The Drug Abuse Treatment Gap: Recent Estimates

Albert Woodward, Ph.D., M.B.A., Joan Epstein, M.A., Joseph Gfroerer, Daniel Melnick, Ph.D., Richard Thoreson, Ph.D., and Douglas Willson, Ph.D.

There is a widely acknowledged problem of drug abuse in the United States, but there is no widely accepted estimate of the number who need treatment for drug abuse. In this article, the authors present new estimates of the numbers of persons in this country who need and receive treatment. These estimates are derived from improved definitions and statistical estimating methods applied to the National Household Survey on Drug Abuse (NHSDA). There are two separate estimates (based on severity) of people needing treatment, yielding a combined total of 7.1 million people. These new estimates are crucial to better resource planning and allocation.

INTRODUCTION

The NHSDA is conducted annually among the general U.S. civilian non-institutionalized population 12 years of age or over and is designed to produce drug and alcohol use incidence and prevalence estimates. NHSDA prevalence estimates show that the total number of illicit drug users has been unchanged since 1992, following more than a decade of decline since the peak year for illicit drug use, 1979 (Substance Abuse and Mental Health Services Administration, 1995c). The decline appears to reverse a longer term trend of increased prevalence and to reflect a decline in incidence that slightly preceded peak prevalence (Gfroerer and Brodsky, 1992; Johnson et al., 1996). With current estimation procedures, in 1994, 13 million persons in this country (6 percent of those 12 years of age or over) used illicit drugs; 10 million persons (four-fifths of current illicit drug users) used marijuana, making it the most commonly used illicit drug; and 1.4 million Americans (0.7 percent of the population) used cocaine (Substance Abuse and Mental Health Services Administration, 1995c).

Improved planning for public expenditures related to drug abuse treatment requires reliable estimates of the number of people needing and receiving treatment for drug abuse. Previous estimates have been developed for the Office of National Drug Control Policy (ONDCP). In this article, more recent data and improved estimating procedures are used to develop better estimates.

Estimating treatment need for the Nation is made difficult by the dynamic aspects of drug and alcohol consumption and its consequences. Estimating need for the Nation is a different problem from diagnosing the need for treatment in an individual based on history-taking, physical examination, and information on medical records. The NHSDA does not include physical examinations or take a detailed history, and it would be impractical to do so. In addition, even if it were possible to have a clinical diagnosis for all respondents surveyed, there may be a significant number of people not receiving treatment, such as incarcerated and

homeless individuals, and these would not be included in the need estimate.

In recent years, several methods have been developed to estimate treatment need using the NHSDA, and each has its limitations (Wright, Gfroerer, and Epstein, 1997; Epstein and Gfroerer, 1995). In 1989 the National Institute on Drug Abuse (NIDA) developed an illicit drug index that defined heavy drug users who need treatment as persons who had used illicit drugs at least 200 times in the past year. A shortcoming of this illicit drug index is that it did not consider the personal, health, and social problems associated with use.

To overcome this limitation, NIDA developed another method based on reported problems and symptoms of abuse or dependence on illicit drugs. This method used clinical criteria from the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), published by the American Psychiatric Association (1987). In 1990 the Institute of Medicine developed a method for estimating treatment need using a combination of frequency of use and problems and symptoms associated with use (Gerstein and Harwood, 1990). This method is based on combining data from three separate variables: frequency of drug use, symptoms of dependence, and problems or consequences of use. Need for treatment of homeless and incarcerated groups was estimated separately. Each of the last two methods has strengths that the other does not: The DSM approach potentially missed some people in need of treatment because of its clinical bias, whereas the Institute of Medicine approach may not be sufficiently precise because it lacks a clinical perspective.

In this article, we use NHSDA data but apply more comprehensive selection criteria to identify need. Clinical criteria for dependence and new criteria for abuse are applied. The new abuse criteria are defined to include specific drug abuse behaviors, e.g., frequency of drug use, injection of drugs, and treatment participation.

The NHSDA underestimates drug use prevalence because the sampling frame may not completely enumerate drug abusers (undercoverage) and because respondents may not always report drug use and other stigmatized or illegal behaviors (underreporting). To correct these problems in part, a ratio-estimation procedure was used to modify analysis weights applied to the NHSDA sample (Wright, Gfroerer, and Epstein, 1997). The ratio-estimation technique incorporates data from the National Drug and Alcohol Treatment Unit Survey (NDATUS), now known as the Uniform Facility Data Set (UFDS), the Drug Services Research Survey (DSRS), and the Uniform Crime Report (UCR).

A recent analysis of current data suggests that the declines in both prevalence and incidence may be reversing again; specifically, an increasing number of young persons are trying illicit drugs (Substance Abuse and Mental Health Services Administration, 1996). Whatever the direction of change, the trends in drug use will ultimately affect the numbers of persons who need treatment and, of those, the numbers of persons who seek and obtain treatment.

DATA SOURCES AND RATIO ESTIMATION

The NHSDA has been conducted by the Federal Government since 1971 (since 1992, SAMHSA has administered the survey). The survey collects data from a representative sample of the civilian, non-institutionalized population of the United States 12 years of age or over living in households (Substance Abuse and Mental Health Services Administration, 1995a). It is

the source of information on national prevalence of alcohol, tobacco, and drug use from which the need estimates are derived. It also collects data on employment, education, income, health status, health insurance, utilization of services, and access to care. The survey employs a multistage, area probability sample. In 1991, 32,594 persons were interviewed; in 1992, 28,832 were interviewed; and in 1993, 26,489. The decrease in sample size during these years was a result of eliminating the oversampling in six large metropolitan areas. In the 1994 survey, 22,181 persons were interviewed. This sample included 4,372 respondents to the 1994-A questionnaire and 17,809 respondents to the 1994-B questionnaire. The 1994-B version was an improved questionnaire, based on several prior studies that identified the need for improvements and also based on consultations with drug survey researchers and data users. In this article, we use data from the 1994-A questionnaire to provide consistency with prior years' information.

The household interview takes approximately 1 hour to complete and employs procedures designed to maximize truthful reporting of illicit drug use, such as self-administered answer sheets. The survey includes residents and homeless persons residing in shelters, rooming houses, and dormitories but excludes those homeless persons who never use shelters. It also excludes active military personnel and residents of institutional group quarters, such as jails and hospitals.

The NHSDA is limited in estimating the part of need covering heavy drug users because of its sample size, coverage, and the use of a self-report. Although the survey includes more than 98 percent of the total U.S. population, some of the subpopulations that are excluded have been shown to have higher rates of illicit drug use, i.e., they are heavy drug users. Because such drug use is a relatively rare occurrence in the general population, the NHSDA captures a small number of these users, resulting in a relatively large sampling error. In addition underestimation may also occur because heavy drug users may not maintain stable addresses. Finally, underestimation may occur because heavy drug users may not always report their drug use accurately during the interview.

To adjust partially for undercoverage and underreporting in the NHSDA, three subsidiary data sources are used in ratio estimation. None of these three data sources is as comprehensive as the NHSDA and therefore none can replace the NHSDA. Two of these, the NDATUS and the DSRS, provide an independent estimate for the number of people receiving specialty drug abuse treatment. The third source, the UCR, provides an independent estimate for the number of persons arrested.

The NDATUS is an annual, 1-day census of all the known specialty drug abuse and alcoholism treatment units in the Nation (Substance Abuse and Mental Health Services Administration, 1995b). Fifty-six States and other jurisdictions plus several Federal agencies, working with SAMHSA, identify the NDATUS universe of treatment units or providers. Approximately 11,500 treatment providers in the United States were surveyed in 1993. The complete list of specialty treatment providers is maintained and continuously updated by SAMHSA as an automated data base.

The NDATUS collects data mainly on clients in treatment as of 1 day at the end of September or early October. Data are collected in this way to minimize the reporting burden. NDATUS 1-day census counts by eight types of treatment are inflated into annual estimates of persons treated, based on DSRS estimates for length of stay in treatment and for the number of treatment episodes per year per

client. The estimate of numbers of clients treated in 1994 is a statistical projection based on data from the preceding years.

DSRS is a two-phase study of specialty drug treatment providers. In the first phase, data were collected from a sample of 1,183 drug treatment facilities in the coterminous United States for the point prevalence date of March 30, 1990, and for the most recent 12-month reporting period of the facility (Batten et al., 1993). In the second phase, client-level data were collected from a stratified sample of 120 drug treatment facilities, sampled from the 1,183 facilities surveyed in phase I. Data for phase II were obtained from a sample of 2,182 clinical records of clients discharged from 118 non-correctional facilities between September 1, 1989, and August 31, 1990 (Batten et al., 1992).

The last subsidiary data source is the UCR. The UCR is compiled by the Federal Bureau of Investigation from administrative records submitted monthly by participating law enforcement agencies throughout the country (Maguire, Pastore, and Flanagan, 1993). The UCR contains information on arrests for any crime other than minor traffic violations. Arrest data are reported by type of offense and the age, race, and sex of persons arrested. Annual arrest data include individuals taken into custody who have been arrested more than once during the year for the same type of offense or different offenses.

Data from all four sources are used to make estimates of treatment need, but data from the DSRS, NDATUS, and UCR are only used as independent estimates in the ratio-estimation procedure. Data from these three sources cannot be used to make estimates of treatment need, because they do not contain the necessary information on drug use and abuse. Each of the three data sources, however, strengthens the resulting estimates.

Ratio estimation is built on the idea that an improved estimate of a population total can be obtained if there is a known population total for a related variable. As a mathematical expression, the estimate of total treatment need is $X' = (x/y)*Y$, where x is the unadjusted NHSDA estimate of treatment need, y is the NHSDA estimate of the related variable, and Y is the known population total for the related variable. If the population Y is known to be underestimated by y, then this ratio-estimation method increases the total treatment-need estimate. Comparisons of NHSDA estimates for arrestees and clients treated to administrative records of arrestees and clients treated (the Y in the mathematical expression) show that NHSDA undercounts arrestees and drug clients treated. Thus the NHSDA treatment-need estimates are adjusted using externally derived counts of arrestees and treatment clients that are believed to be more accurate than NHSDA-based estimates of arrestees and treated clients.

The ratio-estimation method makes simultaneous use of both the treatment and arrest counts. Therefore the NHSDA sample is divided into four categories derived from responses to NHSDA questions of arrests and treatment: (1) arrested and treated, (2) treated but not arrested, (3) arrested but not treated, and (4) not arrested and not treated. The last category is by far the largest, because it includes most of the national population. Corrected national totals for each category are estimated or derived from the three sources already described. Estimates of multiple arrests from the NHSDA are used to adjust the UCR counts of arrests, resulting in an estimated number of persons arrested in a year. The resulting estimates are then used in the ratio adjustment. Estimates from the DSRS are used to divide total arrestees into two categories:

those who received treatment and those who did not receive treatment. Because the external counts, primarily from administrative data, are larger than the NHSDA estimates of persons treated or arrested, the weights are increased for sample cases reporting substance abuse treatment and for cases reporting arrests, and the weights for other cases decreased.

The estimates are reported with standard errors that are calculated using SUDAAN software (Shah et al., 1996). Two of the data sources, the NHSDA and the DSRS, are sample surveys, and the estimates from these surveys have associated errors. However, about three-quarters of the need estimate is for the fourth category, not arrested and not treated; this has a relative standard error of less than 1 percent. Therefore, these errors were not corrected in the ratio adjustment.

DEFINITIONS OF NEED

The method to define need is an approximation of the latest DSM clinical criteria available at the time of analysis, DSM III-R (American Psychiatric Association, 1987), and its estimates are compared for consistency with published data from the National Comorbidity Survey (NCS). Conducted by the University of Michigan's Institute for Social Research, the NCS was designed to provide nationally representative estimates of 14 psychiatric disorders, including substance abuse and dependence (Kessler et al., 1994). The NCS employed a stratified, multistage area probability sample of 8,098 respondents in the household population in this country. The method used in this analysis classifies different categories of drug users into different levels of need depending on the type of drug or method of consumption.

The method groups people into two levels of need for treatment. The levels categorize people according to DSM-III-R criteria, frequency of drug use, and type of drug use. The two levels were developed to distinguish between higher and lower treatment priorities. People with Level 2 need should be the primary focus of public treatment efforts, because they have a greater need for treatment and pose a greater burden to the Nation than the rest of the population who need treatment. For example, people who inject drugs are in Level 2. Although this method is not the only way to classify people who need treatment, it is consistent with treatment practice and analytic findings. These two levels provide plausible estimates of need for two mutually exclusive groups.

People with the more severe, Level 2 threshold meet at least one of the following four criteria:

1) *They were dependent on any drug except marijuana during the past 12 months.* This criterion is based on an NHSDA approximation of the DSM-III-R criteria. The criterion is constructed from NHSDA questions on problems and symptoms resulting from drug use. Because the survey employs some but not all clinical probes, because it is not administered by clinicians, and because some people may not recognize problems, the survey estimates are only an approximation of the estimated number of people dependent on drugs.

2) *They injected cocaine, heroin, or stimulants during the past 12 months.* Even if this were not otherwise a sign of need for drug treatment, the danger of human immunodeficiency virus (HIV) infection means that this group is a special target of treatment efforts. This criterion gives

great weight to any report of injection drug abuse, based on the assumption that even one episode of injecting drugs is a strong indication of a larger unreported problem.

3) *They received drug abuse treatment at a specialty facility during the past 12 months.* It is assumed that any person who received treatment at a hospital (as an inpatient), a drug treatment facility, or a mental health facility during the year must have been in need of treatment during the year. These locations are the same ones covered by NDATUS. Thus persons meeting this criterion are the same as those classified as "treated" in the following analysis.

4) *They used drugs frequently during the past 12 months.* This criterion was included to ensure that certain heavy drug users are counted even though they fail to report problems. The frequency varied with the type of drug used, as follows:
- Marijuana (daily use AND dependent on marijuana);
- Heroin (any use);
- Cocaine (weekly use);
- Other drugs (daily use).

People were assumed to meet the less severe Level 1 threshold of need if they had at least one of the following characteristics but did not meet the Level 2 threshold:

1) *They were dependent on marijuana during the past 12 months,* but they did not use it daily.

2) *They received drug abuse treatment during the past 12 months from providers other than specialty facilities.* This includes people receiving treatment only through self-help groups, private physicians, and emergency departments.

3) *They used certain drugs frequently during the past 12 months.* For the Level

1 definition of treatment need, the following less stringent criteria for frequency of use are applied:
- Marijuana (daily use, without dependency);
- Inhalants, hallucinogens, and psychotherapeutics (weekly use but not daily use).

The number of people classified into one of the two levels is a function of the definition criteria. Persons here classified as Level 1 would probably benefit from treatment or other intervention, and some, such as those relying solely on hospital emergency departments, might even have an urgent need for care. Also some may have long-term addiction problems that require periodic treatment even though they are not heavy current users. This classification is not a procedure for diagnosing individual cases. It does, however, give us an approximation of the number of people who would need care. Finally some persons in need of treatment may not be classified into either level because they do not report use or problems.

Marijuana users are included in the Level 2 need category only if they use this drug daily and are dependent on it, or if they received specialty treatment and used no other drugs. Currently relatively few people who report using only marijuana receive treatment. Present practices suggest the treatment system is not focused on people who only use or have problems related to marijuana. In a separate analysis, the authors found that if those who were not treated during the past year but either used marijuana on a daily basis or reported being dependent on marijuana were included in Level 2 need, the estimate of need for 1994 would have been 2.5 million persons larger.

RESULTS

Table 1 shows the new estimates for the Nation during 1991-94. The estimates are calculated from the NHSDA data, which are adjusted for undercoverage and underreporting using the NDATUS, UCR, and DSRS. The first row presents estimates of the total treatment need, the sum of Level 1 and Level 2 estimates. The next row presents estimates of people with Level 1 need who are not treated. The estimates of Level 2 need are presented in the next row. These are split into people treated and people not treated, and these estimates are presented in the next two rows. The last two rows present the percentages for people treated and not treated. Standard errors are also reported.

The estimates of treatment need (Level 1 plus Level 2) apparently declined 6 percent between 1991 and 1994 (calculated from Table 1), Level 2 need estimates apparently declined 16 percent, and Level 1 estimates apparently increased 7 percent. When the variances are accounted for, these changes across years are not statistically significant at the 95-percent confidence level.[1] Over the same period, the estimated number in specialty treatment increased by about 200,000, or 12 percent, going from 1.64 million to 1.85 million.[2] The proportion of persons with Level 2 need who did not receive treatment each year declined from 61 to 48 percent. As a corollary, the proportion of people with Level 2 need who did receive treatment increased to slightly more than one-half (52 percent) during this period. It is possible that no statistically significant changes are discernible because there was a smaller sample in 1994, and therefore the statistical tests are less reliable in detecting such changes.

Figure 1 shows the data in Table 1 for the 1991-94 period. The magnitude of the changes is more clearly discernable in this graph, because it presents the total context more readily. That is, a 6-percent decline in total treatment need is seen as a small part of the total need.

In addition to measuring trends in treatment, adjusted NHSDA data also provide details about the population with Level 2 need and the numbers treated. Table 2 shows the percent of people who need treatment among demographic, economic, and social groups averaged yearly from 1991 to 1993. The data from the 3 years are pooled to provide sufficient statistical power to examine details about the national population in need of treatment. As in Tables 1 and 3, the data from this table are derived from the NHSDA, using the NDATUS, UCR, and DSRS to adjust data to account for undercoverage and underreporting.

The columns in Table 2 disaggregate total Level 2 need by gender and by poverty status. Poor persons are defined as those who received public assistance or who had low incomes and who met at least one of the following financial-need criteria: received public assistance or welfare payments; received Aid to Families with Dependent Children (AFDC) or other type of assistance; personally received income from welfare; or lived in households with an income below that of twice the Federal poverty level. The use of less than twice the Federal poverty level is a standard measure of low income and is correlated with the lack of health insurance (Short, 1992).

The rows differentiate problematic life circumstances that can prove costly to both drug abusers and the Nation (Rice et al., 1990). The circumstances analyzed here include: criminal behavior; lack of

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[1] The calculation of statistical difference between years was based on a Z-test done with ratio-adjusted data using SUDAAN, which allows for sample design effects of NHSDA. The formula is $Z = (YEAR_1 - YEAR_2) / \sqrt{Var(YEAR_1) + Var(YEAR_2)}$.

[2] This is not statistically significantly different.

Table 1
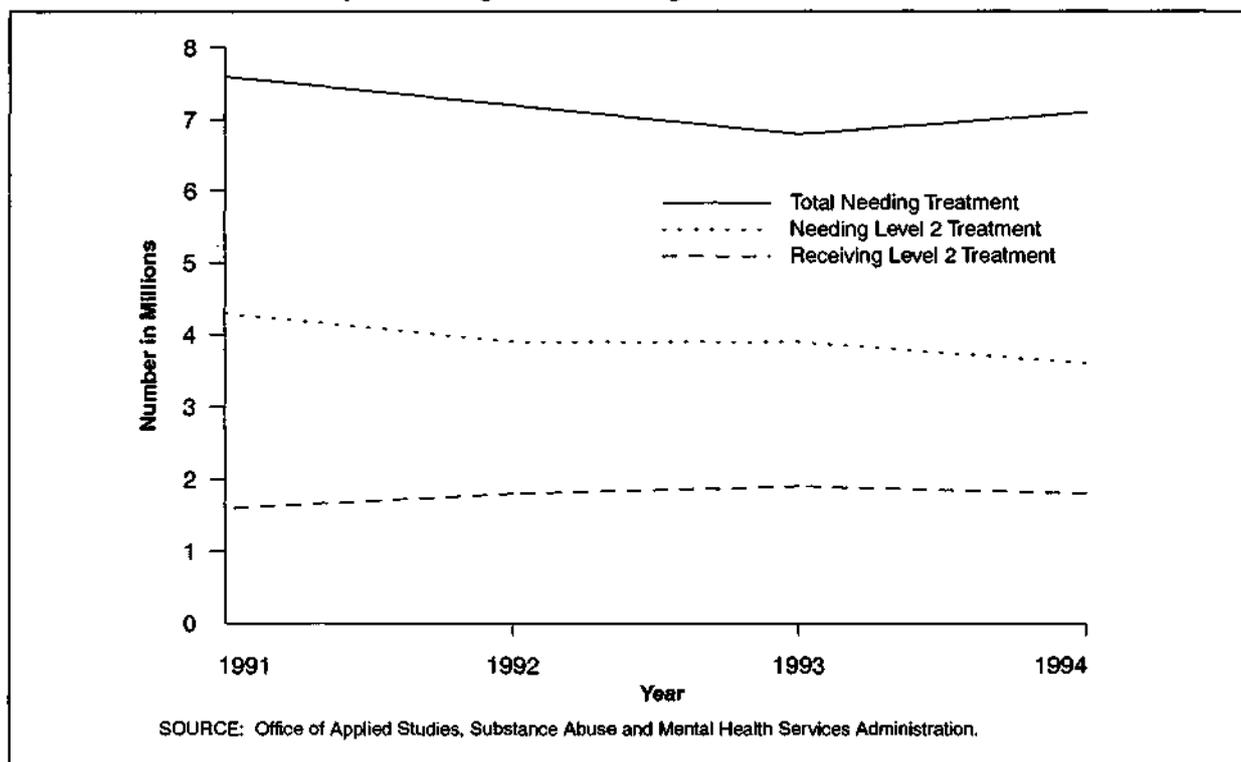## Number and Percent of Persons[1] Needing and Receiving Treatment: United States, 1991-94

Treatment Need and Level	Year							
	1991		1992		1993		1994	
	Number in Thousands	Standard Error	Number in Thousands	Standard Error	Number in Thousands	Standard Error	Number in Thousands	Standard Error[2]
Total Treatment Need	7,554	433	7,224	505	6,778	405	7,090	759
Level One								
Need Treatment	3,304	270	3,329	299	2,864	255	3,537	587
Level Two								
Need Treatment	4,250	321	3,895	350	3,914	360	3,553	624
Received Treatment	1,643	192	1,804	243	1,880	285	1,847	514
Not Treated	2,607	160	2,091	178	2,034	187	1,706	277
Percent Treated	39	—	46	—	48	—	52	—
Percent Not Treated	61	—	54	—	52	—	48	—

[1] Persons 12 years of age or over.
[2] Standard errors are larger for 1994 because the sample size (5,714) for that part of the survey that was consistent with prior surveys was smaller than the sample size of prior surveys.

SOURCE: Office of Applied Studies, Substance Abuse and Mental Health Services Administration.

Figure 1
Number of People Needing and Receiving Treatment: United States, 1991-94

SOURCE: Office of Applied Studies, Substance Abuse and Mental Health Services Administration.

employment; lack of health insurance; receipt of welfare assistance; and age under 18 years. Criminal behavior and drug abuse are often intertwined. In this analysis, criminal behavior is that reported by the respondent during the prior year on the NHSDA, but it excludes illicit drug use. "Not employed persons" are defined in this analysis as persons who report on the NHSDA that they are not employed and looking for work, neither employed nor looking for work, or disabled. Health insurance coverage is tied to access to treatment, as determined from the NHSDA, which asks the respondent for past-month coverage for all conditions, not just substance abuse. Drug abuse may make it harder for a person to be self-supporting. Welfare assistance in this analysis is defined to include public and welfare assistance, AFDC, and Medicaid, as reported by the NHSDA respondent. Drug use or abuse among youth may

truncate education and cause long-term economic, social, and physical disabilities.

The cluster of variables comprising problematic life circumstances was selected because prior studies have shown that these circumstances are associated with substance abuse problems (Harrison and Gfroerer, 1992; Flewelling et al., 1993). They are not a complete set of all the variables that could be examined, but they are important ones to examine.

Table 2 shows about 4 million people per year with a Level 2 need for treatment on average for 1991 through 1993, or about 2 percent of the total population. The first row shows that this breaks down to about 1.5 percent of women; 2.5 percent of men; 1.4 percent of non-poor persons; and 3.2 percent of poor persons. The other rows are read the same way. For example, about 16 percent of those reporting criminal behavior need treatment, with the same percent for men and women, but with the

Table 2
Percent of Persons[1] Needing Treatment, by Sex, Poverty Status,
and Problematic Circumstance: United States, 1991-93

Problematic Circumstance	Total	Female	Male	Not Poor	Poor
			Number in Thousands		
Number of Persons	4,064	1,538	2,526	1,839	2,225
			Percent of Total Population		
Total Population	1.98	*1.46	*2.3	*1.36	*3.18
Criminal Behavior	*16	*16	*16	11	*22
Not Employed	*7	*5	*9	*6	*8
No Health Insurance	*4	2	*6	*4	*4
Welfare Assistance	*7	*6	*8	2	*8
Under Age 18	2	2	2	3	2

[1] Persons 12 years of age or over.

* Significant at the 5-percent level.

NOTE: Standard errors of estimates have been calculated and are available from the authors upon request.

SOURCE: Office of Applied Studies, Substance Abuse and Mental Health Services Administration.

percent of poor reporting criminal behavior and needing treatment (22 percent) double that of non-poor persons (11 percent). The first column shows that about 16 percent of those reporting criminal behavior, about 7 percent of those not employed, about 4 percent with no health insurance, about 7 percent with welfare assistance, and 2 percent of those under age 18 need treatment. These percents cannot be interpreted to show that 16 percent of the population reports criminal behavior, or 7 percent is not employed, or 4 percent is without health insurance, etc.

The asterisks in Table 2 indicate that the proportion in need for a particular subgroup is significantly different from the proportion in need for the entire population.[3] Women and non-poor persons are proportionately less in need of treatment in comparison to the entire population, whereas men and poor persons are proportionately more in need. Also populations with each problematic circumstance, with

the exception of being under 18 years of age, are proportionately more in need than the general population, and this finding holds true across gender and poverty statuses. This indicates that individuals in the treatment-need population are much more likely to have other problematic life circumstances in addition to possible problems of substance use (Gerstein and Harwood, 1990).

Table 3 shows the percent of people who needed treatment and received treatment during the past year, again averaging data for 1991-93. An estimated 44 percent of all people needing treatment were treated, and this proportion does not vary significantly among women and men or among non-poor and poor persons. However, two subgroups have significantly higher treatment rates (both over 60 percent): non-poor persons who are not employed and men receiving welfare assistance.[4]

[3] An asterisk shows a significant difference of the proportions from zero when testing at the 5-percent level. These tests were computed using the SUDAAN survey analysis software. The estimate of the variance of the difference in proportions appropriately accounts for variance of each proportion estimate and the covariance between the estimates.

[4] An asterisk in this table represents a significant difference between the estimated proportion of the population by characteristic and circumstance needing and receiving treatment and the estimated proportion of the total population needing and receiving treatment. It is the result of a comparison between the estimated proportion of need treated in each cell in the table and the estimated proportion of need treated for the population as a whole. The tests of significance difference that the asterisks denote are calculated as explained above for Table 2 tests.

Table 3
Percent of People[1] in Need Who Are Treated, by Sex,
Poverty Status, and Problematic Circumstance:United States, 1991-93

Problematic Circumstance	Total	Female	Male	Not Poor	Poor
			Percent		
Total Treated	44	41	47	45	44
Criminal Behavior	46	38	49	50	44
Not Employed	50	45	52	*64	44
No Health Insurance	40	42	40	47	36
Welfare Assistance	53	48	*61	NA	53
Under Age 18	45	52	39	48	41

[1] Persons 12 years of age or over.

* Significant at the 5-percent level.

NOTES: NA is not applicable because estimate is very small. Standard errors of estimates have been calculated and are available from the authors upon request.

SOURCE: Office of Applied Studies, Substance Abuse and Mental Health Services Administration.

DISCUSSION

This analysis presents improved estimates of the need for treatment at the national level over previous estimates, because it adjusts for undercounting and underreporting and uses an improved definition of need. In this analysis the definition of need is more comprehensive than prior definitions, because it incorporates a clinical perspective of need as well as frequency, type, and amount of drug use. The application in this study, however, is epidemiologic rather than clinical and is to be used for national policy purposes, not for individual clinical decisions. The policy issues of these estimates are not a focus of the analysis, and the discussion briefly touches on some of these issues.

These new estimates describe the characteristics of drug abusers who need specialized drug treatment. This population includes a disproportionate number of men, poor people, and people who report that they have committed crime, are not employed, have no health insurance, and receive welfare assistance. This analysis also estimates the numbers who receive treatment, in addition to those who need treatment. There is a large gap between the number who need and the number who receive treatment; approximately 50 percent of those in need receive treatment,

but this percent has declined during recent years. Furthermore, although men, poor persons, and those involved in crime are more likely to need specialty drug treatment, they also receive such treatment roughly in proportion to their numbers, as Table 3 shows. The total difference, or treatment gap, is an important policy measure of the disparity between the need for and supply of drug abuse treatment.

This analysis does not explore the reasons why a drug treatment gap exists. Two reasons have been suggested to explain the gap (drug abusers have difficulty gaining access to treatment or they avoid seeking treatment), but these reasons have not been thoroughly studied.

The first reason is probably the more important: People may want but cannot obtain treatment, because they have neither private health insurance nor sufficient personal or family income or assets to pay for treatment. Thus if they are forced to rely on public treatment, current levels of public treatment funding are insufficient to provide treatment for all who need it. The critical role of public funding is suggested by evidence that publicly funded facilities treat all they can and turn some away from treatment (Larson et al., 1996).

Regarding private health insurance, coverage for substance abuse treatment is less comprehensive than for general

somatic conditions, and poor persons are more likely to have to rely on public sector funding. In this respect, the financing of substance abuse treatment has been found to be different from financing for much of the rest of health care.[5] Indeed, because much drug treatment is publicly funded and this funding has increased in recent years, the data in Table 1 suggest that these recent increases in public funding have probably contributed to closing the treatment gap.

Drug abusers who have been arrested or are in jails and prisons face a different access problem. Although they do not pay for treatment, they may not be able to get into treatment because of insufficient supply. Court-ordered treatment opens access to treatment for persons on parole or probation because the court pays for all or most of the cost, but we could not identify a national study on the extent and adequacy of such treatment. However, one recent study suggests that the current level of treatment for prisoners may be insufficient to meet need (Larson et al., 1996).

Another explanation for a treatment gap involves the nature of the disease. Drug abusers may not seek treatment because they deny they have a problem or because entering treatment may disclose stigmatized or illegal behavior and may thus result in adverse family, social, and economic consequences (Gerstein and Harwood, 1990). To explore the role of these factors, future analysis of NHSDA data will examine the relationship between frequency of use and users' perception of drug-related problems.

Persons with alcohol problems probably experience similar difficulties in obtaining access to treatment. According to the 1994 NDATUS survey of substance abuse treatment providers, 35 percent of clients in treatment abuse alcohol only, compared with 25 percent who abuse illicit drugs only, and 40 percent who abuse both (Substance Abuse and Mental Health Services Administration, 1995b). If persons abusing alcohol are combined with persons abusing drugs, the gap in treatment need for both groups is probably larger than the gap for those abusing drugs reported in this article. Future analyses will integrate treatment need and access for both alcohol and illicit drug abusers.

Policy decisions on resolving the treatment gap should depend on treatment effectiveness. That is, treatment has to make a difference in patient outcome if more resources are to be used to expand or enhance treatment capacity. Although the effectiveness of treatment is beyond the scope of this article, other work has shown that treatment can be effective (Landry, 1995; Gerstein and Harwood, 1990). Research now underway, such as national longitudinal treatment outcome studies and, in certain States, longitudinal tracking studies of people who receive public services as well as treatment, should contribute to a better understanding of treatment effectiveness and social functioning. This analysis has shown that there is a gap between need and supply of treatment, and even if treatment were completely effective, there would still remain a problem of access to such services.

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[5] Although the data in Table 3 show no difference between those receiving and not receiving treatment by insurance coverage, NHSDA data do not reliably tell whether or how well this insurance covers treatment for substance abuse. For further discussion, see Frank et al. (1994) and Batten et al. (1992).

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