1. Summary

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In recent years, mounting evidence has confirmed that alcoholism and alcohol abuse* are involved in a host of medical, psychological, and social problems that engender major economic costs for the country. At the same time, efforts to treat alcoholism in the health care system have expanded greatly—and although only a small proportion of alcoholics or alcohol abusers actually receive treatment, the aggregate costs of treatment have risen substantially. In 1982, Medicare alone spent an estimated $150 million for the treatment of alcoholism. As congressional debate over rising health care costs has intensified, questions have been raised about whether the treatments provided are effective. Such questions have important implications for whether Medicare and other Government support for the existing treatment system should be expanded or be contracted.

This case study on the effectiveness and costs of alcoholism treatment was prepared as part of OTA'S project on "Medical Technology and Costs of the Medicare Program. " While the overall project is being conducted in response to requests by the House Committee on Energy and Commerce and the Senate Committee on Finance, this particular study answers the specific request by the Subcommittee on Health of the Senate Committee on Finance for scientifically based information on the effectiveness of alcoholism treatments.

The goal of this case study is to provide scientific background for congressional consideration of Medicare reimbursement for alcoholism treatment services. In addition to describing the problem posed by the abuse of alcohol, the authors seek to assess, on the basis of scientific research evidence, treatment programs and services developed to aid alcoholics. The primary source of information for this study has been published scientific literature. Because of the limitations of the available literature—i. e., for some treatments, no scientific studies are available, and for some others, the available evidence on outcomes is not sufficient to permit unambiguous conclusions—the study's conclusions are necessarily limited.

*Alcoholism is a medical/psychological term to describe particular syndromes of alcohol use. Alcohol abuse is a more general term used to refer to alcohol use associated with health and social problems.

THE ALCOHOLISM PROBLEM

Alcoholism constitutes a vast syndrome of medical, economic, psychological, and social problems. From 10 million to 15 million Americans are either alcoholic or have serious problems directly related to the abuse of alcohol. Up to 35 million more individuals are estimated to be affected indirectly. Although estimates are imprecise, alcoholism and alcohol abuse have been implicated in half of all automobile accidents, half of all homicides, and one-quarter of all suicides. Alcohol abuse is a major factor in divorce and accounts for perhaps 40 percent of all problems brought to family courts.

The economic cost of alcoholism and alcohol abuse, a major portion of which is lost work productivity, may be as high as $120 billion annually. Furthermore, alcohol abuse may be responsible for up to 15 percent of the Nation's health care costs. Alcoholics use significantly greater amounts of medical services than do nonalcoholics for a wide range of physical problems caused by or associated with excessive drinking.

Alcoholism and alcohol abuse are seen in every socioeconomic group, although the problems may manifest themselves differently across groups. The proportion of people who drink alcoholic beverages has remained relatively constant, and it is estimated that 9 percent of the U.S. adult population drink heavily on a regular basis. A significant portion of heavy drinkers are either physically or psychologically addicted to alcohol, and their use of alcohol results in major problems for themselves and others.

APPROACHES TO ALCOHOLISM TREATMENT

The treatments for alcoholism are diverse, in part because experts have different views about the causes of alcoholism. At least three major views of the etiology of alcoholism can be identified: medical, psychological, and sociocultural. Treatments are generally based on one or a combination of these views.

Modalities of treatment for alcoholism include the use of drugs, psychologically based treatments, and treatments based on group and community efforts. Treatment settings for alcoholics include inpatient facilities, such as alcoholism units within general hospitals, and outpatient facilities, such as community mental health centers or free-standing outpatient clinics. In most treatment settings, a number of treatment modalities are offered. A large number of alcoholics are aided by Alcoholics Anonymous, a self-help organization whose programs can be either part of or an alternative to a formal treatment regimen.

Despite the significance of problems relating to alcoholism and alcohol abuse and the increasing attention of health professionals to these problems, an estimated 85 percent of those with problems due to alcohol use receive no treatment for their condition.

METHODOLOGICAL ISSUES IN EVALUATING THE EFFECTIVENESS OF ALCOHOLISM TREATMENT

Much of the existing literature on the effectiveness of alcoholism treatment is not of very good methodological quality. Scientific research on the effectiveness of alcoholism treatment is difficult to conduct, in part because of the complexity of the alcoholism problem. Ethical and practical problems have hindered the implementation of randomized clinical trials and other controlled research. Furthermore, the assessment of individual treatments is difficult because treatments for alcoholism are often provided in combination. Measuring treatment outcomes is problematic, as well, because there is intense disagreement in the alcoholism field about what the outcome of treatment should or must be—i.e., total abstinence from alcohol or some other outcome such as controlled drinking. The reliability and validity of outcome measures are also at issue. * Finally, the interpretation of the studies that are available is hindered because particular types of patients tend to receive certain treatments and not others.

*Reliability is a measure of the consistency of a method in producing results. A reliable test gives the same results when applied more than once under the same conditions. Validity is a measure of the extent to which a situation that is observed in a study is reflective of the true situation.

RESEARCH ON THE EFFECTIVENESS OF ALCOHOLISM TREATMENT

Despite methodological limitations, the available research evidence indicates that any treatment of alcoholism is better than no treatment. Calculations of average success rates across studies indicate that about two-thirds of those treated improve. Reported success rates depend partially on whether the outcome indicator is abstinence, controlled drinking, or some other index of improvement. However, there is little definitive evidence that any one treatment or treatment setting is better than any other. Furthermore, controlled studies have typically found few differences in outcome according to intensity or duration of treatment.

Most treatments for which there is evidence seem to be effective for at least some patients under some conditions. There is some evidence of the effectiveness of group therapy, family therapy, and some kinds of behavior therapy. Studies of mood-altering drugs (e.g., lithium) and sensitizing agents (e.g., disulfiram, more commonly known as Antabuse@) indicate some positive

effects, but the generalizability of the effectiveness of these treatments is limited by methodological problems. Chemical aversion therapy (e.g., with emetine) has been studied intensely recently, and although there are substantial positive findings, the interpretation of these findings is hindered by patient selection problems—i.e., the best rates of abstinence following this therapy seem to be among patients who would be expected to do well. Another problem is that chemical aversion therapy is usually offered as part of a diverse treatment package; thus, it is difficult to attribute the outcome of treatment directly to this therapy.

With respect to treatment setting, there is little evidence for the superiority of either inpatient or outpatient care alone, although some evidence exists for the importance of continuing aftercare as an adjunct to short-term intensive rehabilitation (usually in an inpatient setting). Further research is needed both to specify how to match patient to treatment and setting and to test competing claims of effectiveness.

COSTS AND BENEFITS OF ALCOHOLISM TREATMENT

Cost-benefit analyses (CBAS) are used to develop comparisons of the benefits of treatments against the resources they consume, with both benefits and costs expressed in dollars. An essential qualitative conclusion from available CBAS is that the costs of not providing treatment may be greater than the costs of providing such treatment. Available CBAS of alcoholism treatment services indicate significant reductions in medical care utilization and time lost due to illness, compared to the costs of treatment.

Cost-effectiveness analyses (CEAS) are used to evaluate the relative cost of alternative treatments per unit of effectiveness (typically specified in nonmonetary terms). It is difficult to conduct formal CEAS of alcoholism treatment because of the lack of sufficient data on outcomes of alternative treatments. Nevertheless, available CEAS indicate that hospital-based inpatient care costs significantly more for an equivalent outcome than does outpatient care or care in nonmedical settings.

REIMBURSEMENT ISSUES

A number of private insurance companies, employers, and the Federal Government have recently expanded benefits for alcoholism treatment because it appears that the costs of not providing alcoholism treatment are greater than the costs of providing such treatment. The essential question at this point seems to be not whether reimbursement for the treatment of alcoholism should be provided, but whether current reimbursement policy supports the provision of the most cost-effective treatments.

Although reimbursement formulas are complex, reimbursement systems—particularly Medicare and Medicaid—have generally encouraged the use of inpatient, medically based treatment for alcoholism. * Available evidence, although of widely varying methodological quality, indicates that medically based inpatient rehabilitation services are far more expensive, but not necessarily more effective, than primarily nonmedical inpatient or outpatient treatment.

As of September 1, 1982, the Health Care Financing Administration had developed new Medicare guidelines that tighten criteria for reimbursement for medically based inpatient services, while

*Under the hospital insurance component of Medicare (Part A), alcoholism can be treated as a psychiatric disorder, under the genera] category of psychiatric health **services, in either a psychiatric or general hospital. The supplementary medical insurance component of Medicare (Part B) provides partial coverage for outpatient services.**

increasing the availability of reimbursement for outpatient treatment in hospitals and free-standing clinics. There have been no changes in Medicaid regulations, but because of changes in Federal funding policies, States have more latitude in deciding how Federal funds are spent.

Although the new Medicare regulations and other developments in treatment financing may increase the efficiency of the treatment system, their impact is difficult to predict. It would seem reasonable not to further change Medicare eligibility standards until more information is available concerning the effects of these evolutionary changes. It is clear that there is a need for more systematic specification of which patients would be best served by which of the available alcoholism treatment systems. Information pertaining to this issue could be developed through available research techniques.

ORGANIZATION OF THE CASE STUDY

This case study is organized into seven chapters. Chapter 2 provides a context for the present policy debate on alcoholism treatment, describes several perspectives on the etiology of alcohol abuse, and identifies various subpopulations with alcohol abuse problems. Chapter 3 describes many of the treatment approaches currently employed and the settings within which alcoholism treatment is delivered.

Chapter 4 assesses various methodological issues involved in evaluating the effectiveness of alcoholism treatment. Chapter 5 provides an analysis of available research evidence. It critically examines major reviews of research on the effectiveness of alcoholism treatment and discusses data regarding treatment outcomes in specific settings with particular modalities. The economic costs of alcoholism and the costs and benefits of providing alcoholism treatment services are detailed in chapter 6. In chapter 7, policy issues of the current reimbursement system are considered in relation to the scientific data regarding treatment.