

Introduction

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There are well-documented adverse health, economic, and social consequences associated with the abuse of alcohol and illicit drugs in the United States, and their impact is felt by individual abusers, their families, friends, associates, and society as a whole. These negative effects have been explored in the general population to varying degrees, but relatively little is known about the costs and consequences of substance abuse in rural America. An understanding of the nature and distribution of substance abuse-related problems is important for needs assessment, development, testing, and dissemination of effective prevention and treatment interventions, and for allocation of services resources.

The four chapters in this section explore the full range of adverse outcomes from alcohol and drug abuse as they are experienced in rural areas of the United States. Two chapters focus on alcohol-related problems and two on illicit drugs; within these pairs, one addresses health consequences and the other social and economic costs. All of the authors faced similar problems from limited data availability, and the need for additional research on rural populations is a recurring theme.

Another recurring theme is the importance of acknowledging the heterogeneity among rural areas in the design and interpretation of research. Differences in locale, demographics, economy, and local culture are accompanied by differences in the prevalence of alcohol and drug abuse, and differences in type and magnitude of associated costs and consequences will follow. All the authors stress the importance of recognizing the uniqueness of different rural groups, and each cautions against treating data from rural areas across the Nation as though they represent a single, cohesive population.

However, rural localities are not totally unique, and commonalities among them should permit selected generalization across subsets. Additionally, research resources are not adequate to examine each separately. What is needed is a typology of rural communities that identifies key characteristics relevant to the presence and nature of alcohol and drug abuse problems. In the chapter on "The Economic and Social Costs of Drug Abuse Among the Rural Population," Donnermeyer suggests some key dimensions that should be considered.

The differences among rural areas can provide opportunities for comparative research to identify community-level factors that are most predictive of the overall burden due to alcohol misuse and/or drug abuse. These, in turn, may suggest appropriate interventions to reduce alcohol- or drug-related problems. Differences in policies and practices or the institution of new programs can sometimes be used as natural experiments to test hypotheses regarding the potential effectiveness of environmental interventions.

Accurate assessment of the health, social, and economic costs from alcohol and drug abuse in rural communities may constitute intervention in itself. This information could motivate community leaders or officials to undertake a program of change. Similarly, this kind of data can be used to justify allocation of state or federal resources to high-problem areas.

The causal relationship between substance use and adverse outcomes is often more straightforward for health consequences than for economic and social costs. As Kelleher and Robbins point out in their chapter, "Social and Economic Consequences of Rural Alcohol Use," the data on social effects and substance use are often correlational; in some cases, convincing arguments can be made that substance use follows from the stressful conditions it has been hypothesized to produce. However, even quantifying the role of alcohol and drugs in morbidity and mortality can be difficult. For instance, what role does substance abuse play in an individual's failure to care for personal health, resulting in susceptibility to illness? The relationship between intravenous drug use and the transmission of the human immunodeficiency (HIV) virus is clear cut, but how much of the morbidity and mortality associated with acquired immunodeficiency syndrome (AIDS) can be attributed to alcohol-induced impairment of decisionmaking regarding sexual practices (e.g., safe sex)?

The chapter by Brody and colleagues, "Health Consequences of Alcohol Use in Rural America," reviews the known health effects from alcohol use and abuse in the general population. While acknowledging the limitations of using national-level data, the authors provide estimates of the prevalence of alcohol use and abuse in metropolitan and nonmetropolitan areas. It is argued that similarities in estimated prevalence of heavy drinking between metropolitan and nonmetropolitan areas suggest that, collectively, the areas share similar risks for alcohol health consequences. This chapter also presents a more detailed profile of a specific rural

population, African-Americans living in rural Georgia. Rates for alcohol-related mortality in rural Georgia counties exceed the national median. The authors argue that delaying the initiation of drinking and preventing alcohol misuse by youth is an important way of reducing current and future health consequences. Research exploring family processes that may underlie early onset in rural African-American adolescents is presented as a preliminary step toward the development of interventions.

In their chapter, "Health Consequences of Rural Illicit Drug Use: Questions Without Answers," Fisher and coauthors describe their own research on drug-related health problems in Anchorage, Alaska, a population center in a unique rural State. Alaska Natives and African-Americans were overrepresented in the sample. Information on drug-related health conditions in rural areas is very limited, and the authors discuss some of the challenges associated with this research: inaccessibility (especially in Alaska), problems of maintaining confidentiality in small communities, lack of representation in national data-collection efforts, and local resistance to researchers. These authors, as did Brody and colleagues, strongly recommend involving community members in the research endeavor. Methodological problems that can greatly reduce data reliability are discussed in some detail.

Although the potential health consequences from drug use are the same in urban and rural areas, their distribution in the population sometimes differs. The authors note that the appearance of HIV/AIDS in rural areas has lagged behind the onset of the epidemic in urban areas and can be traced to patterns of migration. In Anchorage, for instance, gay intravenous drug users (IVDUs) are much more likely to be HIV positive than are heterosexual IVDUs. In the absence of intervention, this finding predicts an increase in HIV prevalence among heterosexual IVDUs and spread to the population involved in sex trade, similar to the pattern already observed in urban areas.

As were other contributors to this section, Donnermeyer was stymied in efforts to develop a comprehensive estimate of consequences of substance abuse for rural areas due to the paucity of data. Donnermeyer has presented, instead, a framework for the ideal assessment of economic and social costs associated with the use of illegal drugs and a very preliminary indication of their likely magnitude. In overview, the distinction between economic and social costs equates the former with costs relating to the quantities of life and the latter with impacts on qualities of life. Donnermeyer's

typology of the different costs describes an ever-widening ripple of negative impact that extends from the individual drug user at the epicenter, to immediate family, friends, and associates, and ultimately to the entire society. The framework encompasses immediate and more obvious costs, such as resources spent on substances and treatment and alterations in patterns of social interaction of users. It also includes more subtle and remote effects, such as the value of productive time lost in criminal careers and general societal reactions to the presence of substance abuse. It is clear from the review that rural areas have not escaped these problems, and in all but the least densely populated rural counties, patterns of drug use by adolescents may be very similar to those in metropolitan areas.

Kelleher and Robbins also describe direct and indirect social and economic costs. Their discussion includes social costs to the drinker that result from the acute effects of alcohol on social interactions (e.g., disinhibition and impaired judgment) and more distal effects that follow from impairment in drinkers' ability to fulfill the obligations and responsibilities of their social roles. The authors describe key roles (e.g., as marital, parental, and work) and the ways in which these roles can be disrupted by alcohol use. Interestingly, the authors note that there is room for considerable variability between urban and rural areas and among rural areas in the way social functioning is impacted by alcohol abuse. The social context defines both expectations for individual behavior and expectations for alcohol use. Because these expectations can differ among communities, communities can also differ in whether particular interaction patterns are experienced, by individuals or society collectively, as costs.

There are some fundamental differences between the use of alcohol and illicit drugs that shape the nature and magnitude of their negative consequences. Foremost, the use of alcohol is legal for persons over the age of 21. Although legal, alcohol is clearly subject to abuse, and an estimated 7.4 percent of the population meet diagnostic criteria for abusive and/or dependent drinking (Grant et al. 1994). But, for many individuals, moderate use does not appear to be detrimental, and some have argued for the existence of social and health benefits (NIAAA 1992). This difference in legality has enormous implications for social costs associated with the criminal justice system, economic costs of obtaining the substance (street value), disruption to the lives of users, and disruption to society through crime associated with providing and obtaining drugs and diversion of law enforcement resources.

However, alcohol use also impacts the law enforcement and judicial systems. Even though it is a legal substance, certain kinds of use are illegal, notably underage drinking and drunk driving. Drinking is often associated with illegal behaviors, including public disturbance, vandalism, assault, and violence. In addition, persons under the influence of alcohol are more vulnerable to victimization by others (NIAAA 1994).

The prevalence of alcohol use is considerably higher than drug abuse, its direct and indirect costs are experienced by more people. Although an estimated 11.8 percent of the population used at least one illegal drug in 1993, fully two-thirds of the population (66.5 percent) drank alcohol in that period (SAMHSA 1994). The estimates for prevalence of use in the past month are even more disparate: 5.6 percent for illegal drugs and 49.6 percent for alcohol. In addition, while not all drinkers will experience the chronic health and social consequences associated with abusive drinking, even occasional drinkers are at risk for negative acute effects such as accidents, drug interaction, impaired social interactions, and consequences of decisions made while intoxicated.

Additionally, these differences between alcohol and other drugs in legality and prevalence of use have major implications for interventions that seek to reduce their negative impact on society. The goal of drug-abuse intervention is unequivocal—the elimination of all substance use. However, the goal(s) for alcohol-abuse intervention must be more complex—elimination of underage, unsafe, abusive, and dependent drinking, but not moderate drinking by healthy adults. Differences between alcohol and other drugs in social acceptability, normative practices, and legitimate versus illegitimate business concerns give rise to different barriers to change.

It should be remembered that for both alcohol-related problems and drug abuse, accurate assessment of the health, social, and economic costs from alcohol and drug abuse in rural areas may constitute intervention in itself. If made available to individual communities, this information can serve to reduce social acceptability of substance abuse and to motivate community leaders and the general population to undertake a program of change. Additionally, such data can be used to justify allocation of State or Federal resources to high-problem and underserved areas.

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