A TREATMENT IMPROVEMENT PROTOCOL

Behavioral Health Services for People Who Are Homeless

A Review of the Literature*

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TIP 55

*This document is available online only (http://kap.samhsa.gov) and supports TIP 55, Behavioral Health Services for People Who Are Homeless.
Introduction

This Treatment Improvement Protocol (TIP) is designed to assist behavioral health service providers and administrators of behavioral health programs in adapting their services, counseling techniques, and resources when working with clients who are homeless, formerly homeless, or at risk of being homeless. It presents evidence-based and promising practices and model programs for this population, which has high rates of substance use and mental disorders as well as a broad spectrum of other service needs.

This review focuses largely on literature published after 1998 and highlights the treatment and prevention of mental and substance use disorders among adults. The literature on homelessness and substance abuse treatment prior to 2001 is well reviewed in the National Health Care for the Homeless Council’s Substance Abuse Treatment: What Works for Homeless People? A Review of the Literature (Zerger, 2002). Reviews by Martens (2001) on physical and mental disorders among people who are homeless; by Bhui, Shanahan, and Harding (2006) on the services available to treat mental illness among people who are homeless; and by Folsom and Jeste (2002) specifically on schizophrenia and homelessness are also available. The Substance Abuse and Mental Health Services Administration (SAMHSA) Homelessness Resource Center’s regularly updated annotated reference list covers homelessness and behavioral health issues, relevant training materials, Webcasts, and publications (http://homelessness.samhsa.gov/).

**Definitions of Homelessness**

There is no single Federal definition of homelessness. However, this TIP follows most Federal programs addressing homelessness in using the definition of an individual who is homeless provided by the McKinney-Vento Act (P.L. 100-77):

...an individual who lacks a fixed, regular, and adequate nighttime residence; and a person who has a nighttime residence that is (a) a supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing for the mentally ill); (b) an institution that provides a temporary residence for individuals intended to be institutionalized; or (c) a public or private place not designed for, nor ordinarily used as, a regular sleeping accommodation for human beings (42 U.S.C. § 11302).

In the category of people who are homeless, three distinct clusters can be defined based on length of time homeless and number of episodes of homelessness: (1) transitonally homeless—generally homeless for a short period or a single stay of somewhat longer duration, (2) episodically homeless—frequently in and out of a state of homelessness or of various institutions that may house them temporarily, and (3) chronically homeless—regularly and for long periods of time either in the shelter system or living on the street. Among shelter users, 80 percent are estimated to be transitonally homeless, 10 percent episodically homeless, and 10 percent chronically homeless (Kuhn & Culhane, 1998).
This literature review does not cover literature on mental health and substance abuse treatment in general, but much of that literature can be applied to homeless populations. Where appropriate, this TIP refers readers to relevant TIPs and other publications available from SAMHSA.

Understanding the Population

Homelessness has been and remains a significant problem in the United States that, according to some estimates, may affect more than 2 million people per year (Burt et al., 1999). According to recent data, approximately 650,000 people were homeless on a given night in 2009 (U.S. Department of Housing and Urban Development [HUD], 2010). Ending chronic homelessness is a Federal Government priority. Treating mental and substance use disorders as well as preventing homelessness among those affected by such disorders are priorities for SAMHSA.

The reasons for homelessness among those with mental and substance use disorders are many and varied. Both substance use and mental disorders are highly correlated with homelessness, as are loss of employment, poor health, and an inability to access needed services. In addition, systemic problems such as changes in housing markets, loss of public services or institutional supports, and persisting social ills (e.g., poverty and racism) affect who becomes homeless and why (Burt, Aron, Lee, & Valente, 2001). These systemic issues are important for understanding the causes and cures for homelessness but are beyond the scope of this literature review.

Prevalence of Homelessness

Accurate data on the number of people and families who are homeless are difficult to obtain. Assessing prevalence requires an operationalized definition of homelessness, as well as a keen understanding of sampling (e.g., geographic areas, periods of time). Prevalence estimates are difficult to interpret and can be misleading without consideration of data sources (e.g., actual counts, agency records), how to avoid counting the same people twice, how to deal with missing data, when to count (e.g., because shelter use varies by season), and so forth. Even when these factors have been clarified, enumerating people who are homeless poses considerable research challenges, and estimates of prevalence are generally imprecise. Thus, one must pay careful attention to the accuracy estimates reported (when available) for the studies reviewed herein.

A historically important study of homelessness pointed to possible underestimations of rates of homelessness in the 1990 U.S. Census and in other research studies of the time (Link et al., 1994). Using telephone surveys to gather self-reports of homelessness in a nationally representative sample of currently domiciled individuals ages 18 and older, the study found that lifetime prevalence and 5-year prevalence of “literal” homelessness (e.g., sleeping in shelters, abandoned buildings, bus and train stations) were 7.4 percent and 3.1 percent, respectively. The authors translated these percentages to national estimates of 13.5 million and 5.7 million people, respectively. The error rate for these estimates is roughly plus or minus 20 percent. Concurrent research with different methodology (Culhane, Dejowsk, Ibanez, Needham, & Macchia, 1994) generally confirmed Link and colleagues’ (1994) estimates, suggesting that the magnitude of the homelessness problem was being underestimated in the early 1990s.

From a national policy perspective, the most important current data on homelessness prevalence are from HUD. HUD (2007) uses the definition of homelessness from the 1987 McKinney-Vento
Act (using emergency shelters or transitional housing or living on the street) to develop its prevalence estimates. HUD has conducted agency counts of individuals who were sheltered as well as “street counts” of unsheltered individuals every January since 2005 (HUD, 2010).

Street counts of individuals who are unsheltered are particularly challenging, and responsibility for data collection rests with HUD’s Continuum of Care (CoC) programs—the Supportive Housing Program, the Shelter Plus Care Program, and the Section 8 Moderate Rehabilitation Single Room Occupancy Program—which were created to address the problems of homelessness in a comprehensive manner with other Federal agencies. CoC programs cover roughly 90 percent of the United States population that is homeless. The 2004 HUD Guide to Counting Unsheltered Homeless People describes several methods for street counts: (a) conduct counts in areas where people who are homeless are expected to congregate (e.g., service centers, parks, encampments, steam grates); (b) send teams to canvass every street in their jurisdiction; and (c) conduct interviews at nonshelter service locations such as soup kitchens. CoC programs use these and other methods adapted to their local circumstances.

HUD (2011) estimates, based on point-in-time counts, that 649,917 persons were homeless on a single given night at the end of January 2010—about 38 percent of whom were on the streets, in abandoned buildings, or in other places not meant for human habitation. These figures represent an increase of 1.1 percent from the prior year. Of these persons, 241,951 were members of families that were homeless, which represents an increase of 1.6 percent from the prior year.

The National Alliance to End Homelessness (Sermons & Witte, 2011) used data from HUD’s 2009 point-in-time count to come up with a slightly higher estimate of 656,129 persons homeless on a given night, which marks a 3 percent increase over the prior year’s estimate. According to this analysis of the data, at that point in time, 112,076 individuals were chronically homeless. Data also indicate that 79,652 family households and 243,156 people in those families were homeless. The number of families who were homeless increased by 4 percent over the prior year, and in some States, it increased at a much higher rate (e.g., the report estimated a 260 percent increase in families who were homeless in Mississippi). This report provides State-by-State estimates of homelessness and gives additional data on related factors such as unemployment, numbers of residential housing units, and housing costs.

According to HUD (2011) single-night-count data, 4.5 percent of people who were homeless and using shelters were veterans. HUD and the U.S. Department of Veterans Affairs (VA) produced Veteran Homelessness: A Supplemental Report to the 2009 Annual Homeless Assessment Report to Congress, which provides more detailed information on veterans who are homeless (HUD & VA, 2010). According to single-night counts, 75,609 veterans were homeless in January 2009; of those, 43 percent were not in shelters (i.e., were living on the streets or in a structure not intended for human habitation) (HUD & VA, 2010). Approximately 136,334 veterans spent at least one night in a shelter or transitional housing facility between October 1, 2008, and September 30, 2009, meaning that approximately 1 of every 168 veterans were homeless at some point during that period. Veterans were overrepresented among the homeless population, and rates of homelessness were particularly high for African American and Latino veterans (one in four of whom were homeless at some point during 2009). Most veterans who were homeless were living by themselves (96 percent), but 4 percent were homeless along with family members.
Prevalence of Mental Disorders Among People Who Are Homeless

Estimates of the prevalence of mental disorders among people who are homeless vary considerably, and much depends on methodological differences among studies, although there is no doubt that such disorders are significantly more common among people who are or have been homeless than among those who have always been domiciled (Greenberg & Rosenheck, 2010a) and are also more common among those who are chronically unsheltered compared with those living in shelters (Levitt, Culhane, DeGenova, O’Quinn, & Bainbridge, 2009).

Other quality data come from large national studies that included people who were formerly homeless. In analyses of data from both the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) and the National Comorbidity Study Replication (NCS-R), Greenberg and Rosenheck (2010a, b) found that people who had experienced homelessness in adulthood were significantly more likely to have every mental disorder included in those studies, with the exception of panic disorder with agoraphobia in NCS-R and agoraphobia without panic disorder in NESARC.

An earlier literature review on physical and mental disorders among those who are homeless (Martens, 2001) cited reports that found that anywhere between 25 and 90 percent of people who were homeless had a mental disorder. A review by Toro (2007) suggests that 20 to 40 percent of people who are homeless have a serious mental disorder, with 20 to 25 percent having depression and 5 to 15 percent having schizophrenia. In their introductory review, Greenberg and Rosenheck (2010a) note that estimates are that between 20 and 50 percent of people who are homeless have serious mental illness (SMI). Research reviewed by McQuistion and Gillig (2006) also indicates that between one third and one half of people who are homeless have SMI.

Although it did not assess particular mental disorders, the 2010 Annual Homeless Assessment Report (HUD, 2011) did ask shelter staff to count the number of adult shelter users with SMI during its single-night count (the method used to determine SMI varies from State to State, but it generally relies on participant self-report). In that year, 26.2 percent of people who were homeless and using shelters were reported as having SMI. As the report notes, the percentage of people who are homeless with SMI is likely higher, as many of those individuals avoid the shelter system.

Fazel, Khosla, Doll, and Geddes (2008) sought to determine the prevalence of mental disorders in persons who were homeless in seven Western countries (including the United States) by using a metaregression analysis of 29 surveys conducted between 1996 and 2007. Based on studies that evaluated psychotic disorders (28 of the total), they estimated that 12.7 percent of individuals who were homeless had a psychotic illness, 11.4 percent had major depression (based on 19 studies), and 23.1 percent had a personality disorder (based on 14 studies). It should be cautioned, however, that differences in behavioral health services and housing found in European countries (also included in the review) may mean that rates in the United States could vary significantly from these estimates.

Other estimates come from smaller, local studies. For example, in a 2000 survey of 298 men and 98 women recruited from shelters and public places in the St. Louis, MO, area, North, Eyrich, Pollio, and Spitznagel (2004) found that 23.1 percent of men and 18.9 percent of women had
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Koegel, Burnam, and Farr (1988) compared a sample \( \left( n=328 \right) \) of people who were homeless in the Los Angeles area—of whom 95 percent were male—with a household sample from the same area \( \left( n=3,055 \right) \). They found that the lifetime prevalence of all mental disorders/symptoms they evaluated (i.e., schizophrenia, schizoaffective disorder, major depression, dysthymia, manic episodes, panic disorder, generalized anxiety disorder [GAD], and antisocial personality disorder [ASPD]) was significantly higher among participants who were homeless.

As noted under “Histories of Trauma,” people who are homeless are more likely to have had recent and past trauma than people who are housed, and the incidence of trauma increases for those who have mental and/or substance use disorders. Consequently, rates of posttraumatic stress disorder (PTSD) are also high in this population. In their analysis of NCS-R data, Greenberg and Rosenheck (2010b) found that respondents who had experienced a week or more of homelessness since age 18 were significantly more likely than those who had always been domiciled to meet criteria for PTSD (with respective rates of 17.2 and 6.3 percent). In a sample of 487 clients who were homeless before entering a shelter-based therapeutic community for substance abuse treatment, 36 percent of the women \( \left( n=55 \right) \) and 21 percent of the men \( \left( n=50 \right) \) met diagnostic criteria for PTSD (Jainchill, Hawke, & Yagelka, 2000). North and Smith (1992) assessed PTSD in a nontreatment sample of 900 individuals who were homeless. They found that for men, 52 percent of those with major depression had co-occurring PTSD, as did 59 percent of those with GAD, 47 percent of those with bipolar disorder, 49 percent of those with schizophrenia, 43 percent of those with ASPD, 35 percent of those with alcohol use disorder, and 42 percent of those with a drug use disorder. For women in the study, 74 percent of those with major depression had co-occurring PTSD, as did 75 percent of those with GAD, 89 percent of those with bipolar disorder, 89 percent of those with schizophrenia, 68 percent of those with ASPD, 75 percent of those with alcohol use disorder, and 75 percent of those with a drug use disorder.

People who are homeless also appear to have a high rate of ASPD. North, Eyrich, Pollio, and Spitznagel (2004) looked at data from two different surveys delivered 10 years apart that reported high rates of ASPD among people who are homeless, noting that these surveys found that 22.8 and 25.4 percent of men in those studies met criteria for an ASPD, whereas 10.3 and 18.7 percent of women met those diagnostic criteria. In comparing clients at a mental health clinic who were homeless \( \left( n=166 \right) \) and domiciled \( \left( n=117 \right) \), North, Thompson, Pollio, Ricci, and Smith (1997) found that rates of schizophrenia, bipolar disorder, and somatization disorder were similar for the two groups, but that clients who were homeless were significantly more likely to have a diagnosis of ASPD. They also found that total rates of personality disorders were higher among women (but not men) who were homeless compared with those who were not homeless but still used public mental health services. Personality disorders other than ASPD were higher among men who were domiciled than among men who were homeless.

Although some have suggested that high rates of ASPD diagnoses reflect issues related to homelessness rather than the actual presence of ASPD in this population, one study of 900 individuals who were homeless in St. Louis, MO, found that symptoms usually preceded the
onset of homelessness and that rates of ASPD were not significantly affected when the ASPD symptoms thought to be confounded by homelessness were discounted (North, Smith, & Spitznagel, 1993).

An under-recognized problem among adults who are homeless may be attention-deficit/hyperactivity disorder (ADHD), which has also been linked to elevated rates of substance use disorders among adults in some studies (Levin, Evans, & Kleber 1998; Faraone et al., 2007). Although there has not been much research on the subject, one study of 81 veterans who were homeless and had a co-occurring disorder (COD) other than a psychotic disorder found that 55 percent had ADHD, even though VA treatment providers had not suspected ADHD as a possible problem in any of those cases (Lomas & Gartside, 1997).

**Prevalence of Substance Abuse Among People Who Are Homeless**

The extent to which people who are homeless have substance abuse problems is also important in understanding the needs of this population. Fazel et al. (2008) evaluated literature on substance use disorders in persons who were homeless in seven Western countries and found the most common substance use disorder to be alcohol dependence (based on samples comprising only men), which they estimated to affect 38 percent (ranging from 9 to 58 percent), followed by drug dependence (in men and women), estimated to affect 24 percent (ranging from 5 to 54 percent). Rates of alcohol and drug dependence were substantially higher in the homeless population than the general population.

According to the National Survey of Health Assistance Providers and Clients (NSHAPC), 38 percent of people who were homeless during 1995 and 1996 had indicators of alcohol problems in the past month, and 26 percent had indicators of drug problems (The Urban Institute et al., 1999). Of the survey population of 4,133 individuals who were or had been homeless, 68 percent were men (46 percent of whom reported alcohol problems and 30 percent of whom reported drug abuse problems) and 32 percent were women (22 percent of whom reported alcohol problems and 20 percent of whom reported drug problems). The NSHAPC study collected data from a nationally representative sample of homelessness assistance programs and their clients who were receiving services in those 2 years. Its 76 primary sampling areas included the 28 largest metropolitan statistical areas in the United States, 24 small and medium-sized metropolitan statistical areas, and 24 rural areas. In a reanalysis of the data from the NSHAPC, Dietz (2007) found that, for people who were homeless, being younger than 50 increased the odds of a current alcohol problem by 1.4 times, being male increased the odds by 2.7 times, being a veteran increased the odds by 1.3 times, and having a current mental disorder increased the odds by 1.5 times. The same factors also increased the chances of having a drug problem, although the odds ratios varied somewhat.

According to single-night counts from 2010 (HUD, 2010), 34.7 percent of people who were homeless and residing in shelters chronically abused substances (which represented an increase from 33.9 percent the prior year and a decrease from 39 percent in 2007).

However, data based on people using homelessness assistance services might not represent the full extent of substance use disorders among people who are homeless. North, Eyrich, Pollio, and Spitznagel (2004) studied lifetime prevalence of substance use disorders, finding that 58 percent
of single (i.e., unaccompanied) women who were chronically homeless and 84 percent of men who were chronically homeless had a substance use disorder. This study used datasets on homeless populations in St. Louis, MO, collected in 1980, 1990, and 2000. Another Midwestern study recruited subjects who were homeless from food programs and shelters (Forney, Lombardo, & Toro, 2007); here, 77 percent of men (n=161) and 55 percent of women (n=57) met criteria for a substance use disorder. Velasquez, Crouch, von Sternberg, and Grosdanis (2000) found that among a sample of 100 clients of the Service of the Emergency Aid Resource Center for the Homeless project in Texas, 60 percent reported use of illicit drugs in the prior 6 months. In an analysis of NESARC data for people who had experienced an episode of homelessness since the age of 15, 74.2 percent of respondents also met criteria for a lifetime substance use disorder; only 30.5 percent of those who had always been domiciled met such criteria (Greenberg & Rosenheck, 2010a). Other studies have found rates of substance use disorders among people who are homeless consistent with these rates (e.g., Booth, Sullivan, Koegel, & Burnam, 2002; Breakey et al., 1989; Caton et al., 2005; Koegel, Sullivan, Burnam, Morton, & Wenzel, 1999; North, Eyrich, Pollio, Foster, et al., 2004; North, Eyrich, Pollio, & Spitznagel, 2004; O’Toole, Conde-Martel, et al., 2004; Robertson, Zlotnick, & Westerfelt, 1997; Salit, Kuhn, Hartz, Vu, & Mosso, 1998).

Some research also indicates that rates of substance abuse among people who are homeless increased during the 1980s and 1990s. North, Eyrich, Pollio, and Spitznagel (2004) found that in the past 20 years, alcohol use problems have increased among women who are homeless, as has drug use among both men and women who are homeless. O’Toole, Conde-Martel, et al. (2004) observed that substance use disorders among people who were homeless appeared to increase significantly between the 1980s and 1990s. They compared a meta-analysis of surveys done in the 1980s (Lehman & Cordray, 1993) with their own research on individuals who were homeless in two urban areas in 1997. The observed increase came mainly from increases in drug use disorders.

**Primary substance of use**

According to data from the Treatment Episode Data Set (TEDS)\(^1\), alcohol was the primary substance of abuse for 49.2 percent of clients designated as homeless who were admitted to reporting substance abuse treatment facilities in 2008, followed by heroin and other opioids (22.4 percent), cocaine (13.6 percent), amphetamines (6.3 percent), and marijuana (6 percent) (SAMHSA, Office of Applied Studies [OAS], 2011). Compared with individuals who were housed at the time of entry into substance abuse treatment, people who were homeless were more likely to list alcohol, crack/cocaine, or heroin as their primary substance of abuse. Individuals who were homeless at the time of admission were also more likely to have had three or more prior episodes of homelessness than were those who were housed at the time. These results are similar to results reported elsewhere (Burt et al., 1999; Fazel et al., 2008).

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\(^1\) TEDS is an annual compilation of data on the demographic characteristics and substance abuse problems of people admitted to substance abuse treatment. The information comes primarily from facilities that receive some public funding. TEDS records represent admissions rather than individuals, as a person may be admitted to treatment more than once. TEDS includes a Minimum Data Set collected by all States and a Supplemental Data Set collected by some States. Living arrangement is a Supplemental Data Set item. TEDS presents national statistics; thus, the percentage of clients who are homeless would be considerably higher in some urban locales.
Other studies have shown that, in some locales, crack cocaine use is particularly common among people who are homeless. Rahav and Link (1995) interviewed 518 men identified as homeless who sought community-based treatment in New York, NY, between 1991 and 1994. Thirty-five percent of the men were mentally ill, 30 percent were chemical misusers, and 14 percent were identified as both. More than 47 percent of the men identified crack as their primary substance of use, compared with 20 percent who identified alcohol as their primary substance of use. Magura, Nwakeze, Rosenblum, and Joseph (2000) studied 119 women and 100 men in New York, NY, in soup kitchens during 1997, 41 percent of whom were homeless or marginally housed. Approximately 76 percent of the subjects reported lifetime use of crack, 33 percent reported lifetime use of heroin/opiates, and 29 percent reported heavy use (five or more drinks per day) of alcohol. Orwin, Scott, and Arieira (2005) interviewed 1,326 men and women in Chicago, IL, recruited from 12 substance abuse treatment facilities and categorized on a scale that ranged from stably housed to literally homeless. Interviews were conducted at baseline, then at 6, 24, and 36 months. Crack as a primary problem substance predicted greater homelessness at baseline and, among those not homeless at baseline, predicted greater homelessness at 6 months.

**Polysubstance use and more severe substance abuse**

Polysubstance use is common among people who are homeless in substance abuse treatment settings. According to 2009 TEDS admissions data, people who were homeless were more likely to enter treatment having a problem with both alcohol and drugs than were those who were domiciled (this accounted for 42.5 percent of admission who were homeless and 35.4 percent of those who were in independent living situations) (U.S. Department of Health and Human Services [HHS], SAMHSA, OAS, 2011). Also, 37.9 percent of admitted individuals who were homeless reported two primary substances of abuse (compared with 32.2 percent of those housed independently) and 21.6 percent reported three (the maximum number) primary substances (compared with 19.9 percent of those housed independently).

A study of 531 adults who were homeless (80 percent of whom were men) in Pittsburgh and Philadelphia, PA, found that the majority met the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders, Version III-R* (DSM-III-R), criteria for substance abuse or dependence (78 percent), 32 percent commonly abused combinations of two substances, and 23 percent abused or were dependent on three or more substances (O’Toole, Gibbon, et al., 2004).

Other data indicate that, in substance abuse treatment settings, people who are homeless, compared with those who are housed, have on average more severe substance use disorders as well as more severe co-occurring mental problems (Buchholz et al., 2010).

**Prevalence of People Who Are Homeless in Behavioral Health Settings**

A significant percentage of clients in substance abuse treatment are homeless. SAMHSA reports that in 2009, among those admitted to substance abuse treatment facilities with known living arrangements, 12.6 percent were designated as homeless (HHS, SAMHSA, OAS, 2011).

National data concerning admissions of people who are homeless to mental health settings do not appear to be available, but some smaller studies indicate high rates of mental health service use
among those who are homeless. For example, people who are homeless are much more frequent users of psychiatric emergency services than users of such services who are domiciled (McNiel & Binder, 2005; Pasic, Russo, & Roy-Byrne, 2005); among those with SMI, homelessness has been associated with significantly higher rates of reinstitutionalization following discharge from VA inpatient mental health settings (Irmiter, McCarthy, Barry, Soliman, & Blow, 2007).

However, among a sample of 553 people who reported mental disorders in the past year, being homeless was associated with a significantly lower likelihood of having received treatment for those problems in the past year (Small, 2010).

It should be noted that methods for determining housing status in some States are likely to undercount the number of clients who are or have recently been homeless. For instance, Tommasello, Myers, Gilis, Treherne, and Plumhoff (1999) identified coding limitations in Maryland’s Substance Abuse Management Information System (SAMIS), suggesting that homelessness among that State’s substance abuse treatment population is actually five and a half times greater than recognized.

**Behavioral Health Problems as Risk Factors for Homelessness**

Although it is difficult to assess the relative impact of behavioral health problems on an individual’s chances of becoming homeless, a few studies do provide some insight into factors that may have an effect, including two that analyze data from large national studies. It should be noted that the two surveys, NESARC and NCS-R, use different instruments to assess behavioral health disorders, use different interview methods, define homelessness somewhat differently, and ask different questions (for more information on survey differences see Center for Substance Abuse Treatment [CSAT], 2007).

Greenberg and Rosenheck (2010a) analyzed NESARC data to compare rates of mental and substance use disorders among people who reported a prior episode of homelessness (since the age of 15) and those who had never been homeless. In a model that controlled for the effects of other factors associated with homelessness, they found that people who met criteria for a mood disorder at some point during their lives were 2.37 times more likely to have been homeless, those with ASPD with conduct disorder were 3.4 times more likely, those with other personality disorders were 1.87 times more likely, those who had been given a schizophrenia diagnosis (the indicator used instead of meeting criteria given in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th Edition, Text Revision [DSM-IV-TR] of the American Psychiatric Association) were 2.39 times more likely, and those with a substance use disorder were 2.92 times more likely. Although other factors (e.g., male gender, certain physical health problems) were also associated with increased odds of having been homeless, the authors conclude that “the most prominent independent risk factors for past homelessness were the behavioral health disorder diagnoses” (p. 364).

In another article, Greenberg and Rosenheck (2010b) looked at NCS-R data for people who had experienced at least 1 week of homelessness since age 18. According to these data, again in a model that accounted for the effects of multiple variables, the authors found that a lifetime substance use disorder diagnosis was associated with 2.7 times the risk of experiencing homelessness as an adult, a lifetime mood disorder diagnosis with 1.58 times the risk, and a
lifetime impulse control disorder with 1.63 times the risk (no data were available on the effect of schizophrenia or personality disorders).

Although Greenberg and Rosenheck’s analyses (2010a,b) suggest a strong relationship between homelessness and behavioral health disorders, their data do not indicate whether those disorders generally preceded homelessness. North, Pollio, Smith, and Spitznagel (1998) did try to determine the timing of onset of mental and substance use disorders relative to experiences of homelessness by comparing a sample of 900 people who were homeless in St. Louis, MO, with a matched group drawn from participants in the Epidemiologic Catchment Area Study from the same area. They found that for all the behavioral health diagnoses they considered (schizophrenia, major depression, mania [bipolar disorder], panic disorder, GAD, ASPD, and substance use disorders), symptoms of those disorders typically preceded the onset of homelessness. However, they did not find that an earlier onset of a disorder predicted an earlier onset of homelessness (the one exception being alcohol use disorders for men). They concluded that alcohol use disorders likely contribute to homelessness, especially for men, but that there is little evidence that other disorders do, as their findings could simply reflect the natural history of such disorders.

More recently, Johnson and Fendrich (2007) examined the chronicity of illicit drug use and homelessness among a group of 627 individuals in a household survey in Chicago. They found that, after adjusting for the age of a first experience of homelessness, age of first drug use did not have a significant relationship to recent homelessness, but the age at which an individual first became homeless was significantly associated with recent drug use. They concluded that early experiences of homelessness (and/or social and family conditions related to that homelessness) influence later drug use.

Whereas Johnson and Fendrich (2007) did not address alcohol use, Sosin and Bruni (1997) did. In their analysis of data from a 1986 survey of 442 meal program users (149 of whom were homeless) in Chicago, the authors compared people who were either homeless (28 percent with alcohol problems) or very poor but still housed (35 percent with alcohol problems), finding that those who were homeless were less likely to receive public assistance, less likely to live with another adult, more likely to have been in an out-of-home placement as a child, more likely to have military experience, and more likely to have been in a mental hospital. They reviewed four models to explain how homelessness results from the interaction of substance abuse with other factors (e.g., inadequate resources, lack of social support, disinterest in social institutions, mental illness) and found that no single model explained the complexity of these interactions. Lack of work history, lack of current employment, history of mental illness, and inability to obtain welfare benefits or other institutional support all increased vulnerability to homelessness for individuals with and without alcohol-related problems. Alcohol-related problems seemed to inhibit the use of social networks to avoid homelessness, lower the resource threshold for vulnerability to homelessness, and amplify the effect of complicating mental disorders on homelessness.

However, in a 2-year study of 255 people who were homeless (using a sample drawn from both shelters and street locations), alcohol use disorders diagnosed at the start of the study did not predict housing outcomes 2 years later, but cocaine use (assessed at baseline) was significantly
associated with worse housing outcomes up to 2 years later (North, Eyrich-Garg, Pollio, & Thirthalli, 2010).

VanGeest and Johnson (2002) investigated various models for understanding the relationship between substance abuse and homelessness. They found a strong direct link between substance abuse and limited “instrumental support” (e.g., receipt of money or shelter from family or friends) and current employment status. The authors concluded from this that substance abuse indirectly influences risk of homelessness, primarily through its impact on social bonds and current employment. Individuals who are less involved in meaningful activities—like working and raising a family—may be less able or inclined to establish and maintain the social bonds others rely on during times of residential and economic instability. These authors also found that limited education and long periods of unemployment were directly linked to increased risk of homelessness during times of residential and economic instability and that substance abuse did not influence this relationship.

Some research suggests that social and environmental traits and patterns (e.g., high unemployment, increases in housing costs) might be as significant as substance abuse—if not more so—in predicting homelessness. Johnson, Freels, Parsons, and VanGeest (1997) found that a decrease in social or economic resources appeared to be a stronger predictor of a first episode of homelessness than prior drug abuse. These findings are in accord with the perceptions of people who are homeless and abuse substances. In a study by O’Toole, Gibbon, et al. (2004) of people who were homeless (78 percent of whom had a substance use disorder), 59 percent identified alcohol and drug use as a reason for becoming homeless. This was the third most commonly endorsed response after having no job (68 percent) and having no money (74 percent). Conversely, in client surveys from a National Institute on Alcohol Abuse and Alcoholism (NIAAA) project, people who were homeless listed alcohol/drug problems most often as the cause for both their first and their most recent episodes of homelessness (Leaf et al., 1993; Stevens, Erickson, Tent, Chong, & Gianas, 1993).

Prevalence of Co-Occurring Disorders Among People Who Are Homeless

The term “co-occurring disorders” refers to the presence of both a diagnosable substance use disorder and a non–substance-related mental disorder. According to SAMHSA (2002, p. 3), people with co-occurring substance use and mental disorders are:

- individuals who have at least one mental disorder as well as an alcohol or drug use disorder. While these disorders may interact differently in any one person (e.g., an episode of depression may trigger a relapse into alcohol abuse, or cocaine use may exacerbate schizophrenic symptoms), at least one disorder of each type can be diagnosed independently of the other.

Rates of CODs are particularly high among people who are homeless. For people entering substance abuse treatment, being homeless is also associated with significantly more severe mental disorder symptoms and significantly more prior hospitalizations for mental illness (Eyrich-Garg, Cacciola, Carise, Lynch, & McLellan, 2008).

Estimates of the percentage of people who are homeless and have CODs vary depending on the setting from which samples are drawn. Several studies (e.g., Bird et al., 2002; Gonzalez & Rosenheck, 2002; O’Toole, Conde-Martel, et al., 2004) have sampled individuals in the general
population, individuals who were homeless or previously homeless, and individuals with SMI who were enrolled in the Center for Mental Health Services’ (CMHS’s) Automated Community Connection to Economic Self-Sufficiency (ACCESS) program, in homeless services and shelters, or on the street. Rates of current CODs among these homeless populations range from about 30 to 70 percent, which is 12 to 30 times higher than rates in the general population.

Among users of psychiatric emergency services, rates of co-occurring substance use disorders are significantly higher for those who are homeless; in one large study, 31.6 percent of those who were homeless compared with 23.1 percent of those who were housed had co-occurring SMI and a substance-related disorder (McNiel & Binder, 2005). This range is similar to rates found in a number of other studies (Burt et al., 2001; Dickey, Gonzalez, Latimer, & Powers, 1996; Jainchill et al., 2000; North, Eyrich, Pollio, Foster, et al., 2004; North, Eyrich, Pollio, & Spitznagel, 2004; Reardon, Burns, Preist, Sachs-Ericsson, & Lang, 2003).

Several studies have found that people with substance use disorders are more likely to have CODs if they are homeless than if they are housed. For example, in comparing women with and without homelessness who used crack cocaine, Wechsberg et al. (2003) found higher rates of co-occurring depression, anxiety, and traumatic stress symptoms in the homeless sample. Wenzel, Ebener, Koegel, and Gelberg (1996) found higher rates of CODs among clients who were homeless and in substance abuse treatment in California than among those who entered treatment while housed. People with CODs may be at greater risk of homelessness because of the severity of their symptoms, denial of their problems, refusal of treatment, and tendency to abuse multiple substances (CMHS, 2003).

Several preliminary studies have attempted to identify the specific mental disorders found among persons who are homeless and have CODs. Ball, Cobb-Richardson, Connolly, Bujosa, and O’Neall (2005) studied 52 clients who were homeless and had substance use disorders and co-occurring personality disorders. They found that rates of cluster B personality disorders (antisocial, borderline, histrionic, and narcissistic) were comparable to those seen in other treatment-seeking clients. However, both cluster A (paranoid, schizoid, and schizotypal) and C (avoidant, dependent, and obsessive-compulsive) personality disorders were more common among the homeless sample. McNamara, Schumacher, Milby, Wallace, and Usdan (2001) analyzed data from a predominantly cocaine-dependent sample of 128 people who were homeless and recruited for a treatment trial based on high levels of psychiatric distress. Overall, 64 percent had a co-existing mental disorder diagnosis, the most common types of diagnoses being mood disorders (81 percent) and anxiety disorders (56 percent). As far as specific anxiety and mood disorders were concerned, the most common were major depression (48 percent), dysthymia (17 percent), major depression with partial remission (9 percent), bipolar disorder (7 percent), PTSD (24 percent), simple phobia (17 percent), GAD (11 percent), and social phobia (10 percent) (McNamara et al., 2001).

CODs for this population, as for others, are associated with more problems and often, but not always, with worse treatment outcomes. In an evaluation of a large group of adults (n=4,415) who were homeless and had SMI and for whom follow-up data were available, Gonzalez and Rosenheck (2002) found that those with CODs had worse baseline and follow-up results on clinical and social adjustment measures. Among people who were homeless and had SMI, having a co-occurring substance use disorder was one of the most frequently cited reasons for a return to
homelessness after entering supportive housing (Lipton, Siegel, Hannigan, Samuels, & Baker, 2000) or independent housing (Goldfinger et al., 1999).

However, people with CODs who are homeless can respond as well as others to behavioral health treatments if they are able to access and engage in appropriate services. McNamara et al. (2001) found that nonpsychotic mental disorders (largely depressive and anxiety disorders) did not affect substance abuse treatment outcomes for people who were homeless, diagnosed with cocaine dependence, and participating in behavioral day treatment with abstinence-contingent housing. Gonzalez and Rosenheck (2002) found that among people who were homeless and had SMI, those with a co-occurring substance use disorder who reported extensive participation in substance abuse treatment had outcomes that were as good as or better than those who did not have a co-occurring substance use disorder (on measures including days of alcohol intoxication, symptoms of depression, subjective quality of life, and criminal justice involvement). The researchers also found that among this population, a perceived need for services correlated with greater improvements in a number of outcomes during the follow-up period. They concluded that interventions aimed at improving clients’ motivation for change can be particularly useful with this population (see the “Motivation for Treatment” section).

Histories of Trauma

The lives of some people who are homeless are made more difficult by substance use and mental disorders. So too, they are often affected by histories of trauma. Traumatic experiences are defined by the DSM-IV-TR (American Psychiatric Association, 2000) as events that involve “actual or threatened death or serious injury or other threat to one’s physical integrity” or observing such events happening to others (p. 463). Homelessness itself does not meet these criteria for trauma, but people who are homeless have greater risk for experiencing trauma. The psychological repercussions of trauma include PTSD and acute stress disorder. Even if trauma histories do not result in a level of symptoms that meet diagnostic criteria, they can have repercussions for treatment.

People who are homeless are more likely than others to be exposed to a range of potentially traumatic experiences (e.g., assault, rape, exposure to the elements, unintentional injury, penetrating trauma) and to have been exposed to trauma in childhood (D’Amore, Hung, Chiang, & Goldfrank, 2001; Frencher et al., 2010; Wan, Morabito, Khaw, Knudson, & Dicker, 2006; Wechsberg et al., 2003; Wenzel et al., 2004). Substance use and mental disorders are also associated with a significantly increased likelihood of sustaining various traumas (in both childhood and adulthood), compounding the problem further (Booth et al., 2002; Wan et al. 2006).

Herman, Susser, Struening, and Link (1997) gathered information on adverse childhood experiences through a national random-digit telephone interview survey of 92 household members with a history of homelessness and 395 without such a history. They found that sexual abuse in childhood was associated with a nonsignificant increase in the odds of being homeless in adulthood (odds ratio [OR] of 1.7), whereas neglect and physical abuse in childhood were associated with much higher odds of being homeless in adulthood (ORs of 12.7 and 15.8, respectively). Individuals who experienced neglect combined with either physical or sexual abuse in childhood were 26 times more likely to be homeless as adults. The odds of being
homeless in adulthood (after adjusting for demographic factors) increased for those who had both neglect and abuse histories but decreased for those who had only one or the other. More recent research with a sample of 397 adults who were homeless also found significant associations between adverse childhood experiences and substance use/abuse as well as decreased participation in the workforce (Tam, Zlotnick, & Robertson, 2003).

Reports of recent trauma from people who are homeless vary by gender. Wenzel, Koegel, and Gelberg (2000) found that women who were homeless were more likely than men to have been sexually assaulted in the past 30 days. Men were somewhat more likely to report recent physical victimization.

**Homelessness, behavioral health disorders, and trauma**

Research has repeatedly shown a strong association between behavioral health disorders and trauma (both recent and in childhood) (see the planned TIP, *Trauma-Informed Care in Behavioral Health Services* [SAMHSA, planned j]), which, as suggested above, is likely compounded by being homeless. For example, North and Smith (1992) found that rates of trauma exposure among people who were homeless were significantly higher if individuals had a mental disorder (including substance use disorders) and that most specific disorders they evaluated were associated with significantly higher trauma exposure levels.

A review of nine studies from around the world found that among people with SMI, being homeless is associated with a significantly greater chance of being the victim of violent crime (Maniglio, 2009). Other research has found that among people who are homeless, behavioral health disorders are associated with increased risk of being the victim of violent crime. For example, Lee and Schreck (2005) studied 2,401 people who were homeless and had participated in the National Survey of Homeless Assistance Providers and Clients in 1996. Of the respondents, 74.5 percent had self-reported alcohol and/or drug problems and 68.1 percent had one or more other mental disorders. The researchers found that having substance abuse problems or mental disorders increased the likelihood—by about 40 percent and 16 percent, respectively—that a client had experienced assault, rape, and/or theft. Wenzel et al. (2004) compared women who were homeless or living in a shelter (n=460) with women who had a low income but were receiving Section 8 benefits and were thus housed (n=438). Women who were homeless had significantly higher rates of substance use disorders and were more likely than women who were housed to have sustained physical violence (34 percent versus 13 percent), sexual abuse (8 percent versus 0.5 percent), and rape (8 percent versus 0.5 percent) in the past year.

Adverse childhood events, which include childhood abuse as well as experiences such as foster care placement, domestic violence in the family, and parental deaths, have been associated with a significantly greater incidence of homelessness among people with schizophrenia spectrum disorders (Rosenberg, Lu, Mueser, Jankowski, & Cournos, 2007) and those with severe mood disorders (Lu, Mueser, Rosenberg, & Jankowski, 2008).

In a sample of 239 men who were homeless (including men in rural as well as urban communities), childhood physical abuse was associated with a 1.72 times greater likelihood of having mental health impairment (according to the Short Form Health Survey [SF-12], version 1), childhood sexual abuse with a 1.73 times greater likelihood, physical abuse in adulthood with
a 2.03 greater likelihood, and sexual abuse in adulthood with a 2.45 times greater likelihood (Kim, Ford, Howard, & Bradford, 2010).

For people who are homeless and have a substance use disorder, rates of childhood trauma (physical or sexual abuse) are especially high. Cohen and Stahler (1998) conducted indepth ethnographic interviews with 31 out-of-treatment African American men who used crack cocaine and were homeless. Most reported childhood trauma (typically involving exposure to physical and emotional interpersonal violence) often connected to gang activity. Research on African American women who used crack cocaine and were not in treatment found that women who were homeless (n=219) were significantly more likely than those who were housed (n=464) to have suffered physical abuse (42 percent versus 25 percent) and sexual abuse (40 percent versus 27 percent) before age 18 (Wechsberg et al., 2003).

In a study of both men and women living in shelters or on the street, having a substance dependence disorder was associated with higher rates of physical and/or sexual abuse, residential instability, and out-of-home placement in childhood and adolescence (Booth et al., 2002). This study assessed 1,185 people who had spent at least 1 of the past 30 nights in a temporary shelter or a setting not designed for shelter. Compared with those who did not have substance use disorders, people who reported a lifetime history of a substance dependence disorder reported higher incidences of physical and/or sexual abuse as children than people who reported never having a substance dependence disorder (12 percent of those with a lifetime diagnosis of alcohol dependence, 20 percent of those of those with a lifetime diagnosis of drug dependence, 17 percent of those with a lifetime diagnosis of alcohol and drug dependence, and 11 percent of those who had no substance dependence disorders reported this). People with a substance dependence disorder were also more likely to report violence or abuse in their homes as children that was not necessarily directed at themselves (17 percent of those with a lifetime diagnosis of alcohol dependence, 20 percent of those with a lifetime diagnosis of drug dependence, 23 percent of those with a lifetime diagnosis of alcohol and drug dependence, and 13 percent of those who had no substance dependence disorders reported this).

**Trauma rates among people who are homeless in treatment populations**

People who are homeless and in treatment for behavioral health disorders report high rates of trauma. Christensen et al. (2005) examined the prevalence of lifetime trauma experiences in people who were homeless and admitted to a Jacksonville, FL, integrated behavioral health program for people with CODs. Over 1 year, 80 percent of people admitted to this program (n=78) acknowledged a history of physical and/or sexual abuse. Of this population, 100 percent of the women and 69 percent of the men experienced a life-altering traumatic event. Jainchill et al. (2000) found high abuse rates in men and women (N=487, 62 percent male) at three New York, NY, shelter-based therapeutic community (TC) programs. Among the men, 67 percent had been physically abused and 14 percent had been sexually abused. Among women, 77 percent had been physically abused and 58 percent had been sexually abused. Trauma history and psychopathology were highly correlated, especially for women. Sacks, McKendrick, and Banks (2008) found that 69 percent of their treatment sample of women with substance use disorders who were homeless (N=146) reported childhood emotional, physical, and/or sexual abuse. They found a history of childhood abuse was associated with worse substance abuse treatment outcomes.
Traumatic experiences affect treatment outcomes among people who are homeless. In a study of veterans who were homeless (310 women and 315 men), Benda (2005) found that sexual and physical abuse in childhood, during military service, or in the past 2 years were strong predictors of being readmitted to substance abuse treatment, more so among women than among men. People in this study reported childhood sexual abuse (42 percent of women, 25 percent of men), childhood physical abuse (35 percent of women, 32 percent of men), sexual abuse while in the military (41 percent of women, 2 percent of men), physical abuse while in the military (8 percent of women, 3 percent of men), sexual abuse in the past 2 years (30 percent of women, 8 percent of men), and physical abuse in the past 2 years (25 percent of women, 35 percent of men).

Information on clinical interventions to address PTSD and substance use disorders can be found in the “Trauma-Informed and Trauma-Specific Services” section and in the planned TIP, *Trauma-Informed Care in Behavioral Health Services* (SAMHSA, planned j).

**Cognitive Problems**

People who are homeless disproportionately have cognitive disabilities, regardless of whether they have behavioral health disorders (Backer & Howard, 2007; Spence, Stevens, & Parks, 2004). Cognitive disabilities can be compounded by or result from substance use disorders, schizophrenia, traumatic (acquired) brain injury, progressive neurological disorders, and/or developmental disabilities (Backer & Howard, 2007). According to a review of 10 studies that administered the Mini Mental State Examination and were published between 1970 and 2007, between 4 and 7 percent of people who are homeless have global cognitive deficits (Burra, Stergiopoulos, & Rourke, 2009).

In Koegel and colleagues’ (1988) research (described in the “Prevalence of Mental Disorders Among People Who Are Homeless” section), 3.4 percent of those who were homeless had current cognitive impairment compared with 0.7 percent of those who were domiciled, but, as noted above, rates of all mental and substance use disorders were also significantly higher for the participants who were homeless.

Sollday-McRoy, Campbell, Melchert, Young, and Cisler (2004) evaluated cognitive functioning in 90 men who were homeless, 50 percent of whom had received treatment for mental disorders and 93 percent of whom reported substance abuse/dependence behavior (although only 7 percent had received treatment for a substance use disorder). The presence of possible cognitive impairment was detected in 80 percent of the sample. Average general intellectual functioning and reading abilities were found to be relatively low, and impairments in reading, new verbal learning, memory, attention, and concentration were high. The authors observed that the men in this study had considerable assessment and treatment needs that were not being met by most of the health and social services they were offered. Douyon et al. (1998) compared veterans who were acutely homeless (n=18), chronically homeless (n=15), and domiciled (n=20) who had diagnoses of alcohol abuse/dependence or cocaine dependence and were attending inpatient treatment for either their substance use disorder or a mental disorder. All three groups of veterans had comparable substance abuse histories and similar severity of mental illness (as determined by the Brief Psychiatric Rating Scale). Although the sample size was small, the researchers found significantly higher rates of neurological impairments (as measured by the Quantified...
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Neurological Scale) in those who were homeless than in those who were housed, with slightly higher rates among people who were acutely homeless.

Research on men and women who are homeless and have SMI also reveals high rates of cognitive impairment. Seidman et al. (1997) evaluated neuropsychological functioning in 116 persons who were homeless and who had serious and persistent mental illness, of whom 62 percent had a co-occurring substance use disorder during their lifetime. Comparing their test scores on various measures related to cognitive functioning with mean scores from general population samples, the researchers concluded that the scores of those with SMI who were homeless were from 1 to 1.5 standard deviations below normal mean scores.

In addition, Seidman et al. (2003) found that neuropsychological functioning improved significantly for people with SMI who had been living in shelters after they entered housing (independent living or group homes) but that the type of housing did not make a significant difference. However, their research did not include a “no housing” control group; improvements may have been attributable to other factors.

Not all research, however, has found such high levels of cognitive deficits in this population. In a study that compared a matched group of people who were homeless and seeking treatment for mental disorders \( (n=50) \) with treatment-seekers who had never been homeless \( (n=22) \), Bousman et al. (2010) found no significant differences in cognitive functioning. The samples excluded people with a psychotic spectrum disorder and those who were intoxicated or in withdrawal from substance use. The study did find a nonsignificant trend indicating greater impairments in processing speed and executive functioning for those who were homeless. However, the authors concluded that homelessness likely has little influence on high rates of cognitive impairment seen in earlier studies.

Backer and Howard (2007) noted a general lack of assessment, diagnosis, and treatment of cognitive disabilities in this population. The authors reviewed strategies that have been suggested for treating this population, such as taking more time to explain things or using pictures to demonstrate concepts. The National Health Care for the Homeless (HCH) Clinician’s Network (2003) has published guidelines for treating people who are homeless who have cognitive impairments. In addition, TIP 29, Substance Use Disorder Treatment for People With Physical and Cognitive Disabilities (CSAT, 1998e), contains further information on the co-occurrence of cognitive disabilities and substance use disorders as well as on treating clients with both conditions.

Prevalence of Physical Health Concerns in People Who Are Homeless

People who are homeless can have a variety of acute and chronic physical ailments, and many of their healthcare needs are unmet (Baggett, O’Connell, Singer, & Rigotti, 2010). In a review of the literature, McMurray-Avila, Gelberg, and Breakey (1999) found that the most common physical illnesses for this population were respiratory tract infections, physical trauma, female genitourinary problems, hypertension, skin and ear disorders, gastrointestinal diseases, peripheral vascular disease, musculoskeletal problems, dental problems, and vision problems. They also noted that substance abuse—the most common disorder among those who are homeless—“contributes to a wide range of other health problems resulting from self-neglect and poor
hygiene, nutritional deficiencies, trauma, exposure, accidents, victimization, toxic effects of ingested substances (e.g., hepatic cirrhosis due to alcohol), and infections (e.g., bacterial endocarditis, hepatitis, and HIV/AIDS infection due to IV [intravenous] drug use)” (p. 4).

The longer a person is homeless, the more likely he or she is to report health problems and overall poor health, which suggests that being homeless may exacerbate or even cause health problems (White, Tulsky, Dawson, Zolopa, & Moss, 1997). On the other hand, physical illness may also be a precursor to homelessness for some people, and changes in physical health may affect individuals’ ability to make a living or remain housed (Schanzer, Dominguez, Shrout, & Caton, 2007).

People who are homeless are also likely to receive worse quality medical care and have greater difficulty following prescribed care, and they may be less informed about preventive measures and treatment options for a range of conditions (McMurray-Avila et al., 1999). This may lead to increased risk of infectious illness as well as more severe medical conditions and worse outcomes (e.g., asthma, diabetes, sexually transmitted diseases [STDs], complicated pregnancies) (Schanzer et al., 2007; White et al., 1997). Some significant health problems among people who are homeless are addressed in the following sections.

### HIV/AIDS

Research suggests that people who are homeless have high rates of HIV/AIDS infection, although reported rates vary greatly depending on the settings in which assessments are made (e.g., substance abuse treatment program, primary care office, homeless shelter), method of assessment, and geographic locale. In addition, among people with HIV/AIDS, being homeless is associated with significantly worse physical and mental health (Kidder et al., 2007).

One large seroprevalence study of people who were homeless conducted from 1989 to 1992 at 16 sites across 14 cities reported an extremely wide range in seroprevalence, from 0 to 21.1 percent, with a median of 3.3 percent (Allen et al., 1994). Rates varied by geographic location and are dated, but the study does indicate how wide the variation in HIV/AIDS rates among different locations may be.

Rosenblum, Nuttbrock, McQuistion, Magura, and Joseph (2001) found that 15 percent of a sample of 139 people who were homeless or marginally housed and were users of a mobile medical clinic in New York, NY, had HIV antibodies. Although the sample included both people who had substance use disorders and people who did not, 76 percent of participants had used cocaine in the prior month, 20 percent reported injection drug use during their lifetime, and 28 percent were considered alcohol dependent (based on a nine-item screen reflecting DSM-IV-TR [American Psychiatric Association, 2000] criteria). HIV-positive status was lower in a study conducted in San Francisco by Robertson et al. (2004), who studied 2,508 adults who were homeless or marginally housed and concluded that the overall prevalence was 10 percent.

Hospital samples demonstrate even higher HIV/AIDS rates in people who are homeless. A study of people who were homeless who used a single New York, NY, public hospital emergency department (ED) over an 8-week period (n=252) found that 35 percent were HIV positive, compared with 13 percent of a control group of people who were housed who were admitted to
the ED during the same period (n=88) (D’Amore et al., 2001). Although this sample did not exclusively consider people with behavioral health disorders, rates of depression, schizophrenia, alcohol use disorders, and cocaine use were high for those who were homeless.

Salit et al. (1998) evaluated hospital discharge data for 18,864 admissions of adults who were homeless who entered hospitals in New York, NY, in 1992 and 1993 and found that 17 percent of those admissions had HIV/AIDS. For 28.5 percent of the admissions, a substance use disorder was the primary reason for admission; for 23 percent, mental illness was the primary diagnosis; in 42.9 percent and 7.3 percent of other cases, substance abuse and mental illness were indicated as secondary diagnoses, respectively. In cases where the person admitted had a substance use disorder, 22 percent also had HIV/AIDS. Although the authors used data on admissions and not on unique individuals, their analysis suggested that the findings would not vary significantly if data on individuals had been available.

Among a large group of individuals in Baltimore who injected drugs (N=2,452), people who were homeless at some point during the 10-year study (n=1,144) were more likely to be HIV positive than people who were never homeless during the study (OR=1.4; Song, Safaeian, Strathdee, Vlahov, & Celentano, 2000). Smereck and Hockman (1998) performed a large national study of people who were both homeless and housed who used illicit drugs (crack cocaine or injection drugs) but were not in treatment (n=16,366). The percentage who were HIV positive was significantly higher for those who considered themselves homeless (19 percent) than for the study population as a whole (11 percent). Similarly, Magura et al. (2000) found that being homeless or marginally housed was associated with increased exposure to HIV/AIDS (as well as hepatitis B), independent of drug use history, in a sample of 219 individuals selected from inner-city soup kitchens.

People who are homeless and have substance use disorders are likely to engage in behaviors that place them at high risk of contracting or spreading HIV/AIDS (and other STDs). Forney et al. (2007) found that people who were homeless and had substance use disorders were significantly more likely to engage in high-risk behaviors than those who did not have substance use disorders. In addition, no relationship was found between mental disorders (e.g., mood disorders and schizophrenia) and HIV/AIDS risk behaviors among those who were homeless. People who inject drugs and are homeless or unstably housed are more than twice as likely to report “needle sharing” as those who have stable housing (Des Jarlais, Braine, & Friedmann, 2007), and other research confirms that people who inject drugs and are homeless have significantly greater HIV risk than do those who are housed (Coady et al., 2007).

A study of women who were homeless found that those with substance use disorders were more likely to engage in several HIV/AIDS risk behaviors (Kilbourne, Herndon, Andersen, Wenzel, & Gelberg, 2002; Tucker et al., 2005). Other research indicates that women who abuse substances are more likely to engage in HIV/AIDS risk behaviors if they are also homeless (Wechsberg et al., 2003; Wenzel et al., 2004).

More information on the relationship between substance use/abuse and HIV/AIDS can be found in TIP 37, Substance Abuse Treatment for Persons With HIV/AIDS (CSAT, 2000c).
**Hepatitis**

Hepatitis B virus (HBV) and hepatitis C virus (HCV) are particularly common among people who are homeless and abuse substances. For example, the Rosenblum et al. (2001) study described in the “HIV/AIDS” section found a 32 percent prevalence of HCV antibodies in the sample they investigated. Nyamathi et al. (2002) investigated HCV rates among women who were homeless and their intimate partners ($N=884$, some of whom were housed). They found that 22 percent tested positive for HCV. People who used injection drugs had significantly higher rates of HCV (77 percent compared with 12 percent), as did people who had lifetime histories of alcohol abuse (30 percent compared with 15 percent), cocaine use (31 percent compared with 16 percent), methamphetamine use (32 percent compared with 21 percent), and who reported having been hospitalized for a mental disorder (35 compared with 21 percent).

Klinkenberg et al. (2003) looked at rates of HBV and HCV (as well as HIV/AIDS) among adults with co-occurring SMI and substance use disorders who were homeless ($n=114$ for whom hepatitis tests were available). They found that 44 percent had either or both viruses, 18 percent tested positive for both HBV and HCV, 14 percent tested positive for HBV alone, and 11 percent tested positive for HCV alone. Severity of substance abuse (as measured by scores on the Clinical Drug Use Scale) was correlated with the likelihood of having HBV, with every 1-point increase on that scale doubling the likelihood of being HBV-positive. A diagnosis of schizophrenia was also correlated with HBV and increased the likelihood of having HBV by four times. Injection drug use, needle sharing, and a substance dependence diagnosis all significantly increased the odds of having HCV.

More information on substance abuse treatment for clients with viral hepatitis is given in TIP 53, *Addressing Viral Hepatitis in People With Substance Use Disorders* (SAMHSA, 2011a).

**Other medical problems**

Rates of other disorders and diseases are also high among those who are homeless. Breakey et al. (1989) randomly selected 203 adults who were homeless from Baltimore shelters, missions, and a jail, all of whom received a full physical and psychological evaluation. They found that 68 percent of men ($n=120$) and 65 percent of women ($n=75$) had oral or dental problems, with about half of all participants having missing teeth and about one third having obvious cavities. Dermatological conditions affected 58 percent of men and 56 percent of women. Of the women, 64 percent had gynecological problems; 20 percent of men and 12.5 percent of women had hypertension; 15 percent of the total sample had cardiac arrhythmias; about 25 percent of both men and women had peripheral vascular problems; 32 percent of women and 26 percent of men had arthritis; and 35 percent of women and 18 percent of men had anemia. The authors did not separate rates of medical problems according to whether the participant had a co-occurring behavioral health disorder, but, at some point during their lives, 75.4 percent of men and 38.2 percent of women met criteria for a diagnosis of a substance use disorder, 42 percent of men and 48.7 percent of women had a major mental disorder, and 46.5 percent of men and 45.3 percent of women had an Axis II disorder (only 8.8 percent of men and 20.5 percent of women did not have a lifetime Axis I disorder).
Similarly, Schanzer et al. (2007) followed 445 adults (mean age of 36.9 years) for 18 months after they entered the New York, NY, homeless shelter system. At entry into the study, 6 percent were diagnosed with diabetes mellitus, 17 percent with hypertension, and 17 percent with asthma. Although the researchers did not break down the percentages of participants with these diseases who had co-occurring behavioral health disorders, 53 percent did have a substance use disorder and 35 percent had major depression upon entry. The authors also compared rates of these illnesses with rates from two other studies—one sampled the general population (ages 18 to 44 years) and the other sampled people of all ages living below the poverty line. They found rates of all mentioned illnesses among those who were homeless to be higher than the general population, but comparable—and, in some cases, lower than—those living in poverty regardless of housing status.

People who are homeless are also likely to receive worse medical care, have greater difficulty following prescribed care, and be less informed about preventive measures and treatment options for a range of conditions (McMurray-Avila et al., 1999; Wagoner, 2004). This can lead to increased risk of infectious illness as well as more severe medical conditions and worse outcomes (e.g., asthma, diabetes, sexually transmitted diseases, complicated pregnancies) (Schanzer et al., 2007; White et al., 1997).

The Boston, MA, HCH program has published a manual that discusses the medical conditions that commonly affect people who are homeless and provides information on their treatment/management. It recommends that, because people who are homeless lack control over living conditions and have difficulty managing illness, they need education about their illness, which should involve all providers who work with them (Wagoner, 2004). McMurray-Avila et al. (1999) also provide recommendations for adapting medical practice to best respond to the needs of people who are homeless.

**Mortality**

A number of studies have found significantly higher mortality rates for adults who are homeless than for the general population in the same cities (Barrow Herman, Cordova, & Struening, 1999; Cheung & Hwang, 2004; Hibbs et al., 1994; Hwang, Orav, O’Connell, Lebow, & Brennan, 1997). Hwang (2002) found that mortality was elevated during periods of shelter use compared with periods when persons were not using shelters (when they may have been housed or potentially unsheltered) but cautioned that a direct association between homelessness and mortality was not proven.

Hibbs et al. (1994) quantified the mortality rate in Philadelphia between 1985 and 1988 as 3.5 times higher for adults who were homeless than for the general population in that city. Hwang et al. (1997) looked at deaths among 17,292 adults who were homeless in Boston from 1988 to 1993 and had contact with the HCH program. The mortality rate was comparable to that found in the Philadelphia study (1,114 per 100,000 and 1,035 per 100,000, respectively). Barrow et al. (1999) used data from the National Death Index to analyze deaths among 1,260 adults who resided in shelters in New York, NY, in 1997, concluding that the mortality rate in shelters was about 4 times higher than in the general population of the United States.
O'Connell (2005) reviewed these and a few non-American studies of mortality in the homeless population and concluded that the mortality risk for people who were homeless was three to four times higher in any given year than for the general population. According to O’Connell’s (2005) review, which reanalyzed data from a number of studies, in the Boston and Philadelphia studies mentioned above, a history of alcohol use or injection drug use increased the OR of the risk of death by 1.5 and 1.6, respectively, and in the Philadelphia study, mental issues were associated with a threefold increase in mortality.

People who are homeless are also 2.5 times more likely to have a drug overdose (Seal et al., 2001), 4 times more likely to be the victim of a homicide for men between the ages of 18 and 24 (Hwang et al., 1997), and significantly more likely to contemplate or attempt suicide (Prigerson, Desai, Mares, & Rosenheck, 2003). Among women in Canada who were homeless and under the age of 45, mortality appeared to be more than 45 percent higher than in the general population of women of the same age (Cheung & Hwang, 2004).

**Employment**

It is commonly assumed that people who are homeless are also unemployed, but this is not always the case. Many work but are not able to hold steady employment. In 2006, the *U.S. Conference of Mayors Report* estimated that 15 percent of all people who were homeless had full- or part-time jobs—a number that has declined in recent years (U.S. Conference of Mayors, 2006). In their study, Burt et al. (2001) found that 44 percent of the people who were homeless had done some paid work in the prior 30 days. A single-day count of people who were homeless in King County, WA (which includes the city of Seattle), found that 20 percent were employed at least part time (Putnam, Shamseldin, Rumpf, Wertheimer, & Rio, 2007). Other large studies gauge full or partial employment rates at 20 to 35 percent for people who are homeless and use substances (O’Toole, Conde-Martel, et al., 2004; Wenzel et al., 1996; Wechsberg et al., 2003). A small study of men who were homeless and used crack cocaine but were not in treatment (*N*=31) found that 42 percent reported full-time employment in the past year (Cohen & Stahler, 1998).

Sosin and Bruni (1997) found, in a group of people attending inpatient substance abuse treatment, that lack of work history and lack of current employment—in combination with other factors (e.g., history of mental illness, inability to obtain welfare benefits or other institutional support)—made people both with and without alcohol-related problems more vulnerable to homelessness. See the “Behavioral Health Problems as Risk Factors for Homelessness” section for more information on this study.

**Specific Subpopulations of People Who Are Homeless**

People who are homeless are not a homogeneous group. Even though they share common needs, there are many different subpopulations. Understanding these subpopulations and their differences can help behavioral health service providers deliver services better suited to the specific needs of individual clients.
**Women**

Women who are homeless appear to have somewhat different behavioral health problems and treatment needs than do men who are homeless. In national data from the Urban Institute et al. (1999), women who were homeless reported less than half the rate of alcohol problems than men (22 percent versus 46 percent) and a lower rate for drug problems (20 percent versus 30 percent). However, other studies using both in-treatment and out-of-treatment samples found women who were homeless to be more likely than men who were homeless to abuse some substances, notably crack cocaine or heroin (Geissler, Bormann, Kwiatkowski, & Braucht, 1995; Royse et al., 2000).

Burt et al. (1999) found no significant gender differences in the overall incidence of mental disorders in people who were homeless (43 percent of women and 38 percent of men had current mental disorders). However, in a study comparing women and men who were homeless (women \(n=49\), men \(n=274\)), women were more likely than men to receive psychiatric outpatient treatment and psychiatric medications but reported, on average, one fourth the number of substance abuse treatment episodes (Geissler et al., 1995).

Patterns of substance use disorders appear to be different between women who have histories of homelessness or are currently homeless and women who are housed. Reardon et al. (2003) found that alcohol use disorders were significantly more common among women in Colorado who were formerly homeless than women who were never homeless, whereas the rates of alcohol use disorders were about the same in men who were formerly homeless and men who had never been homeless. In comparing women living in shelters \((n=460)\) with those of a similar socioeconomic background who were living in low-income housing \((n=438)\), Wenzel et al. (2004) found that women who were homeless were approximately twice as likely to engage in binge drinking, 3 times more likely to use illicit drugs, 13 times more likely to have a substance dependence disorder, 6 times more likely to have had a manic episode, and 8 times more likely to have had a psychotic episode. Among African American women who used crack cocaine, the frequency of use was significantly greater, as were symptoms of both depression and anxiety (the latter scored with the Drug Abuse Treatment AIDS Risk instrument), in those who were homeless than in those who were domiciled (Wechsberg et al., 2003). Other studies have also found high rates of substance use and mental disorders in women who are homeless (Caton et al., 2005; North et al., 2004; Robertson et al., 1997).

In a sample of women who were homeless, those with unsheltered status (15 or more nights of the prior 30 nights on the streets) had much higher risk of physical assault and robbery, worse mental and physical health status, greater substance use, lower likelihood of obtaining medical services, and increased sexual risk behavior (Nyamathi, Leake, & Gelberg, 2000). For more information on the specific treatment needs of female clients (regardless of housing status), see TIP 51, *Substance Abuse Treatment: Addressing the Specific Needs of Women* (CSAT, 2009d).

**Veterans**

Many veterans are homeless in the United States, and many others believe their housing situation is precarious, according to a survey of 1,005 veterans (Fannie Mae, 2007). Persons who are chronically unsheltered are significantly more likely than those residing in shelters to be veterans (Levitt et al., 2009).
VA estimates that 70 percent of veterans who are homeless have substance abuse problems and 45 percent have mental disorders (VA, 2007). Among veterans who are homeless and perceive a relationship between their military service and their homelessness, 75 percent state that the contributing factor was a substance abuse problem that began while they were in the military (Mares & Rosenheck, 2004). Research by Sosin and Bruni (1997) found that individuals who were homeless and had alcohol-related problems were more than twice as likely to be veterans as people who were homeless and did not have alcohol problems or people who were domiciled but did have alcohol problems. According to the NSHAPC, among those who are homeless, being a veteran increases the odds of having alcohol problems by 1.3 times (Dietz, 2007).

Tessler, Rosenheck, and Gamache (2002) used data from the ACCESS program (see the description in the “Assertive Community Treatment” section) for people with SMI to compare male participants who were veterans (n=1,252) with male participants who were not (n=3,236). They found that veterans were significantly more likely than nonveterans to have symptoms of alcohol dependence.

Most studies of veterans who are homeless focus on male veterans, but female veterans are also more likely to be homeless than other women, although rates of substance abuse and mental disorder severity do not appear significantly higher for female veterans who are homeless than for other women who are homeless (Gamache, Rosenheck, & Tessler, 2003). Other data indicate that veterans who are homeless may have worse treatment outcomes compared with other individuals who are homeless. Buchholz et al. (2010) found that veterans in substance abuse treatment who were consistently homeless also had significantly less improvement in Addiction Severity Index drug composite scores over the course of a year than did those who were consistently housed.

More information on treating veterans can be found in the planned TIP, Reintegration-Related Behavioral Health Issues in Veterans and Military Families (SAMHSA, planned h).

People involved with the criminal justice system

For many reasons, people who are homeless are often faced with arrest and incarceration. If they have a behavioral health disorder, they are even more likely to have been or to become involved in the criminal justice system. Roman and Travis (2004) reviewed data from multiple sources on the percentage of inmates who were homeless at the time of their arrest and expected to be homeless upon release. They concluded that “about a tenth of the population entering prison has recently been homeless, and at least the same percentage of those who leave prisons end up homeless, for at least a while. And those with histories of mental illness and drug abuse are even more likely to be homeless” (p. iv). People who are homeless and living on the streets rather than in shelters are significantly more likely to have histories of incarceration, suggesting that surveys of sheltered populations may undercount past criminal justice involvement for those who are homeless (Levitt et al., 2009).

Various studies confirm high rates of criminal justice involvement among those who are homeless. For example, Zugazaga (2004) found that 82 percent of single men (n=54), 52 percent of single women (n=54), and 33 percent of women with dependent children (n=54) living in shelters in the Central Florida area had histories of incarceration. Among clients entering
substance abuse treatment programs in urban areas in 2003 and 2004, clients who were homeless were three times more likely to report income from illegal sources than were those who were housed and had low incomes (Eyrich-Garg et al., 2008). Among people who used injection drugs, being homeless or marginally housed was also associated with a significantly higher likelihood of receiving income from illegal sources (Coady et al., 2007).

In research with a group of 1,426 individuals in San Francisco who were homeless or marginally housed (defined as residing in low-cost residential hotels), 23 percent reported that they had been in prison at some point in their lives (Kushel, Hahn, Evans, Bangsberg, & Moss, 2005). Both substance use and previous hospitalization in a psychiatric facility were associated with increased odds of also having been in prison, with psychiatric hospitalization associated with a 1.41 times greater chance of being in prison, heroin use at some during one’s life with a 1.51 times greater chance, lifetime cocaine use with a 1.67 times greater chance, and lifetime methamphetamine use with a 1.33 times greater chance. In another study in San Francisco, being homeless was associated with a twofold increase in the likelihood of having been incarcerated for people with SMI (N=308) (White, Chafez, Collins-Bride, & Nickens, 2006).

McNiel, Binder, and Robinson (2005) evaluated records from 12,934 people who were in the San Francisco jail system in 2000 and who accounted for 18,335 episodes of incarceration during that period. They found that 18.6 percent had been homeless before at least one arrest leading to incarceration. Significantly more people who were homeless were diagnosed with a mental disorder (including substance use disorders) by psychiatric staff at the jail at their time of entry compared with those who were not homeless at the time.

Greenberg and Rosenheck (2008) determined rates of homelessness in data from a national sample of adult jail inmates (N=6,953). They found that 15 percent of the jail population had been homeless in the year before incarceration—anywhere from 7.5 to 11.3 times the rate of homelessness found in general population samples. Prisoners who had been homeless were significantly more likely than other inmates to have substance use disorders and/or mental disorders. Prisoners who had been homeless were also more likely to have been incarcerated for a property crime (e.g., burglary, theft) and to have been unemployed at the time of arrest.

Other research confirms that people with substance use disorders who are homeless are more likely to be involved in the criminal justice system than other people who are homeless. Bird et al. (2002) looked at 797 adults who were homeless (360 with substance use disorders) in Houston, TX, and found that a significantly higher percentage of those with substance use disorders (43 percent) than those without substance use disorders (28 percent) had contact with the criminal justice system. Similarly, O’Toole, Conde-Martel, et al. (2004) found, in their study of 531 randomly sampled adults who were homeless, that those who had drug or alcohol dependence were significantly more likely to have been arrested in the prior year (20 percent) than were those who did not have a substance dependence disorder (10 percent).

For people with SMI, homelessness also appears to increase their risk of criminal justice involvement. According to data from a Florida county jail, for inmates who had SMI (N=3,769), being homeless was associated with a 1.69 times increase in the chances of having a misdemeanor arrest—but the odds of having a felony arrest were actually somewhat reduced for those who were homeless (Constantine et al., 2010).
Some people cycle back and forth between chronic homelessness and temporary incarceration. Metraux and Culhane (2004) analyzed data from 48,424 people who were released from New York State prisons to New York City between 1995 and 1998—11 percent entered a homeless shelter in the 2 years after their release. People who had used shelters prior to incarceration were five times more likely to use a shelter again upon release. Metraux and Culhane (2006) also analyzed prior incarceration records for 7,022 individuals who were in public shelters in New York City on December 1, 1997. They found that 23.1 percent had been incarcerated in a New York State prison or New York City jail at some time during the previous 2 years.

Among jail and prison inmates, past-year homelessness is associated with increased rates of mental illness. Among jail inmates, 17 percent of those with a mental disorder were homeless in the past year compared with 9 percent of those without a disorder (James & Glaze, 2006). Inmates with mental disorders who were homeless in the past year accounted for 13 percent of State prison inmates; those who were homeless without a mental disorder accounted for just 6 percent. In Federal prisons, 7 percent of inmates with a mental disorder had been homeless compared with 3 percent of those without. McNiel et al. (2005) found that 8 percent of jail incarcerations of people who were homeless involved someone with SMI, and of those, 78 percent had CODs. In comparison, 6 percent of incarcerations of people who were housed involved people with SMI.

A number of diversion programs are available for people with behavioral health disorders who are homeless. Depending on locale, these include homeless court programs, drug court programs, and—for individuals with CODs—mental health court programs (CMHS, 2003; American Bar Association, 2004). Information on substance abuse treatment for people involved in drug courts and similar diversion programs, as well as those recently released from prison (regardless of housing status), can be found in TIP 44, Substance Abuse Treatment for Adults in the Criminal Justice System (CSAT, 2005b). For more information on mental health courts, see Bureau of Justice Assistance (2007).

Programs for people who are chronically drunk in public, many of whom are homeless, offer treatment as an alternative to jail for those who have frequent encounters with the law over public drunkenness and related offenses (State of Washington Joint Legislative Audit and Review Committee, 1997). These programs have succeeded in some locales at reducing costs associated with criminal justice and healthcare services for this population (Dawson & Liening, 2004; Dunford et al., 2006; McDonald, 2001).

Roman and Travis (2004) discussed housing options for people returning from incarceration. In addition, Roman, McBride, and Osborne (2006) provided useful information on housing people with mental illness who have had contact with the criminal justice system, many of whom also have co-occurring substance use disorders.

Parents with dependent children

Many people who are homeless have children for whom they need to provide care. Approximately 13 percent of adults using shelters between February 1 and April 30, 2005, were members of families that included dependent children. In suburban and rural areas, this number is likely to be considerably larger (HUD, 2007). HHS’s Office of Human Services Policy (Rog,
Holupka, & Patton, 2007) prepared a detailed report titled Characteristics and Dynamics of Homeless Families With Children, which includes a literature review and discussion of sources for data about parents who are homeless and caring for dependent children. The report also provides information on behavioral health needs for this population.

Having children to care for appears to be an asset when an adult who is homeless is looking for stable housing or trying to maintain housing so as not to return to homelessness. As the Evaluation of Continuums of Care for Homeless People: Final Report (Burt et al., 2002) notes:

> In many respects, the homeless assistance systems in many communities do a better job serving families than singles. More resources are targeted to preventing families from becoming homeless, entry is often streamlined to ensure rapid placement and access to relevant services, and resources are earmarked for emergency services such as motel vouchers to ensure that no child sleeps on the street. Nonetheless, it is evident that families do face unique challenges when navigating the homeless assistance system (p. 65).

Parents with children also remain in shelters and transitional housing longer, either because policies give them priority or because the needs of dependent children motivate them to not return to the street (HUD, 2007).

A study of people who were homeless and entering substance abuse treatment (N=1,326) recruited from substance abuse treatment programs appears to confirm that having dependent children improves housing-related outcomes (Orwin et al., 2005). These researchers found that having dependent children was the most persistent nontreatment factor related to obtaining stable housing and not returning to homelessness. They suggested four possible explanations:

1. Having responsibility for children provides strong motivation to obtain and remain in housing.
2. Having dependent children enables access to more housing supports and subsidies.
3. Reverse causation is in effect (e.g., regaining custodial rights can be dependent on having stable housing).
4. This variable is a surrogate for another factor (e.g., having family support) that affects housing.

For men who are homeless, being a caregiver to one’s children has been associated with lower levels of some substance-related problems. In the Burt et al. (2001) analysis of data from the NSHAPC, men with dependent children had significantly lower levels of past-month alcohol-related problems than did men who were not with children (a similar but not significant difference is also seen between women with dependent children and women without dependent children). The study also found significantly less difference in substance-related problems between men and women who had dependent children than between men and women who did not. Also, data from the ACCESS program (see the description in the “Assertive Community Treatment” section) for people with SMI who were homeless (N=7,229) indicate that men who were accompanied by dependent children had significantly greater reductions in both alcohol and drug use 3 months after program entry than did women with dependent children (Cheng & Kelly, 2008).

In their literature review on mothers who were homeless and caring for dependent children, Rog et al. (2007) found that research indicated high levels of recent and childhood trauma, PTSD, and physical health problems in this population. Although there also were high rates of substance use
and mental disorders, those disorders were less common for these women than for women who were homeless and living without dependent children. According to research reviewed by Felix and Samuels (2006), mental disorders and substance abuse likely contribute only a small amount to housing instability for low-income families.

Zlotnick, Tam, and Bradley (2010) evaluated data from the NSHAPC for women who were homeless and living alone ($n=444$) and women who were homeless and living without partners but with dependent children ($n=405$). They found significantly higher rates of alcohol use disorders and mental disorders (but not drug use disorders) among the “single” women. Those women also were significantly more likely to meet criteria for chronic homelessness than were women with children (37.1 percent and 18.6 percent, respectively, were chronically homeless).

Using data from the Fragile Families and Child Wellbeing Study for 868 mothers whose income was 50 percent or more below the poverty line at an assessment 1 year after baseline, and 760 in the same circumstances at a 3-year assessment, Reingold and Fertig (2006) evaluated changes in housing status for low-income mothers. At the 1-year assessment, 140 mothers reported being homeless, as did 110 at the 3-year assessment, with only 18 participants reporting homelessness at both points in time. They found that mothers who were homeless, compared with those who were housed in the previous year, were significantly more likely to have a drug problem, to have fair or poor health, to be born in the United States, and to have been abused by their partner. An earlier analysis of data from the National Comorbidity Study of mothers with low incomes who were homeless ($n=220$) or housed ($n=216$) also found that drug use disorders were significantly more common among mothers who were homeless but alcohol use and mental disorders were not (Bassuk, Buckner, Perloff, & Bassuk, 1998).

Lam, Wechsberg, and Zule (2004) studied African American women who used crack cocaine but were not in treatment, comparing those who had dependent children living with them ($n=257$) with those whose children were not living with them ($n=378$). Those who were current caregivers were significantly less likely to be homeless (15 percent) compared with those who did not have dependent children (41 percent). Current caregivers also used crack cocaine on significantly fewer days in the month prior to the study (a mean of 15 days of use for caregivers compared with 19 for persons who were not caregivers) and reported significantly lower levels of depression, anxiety, and PTSD symptoms. However, the women whose children lived with them were significantly less likely to have had prior substance abuse treatment (60 percent) compared with those without dependent children (70 percent).

Zugazaga (2004) compared women living in shelters with dependent children ($n=54$) and without dependent children ($n=54$), and found that women not living with dependent children reported higher rates of current alcohol use (44 percent) and drug use (46 percent) than did women with dependent children (28 percent and 20 percent, respectively). Women with children were also less likely, but not significantly so, to have SMI (53.7 percent of those with children compared with 63 percent of those without) and were significantly less likely to have had a psychiatric hospitalization (13 percent and 48.1 percent, respectively). However, in this study and the Lam et al. study, women with dependent children may have under-reported substance use because of concerns about child custody.
Other research by Zima, Wells, Benjamin, and Duan (1996), conducted with 110 mothers with dependent children who were homeless, also found that these women were underserved by behavioral health service providers. In that study, 72 percent of the women had high levels of psychological distress, indicating a probable mental and/or substance use disorder, but only 15 percent received mental health treatment, and the majority of those individuals received such services through medical providers, not specialty mental health services.

Daily responsibility for one’s children can significantly decrease entry into treatment. In general, people who are homeless are more likely to attend inpatient (than outpatient) substance abuse treatment programs (see the “Treatment Settings” section), which often do not allow children to remain with parents. Kertesz, Larson, et al. (2006) conducted a 2-year follow-up (median length of follow-up was 15 months) of 274 individuals who had completed a detoxification program; 61 percent of the sample had been homeless at least some of the time in the 5 years before entering the study. Those who lived with their children (regardless of homelessness) were approximately half as likely (OR=0.51) to report any treatment during follow-up or any mutual-help group involvement (OR=0.53). Those who attended treatment were significantly more likely to attend outpatient programs than inpatient/residential programs, probably because child care was provided at outpatient but not inpatient treatment facilities. Findings were similar for homeless and low-income housed groups as well as for male and female study subjects.

**Older adults**

Rosenheck, Bassuk, and Salomon (1999) observe that rates of older adults among the homeless population vary considerably according to the sample. Research by Hahn, Kushel, Bangsberg, Riley, and Moss (2006) suggests that the adult homeless population is growing older. Their study found that the median age of a sample of adults ($N=3,534$) who used homeless shelters in the San Francisco area between 1990 and 2003 increased from 37 to 46 years old. During that same period, the percentage of the sample over age 50 grew from 11 to 32 percent. This reflects national trends, as the percentage of Americans aged 65 years and older has increased steadily since the beginning of the 20th century (3.1 million in 1900 and 33.2 million in 1994) and is projected to increase even more after the year 2010 (Wan et al., 2005) as “baby boomers” enter retirement age.

Conversely, a HUD (2007) national survey showed that adults aged 62 years and older made up a smaller percentage of those who were homeless (2 percent) in 2005 than they did of the general population (15 percent). The authors speculated that this is due to older adults qualifying for public programs like Social Security, Medicare/Medicaid, and senior housing, making homelessness less likely.

A survey of older adults who were homeless in the Los Angeles area found that over two thirds were male, almost 40 percent had some education following high school, and 28 percent were veterans (Shelter Partnerships, 2008). Another survey from homeless shelters in St. Louis, MO, found that individuals who were aged 50 and older ($n=89$) who were homeless and marginally housed were, compared with those under 50 ($n=511$), significantly more likely to be male and White and to have an alcohol and/or drug use disorder (DeMallie, North, & Smith, 1997). However, in CMHS’ ACCESS study ($N=7,224$) of people with SMI who were homeless, rates of co-occurring, current substance use disorders were lower for those 55 and older (68.8 percent...
had no such disorders) compared with younger cohorts (e.g., only 41.7 percent of those ages 30–39 had no substance use disorders) (Prigerson et al., 2003).

However, other research has found comparable rates of substance use disorders among older adults who are homeless and younger people who are homeless. Garibaldi, Conde-Martel, and O’Toole (2005) found that older adults (defined as over 50 years old) who were homeless \( (n=74) \) were significantly more likely to have mental health problems than were younger people who were homeless \( (n=457) \) but did not differ significantly in terms of substance use disorders, depression, or anxiety disorders. According to data from SAMHSA’s yearly TEDS survey, adults over age 45 account for 30 percent of people who are homeless and seeking substance abuse treatment compared with 19 percent of domiciled individuals seeking treatment (SAMHSA, OAS, 2006). Patterns of substance abuse among those who are homeless, however, likely vary by age (Garibaldi et al., 2005).

Mental disorder symptoms may also be more common among older adults who are homeless. In Garibaldi et al. (2005), participants over 50 were significantly more likely to report mental health problems but not significantly more likely to report depression, anxiety, or PTSD (the three most common mental disorders in the study). Older women who are homeless, according to a review of earlier research, are less likely than older men or younger women who are homeless to have substance use disorders but more likely to have SMI (Rosenheck et al., 1999).

Many older adults who are homeless are experiencing homelessness for the first time. In a multinational study by Crane et al. (2005), only 21 percent of the 122 American adults aged 50 years and older who were currently homeless reported prior homelessness. This study was not limited to those who had behavioral health disorders, but more than half the sample had a mental disorder and/or engaged in “heavy drinking,” and 64 percent reported having depression or other mental disorders.

Being older can also make it more difficult to transition back into housing after being homeless for the first time. In a study by Caton et al. (2005) of 377 single adults who were homeless for the first time, older age (in this case, being over 44 years old) was the strongest predictor of a longer period of homelessness. Again, while the study was not limited to people with behavioral health disorders, more than half the sample population met criteria for a lifetime diagnosis of an Axis I disorder.

Older adults who have experienced chronic homelessness for a large portion of their adult lives also can have difficulty transitioning to a more stable living environment. Beechem (2002) found that there is a large group of elderly men who are homeless and are long-term substance users (typically with alcohol use disorders) who, from clinician observation, are unlikely to seek or participate in treatment or housing services, and who require extensive outreach efforts to change those attitudes.

As is the case with other subpopulations, older adults who are homeless (particularly those with behavioral health disorders) are victimized much more than older adults in the general population (Dietz & Wright, 2005). Older adults who are homeless are also more likely than younger ones to suffer from physical health problems. Garibaldi et al. (2005) found that older adult participants in their survey (described earlier in this section) had significantly more
hypertension (43 percent compared with 22 percent of those under age 50) and musculoskeletal disorders such as arthritis (27 percent compared with 12 percent of those under 50), but not chronic respiratory conditions.

TIP 26, *Substance Abuse Among Older Adults* (CSAT, 1998d), contains helpful information on treating older adults in general. Preliminary research (Schonfeld et al., 2000) from a cognitive–behavioral substance abuse treatment program developed by VA for older adults (ages 60 and older) that has treated a large number of persons who are homeless (more than one third of the sample) suggests that this intervention is effective in helping people who complete the program obtain and maintain abstinence.

**Cultural/ethnic groups**

According to HUD (2007):

> Homelessness, like poverty, disproportionately afflicts minorities. About 59 percent of the sheltered homeless population and 55 percent of the poverty population are members of minority groups, compared with only 31 percent of the total U.S. population. African Americans constitute 12 percent of the total U.S. population but 45 percent of people who are homeless (p. 30).

Data from substance abuse treatment settings also indicate that people from non-White racial/ethnic groups are overrepresented among those who are homeless. For example, according to 2009 TEDS data, 29.9 percent of treatment admissions who were classified as homeless were African American (compared with 19.6 percent of those housed with independent living arrangements), 15.8 percent were Hispanic (compared with 12.9 percent), and 2.9 percent were American Indian/Alaskan Natives (compared with 2 percent) (HHS, SAMHSA, OAS, 2011).

However, the relationship of race/ethnicity, ethnic identity, and homelessness is not well understood. Gamst et al. (2006) explored the relationship of homeless status, ethnic identity, and ethnicity on functional impairment (examined with subscales of the Behavior and Symptom Identification Scale) of Latino (n=120), African American (n=88), White (n=123), and Native American (n=24) men and women who were homeless in Pomona, CA. Of the total sample, 41 percent currently used alcohol (36 percent of Latino participants, 47 percent of African American participants, 44 percent of White participants, and 33 percent of Native American participants), and 41 percent indicated that they currently or previously used some type of amphetamine (27 percent of Latino participants, 27 percent of African American participants, 63 percent of White participants, and 48 percent of Native American participants). Latino participants tended to be younger and less likely to report being victims of assault while homeless on the streets than other participants. Nearly half of the Latino participants were first-generation immigrants. Multivariate analysis of variance results for the entire sample suggested a statistically significant relationship between ethnicity and functional impairment, indicating that White and African American participants reported significantly worse functioning than Latino and Native American participants.

Among people with SMI, being African American is also associated with a significantly greater likelihood of being homeless, although Whites with SMI are more likely to be homeless than are Latinos or Asian Americans with SMI (Folsom et al., 2005).
Race/cultural background may also affect service delivery in complex ways. For example, the types of services people receive vary somewhat according to culture/race, but it is unclear to what extent this reflects institutional biases and/or different cultural attitudes toward services. Among people with SMI who are homeless, African Americans appear to make less use of mental health services than do Whites (Horvitz-Lennon et al., 2009), and African American women with depression who are homeless are less likely than White American women with depression (recruited from the same shelters) to receive antidepressants (Sleath et al., 2006). However, among people with SMI who are homeless, Latinos appear to make more use of case management services than do Whites (Horvitz-Lennon et al., 2009). The planned TIP, Improving Cultural Competence (SAMHSA, planned d), has more information on behavioral health differences among people from different cultural/racial backgrounds and on the provision of culturally responsive behavioral health services.

**Clinical Issues**

This TIP addresses the treatment of behavioral health disorders in people who are currently homeless, have histories of homelessness, or are at risk of becoming homeless. Rates of substance use and other mental disorders are about the same for individuals who are homeless and for those who were formerly homeless; the latter group should therefore be considered vulnerable for a return to homelessness (Reardon et al., 2003). For this reason, treatment providers can conceptualize homelessness as both literal and potential (Reardon et al., 2003; Sosin & Bruni, 1997). Addressing the needs of clients who are homeless often requires enhanced outreach, screening, assessment, case management, and counseling techniques.

**Outreach**

Assertive community outreach identifies people who are homeless and engages them into services. The basic barriers to engagement have not changed substantially since they were identified by Breakey (1987). These are disaffiliation (an individual’s social isolation or lack of social supports); distrust of authorities; disenchantment with service providers; high degree of transience or lack of stability in terms of geographic location; and multiplicity of needs, which can cause the individual to place behavioral health services at a low priority.

Providing outreach and engagement services may be cost effective for large service systems. In one study, outreach and intensive case management (ICM) services in an emergency room setting connected people who were homeless to entitlements and community services. Engaging them into community substance abuse treatment services decreased their use of emergency services by 58 percent compared with others who did not receive outreach and ICM services (Witbeck, Hornfeld, & Dalack, 2000).

An important element of outreach is building a trusting relationship with the person who is homeless; this process can sometimes take years (Falk, 2006; McQuistion, Felix, & Samuels, 2008). Outreach workers build trusting relationships through reliability, consistency, persistence, honesty, respect, and offers of tangible assistance (e.g., food, bus tokens, help accessing services) (Christensen, 2009; Falk, 2006; Sosin & Bruni, 2000; Sosin & Grossman, 2003; Tommasello et al., 1999).
People with behavioral health disorders who are homeless may also need to be educated about the services available to them or be convinced that services can be effective for them. Freund and Hawkins (2004) found that more than half of a sample of people who were homeless in the Pittsburgh, PA, area (N=225) believed they were not eligible for substance abuse treatment services. Of those who reported having substance abuse problems, 42 percent said that treatment services had failed them before, usually because of a lack of continuing care and residential supports.

People who are homeless are often ready to accept services other than treatment first, and they may require assistance from outreach workers and case managers to access services that would otherwise be difficult to obtain. In a study in Buffalo, NY (Acosta & Toro, 2000), people who were homeless (N=301) rated safety, education, transportation, medical/dental treatment, affordable housing, and job training/placement as most important.

People who are homeless sometimes avoid behavioral health services because they view them as not helpful or respectful (Sosin & Bruni, 2000). The outreach worker or counselor, to be effective, must use the trusting relationship to guide the client to accept appropriate services and move at the client’s pace (Wenzel et al., 2001). Often, a relationship must be established before the subject of treatment can be broached (Christensen, 2009).

Assertive outreach, however, can be successfully used to move people with substance use disorders who are homeless into treatment. In a small (N=73) study of people who had a primary diagnosis of a substance use disorder and were homeless, assertive outreach was successful in motivating 41 percent of the sample to enter treatment (Fisk, Rakfeldt, & McCormack, 2006).

**Motivation for Treatment**

Velasquez et al. (2000) found that a majority of people who were homeless and presented for services in a drop-in center (N=100) acknowledged that they drank (53 percent) or used drugs (71 percent) “too much” and had high levels of psychological distress (i.e., had a mean score on the Global Severity Index in the 93rd percentile for men and 97th percentile for women). Using the transtheoretical model (Prochaska, DiClemente, & Norcross, 1992), Velasquez et al. (2000) found that 54 percent of the people who reported alcohol use in the prior 6 months were in the precontemplation stage of change and 40 percent were in the contemplation stage. Among people who reported use of drugs, 30 percent were in the precontemplation stage of change and 60 percent were in the contemplation stage. Motivation for change requires that the individual want to change (e.g., problem recognition, desire for change) and believe that change is possible (e.g., be able to change, have access to treatment and other needed services and resources).

As noted in the prior section, for people with behavioral health disorders who are homeless, shifting motivation for behavioral health services can take time, and mental health workers may need to focus first on helping potential clients meet more immediate, instrumental needs. If appropriate services are not available, the worker or case manager should advocate in the community for services that better respond to the client’s needs (McQuistion et al., 2008). Other factors that increase readiness for behavioral health treatment include accurate communication about the treatment program, its services, and its effectiveness; a considerate and respectful approach; affordable housing and medical and dental care; vocational services; and participants’
experiences and satisfaction with services (Acosta & Toro, 2000; Freund & Hawkins, 2004; O’Toole, Conde-Martel, et al., 2004; Sosin & Grossman, 2003). In a study in Baltimore, 42 percent of people contacted through street outreach \((n=4,428)\) were engaged into substance abuse treatment services by using many of the aforementioned approaches (Tommasello et al., 1999).

Personal factors that increase readiness for substance abuse treatment among people who are homeless relate to problem recognition, desire for help, childcare responsibilities, and physical health problems (Nwakeze, Magura, & Rosenblum, 2002). Factors that predicted greater recognition of substance use/abuse problems were a diagnosis of depression, previous treatment experience, and having a job and/or job skills. Factors significantly associated with more desire for help were intensive drug use patterns, higher frequency of use, and more recognition that substance use was causing personal problems. Gerdner and Holmberg (2000) suggest that people who believe they have a lot to lose by continuing their substance abuse are more motivated to enter treatment than those who believe they have nothing to lose. In a sample of 274 persons who sought care in a public detoxification center (61 percent of whom had experienced homelessness in the prior 6 months), use of subsequent treatment services was associated with higher levels of motivation for abstinence from substance use and with higher perceived consequences of substance abuse (Kertesz, Larson, et al., 2006). Persons whose social environments had higher rates of substance abuse were less likely to enter substance abuse treatment.

**Access to Behavioral Health Services**

In spite of a demonstrated need for services, people who are homeless often encounter barriers to accessing behavioral health services. Those who do not seek health services tend to have higher levels of substance use disorders than those who do seek services (Tommasello et al., 1999), and those with substance use disorders who do not enter substance abuse treatment are more likely to be living on the streets than in shelters (Nyamathi et al., 2000).

In a study of people who were homeless in Philadelphia, PA, and Pittsburgh, PA \((N=531)\), 72 percent met criteria for a substance use disorder. Of these, 50 percent did not receive treatment in the previous year; 77 percent of those who received treatment did not feel it was adequate and would have sought more if it were available (O’Toole, Freyder, et al., 2004). Reasons for not being able to access additional treatment \((n=72)\) included a lack of insurance or money to pay (56 percent), changing their mind while on a waiting list (49 percent), or programs being full (47 percent).

People who are homeless also experience significant barriers to accessing methadone maintenance services. Deck and Carlson (2004) reviewed records for 8,362 Medicaid-eligible individuals from Oregon and 10,604 from Washington State who entered substance abuse treatment between 1992 and 2000 with opioids as their primary substance of abuse. Being homeless significantly reduced the odds that these clients would receive methadone, even though Medicaid would pay for it (the OR in Oregon was 0.29; in Washington, 0.55). A study that used data from SAMHSA’s 1998 TEDS found that people who were homeless and eligible for methadone maintenance treatment were significantly less likely to be placed in methadone maintenance than were people who were housed (Rivers, Dobalian, Oyana, & Bae, 2006). Similarly, an evaluation of treatment entry between 1996 and 1999 of people using injection
drugs in Massachusetts \((N=32,173)\) found that people who were homeless were significantly less likely than people who were housed to enter methadone maintenance treatment (Lundgren, Schilling, Ferguson, Davis, & Amodeo, 2003).

The use of assertive community treatment (ACT) teams (see the discussion in the “Assertive Community Treatment” section) can also improve treatment entry for people who are homeless. Bradford et al. (2005) describe a shelter-based intervention in which the clients who worked with the same psychiatric social worker and psychiatrist throughout the intervention entered substance abuse treatment and mental health services at higher rates than did clients who received standard consultation and met with whatever program psychiatrist was available. Of those who received the intervention, 51 percent entered a substance abuse treatment program or went on to attend both a screening session and at least one follow-up session, whereas just 13 percent of those who received standard psychiatric services did so.

**Treatment Retention**

Retention of people who are homeless may be a problem for all types of behavioral health services, but research on the subject relating to people who are homeless has focused almost entirely on substance abuse treatment services. However, many of the strategies suggested by this research can also be applied to clients being treated for mental disorders.

Erickson, Stevens, McKnight, and Figueredo (1995) found that length of stay in substance abuse treatment and greater improvements in substance use and housing outcomes were related to motivation, readiness, and suitability for treatment. Dropout rates are high for people who are homeless in substance abuse treatment—up to 90 percent according to some studies (Sosin & Grossman, 2003). One multisite, multiple-intervention evaluation found that retention was a greater problem in substance abuse treatment programs for people who are homeless than in programs that treat the general population (Orwin, Garrison-Mogren, Jacobs, & Sonnefeld, 1999). Most of the 15 programs evaluated lost more than 80 percent of their clients. Common reasons for dropping out were lack of motivation; desire to return to family, friends, or prior activities; delayed start to treatment (e.g., being on a waiting list before entering the program); dissatisfaction with program structure or demands; dissatisfaction with program environment (e.g., lack of privacy, lack of activities); difficulty finding transportation; and perceiving no value in program activities.

To improve retention, Orwin et al. (1999) suggest that providers:

- Eliminate or decrease waiting times between enrollment and entry.
- Orient clients with a realistic view of program expectations.
- Increase contact with case managers.
- Make services more accessible (e.g., by scheduling more hours when services are available).
- Improve program facility environment.
- Improve responsiveness to client-specified needs (e.g., housing).
- Invite families to come to the program early to increase their understanding of the program.
- Increase opportunities for recreation and self-improvement.
- Improve relapse prevention efforts.
Orwin et al. (1999) also found that providing housing had the single greatest effect on improving retention. Burt and Anderson’s (2005) evaluation of State-funded supportive housing programs for people with SMI in California supports this finding. They found the correlation of the percentage of clients housed and the percentage of clients retained by those programs to be 0.929 (see also the “Housing” section).

For women who are homeless and have children in their care, residential programs that allow those children to remain with the client are more likely to retain those clients than programs where women are separated from their children. Research conducted largely with women who were not homeless has found this to be the case (for more information, see TIP 51, Substance Abuse Treatment: Addressing the Specific Needs of Women [CSAT, 2009d]). One study conducted with women who were homeless also appears to confirm it. Smith, North, and Fox (1995) compared an outpatient treatment program—where women attended treatment during the day with their children but had to find their own housing (with or without their children) after treatment concluded (n=82)—with a residential TC program where women lived on site with their children (n=67). The clients assigned to day treatment were more likely to miss their first session and to drop out once treatment began. However, dropout rates were high for both groups, with 75 percent of the nonresidential group and 50 percent of the residential group leaving by week 12 of the 1-year program. Supportive housing programs that allow single parents with SMI to stay with children are also becoming available, and one such program suggests that it is having a positive effect on both parents and children (Emerson-Davis Family Development Center, 2000); however, formal evaluations of such programs have been and remain a challenge (Nicholson, Hinden, Biebel, Henry, & Katz-Leavy, 2007; O’Campo et al., 2009).

Other research indicates that, among veterans who were homeless when they entered a program that combined substance abuse treatment with social and vocational rehabilitation (N=596), women were more likely to be retained in treatment than men, and those who were younger (i.e., in their 20s) were more likely to be retained in treatment than those who were 50 or older (Justus, Burling, & Weingardt, 2006). People with depressive disorders had higher retention rates than those without, whereas those with current personality disorders had lower rates.

Stahler, Cohen, Greene, Shipley, and Bartelt (1995) interviewed men who were in substance abuse treatment, diagnosed with cocaine use disorders, and homeless. The men rated sobriety as their primary indicator for treatment success. They also endorsed being better able to deal with emotions, handle money, take responsibility for their own lives, handle stress, develop and pursue personal goals, get and hold a job, find and stay in housing, and have a more positive self-image. Client and program attributes endorsed by both clients and providers were (in order of importance) client self-motivation; a program treatment culture with strong, supportive relationships among fellow clients and staff; 12-Step meetings offered on site or nearby in the community; and social support from clients’ relatives and friends.

Kraybill and Zerger (2003) described six substance abuse treatment programs that have made changes to better serve clients who are homeless. Program modifications include placing high priority on obtaining stable housing; a holistic, client-centered approach; and developing strong relationships.
Behavioral Health Interventions

A wide range of evidence-based treatment modalities and interventions are available to aid in the treatment of people who are homeless and have behavioral health disorders. Many of these interventions are applicable regardless of whether the clients have substance use and/or mental disorders. A few interventions specific to mental health or substance abuse treatment settings are also discussed in the “Treatment Settings” section. The discussion in this section highlights only those interventions that have been evaluated specifically with people who are homeless.

Few data, however, are available comparing different behavioral health interventions for this population. O’Campo et al. (2009) reviewed 10 effective or promising programs for this population and extracted six core principles that help reduce mental and substance disorders among people who are homeless:
1. Placing an emphasis on client choice in making decisions about treatment.
2. Developing positive relationships between clients and providers.
3. Using ACT approaches to service delivery.
4. Providing housing (particularly supportive housing).
5. Helping clients with instrumental needs (e.g., food, recreation, money management).
6. Having flexible, nonrestrictive policies.

Motivational Interviewing

Motivational interviewing (MI) is incorporated into many services for working with people who are homeless, including substance abuse treatment; transitional, permanent, and supportive housing programs; ICM services; and outreach services (Fisk, Sells, & Rowe, 2007; Kraybill & Zerger, 2003; NIAAA, 2005; Winarski et al., 1998). MI is a semidirective, client-centered counseling style that elicits behavior change by helping clients explore and resolve ambivalence. It facilitates the development of the trusting relationship and the decision to make a change. Bernstein et al. (2005) found that a brief motivational intervention delivered in a walk-in healthcare clinic by peer counselors was associated with improved abstinence rates and reductions in opioid and cocaine use (measured by hair testing). Of their total sample \(N=1175\), 43 percent of the intervention group and 49 percent of the control group were homeless. More information on motivational interviewing can be found in TIP 35, Enhancing Motivation for Change in Substance Abuse Treatment (CSAT, 1999b).

Community-Based Intensive Case Management Services and Treatment

Integrated ICM teams and ACT teams can effectively engage people who are homeless and have substance use and/or mental disorders into services. ACT is the more clearly defined model, but both involve a greater level of case management than is typically available. (For a detailed comparison, see Schaalde, McGrew, Bond, & Epstein, 2002.) For people with mental disorders, case management can improve symptoms of mental illness, and ACT can decrease psychiatric hospitalizations; for those with substance use disorders, case management is associated with greater reductions in substance use than usual care (see the review by Hwang, Tolomiczenko, Kouyoumdjian, & Garner, 2005).
**Intensive case management**

ICM effectively engages people who are homeless into services that would otherwise be difficult to access. ICM includes assertive and persistent outreach, reduced counselor caseloads, participant-set priorities, development of trusting relationships, and active assistance in accessing needed resources. The case manager (or counselor, as appropriate) follows the client through transition into services and provides support until the client is able to function either independently or in mainstream services without ICM support. See TIP 27, *Comprehensive Case Management for Substance Abuse Treatment* (CSAT, 1998a), and TIP 42, *Substance Abuse Treatment for Persons With Co-Occurring Disorders* (CSAT, 2005c), for more information on ICM services.

As discussed in the “Assertive Community Treatment” section, when high-quality, integrated clinical case management services and appropriate community resources are available, ICM for people who are homeless can be as effective as ACT (Essock et al., 2006). However, according to a review by Nelson, Aubry, and Lafrance (2007), the sizes of effects on housing for ICM interventions are smaller than those seen with ACT interventions, and both are smaller than supportive housing interventions.

Morse (1999) outlines four reasons why providers consider ICM an important service for people who are homeless:
1. People who are homeless have multiple, often extensive, unmet needs.
2. The services needed by people who are homeless are often delivered through a fragmented system of care involving multiple providers.
3. The structure of the service system often presents barriers for people who are homeless, making it even more difficult for them to access services.
4. Case managers are able to facilitate access to services and coordinate services from multiple providers in ways other staff might not be able to or have time for.

Kilbourne et al. (2002) found that women who were homeless (N=974) and had a case manager were less likely to inject drugs than those who had no case manager. Another study found that people diagnosed with alcohol dependence who were chronically homeless or at high risk of homelessness and had a case manager demonstrated improved income from public programs, increased number of nonhomeless nights, and decreased number of days drinking (Cox et al., 1998).

Adding ICM to behavioral health services that have readily available, easily accessed, comprehensive services was found to have little effect on treatment outcomes. This suggests that such services may have a greater impact in environments featuring available, but not easily accessed, services (Braucht et al., 1995; Conrad et al., 1998). Rosenheck (2010) reviewed a few studies that demonstrate that ICM is usually cost effective when used with people with behavioral health disorders who are homeless.

**Critical time intervention**

Critical time intervention (CTI) is an evidence-based ICM approach developed by Susser et al. (1997) to assist clients in the transition from shelter to community. CTI emphasizes the case
manager’s continued support of the client before, during, and after a housing or service transition is made. The point of CTI is that, after discharge from an institutionalized environment, people with mental disorders need high-level services to keep them engaged in order to prevent homelessness and worsened behavioral health problems. CTI has been applied in other stressful transitional situations as well.

CTI case managers follow clients closely—for example, making home visits and negotiating client needs with new service providers long after a housing or other service transition (see the description in Herman & Mandiberg, 2010). CTI can prevent recurring homelessness among people with mental disorders who are or were homeless (Jones et al., 2003; Kasprow & Rosenheck, 2007; Lennon, McAllister, Kuang, & Herman, 2005; Susser et al., 1997). CTI is also associated with significant reductions in drug and alcohol use for veterans with mental disorders (Kasprow & Rosenheck, 2007) and with significant reductions in negative symptoms of schizophrenia (measured with the Positive and Negative Syndrome Scale) for men with psychotic disorders (Herman et al., 2000). In Canada, a program similar to CTI for people with no fixed address upon discharge from psychiatric wards also has been used with excellent results (Forchuk et al., 2008).

Jones et al. (2003) compared the effects of CTI and a “usual care” condition at multiple VA sites. The usual care condition included referrals to mental health, rehabilitation, and other community programs. Participants in this condition could contact their shelter case managers, but the managers did not visit them or actively arrange for services beyond initial transition to housing. The study showed CTI to be cost effective when the costs incurred during the 9 months of intervention were compared with costs incurred during the 9 months following intervention (Jones et al., 2003). The CTI group experienced 58 fewer homeless nights than the usual care group over an 18-month period, and the additional cost of CTI was estimated to be $152 per nonhomeless night. More information on CTI is provided on the National Registry of Evidence-Based Programs and Practices (NREPP) Web site (http://nrepp.samhsa.gov/).

CTI, with the addition of services related to family preservation and parenting skills, has also been adapted for use with families with young children who are homeless (Samuels, 2010). A program evaluation of family CTI (FCTI) for single mothers with mental and/or substance use disorders who were homeless found that, at an assessment 15 months after program entry, participants in FCTI were significantly more likely to be in permanent or transitional housing and to have had substance abuse treatment than were mothers in the control group (Samuels, Shinn, Fischer, Thomkins, & Park, 2006).

**Assertive community treatment**

ACT was originally developed to help people with SMI who were living in the community and would otherwise be at high risk of institutionalization. ACT features teams made up of multidisciplinary staff, including social workers, nurses, psychiatrists, substance abuse counselors, specialists in supported employment, peer counselors, and others. As applied to homeless populations, ACT places participants in housing in the community (either congregate or scattered site) and the ACT team is located off site. Many services are provided in the participants’ natural environments (e.g., apartment, workplace, neighborhood). Participants are engaged into treatment and other services through frequent contacts, a team approach with
manageable caseloads, and a long-term commitment from the ACT team. To accommodate the needs of people who are homeless and diagnosed with CODs, ACT teams should include outreach workers, peer advocates, and family outreach coordinators (Lehman, Dixon, Hoch, et al., 1999; Lehman, Dixon, Kernan, et al., 1997). These modifications are associated with greater satisfaction with family relations and more stable housing (Hackman & Dixon, 2006). Other modifications include the use of small teams made up of a case manager, a psychiatrist, and a consumer advocate, and also the use of drop-in and office-based services (Hackman & Dixon, 2006).

Coldwell and Bender (2007) conducted a meta-analytic review of 10 studies of ACT interventions for people with SMI who were homeless, involving a total of 5,775 participants. They found that, in six randomized trials that made comparisons with standard case management, ACT resulted in a 37 percent greater reduction in homeless and a 26 percent greater improvement in mental disorder symptom severity. In four observational studies, more improvements in housing and mental disorder outcomes were seen.

Another review of interventions to improve health (both behavioral and physical) among people who are homeless also discussed research on ACT (Hwang et al., 2005). These authors found good data supporting the claims that ACT can, for people with mental disorders, reduce some types of mental disorder symptoms and psychiatric hospitalizations, but they cautioned that not all studies have found such effects on mental disorder symptoms associated with ACT use.

Morse (1999) reviewed research on ACT for people who were homeless and had mental disorders. He concluded that there was extensive research supporting the effectiveness of ACT in helping that population obtain stable housing and other needed services and somewhat less, but still promising, research suggesting that ACT was effective in reducing mental disorder symptom severity; reducing inpatient hospitalization and emergency room use; engaging and retaining people in treatment; and increasing family contacts, life satisfaction, income, self-esteem, employment, and social interaction. A couple of the studies reviewed also addressed substance abuse outcomes for people with CODs, suggesting that use of ACT was associated with better substance abuse outcomes than brokered case management and better retention and housing stability for all but those with the most severe substance use disorders.

The 5-year multisite ACCESS demonstration program examined the effectiveness of system-change strategies for improving interagency collaboration in providing services to people who were homeless and had SMI and CODs (Randolph et al., 2002). Part of this project was an evaluation of intensive outreach and time-limited ACT services. Rosenheck and Dennis (2001) looked at outcomes for clients who received 12 to 18 months of ACT services in the fourth annual cohort of ACCESS. At an 18-month assessment, people who received more treatment had improved outcomes on measures of drug use and housing, but clients who were discharged from the program according to ACT team clinical judgment did not have significantly different outcomes from those who continued in the program for the full length of the study. In addition, participation in ACCESS was associated with significant decreases in psychiatric hospitalizations and increases in the use of outpatient services. After entering ACCESS, participants also experienced better continuity of care following hospital episodes, suggesting that the program was effective at linking participants to services in their communities (Rothbard, Min, Kuno, & Wong, 2004).
Kenny et al. (2004) compared ACT \( (n=105) \) and brokered case management \( (n=60) \) for people with SMI who were homeless; they also explored possible mediating or moderating factors related to ACT outcomes. Participants who received ACT had better outcomes in terms of housing and mental disorder symptoms. Housing outcomes were partially mediated by case management assistance with housing and financial assistance, but none of the mediating or moderating factors the researchers evaluated had a significant effect on mental disorder symptom outcomes.

In ACT, the appropriate level of service intensity depends on the participant’s needs and the accessibility and availability of integrated services in the community. In a randomized trial, Essock et al. (2006) compared ACT and integrated intensive clinical case management. Participants \( (N=198) \) were homeless and diagnosed with a major psychotic disorder and an active substance use disorder; they had high levels of medical/mental health service use and poor independent living skills. ACT team services were similar to those previously described and had a staff–participant ratio of 1:10 or 1:15. The intensive clinical case management teams comprised clinicians from different disciplines and had individual caseload ratios of about 1:25. The two conditions were equally effective at reducing substance use after 3 years, with about one third of all participants achieving substance use remission. ACT services reduced hospitalization significantly at the site that had higher hospitalization rates. The authors suggested that the findings were affected by the quality of the community programs at both sites and the incorporation of many ACT values and techniques into the intensive clinical case management services. They concluded that the structure of service delivery is less important than developing and maintaining necessary skill sets among treatment staff. However, ACT is the preferred integrated treatment delivery model when high-quality, integrated clinical case management services and appropriate community resources are lacking.

In a small study \( (N=85) \) of cost-effectiveness, average costs of two different ACT models (one involving the addition of community workers to aid clients in community participation) did not differ significantly from that of brokered case management in spite of significantly better outcomes in a number of areas for ACT participants (Wolff, Helminiak, Morse, & Calsyn, 1997). Costs were about 12 percent lower for the ACT model that added a community worker compared with standard ACT, but the difference was not significant.

**Interventions to Improve Social and/or Family Support**

People who are homeless, especially those with behavioral health disorders, typically have very low levels of social and/or family support (Lam & Rosenheck, 1999). Improving the connections people who are homeless have with their social support systems (e.g., family, friends, mutual-help groups) may help prevent a return to homelessness after treatment completion.

Research has found that, among those who are homeless, greater emotional support from informal social networks is associated with better mental health (as measured with the SF-12) (Hwang et al., 2009). Outside of treatment settings, informal social networks (involving support from family and friends) also play an important role in recovery for people with behavioral health disorders who are or recently have been homeless (Wong, Matejkowski, & Lee, 2011). Lam and Rosenheck (1999) analyzed data from the ACCESS program regarding social support and service use. They found that greater social support (whether from family or friends) was
associated with the use of significantly more services, and certain types of support (e.g., greater contact with one’s family of procreation) were associated with significantly more frequent use of certain types of services (e.g., medical services).

Zlotnick, Tam, and Robertson (2003) followed 397 individuals who were homeless for a 15-month period and found that support from family, friends, and social services shortened the course of homelessness, but only for people who did not meet diagnostic criteria for a current substance use disorder. The authors speculated that current substance use interferes with the benefits of connecting to social supports. Another study, involving 4,778 adults with SMI who were homeless (43 percent of whom also had alcohol dependence and 39 percent of whom had drug dependence), found that more contacts with family and greater satisfaction with family relationships were both associated with significantly more days in stable housing (Pickett-Schenk, Cook, Grey, & Butler, 2007).

On the other hand, a lack of social support likely has a detrimental effect on behavioral health treatment outcomes and participation. Kingree, Stephens, Braithwaite, and Griffin (1999) found that among low-income individuals who had completed a residential substance abuse treatment program, the only significant risk factor (among those measured, including continued substance use) for subsequent homelessness was lack of social support.

In a study of sources and types of support for 252 individuals with SMI who were residing in supportive housing, family (rather than friends or service staff) was the greatest source of emotional, tangible, and problem-solving support, although also the greatest source of negative interactions (Wong, Matejkowski, & Lee, 2011). Participants also reciprocated support with family more often than with friends or providers, which is important given that mutual exchanges of tangible and problem-solving support were significantly associated with satisfaction with one’s social network, as was having more people involved in such transactions.

Interventions, such as filial therapy, are also available to help parents who are homeless with their dependent children improve family relations. Kolos, Green, and Crenshaw (2009) describe how to implement such programs and their potential benefits.

**Peer Counselors, Faith-Based Supports, and Recovery Supports**

Peer counseling and other forms of peer assistance are a low-cost way to assist clients. Building social support from peers, in and of itself, can improve behavioral health disorders. As noted above, under “Interventions to Improve Social and/or Family Support,” building social support from peers can improve outcomes for people with behavioral health disorders who are homeless. This can take the form of developing a peer mentoring program or linking clients to existing peer support groups such as 12-Step groups (e.g., Alcoholics Anonymous [AA], Narcotics Anonymous [NA], Double Trouble in Recovery) or the National Alliance on Mental Illness’ (NAMI’s) Connection Recovery Support Groups.

Stahler et al. (1995) found that shelter-based case management provided primarily by peers produced results comparable to those for standard case management services provided by professionals in an integrated, comprehensive, residential behavioral health treatment program. For a group of African American women who were homeless and currently living at a residential
treatment program, the addition of peer mentors (drawn from African American churches and other faith communities) improved retention, client satisfaction with the program, and long-term abstinence (according to self-report 18 months after treatment) (Stahler et al., 2005). Bernstein et al. (2005) also found that a brief, peer-delivered motivational interview delivered during health clinic visits was effective in reducing substance use among people who were homeless.

In a small study (N=18), Boisvert, Martin, Grosek, and Clarie (2008) found significant improvements in Medical Outcomes Study Social Support Survey subscales reflecting emotional support, tangible support, and affectionate support as well as significant decreases in relapse rates after instituting a peer support program in a supportive housing environment.

Consumer-run drop-in centers for people with mental disorders are valuable sources of peer support for people who are homeless (see the description of these programs in Brown, Wituk, & Meissen, 2010). Although research has not been conducted exclusively with people who are homeless, studies do indicate that such centers are effective at improving well-being and social functioning for people with mental disorders (see reviews by Campbell, 2005; Teague, Johnsen, Rogers, & Schell, 2011). Participant comments and clinical observations from a peer-run drop-in center for people with SMI (a large percentage of whom were homeless) suggest that such programs can build self-esteem and serve as sources of social support (Schutt & Rogers, 2009).

Wong, Nath, and Solomon (2007) described a variety of groups and organizations being used by people with SMI who were residing in supportive housing (e.g., 12-Step groups, mental health clubhouses, advocacy groups, faith-based organizations). Participation in mutual-help groups, in particular, benefited people who were homeless and had behavioral health disorders. In research by Gonzalez and Rosenheck (2002) with people with CODs who were homeless, participants with a high level of participation in mutual-help groups had significantly better outcomes on measures of alcohol-related problems than did those with no or little participation in mutual-help groups. Participation in these groups was strongly associated with the use of professional treatment services. The planned TIPs, *Behavioral Health Services: Building Health, Wellness, and Quality of Life for Sustained Recovery* (SAMHSA, planned c) and *Recovery in Behavioral Health Services* (SAMHSA, planned g), contain more information on the use of mutual-help groups to support people with behavioral health disorders.

**Medication-Assisted Treatment**

Various medications are now available to treat both substance use and mental disorders, but people who are homeless may have more problems accessing and using such medications. Research suggests that a significant percentage of all people who are homeless have trouble complying with any medication regimens (Kushel, Vittinghoff, & Hass, 2001), and rates of noncompliance are higher for people with SMI who are prescribed psychotropic medications (see, e.g., Dixon, Weiden, Torres, & Lehman, 1997).

**Medications for mental disorders**

Adherence to medication regimens is an issue for clients who are homeless; they can have difficulties understanding medication instructions, keeping to a schedule, obtaining medication,
and storing medication once it is obtained (Morrison, 2007). Gilmer et al. (2004) found, in an analysis of 2 years of Medicaid data for 2,801 individuals with schizophrenia, that being homeless was associated with the lowest adherence rate (only 25.9 percent of those who were homeless adhered to prescribed regimens) of any of the variables they analyzed.

Helping clients who are homeless obtain insurance benefits (see the “Help Obtaining Public Assistance” section) can significantly reduce barriers to medication compliance (Kushel, Vittinghoff, & Hass, 2001). Providing treatment that helps clients manage housing and other service needs may also improve adherence. Dixon, Weiden, Torres, and Lehman (1997) looked at medication adherence among a group of 77 people who were homeless and had SMI before and after they entered an ACT program. Although 29 percent adhered to medication regimens before entering the program, that percentage increased significantly to 57 percent 3 months after program entry and fell only slightly from the 3-month level at 1 year after entry.

Supported housing environments also appear helpful in promoting medication adherence. Magura et al. (2002) found a significant association between supportive housing and adherence in their study of 240 individuals with CODs attending Double Trouble in Recovery meetings. Velligan et al. (2010) reviewed findings from an expert clinical survey regarding treatment adherence for people with SMI, which, although not specific to clients who are homeless, may be helpful in making decisions about medications for this population. For clients with severe psychotic symptoms who are consistently noncompliant with medication regimens, providers can consider outpatient commitment (Torrey & Zdanowicz, 2001) or the use of long-acting, injectable antipsychotics (Velligan et al., 2010).

**Medications for substance use disorders**

A variety of old and new medications are currently being used to help people with substance use disorders better manage recovery. For some of these medications (e.g., acamprosate, naltrexone), there is no information available specifically regarding use with people who are homeless. A number of TIPs address medication-assisted treatment for substance use disorders—particularly TIP 43, *Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs* (CSAT, 2005a), and TIP 49, *Incorporating Alcohol Pharmacotherapies Into Medical Practice* (CSAT, 2009c).

Alford et al. (2007) compared clients receiving office-based buprenorphine treatment who were homeless \( (n=44) \) and domiciled \( (n=41) \) and found no significant differences in treatment failure, illicit opioid use while in treatment, use of counseling, or participation in mutual-help groups despite the higher COD rates, fewer social supports, and more chronic substance abuse histories of clients who were homeless. However, clients who were homeless did require more clinical support during their first month in treatment than did clients who were housed.

Although cost is an issue, medications for smoking cessation can also be considered with this population. Researchers who interviewed 165 people who were homeless and smoked found that 37 percent reported readiness to quit within the next 6 months, 42 percent stated that the assistance they most wanted for quitting was nicotine replacement (either alone or in combination with counseling), and 14 percent stated a preference for bupropion (either alone or in combination with counseling) (Connor et al., 2002). Another study, which gathered
information from focus groups with people who were homeless and smoked (N=62), found that about 44 percent of subjects had used nicotine replacement products in the past and 15 percent had previously used bupropion (Okuyemi et al., 2006). Participants were interested in using pharmacological aids for smoking cessation, but their preferred medications varied according to how much information they were given. Groups who were shown just the products preferred nicotine gum or the nicotine patch; those who received more detailed information preferred bupropion followed by a nicotine inhaler. However, many participants believed that bupropion had possible mood-altering effects and would have “street value” if diverted for recreational use.

**Integrated Treatment for Co-Occurring Disorders**

A number of studies have found that integrated treatment that provides coordinated services for substance abuse and mental health, along with housing, is effective with people who are homeless and have CODs. It can improve outcomes related to psychiatric hospitalizations, substance abuse, and housing (Drake, Mueser, Brunette, & McHugo, 2004; Essock et al., 2006; Kasprow, Rosenheck, Frisman, & DeLella, 2004; Moore, Young, Barrett, & Ochshorn, 2009; Tsai, Salyers, Rollins, McKasson, & Littmer, 2009). For example, Moore et al. (2009) evaluated an integrated treatment model (comprehensive, continuous, integrated system of care) with 48 people with CODs who were homeless; 12 months after treatment entry, significant improvements in housing, employment, mental health, and substance use outcomes were found. CMHS’s ACCESS program study (see description in the “Assertive Community Treatment” section) also uses an integrated treatment model. It has been found, compared with controls, to be associated with significantly better housing outcomes for participants (see, e.g., Cheng & Kelly, 2008).

However, Morse et al. (2006) found no significant differences in outcomes between an integrated ACT program (n=46) and a nonintegrated ACT program (n=54) for participants with CODs who were homeless, although participants in both had significantly better outcomes than clients who received standard treatment (n=49). This may show that the benefit provided by integration can be provided using other means. These researchers did find the integrated ACT model to be more cost effective than the standard ACT care.

**Trauma-Informed and Trauma-Specific Services**

Trauma-informed services “take into account knowledge about trauma—its impact, interpersonal dynamics, and paths to recovery—and incorporate this knowledge thoroughly in all aspects of service delivery” (Finkelstein et al., 2004, p. 1), whereas trauma-specific services “address directly the impact of trauma on people’s lives and…facilitate trauma recovery and healing” (Finkelstein et al., 2004, p. 1). For more information on trauma-informed and trauma-specific services, see the planned TIP, *Trauma-Informed Care in Behavioral Health Services* (SAMHSA, planned j).

Lester et al. (2007) examined treatment outcomes for clients with CODs who were homeless and participated in abstinence-contingent housing and vocational services with or without behavioral day treatment (N=118). Clients in either condition who had symptoms of trauma or PTSD had fewer trauma symptoms over the 6-month treatment period. Greater positive distraction coping (e.g., focusing on one’s job to take one’s mind off things, trying to see problems in a different
light) and lower negative avoidance coping (e.g., using substances, ignoring problems) at baseline, in addition to decreased avoidance coping over the 6-month study period, were significantly related to fewer trauma symptoms. The authors concluded that even though specific trauma treatment might not be available, assessment of trauma symptoms and PTSD along with emotional processing and an emphasis on adaptive coping in treatment sessions can reduce trauma symptoms. Additionally, screening for trauma and PTSD can improve the accuracy of assessments of clients’ needs.

One model for addressing PTSD in individuals with substance use disorders that has been used successfully with women who are homeless is the trauma recovery and empowerment model (TREM) (SAMHSA, 2007). Another model, the Seeking Safety intervention for women with histories of trauma and substance use disorders, was evaluated by Desai, Harpaz-Rotem, Najavits, and Rosenheck (2008) with female veterans who were homeless. The authors found that it resulted in moderate improvements in clinical outcomes compared with standard VA system care. More information on TREM and Seeking Safety is provided on the NREPP Web site (http://nrepp.samhsa.gov/).

Contingency Management and Community Reinforcement Approaches

Unlike the other interventions discussed in this section, contingency management (CM) approaches have been largely confined to the treatment of substance use disorders, although they may be applied to other behavior issues such as HIV medication adherence (Sorensen et al., 2007). CM has been found effective in research studies for promoting abstinence from substance use during treatment. It can improve the ability of clients to remain abstinent and allows them to take fuller advantage of other clinical treatment components (see review by Prendergast, Podus, Finney, Greenwell, & Roll, 2006). In CM approaches, clients earn vouchers and/or have the opportunity to win prizes or privileges as they achieve abstinence and other behavior change goals. In voucher-based CM, clients earn vouchers exchangeable for retail items contingent on objectively verified abstinence from recent drug use or compliance with other behavior change goals. For people who are homeless, preferred housing can also be used as a contingency as part of an abstinence-contingent housing program. More information on this model can be found in the “Behavioral Day Treatment With Abstinence-Contingent Housing and Work Therapy” section.

CM with people who are homeless and have cocaine use disorders has been consistently shown to produce higher abstinence rates compared with interventions that do not include CM (see review by Schumacher et al., 2007). CM has also been used with an out-of-treatment population of men who have sex with men and who are homeless, and its use was found to be associated with significant reductions in the quantity of substance use and increases in health-promoting behaviors (Reback et al., 2010). Overall, CM has been found to be an effective tool for improving treatment outcomes across substance abuse treatment populations (Olmstead, Sindelar, & Petry, 2007).

The community reinforcement approach (CRA) uses social, recreational, familial, and vocational reinforcements to assist clients in recovery from substance use disorders. Its goal is to make a sober lifestyle more rewarding than the use of substances. Three meta-analytic reviews, not specific to people who are homeless, cited it as one of the most cost-effective alcohol treatment
programs available (Finney & Monahan, 1996; Holder, Longbaugh, Miller, & Rubonis, 1991; Miller & Hester, 1995).

Smith et al. (1998) compared a 3-month CRA program for people who were homeless and diagnosed with alcohol dependence \((n=64)\) with a standard shelter-based program \((n=42)\). The shelter-based program was a day shelter offering basic meals, clothing, showers, a job program, individual sessions with AA-oriented counselors, and onsite AA meetings. Participants in the CRA condition were treated in a group therapy format, and two weekly prizes were awarded for good attendance. The focus of most groups was skills training, primarily in the areas of problem-solving, communication, and drink refusal. Periodically, group sessions were supplemented with relationship counseling or case management meetings. Participants in the CRA condition were housed in grant-supported apartments, and those who were employed at the end of 3 months were allowed to remain in the apartments for an additional month. Housing privileges were suspended temporarily if random breathalyzer tests detected drinking. Compared with standard care at the shelter, those treated with CRA showed significantly better outcomes throughout a year of follow-up. Participants in the community reinforcement intervention had fewer drinks per week, fewer days of drinking per week, and a lower peak blood alcohol content rating. However, few differences in employment or housing outcomes were observed.

Other Services

People who are homeless have a wide range of often pressing needs, which may need to be addressed in order to improve treatment retention and outcomes. This section discusses some of the services that might lie outside traditional mental health and substance abuse treatment services. Note that housing services are discussed separately (see the “Housing” section).

Occupational Therapy

As Muñoz, Garcia, Lisak, and Reichenbach (2006) note, the importance of an occupational therapy (OT) perspective in services for people who are homeless is now well recognized. Citing research with this population, they argue that “occupational therapists are well-suited to provide core services at homeless shelters” (p. 136). These services may be especially salient for clients with behavioral health disorders.

A number of studies have explored the OT needs of people who are homeless. From a review of other studies involving OT for people who are homeless (although not confined to those with behavioral health disorders), Finlayson, Baker, Rodman, and Herzberg (2002) concluded that the primary OT-related needs for this population are finding a place to live, finding a job, improving job skills, managing money, getting along with other people, handling resource issues, and handling legal issues. Muñoz et al. (2006) studied 65 participants who were homeless in an OT supportive employment program, the majority of whom (92 percent) had received treatment for substance use disorders and many of whom (68 percent) had received treatment for a mental disorder. They found that the most common need—present for 59 percent of participants—was improved self-care (e.g., staying sober, improving physical health, legal issues, resource management, transportation), followed by productivity for 31 percent (e.g., gaining employment, education, computer skills) and leisure skills for 10 percent (e.g., improving interpersonal relationships, learning to manage quiet time). One small study of parents who were homeless
(N=12) found that they seemed to expend a substantial amount of energy to create or maintain family routines while living in a homeless shelter (Schultz-Krohn, 2004). The author suggests that OT services may assist these parents in their roles as organizers of family routines.

Herzberg, Ray, and Miller (2006) conducted an Internet-based survey of assessment tools used by OT practitioners working with persons who were homeless. Exhibit A lists the most commonly used standardized assessments and the areas they assess: The Kohlman Evaluation of Living Skills (McGourty, 1999), the Allen Cognitive Level Screen (Allen, 1997), and the Canadian Occupational Performance Measure (Law et al., 1998). Herzberg et al. (2006) noted that all tools (standardized and therapist developed) appropriately emphasized a holistic approach (strengths as well as challenges) and an emphasis on client priorities.

A small study of an intervention for women who were homeless illustrates the potential contribution of OT to homelessness services (Gutman et al., 2004). Participants were 26 women residing in a homeless shelter. More than half the women had experienced or were currently experiencing domestic violence, 88 percent had a mood disorder, 35 percent had PTSD, and 50 percent had a history of substance abuse. The intervention addressed safety planning, drug and alcohol awareness, safe sex practices, assertiveness and advocacy skill training, anger management, stress management, boundary establishment and limit setting, vocational and educational skill training, money management, housing application, leisure exploration, hygiene, medication routine, and nutrition. Goal Attainment Scaling (Ottenbacher & Cusick, 1990) was used to assess the accomplishment of client-generated outcomes, and the results indicated that 21 clients (81 percent) were able to achieve the highest level of goals they had set for themselves.

**Vocational Training/Work Therapy**

A large percentage of people who are homeless can be served successfully by employment and training programs (Trutko, Barnow, Beck, & Rothstein, 1994), and this includes individuals with behavioral health disorders. Having received job training and/or assistance finding employment was associated with significant increases in the likelihood of having been employed in the month prior to assessment for individuals who were homeless, had SMI, and were enrolled in the

<table>
<thead>
<tr>
<th>Assessment Tool</th>
<th>Assesses</th>
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<tr>
<td>Kohlman Evaluation of Living Skills</td>
<td>• Activities of daily living (ADLs), self-care, home management</td>
</tr>
<tr>
<td></td>
<td>• Community safety and money management</td>
</tr>
<tr>
<td></td>
<td>• Client’s needs for skills in independent living</td>
</tr>
<tr>
<td>Allen Cognitive Level Screen</td>
<td>• Cognitive ability related to work, ADLs, independent living</td>
</tr>
<tr>
<td></td>
<td>• Interpersonal communication</td>
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<tr>
<td>Canadian Occupational Performance Measure</td>
<td>• Building collaboration and developing client goals</td>
</tr>
<tr>
<td></td>
<td>• Client’s perception of level of own functioning and areas of dysfunction</td>
</tr>
<tr>
<td></td>
<td>• Client's view of important occupations</td>
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<td>• Prioritizing interventions</td>
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ACCESS demonstration program (Pickett-Schenk et al., 2002). In that study, with the exception of schizophrenia, mental disorders did not have a significant effect on employment histories.

The U.S. Department of Labor’s evaluation of the Job Training for the Homeless Demonstration Program (N=20,660) found that the program successfully placed about one third of participants in jobs (n=7,027) (Trutko et al., 1994). Of the total sample, 36 percent were considered “chemically dependent” (either self-identified or identified by case managers as having a level of substance use that would interfere with employment), and 11 percent were similarly identified as “mentally ill,” but the report noted that these percentages substantially underestimate the percentage of participants with mental and/or substance use disorders. The most common barriers to employment for program participants were lack of transportation (affecting 43 percent), lack of job skills/training (35 percent), and minimal work history (25 percent). Participants classified as chemically dependent were more likely to state job loss as the reason for their homelessness (61 percent), and those classified as mentally ill were less likely to do so compared with participants in the total sample (51 percent). Participants classified as mentally ill or chemically dependent were also more likely to have been unemployed for a full 26 weeks prior to entering the program (50 and 45 percent were, respectively) compared with the total sample (38 percent). Also, people classified as mentally ill were among the hardest to place (they had a 26 percent placement rate), whereas those with alcohol abuse (39 percent placed) or drug abuse (38 percent placed) had rates higher than the overall rate of 34 percent.

The authors make the following recommendations to improve vocational training and job placement services for people who are homeless:

• Provide comprehensive and ongoing assessment to identify specific obstacles to employment that are not evident at the time of intake (e.g., substance use disorders, poor reading skills, a history of domestic abuse, mental health issues).

• Provide more ICM and longer-term support services for people who are homeless and have severe and prolonged mental illness, current or recent substance use disorders, or have been homeless for long periods.

• Provide an option for short-term job search and placement services for people who do not have access to financial benefits and housing assistance and who have an urgent need for income and housing. Also provide an array of support services to meet special needs of participants and offer access to longer-term occupational training/education once they have stabilized their situations.

• Provide follow-up services and ongoing case management (for at least 6 months after a job is secured) to troubleshoot problems and ensure that participants do not return to homelessness.

Vocational training services have been shown to improve behavioral health and other related outcomes, such as criminal behavior (see review in TIP 38, Integrating Substance Abuse Treatment and Vocational Services [CSAT, 2000a]). Depending on the severity and type of behavioral health disorder a client has, some specialized vocational services may be necessary. A meta-analytic review by Crowther, Marshall, Bond, and Huxley (2011), which was not limited to studies involving people who were homeless, found that for people with SMI, supported employment had a significantly greater effect in increasing participation in competitive employment than prevocational training, but both were associated with better outcomes than mental health services without a vocational component.
Kashner et al. (2002) showed that clients who were homeless and able and eager to work—when participating in a VA-compensated work therapy program that included mandatory substance abuse treatment and drug screening—participated more in other treatment services and had fewer substance use–related problems (including physical symptoms related to use), fewer episodes of homelessness and incarceration, and better physical functioning than did a control group of participants who were not participating in the work therapy program but had access to the same medical and psychiatric services.

In another VA study, Rosenheck and Mares (2007) compared two groups of clients with behavioral health disorders recruited from nine different VA programs for veterans who were homeless. The first group was recruited prior to implementing a supported employment program for clients; the second group was recruited from the same facilities after the supported employment program was implemented. Veterans who participated in the program had a mean of 15 percent more days of competitive employment during the 2-year follow-up period than did nonparticipants. Participants also had significantly more days in housing during follow-up than did nonparticipants.

Shaheen and Rio’s (2006) career-mapping approach can help people who are homeless and seeking a job focus on the types of work for which they are prepared and which they are most interested in pursuing. Beck, Trutko, Isbell, Rothstein, and Barnow’s (1997) guide will be of use to clinicians who are trying to help clients who are homeless obtain employment and develop employment-related skills. Developing Community Employment Pathways (Putnam et al., 2007) reviewed best practices for helping people who are homeless (regardless of their substance abuse histories) locate and obtain jobs and included examples from local programs around the country.

**Help Obtaining Public Assistance**

People with behavioral health disorders who are homeless may have an even harder time than other people who are homeless in accessing needed benefits, such as emergency income support or medical care. Public assistance in the form of disability-related monetary support is especially important, because it enables clients to pay rent for permanent supportive housing. HUD has produced a detailed guide titled *Strategies for Improving Homeless People’s Access to Mainstream Benefits and Services* (Burt et al., 2010), which explains how to help people who are homeless overcome barriers and get public assistance and other benefits for which they qualify.

Many individuals who are homeless, including those with mental disorders, qualify for Supplemental Security Income (SSI) and/or Social Security Disability Insurance (SSDI). A detailed explanation of these benefits is beyond the scope of this literature review, but Rosen and Perret (2005) provide a guide for case managers who wish to help clients who are homeless obtain these benefits. The SSI/SSDI Outreach, Access, and Recovery program is an initiative designed to help people who are homeless and have mental disorders access benefits; the program is explained in detail in a publication available from Projects for Assistance in Transition From Homelessness (Kenney, 2008).

In a sample of 343 individuals who used two New York, NY, soup kitchens, Nwakeze, Magura, Rosenblum, and Joseph (2003) found that those who were homeless were less likely to access Medicaid and food stamp programs for which they were qualified than were domiciled
individuals. Although this study was not limited to people with behavioral health disorders, rates of substance use were high but comparable for the homeless and domiciled samples; self-reported histories of mental health treatment, while less frequent, were also comparable.

Bird et al. (2002) found the same level of need for public services in people who were homeless whether or not they had substance use disorders. However, those with substance use disorders \((n=360)\), had significantly more trouble accessing the services they required than did those without substance use disorders \((n=437)\). Participants with SMI were only significantly more likely than others to have contact with the mental health service sector if they did not have a co-occurring substance use disorder. Behavioral health service providers, therefore, will likely need to be strong advocates to help clients who have substance use disorders access the services and benefits they need.

Some clinicians are concerned that giving financial benefits to people who are homeless may result in increased substance use. Studies suggest that this is not the case and, in fact, clients who receive cash payments may have better outcomes on measures of housing and high-risk behaviors. Research on 2,474 veterans who had schizophrenia and a co-occurring substance use disorder found, after controlling for other factors, that those who received disability payments did not use substances on more days per month than those not receiving such payments (Frisman & Rosenheck, 2000).

Rosen, McMahon, Lin, and Rosenheck (2006) found that clients who were homeless with mental illness \((N=6,199)\) and already received Social Security Administration (SSA) payments had somewhat more substance use (rated by clinicians) during the course of their study than clients who were not receiving SSA payments. However, there was no difference in the level of substance use between clients who started to receive SSA payments during the course of treatment and those who did not receive SSA benefits. In addition, there was also no significant increase in clients’ substance use after they began to receive benefits. This study also found that the clients who began receiving SSA benefits during the study had significantly more days in housing but fewer days employed.

Cash payments through benefit programs were associated with fewer HIV/AIDS risk behaviors in an analysis of 1,156 people who were homeless (87 percent of the sample) or marginally housed, either with or without behavioral health disorders (Riley, Moss, Clark, Monk, & Bangsberg, 2005). Of subjects who were currently using injection drugs (22 percent of the sample), those who received cash benefits were 57 percent less likely to inject daily and 37 percent less likely to give or lend their needles to others.

**Representative payeeship**

Under representative payeeship, people receiving benefits are assigned a third party to handle disbursement of their disability funds, usually a treatment agency or a family member. Third-party money management is meant, in many cases, to limit inappropriate use of the funds. SSA data from the mid-1990s indicate that, of 2.2 million individuals who received SSI and/or SSDI disability benefits for a mental disorder, about 700,000 had been assigned representative payees (Rosen, McMahon, & Rosenheck, 2007).
Elbogen, Swanson, Swartz, and Wagner (2003) identified common characteristics among 102 third-party payee service recipients (not necessarily homeless) diagnosed with a psychotic or major affective disorder who had been involuntarily hospitalized in North Carolina between 1992 and 1996 and were awaiting discharge or outpatient commitment. Most of the patients with representative payees agreed they had enough money to cover necessities (e.g., food, clothing, transportation), but about half reported not having enough money for social or enjoyable activities. Given that treatment for both SMI and substance abuse emphasizes social skills and that isolation is considered a negative sign in treatment progress, clinicians should consider whether isolation is occurring as an exacerbation of symptoms or simply because the client does not have enough money to engage in social activity.

Research is limited on the impact of third-party payee services on clinical outcomes, and almost all of it has focused on clients with a primary diagnosis of a mental disorder. Rosenheck and Fontana (1994) studied a large sample of clients who were homeless with SMI entering CMHS’s ACCESS program in 18 locations throughout the United States in 1993. The investigators found that assigning a payee without implementing additional dual-disorder approaches did not, in itself, improve substance use behaviors.

Ries, Short, Dyck, and Srebnik (2004) evaluated 44 clients (5 of whom were homeless) and found that incorporating representative payeeship into integrated behavioral health treatment was feasible and clinically useful for managing clients who had SMI and substance use disorders. Specifically, they looked at whether clients would demonstrate first-week-of-the-month increased substance abuse and hospitalizations, which have been shown in other studies (e.g., Halpern & Mechem, 2001; Herbst, Batki, Manfredi, & Jones, 1996; Phillips, Christenfeld, & Ryan, 1999). Evaluating each client for an average of 38.5 weeks, with little treatment or study dropout, Ries, Short, et al. (2004) found no evidence of a cyclic first-of-the-month pattern of substance use and hospitalizations in either the individuals diagnosed with schizophrenia and cocaine use disorders or the broader diagnostic sample.

In a larger study (N=1,457) of individuals with SMI who were receiving SSI or SSDI (a third of whom had histories of homelessness), after controlling for severity of substance abuse, Rosen, McMahon, and Rosenheck (2007) found that participants who had a representative payee did not have any greater reductions in substance use compared with those who did not have a representative payee, although the former did make more use of mental health services.

**Mental Health Promotion**

Although certain mental disorders may contribute to homelessness (see the “Behavioral Health Problems as Risk Factors for Homelessness” section), it is not always clear that such disorders precede homelessness, and, especially for youth, homelessness and other factors related to it (e.g., high incidence of trauma, loss of community, weakened social and family networks) may all contribute to the development of mental disorders (Cattan & Tilford, 2006).

Of the few published articles that address mental health promotion for people who are homeless, most address the needs of children and adolescents. Cattan and Tilford (2006) suggested that for younger people who are homeless, including young adults, mental health promotion activities that help create a sense of community and empower individuals may be particularly important.
Interventions to help prevent mental disorders in the children of families who are homeless include ones that improve parenting skills and reduce parental stress, such as multiple-family group interventions (Davey, 2004), and ones that provide early screening/assessment and brief treatment of children combined with advice to their parents (Tischler, Vostanis, Bellerby, & Cumella, 2002).

One area of mental health promotion addressed in some published literature is suicide prevention. People who are homeless have high rates of suicidal ideation and suicide attempts (Eynan et al., 2002; Prigerson et al., 2003). Childhood homelessness, being homeless for 6 months or more, and, for adults ages 55 and older, substance use disorders are all associated with higher rates of suicidality (Eynan, et al., 2002; Prigerson et al., 2003). More information on suicide prevention for clients in substance abuse treatment can be found in TIP 50, *Addressing Suicidal Thoughts and Behaviors in Substance Abuse Treatment* (CSAT, 2009a).

**Substance Abuse Prevention**

The high rates of substance use disorders among people who are homeless are often assumed to contribute to homelessness (as discussed in the “Behavioral Health Problems as Risk Factors for Homelessness” section), but there are some indications that homelessness may increase some types of substance use and abuse. Regarding homelessness contributing to substance abuse, Johnson et al. (1997) found that becoming homeless and having lost a full-time job both increased the risk of showing symptoms of alcohol abuse.

Substance abuse prevention for youth who are homeless lies outside the scope of this TIP, but there is some information available on this topic (e.g., see the review by Sanabria, 2006). Little published information is available on substance abuse prevention for adults who are homeless, however. One exception is a preliminary study of the Power of YOU program intended for young adult women who are homeless, which seeks to prevent substance abuse along with HIV risk behaviors and interpersonal violence (Wenzel, D’Amico, Barnes, & Gilbert, 2009). According to focus groups conducted with program participants, the program was well received and was believed to be helpful by a majority of participants. In terms of substance abuse prevention, participants stated that the normative information about substance use among women who were homeless was useful and, for some, surprising, and a number of participants believed that the discussion of external and internal triggers for substance use would help reduce substance use.

**HIV/AIDS Prevention and Treatment**

Because of the elevated rates of HIV/AIDS in people who are homeless in general and in those who have substance use disorders in particular (see the “HIV/AIDS” section), addressing HIV/AIDS risk and providing testing are important services for this population. A substance abuse day treatment program with an HIV/AIDS education component was found to improve knowledge of HIV/AIDS significantly for clients who were homeless while also reducing HIV/AIDS risk behaviors (Lewis, Boyle, Lewis, & Evans, 2000). Providing housing for people who are HIV positive and homeless is, in itself, a means for potentially reducing the spread of HIV/AIDS. Both sexual and drug-related risk behaviors decrease when people who are homeless obtain housing (Aidala et al., 2005).
More information on treating clients with HIV/AIDS (regardless of their housing status) can be found in TIP 37, *Substance Abuse Treatment for Persons With HIV/AIDS* (CSAT, 2000c). Kushel and Miaskowski (2006) provided guidelines on how to work with clients who are HIV positive, homeless, and terminally ill.

**Treatment Settings**

People who are homeless and have behavioral health disorders may receive services in a variety of settings. Some services may be provided in settings specific to their circumstances, but most often, services are provided in standard mental health and substance abuse treatment settings.

Effective treatment planning is a prerequisite to success with any client. However, many clinicians experience formal treatment planning—mandated by accrediting and licensing organizations—as only tangentially applicable and therefore cumbersome to actual service delivery. An emerging alternative approach, “person-centered treatment planning” (Adams & Grieder, 2005), is distinguished by a practical focus on client goals in the context of how clients themselves define them. A full description of this approach is beyond the scope of this TIP.

As noted in the “Outreach” section, traditional service delivery channels might not be effective at reaching some segments of the homeless population. Treatment providers may need to take their services to the client. This sometimes requires actually implementing one’s treatment program at a new site—a task that has been addressed creatively by many providers. For example, behavioral health treatment services have been successfully provided in soup kitchens (Kayman, Gordon, Rosenblum, & Magura, 2005; Rosenblum, Magura, Kayman, & Fong, 2005), homeless shelters (Bradford et al., 2005), mobile health clinics (Hastings, Zulman, & Wali, 2007), and emergency rooms (Witbeck et al., 2000).

**Mental Health Treatment Settings**

People who are homeless may receive mental health treatment in a variety of settings, although they are more frequent users of services provided in psychiatric hospitals and emergency departments than people who are domiciled, which is why those settings are highlighted here. Other facilities, such as community health centers (Lardiere, Jones, & Perez, 2011) and members of the Health Care for the Homeless Clinicians’ Network, provide outpatient mental health services to this population. Although detailed placement guides for people with mental disorders who are homeless are not available, Healthcare for the Homeless has prepared short protocols for urgent (Norton, 2010b) and chronic mental health treatment (Norton, 2010a).

**Psychiatric emergency settings**

For reasons related to the severity of their disorders, lack of social support, and lack of access to other forms of care, people who are homeless use psychiatric emergency services much more frequently than do people who are housed (D’Amore et al., 2001; McNiel & Binder, 2005; Pasic et al., 2005). Such clients also often have medical comorbidities that need to be assessed and treated along with their behavioral health problems (Fishkind & Zeller, 2006).
Fishkind and Zeller (2006) discussed the treatment of people in these settings who are homeless and have mental illness, addressing methods of building the therapeutic alliance quickly with such clients by involving them in the decisionmaking process, using the least restrictive intervention possible, and trying to offer alternatives to hospitalization. They also noted the importance of providing follow-up care and case management to decrease further emergency visits.

Another aspect of psychiatric emergency settings for people who are homeless involves the use of mobile crisis teams, which can provide diagnosis, stabilization, and some treatment outside of medical facilities. Such teams are able to substantially reduce the need for psychiatric hospitalizations following crisis intervention (Guo, Biegel, Johnsen, & Dyches, 2001; Scott, 2000). Ng (2006) discussed working with people with mental disorders who are homeless using such teams and included a flowchart depicting decision processes involved in such services.

**Psychiatric inpatient settings**

People who are homeless use hospital services, including psychiatric inpatient services, at higher rates than people who are housed (Eyrich-Garg et al., 2008; Kushel, Vittinghoff, & Haas, 2001; Young et al., 2005). They are more likely to be hospitalized for mental health- or substance-related problems than those who are housed (Salit et al., 1998) and have longer hospital stays and higher costs associated with hospitalization even after adjusting for length of stay (Hwang, Weaver, Aubry, & Hoch, 2011; Salit et al., 1998). People who are homeless are also significantly more likely to return to psychiatric inpatient programs after release (Irmiter et al., 2007).

Nardacci (2006) reviewed issues in assessment, treatment planning, and discharge planning for people in psychiatric inpatient settings who are homeless. Discharge and continuing care planning is particularly important for clients who enter inpatient treatment when they are homeless, and options such as continuing day treatment/partial hospitalization, ACT, and court-mandated outpatient treatment/outpatient commitment (Swartz et al., 1999) should all be considered (Nardacci, 2006). Outpatient commitment, for example, has been associated with significant decreases in the risk of homelessness following discharge from psychiatric hospitals for people with SMI and severe functional impairment resulting from mental disorders (Compton et al., 2003). If available, CTI programs are another excellent option. Interventions such as CTI can help clients establish stable housing and prevent returns to psychiatric inpatient care.

Day treatment, or partial hospitalization, has been found effective for people with mental disorders who are chronically homeless. Shern et al. (2000) evaluated a day treatment psychiatric rehabilitation program for people with SMI who were living on the streets (i.e., not in shelters). The 2-year program was open 12 hours a day and offered food and daytime shelter in addition to optional treatment services and linkages to other services including shelter housing. At the end of the 2-year period, participants who received the intervention \( n=91 \), compared with individuals in a control group who had access to standard services \( n=77 \), were doing significantly better at meeting basic needs (e.g., being housed in shelters or community living, obtaining food and clothing, keeping clean), had significantly higher ratings in a number of areas related to quality of life, and had significantly lower levels of mental disorder symptoms.

For people who are homeless, another alternative is providing comprehensive services in a shelter. An example is Boston Medical Center’s Advanced Clinical Capacity for Engagement,
Safety, and Services Project, which provides medical and behavioral health services to people with CODs in a “Safe Haven” shelter specifically designed for this use (see the description in Lincoln, Plachta-Elliott, & Espejo, 2009).

Yet another alternative to inpatient treatment for people with mental disorders who are homeless is supportive housing, which provides housing as well as a lower intensity of services. Supportive housing encompasses a range of levels and types of service (Corporation for Supportive Housing, 2006; HUD, 2001). (See the description in the “Supportive Housing” section.)

**Substance Abuse Treatment Settings**

Various substance abuse treatment services are available for people who are homeless, and (as noted in the “Prevalence of People Who Are Homeless in Behavioral Health Settings” section) members of this population use such services at higher rates than people who are housed. A few specific settings that incorporate housing and treatment are discussed here and in the “Supportive Housing” section. For clients with CODs, substance abuse treatment may also improve mental health. In a study of 95 people who were cocaine dependent and homeless, treatment participation was associated with significant reductions in mood and anxiety disorders (Kertesz, Madan, Wallace, Schumacher, & Milby, 2006).

**Postdetoxification stabilization programs**

People who are homeless have been found to be more likely to enter a detoxification program than people who are housed. According to 2009 TEDS data, 47.1 percent of treatment admissions for people who were homeless were to detoxification programs compared with 18.9 percent for people who had independent living arrangements (HHS, SAMHSA, OAS, 2011).

Stabilization programs are a critical component for preventing relapse after detoxification among people who are homeless. These short-term, transitional residential programs provide support for 2 to 6 weeks while clients obtain longer-term placement. People who were homeless and used a stabilization program had significantly lower rates of relapse 6 months after detoxification than did people who were housed or who were homeless and did not enter stabilization programs (Kertesz, Horton, Friedmann, Saits, & Samet, 2003). Detoxification services are discussed at greater length in TIP 45, *Detoxification and Substance Abuse Treatment* (CSAT, 2006a).

**Inpatient and residential settings**

People who are homeless are more likely to enter inpatient substance abuse treatment than those who are housed. According to 2009 TEDS data, 26.7 percent of people classified as homeless entered inpatient, nondetoxification treatment programs; only 13.8 percent of those classified as living independently did so (HHS, SAMHSA, OAS, 2011). Data from the Drug Evaluation Network System for 2003 and 2004, involving substance abuse treatment programs in 13 urban areas, show that people who had spent at least one night in a shelter or on the street in the month prior to entering treatment (and thus were considered homeless) were more than twice as likely as people with low incomes who were housed to enter inpatient/residential treatment (Eyrich-Garg et al., 2008). Wenzel et al. (2001) found that people who were homeless were more likely
to enter residential or inpatient treatment than outpatient treatment. Kertesz, Larson, et al. (2006) found that homelessness was associated with increased use of residential treatment services.

Little information is available comparing inpatient/residential and outpatient substance abuse treatment services for people who are homeless, but in a study in which people with SMI (i.e., schizophrenia and/or affective disorders) and co-occurring substance use disorders were randomly assigned to a residential treatment program \( n=67 \) or an outpatient program with a similar design, retention rates were significantly higher for the residential program (Burnam et al., 1995). The authors also found better outcomes at an assessment 3 months after beginning the program for participants in the residential program, which they attributed to greater exposure to treatment, but most of those differences were not apparent at the 6- and 9-month assessments.

**Modified therapeutic communities**

One particular model of inpatient, long-term substance abuse treatment that has been adapted to meet the need of people who are homeless and have CODs is the modified therapeutic community (MTC), which exists in residential settings. Treatment is presented flexibly to accommodate differing levels of functioning. The core principles and methods of MTCs include engaging slowly into treatment, coping with stresses through personal responsibility and mutual help, using peers as role models and guides, acquiring skills to support vocational development and independent living, and developing healthy social skills and networks to sustain recovery (Sacks, Skinner, Sacks, & Peck, 2002).

MTCs have been adapted for women and children to provide family-style housing, daycare and after-school programs, a curriculum focusing on parenting issues for mothers, and modifications of the daily program routine to accommodate parenting responsibilities (Sacks, Sacks, Harle, & De Leon, 1999). Short-term MTCs have also been implemented within homeless shelters, and their use was associated with significant decreases in substance use, criminal behavior, and depressive symptoms (Liberty et al., 1998).

In research with populations of people who were homeless and those who were housed, participation in MTCs has been associated with increased employment and decreased substance abuse, criminal activity, and symptoms of depression (De Leon, Sacks, Staines, & McKendrick, 2000). Nuttbrock, Rahav, Rivera, Ng-Mak, and Link (1998) compared outcomes for people with CODs who were homeless and who received treatment at an MTC with those for people with CODs living in community residences while attending treatment. Both interventions led to improvements in clients’ substance use and psychopathology. However, those in the MTC generally showed more significant improvements. They were more likely to achieve and maintain sobriety, had greater reductions in symptoms of depression and anxiety, and scored better on a measure of general functioning.

Mierlak et al. (1998) reported that 34 percent of a sample of men at an MTC who were homeless and had CODs stayed in treatment for the prescribed length of stay. Dropping out of treatment was associated with more serious mental disorders (demonstrated by more frequent past hospitalizations) and a worse employment history.
De Leon et al. (2000) compared two different types of MTC programs and a treatment-as-usual control group (involving a variety of treatment options) for clients who were homeless. The second MTC program involved more freedom for clients, participation outside the TC at a day treatment program, reduced client responsibilities related to program operations, and more direct assistance to clients from staff. The researchers found that clients in both MTC groups had significantly better outcomes for substance use, criminal activity, HIV/AIDS risk behaviors, and psychological dysfunction than did individuals in the control group at 1 and 2 years after assessment, with the second MTC model providing the best outcomes.

Egelko et al. (2002) found that an MTC approach for people who were homeless with CODs produced significant improvements in all measured psychological symptoms between intake and third-month reassessment (midway through the program), with more subtle improvements seen in a smaller number of subjects at the end of treatment.

Sacks, De Leon, Sacks, McKendrick, & Brown (2003) used a TC model to develop a supported-housing unit for continuing care following treatment in an MTC program for people who were homeless and diagnosed with CODs. Those who entered TC-oriented supportive housing had better outcomes than clients in other housing options for substance use, crime, and attendance at mutual-help meetings.

MTC treatment costs no more than usual care approaches (French, Sacks, De Leon, Staines, & McKendrick, 1999; McGeary, French, Sacks, McKendrick, & De Leon, 2000). French, McCollister, Sacks, McKendrick, and De Leon (2002) estimated and compared the economic benefits and costs of MTC treatment for a group of clients who were mentally ill, homeless, and abused substances with a “treatment-as-usual” comparison group. Data from the 12-month period before MTC admission were compared with data from the 12 months after admission across three outcome categories: employment, criminal activity, and use of healthcare services. The economic cost of the average MTC treatment episode was $20,361. The economic benefit generated by the average MTC client was $305,273. The incremental economic benefit per MTC client (relative to treatment as usual) was $273,698, resulting in a net benefit per MTC client of $253,337 and a benefit–cost ratio of 13:1. The incremental economic benefit estimate, after adjustment for extreme outlier observations, was $105,618, the net benefit was $85,257, and the benefit–cost ratio was 5:2.

See TIP 42, *Substance Abuse Treatment for Persons With Co-Occurring Disorders* (CSAT, 2005c), for more information on the MTC model.

**Behavioral day treatment with abstinence-contingent housing and work therapy**

Milby et al. (1996) designed a 6-month intervention for individuals who had alcohol and drug use disorders that combined behavioral day treatment and abstinence-contingent housing (ACH), which they called BDT+. The intervention had two phases. Phase I (2 months) consisted of behavioral day treatment and therapeutic goal management for substance use disorders. Homelessness was addressed by providing transportation, meals, and program-provided ACH. These interventions obtained urine samples at least weekly to monitor abstinence and did not rely on counselor suspicion of relapse. Phase II (4 months) consisted of ACH, therapeutic management of housing goals to foster housing independence, and contingency-managed work
therapy with continuing care group sessions. The wages paid for 25 hours of work per week were used to lease the clients’ housing. After work, clients were encouraged to attend continuing care groups. For the control group, usual care (UC) consisted of twice-weekly individual and group counseling sessions that were 12-Step oriented. Clients were referred for housing and vocational services available in the community. UC was provided with no specified endpoint. Less frequent continuing care visits for counseling and support were provided as needed.

At the end of both phases, clients in ACH had fewer cocaine-positive urine toxicology tests, with regression toward baseline at 12 months. From baseline to the end of 12 months, these clients had fewer days of reported alcohol use, homelessness, and unemployment. UC clients showed no significant changes except a temporary increase in employment at 6 months. The largest between-group differences and effect sizes were found for reductions in alcohol use and homelessness. Clients with high attendance (2 to 6.63 contacts per week) demonstrated significantly fewer days of alcohol use in the past 30 days and significantly fewer cocaine-positive urine screens, days of homelessness, and days unemployed over 12 months compared with other clients (Schumacher et al., 1995).

The positive results for alcohol and cocaine abstinence and reduction in homelessness led to a series of studies to determine how to improve retention and abstinence. The first enhancement was to include a modest voucher system to provide exposure to reinforcers unrelated to drugs, which became the new control condition (Milby, Schumacher, McNamara, Wallace, & Usdan, 2000). The experimental group combined this enhanced behavioral day treatment with ACH and abstinence-contingent work. Treatment phases were the same as in the earlier study. Participants were homeless and cocaine dependent with nonpsychotic CODs. Clients in the combined treatment demonstrated greater treatment retention, significantly more days abstinent, and significantly more consecutive weeks abstinent by the end of both phases. At the end of Phase II, these clients also had significantly more days housed. There were no significant differences in percentage of days employed between groups. The combined treatment had the greatest effect on sustained abstinence. Clients with high rates of attendance in both BDT+ and the control group had a higher average number of consecutive weeks abstinent. A significant treatment effect remained after accounting for increased attendance between groups. This finding suggests that ACH and work contribute significantly to the observed treatment effect. The presence of one or more nonpsychotic Axis I disorders, in addition to cocaine dependence, made no difference in abstinence, housing, or employment outcomes relative to people who had no additional Axis I disorders (McNamara et al., 2001).

This intervention was replicated in a pilot project in Houston, TX (Milby & Schumacher, 2008), where BDT+ was compared with an inpatient intervention for 1 month followed by 5 months of an outpatient intervention similar to BDT+ (consisting of weekly continuing care, job development, and housing assistance) but without ACH. Participants were randomly assigned individuals who had been diagnosed with cocaine dependence and co-occurring nonpsychotic mental disorders. At 1- and 2-month follow-up, significantly more BDT+ clients had negative urine toxicology test results for all drugs. These results show that contingency-managed housing and behavioral day treatment can be transferred to new providers with beneficial results. Group-by-time interaction was significant, suggesting that BDT+ initially increases days homeless during treatment (as the contingency is applied) but reduces homelessness over time (Milby &
Schumacher, 2008). BDT+ can be implemented more easily in urban clinical settings where core components of contingency-managed behavioral day treatment already exist.

To examine whether housing without an abstinence contingency (non-abstinent-contingent housing [NACH]) plus effective day treatment would be sufficient for improved outcomes, Milby, Schumacher, Wallace, Freedman, & Vuchinich (2005) compared NACH (n=67), ACH (n=63), and a control group that received no housing (NH) (n=66). All three conditions received all other elements of the day treatment. Participants had cocaine dependence and co-occurring nonpsychotic mental disorders and were randomly assigned. Intention-to-treat analyses suggest that ACH increased abstinence compared with NACH and produced an even greater increase compared with NH. Because the NACH clients had more incentive for attendance—in that there were no negative consequences for drug-positive urine tests—their attendance was higher than that of ACH and NH groups. When the contribution of attendance to abstinence was controlled, however, only ACH produced greater abstinence than NH.

Milby et al. (2008) compared ACH plus work therapy but no behavioral day treatment (CM) (n=103) with ACH plus work therapy and behavioral day treatment (CM+) (n=103). Interventions lasted 6 months. The CM+ group had slightly but consistently more days of abstinence in each period of 24 weeks of active treatment and many more days of abstinence at 12 and 18 months. The findings suggest a potentially robust therapeutic impact with a much less complex abstinence-contingent intervention. The impact of behavioral day treatment as measured in the CM+ group was delayed and observed as more sustained abstinence at long-term follow-up. The two groups did not differ in terms of housing and employment outcomes, although consecutive weeks of abstinence during treatment were significantly related to increased housing and employment stability (Milby et al., 2010). Additional analysis found that the CM+ group had significantly fewer PTSD symptoms than those in CM (Lester et al., 2007).

Two points must be emphasized regarding the results presented in this section. First, these researchers imposed ACH as a treatment element only when secure shelter was available to persons who were removed from housing. Removal to the streets with no follow-up (common in many community programs) was not part of this model. Second, clients removed from ACH were invited to continue in the outpatient treatment program even after removal from housing. Moreover, return to abstinence—demonstrated with 1 week of negative (clean) urine drug screens—permitted immediate return to program-provided housing.

**Housing**

Housing is the cornerstone of recovery for people with behavioral health disorders who are homeless. Still, research on housing remains formative, and methodology in most housing studies has yielded less-than-optimal clarity regarding which housing models work best (Fakhoury, Murray, Shepherd, & Priebe, 2002; Rog, 2004).

Stable housing can, depending on the type of housing provided, have an effect in reducing substance use, symptoms of mental disorders, need for psychiatric emergency services and psychiatric hospitalizations, and vulnerability to other problems for people who are homeless (see reviews by Kyle & Dunn, 2008; Leff et al., 2009; McMurray-Avila et al., 1999). For clients with schizophrenia, housing is associated with better adherence to medication regimens (Gilmer
et al., 2004). Providing housing to clients who are in substance abuse treatment is associated with improved outcomes relating to longer-term housing (Kertesz et al., 2007), employment (Kertesz et al., 2007), and substance disorders (Buchholz et al., 2010; Mares, Kasprow, & Rosenheck, 2004; Milby et al., 2005). Housing is also a more significant factor than case management or other services in preventing future homelessness for people with mental illness (Schutt et al., 2009). Giving clients with behavioral health disorders a choice when it comes to housing is associated with improved quality of life (O’Connell, Rosenheck, Kasprow, & Frisman, 2006).

According to a review by Kyle and Dunn (2008), there is good support for providing housing to people with SMI who were formerly homeless to reduce rehospitalizations; there is also some, albeit weaker, evidence that housing is associated with improvements in mental status. In another review, Leff et al. (2009) concluded that both permanent supportive housing and residential care and treatment were associated with significant reductions in alcohol and drug abuse.

Providing housing before engaging a person who is homeless into behavioral health programs improves motivation for treatment. Erickson et al. (1995) found that stable housing at the time of entry into substance abuse treatment increased willingness for treatment; employment or current level of substance use at entry had no effect on willingness in clients who were homeless.

However, providing behavioral health services by themselves is not sufficient to help people who are chronically homeless obtain and maintain stable housing. Meschede (2010) followed 174 people who were chronically homeless (82 percent of whom had a major disability resulting from a mental disorder and 94 percent of whom had a substance use disorder) for a 3-year period and found no significant relationship between the extent of use of either medical or substance abuse treatment services and obtaining housing, whereas greater use of detoxification services was negatively related to obtaining housing.

Models of housing for people who are homeless and have substance use disorders (Hannigan & Wagner, 2003) include the following:

- Sober or dry housing, which has a strict abstinence policy and where substance use results in termination of housing.
- Damp housing, where people both with and without substance abuse problems live together, abstinence is not monitored but illicit substances are prohibited, alcohol use in public spaces is disallowed, and treatment services are sometimes provided.
- Wet housing, which uses a “harm-reduction” model that refers clients to substance abuse treatment services but does not require any participation and allows alcohol use (although typically not illicit substance use) on the premises.

Supportive Housing

Supportive housing (also known as “supported” housing) is low- or no-cost independent housing with additional services or supports. People who qualify for supportive housing are homeless and have some mental disorder, disability, or chronic health condition. According to HUD’s (2001) Supportive Housing Program Desk Guide, supportive housing encompasses transitional housing, permanent housing for persons with disabilities, and safe-haven programs (which can be either permanent or transitional). CMHS has published a guide to implementing permanent supportive housing (also available online) as part of its Evidence-Based Practices: Knowledge Informing
Transformation series (SAMHSA, 2010). The Corporation for Supportive Housing (2006) offers the Toolkit for Developing and Operating Supportive Housing as well as Developing the “Support” in Supportive Housing (Hannigan & Wagner, 2003) to sustain the provision of behavioral health treatment services in supportive housing programs and to provide other useful information pertaining to developing, funding, and administering supportive housing programs.

Reviewing the research on supportive housing, Rog (2004) found strong evidence for a positive effect on housing outcomes, somewhat less evidence for a greater effect on housing compared with other models, and preliminary evidence on the cost-effectiveness of supportive housing compared with other models. A review by Nelson, Aubry, and Lafrance (2007), which looked at studies of ACT and ICM in addition to supportive housing, found that, for people with SMI, supportive housing was associated with the largest effect sizes for housing stability outcomes.

One version of supportive housing includes the provision of “cafeteria-style” services, allowing clients to choose the aspects of treatment they wish to receive while providing them with immediate, independent housing. This version appears to produce better long-term housing outcomes than the traditional model of mandatory treatment followed by referral to permanent housing for people who are homeless and have SMI. In research on a New York, NY, program of this type, 88 percent of the participants with mental disorders who had been homeless before entering supportive housing \((n=241)\) remained housed after 5 years compared with only 47 percent of similar clients in the traditional care system \((n=1,600)\) (Tsemberis & Eisenberg, 2000).

Rosenheck, Kasprow, Frisman, and Liu-Mares (2003) evaluated veterans who were homeless and diagnosed with behavioral health disorders and who were randomly assigned to one of three groups, all of whom received supportive housing, with the addition of Section 8 vouchers and ICM services \((n=182)\), ICM added to standard VA services \((n=90)\), or standard VA services alone \((n=188)\). They found that the supportive housing intervention produced better outcomes related to housing but not related to symptoms of mental illness, substance abuse, or community adjustment. However, a reanalysis of the data from this study, which used multiple imputation methods to account for missing data, found that participants had significantly better outcomes in terms of days of drinking, days of drinking to intoxication, days of drug use, and drug-related problems (measured with the Addiction Severity Index) (Cheng, Lin, Kasprow, & Rosenheck, 2007).

Mares, Kasprow, and Rosenheck (2004) found that veterans who were homeless, diagnosed with CODs, and received treatment before entering supportive housing did not have better housing- or employment-related outcomes than those who entered supportive housing without having received treatment in the prior 6 months. However, in another analysis of data from the VA-supported housing program, O’Connell, Kasprow, and Rosenheck (2009) compared outcomes for 979 participants who were directly placed into supportive housing and 460 who were first placed in residential treatment programs. They found that participants who were placed in residential treatment prior to entering supportive housing had significantly more severe substance use/abuse, less social support, and lower ratings of quality of life on entering the program than those who entered supportive housing directly. The former also had significantly more improvements in these areas over the course of 2 years in the program; by the end of that period, differences between the two groups (except in the area of employment) were no longer significant.
More data on supportive housing came from 734 participants in the Federal Collaborative Initiative to Help End Chronic Homelessness (CICH), who received supportive housing that included substance abuse treatment, medical care, and mental health treatment (Mares & Rosenheck, 2010). At an assessment 1 year after entry into the study, participants showed significant improvements in mental disorder symptoms (according to Brief Symptom Inventory scores) and housing outcomes but not in substance abuse outcomes.

**Cost estimates**

The Corporation for Supportive Housing Chart Book Report (Lewin Group, 2004) presents cost estimates for serving people who are homeless in six different settings: supportive housing, jails, prisons, shelters, mental hospitals, and general hospitals (Exhibit B). These estimates of the average cost of providing 1 day of service to a person in each setting were meant to capture the underlying cost of providing services as opposed to the payments received from public payers. Supportive housing was defined as housing that combined building features and personal services to enable people to live in the community as long as they were able and so chose.

In an analysis of people who were homeless and had behavioral health disorders in long-term supportive housing, Martinez and Burt (2006) compared service use during the 2 years before entry into supportive housing with service use during the 2 years after entry. They found that the majority of residents made less use of emergency medical services and were less likely to require hospitalization after entering long-term supportive housing. Supportive housing alone (without a substance abuse treatment component) reduced costs associated with medical services among individuals with SMI who were homeless (Culhane et al., 2002). In CICH, participants also had significant decreases in healthcare costs (a decline of 51 percent during 1 year of supportive housing) (Mares & Rosenheck, 2010).

Rosenheck (2010) provided a cost-effectiveness acceptability curve based on data from a VA-supported housing evaluation (Rosenheck et al., 2003) that demonstrates how incremental

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<th>Exhibit B: Range of Estimated Service Costs Per Day by Setting</th>
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*Range established across Atlanta, GA; Boston, MA; Chicago, IL; Columbus, OH; Los Angeles, CA; New York, NY; Phoenix, AZ; San Francisco, CA; and Seattle, WA.*

*Source: Lewin Group, 2004.*
increases in costs for supportive housing relate to the probability of the interventions being cost-effective, showing, for example, that benefits have an 80 percent chance of outweighing costs if $75 per day are spent on supportive housing.

Poulin, Maguire, Metraux, and Culhane (2010) evaluated 3 years of service use and cost data for 2,703 people who were homeless. They found that 20 percent of their sample (56 percent of whom had SMI and a history of substance abuse treatment and 25 percent of whom had SMI without a history of substance abuse treatment) accounted for 60 percent of the total service costs. Forty percent of the participants, who were the most likely to have a history of substance abuse treatment without an SMI diagnosis, accounted for only 8 percent of total costs. The authors concluded that providing supportive housing for the majority of people who are homeless will not result in cost savings and that lower intensity interventions addressing substance abuse combined with rental assistance should be considered for the many people who are homeless.

Another large study (Culhane, Metraux, & Hadley, 2002) compared service use rates and costs for 4,679 people with SMI who were homeless in New York, NY, and placed in supportive housing with rates and costs for matched control subjects who were homeless but not placed in housing. Marked reductions in shelter use, hospitalization, length of stay per hospitalization, and time incarcerated were observed for those in supportive housing. Placement was associated with a reduction in service use costs of $16,281 per year; annual costs of each housing unit were estimated at $17,277. The net per-person cost of realizing substantial improvements in health and well-being for those who are homeless was estimated at $995 per year (housing unit cost minus service-cost offset) in the first 2 years after housing placement.

**Housing First**

Under the Housing First approach, people who are chronically homeless and have severe, chronic mental health and/or substance use disorders are placed in independent permanent housing before being engaged into treatment. Based on clinical observations, many clients who enter Housing First programs are not able to engage in traditional behavioral health services until they have stabilized their situations and built relationships with providers (Foster, LeFauve, Kresky-Wolff, & Richards, 2010). Providing housing increases willingness for treatment (Erickson et al., 1995). By offering housing and choices about treatment, Housing First programs build a sense of mastery in otherwise disenfranchised clients (Greenwood, Schaefer-McDaniel, Winkel, & Tsemberis, 2005) and improve quality of life and community integration for participants (Gulcur, Tsemberis, Stefancic, & Greenwood, 2007).

However, critics of Housing First programs note that they may not be suitable for people with severe substance abuse disorders and caution that the presence of people actively using substances in housing units may have a detrimental effect on other residents who are trying to maintain recovery (Kertesz, Crouch, Milby, Cusimano, & Schumacher, 2009).

Housing First programs typically have high rates of housing retention. For example, a HUD-sponsored study by Pearson, Montgomery, and Locke (2009) of 80 people with SMI and CODs found that 84 percent were still enrolled 1 year later, with half of those individuals having spent every night in the program’s housing. Similarly, a study that compared two Housing First
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programs and a standard control group for 260 individuals with SMI who were long-term users of shelter services found that individuals were more likely to obtain stable housing in the Housing First programs and that, at 2 years into the study, 84 percent of clients in Housing First were stably housed (Stefancic & Tsemberis, 2007).

In Housing First programs, supportive services are generally available 24 hours a day, 7 days a week, to help clients stay in their housing. This approach produces better long-term housing outcomes for this population than traditional models of mandatory treatment followed by referral to permanent housing. For example, in a comparison of traditionally accessed supportive housing based on perceived “housing readiness” with a Housing First program combining scattered-site housing and ACT team services, 88 percent of 240 people (all with mental disorders and half with CODs) receiving Housing First remained housed after 5 years compared with 47 percent of those in the traditional care system (n=1,600) (Tsemberis & Eisenberg, 2000).

Tsemberis et al. (2004) compared a Housing First option with housing that was contingent on entering treatment and remaining abstinent for people who were homeless and diagnosed with CODs. Participants in the Housing First program entered stable housing significantly faster and had more days in stable housing. There were no significant differences in the level of substance use between participants in the two programs, but the group in the enforced abstinence program did attend more treatment sessions. Padgett, Gulcur, and Tsemberis (2006) compared outcomes from a Housing First program and a “treatment first” program serving people who were homeless and diagnosed with CODs. They found individuals in the Housing First program had significantly better housing outcomes but found no significant differences on outcome measures of alcohol and drug use at 48 months (Padgett et al., 2006). In another study of 95 participants enrolled for 1 year in a Housing First program, Larimer et al. (2009) tracked regular decreases in drinks per day (from a median of 15.7 at baseline to 10.6 at 1 year) and in days spent drinking to intoxication (from a median of 28 out of 30 at baseline to 10 out of 30 at 1 year) for individuals with severe alcohol use disorders, but changes did not rise to the level of significance, and problems with self-reported data may have confounded results.

Another study, which compared Housing First (n=99) with a Continuum of Care program that had treatment and sobriety requirements for housing for clients with SMI (recruited from either psychiatric hospitals or through street outreach), found that Housing First was associated with significantly greater reductions in rehospitalization for those recruited from hospitals and significantly more days in housing for those who had been living on the streets (Gulcur, Stefancic, Shinn, Tsemberis, & Fischer, 2003). Overall service costs were also significantly lower for Housing First participants.

For clients with SMI, Housing First participation has also been associated with significant decreases in mental disorder symptoms severity (Greenwood et al., 2005). In their comparison of Housing First and treatment as usual for people with SMI, Greenwood et al. (2005) examined mediating factors. In addition to having better housing outcomes, they found that participants in Housing First had significantly fewer symptoms of mental illness and significantly better ratings of perceived choice, that perceived choice significantly affected decreases in symptoms, and that perceptions of personal control partially mediated this relationship. The authors theorized that Housing First approaches increase sense of personal control and sense of having choices, which in turn improve mental health.
On the other hand, some researchers have found no significant changes in substance use or mental disorder symptom severity associated with participation in Housing First programs (Pearson et al., 2009); others have found no significant differences from control groups following participation in Housing First programs (Padgett et al., 2006; Sadowski, Kee, VanderWeele, & Buchanan, 2009; Tsemberis, Gulcur, & Nakae, 2004;). Kertesz et al. (2009) cautioned that, in their review of Housing First studies, they were unable to identify programs that included people with severe substance use disorders and that many of the studies (including some of those mentioned here) did not use rigorous methods to assess substance use (e.g., relied on self-report).

Stefancic and Tsemberis’s (2007) research compared two Housing First programs. One provider, Pathways to Housing, was new to the suburban county where the study was conducted; the other provider was a newly formed consortium of local treatment and housing agencies that had no experience in Housing First programming. After 4 years, Pathways to Housing retained 78 percent of people in housing; the consortium retained 57 percent. Pearson et al. (2009) also found large differences in nights spent in housing between the programs they evaluated, which they attributed to differences in occupancy rules.

Pearson, Locke, Montgomery, Buron, and McDonald (2007) examined small samples of people who were chronically homeless, diagnosed with long-standing mental illnesses and (in most cases) CODs, and enrolled in one of three different Housing First programs. More than 50 percent of participants at all three sites had psychotic mental illness. Histories of substance abuse were common, but the severity of substance abuse was not assessed, and only 40 percent of participants had ever sought substance abuse treatment. The study demonstrated substantial housing stability and enrollment into services for participants. Over 12 months, 62 percent of participants in the program using ACT team services and scattered-site housing, 40 percent of participants using multidisciplinary treatment teams and congregate living, and 28 percent of participants using multidisciplinary intensive clinical case management teams and scattered-site housing were continuously housed with no temporary departures.

Larimer et al. (2009) found that costs associated with a Housing First program decreased significantly over the first 12 months in the program (from a median of $4,066 per person in month 1 to $1,492 in month 6 to $958 in month 12) for a group of people with severe alcohol problems and significant healthcare problems who were chronically homeless (n=95).

An analysis of mental health costs for a San Diego Housing First program for people with SMI who were homeless found that participation was associated with an average decrease in hospital costs of $6,103 and a decrease of $570 in costs for mental health services provided through the criminal justice system. These costs were largely offset by an increase of $6,403 for case management services (Gilmer, Manning, & Ettner, 2009).

Housing First issues related to veterans will be discussed in the planned TIP, *Reintegration-Related Behavioral Health Issues in Veterans and Military Families* (SAMHSA, planned h).

**Cost Recovery and Cost-Effectiveness of Behavioral Health Services**

The costs of implementing a particular strategy for addressing homelessness are an obvious consideration as a community formulates its plans. As might be expected, given the complexities
of the issues, information on costs in the published literature is neither plentiful nor clear-cut. This section discusses two related issues. The first is cost recovery—the return in terms of reduced healthcare and social service costs when behavioral health services are offered to people who are homeless. The second is cost-effectiveness—comparisons of outcomes of interventions with different costs. There is growing evidence that providing treatment and related services to people who are homeless can substantially reduce costs of healthcare and other services. The cost-effectiveness of specific types of interventions, such as supportive housing, has been discussed in preceding sections of this literature review, as has the cost-effectiveness of specific interventions and models.

Salit, Kuhn, Hartz, Vu, & Mosso (1998) compared New York, NY, hospital discharge data on 18,864 admissions of persons who were homeless with data from 383,986 admissions of other low-income patients. Lengths of hospital stay for people who were homeless (adjusted for principal diagnosis, coexisting illness, and demographics) averaged 36 percent longer than in a housed, low-income sample. Costs of additional hospital days for those who were homeless averaged $4,094 for mental health patients, $3,370 for HIV/AIDS patients, and $2,414 for all types of patients. The vast majority of hospitalized people who were homeless had principal or coexisting diagnoses of substance use or mental disorders; nearly three quarters were hospitalized for conditions for which hospitalization is often preventable. The authors noted that costs of services for people who are homeless should be considered in light of potential offsets in hospital care costs. For example, in New York, NY, 70 days of subacute hospital mental health treatment costs almost 30 percent more than 1 year of supportive housing with social services.

Smaller studies of people with substance use disorders who are homeless support these results regarding cost recovery. Dunford et al. (2006) demonstrated significant cost offsets in emergency medical services, emergency department use, and inpatient services for 156 people who were homeless and chronically inebriated who accepted treatment in San Diego, CA. Similar results were obtained for ethnic- and gender-specific supportive housing and intensive street case management provided to 92 people who were chronically inebriated (60 percent of whom were Native American) in Minneapolis, MN (Thornquist, Biros, Olander, & Sterner, 2002). A pilot study identified people who were homeless, chronically abused substances, and used emergency services frequently and offered them intensive community-based case management (Witbeck et al., 2000). Ten people who were enrolled in the program showed large decreases in use of the emergency room compared with eight people who were not enrolled.

A randomized study of costs and outcomes of interventions for people with substance use disorders who were homeless compared the cost-effectiveness of four drug treatment interventions (Schumacher, Mennemeyer, Milby, Wallace, & Nolan, 2002). One study component compared groups randomly assigned to a standard care condition (12-Step–based counseling and continuing care) or to an enhanced condition (day treatment, continuing care, ACH, and abstinence-contingent work therapy for minimum wage). A second study component compared groups randomly assigned to the same enhanced condition (day treatment, ACH, and abstinence-contingent work therapy for minimum wage) or to a standard day treatment condition (day treatment, continuing care, and vocational rehabilitation). The main outcome variable was days of abstinence at 2-, 6-, and 12-month follow-up. For both components, enhanced treatment cost over twice as much as standard treatment. Although enhanced treatment produced better outcomes at earlier points in time, these differences disappeared by the 12-month follow-up. The
average cost per week of abstinence favored the less expensive standard treatments in all but one comparison. However, the average incremental cost per week of abstinence was not large for the enhanced treatments. The authors concluded that policymakers should consider enhanced treatments that reduce homelessness (e.g., include ACH) because the incremental costs are reasonable and can lead to positive outcomes not measured in this study.

Stecher, Andrews, McDonald, and Morton (1994) found that although daily operating costs were 35 to 45 percent higher for residential services, the cost associated with successful treatment completion was about the same for either residential or outpatient settings.

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Part 3, Section 2—Links to Select Abstracts


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