

FRONTLINES

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Demand for Alcohol Treatment

By Katherine M. Harris, Ph.D., Substance Abuse and Mental Health Services Administration and John D. McKellar, Ph.D., Stanford University

Despite a growing body of evidence about the effectiveness of alcohol treatment, only a small minority of people with alcohol problems ever seeks and engages in treatment. A recent national survey in the U.S. found that only 16% of those with an alcohol use disorder (AUD) had received any treatment in 2001. Similarly, a recent report on utilization of AUD treatment in the Veterans Administration found that only 23% of individuals with an identified disorder received treatment.

Why do so few people with alcohol problems seek treatment?

Surprisingly, few studies have sought to answer this question. Instead, the focus has been on treatment outcomes evaluations. As a result, little is known about how the organization and delivery of treatment services affects treatment demand.

Early studies of treatment-seeking focused on testing the widely held view that the degree of denial of alcohol problems governed treatment seeking. Moreover, early studies of treatment-seeking rested on the implicit assumption that data from individuals currently enrolled in treatment could be used to generalize about untreated individuals with AUD. Many of these studies equated treatment retention with treatment initiation and none of the studies assessed untreated individuals.

More recent help-seeking studies focus directly on the question of treatment initiation. These studies fall into two general categories:

(1) studies of variables predicting help-seeking in a general population, and (2) studies that compare treated and untreated individuals in their reasons for seeking treatment.

The first group of studies typically compares relative predictive power of demographic variables, clinical measures of addiction severity, and motivating factors. A good example of such a study is the one reviewed in this issue of *Frontlines* by Mertens and Weisner where treatment-seeking was most strongly driven by external motivating factors (alcohol-related social consequences).

Studies in the second group find that the perceived importance of barriers to treatment distinguishes treated and untreated individuals with the same clinical characteristics. Such barriers include the stigma associated with being labeled an alcoholic, lack of interest in abstinence, desire to solve one's own problems, a perception that treatment is ineffective, and the fear that others will discover they are in treatment. Taken together, these two lines of research suggest that high levels of external pressure are required to overcome perceived barriers to treatment initiation.

Questions as to whether people with alcohol problems would be more likely to seek treatment (and at an earlier stage) if it were less expensive, more convenient, more anonymous—and the outcomes more certain—remain largely unanswered. However, an understanding of the relationship between features of

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Editor's Note

There is no question that alcohol treatment can be effective. Yet few people with alcohol problems ever seek it. This issue of *Frontlines* examines the nature of the demand for alcohol treatment, describes the barriers to initiating and continuing with treatment, offers a profile of the characteristics of people who seek and engage in treatment, and attempts to answer why many problem drinkers turn to the “unofficial” or “gray” market for services.

Bradley Stein of RAND and Jay Bhattacharya of Stanford University provide two separate looks at the economic aspects of treatment demand. Their work suggests that co-payments and other price sensitivities can be a serious deterrent to treatment. On the employer side, Katherine Harris of SAMHSA and Roland Sturm of RAND shed light on why offering generous alcohol treatment benefits is unlikely to lead to large numbers of problem drinkers seeking treatment or to higher treatment costs.

From Kaiser Permanente and the University of California, San Francisco, Jennifer Martens and Constance Weisner provide a detailed look at the characteristics of people who tend to seek, start, and remain in treatment. Finally, Keith Humphreys of Stanford University and Jalie Tucker of the University of Alabama, Birmingham, describe why so many people find the “gray” market for alcohol treatment services so attractive.

treatment and of demand remains central to the design and implementation of effective treatment programs, as well as interventions that seek to engage patients before alcohol problems evolve into crises.

Economic approaches addressing these types of questions in the context of general medical care and health insurance coverage are well established. However, researchers have only recently begun to use economic approaches to study demand for alcohol treatment and treatment benefits. In economic terms, clients enter treatment when they perceive the benefits of treatment outweigh costs, measured in both monetary and non-monetary terms. In this context, changes in the expected benefits and costs of treatment influence the likelihood of use.

Earlier research on treatment-seeking provides a framework for measuring benefits and costs of treatment. Potential benefits of treatment include improved job security and employment prospects, elimination or reduction of judicial sanctions, and improved relationships with friends and family members. The costs of treatment include those specific to AUD, such as stigma, loss of privacy, and the loss of pleasure derived from consuming alcohol. Other costs include those traditionally associated with the use of medical care services, such as travel, time away from work and from family members, and the out-of-pocket costs not covered by health insurance.

Uncertainty characterizes client decisions to seek treatment. For example, there is no guarantee that treatment will be effective or that once a person abstains from alcohol that family relationships or job situations will improve. Likewise, continued drinking may or may not result in negative consequences. Economic models assume that individuals in effect make their “best guess” about what is likely to happen if they seek or avoid treatment, continue or end treatment—and then factor these guesses into which course of action to pursue. For example, if clients know they must abstain from alcohol for a period of time before entering treatment, few may seek AUD treatment especially because it will require them to give up a valued and certain reinforcer (i.e., alcohol) to gain a possibly more valuable but uncertain benefit from treatment.

Elsewhere in this issue of *Frontlines*, Keith Humphreys and Jalie Tucker discuss the opportunities and challenges raised by the growing “gray” market for treatment not formally sanctioned by the professional treatment system. Seen from an economic perspective, greater perceived convenience and privacy relative to formal treatment may explain some of the popularity of the informal treatment system.

“Questions as to whether people with alcohol problems would be more likely to seek treatment if it were less expensive, more convenient, more anonymous, and the outcomes more certain, remain largely unanswered.”

Several of the studies discussed in this issue of *Frontlines* represent first efforts to understand the economic aspects of treatment demand. Work by Stein and Bhattacharya suggests that treatment demand is sensitive to the generosity of alcohol treatment benefits, where the likelihood of treatment use declines as clients' out-of-pocket treatment costs increase. Yet work by Harris and Sturm suggests that people do not choose health plans or employers that offer more generous treatment benefits in anticipation of using services for alcohol problems.

Taken together, recent findings from research on treatment demand indicate that closing the wide gap between *needed* treatment and *received* treatment requires that we go beyond the usual examinations of the clinical, social, and demographic factors that influence treatment seeking. Rather, alcohol services researchers must work to understand the impact of such factors as client preferences and beliefs about the organization, delivery, and effectiveness of treatment. ■

Research Highlight

Co-Payments Affect Levels of Substance Abuse Treatment Following Detoxification

By Bradley Stein, M.D., M.P.H., RAND

Detoxification, which helps patients withdraw from drugs and alcohol safely and humanely, plays an important role in treating patients with the most severe substance abuse problems. These are people whose drug or alcohol use is so severe that stopping use presents a serious risk to their health, or who seem unable to stop using for even short periods unless in a very restrictive environment.

Detoxification, however, is not intended to change a patient's drug or alcohol using behavior. It is associated with lasting improvements only when patients receive continued rehabilitative care. Yet evidence suggests that many patients never get follow-up care after detoxification despite the common knowledge that it is crucial to helping them conquer their substance abuse problems. To complicate matters, research I recently conducted with my colleagues shows that co-payments associated with alcohol and drug treatment programs may play a part in determining who pursues subsequent treatment following detoxification and who does not.

Few studies have examined the rate and patterns of substance abuse treatment following detoxification, and existing studies focus primarily on the delivery of public services. To widen the base of knowledge, we chose to examine the rate of subsequent drug and alcohol treatment for privately insured inpatient detoxification patients in behavioral health care carve-out plans. We used claims data from 1991-97 from 14 employer groups whose behavioral health care benefits are managed by United Behavioral Health (UBH).

In an examination of 1062 patient records of those who had received inpatient detoxi-

fication, we found that 79% received substance abuse treatment in the month after their discharge from detoxification. Outpatient treatment lasted an average of 75 days, with the majority of patients (56%) initially receiving intensive outpatient therapy. Patients who received more than one outpatient session averaged approximately one session for every five days in their first month and one session for every 12 days in the second through sixth months of outpatient treatment. Half the sample of patients who received follow-up care remained in outpatient treatment after 60 days, and 25% were still in formal treatment after three months.

To get a clearer picture of whether co-payments made a difference, we estimated the percent change in follow-up rates among patients not receiving follow-up care based on a model for co-payments of \$0, \$10, \$20, and \$30. Controlling for the effects of other variables, if co-payments were held constant at \$30, we predicted a 43% increase in the number of subjects not receiving follow-up. Conversely, a zero co-payment resulted in a predicted 24% decrease in the number of people not receiving follow-up.

In one of the largest managed behavioral health care carve-out organizations, the proportion of individuals receiving formal substance abuse treatment following inpatient detoxification is relatively high (79%). Despite these generally encouraging findings, there is room for improvement. Given the severity of illness in most patients requiring detoxification, the tremendous personal and societal costs associated with severe drug and alcohol abuse, and the poor outcomes associated with patients who do not receive treatment following detoxification, the fact that over 20% of the subjects did not receive any treatment is reason for concern.

Our results suggest that outpatient co-payment levels may significantly influence the rate at which discharged detoxification patients enter into subsequent treatment. In our sample, the waiver of all outpatient co-payments would have resulted in a predicted decrease of 24% in the number of patients not receiving subsequent treatment. This result is particularly striking because the plans included in our study generally had quite low co-payments compared to the typical substance abuse co-payment of 50%. Our estimates imply that by waiving the more typical co-payment amount of \$30, the rate of non-participation in substance abuse treatment among detoxification patients could be cut by almost 50%.

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Federal policymakers at the Office of National Drug Control Policy have acknowledged that our society cannot afford *not to treat* those with severe substance abuse problems, and our study suggests that improved coverage, such as that proposed in the Substance Abuse Parity bill, may improve treatment participation following detoxification among this population. However, more focused research is needed to determine whether increased treatment participation is associated with improved outcomes following detoxification. By implementing and evaluating programs that waive outpatient co-payments for patients completing an inpatient detoxification program, managed behavioral health care organizations can contribute to efforts to improve the treatment of drug and alcohol disorders. ■

Research Highlight

Coinsurance, Cost Sharing, and the Demand for Managed Behavioral Health Services

By Jay Bhattacharya, M.D., Ph.D., Stanford University

“Our research shows that required coinsurance payments can deter severely ill patients from seeking the psychiatric and substance abuse care that they need.”

Increasingly, Americans with private health care are enrolled in some form of managed medical care. Recent estimates place more than three-quarters of all privately insured people in managed care, and the market penetration rate of managed behavioral health care is even higher. Many managed health firms subcontract with firms devoted solely to the provision of mental health care and the treatment of substance abuse.

Nearly all managed care plans feature significant cost sharing; consequently, chronically ill patients face a substantial risk of high, perhaps unaffordable, out-of-pocket expenditures. This is especially true for patients with psychiatric or substance abuse diagnoses who need substantial medical attention.

In a new analysis of data from the one of the largest managed behavioral health carve-out providers in the United States, this author, along with Roland Sturm and Maria Orlando of RAND, have estimated the burden of cost sharing for patients who have had at least one hospital stay for a psychiatric or substance abuse over the course of a year. Our research shows that required coinsurance payments can deter severely ill patients from seeking the psychiatric and substance abuse care that they need.

Using data from a large nationwide mental health carve-out organization, we found that severely ill patients diagnosed with psychiatric conditions were heavy users of behavioral health services in the year after initial admission—averaging 19 outpatient visits at a cost of nearly \$3,000. Readmission after initial admission was also common and costly—over \$2,800 per year.

Since the initial admission typically swamps the deductible provision in these severely ill patients' insurance plans, the main out-of-pocket costs come in the form of coinsurance.

The coinsurance paid depends on the particulars of the insurance contract, but often there is modest cost sharing for visits within the managed care plan's network (on average, 5% coinsurance for outpatient visits and 10% coinsurance for inpatient stays), and substantial cost sharing for visits outside the network (on average, 73% for both inpatient and outpatient stays).

The potential for high out of pocket costs raises a key policy question: To what extent do the coinsurance provisions of managed behavioral health plans deter severely ill patients from seeking care for psychiatric and substance abuse problems? To answer this question, we took advantage of the fact that, even though all our data came from a single behavioral health company, the particulars of the insurance contracts this company writes differ markedly across the country and across different employers.

For some contracts, coinsurance rates for outpatient services are high, while for other contracts there are high coinsurance rates for inpatient services. By following the use of services by this severely ill cohort of patients in different plans over time, and comparing how the use of services varies with coinsurance, we were able to generate an estimate of the sensitivity of the demand for services to coinsurance. These patients have already paid their deductible for their initial inpatient stay, so the sensitivity estimates are not contaminated by the existence of deductibles.

We found a steep decline in demand for behavioral health care in this sample of severely ill patients. Elasticity estimates for expenditures per month after the initial hospitalization range from -0.88 to -3.4, depending on the type of service. For example, increasing the coinsurance rate by 10% (a 2 percentage point increase) reduces expenditures on in-network

Research Highlight

Adverse Selection and Generosity of Alcohol Treatment Benefits

By Katherine M. Harris, Ph.D., Substance Abuse and Mental Health Services Administration and Roland Sturm, Ph.D., RAND

Private sector insurance benefits for alcohol treatment remain limited. Despite widespread expansions in mental health benefits, employers are wary of offering more generous alcohol treatment benefits for fear of attracting disproportionately large numbers of problem drinkers—people who are more likely to incur high medical care costs and be less productive employees. This process is called adverse selection.

While the potential for adverse selection exists, our research shows it is unlikely to occur, if at all. In fact, we found no evidence that plans offering more generous alcohol treatment benefits draw in people who generate higher alcohol treatment costs or that treatment users remain enrolled in plans with more generous benefits compared with non-users. Moreover, we find no evidence of “pent-up” demand for alcohol treatment benefits.

Many people with drinking problems do not think they need treatment. As a result, the generosity of alcohol treatment benefits offered by an employer is not likely to factor into the employee’s decision to take a position. At the same time, job candidates—even problem drinkers who recognize the potential benefits of treatment—are unlikely to inquire about the generosity of substance abuse benefits for fear of harming their employment prospects, while prospective employers are unlikely to volunteer such information.

Unfortunately, there has been little empirical evidence regarding adverse selection in relation to the offer of generous alcohol treatment benefits. This gap in knowledge stems from the lack of appropriate data

with which to study such questions. Most of what is known about selection comes from studies of medical care benefits, where denial and informational obstacles are not key issues. Most of what we know about selection comes from data on enrollee choices among multiple health plans offered by a single employer or public program sponsor. Such settings are of limited relevance for studying selection in the demand for alcohol treatment benefits. Increasingly, employers are “carving out” behavioral health benefits from health insurance contracts so that all employees in a firm have access to a uniform treatment benefit. They are also offering fewer health plans from which to choose. The bottom line is that it is difficult to ascertain selection among employees who do not have much choice in benefit plans once they join a company.

To try to gain more insight regarding adverse selection, we used administrative claims data from 1991 to 1997 for 57 employers who have contracted with one of the largest behavioral health care carve-out organizations covering more than 650,000 employees and dependents. A key advantage of our data is the ability to observe variation in benefit generosity and service use controlling managed care activities. However, the fact that our data comes from a single, though large, behavioral health care organization limits the generalizability of our findings.

We measured selection in two ways. First, we compared alcohol treatment use rates and costs for more and less generous plans for members who were enrolled in plans at the time their employer initiated the carve-

out contract and for those who joined subsequently. We operated on the premise that new members could factor the generosity of alcohol treatment benefits into employment choices, while members who were enrolled at the time the benefits started had no control over benefit generosity. Under the selection hypothesis, new members in more generous plans should use more services and be more costly than old members in generous plans. Likewise, new members in more generous plans should use more services than new members in less generous plans. Second, we analyzed enrollment duration by level of plan generosity for users and non-users of treatment services.

“While the potential for adverse selection exists, our research shows it is unlikely to occur, if at all. In fact, we found no evidence that plans offering more generous alcohol treatment benefits draw in people who generate higher alcohol treatment costs.”

We found no evidence of adverse selection in either analysis. In particular, we found no evidence that the treatment costs of new members compared to old members are higher in firms that offer more generous treatment benefits and no evidence that alcohol treatment users remain disproportionately enrolled longer in plans with more generous benefits compared to non-users. We also found no evidence of “pent-up” demand for alcohol treatment benefits, even in generous plans. While our findings are relevant for the policy debate, this study represents only a first look at an important topic. ■

Research Highlight

People Who Seek, Start, and Remain in Treatment in an HMO: Who Are They?

By Jennifer Mertens, Kaiser Permanente, and Constance J. Weisner, Dr.P.H., University of California, San Francisco

Entering and engaging in alcohol and drug treatment involves a series of decisions. Research shows that certain patient characteristics are clear indicators of who will seek treatment. But those indicators may differ when it comes to initiating and engaging in treatment. These findings have important policy implications for developing ways to not only improve access to treatment but also to ensure that people continue getting treatment they need.

Since managed care has been a major organizational form of treatment service delivery, we examined data from three studies from Kaiser Permanente (KP), a large health maintenance organization in Northern California. We examined potential patient predictors of demand in relation to three separate areas: seeking treatment, initiating treatment, and remaining in treatment.

What patient characteristics predict treatment-seeking?

In a study of the general population, we found that those who sought treatment were older, more likely to be African-American, had more severe drug and psychiatric problems, and experienced more alcohol-related social consequences. They were also more likely to have had previous treatment and mandates from work or the legal system.

In a second study, we examined predictors of treatment-seeking among those who screened positive for alcohol and drug problems in KP primary care clinics. Those who sought treatment within six weeks of screening in primary care tended to be male, younger than 50, had lower incomes,

and more severe alcohol problems. Those who had heard concern expressed by a family member, friend, or health professional in the past year tended to be more likely to seek treatment.

The lack of gender findings in the general population—indicating that efforts to increase women's representation in treatment have generally been successful—contrast with those from the primary care population in which women were less likely to seek treatment.

What characteristics predict initiating treatment?

Drug dependent patients were less likely to initiate treatment than alcohol-only dependent patients. Among alcohol-only dependent patients, women were more likely to start treatment than men. Among drug dependent patients, those who initiated treatment were more likely to be employed and had higher levels of ASI drug severity. For both groups, those who had workplace pressures, or placed high importance on treatment for alcohol problems, were more likely to initiate treatment.

What characteristics predict treatment retention?

Predictors of retention differed markedly for men and women. For women, predictors were unemployed status, higher incomes (above \$20,000), less severe drug and psychiatric problems, and being married (or living as married). For men, predictors were older age, employer mandates, and having

abstinence goals at intake. For both groups, however, those with fewer and less severe drug problems were more likely to retain treatment (Mertens & Weisner, 2000).

Implications

Our research shows that there are significant differences in patient characteristics at each stage of treatment seeking. On the whole, older age and external motivational pressures, such as workplace pressures, were predictive at all three stages. Higher drug and psychiatric severity predicted seeking treatment, but also predicted dropping out, especially among women. Previous treatment experiences predicted seeking treatment, but not initiating or engaging. Furthermore, internal motivation did not play a role until after treatment entry, when it influences treatment initiation and engagement.

Given the low rates of individuals initiating and completing treatment, and differences in rates across patient subgroups, we argue that when programs measure access they should be accountable for retention as well. Second, workplace and legal mandates are important at all stages of treatment-seeking. Third, the importance of motivation over problem severity or symptoms is unique to the alcohol and drug treatment field. Patients are forced to give something up that is important to them, rather than obtaining relief from their symptoms. Thus, simply making treatment available, as in parity policies, may not be sufficient to improve access to treatment. ■

These studies were funded by The Robert Wood Johnson Foundation, the National Institute on Alcoholism and Alcohol Abuse, and the National Institute on Drug Abuse.

For references or more information about the study contact Jennifer Mertens at Jennifer.Mertens@kp.org.

Commentary

Shades of Gray: Understanding Consumer Demand for Alcohol-Related Services in a Pluralistic Marketplace

By Keith Humphreys, Ph.D., VA Program Evaluation and Resource Center, and Stanford University, and Jolie A. Tucker, Ph.D., University of Alabama-Birmingham

Economics teaches that the “official” market for any desired good or service rarely meets all consumer demand. No increase in the number of department stores will eliminate the appeal of swap meets in church parking lots, no increase in tobacco sales licenses will stop some individuals from illegally buying untaxed cigarettes, and no increase in the size of the Minute Maid corporation will stop children from selling cups of lemonade on hot summer days. Whether such markets are officially proscribed (i.e., black markets) or are simply informal and unregulated (i.e., gray markets), they invariably teach us something about the nature of consumer demand, and about the benefits and limitations of the official market. As we will describe, this insight is particularly relevant for understanding the pluralistic U.S. marketplace of interventions for alcohol problems.

The official market of alcohol-related services comprises licensed specialty alcohol treatment programs, as well as interventions provided by trained professionals in other health care settings, such as brief interventions with high-risk drinkers in primary care. The vast majority of U.S. problem drinkers never enter this market (Humphreys & Tucker, 2002). Problem drinkers are far more likely to use the gray market of alcohol-related services, which comprises activities such as seeking the counsel of religious leaders (e.g., imam, rabbi, priest), receiving advice from Internet chat rooms, joining self-help groups, and self-administering over-the-counter herbal remedies.

What can be learned from the greater demand for gray market than for official market alcohol-related services in the U.S.? First, non-professional options appeal more to consumers,

but may also be more likely to engage in practices not supported by relevant clinical science (e.g., evidence suggests that some putative herbal remedies can damage organ systems). Thus, a clear need exists to develop a range of appealing professional services that disseminate empirically supported treatments.

Second, one way to increase the appeal of professional services is to understand the appealing features of gray market alternatives and to incorporate them into professional services. Most gray market resources are less stigmatizing, more private and accessible, and less costly and formal. Further, they are often low in cost or free of charge, do not require appointments, have flexible access schedules, and can be used as needed over long periods of time. They usually do not require that participants abstain from alcohol in order to begin participating, nor do they bar someone from the program should they happen to drink. This is in stark contrast to the requirements of many specialty alcohol treatment programs.

Third, from the consumer’s perspective, these structural features may be more influential on their help-seeking choices and patterns than the technical nuances of specialty treatments that have been the focus of much outcomes research. The relatively low level of utilization of professional alcohol treatment programs probably has less to do with problem drinkers’ preferences for certain types of psychotherapy, and more to do with questions of when, where, and how treatment can be accessed, and at what economic, social, and time costs (Humphreys & Tucker, 2002).

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In addition to suggesting treatment improvements, viewing the marketplace for alcohol services in a pluralistic fashion raises a key question for health services research and policy: To what extent and under what market conditions do official and gray market services for drinking problems function as substitutes and complements? That is, when does utilization of one service reduce demand for others, and when does utilization of one increase demand for others? Such questions have much relevance in today's increasingly costly health care environment, where providing adequate treatment at lower cost is an overarching goal.

In the alcohol services arena, it would be useful to know whether gray market resources such as Alcoholics Anonymous can extend the impact of professional services at lower cost than providing professional support for a comparable period. Would expansion of insurance coverage for substance abuse treatment lessen demand for the gray market, or would its informality

and accessibility continue to make it more appealing than specialty alcohol treatment? These questions are but one illustration of how our understanding of the demand for alcohol-related services could be advanced by conceptualizing and investigating the dynamics of the official and gray components of a pluralistic marketplace. ■

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Bhattacharya *continued from page 4*

outpatient services by 17%, while it reduces expenditures on out-of-network outpatient services by 34%. Inpatient visits tend to have lower demand elasticities. These results, which are the first estimates of demand elasticities available for patients who use managed behavioral health care, indicate that severely ill patients are strongly sensitive to price in their demand for behavioral health services. ■

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