

Potential Demand for Substance Abuse Treatment in the Criminal Justice System

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This article considers the challenges in evaluating the potential for partnership between the treatment and criminal justice systems, and suggests an agenda for further research. Deep conceptual ambiguities and limitations of survey methods make general population estimates of need for treatment highly questionable. In criminal justice populations, we must make use of uniquely available data to improve need estimates. For the purposes of policy analysis, it is essential to move beyond binary classification of the population as in need or not in need and attempt to estimate treatment needs by level of care. It is also essential to consider actual demand for level-appropriate treatment, because even in the criminal justice system, where patients may be subject to coercion, demand may be radically less than need. Initial studies must build better knowledge of criminal offenders' choices between incarceration and longer community regimes.

Keywords: *substance abuse; treatment; criminal justice; offender*

In recent years, there has been a broad movement toward partnership efforts between the criminal justice and substance abuse treatment “systems.” Many criminal justice professionals find that substance abuse treatment can

AUTHORS' NOTE: The authors gratefully acknowledge the support of the Center for Substance Abuse Treatment and the Massachusetts Department of Public Health, Bureau of Substance Abuse Services in connection with the State Treatment Needs Assessment Program. The opinions in the article are solely those of the authors. Correspondence concerning this article should be addressed to William N. Brownsberger, Division on Addictions, Harvard Medical School, Suite 200, 350 Longwood Avenue, Boston, MA 02115; e-mail: will@willbrownsberger.com; voice: 617-489-2612; fax: 617-489-6665.

Criminal Justice Policy Review, Volume 15, Number 1, March 2004 37-60

DOI: 10.1177/0887403403256379

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help reduce crime by reducing intoxication and addiction (e.g., Criminal Justice Public Policy Panel, 1996; Substance Abuse Project Task Force, 1995; Tonry & Wilson, 1990, on the drugs-crime link). Many treatment professionals find that criminal justice pressures can help reduce substance abuse by increasing compliance with treatment regimens (e.g., Satel, 1999). Some policy analysts have gone so far as to view compelled treatment and coerced abstinence (drug testing with sanctions) as fundamental antidrug strategies that may significantly reduce national drug consumption (e.g., Kleiman, 2001, focused on coerced abstinence).

To assess the potential of partnership concepts, we need to better understand both need and demand for treatment in the criminal justice system. Many studies have shown high rates of need for substance abuse treatment among criminal offenders. These studies have advanced our understanding enormously but leave critical policy and planning questions unanswered. The first section of this article analyzes the limitations of our existing understanding of population treatment need and suggests approaches that might lead to further progress.

The second section of this article focuses on defining and understanding *demand* for treatment as opposed to need. How many offenders will accept treatment readily if it is offered? In the criminal justice system, we may also ask how many will accept treatment when confronted with standard threats of punishment fitting their offenses. It is entirely possible that even in the criminal justice system demand is much less than need—a possibility with very important policy implications.

The final section of the article develops the implications of the first two sections. The goal is to determine what kind of further research on treatment need and demand will help set treatment policies for criminal offenders.

MEASURES OF NEED FOR TREATMENT

Clinical Decision Making About Treatment Need

Measurement of need for treatment is a fundamentally difficult problem. The difficulties begin at a basic clinical level.

Clinicians make complex judgments in determining a patient's need for substance abuse treatment. They consider what the patient says, how the patient appears, what others say about the patient and, perhaps, the results of psychometric and toxicological testing. From these information sources, they form opinions about the patient's psychosocial strengths and weak-

nesses, life circumstances, history of substance use and harms resulting from it, ability to control use, and attitudes toward, as well as understanding of, both use and relapse (American Society of Addiction Medicine, 1996; Gastfriend & McLellan, 1997).

Of course, the decision to provide treatment is not binary. There is a continuum of available treatment-intensity levels, from substance abuse education through self-help groups and outpatient counseling to long-term residential commitments. Additionally, treatment in any setting may include a mix of components responsive to particular patient needs (Gastfriend & McLellan, 1997).

As in other areas of medicine, managed care organizations pushing toward lower cost approaches have challenged traditional treatment practices. They have doubted the need for inpatient treatment, the need for fixed “programs” of treatment, and even the need for formal treatment at all (Ford, 1997). Some in the criminal justice field have suggested that the threat of sanctions may be enough to induce many criminal offenders to cease substance abuse without treatment (Kleiman, 2001).

Judgments about level of treatment need and appropriate placement have so far resisted two decades of effort (Gastfriend & McLellan, 1997; Turner, Turner, Reif, Gutowski, & Gastfriend, 1999) to reach a consensus on a codification. Even the most thorough and widely respected codification—developed by the American Society of Addiction Medicine (ASAM) (1996)—is subject to continuing debate as to its recommendations (Gregoire, 2000; McKay, Cacciola, McLellan, Alterman, & Wirtz, 1997; McKay, McLellan, & Alterman, 1992; Thornton, Gottheil, Weinstein, & Kerachsky, 1998). (Gondolf, Coleman, & Roman, 1996, to the contrary, shows convergence between insurance evaluators’ recommendations and ASAM in three facilities in Western Pennsylvania.) Perhaps more important for planning purposes, the criteria are too complex for routine clinical application: An effort to address this complexity through automation involves the use of a 40-page spreadsheet model including 266 decision items (Turner et al., 1999).

In practice, the decision to admit a patient to a treatment program often does not turn on a theoretically rigorous evaluation of the patient’s substance use disorder. Rather it turns on the availability of beds or program slots, the availability of reimbursement for care, humanitarian considerations, and the inclinations of the patient toward the program or facility in question (Gregoire, 2000; Hser, Polinsky, Maglione, & Anglin, 1999; McKay et al., 1997).

Population Estimates of Treatment Need

Given the complexity of matching treatment to particular levels or modalities of care, most estimates of treatment need in populations have used simplified approaches, most commonly the crude binary approach: Either treatment is necessary or it is not.¹

Complexity aside, in a population study one usually has less information about the participants than in a clinical setting. In high-volume structured interviewing, one generally lacks both the time and the authorization to probe as a clinician would. Furthermore, in surveys one usually lacks collateral information and is entirely reliant on the participants' self-reports.

Population studies have tended to define treatment as necessary for people who "abuse" or are "dependent on" a substance. Strong consensus has emerged around dependence as a psychiatric diagnostic construct; abuse is more vague and not used as consistently. The most respected (e.g., Brown, 1997) definition of dependence is found in the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (*DSM-IV*) (American Psychiatric Association, 1994). According to this definition, substance dependence means three or more of the seven experiences listed in Table 1 in the same 12-month period (paraphrased from American Psychiatric Association, 1994, p. 181).

Essentially, the concept of abuse means recurrent use with negative consequences, such as failure to fulfill role obligations, physical hazards (drunk driving), substance abuse-related legal problems, or fighting (American Psychiatric Association, 1994). Abuse may best be understood as a precursor to dependence, or as a less severe form of substance problem, rather than as a distinct diagnostic dimension (Fulkerson, Harrison, & Beebe, 1999; Harrison, Fulkerson, & Beebe, 1998). Binge consumption, the consumption of large quantities of a substance in an evening or over several days, represents a form of risky behavior that may not obviously meet either the abuse or dependence criteria.

Surveys have operationalized the criteria for dependency and abuse in varying ways. A number of studies have shown that survey answers to small, carefully designed sets of questions can roughly predict dependence as detected by more extensive question sets (Babor & Higgins-Biddle, 2000; Epstein & Gfroerer, 1995; Peters et al., 2000). Additionally, some population surveys have defined need by using criteria related to but distinct from dependence or abuse per se: heavy use, illegal use, and intravenous (IV) use; prior treatment experiences; biological, psychological, or social problems experienced as a result of drug use.

Table 1: Dimensions of Substance Abuse—*DSM-IV* Definition

Tolerance/withdrawal
(1) Tolerance—diminished effect of dose of substance
(2) Withdrawal—discomfort associated with reduction of substance use
Subjective loss of control
(3) Substance use greater than planned (for example, a planned single drink becomes a binge)
(4) Persistent desire or unsuccessful effort to reduce use
Negative consequences of use
(5) Great deal of time spent obtaining or using substance or recovering from use
(6) Important social, occupational or recreational activities reduced because of substance use
(7) Persistent use despite knowledge of having had a persistent or recurrent physical or psychological problem caused or exacerbated by substance use

Note: *DSM-IV* = *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (American Psychiatric Association, 1994).

Surveys are perceived as reliable for prevalence estimation, and they “have been the backbone of the national effort to conduct needs assessment” (Brown, 1997, p. 5). Yet surveys are expensive, raise issues of self-report, and typically reach only the more stable segments of the population (Brown, 1997; Brownsberger, 1997, 2001).

The National Household Survey on Drug Abuse is the most widely respected general population survey on drug abuse. It is worth reviewing as an example of the difficult judgments involved in estimating treatment need based on surveys. Its author, the Office of Applied Studies (OAS) of the Substance Abuse and Mental Health Services Administration, has been satisfied that its questions reflect the concept of dependency as well as other survey question sets do. However, OAS has been troubled that many respondents who admit heavy drug use, even IV drug use, do not show up as dependent. Accordingly, they have developed new estimates using different criteria for need: To those apparently dependent they added those who had had treatment in the past year or who fell in specified categories of heavy drug users. These adjustments more than doubled the estimated national population in need of treatment—from 2.6 million meeting *DSM* dependence criteria in 1991 to 6.7 million meeting the expanded need criteria in 1993 (Epstein & Gfroerer, 1995).

Frequent users of hard-core drugs are heavily underrepresented in the National Household Survey (e.g., Brownsberger, 1997). Built into the revised OAS estimates are some ratio adjustments designed to correct the survey undercount of frequent users. These ratio adjustments, based on

external arrest and treatment data, increased the estimate of treatment need by about 30% in 1993. They are highly approximate and probably inadequate to correct the National Household Survey. Generally, they increase the count of frequent (weekly or more frequent) cocaine users by 20% to 40% (Gfroerer et al., 1997). Prior to adjustment, the Household Survey has for many years indicated approximately 600,000 frequent cocaine users. By contrast, synthetic estimates prepared for the Office of National Drug Control Policy have recently ranged from 2.1 to 3.6 million frequent cocaine users—roughly threefold higher than even the ratio-adjusted frequent user counts (for more discussion, see Brownsberger, 2001).

Frequent cocaine users meet OAS's expanded criteria for treatment need. A significant undercount of frequent cocaine users implies a significant underestimate of treatment need under the expanded criteria.² Other heavy drug users meeting the expanded criteria are probably also undercounted by the household survey. Substantial adjustments appear to be needed in each component of the expanded treatment-need estimate. These considerations highlight the difficulties of estimating population treatment need—difficulties that multiply the underlying complexities of clinical evaluation.

In some community studies, researchers have used alternatives to survey methods: (a) regression modeling based on social indicators such as health problems and crime rates, (b) sophisticated analyses combining need data from social systems (health and criminal justice) and from surveys, (c) ethnographic outreach (Bogey et al., 2000; Brown, 1997; Crook & T.P.S.Oei, 1998). Of course, each of these methods involves crucial but uncertain assumptions about the relationships between input data and ultimate prevalence estimates.³ These alternatives are often less expensive than survey data collection and may compensate for underestimation in surveys, but they preserve considerable uncertainty.

In addition to the problem of uncertainty, binary definitions of treatment need leave the planner wondering which to fund: more brief interventions for nondependent or mildly dependent substance abusers (American Society for Addiction Medicine Board of Directors, 1994; Babor & Higgins-Biddle, 2000) or more long-term residential care for severely dependent users? This is a radical financial ambiguity—the costs of residential treatment are several orders of magnitude greater than those of brief interventions. Improving the quality of treatment-need estimates is critical for planners.

In the criminal justice environment, estimators have a somewhat better chance of realistically estimating need. By every measure, need prevalence is severalfold greater than in the general population. In some estimates,

need prevalence is over 50% (see Table 2). It is mathematically impossible that these estimates could be low by severalfold, as general population estimates sometimes are. More important, perhaps, one may often achieve higher accuracy by augmenting self-report data with drug testing results and direct observations and evaluations of the participants by criminal justice personnel (e.g., probation officers).

Table 2 presents representative major studies of substance use or treatment need in criminal justice populations. It is not intended as a complete inventory of all such studies.

MEASURES OF DEMAND FOR TREATMENT

Before designing a research agenda to address the limitations of treatment-need measurement, let us turn to the problem of demand measurement. In this article, “demand” consists of three components. Note that in all these components, need for treatment is an implicit criterion:

- (a) those receiving treatment, and
- (b) those referred to or seeking treatment (but not receiving it), and
- (c) others who would accept treatment if offered *or mandated* to them.

Although “treatment need” encompasses all those “who can benefit from . . . treatment,” the term “treatment demand” has been used to refer only to those in clauses (a) and (b) above—those receiving treatment, referred to treatment, or seeking treatment (Brown, 1997, p. 2). Demand as defined more broadly in this article is an important planning quantity that lies between need and demand as sometimes defined.

We use the term “met demand” to refer to component (a). This is the only component with a naturally clear meaning. One must, of course, be careful to define what forms of intervention constitute treatment. Additionally, a person may be receiving treatment but not at the needed level.

Component (b) roughly equates to the term “unmet demand”—those “who need and want treatment but who have not received it because it was unavailable” (McAuliffe & Mulvaney, 1994). Note, however, that at any given time it includes some who are working through surmountable barriers to treatment and are likely to enter available treatment shortly. Note also that “unavailable” is an ambiguous term—at what point should cost, travel distance, or incremental cultural or need mismatches render treatment

(text continues on p. 47)

Table 2: Selected Studies of Need for Treatment in the Criminal Justice System

<i>Citation</i>	<i>Subject Population</i>	<i>Approach to Estimation of Substance Use and/or Treatment Need</i>	<i>Key Results</i>
National Institute of Justice (1999)	Felony arrestees in large cities in 1998	Drug testing and self-report data collected close to booking	In 28 of 35 cities, over 60% of adult male arrestees test positive for illegal drug use.
Maxwell and Wallisch (1998)	Probationers in three Texas counties in 1994-1995	Self-report data; <i>DSM-III-R</i> abuse and dependence criteria as defining treatment need	Substance dependence prevalence ranged from 28% to 49% across three counties, abuse ranged from 23% to 19%, and abuse and dependence combined ranged from 50% to 68%.
Gray and Wish (1998)	Arrestees in Baltimore City in 1995	Drug testing and self-report data collected close to booking; <i>DSM-III-R</i> abuse and dependence criteria as defining treatment need.	Among arrestees completing interviews, "41% of males and 60% of females were assessed as needing treatment," including alcohol treatment. Yet "67% of the males and 75% of the females tested positive for at least one drug, primarily cocaine and/or opiates." Tested hard-core drug use was thus more prevalent than self-reported treatment need.

Mumola (1999)	Nationwide state and federal prisoners in 1997	Self-report regarding use and treatment experience; CAGE questionnaire—three positive responses indicate alcohol abuse/dependence	<i>Prisoners indicating:</i> History of alcohol abuse/dependence Drug use in the month before offense Ever in substance abuse program Alcohol or drug involved	State 24%	Federal 16%
Mumola (1998)	Nationwide probationers in 1995	Self-report regarding use and treatment experience in sample of probationers; CAGE questionnaire—three positive responses indicate alcohol abuse/dependence	<i>Probationers indicating:</i> History of alcohol abuse/dependence Drug use in the month before offense Ever in drug abuse program Ever in alcohol abuse program	76%	82%
Brittingham, Schildhaus and Gfroerer (1999)	Nationwide persons resident in households admitting and not admitting being on probation in 1995-1997	Self-report data in National Household Survey. Note: Approximate 50% undercount of probationers. Among probationers, results similar to Mumola (1998).	<i>Demographics-adjusted odds ratio of past-month use among those not admitting probation vs. those not admitting probation</i> Any illicit drug Marijuana	2.8 2.4	

(continued)

Table 2 (continued)

<i>Citation</i>	<i>Subject Population</i>	<i>Approach to Estimation of Substance Use and/or Treatment Need</i>	<i>Key Results</i>
Lo and Stephens (2000)	Prisoners incoming to Ohio county jail	DSM-IV diagnosis based on interviews; hair sample test for verification	Cocaine 4.3 Heavy alcohol use 2.5 Currently dependent on alcohol or drugs 51%
Peters, Greenbaum, Edens, Carter, and Ortiz (1998)	Prisoners incoming to Texas prison system	DSM-IV diagnosis based on interviews	Dependent on alcohol or drugs in 30 days prior to entry 46%

Note: DSM-III-R = *Diagnostic and Statistical Manual of Mental Disorders*, third edition, revised (American Psychiatric Association, 1987); DSM-IV = *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (American Psychiatric Association, 1994).

“unavailable”? Although we do not use the term *availability* in our definition of component (b), we do use the term *unmet demand* loosely to refer to component (b).

By its literal terms, component (b) further includes some who have been referred to treatment but who will not follow through as a result of unwillingness or reasons other than nonavailability. For our purposes, this subgroup is excluded from component (b). Some, but not all, of this subgroup will fit the criteria for component (c).

Met and unmet demand together might be referred to as “active demand.” Let us refer to component (c) as “potential demand.” This is the component that is hardest to clearly define and measure. It can be understood as persons needing treatment who do not consciously want treatment but may be influenced to accept it. Of course, whether attempts to influence them will succeed depends on many contextual factors. It is therefore essential to choose a particular context within which to focus.

For the purpose of discussion in this article, we focus on the factors influencing potential demand in the criminal justice system context:

- a. *Treatment access factors.* All the potential barriers to treatment access (McAuliffe, LaBrie, Mulvaney, & Wortman, 1994) apply in the criminal justice setting and may make an offender unwilling or unable to enter treatment even in the face of coercive threats:
 - lack of transportation or distance too far;
 - time conflicts with employment or child care responsibilities;
 - treatment facilities unavailable or inconsistent with needs;
 - lack of insurance or available funds;
 - disability access barriers at the treatment facility;
 - language or cultural barriers at the treatment facility;
 - “red tape” barriers to treatment entry perceived as insurmountable;
 - important others not supportive of treatment.
- b. *Readiness for treatment.* According to the “stage-of-change” or “readiness” literature (Shaffer, 1997), an individual may
 - perceive negative consequences associated with substance abuse;
 - perceive substance abuse as a problem to be remedied;
 - perceive a need for assistance in remedying it.
- c. *Attitudes toward treatment.* Attitudes toward treatment derive from both individual and cultural factors as well as the offered treatment program itself.
 - Treatment programs at different levels of care may be more or less desirable to an offender—factors include time commitment, flexibility, scope of behavioral control.
 - The individual may have positive or negative attitudes toward treatment based on his or her own prior treatment experiences or the experiences of

others. These attitudes may or may not actually pertain to the particular facility contemplated.

- Cultural variations in stigma attached to mental illness and/or the use of institutional assistance to escape mental illness may also influence acceptance of treatment (Finn, 1994; Longshore, Grills, Anglin, & Ammon, 1998).
 - Resulting cultural variations about attitudes to self-revelation as a user (which may be exacerbated by legal consequences of self-revelation, for example, in child custody litigation).
- d. *Attitudes toward the criminal justice system intervention coupled with treatment.* Treatment may be supervised by the criminal justice system. Like attitudes toward treatment, attitudes toward supervision will derive from both individual and cultural factors as well as the offered supervision regime itself.
- A treatment referral may, at one end of the spectrum, be a bare referral with little follow-up as to actual participation in treatment or its outcome. On the other end of the spectrum (represented by some drug courts), treatment progress may be monitored daily or weekly through drug testing and close communication between probation officers and treatment providers. Sanctions for failure or lack of progress may or may not be imposed.
 - The defendant may have varying incoming expectations as to the likely intensity of supervision based on his or her own experiences and the experiences of others (Spelman, 1995).
 - The defendant may have varying expectations as to his or her ability to comply with the abstinence and other orders of supervision; these expectations determine whether the defendant perceives a risk of additional sanctions.
 - The defendant may have culturally driven attitudes toward the experience of supervision that may influence his or her willingness to comply with a complex regime in the community as opposed to rougher but simpler incarceration.
- e. *Attitudes toward incarceration.* There is a considerable literature on the perceived severity of probation, intermediate sanctions, and incarceration. The thrust of this literature is that nonincarceration sentences can frequently be perceived as more severe than incarceration. Preferences are heavily predicted by
- race, with African Americans more likely to choose incarceration;
 - age, with older more likely to choose prison;
 - prior incarceration experience, with experienced offenders more willing to experience prison again;
 - drug offenses or nondrug offenses, with drug offenders less likely to prefer incarceration than other offenders;
 - stable social circumstances, with family making incarceration less attractive (Spelman, 1995).

Note that strong negative attitudes to incarceration may induce an offender to attempt to feign addiction in order to avoid incarceration. Compare the concept of pseudoaddiction (Zinberg & Lewis, 1986).

- f. *Procedural posture*. The point in the criminal justice process at which treatment is suggested may mediate many of the considerations above.
- Treatment may be offered or mandated as part of a decision to release a defendant on bail while awaiting trial. Any such offer is temporary, and the worst alternative is incarceration during the weeks or months until trial.
 - Treatment may be offered or mandated by a judge as part of a sentencing decision. In this posture, the alternative may be an immediate lengthy incarceration.
 - Treatment may be offered or mandated by a probation officer responsible for a probationer. In this posture, the alternative to diligent participation is less clearly defined. To sanction noncompliance, the probation officer may need to return to the court and, depending on the precise terms of the original sentencing, the court may impose a range of sanctions (from a requirement of more frequent reporting to a day in the jury box to a lengthy incarceration).
 - Treatment may be offered or mandated in a jail or prison, where the sanctions for nonparticipation are limited to changes in regime.
- g. *Credibility of threats*. In any procedural posture, perceptions that authorities are bluffing may influence an offender's decision.
- Prior to a plea of guilty, a defendant and his attorney may doubt the prosecution's ability to convict.
 - Sanctions are costly to impose, if not in measurable money terms, in terms of resource diversion. For example, when prisons are overcrowded, another, perhaps more dangerous, offender must be released to accommodate the offender.
 - The practical realities of an offender's situation may also influence authority—will a judge incarcerate an offender for violation of a treatment order when incarceration will deprive a child of a caretaker or provider?
 - An offender may, perhaps out of youthful inexperience, overestimate or underestimate the credibility of threats.

If many of the identified factors are material in predicting choices, one cannot expect to construct a useful model that will predict offender preferences. On the other hand, it is possible that general perceptions of probation and incarceration (or some other perceptions) will have a dominant role in predicting offender choices. We are unaware of literature predicting how these factors will interact in incarceration versus treatment choices.⁴

DEFINING AN AGENDA FOR RESEARCH

Having reviewed the limitations and complexities of treatment need and demand measurement, let us consider what new measurements could be helpful to policy analysts and planners in the criminal justice context.

The discussion that follows applies most directly to demand for treatment in community settings—pretrial diversion, probation, or parole. In jail and prison, all treatment is effectively residential, and the ill-understood role of offender choice is smaller. Furthermore, approximately 80% of offenders under criminal justice supervision are in community settings (Beck, 1999). Additionally, many believe that community-based treatment is most effective because it teaches offenders to stay sober in the community, possibly a more challenging environment than jail or prison.

From the perspectives of both the health care planner and the criminal justice planner, several key questions need to be answered. From the perspective of national policy makers, these questions must be asked at multiple sites:

1. *What is the need for treatment among criminal offenders by level of treatment?*

It is already well established that treatment need is great among offenders in most jurisdictions. But it is unclear how often longer term residential treatment is necessary, instead of briefer outpatient treatment. In many instances of mere abuse, appropriate education, perhaps combined with probationary supervision, will suffice to change behavior. It is well established that addiction to hard-core substances causes income-producing crime (Chaiken & Chaiken, 1990) and that a sizeable share of hard-core addicts become involved with the criminal justice system (Brownsberger, 2001). But it is also well established that for many offenders, substance abuse is secondary to delinquency, merely a concomitant of a delinquent life style (Chaiken & Chaiken, 1990).

Of course, the prevalence of dependence will vary widely over time and across jurisdictions. Yet data about treatment need by level in criminal justice populations is so limited that local results will have value beyond local planning value in at least two ways:

- Need-by-level results hold the potential to illuminate the ongoing controversy about the nature of need in the criminal justice system. Surprisingly, some criminal justice professionals perceive a need for more intense treatment care than clinicians do.⁵ Criminal justice officials may seek to eliminate

substance use whereas clinicians may seek to eliminate only use that has negative consequences. Criminal justice officials often see the cessation of alcohol and/or drug use as an essential part of a transition toward a law-abiding lifestyle (Reinventing Probation Council, 1999). Similarly, criminal justice officials may see a residential commitment as the only viable approach to disrupting delinquent habits. Better data may not resolve this controversy, but it may bring opposing opinions closer together.

- Need-by-level results will also help clarify the policy debate about “coerced abstinence” approaches. In coerced abstinence, offenders submit to regular drug tests and the courts punish them modestly for dirty tests, for example, by a day of incarceration. A limited clinical need for intense treatment of dependence would suggest a larger role for coerced abstinence, whereas a finding of widespread severe addiction may suggest that coerced abstinence should play a more limited role.

Above, we devoted considerable attention to the difficulties of determining treatment need by level in population surveys. The most helpful information will emerge if researchers and planners

- use survey instruments consistent with current national standards, so allowing cross-site comparisons and meta-analysis;⁶
- take advantage of collateral sources of information available in the criminal justice context—long histories of drug-testing results and supervisory observations may provide invaluable supplements to offender self-reports;
- collect data sufficient to apply alternative criteria for treatment-level matching—given the lack of consensus about treatment-matching criteria, researchers should be prepared to compute the implications of several alternative sets of matching criteria.

2. By level, how much active treatment demand is being met?

Even crude, level-blind computations of met and unmet demand are often unavailable in the criminal justice system. In many large probation departments, management information about treatment referral is found only in individual handwritten case files. Centralized data may be limited to a registry of offender identities and criminal records. Critical data about rehabilitative programs and progress may be inaccessible to planners. Nor do public health management information systems consistently indicate how many patients are referred from criminal justice agencies.

We have even less sense of how many offenders are actually participating in level-appropriate treatment in most jurisdictions. Nationwide, we have a

few surveys of treatment experience among offenders (Wilson, 2000), but we have no measure of level-appropriate treatment.

If we are able to conduct measurements of by-level treatment need among offenders, the same survey process can easily be extended to measure met and unmet demand by level.

3. *Among those criminal offenders who need treatment but are not currently seeking it (the potential demand group), how many will enter treatment at the appropriate level if they face sanctions consistent with the seriousness of their crime and the weight of their prior criminal record?*

This is the deepest planning puzzle for both health and justice planners. They may have a rough anecdotal sense as to the answers to the first two questions (need and met and unmet demand by level of treatment), but the issue of potential demand (as defined above) is poorly understood. In most jurisdictions, many substance-abusing offenders are receiving no treatment—how much would treatment expand if all offenders were screened and ordered to participate in appropriate treatment?

Because a high proportion of substance abusers are involved in it, the criminal justice system appears to have the potential to be an important feeder to treatment. And concerns for public safety may make it easier to obtain funding for the expansion of treatment capacity. However, total demand may be much less than the total need in the criminal justice system.

As observed above, diverse factors may affect potential demand. From the standpoint of the long-term planner it is appropriate to focus research on the fundamental question of offender preferences between treatment and incarceration. Issues of treatment access, cultural fit with treatment programs, and other controllable factors can be addressed by tuning the system. Moreover, many of these questions may have been studied already in a given community. The unknown for partnership planners is how much the threat of incarceration expands potential demand.

Under some scenarios the threat of incarceration would expand potential demand very little. This would be the case if the offenders that need serious residential treatment are mostly low-level offenders—guilty of, for example, prostitution or petty larceny. Already well experienced in incarceration, they may consistently prefer the brief incarcerations that their offenses merit to lengthy commitments to treatment.

Given our poor understanding of these issues, we should begin at the most basic level of investigation. An initial set of studies should include

- a. direct survey questions to offenders as to what their preferences are—for example, which would they prefer, outpatient treatment under probationary supervision 4 hours per weekday for the next 6 months, or incarceration for 1 month? Incarceration for 3 months?;
- b. evaluations of the high end of the range of possible incarcerations for the offenders' most recent offense (based on local practice or on sentencing guidelines);
- c. classifications, based on these questions and evaluations, of offenders as to whether their incarceration exposure is sufficient to compel them to enter treatment.

Researchers can so compute the share of offenders in a given population who constitute potential demand for treatment. We are unaware of any previous study that has attempted this basic analysis about offender treatment choices.

A defendant may make these choices in diverse procedural postures. Complexity multiplies unacceptably if one attempts to inquire about offender preferences, as these vary by procedural posture. It is reasonable to assume that procedural posture lacks a direct effect on underlying preferences. Rather, that procedural posture affects choice by shaping the alternatives—for example, in the pretrial context, the durations of treatment and incarceration alternatives will be equal, whereas they are likely to differ at case disposition. As research into these issues progresses, it may make sense to consider subtle direct effects of procedural posture on preferences. In our dim state of knowledge today, studies should simply choose a procedural juncture at which data collection appears feasible.

Note that we have every reason to expect that basic results about potential demand will vary widely across jurisdictions—all factors that could predict demand vary widely by jurisdiction (see Brownsberger, 1997). We must exercise great care in drawing inferences from individual jurisdiction studies.

4. *How do personal characteristics and circumstances affect offenders' choices between treatment and incarceration, and can we use these data to make cross-jurisdiction population estimates of potential demand?*

Factors such as employment, family ties, prior incarceration and treatment experiences, and attitudes toward treatment and incarceration will significantly predict offender preferences. What we do not know is whether a few easily measured variables will suffice to predict preferences or whether

a large number of variables, including hard-to-measure personal variables, will be necessary to explain choice variance.

Even in the case that a simple model will predict offender preferences between treatment and incarceration, to extend that model to potential demand estimation will require some heroic calculation. One might be able to readily derive prevalence estimates for variables such as employment and prior incarceration in a court population. However, to estimate potential demand one would need to know how these rates varied across groups of offenders facing different choices, that is, offenders with different levels of treatment need and different levels of offense seriousness (which determines incarceration exposure).

At best, we can hope to achieve weak generalizations about jurisdictions serving populations at socioeconomic extremes. In any event, cross-court generalizations will be of limited value for planning purposes. Treatment resources cannot be absorbed in a given court without the development of cooperative systems and the education of criminal justice personnel. These developmental and educational processes move at different paces in different courts. In practice, statewide treatment resource planning must be based on a court-by-court analysis.

The goal of research on potential demand measurement should be to develop simple, direct inquiry methods that can be economically applied in individual courts rather than to develop models that will allow systemwide estimation. It is too soon to determine whether even this modest goal is attainable.

EXPANDING POTENTIAL DEMAND

Following the research agenda mapped above, the authors are currently conducting a study among offenders in the greater Boston, Massachusetts, area. We hope that others will attempt similar studies in other jurisdictions.

If measurements of potential demand in multiple jurisdictions indicate the possibility that treatment can be greatly expanded among criminal offenders, then—presuming the efficacy of treatment, voluntary and coerced—the way forward is clear: We should make the most of this opportunity.

On the other hand, if measurements suggest that potential demand adds little to currently active demand, then before de-emphasizing expansion of criminal justice treatment in jurisdictions where active demand is met, we should ask whether there are other ways to expand treatment participation among criminal justice populations.

Few today would argue that we should increase standard incarceration sentences to force more offenders to participate in community treatment. Most would agree that the criminal justice system can scarcely afford to increase standard punishment levels, with resulting increases in litigation and prison overcrowding. Most would also express concern about the community consequences of punishment increases.

At least two alternatives suggest themselves:

Toughen probation practices so that probation is seen by judges and the community as the most credible public safety option for fairly serious offenders (Reinventing Probation Council, 1999). In this scenario, judges could sentence defendants to treatment under probationary supervision without offering them incarceration as an alternative. Probation officers would sanction recalcitrant probationers by increasing intensity of supervision rather than sending them to jail.

Another direction is to seek new ways to communicate with offenders and persuade them to enter treatment. Judicial suasion adds a new power to traditional outreach methods. Techniques for judicial suasion and approaches to persuading judges to use these techniques (as in drug courts) are additional important directions for further research (Shaffer & Simoneau, in press).

NOTES

1. The National Technical Center for Substance Abuse Needs Assessment led what may have been the only effort to clearly define survey questions allowing the application of the American Society of Addiction Medicine (ASAM) criteria. However, even this sophisticated survey leaves it to state planners "to score the criteria according to the number of levels of care and standards upon which they decide" (Shaffer, McAuliffe, & Mulvaney, 1994). The Institute of Medicine did not go as far, but grouped users by probability of treatment need—clear, probable, possible, and unlikely—based on use levels (Gerstein & Harwood, 1990). This is a long way from grading the type of treatment required, although the person whose need is "clearer" may in fact need a higher level of treatment.

2. Of course, one could question the idea that a weekly cocaine user needs treatment, an idea that underlies the Office of Applied Studies (OAS) criteria expansion. Many people who use alcohol weekly do not need treatment. However, if one believes that most people who use cocaine at least weekly are actually using it much more often than weekly, then the expanded criteria may make sense. There is no reliable empirical resolution of this question.

3. For example, see Brownsberger (2001) for a discussion of why the Office of National Drug Control Policy's model-based estimates of frequent cocaine use have varied widely: The annual arrest rate of frequent cocaine users is a critical modeling parameter but impossible to estimate with confidence. See Chong (1998) and Calkins and Aktan (2000) as examples of the complexity of translating indicators into estimates. Calkins also discusses the

limitations of capture-recapture analyses—the assumption of independence among successive population samples is open to question. Calkins's modeling does show a dramatically higher estimate of heroin use than that derived by survey methods.

4. The basic severity literature discussed by Spelman (1995) is, of course, highly relevant. Perceptions about the relative severity of probationary supervision and incarceration will play a considerable role in treatment entry choices.

5. The authors hear these differing views in private conversations with public officials.

6. At the time of this writing, the Center for Substance Abuse Treatment (CSAT) has directed that the instrument developed for the Arrestee Drug Abuse Monitoring (ADAM) program is to be used in studies of criminal justice populations. Given the considerable investment in the ADAM program by the National Institute of Justice and now the CSAT, some stability and broad comparability can be expected. The ADAM instrument includes questions designed to identify alcohol and drug dependence; to apply traditional abuse criteria, however, it has to be supplemented. One approach is to add portions of the protocol for CSAT telephone interviews. See Office of Evaluation Scientific Analysis and Synthesis (2000) for a crosswalk of this protocol to *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (American Psychiatric Association, 1994) abuse criteria.

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