
Substance Abuse Treatment Gap Among Adult Parolees: Prevalence, Correlates, and Barriers

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Abstract

Each year 700,000 prisoners are released back into the community, and substance abuse poses an enormous threat to their successful reentry. Using data from the 2006 National Survey on Drug Use and Health, this study reports on drug use and treatment exposure, prevalence of unmet treatment needs, psychosocial risks, and barriers to treatment among recent and current parolees. Findings show that whereas substance problems are higher among parolees than the general public, the former are more likely to receive treatment for their problems. Substance-abusing parolees who did not receive treatment often experienced multiple psychosocial challenges. Lack of health care coverage, lack of transportation, and lack of readiness for change were identified as major treatment barriers. Policy implications are discussed.

Keywords

substance abuse, parole, parolees, treatment needs, reentry

Introduction

Each year, approximately 700,000 people are released from state and federal prisons, with the majority (approximately 80%) returning to the community under parole supervision (Glaze & Bonczar, 2007; Sabol, Minton, & Harrison, 2007). The purpose of parole is to provide a means of supervising and rehabilitating prisoners during their reintegration into the community. At the aggregate level, however, the effectiveness of parole is questionable with an average of 40% reincarcerated and 10% absconding in any given year (Glaze & Bonczar, 2007). The research literature argues, however, that the ability to predict the probability of successful pre- and postrelease outcomes may have less to do with whether a prisoner is conditionally released but more with understanding and matching an offender's psychological, social, behavioral, and health characteristics to

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evidence-based treatment programs with ample dosage (Belenko, 2006; Gaes, Flanagan, Motiuk, & Stewart, 1999). Solomon (2006) found that males convicted of public order offenses benefited the most from community supervision, while convicted violent or drug offenders, particularly White males, benefited the least. In general, drug offenders released to mandatory parole had a greater predicted probability of rearrest (61%) within 2 years after released than if they were released unconditionally (56%; Solomon, 2006).

Understanding the drug-recidivism nexus of parolees takes on added significance with statistics indicating that the largest and fastest growing segment of the parole population (37%) served a sentence for a drug-related offense and that drug-involved inmates were more likely to violate their parole than those who are not (Glaze & Bonczar, 2007; The National Center on Addiction and Substance Abuse at Columbia University [CASA], 2010). Parolees, for example, can be returned to prison for a new drug-related sentence (e.g., distributing drugs) or revoked for a direct or indirect drug-related technical violation (e.g., positive urine drug test result, noncompliance with drug treatment conditions, and failure to maintain employment due to drug addiction). Although drug-related offenses should not be used as a proxy measure of substance abuse, King and Mauer (2002) analysis of incarcerated drug offenders revealed that 68% used drugs in the month prior to their offense and 41% were under the influence of drugs at the time of offense.

Adding to this growing body of tested knowledge of the problem, this study attempts to provide another set of empirical facts to inform policy making. The goals are to isolate specific factors that significantly correlate with the inability to access adequate treatment among substance-abusing parolees and to examine the nature of the service gap in this high-risk offender population.

Drug Treatment Needs and Gaps

The probability of parolees violating their parole by using, possessing, or distributing an illegal substance increases unless effective treatment programming is provided during incarceration, and then followed up by transitional and long-term programs and support postrelease (Belenko, 2006). Currently less than half (40%) of the 642,000 estimated drug-dependent or -abusing state inmates who used drugs in the year prior to their admission took part in some type of prison drug abuse program (Mumola & Karberg, 2006).¹ These numbers, however, only identify how many inmates were treated (i.e., output) and not what was the end result of the treatment (i.e., outcome). Further analysis mask the serious flaws in the quality and intensity of substance abuse treatment services delivered in prison settings. Inmates enrolled in prison drug abuse programs, for example, were more than twice as likely to report participation in self-help or peer counseling groups and education programs (35%) than to receive drug treatment from a trained professional (15%) such as detoxification therapy, residential treatment, counseling by licensed professionals, and maintenance drug treatment. In federal prisons, a higher percentage of drug-dependent or -abusing inmates (49%) reported taking part in some type of drug abuse programs (Mumola & Karberg, 2006). Nearly one in three took part in drug abuse education classes, and one in five had participated in self-help or peer counseling groups. Overall, 17% took part in drug treatment programs with a trained professional, and 41% had participated in other drug abuse programs.

In 2007, a nationally representative survey of correctional agencies—the National Criminal Justice Treatment Practices (NCJTP) survey estimated the prevalence of evidence-based practices (EBPs) of addiction treatment services that are utilized in correctional facilities (Friedmann, Taxman, & Henderson, 2007).² The most prevalent EBP, reported by correctional administrators in federal and state prisons (84%) that provide treatment services, involves “comprehensive” treatment services addressing a range of inmates’ needs. However, the “comprehensiveness” of these services—which include approaches ranging from medical to spiritual—is not necessarily indicative of their quality or effectiveness. For example, medical services are universally offered because they

are constitutionally mandated and the faith-based or spiritual services typically are made available by volunteers (Cropsey, Wexler, Melnick, Taxman, & Young, 2007). The least prevalent EBP reported by administrators in prisons (19%) is family involvement in treatment (Friedmann et al., 2007). Nearly two thirds (64.7%) of the surveyed prisons and jails provided only 3 or fewer of the 13 possible EBPs.

To be effective, addiction treatment must be intense and long term. A growing body of evidence suggests that better outcomes are associated with treatment interventions that last at least 90 days (National Institute on Drug Abuse [NIDA], 1999, 2006). A recent survey of 118 prison-based addiction treatment programs in the state of Pennsylvania revealed that not all treatment interventions implemented in prisons are of adequate length (Welsh & Zajac, 2004). Four types of prison-based programs were examined: (a) drug and alcohol education, (b) outpatient treatment, (c) drug and alcohol treatment units that combine education and outpatient treatment in specialized units, and (d) therapeutic communities. Only drug and alcohol treatment units and therapeutic communities required a duration longer than 90 days (22.2 weeks and 46.3 weeks, respectively), demanded intense involvement (8.1 hours per week and 30.0 hours per week, respectively), and routinely incorporated behavioral and cognitive approaches, which have been shown to be effective among criminal offenders, as primary interventions (Andrews, 2000; NIDA, 2006; Welsh & Zajac, 2004). National data from NCJTP reported that only 54% of surveyed federal and state prisons that provided addiction-related services planned a treatment duration longer than 90 days (Friedmann et al., 2007).

The high rates of substance involvement and the low rate of participation in structured and professional treatment among prison inmates create a challenge for supervising offenders postrelease and increase the likelihood of parole violations. This failure to provide accessible and efficacious treatment to former inmates poses a significant public safety and health risk and costs taxpayers billions of dollars each year for expenditures relating to medical care, law enforcement, motor vehicle accidents, lost productivity, incarceration, and the consequent foster care and social service expenses for children of individuals who fail to receive necessary substance abuse treatment (Amaro, 1999; CASA, 1998).

Drug-Involved Inmates Released From Prison and Their Public Health and Safety Risks

Never before in U.S. history have so many substance-abusing or -dependent adults been released from prison. All evidence indicates that a vast majority of this inmate population with substance use disorders, who are leaving prisons today face a range of challenges in measures of education, employment histories, health and mental health, and on other indicators of social well-being. These factors further compromise their reentry and reintegration efforts, making it even more difficult to avoid a relapse to substance abuse, in particular if one's treatment needs were not adequately met while incarcerated (Seiter & Kadela, 2003).

The consequences of inadequate care pre- and postrelease, as discussed in the previous section, can be deadly. Recently released inmates are nearly 13 times likelier to die during their first 2 weeks out of prison than individuals in the general population, with a markedly elevated relative risk of death from a drug overdose (Binswanger et al., 2007). Among the 30,237 inmates released from Washington state prisons between 1999 and 2003, 38 died within 2 weeks, 27 of them from a drug overdose. Drug overdose was the leading cause of death (23%) during the 1.9-year follow-up period. This mortality rate was more than three times the expected rate in a population of similar age, gender, and cultural background.

Drug-dependent or -abusing inmates are also more likely than other inmates to report troubled individual characteristics that are negatively correlated with successful reintegration, including experiences of physical or sexual abuse, homelessness, unemployment, parental substance abuse, and parental incarceration. Prison inmates diagnosed with substance abuse or dependence are twice as likely to be habitual felons with six or more incarcerations as other inmates (16.6% vs. 7.9% among federal inmates and 24.7% vs. 10.6% among state inmates). This state prison population (14%) are twice as likely as other inmates (6%) to report being homeless during the year before

admission to prison, which decrease their chance of finding stable housing at release (Mumola & Karberg, 2006). They also report lower levels of employment in the month prior to admission (68% compared to 78% of other inmates).

The only realistic way to manage and control this looming public health and criminal justice crisis is to offer structured substance abuse treatment at an adequate dose to a large enough population of offenders with substance use disorders. Connecting these high-risk and need individuals to the 13,000 facilities that provide some form of substance abuse treatment represents a major challenge to successful prisoner reintegration (Office of Applied Studies, 2005; Seiter & Kadela, 2003). The drug-involved prisoner is more difficult to reintegrate back to the community unless treatment needs are met in the facility and transitioned upon release. Treatment during the transitional period between prison and community can produce substantial and persistent benefits even for former drug offenders with extensive criminal history, low rates of marital bonds, and substantial unemployment (Butzin, Martin, & Inciardi, 2005).

Unfortunately, very little is known about the substance abuse treatment needs and gap among the 700,000 adult men and women who were on parole or mandatory conditional release following a prison term at any time (Glaze & Bonczar, 2007). This public ignorance has forced criminal justice policy makers and community correction agencies to operate in an informational vacuum. Virtually no data are available on the impact of incarceration on the substance use career of released inmates, their substance use patterns immediately after prison release, and most importantly, their needs for treatment services and barriers to meeting these needs.

Research Questions

The analysis presented in this article specifically addresses four research questions with important policy implications. First, what are the drug use patterns and treatment exposure rates among parolees and how do they compare with those among prison inmates and the general public? The relative standing of parolees as contrasted to prison inmates and the general public in terms of drug use and treatment involvement would allow a fair inference on the effect of incarceration on the substance use career of released inmates. Second, what is the prevalence of unmet treatment needs for substance abuse among parolees? Based on the research literature reviewed above, it is expected that the magnitude of unmet treatment needs would be significantly more pressing among parolees than among the rest of the citizenry in the community. It is also important to assess the particular types and markets of addictive substances that are driving the demand for more treatment among parolees. Third, what are the contextual and personal correlates of the lack of access to treatment among parolees? Statistically significant correlates of the inability to utilize treatment resources among respondents with treatment needs can be seen as risk factors that could be the criteria for the identification of the relative importance of sociodemographic features that characterize this hard-to-reach population. And lastly, what are the perceived barriers to treatment among substance-abusing parolees? These perceived barriers constitute the concrete conditions and/or events that adversely affect the reentry of parolees with substance use disorders, and thus, should be considered primary targets of correctional policy interventions. Answers to these questions will shed light on the magnitude of the substance abuse treatment gap among parolees, profile the hardest-to-reach within the parolee population, and identify targets for policy interventions.

Data and Analytical Methods

Sample

Data were provided by the 2006 National Study on Drug Use and Health (NSDUH), which is the primary source of information on the prevalence, patterns, and consequences of alcohol, tobacco,

and illegal drug use and abuse in the general U.S. civilian noninstitutionalized population (Office of Applied Studies, 2007a). The 2006 NSDUH employed a state-based design with an independent, multistage area probability sample within each state and the District of Columbia. The design oversampled youths and young adults, so that each state's sample was approximately equally distributed among three age groups: 12–17 years, 18–25 years, and 26 years or older. From January through December 2006, 137,057 addresses were screened and 67,802 complete computer-assisted personal interviews were obtained. The public use file, which was analyzed in this study, contains 55,279 records due to a subsampling step used in the disclosure protection procedures. Because of adjustments for nonresponse and poststratification in the sample design, the final sample weight (ANALWT_C) was applied in all our analyses to draw inferences about the sample of parolees as recommended by the data collectors (Office of Applied Studies, 2007a).

The sample included in this study focused on the 36,965 adults aged 18 or older. The decision to drop the 18,314 respondents aged 12–17 was based on the fact that community supervision in the juvenile justice system serves very different goals and entails very different monitoring mechanisms than its adult counterparts. Supervised juveniles also lack the economic autonomy and legal responsibility assumed for adult offenders.

Measures

Parolees were operationally defined in this study as respondents who had been on parole, supervised release, or other conditional release from prison at any time during the 12 months prior to the interview. They represented 411 (1.1%) of the 36,965 respondents in the sample. When the data were weighted, 1,626,709 (0.7%) of the 220,629,723 Americans aged 18 and older were estimated to be recent or active parolees in the process of reentry.

Indicators of treatment needs were provided by items probing whether a respondent felt a need for treatment or additional treatment for a specific substance use in the year prior to the interview. A respondent was classified as needing treatment for illicit drug or alcohol use in the past year if he or she met any one of the following three criteria: (a) Dependent on any illicit drug or alcohol in the past year; (b) Suffered any illicit drug or alcohol abuse in the past year; or (c) Received treatment for illicit drug or alcohol use at a specialty facility in the past year. Seven groups of substances were tracked: alcohol, marijuana, cocaine and crack, heroin, hallucinogens (i.e., LSD, PCP, peyote, mescaline, psilocybin, and ecstasy), inhalants (i.e., amyl nitrite, correction fluid, gasoline or lighter fluid, glue or shoe polish, paint solvents, butane or propane, and/or spray paints), and prescription-type psychotherapeutics (i.e., pain relievers, stimulants, tranquilizers, and sedatives). Treatment gap was gauged through questions aimed at identifying respondents' need of treatment for a specific substance problem in the past year but not receiving treatment for that specific substance problem at a specialty facility. Not having been properly treated was defined as not having received inpatient or outpatient treatment services at a specialty facility including a hospital, rehabilitation facility, or mental health center.

Finally, measures of barriers to treatment were reflected in the reasons given for not receiving substance treatment or additional treatment in the past year. Respondents were asked "Which of these statements explain why you did not get the treatment or counseling you needed for your use of [specific substance]?" and presented with 14 different explanations of nontreatment. The following widely established obstacles to public access to medical resources were examined: financial restraint, lack of health insurance, lack of transportation or physical distance from treatment sites, unavailability of adequate treatment resources, lack of readiness and motivation for treatment, unavailability of treatment slots or opportunities, lack of pertinent knowledge or information, fear of stigma associated with substance abuse treatment, fear of retaliation in the workplace, unawareness

of one's own treatment needs, confidence in one's own management of the problem, distrust in treatment, lack of time, and desire for confidentiality.

Statistical Methods

The analysis began with the tabulated comparison of rates of drug use and treatment exposure among prison inmates, parolees, and the general public. After that an epidemiological assessment in which Pearson chi-square test was used to evaluate the substance-specific and overall prevalence rates of unmet treatment needs across parolees and the general populations. Estimates of substance-specific rates of unmet treatment needs were also compared within the sample of parolees. Next, logistic regression analysis was performed to assess the relative strength of the 14 individual correlates for identifying barriers to treatment among parolees. First, univariate models were constructed for each correlate, and then the dependent variable (i.e., nonparticipation in treatment in the past year) was regressed on the entire set of predictors in a multivariate model. The multivariate examination permitted the simultaneous adjustment of associations in order to minimize confounding effects and to obtain a more accurate estimate of their independent effects. Lastly, the frequencies of perceived causes of treatment gap were tabulated to rank the barriers to treatment.

Three diagnostic tests were performed to assess the adequacy of using logistic modeling for multivariate analysis. First, the Variance Inflation Factor (VIF) was computed for each of the 14 predictors included in the multivariate models to determine the extent of multicollinearity. While values of VIF exceeding 10 are often regarded as indicating multicollinearity, in logistic regression models, values above 2.5 may be a cause for concern (Allison, 2001). The observed VIF values in this analysis ranged between 1.06 and 1.70, suggesting no disturbances from multicollinearity. Second, studentized residuals were examined to assess the normality of residuals. Only three cases (0.7% of the sample) produced values greater than 2 or less than -2 , which indicates the negligible magnitude of the problem (Menard, 2001). Lastly, results of Box-Tidwell test for nonlinearity revealed that more than half of the 14 predictors maintained relationships that are linear in the logit in the multivariate model, which supports that the logit function (in logistic regression) is the correct function to use. Default selection of reference categories was imposed on the six multinomial predictors of the model.

Findings

Drug Use Patterns and Treatment Exposure

Drug use and treatment data for parolees and the general public aged 18 or older for 2006 were contrasted with comparable statistics for federal and state prison inmates for 2004 published by the Bureau of Justice Statistics (Mumola & Karberg, 2006).³ In all, 50% of federal prison inmates and 56% of state prison inmates reported having used illicit drugs in the month before the offense, whereas the rate of past month drug use was 32% among parolees and 8% among other residents in the community (Table 1). The finding strongly suggests that illicit drug use was most prevalent when offenders were actively engaged in criminal activities, and that released inmates supervised by correctional agencies were significantly less involved in illicit drug use than active offenders. The general public was least involved in drug use. Similar patterns were observed for the prevalence of the diagnosis of drug abuse or dependence. Federal inmates (45%) and state inmates (53%) were more than twice as likely to meet the criteria of drug abuse or dependence than parolees (20%); the diagnosis remained rare among the general population (3%).

Methodological issues could have resulted in an underestimate of the prevalence of drug use disorders among recently released prison inmates under criminal justice supervision. The most serious obstacle in the sampling of this difficult-to-reach population is their transient lifestyle

Table 1. Comparison of Illicit Drug Use and Treatment Participation Among Adult Prison Inmates, Parolees, and the General Adult Population

	Federal Prison Inmates ^a	State Prison Inmates ^a	Parolees ^b	General Public ^b
Used illicit drugs in the month before the offense/in the past 30 days	50%	56%	32%	8%
Drug dependence or abuse	45%	53%	20%	3%
Participated in treatment programs, excluding self-help and peer counseling since admission/in the past year ^c	17%	15%	30%	12%

^a Adapted from "Drug use and dependence, state and federal prisoners, 2004 (NCJ 213530)," by C. J. Mumola and J. C. Karberg, 2006, October. Washington, DC: Bureau of Justice Statistics.

^b Analysis of the 2006 National Survey on Drug Use and Health.

^c Only individuals who met the criteria of drug abuse or dependence are included.

(Petersilia, 2003). Other plausible contributors to the lower prevalence of drug use disorders among supervised former inmates (20%) relative to active inmates (45% for federal inmates and 53% for state inmates) include the deterrent effect of community supervision, the therapeutic impact of treatment among those required to participate while incarcerated, and the forced abstinence imposed by incarceration itself. The influence of criminal justice monitoring on these individuals is particularly important as drug testing and/or treatment are conditions for their release to and stay in the community (Abadinsky, 2006).

Nevertheless, the likelihood of individuals with drug abuse or dependence receiving specialized treatment was greatest among released inmates supervised by correctional agencies in the community (30%), followed by incarcerated offenders in federal prisons (17%) and state prisons (15%). Persons who had substance use disorders but were not monitored or supervised by criminal justice authorities were least likely to have been professionally treated. This finding corroborates earlier findings in the literature that the criminal justice system has become the most important treatment referral mechanism in the United States (Office of Applied Studies, 2008).

Prevalence of Unmet Treatment Needs

The analysis of the weighted 2006 NSDUH data reveals that the prevalence rate of unmet treatment needs for substance alcohol or illicit drug use among parolees was about three times higher (24.2%) than the rate for the rest of the population in the community (8.5%; see Table 2). In 2006, an estimated 394,200 former offenders who had been on parole, supervised release, or other conditional release from prison at any time during the year prior to the interview did not receive specialized treatment that they needed. The proportion of respondents self-identifying as not getting the substance abuse treatment they needed was consistently much higher among parolees than among the general population across substances of use: 20.6% vs. 7.2% for alcohol use, 7.7% vs. 1.5% for marijuana use, 4.5% vs. 0.5% for cocaine or crack use, 2.2% vs. 0.0% for heroin use, 0.5% vs. 0.1% for hallucinogen use, 0.1% vs. 0.0% for inhalant use, and 5.5% vs. 0.7% for nonmedical use of prescription-type psychotherapeutics.

The top three substance problems that were left unattended among parolees were alcohol use, marijuana use, and nonmedical use of prescription-type psychotherapeutics, each with a rate of treatment gap of 20.6%, 7.7%, and 5.5%, respectively. The comparatively smaller groups of parolees awaiting treatment for the use of traditional hard drugs such as cocaine or crack (4.5% or 81,900) and heroin (2.2% or 35,400) corroborate earlier epidemiological reports of shifting substance use habits in inner cities with the resurgence of alcohol and marijuana use (Golub, Johnson, & Dunlap,

Table 2. Prevalence of Unmet Treatment Needs Among Adult Parolees: 2006

Needed Treatment in the Past Year But Did Not Receive it at a Specialty Facility	Parolees (N = 1,626,709)	The Rest of the Population in the Community (N = 219,003,014)
For alcohol use	20.6% ^{***} (334,500)	7.4% ^{***} (16,245,200)
For marijuana use	7.7% ^{***} (125,000)	1.4% ^{***} (2,970,600)
For cocaine or crack use	4.5% ^{***} (81,900)	0.5% ^{***} (1,247,900)
For heroin use	2.2% ^{***} (35,400)	0.0% ^{***} (83,300)
For hallucinogens use	0.5% ^{***} (8,500)	0.1% ^{***} (203,100)
For inhalants use	0.1% ^{***} (1,700)	0.0% ^{***} (49,700)
For prescription psychotherapeutics use	5.5% ^{***} (90,300)	0.7% ^{***} (1,444,000)
For substance abuse in general	24.2% ^{***} (394,200)	8.5% ^{***} (18,520,400)

Note. Percentages do not add up to 100% because the categories are not mutually exclusive. Estimates are rounded to the hundreds.

^{***} $p < .001$.

2005; Grant, Dawson, & Stinson, 2006), the rapid rise of the abuse of prescription drugs among high-risk youths (Kelly & Parsons, 2007; Sung, Richter, Vaughn, Johnson, & Thom, 2005), and the increasing concurrent use of these specific substances among heavy substance abusers (McCabe, Cranford, & Morales, 2006).

Correlates of the Lack of Treatment Access

Results from the logistic regression analysis of the weighted survey data for the 677,125 parolees who felt the need for substance abuse treatment yielded interesting findings. The purpose of this analysis was to explore the strength, shape, and direction of the relationships between the set of 14 key sociodemographic variables and the inability of parolees to seek and/or obtain the treatment they needed (see Table 3). For these univariate and multivariate models, the outcome variable was dichotomized so that 1 represented needing but not receiving substance abuse treatment in the past year and 0 represented needing treatment and receiving it in the past year.

As shown in Table 3, of the 677,125 parolees who were estimated to have had experienced the need of receiving specialized treatment for their substance abuse problems, 394,247 (58.2%) did not receive it. Age and gender were the only two variables that failed to establish a statistically significant correlation with treatment status (see Table 4). When compared to Hispanic respondents, only Asians (odds ratio [OR]: 0.55) were significantly less likely to have been excluded from treatment, whereas Whites (OR: 4.33), Blacks (OR: 4.62), and Native Americans (OR: 6.50) were more likely to be denied access to treatment. Married parolees (OR: 8.10) had a significantly greater likelihood of not receiving treatment when they needed it than single parolees, whereas widowed or divorced parolees (OR: 0.17) enjoyed greater access to treatment than single parolees. Having a high school diploma or a general equivalency diploma (GED) decreased the likelihood of not getting treatment (OR: 0.17). Those who held a full-time or part-time job were more likely to be left untreated (OR: 1.97); this finding echoes previous reports that participation in treatment programs frequently conflict with work schedules among supervised offenders in the community (Staton et al., 2001). Parolees with a family income of less than \$20,000 (OR: 7.86) or of \$20,000 to \$49,999 (OR: 3.20) had a greater likelihood of not receiving treatment than those with a household income of \$75,000 or higher; those with a family income of \$50,000 to \$74,999 (OR: 0.02) were very slightly less likely than parolees from the highest income bracket to be excluded from treatment. Parolees who attended religious services at least once every other week (OR: 35.94) were much more likely to not receive the needed treatment. Psychological stress (OR: 1.02) was positively correlated with

Table 3. Description of Variables Analyzed in the Logistic Regression Analysis of Adult Parolees Who Felt They Needed Treatment in the Past Year ($N = 677,125$)

Variables	N	%	Mean	Standard Deviation
Treatment status				
Treated	282,878	41.8	—	—
Not treated	394,247	58.2	—	—
Age				
18–25 years old	213,140	31.5	—	—
26–34 years old	209,902	31.0	—	—
35–49 years old	232,792	34.4	—	—
50 years old or above	21,290	3.1	—	—
Gender				
Male	508,095	75.0	—	—
Female	169,029	25.0	—	—
Race and ethnicity				
White	296,419	43.8	—	—
Black	216,425	32.0	—	—
Native Americans	22,657	3.4	—	—
Asian	9,072	1.3	—	—
More than one race	5,454	0.8	—	—
Hispanic	127,098	18.8	—	—
Marital status				
Married	78,847	11.6	—	—
Widowed or divorced/separated	140,849	20.8	—	—
Single, never married	457,429	67.6	—	—
Education				
Had high school diploma or general equivalency diploma (GED)	71,186	10.5	—	—
Employment				
Employed f-t or p-t last week	362,524	53.5	—	—
Family income				
Less than \$20,000	397,203	58.7	—	—
\$20,000–\$49,999	200,684	29.6	—	—
\$50,000–\$74,999	19,948	2.9	—	—
\$75,000 or more	59,290	8.8	—	—
Religiosity				
Attended services once every other week or more often	30,494	4.5	—	—
Psychological distress (scoring: 1–24)	—	—	9.0	7.4
Overall health status				
Fair/poor	109,971	16.2	—	—
Good	278,680	41.2	—	—
Very good	191,678	28.3	—	—
Excellent	97,047	14.3	—	—
Treated for mental health problems in past year	173,678	25.6	—	—
Alcohol abuse or dependence	449,065	66.3	—	—
Drug abuse or dependence	316,908	46.8	—	—
Population density				
Urban	362,309	53.5	—	—
Rural	275,333	40.7	—	—
Nonspecific	39,483	5.8	—	—

Table 4. Correlates of the Lack of Access to Substance Abuse Treatment Among Adult Parolees With Treatment Needs ($N = 677,125$)

Variables	Univariate Models		Multivariate Model	
	B (SE)	Odds Ratio (95% CI)	B (SE)	Odds Ratio (95% CI)
Age				
50 years or older				
18–25 years old	–20.36 (275.46)	0.00 [0.00, 0.00]	–19.30 (231.33)	0.00 [0.00, 0.01]
26–34 years old	–21.11 (275.46)	0.00 [0.00, 0.00]	–21.36 (231.33)	0.00 [0.00, 0.01]
35–49 years old	–21.25 (275.46)	0.00 [0.00, 0.02]	–21.26 (231.33)	0.00 [0.00, 0.00]
Gender: Male	1.03 (0.01) ^{***}	2.80 [2.76, 2.83]	2.35 (0.14)	2.23 [0.51, 9.81]
Race and ethnicity				
Hispanic				
White	0.65 (0.01) ^{***}	1.91 [1.88, 1.93]	1.71 (0.01) ^{***}	4.33 [4.09, 4.61]
Black	2.17 (0.01) ^{***}	8.75 [8.61, 8.89]	4.04 (0.01) ^{***}	4.62 [4.34, 4.92]
Native Americans	0.73 (0.02) ^{***}	2.06 [1.95, 2.17]	2.47 (0.06) ^{***}	6.50 [4.65, 9.09]
Asian	–0.93 (0.03) ^{***}	0.39 [0.37, 0.42]	–4.47 (0.04) ^{***}	0.55 [0.47, 0.63]
More than one race	–2.74 (0.08) ^{***}	0.07 [0.06, 0.08]	–1.33 (0.12) ^{***}	0.00 [0.00, 0.00]
Marital status				
Single, never married				
Married	0.38 (0.01) ^{***}	1.47 [1.44, 1.49]	1.89 (0.02) ^{***}	8.10 [7.73, 8.48]
Widowed or divorced/ separated	–0.69 (0.01) ^{***}	0.49 [0.49, 0.51]	–1.46 (0.01) ^{***}	0.17 [0.16, 0.18]
Education: Had high school diploma or general equivalency diploma (GED)	–0.67 (0.01) ^{***}	0.51 [0.50, 0.52]	–0.09 (0.02) ^{***}	0.17 [0.16, 0.18]
Employment: Employed f-t or p-t last week	–0.14 (0.01) ^{***}	0.89 [0.86, 0.88]	0.15 (0.01) ^{***}	1.97 [1.91, 2.03]
Family income				
\$75,000 or more				
Less than \$20,000	–0.85 (0.01) ^{***}	0.43 [0.42, 0.44]	–1.15 (0.02) ^{***}	7.86 [7.41, 8.35]
\$20,000–\$49,999	–0.58 (0.01) ^{***}	0.56 [0.55, 0.57]	–0.19 (0.02) ^{***}	3.20 [1.09, 7.41]
\$50,000–\$74,999	–1.83 (0.01) ^{***}	0.16 [0.16, 0.17]	–4.29 (0.03) ^{***}	0.02 [0.01, 0.02]
Religiosity: Attended services once every other week or more often	2.70 (0.02) ^{***}	14.9 [14.33, 15.49]	5.32 (0.03) ^{***}	35.94 [32.71, 39.17]
Psychological distress (scoring: 1 to 24)	–0.01 (0.00) ^{***}	0.99 [0.99, 0.99]	0.07 (0.00) ^{***}	1.02 [1.01, 1.02]
Overall health status				
Excellent				
Fair/poor	0.96 (0.01) ^{***}	2.60 [2.55, 2.65]	1.62 (0.02) ^{***}	2.82 [2.66, 2.99]
Good	–0.11 (0.01) ^{***}	0.90 [0.88, 0.91]	0.88 (0.01) ^{***}	2.21 [2.12, 2.30]
Very good	0.19 (0.01) ^{***}	1.21 [1.19, 1.23]	0.42 (0.01) ^{***}	0.33 [0.32, 0.34]
Treated for mental health problems in past year	1.11 (0.01) ^{***}	3.05 [3.01, 3.08]	2.12 (0.01) ^{***}	10.98 [10.57, 11.40]
Alcohol abuse or dependence	–1.31 (0.01) ^{***}	0.27 [0.27, 0.27]	–2.15 (0.01) ^{***}	0.06 [0.06, 0.06]
Drug abuse or dependence	–0.09 (0.01) ^{***}	0.92 [0.91, 0.92]	–1.53 (0.01) ^{***}	0.20 [0.19, 0.21]
Population density				
Nonspecific				
Urban	–0.38 (0.01) ^{***}	0.69 [0.67, 0.70]	–0.27 (0.02) ^{***}	0.69 [0.66, 0.72]
Rural	0.20 (0.01) ^{***}	1.22 [1.19, 1.24]	1.37 (0.02) ^{***}	3.95 [3.83, 4.08]

* $p < .05$. ** $p < .01$. *** $p < .001$.

not receiving treatment. Self-reporting fair or poor health status (OR: 2.82) or good health status (OR: 2.21) increased the likelihood of not receiving treatment when compared to experiencing excellent health, but maintaining a very good health status (OR: 0.33) slightly increased access to treatment vis-à-vis having an excellent health status. Having been treated for mental health disorders (OR: 10.98) significantly increased the likelihood of not receiving the needed substance abuse treatment. Meeting the clinical criteria of both alcohol abuse or dependence (OR: 0.06) and drug abuse or dependence (OR: 0.20) greatly increased parolees' access to treatment. Lastly, parolees living in urban areas or regions of higher population density (OR: 0.69) were less likely to have access to treatment, whereas parolees residing in rural or less densely populated areas (OR: 3.95) were more likely not to receive treatment.

A profile of parolees with substance use problems at a high risk of not receiving substance abuse treatment can be constructed from these findings. The individual would tend to be from an ethnic group other than Hispanic or Asian, be married, be less educated, be employed, have a lower income, be under greater psychological stress, have other health conditions, have been treated for mental health problems, does not meet the clinical diagnosis of substance abuse or dependence, and live in a rural or less densely populated area.

Barriers to Substance Abuse Treatment

Nearly two thirds (68.9%) of the 394,200 parolees who felt in need of treatment but did not receive it saw the lack of financial resources or health care coverage as the main obstacle to their access to treatment (see Table 5). This finding indicates that drug use relapse among returning offenders cannot be properly understood apart from the economic marginalization that parolees routinely experience. Next, 17.5% (69,000 parolees) did not receive the needed therapeutic services because transportation was not available or treatment sites were too far away from their residences. The chance of being clinically assisted among these parolees was doomed by their geographic isolation from and physical distance to treatment resources. The following two major barriers were lack of readiness to stop using drugs (16.4% or 64,600 parolees) and lack of information on where to get treatment (4.0% or 15,800). Both of these latter barriers highlight the need/needs for awareness education and referral services within this population.

Some common reasons for not receiving treatment among regular substance abusers as reported in government publications and scholarly articles (e.g., Belenko, 2006; Office of Applied Studies 2007a) include the following: fear of negative opinions among neighbors, fear of negative effect on job, and belief in one's own ability to handle the problem without treatment, did not stand out among parolees. This finding suggests that social stigma and the downplaying of the destructive forces of addictive substances seem to be less prevalent among offenders who have already been socially tagged and suffered the adverse consequences of the crime–drug cycle.

Discussion and Conclusion

Not surprisingly, former inmates under community supervision were found to be less involved in substance use disorders than inmates prior to their incarceration and considerably much more afflicted by substance problems than the rest of the citizenry in the community. A more counterintuitive finding is that despite their socioeconomic disadvantages and psychological deficits, parolees with substance use disorders were more likely to be identified and referred to treatment than their noncriminal justice counterparts in the community.

It is clearly against the interest of the public for former inmates with substance use disorders to be deprived of adequate surveillance and appropriate treatment in the community immediately after release. Those who remain dependent on substances are much more likely to return to criminal

Table 5. Reasons of not Getting Treatment Among Adult Parolees With Treatment Needs ($N = 394,200$)

Reason of not Receiving Substance Abuse Treatment in the Past Year	Parolees With Treatment Needs But Did Not Receive it
Could not afford or have no health care coverage	68.9% (271,600)
Medical insurance did not cover substance abuse treatment costs	0.4% (1,600)
Have no access to transportation or treatment site is too far away	17.5% (69,000)
Did not find the right type of treatment modality	0.8% (3,200)
Was not ready to stop using alcohol or illicit drugs	16.4% (64,600)
There were no openings in treatment programs	0.1% (400)
Did not know where to get treatment	4.0% (15,800)
Treatment participation might cause neighbors to have negative opinions	0.0% (0)
Treatment participation might have negative effect on job	0.4% (1,600)
Did not think needed treatment at the time	0.0% (0)
Thought could handle the substance abuse problem without treatment	0.0% (0)
Did not think treatment would help	0.0% (0)
Did not have time to participate in treatment	0.8% (3,200)
Did not want others to know needed treatment	0.0% (0)

Note. Percentages do not add up to 100% because the categories are not mutually exclusive. Estimates are rounded to the hundreds.

activity, whereas treatment gains may be lost if care is not continued after their release. Therefore, postrelease supervision should be imposed on offenders who meet the clinical criteria of substance abuse or dependence. The correctional system would not exercise the same control over these offenders as occurs in prison or jail but would manage substance use behaviors and their consequences through careful monitoring and coordination of services. A diagnosis or history of a substance use disorder should automatically place an offender on parole or similar supervised release.

Special attention should be paid to those former inmates who have abused or misused alcohol or prescription-type psychotherapeutics such as opioid-based pain relievers, stimulants, tranquilizers, and sedatives. Our findings indicate that their treatment needs were among the most likely to be ignored and left unattended. Given that the networks of distribution of alcohol and diverted prescription drugs differ from the traditional crack and heroin subcultures and markets (CASA, 2004; Wunsch, Nakamoto, Goswami, & Schnoll, 2007), community supervision agencies should require training in recognizing the signs and signals of prescription drug abuse such as suspicious Internet use, fraudulent prescriptions, patient scams, association with dishonest physicians or pharmacists, and prescription sharing be part of its minimum standards of competency.

The fact that substance-abusing parolees who did not receive the needed treatment services tended to have multiple problems ranging from educational deficits and financial strains to psychological stress, and additional medical or psychiatric conditions show that the reentry of an offender with substance use disorders should begin with the management of his or her symptoms, but successful reintegration of the offender involves the creation and reinforcement of a new lifestyle. Stressors from daily life such as criminal or drug-using peers, poverty, loneliness, mental illness, childcare responsibilities, and lack of safe housing—even the need to comply with supervision conditions—can precipitate recidivism or a relapse to drug use (Belenko, 2006; Hiller, 1996; Sung & Belenko, 2005). The process of becoming a drug-free and productive citizen requires continuous support from basic services such as housing, employment, health care, and family counseling.

The gradual attainment of stable housing, gainful employment, satisfactory health, and a rewarding family life should be seen not only as a means to the goal of recovery but also as the ultimate objective of rehabilitation.

Criminal justice supervision and substance abuse treatment agencies must reach beyond traditional roles and service boundaries by brokering services across systems, sharing information, and facilitating the treatment process to achieve smooth collaboration and effective integration. In order to overcome the fragmentation within the criminal justice system, the lack of expertise in offender issues among community treatment providers and disjointed funding streams, governments and policy makers should encourage the creation of joint taskforces across systems, provide incentives for treatment participation (e.g., safe housing units, additional recreation time, positive parole board review, the return of children to their mothers, or less frequent reporting to parole or probation officers) and provide incentives for service providers to attend to the needs of offenders with substance use disorders and integrate and expand funding streams (Center for Substance Abuse Treatment [CSAT], 1998).

The coordination of behavioral monitoring, health care, and social services for a particular released inmate can be best achieved through case management. When feasible, a single supervision officer works in conjunction with a multidisciplinary team of staff members from both the correctional system and the treatment system. The transition planning should begin before release and be reviewed periodically (CSAT, 1998). Evaluation should focus on the assessment of the offender's treatment needs, treatment readiness, treatment engagement, and treatment progress. Other areas to be assessed include life skills, stress control, psychosocial functioning, emotional support, literacy, and financial management skills.

Many parolees in our analysis opted to forgo needed therapeutic care in the absence of available and affordable means of transportation to treatment facilities. This finding has several policy implications. On one hand, information regarding treatment sites should be better disseminated, so that parolees can choose those facilities with the least economic and temporal costs of attending. If treatment opportunity is constrained because of treatment slot availability, and parolees must attend a treatment program that is far from their residence, supervision officers should work with parolees, their families, and volunteer agencies in the community to facilitate transportation to treatment facilities. For clients who are experiencing transportation problems, shuttle service or subsidized transportation tokens might increase the likelihood that clients will enroll and stay in appropriate treatment programs. On the other hand, efforts should be encouraged to decentralize clinics and situate new facilities in community centers accessible by foot. It should be plausible to create satellite facilities in rural areas that are more closely situated to parolees residing in less densely populated regions.

We also found that the absence of readiness and motivation constituted an unsmiling psychological barrier that must be overcome. Criminal offenders often have low intrinsic motivation to change their antisocial behaviors, are less ready for treatment, and are consequently more reluctant to participate and stay in treatment and less satisfied with their treatment than are voluntary clients (Sia, Dansereau, & Czuchry, 2000). Since the failure to recognize one's own substance problems reduces desire for help, which in turn stifles treatment motivation, supervision officers should identify parolees with signs of substance abuse in different phases of motivation for change and provide initial counseling and support to those with low motivation in order to facilitate treatment involvement (Prochaska, DiClemente, & Norcross, 1992). Years of research have yielded tested guidelines to induce and nurture agreement with the official valuation and explanation of problem behaviors, acceptance of a diagnosis, and subjective experiences of distress among offenders under community supervision (Walters, Clark, Gingerich, & Meltzer, 2007). Change strategies must be proactively planned and implemented in stages (Prochaska & DiClemente, 1994) and across multiple systems such as family, workplace, and faith community (Springer, McNeece, & Arnold, 2003) to be effective. Supervision

officers should be trained in these motivational techniques to spot resistance to change and to encourage attitudes and behaviors favorable to therapeutic interventions.

Substance abuse treatment is expensive. Adults needing substance abuse treatment were less likely to have some type of health insurance coverage than adults not needing treatment (Office of Applied Studies, 2007b), and the odds of treatment entry largely hinges on the type of health care insurance coverage one possesses. For example, having private coverage, as compared to being on Medicare, doubles the odds of treatment entry among problem drinkers (Schmidt & Weisner, 2005). Worse, the Medicaid benefits structure, which provides medical insurance for many parolees, excludes coverage for most residential treatment. In this study, more than half or 394,247 of parolees with unmet treatment needs did not receive treatment because they could not afford or have no health care coverage. Without government assistance, ending the criminal careers of these substance abusers will likely remain an illusion.

According to recent federal analysis of community-based treatment expenditures, the average cost of 90-day residential treatment is \$7,620 and the average cost of 90-day outpatient treatment is \$1,125 (Office of Applied Studies, 2003).⁴ Offering quality treatment to the estimated 394,247 parolees with unmet treatment needs would thus require an extra allocation of \$0.44 billion to \$3.00 billion to current correctional spending. These additional expenditures may seem prohibitive as state governments are struggling to catch up with ballooning prison and jail spending (Vera Institute of Justice, 2003). Nevertheless, cost-benefit studies conducted in different settings, on different samples, using different methodologies and during different historical periods consistently demonstrate robust monetary savings from substance abuse treatment, primarily from significant reductions in criminal justice expenditures associated with lower recidivism and in medical expenditures linked to improved health status (Belenko, Patapis, & French, 2005). In all cost-benefit analyses of criminal justice-based treatment, the monetary benefits of treatment outweighed the costs (Aos, Phipps, Barnoski, & Lieb, 2001; Daly et al., 2004; Logan et al., 2004; Mauser, Van Stelle, & Moberg, 1994). Educating the public of this fact can help shore up support for the financing and implementation of effective criminal justice-led treatment programming.

Limitations

Readers must be aware of several data limitations that could affect the generalizability of the findings reported in this article. First, the NSDUH relies on respondents' self-reports, so it is subject to biases associated with memory errors and social desirability (unwillingness to disclose drug use). Second, while some former inmates become homeless during the first year of their release from prison (see Rodriguez & Brown, 2006), the survey does not collect data from persons who are homeless, who do not stay at shelters. Therefore, treatment needs and gap of this particular high-risk subgroup were not examined in this analysis. Third, since the weighted data were constructed to provide national estimates, the stability of these weighted estimates gradually decreases as the target sample gets smaller and the characteristics of its members differ significantly from those of the national population. As a result, prevalence estimates reported in this study should be interpreted with due caution. Despite these limitations, the NSDUH data set has noteworthy strengths. The sample is representative of the noninstitutionalized adult population in the United States and is currently the largest population-based survey that yields the largest sample of past year or active adult drug users. Additionally, the survey's computer-assisted methodology increases respondents' reporting of socially stigmatized or sensitive drug use behaviors.

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Notes

1. Diagnostic criteria of substance abuse and dependence are based on the American Psychiatric Association's fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. Individuals meeting the criteria of substance abuse engage in excessive consumption of psychoactive substances, resulting in repeated adverse experiences including interpersonal conflicts, failure to meet work or family obligations or legal problems. Substance dependence is characterized by physiological and behavioral symptoms related to addiction such as the need for increasing amounts of the substance to maintain desired effects, withdrawal if drug-taking ceases and a great deal of time spent in activities related to obtaining or using the substance.
2. NCJTP is a nationally representative survey of prisons, jails, and probation and parole agencies conducted in 2005. The design consisted of a mail survey of both correctional administrators and treatment program administrators. The 13 EBPs examined in NCJTP include (a) standardized risk assessment; (b) standardized substance abuse assessment and treatment matching; (c) use of techniques to engage and retain clients in treatment; (d) use of therapeutic community, cognitive-behavioral, or other standardized treatment orientation; (e) a comprehensive approach to treatment and ancillary needs; (f) addressing co-occurring disorders; (g) involvement of family in treatment; (h) a planned treatment duration of 90 days or longer; (i) integration of multiple systems to optimize care and outcomes; (j) continuing care or aftercare; (k) use of drug testing in treatment; (l) use of graduated sanctions; and (m) incentives to encourage progress.
3. This particular analysis was restricted to the examination of illicit drug use, as opposed to substance use, because the Bureau of Justice Statistics released statistics on the problem of illicit drug use among prison inmates only (Mumola & Karberg, 2006).
4. These dollar figures are converted to their 2008 value.

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