the negative consequences are more common. Health promotion programs that address these issues must take into account American Indian heterogeneity and should use a comprehensive approach that addresses both heavy drinking and the sequelae of problems related to alcohol misuse. Important concepts for providing health promotion services to this population are: cultural relevance must be carefully planned and monitored; individuals in the local community must be involved; the drunken Indian stereotype must be addressed; and community empowerment should be an important goal. (Author abstract modified)

Mechanic, D., Schlesinger, M., & McAlpine, D.D. (1995). Management of mental health and substance abuse services: State of the art and early results. Milbank Quarterly, 73, 19-55.

Managed care refers to capitated practice (HMOs), utilization management (UM), and programs of case management for persons with mental illness and problems of substance abuse. These approaches differ substantially, and within each type are variations. Management of mental health and substance abuse services is increasingly prevalent, often sharply reducing costs. Savings result from reducing inpatient hospitalization and, sometimes, by substituting less expensive services for more costly ones. Most studies of managed care, however, measure costs narrowly,

neglecting shifts in costs to patients, professionals, families, and the larger community. Strategies typical of HMOs and UM may result in lower-quality care for persons with serious mental illness and problems of substance abuse. Studies on this topic are reviewed, an analytic frame of reference is presented, and research needs are defined.

Mick, S.S., Morlock, L.L., Salkever, D., DeLissovoy, G., Malitz, F.E., & Jones, A.S. (1993). Rural hospital-based alcohol and chemical abuse services: Availability and adoption, 1983-1988. Journal of Studies on Alcohol, *54*, 488-501.

Data from a 1983-1988 retrospective panel study of 797 rural (non-metropolitan statistical areas) U.S. hospitals revealed that fewer than one in five (19%) had any alcohol and chemical abuse service. About one-third of both inpatient and outpatient services had been established during the study period, but few hospitals not offering these services planned to offer them in the immediate future. These findings support other studies showing that the availability of such services may not meet population need or demand, although analysis showed that hospitals in more densely populated counties with higher per capita income and more physicians per 1,000 population were positively associated with alcohol and chemical abuse services.

Moncher, M.S., Holden, G.W., & Trimble, J.E. (1990). Substance abuse among Native-American youth. Journal of Consulting and Clinical Psychology, *58*, 408-415.

Substance use and abuse poses serious risks for American Indian youth, their families, and their communities. This article briefly reviews the relevant social epidemiology data followed by a discussion of culturally relevant etiological factors. Current strategies for identification of youth at high risk for substance use are highlighted, concentrating primarily on the theoretical and methodological aspects appropriate for this population. In this context, data from recent work are reported. Given the nascent state of culturally appropriate prevention technology, issues of sensitive technology transfer and stereotyping are discussed in the context of current research. Study results from this sample, although dramatic, should not be overgeneralized to all American Indian youth.

Moxley, R.L. (1992). U.S. rural drug abuse research needs and research policy. Employee Assistance Quarterly, *7*, 117-139.

This article is the result of a literature review and assessment of rural drug abuse research and drug research policy formation by U.S. government agencies. The article also presents results of a participant observation study by one of the major research institutes, the National Institute on Drug Abuse (NIDA), and explores its linkages with groups influential to its research policies. This review reveals a decade of failure to conduct a national assessment of the rural drug situation, especially with regard to prevalence and impact of drugs in the adult population,

efficacy of prevention efforts by rural institutions and workplaces, effectiveness of treatment programs, and drugs and crime.

New England Community Health Center Association. (1990). Primary care clinician course on alcohol and other drug abuse resource manual. Rockville, MD: Health Resources and Services Administration.

This resource manual was developed to train primary health care providers in the Federally-funded Community and Migrant Health Centers program and the Health Care for the Homeless program on how to diagnose substance abuse, where to refer patients for treatment, and how to institute prevention efforts. Chapters cover the following topics: role of clinician in community health centers; alcohol and drug abuse; screening, assessment, and diagnosis; treatment and rehabilitation; medical complications; psychiatric comorbidities; population specific concerns; and special issues. Appendices provide a glossary of basic terms, diagnostic criteria, an annotated bibliography, and information about managing acute episodes.

Novins, D.K., Harman, C.P., Mitchell, C.M., & Manson, S.M. (1996). Factors associated with the receipt of alcohol treatment services among American Indian adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 35, 110-117.

This study examines factors potentially associated with the receipt of alcohol treatment services in a large sample of American Indian adolescents. Data for this study were drawn from the Voices of Indian Teens project, a 5-year, longitudinal project involving school-based survey data collection at 10 primarily American Indian schools. Three logistic regression models were developed to predict the probability of receipt of treatment, treatment recommendation, and receipt of treatment among those teenagers who received a treatment recommendation. The probability of an individual receiving treatment was 15 times greater if treatment was recommended. Treatment recommendation mediated the relationship of several measures of psychological distress and alcohol use, abuse, and dependence with actual treatment. Recommendation for treatment is strongly associated with receiving treatment. Community education about the risks, signs, symptoms, need, and mechanisms for obtaining treatment of alcohol abuse among youths might help alcohol-abusing individuals receive the help they need. (Author abstract modified)

O'Neil, T.D., & Mitchell, C.M. (1996). Alcohol use among American Indian adolescents: The role of culture in pathological drinking. Social Science and Medicine, 42, 565-578.

Over the last 20 years, the field of substance abuse among American Indian adolescents has become dominated by survey approaches that are unable to answer important questions about how the use of alcohol and drugs is conceptualized and meaningfully integrated in the lives of Indian teens. Without a model of adolescent alcohol use that incorporates culture, the field

misapprehends the social and cultural grounding of both normal and pathological drinking, and cannot accurately differentiate between normal and pathological drinking. Traditionally, the field has relied upon either a biological model or a distress model, thus locating pathology in the biochemistry of ethanol ingestion or in psychopathological distress. However, findings from an ethnographic investigation of alcohol use among American Indian adolescents suggest that the criteria for distinguishing pathological drinking lie instead in the developmental and gender-specific expectations that derive from cultural values. The authors conclude with suggestions for clinicians and researchers that offer the potential to facilitate the incorporation of culture into research and practice in the field of American Indian adolescent alcohol use. (Author abstract modified)

Pruitt, B.E., Kingery, P.M., Mirzaee, E., Heurberger, G., & Hurley, R.S. (1991). Peer influence and drug use among adolescents in rural areas. Journal of Drug Education, 21, 1-11.

A sample of eighth- and tenth-grade students in 23 small central/east Texas communities was assessed to determine their perception of the number of their friends who used drugs, the amount of information they received about drugs from their friends, and the connection between those perceptions and drug use. A multiple regression model that included grade, gender, the degree to which friends are perceived to use drugs, and the amount of information about drugs received from friends explained 39 percent of the variance in the degree to which rural adolescents were involved in drug use. An item-specific analysis of the subcomponents of these composite variables explained 44 percent of the variance in the degree to which rural adolescents were involved in drug use. Students who perceived a higher degree of drug use among their friends and who received more information about drugs from their friends used drugs more frequently. The findings of this study support the theory that peer pressure is related to drug abuse, even in rural areas.

Renz, E.A., Chung, R., Fillman, T.O., Mee-Lee, D., & Sayama, M. (1995). The effect of managed care on the treatment outcome of substance use disorders. General Hospital Psychiatry, 17, 287-292.

This study examined the effect of managed care and other reimbursement mechanisms on the outcome of substance abuse treatment at a single treatment facility. A retrospective review of 1,594 patient records yielded treatment utilization, diagnostic, and demographic data. Recidivism rates for intensive managed care, traditional managed care, private pay, and state-funded groups of patients were compared. Results showed that, contrary to expectations, recidivism rates were not different for managed versus non-managed care patients. In addition, recidivist patients had significantly more ICD-9 diagnoses than non-recidivist patients. A discussion of future research suggests that other outcome measures need to be examined in addition to recidivism rate, such as psychosocial functioning following treatment and indicator(s) of severity of illness, to better determine the effect of managed care and other reimbursement mechanisms on treatment outcome.

Robertson, E.B., & Donnermeyer, J.F. (1997). Illegal drug use among rural adults: Mental health consequences and treatment utilization. *American Journal on Drug and Alcohol Abuse*, 23, 467-484.

This study utilized the National Household Survey on Drug Abuse to examine mental health consequences and treatment utilization among non-metropolitan and rural adults. The study employed an ecological system perspective, dividing the study population into three groups: non-metropolitan-rural, non-metropolitan-urban, and metropolitan-rural. Logistic regression analysis was used to examine four sets of factors related to self-report of mental health problems among drug-using adults: community level features, family characteristics, personal characteristics, and stress factors. Perceived ease of purchasing cocaine, number of moves in last 5 years, employment in blue-collar occupations, number of jobs in last 5 years, and residence in neighborhoods with a low rate (< 10%) of minority households were significantly related to self-report problems. Results of the analysis are discussed in terms of barriers to utilization of treatment and rehabilitation services among non-metropolitan and rural adults, such as availability and access to facilities and professional services, social stigma, ability to afford services, and the difficulties experienced by rural communities in supporting in-hospital and outpatient services.

Robertson, E.B., & Donnermeyer, J.F. (1998). Patterns of drug use among non-metropolitan and rural adults. *Substance Use and Misuse*, 33, 2109-2129.

This article examines illegal drug use among adults living in non-metropolitan and rural areas of the United States using data from the National Household Survey on Drug Abuse. Subjects were classified into three categories by residence: non-metropolitan-urban, metropolitan-rural, and non-metropolitan-rural. Respondents indicated about 10 percent of adults were current users of marijuana or other illegal drugs. Discriminant analysis was used to examine differences among groups of individuals classified as current users, past users, and nonusers. For both marijuana and other illegal drugs, the variables that accounted most for group differences were age, marital status, employment status, occupation, and income. Only minor differences in drug use were exhibited across the three residential categories. The authors recommend that future research on the rural and non-metropolitan adult population incorporate both structural level measures of socioeconomic and demographic characteristics of localities, and individual level measures of peer influence, work stress, family factors, and psychosocial characteristics.

Robin, R.W., Chester, B., Rasmussen, J.K., Jaranson, J.M., & Goldman, D. (1997). Factors influencing utilization of mental health and substance abuse services by American Indian men and women. *Psychiatric Services*, 48, 826-832.

This study investigated the effects of gender, number of lifetime psychiatric diagnoses, and childhood victimization on utilization of mental health and substance abuse treatment services in a Southwestern American Indian tribe. A total of 582 individuals were recruited based on tribal

enrollment and membership in large multigenerational pedigrees. Patients were interviewed using a modified version of the Schedule for Affective Disorders and Schizophrenia-Lifetime Version, a semistructured psychiatric interview. For this study, the definition of childhood victimization was limited to childhood sexual abuse. The results indicated that 56 percent of the subjects had received mental health treatment, substance abuse treatment, or both. Patterns of service utilization differed by gender with the odds of inpatient and substance abuse treatment higher for men than for women. Women were more likely than men to receive mental health treatment. Subjects who had been sexually abused as children were more likely to have three or more psychiatric diagnoses and to have received extensive treatment, compared with subjects who reported no childhood sexual abuse history. Logistic regression demonstrated strong relationships between number of psychiatric diagnoses and the likelihood of treatment among both men and women. The authors concluded that gender, number of psychiatric diagnoses, and childhood sexual abuse are strong predictors of utilization of mental health and substance abuse treatment services and should be considered in designing treatment interventions. (Author abstract modified).

Schmidt, L.M. (1994). Outreach efforts in Appalachia require sense of cultural traits. Addiction Letter, 1, 6.

The article suggests that treatment providers need to change their methods of service delivery in an effort to tailor treatment and prevention for the Appalachian population. The first step must be to recognize the lifestyle stressors that are indigenous to this population. Additional cultural barriers include: mistrust of outsiders; fear of a system that will force them to change; self-sufficiency; geographic isolation; social isolation; and providers who are afraid of hostility or rejection. An effective treatment and prevention program for rural populations must include effective community mobilization, outreach, and education strategies combined with developing materials that are appropriate to culture and literacy levels. Major elements of a successful outreach program are discussed, including: providers becoming involved in the community; providers knowing the clients; starting small; providers being flexible and persistent; and volunteers used to link to the community.

Steel, E., & Haverkos, H.W. (1992). AIDS and drug abuse in rural America. Journal of Rural Health, 7(3), 70-73.

This paper reviews the nature and extent of drug abuse-related HIV disease services in the rural United States. Issues concerning the delivery of HIV disease and substance abuse health care services in rural settings are outlined and discussed.

Stueland, D., & Seavecki, M. (1997). Identifying predictors for relapse at a rural medical center. In Bringing excellence to substance abuse services in rural and frontier America: 1996 Award for Excellence Papers (Technical Assistance Publication No. 20, pp. 115-122). Rockville, MD: Center for Substance Abuse Treatment.

This study found that 14 percent of inpatients admitted to a substance abuse treatment program of a rural medical center over a 4-year period relapsed within 1 year. Possible social, medical, psychological, and substance-related predictors were compared to the probability of relapse within the year following discharge. The authors found that patients who were married, cohabiting, or had greater than 12 years of education were less likely to relapse than patients who were unemployed, had a prior relapse, or showed evidence of a personality disorder or hyperactivity. A combination of a prior relapse and hyperactivity predicted the greatest likelihood of relapse. Scores on the Recovery Attitude and Treatment Evaluator predicted relapse based on the extent of active medical problems. The medical record of the rural patient can verify drug or alcohol relapse and indicate predictors.

Wagenfeld, M.O., Murray, J.D., Mohatt, D.F., & DeBruyn, J.C. (1997). Mental health service delivery in rural areas: Organizational and clinical issues. In E.B. Robertson, Z. Sloboda, G.M. Boyd, L. Beatty, & N.J. Kozel (Eds.), Rural substance abuse: State of knowledge and issues (NIDA Research Monograph No. 168, pp. 418-437). Rockville, MD: National Institute on Drug Abuse.

The mental health funding cuts and the block grant shift of the last decade have placed an increased emphasis on fee-generating services. In already underserved rural areas, this has generated immense challenges for mental health professionals on how to provide services to persons other than those with chronic mental illness. This chapter discusses alternatives and innovations that have proven successful. Linkages with primary care physicians and indigenous residents who have been trained to provide basic mental health services under the supervision of mental health professionals are just two of the ways in which mental health professionals have risen to meet the challenges placed before them.

Wells, K.B., Astrachan, B.M., Tischler, G.L., & Unutzer, J. (1995). Issues and approaches in evaluating managed mental health care. Milbank Quarterly, 73, 57-75.

Data on the ways in which alternative forms of managed care affect the costs, quality, and outcomes of mental health are needed to inform health policy and clinical care decisions. Such evaluations, however, are difficult to implement for conceptual and practical reasons. The definition of managed mental health care is reviewed, alternative forms are described, and the activities and procedures that constitute managed care are identified. Examples from existing studies are used to describe the common roadblocks to implementing evaluations and to suggest methods for dealing with these barriers.

Wertz, J.S., Cleaveland, B.L., & Stephens, R.S. (1995). Problems in the application of the addiction severity index in rural substance abuse services. Journal of Substance Abuse, *7*, 175-188.

The aim of this research was to test the utility of the Addiction Severity Index (ASI) in a rural community substance abuse outpatient treatment center and to predict future alcohol and drug problems based on ASI information. Substance abuse counselors used the ASI to assess the problems of 89 adult clients at intake, and research staff assessed drug use outcomes 3 months later. There were significant improvements between intake and follow-up on the scores of the alcohol, drug, legal, and family sections of the ASI. Scores on the alcohol abuse, drug abuse, and medical sections of the ASI predicted some of the variance (16%) in drug and alcohol use outcomes, but psychiatric, medical, legal, and employment problems were not significant predictors. There was difficulty in obtaining adequate reliability in counselors' severity ratings for alcohol problems. The relationship of counselors' severity ratings to the more objective composite scores varied substantially by subsection of the ASI. The improvements in alcohol and drug use indices appeared to be more related to subjective appraisals of problems related to use rather than due to changes in drug-using behavior. Implications of these findings and recommendations for future research using the ASI are discussed.

Young, T.J. (1991). Native American drinking: A neglected subject of study and research. Journal of Drug Education, *21*, 65-72.

Although Native Americans are plagued by high rates of alcoholism, violence, suicide, and early death, these social and clinical problems are usually given little more than cursory treatment in textbooks. A content analysis of 26 textbooks on alcoholism and substance misuse revealed that only four of the textbooks provided a detailed discussion of Native American drinking. Greater attention needs to be given to the cultural, psychological, and biological issues of drinking and drunkenness in this special population.

Zimmerman, R. (1991). AIDS could devastate migrant community. U.S. Journal, *15*(12), 15.

The author contends that the lack of adequate prevention and treatment services for alcohol and other drugs among America's migrant farm workers is leaving this largely Hispanic population vulnerable to an accelerated spread of the HIV virus and AIDS. Use of cocaine and amphetamines in the migrant population is growing. It is estimated there are between 3 and 5 million migrant farm workers. Public health centers are reaching one out of five farm laborers, but most of these centers do not provide any kind of treatment services for alcoholism or drug addiction. Accurate measures of the rate of HIV infection in the migrant population are difficult to come by, but one test program turned up an HIV-positive rate of 5 percent, well above what would be expected for the population as a whole. The rate of HIV infection is running disproportionately high among African Americans and Hispanics. Because of the role of substance abuse in the spread of the virus, Federal health agencies are being urged to broaden

alcohol and drug services reaching these populations. There are fears that long-term exposure to certain pesticides may be weakening the immune systems of farm workers, making them all the more vulnerable to the HIV virus. A greater use of Spanish-language radio is suggested as a way to reach migrant workers with prevention messages.

**II. RURAL, REMOTE, AND CULTURALLY DISTINCT:
SELECTED CITATIONS**

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