# From the SelectedWorks of Dennis P. Culhane

January, 2013

# Rethinking Homelessness Prevention among Persons with Serious Mental Illness

Ann Elizabeth Montgomery, *University of Pennsylvania* Stephen Metraux Dennis P Culhane, *University of Pennsylvania* 



# Rethinking Homelessness Prevention among Persons with Serious Mental Illness

Ann Elizabeth Montgomery\*

University of Pennsylvania

Stephen Metraux

University of the Sciences

#### Dennis Culhane

University of Pennsylvania

During recent years, the need to consider effective and innovative ways to prevent and end homelessness among individuals with serious mental illness has been abetted by an increased and more sophisticated understanding of the composition of the homeless population, the emergence of evidence-based practices to address homelessness, and the passage of the Patient Protection and Affordable Care Act. This article summarizes the evolving understanding of the role that serious mental illness plays in homelessness as well as the interventions that are effective at preventing and ending homelessness among persons with serious mental illness. This summary contextualizes a discussion of the practice and policy agenda to address homelessness among people with serious mental illness using a new prevention framework and considering the opportunities inherent in increased affordable health care coverage for very low-income individuals with serious mental illness.

# Rethinking Homelessness among Persons with Serious Mental Illness

Research on homelessness in the United States has placed particular focus on the prevalence of serious mental illness among individuals experiencing

<sup>\*</sup>Correspondence concerning this article should be addressed to Ann Elizabeth Montgomery, National Center on Homelessness among Veterans, 4100 Chester Avenue, Suite 201, Philadelphia, PA 19104. Tel: 215-823-5800 (5067) [e-mail: montga@upenn.edu].

homelessness as well as interventions intended to prevent and end homelessness among this population. Over time, increased understanding about the composition of the homeless population, the emergence of evidence-based practices to address homelessness, and the passage of the Patient Protection and Affordable Care Act—specifically the advantages that it confers upon households with very low incomes—have enabled researchers and practitioners to consider effective and innovative ways to prevent and end homelessness among individuals with serious mental illness, defined as "serious and persistent mental or emotional disorder (e.g., schizophrenia, mood disorders, schizoaffective disorder) that disrupts functional capacities for primary aspects of daily life such as self-care, interpersonal relationships, and employment or school" (Dennis, Buckner, Lipton, & Levine, 1991, p. 1129).

This article will summarize the evolving understanding of the role that serious mental illness plays in homelessness as well as the interventions that can effectively prevent and end homelessness among persons with serious mental illness. This summary sets the context for a discussion of the practice and policy agenda to address homelessness among people with serious mental illness using a new prevention framework and considering the opportunities inherent in increased affordable health care coverage for very low-income individuals.

#### **Deinstitutionalization and Homelessness**

Deinstitutionalization has been cast in theoretical terms in such diverse contexts as employment policy (Ahmadjian & Robinson, 2001) and marriage (Cherlin, 2004), but is best known as a process whereby the locus of care for persons with psychiatric, intellectual, or developmental disabilities has shifted from hospitalbased to community-based settings. Within the field of care for persons with psychiatric disabilities, this process has fundamentally transformed mental health care, and is best illustrated by the change in the resident patient census for state and county psychiatric hospitals, which decreased from a peak at 559,000 in 1955 (Mechanic & Rochefort, 1992) to 47,000 in 2003 (Manderscheid, Atay, & Crider, 2009). The deinstitutionalization process is not unique to the United States (Fakhoury & Priebe, 2002), and is often parsed into several components: Lamb and Bachrach (2001), for example, lay out three component processes of deinstitutionalization, where, first, persons are released from psychiatric hospitals to community-based settings; second, erstwhile hospital patients receive mental health care from alternative sources; and, third, "special services" for mental health care are developed in the community.

Critiques of the deinstitutionalization process have been widespread and focus mainly on the lack of coordination in implementing this process and the inadequate provision of community-based mental health services. In retrospect, deinstitutionalization was never a coherent policy initiative, but more a "disjointed, nonlinear process in which there has been 'loose coupling' of policies and results" (Mechanic & Rochefort, 1990, p. 306, citing Gronfein, 1985) with no explicit attempt to depopulate state hospitals (Johnson, 1986). Scull (1996) asserts more bluntly that: "deinstitutionalization was implemented with little or no prior consideration of such basic issues as where the patients who were released would end up; who would provide the services they needed; and who would pay for those services" (p. 315).

Homelessness was among the most extreme outcomes linked to deinstitutionalization and, more specifically, to the inadequacy of various mainstream systems to respond to the income and housing needs of persons with serious mental illness (Mechanic & Rochefort, 1992). This, against the backdrop of changing urban dynamics, drastically reduced the availability of affordable housing for this group. Since the 1970s, housing policies have inadequately provided for low-income households and have done nothing in the face of the destruction of substantial amounts of affordable housing (Apgar, 1993; Dolbeare, 1996; Hopper & Hamburg, 1986), particularly single room occupancy housing in urban areas (Blackburn, 1996; Hoch & Slayton, 1989). This particularly impacted persons with serious mental illness (Carling, 1992; Hartman, 1986), who were disadvantaged in securing housing because of the stigma associated with mental illness (Link & Phelan, 2001) and because their disability benefit levels failed to keep pace with what was needed to obtain decent housing without additional rent subsidies (O'Hara & Miller, 2001).

As a result, persons with serious mental illness and the mental health services available to them became concentrated in urban, economically marginalized areas that Dear and Wolch (1987) termed mental health services "ghettoes." Persons with serious mental illness living in these areas became exposed to the socioeconomic problems pervasive to the neighborhoods in which these "service ghettoes" were located, particularly problems related to poverty and housing (Cook & Wright, 1995). Cohen (1993), in a review of the literature on schizophrenia and poverty, noted that the majority of persons with serious mental illness "reflect the condition of the poorest classes of society" (p. 952) with their subsistence on public welfare and disability benefits (see also Wilton, 2004). In addition, they were disproportionately black, had a high rate of unemployment and a low rate of high school graduation, and had rates of drug and alcohol abuse that were 4.6 times that of the general population. As a group, they have been particularly hard bit by the steady erosion of the inflation-adjusted value of disability benefits. Taken together, these socioeconomic problems among persons with serious mental illness in urban settings "appear to be less a result of psychiatric illness and more a result of poverty, disenfranchisement, estrangement from community, and stigmatization" (Cohen, 1993, p. 953, citing Lurigio & Lewis, 1989).

Poverty and homelessness became intertwined with the needs for mental health services, complicating both the effective management of mental illness and its symptoms (Lewis, Shadish, & Lurigio, 1989) as well as the efficient use of mental health services (Rosenfield, 1991). For example, extremely poor persons with mental illness, when seeking psychiatric hospitalization, may do so more as a short-term housing arrangement than for ostensibly psychiatric reasons (Lewis & Lurigio, 1994). Medication regimens become more difficult to maintain and there is a greater propensity to "self-medicate" with illicit drugs and alcohol. Mental illness becomes less manageable as a result of the additional stress generated from difficulties in maintaining housing and other basic necessities (Kuhlman, 1994). When no other housing options are available, persons with serious mental illness may take to traveling an "institutional circuit" (Hopper, Jost, Hay, Welber, & Haughland, 1997) that consists of sequential stints in hospitals, jails, homeless shelters, and other residential facilities in a manner reminiscent of the "stations of the lost" used by alcoholics on Skid Row (Wiseman, 1970).

The term "institutional circuit" underscored how homelessness, in the wake of deinstitutionalization, often amounted to transinstitutionalization. Hopper et al.'s (1997) study focused on the use of what were termed "custodial" institutions: institutions that had residential capabilities but that were not appropriate for long-term living arrangements because of high service cost, specialization of service, and degree of confinement or material deprivation associated with the facility types. The study, which constructed detailed life histories of a group of persons with serious mental illness who were homeless, found that institutions and temporary housing for persons experiencing homelessness were serving as a proxy for stable housing. Metraux, Byrne, and Culhane (2010), looking at the general single adult homeless population in New York City, found that 20% of first-time shelter users directly preceded their initial shelter stays with a stay in another institutional setting.

Homelessness became a salient symbol for the shortcomings of deinstitutionalization, colored by images of floridly psychotic persons subsiding amidst (and sometimes freezing to death in) the public spaces of U.S. cities. Persons with serious mental illness have become seen as caught in an indeterminate state between their former "homes" in the state hospitals (Krauthammer, 1985) and the unfulfilled promise of "homes" in the community extended by the deinstitutionalization movement (Mossman, 1997). However, making empirical connections between deinstitutionalization and homelessness has been more difficult. The most comprehensive argument for such a connection is by Jencks (1994), who presents evidence that, until 1975, those discharged from psychiatric hospitals usually had someplace to go, with the majority living with relatives. A substantial portion also continued to be institutionalized in settings such as nursing homes. After 1975, however, more stringent involuntary commitment laws and fiscal austerity led states to discharge persons into the community who, due either to the severity of their mental illness or the absence of familial and other social supports, have had a much more difficult time, on one hand, maintaining stable housing in the community and, on the other hand, receiving hospital care. Jencks estimated that between 1975 and 1990 the number of long-term inpatients in psychiatric hospitals fell by 100,000. According to Jencks, curbing the post-1975 excesses in hospital discharge policies could have precluded mental illness from being a substantial factor in homelessness.

# Serious Mental Illness and Homelessness: Neither Sufficient Nor Necessary

Deinstitutionalization, and its focus on the socioeconomic explanations for homelessness among persons with serious mental illness, de-emphasizes the role of the individual psychiatric morbidities and their behavioral correlates in becoming and remaining homeless. This runs contrary to numerous studies that have identified, quantified, and otherwise documented the dynamics of mental illness among the homeless population. Findings from these studies support the conclusion that, although having a mental illness increases the risk of becoming homeless, mental illness is neither necessary nor sufficient as a cause of homelessness (Sullivan, Burnam, & Koegel, 2000). As Wright, Devine, and Rubin (1998) point out, the vast majority of persons with serious mental illness do not become homeless. Conversely, although the prevalence of mental illness is considerably higher among the homeless than among the "housed" population, it still affects only a minority of the homeless population. Subsequent advances in research methodology have supported this perspective, providing a more accurate picture of the prevalence of serious mental illness among persons experiencing homelessness, as well as the risk serious mental illness poses for becoming homeless.

### Challenge of Serious Mental Illness to Independent Living

By definition, serious mental illness is the presence of a major mental illness or disorder accompanied by a decrease in functioning, often observed as the presence of active psychiatric symptoms, which can lead to the loss or degradation of individuals' support networks and their ability to access services and obtain or sustain employment and stable housing (Bassuk, Rubin, & Lauriat, 1984; Caton, Hasin, Shrout, Opler, Hirshfield, Dominguez, & Felix, 2000; Caton, Shrout, Dominguez, Eagle, Opler, & Cournos, 1995; Caton, Shrout, Eagle, Opler, Felix, & Dominguez, 1994; Cohen & Thompson, 1992; Dennis, Buckner, Lipton, & Levine, 1991; Dennis, Levine, & Osher, 1991; Drake, Wallach, & Hoffman, 1989; Drake, Wallach, Teague, Freeman, Paskus, & Clark, 1991; Fischer & Breakey, 1991; Shlay & Rossi, 1992; Toro & Wall, 1989).

Clearly, this lack of functioning is the primary psychological process by which individuals with serious mental illness may become—and then remain—homeless. Symptoms and deficits to functioning may be further exacerbated by the

crisis that is homelessness, particularly the initiation into homelessness (Cohen & Thompson, 1992). Studies have found that one's initiation into homelessness "may be accompanied by symptoms of anxiety, depression, sleeplessness, [and] loss of appetite" that often impedes one's ability to complete tasks of daily living (Dennis, Levine, & Osher, 1991, p. 823). Some scholars have even reported that crisis experiences like becoming homeless may exact a higher level of stress on individuals with greater economic and social disadvantage (Greenwood, Schaefer-McDaniel, Winkel, & Tsemberis, 2005).

In addition to increased stress precipitated by the crisis of homelessness, the literature consistently identifies the following as commonly occurring psychological processes associated with homelessness among a population with serious mental illness: the presence of antisocial personality disorder (Bassuk, Rubin, & Lauriat, 1984; Caton et al., 1995; Fischer & Breakey, 1991), the erosion of social networks (Bassuk, Rubin, & Lauriat, 1984; Caton et al., 2000; Drake et al., 1991; Shlay & Rossi, 1992), and the inability to maintain employment or carry out other functions of daily living because of active psychiatric symptoms (Bassuk, Rubin, & Lauriat, 1984; Caton et al., 2000; Drake et al., 1991; Shlay & Rossi, 1992). The loss of social networks among family members is particularly troubling as individuals with serious mental illness often seek stable housing situations with their families (Caton et al., 1995). In fact, it has been noted that individuals with serious mental illness cite deterioration of family relationships as not only an antecedent but a cause of their homelessness (Dennis, Levine, & Osher, 1991). Finally, the presence of active psychiatric symptoms such as "threatening behavior, bizarre behavior, hallucinations or delusions, paranoia, disorganized speech, depression, [and] suicidal behavior" (Drake, Wallach, & Hoffman, 1989) can not only compromise interpersonal relationships—which may be the source of a stable living situation or a bridge to accessing services—but can make it quite difficult to maintain housing and employment (Bassuk, Rubin, & Lauriat, 1984; Dennis, Levine & Osher, 1991).

Prevalence of Serious Mental Illness among Persons Experiencing Homelessness

Research over the past 30 years on the prevalence of serious mental illness among persons experiencing homelessness has contributed to the widespread belief that homelessness is caused primarily by serious mental illness and substance abuse. Research conducted in the early- to mid-1980s comprised the first generation of these studies, which focused primarily on adults living in shelters or public places, and were often based upon nonrepresentative sample populations and irregular means of assessing mental illness (Salkow & Fichter, 2003; Susser, Conover, & Struening, 1989). These studies estimated that the prevalence of mental illness among adults experiencing homelessness ranged from 2% to 95% (Arce,

Tadlock, Vergare, & Shapiro, 1983; Bassuk, Rubin, & Lauriat, 1984; Baxter & Hopper, 1982; Farr, Koegel, & Burnam, 1986; Fischer & Breakey, 1991; Men's Shelter Study Group, 1976; Reich & Siegel, 1978).

In an effort to obtain a more methodologically rigorous assessment of mental illness among the homeless population, the National Institute of Mental Health awarded a number of research grants in the latter half of the 1980s. This "second generation" of studies featured significant methodological improvements over earlier studies (Tessler & Dennis, 1992), including the use of large, representative samples of the single adult homeless population in several different localities (Fischer & Breakey, 1991). The researchers, who were trained mental health epidemiologists, employed a common and standardized diagnostic interview to determine diagnosis and attended much more closely to the distinctions among mental disorders in their interpretation and dissemination of study results. In an empirical review of these second generation studies, Lehman and Cordray (1993) estimated that approximately 18-22% of the single adult homeless population had a serious mental disorder and 47-50% had a substance abuse disorder at some point in their lives. Where the first generation of research generally supported popular perceptions of the ubiquitous presence of mental illness among the homeless population, the second generation research was more mixed: it offered more rigorous empirical evidence to support the high prevalence of severe mental and substance abuse disorders among the homeless population but indicated that these conditions were not the defining characteristics of adult homelessness.

The second generation studies, though much improved over the first generation, still had their methodological flaws. Primary among these flaws was their reliance upon cross-sectional samples. Cross-sectional samples significantly overrepresented persons experiencing long-term homelessness, which confounded the understanding of who became homeless with who remained homeless. Because persons with serious mental illness, once they were homeless, stayed homeless longer (Phelan & Link, 1999), their disproportionately high representation in the homeless population was not so much because of an increased risk of becoming homeless as it was with a risk of staying homeless. Studies using administrative data in Philadelphia (Culhane, Averyt, & Hadley, 1997, 1998) illustrate this problem. Instead of a cross-sectional sample, these studies used a 3-year prevalence sample of single adult shelter users, and found their 10-year treatment rate for serious mental illness to be 12%. Adjusting these figures upward for the estimated rate of "untreated" cases, about 15-18% of single adults had a history of serious mental illness. This indicated that, when viewing the homeless population, about one-half as many people had a serious mental illness than was suggested by the widely disseminated "one-third" estimate (Dennis, Levine, & Osher, 1991; Levine & Rog, 1990; Tessler & Dennis, 1992), and that estimates of the prevalence of serious mental illness among the homeless population was as much as one-third lower than the second generation study estimates.

A second major limitation to the second generation research was that it excluded homeless families. The prevalence of mental illness among adults in homeless families is substantially lower when compared to unaccompanied homeless adults (Burt & Cohen, 1989). In the Philadelphia study referenced above, when homeless parents were included in prevalence estimates for serious mental illness, the treatment rate for "homeless adults" dropped from 12% to 10% (adjusting for treatment rates, the prevalence rate drops from an estimated range of 15–18% to 13–15%).

In a recent meta-analysis of the prevalence of mental illness among homeless populations, Fazel, Khosla, Doll, and Geddes (2008) found there to be a high but varied prevalence of mental illness among the homeless population based on 29 studies undertaken between 1979 and 2005. Based on this, the authors concluded that prevalence rates of mental illness among local homeless populations may vary substantially based not only on methodology, but also on the local availability of mental health services. North, Eyrich, Pollio, and Spitznagel (2004) presented further evidence indicating that the rates of serious mental illness among a local homeless population changed over time, and concluded that the extent that mental disorders present themselves in the homeless population may be contingent on changing social and economic dynamics.

# Prevalence of Homelessness among Persons with Serious Mental Illness

Earlier studies on homelessness and serious mental illness considered the prevalence of serious mental illness within the homeless population rather than the incidence of homelessness among those individuals with serious mental illness. The Philadelphia study referenced above (Culhane, Averyt, & Hadley, 1997) found that 9% of the people who had been treated for serious mental illness in the prior 10 years had ever stayed in a public shelter during a 3-year period. Another Philadelphia study (Kuno, Rothbard, Averyt, & Culhane, 2000) found that 24% of a smaller sample of persons who received long-term acute care in a psychiatric hospital also used shelters during a concurrent 3-year period. These studies both fall within a relatively wide range of homelessness among persons with serious mental illness that has been cast as 4–36% (Kuno, Rothbard, Averyt, & Culhane, 2000) and 7.6–29% (Blow, McCarthy, Valenstein, Austin, & Gillon, 2004).

Although these homelessness rates are considered high, there is question as to whether they are higher than those among comparable poor, urban populations. For example, the rate of homelessness among persons with serious mental illness in the study by Culhane, Averyt, and Hadley (1997) was lower than the rate of homelessness for the Philadelphia poverty population during the same 3-year period, which was 14% or roughly 50% higher than the 9% rate for the Medicaid population with an serious mental illness. For further context, Culhane and Metraux (1999) found that shelter rates among particular demographic subgroups

of poor, black persons, including preschool-aged children, women in their 20s, and men in their 30s, exceeded 20%. With homelessness being a relatively common phenomenon among the poor population and the population with serious mental illness—both of which are disproportionately poor and minority—it has been difficult to put these prevalence findings in an appropriate context.

Many of the studies that assessed rates of homelessness among populations with serious mental illness focused on treated populations, and suggest that those who become homeless are accessing the mental health system. Kuno, Rothbard, Averyt, and Culhane (2000) found no difference in mental health services use patterns in their study group between those who did and did not become homeless, belying the notion that those who were noncompliant with services were those who were more likely to become homeless. Folsom, Hawthorne, Lindamer, Gilmer, Bailey, Golshan, Garcia, Unutzer, Hough, & Jeste, (2005), who found a 15% rate of current homelessness among 10,000 persons with serious mental illness treated by the public mental health system in San Diego during a 12-month period, found that having Medicaid coverage was associated with a higher risk of homelessness among persons with serious mental illness, suggesting that access to mental health services may be associated with homelessness.

#### Serious Mental Illness as a Risk Factor for Homelessness

Determining whether mental disorders are risk factors for becoming homeless requires a sample of incident cases of homelessness as opposed to prevalent cases as well as a comparison group of nonhomeless poor. Since 1990, several studies have sought to distinguish whether serious mental illness is a risk factor for homelessness, looking separately at families and single adults, and controlling for poverty, race, substance abuse, and other factors.

Two studies assessed the characteristics that distinguish homeless mothers and poor housed mothers who have never been homeless: one in New York (Shinn, Weitzman, Stojanovic, Knickman, Jimenez, Duchon, James, & Krantz, 1998) and the other in Worcester, Massachusetts (Bassuk, Buckner, Weinreb, Browne, Bassuk, Dawson, & Perloff, 1997). Although neither study found differences between the housed and homeless mothers with respect to psychiatric diagnoses, including substance abuse, the Worcester study did find that the homeless mothers had a higher rate of hospitalization for mental health problems, and a higher rate of frequent heroin use.

Several other studies have attempted to identify the characteristics that distinguish homeless "singles" from their housed counterparts in several cities, including Chicago (Sosin, 1992), Buffalo (Toro, Bellavia, Daeschler, Owens, Wall, Passero, & Thomas, 1995), and New York City (Caton et al., 2000; Caton et al., 1994). The Chicago and Buffalo studies both obtained comparison samples of nonhomeless poor from soup kitchens, distinguished those with repeat episodes of homelessness

from those who were newly homeless, and used a battery of measures to assess differences between the groups. Both studies found little difference between the two groups in terms of mental illness. Again, neither study found a significant difference in serious mental illness across the housed and homeless samples:

The lack of findings on the diagnosis of severe mental illness were somewhat surprising, given the heavy emphasis on the homeless mentally ill in the research and popular literatures. . .Perhaps mental illness, defined based on rigorous methods and separate from poverty, may not be as critical a factor in homelessness as many believe (Sosin, 1992, p. 286).

Similarly, the New York study (Caton et al., 2000) compared a sample of 200 first-time shelter users with 200 never-homeless adults seeking public assistance; none of these individuals had ever experienced a psychiatric hospitalization or psychotic episode. The authors found no differences between these groups in the areas of substance abuse or other mental health problems; however, single homeless women had higher rates of substance abuse, but similar rates of other mental health problems. A similar investigation among adults with schizophrenia found that substance abuse was the most important distinguishing risk factor for homelessness (Caton et al., 1994). People with conditions of both schizophrenia and a drug or alcohol problem were more likely to have strained family relationships, and to have more difficulty than those without a drug or alcohol problem in securing and maintaining housing. Indeed, studies have repeatedly found that a cooccurring substance abuse problem is a major risk factor for homelessness among people with serious mental illness in psychiatric hospitals (Drake, Wallach, & Hoffman, 1989).

Finally, three recent studies have looked at risks of homelessness based on general population surveys. Two of the studies were by Greenberg and Rosenheck (2010): one used the National Epidemiological Survey on Alcohol and Related Conditions (Grant, Kaplan, Shepard, & Moore, 2003) and the other the National Comorbidity Survey Replication to examine risk factors for lifetime prevalence of homelessness based on self-report. Both studies found relatively low rates of homelessness (2.7% in the former and 5.5% in the latter) and significant increases in the risk for having experienced homelessness that were associated with several measures of mental illness. The adjusted odds for homelessness associated with mental illness were stronger in the former study, which found only limited associations between economic correlates and homelessness. In the latter study, there was a modest increase in risk associated with mental illness, and a strong association between homelessness and past welfare receipt (adjusted odds ratio of 5.7). The uncertainty in the order of these associations (i.e., did the risk factors precede or follow homelessness), and the imprecise nature of subject recall limit the interpretation of these results. In the third study, Shelton, Taylor, Bonner, and van den Bree (2009) used a prospectively collected panel data set, the National Longitudinal Study on Adolescent Health (Chantala, 2006), and again found both economic disadvantage and mental illness indicators to have significantly and substantially increased the risk for homelessness in the study population.

Taken together, and despite a diversity in findings, the studies reviewed here consistently show that the linkages between mental illness and homelessness, although present, become less salient with more rigorous study designs, and are mediated by socioeconomic factors. In other words, the research supports there being nothing inherent to serious mental illness that leads to homelessness, rather this link is mitigated by the economic difficulties that often accompany living with mental illness in the community. The nature of the relationship between homelessness and mental illness is likely to be contingent upon local dynamics, and with sufficient supports mental illness could even be a protective factor against homelessness.

### **Prevention Policy Framework**

As reviewed in the previous section, the literature on the epidemiology of homelessness and serious mental illness indicates that serious mental illness is neither sufficient nor necessary for homelessness; rather, the susceptibility of homelessness among persons with serious mental illness is more often explained by the socioeconomic deprivations that often accompany living with serious mental illness, rather than the psychiatric morbidity itself. This basic finding provides the foundation for a framework for preventing and ending homelessness among this population by restructuring homeless services from a separate system into a configuration where it quickly diverts or redirects homeless persons back to self-sufficiency, often through assistance from mainstream service systems. For persons with serious mental illness, this means focusing on housing issues and, if this is insufficient, handing persons off to a mental health system that increasingly has adopted the view of housing as a mental health service.

The following section will present a broad overview of homelessness prevention in general as well as the concept for a prevention-based response to homelessness. This concept will then be applied specifically to persons with serious mental illness who are at risk for or experiencing homelessness. Previous works on homelessness prevention (Burt, Pearson, & Montgomery, 2007, 2005; Shinn, Baumohl, & Hopper, 2001) have developed frameworks that are based on a widely used general public health model for prevention. Here prevention initiatives are organized along three levels: primary, secondary, and tertiary (Caplan, 1964).

Primary Prevention: Overview and Best Practices

In the context of homelessness, primary prevention incorporates efforts intended to reduce the number of new cases of homelessness. As Culhane, Metraux,

and Byrne (2011) describe, primary homelessness prevention interventions would include wide-ranging efforts that target broad groups and only indirectly address homelessness. Examples of such primary prevention efforts would be policies that reduced poverty, created a national entitlement to affordable housing, and increased household incomes. Although such initiatives have their own intrinsic merits, they represent an inefficient means to prevent homelessness: for each household for which homelessness would be prevented there are numerous households who would not have experienced homelessness in the absence of such an intervention. Primary prevention initiatives that specifically target homelessness seek to narrow the populations deemed to be "at risk" of homelessness and provide assistance when homelessness appears imminent, reducing the number of "false positives" that would otherwise occur.

Ideally, the safety net provided by the community mental health system and additional financial resources related to disability status should be protective against homelessness. However, community-based mental health services are notoriously uncoordinated and unevenly provided across different jurisdictions. Likewise, the supply of affordable housing earmarked for persons with serious mental illness has been generally inadequate and haphazard (Wong & Stanhope, 2009). In the absence of housing available through mental health services systems, persons with serious mental illness are often at a disadvantage, both from the nature of their disability and the stigma it carries, from accessing affordable housing on the mainstream housing market.

Housing is prerequisite to providing effective mental health services and achieving any meaningful degree of community integration for persons with serious mental illness (Wong & Solomon, 2002), but this realization has come relatively recently. Best practices among primary prevention approaches center more on availability of housing than on any particular approach to housing. There is no "one size fits all" approach to housing for persons with serious mental illness (Roman, McBride, & Osborne, 2005) and there is agreement that a range of available housing options is optimal (Fakhoury, Murray, Shepherd, & Priebe, 2002). More important to successful primary homelessness prevention efforts among this group is the presence of a readily accessible supply of housing.

The systematic, coordinated responses to these housing needs that are necessary for effective primary prevention have yet to be implemented (Moses, Kresky-Wolff, Bassuk, & Brounstein, 2007). The one initiative that potentially addresses housing on this scale is *Olmstead v. L.C.*, the Supreme Court decision that mandated that states provide community-based living alternatives to institutionalized care for persons with disabilities who desire such housing based on the standard of the most integrated setting appropriate to individual needs and abilities (Moore, 2009). Other initiatives offer strategies for responding to the "Not in My Backyard" phenomenon in which neighborhoods are resistant to housing for stigmatized populations (Dear, 1992).

Secondary Prevention: Overview and Best Practices

Secondary prevention initiatives quickly identify and end an episode of homelessness. Although secondary prevention interventions do not prevent new cases of homelessness, these interventions are necessary to reduce the number of households that are experiencing homelessness. For most households, homelessness is a transitory condition (Culhane, Metraux, Park, Schretzman, & Valente, 2007; Kuhn & Culhane, 1998), with recent national data indicating that, on average, individuals stay in shelters for approximately two weeks and families for approximately one month (U.S. Department of Housing and Urban Development, 2010). Secondary interventions would address homelessness at its onset, by diverting households from shelter and resolving the immediate crisis that precipitated the loss of housing. Here the goal would be returning people to prior housing arrangements whenever possible, and rapidly rehousing them elsewhere when this is not feasible. Secondary prevention might include short-term housing subsidies; emergency rent, mortgage, and utility assistance; and tenant/landlord mediation.

One point at which persons with serious mental illness are at high risk of homelessness is upon institutional discharge (Metraux, Byrne, & Culhane, 2010). Although discharge planning has been touted as a necessary ingredient to the secondary prevention of homelessness among persons with serious mental illness who are leaving institutions, its utility has been doubted (Shinn, Baumohl, & Hopper, 2001). However, an intervention providing longer-term postdischarge support for recently homeless individuals with serious mental illness—Critical Time Intervention (CTI)—has demonstrated success.

CTI assists individuals upon exiting from institutions and lies along the continuum between primary and secondary prevention activities—primary for those exiting institutions with housing to return to and secondary for those who do not have an established home to return to postdischarge (Herman, Conover, Felix, Nakagawa, & Mills, 2007). This approach was developed in response to individuals with serious mental illness who were transitioning from shelters into permanent housing and then reappearing in the homeless system (Caton, Wyatt, & Felix, 1992; Gounis & Susser, 1990). In CTI, the key point is the transition from institution-based care to independent living. CTI provides "front-loaded" services whereby intensive support is provided early in the transition and then scaled back. The primary goals are to develop the individual's independent living skills and increase the individual's community support network (Herman, Opler, Felix, Valencia, Wyatt, & Susser, 2000).

Tertiary Prevention: Overview and Best Practices

Finally, tertiary prevention activities are designed to reduce the impact of a household's ongoing housing instability and create opportunities for the

household to obtain stable housing. Although tertiary prevention interventions would target the smallest number of households in need—including those who are currently homeless or have experienced ongoing, repeated episodes of homelessness and housing instability—these households often require a more intense level of intervention to access and maintain stable housing, including relocation assistance, landlord recruitment, and short-term rental assistance as well as long-term subsidies and service engagement.

For those individuals with serious mental illness who do require more intensive, long-term assistance to obtain housing stability, supportive housing may be the appropriate intervention (Caton, Wilkins, & Anderson, 2007). Supportive housing asserts that individuals with serious mental illness should live in "normal" households regardless of their level of functioning (Blanch, Carling, & Ridgway, 1988). This approach requires that the housing be permanent, physically separated from and unaffiliated with mental health services, and reflective of the individual's housing preferences (Carling, 1990; Ridgway & Zipple, 1990). Supportive housing typically targets families and individuals who are experiencing some chronic condition, typically serious mental illness, which places them at risk of homelessness or housing instability and enables them to live in housing with an affordable housing burden while providing supportive services to increase their housing stability and assist them in recovery (Caton, Wilkins, & Anderson, 2007).

Although the evidence base for supportive housing models is fairly recent and is compromised by several methodological weaknesses—most studies are quasi-experimental, conducted on housing models that vary widely, and have fairly small sample sizes and limited statistical power—it has provided some evidence of how mental health providers may address the issue of homelessness among its service population (Rog, 2004). Evidence indicates that, regardless of the specific tenets of the model, supportive housing in general improves housing stability among persons with serious mental illness; findings over time have indicated that "having any stable housing has a dramatic improvement on outcomes, especially those related to residential stability and use of institutional settings, such as hospitals, detox, jails and prisons" (Rog, 2004, p. 340).

Even if the most notable outcomes are in the area of housing stability—as opposed to clinical outcomes—this has positive implications for preventing homelessness among people with serious mental illness. A summary of data on housing stability outcomes for permanent supportive housing programs indicates that retention rates are between 75% and 85% in the first year and up to one-half of the residents remain in the program more than 3 years (Caton, Wilkins, & Anderson, 2007).

In addition to housing stability, permanent supportive housing programs have been found to reduce tenants' use of other institutional services such as shelter, hospitals, and correctional facilities: the total number of days spent in shelters, inpatient psychiatric hospitals, public hospitals, Department of Veterans Affairs inpatient hospitals, prisons, and jails have been shown to decrease substantially once an individual moves into permanent supportive housing and costs associated with the provision of these resources decrease as well (Culhane, Metraux, & Hadley, 2002).

#### A Model for Prevention Services

The collective goal of these three levels of prevention interventions is to maintain at-risk households in their housing or to quickly return homeless households to housing. Accurate targeting—that is, ensuring that interventions are directed to those who would be homeless but for the assistance—is key for efficiency. In addition, interventions must be effective at preventing and not just delaying the onset of homelessness. As described elsewhere, developing such effective and efficient prevention interventions is a difficult task (Burt, Pearson, & Montgomery, 2007, 2005; Shinn, Baumohl, & Hopper, 2001).

Along with efficiency and effectiveness, a prevention-based model would focus on two main principles: ensuring housing stability and supporting a household's connection to community-based resources (Culhane, Metraux, & Byrne, 2011). Such a model would place the ultimate responsibility for housing stabilization within community-based systems rather than in a separate but parallel homeless services system. In this new model, population-specific communitybased agencies would provide a series of homelessness prevention interventions, ranging from relatively inexpensive, primary prevention services to more intensive and expensive, long-term interventions. The highest volume of households would receive the least intense, least expensive primary interventions (such as one-time emergency rent or utility assistance or tenant-landlord mediation), although the smallest volume of households would receive the intensive, expensive tertiary services such as permanent supportive housing, intended for individuals with a history of long-term homelessness. Between the two ends of this continuum—that is, between the brief, inexpensive interventions and the most intensive, long-term interventions—would lie traditional homeless services such as shelter and transitional housing.

This homelessness prevention framework, when applied to individuals with serious mental illness, would rely on some combination of community-based housing services and mainstream mental health service systems to maintain the individual in housing and provide necessary mental health services. The nature of the relationship between housing and services has been a contested issue within mental health services, with a traditional, services-based approach integrating housing and services as part of a coordinated regimen, although newer supportive housing and housing first approaches promote a "paradigm shift" in decoupling housing and services while placing greater emphasis on tenant preference concerning the configuration of each (Ridgway & Zipple, 1990; Tsemberis, 2010). In

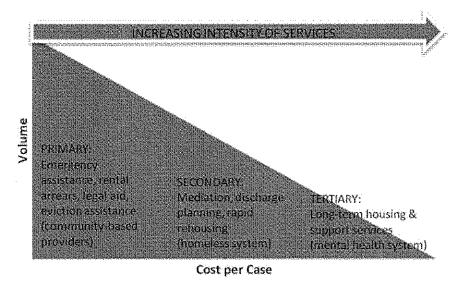


Fig. 1. Homelessness prevention framework for individuals with serious mental illness.

addition, a person with serious mental illness may access more generally available housing assistance services, so that less intensive services may be provided by the local housing assistance system although more intensive secondary and tertiary interventions would be provided by the mental health system.

Figure 1 illustrates the relationship, first, between the volume of services and cost per case for primary, secondary, and tertiary prevention services: the largest number of households receive the least expensive primary prevention services whereas the smallest number of households receive the most expensive tertiary prevention services. Second, the figure illustrates the inverse relationship between volume and intensity, where lower-volume services such as permanent supportive housing provide the most intensive intervention and higher-volume services provide a light-touch, less intensive intervention.

#### Social Issues and Policy Implications

Using the framework for the prevention of homelessness among individuals with serious mental illness, described above, we recommend policies aimed at the three levels of prevention. Specifically, we recommend universal, primary prevention efforts to prevent new cases of homelessness among persons with serious mental illness as well as more intensive secondary and tertiary prevention interventions, likely funded in part through Medicaid. Secondary prevention interventions

would identify and address homelessness at its earliest stages among persons with serious mental illness, and tertiary prevention interventions would slow the progression or mitigate the effects of longer-term homelessness experienced by an individual with serious mental illness.

Primary approaches would include increasing disability income so that recipients would be living above the poverty threshold or providing reimbursement for supportive services intended to enable persons with serious mental illness to remain living independently. A report by the Technical Assistance Collaborative, Inc. and the Consortium for Citizens with Disabilities estimates that in 2010, more than four million adults with disabilities receiving Supplemental Security Income (SSI) did not have sufficient income to afford housing in any community in the country (Cooper, O'Hara, & Zovistoski, 2011). In fact, annual SSI payments in 2010 were "equal to only 18.7% of the national median income for a one-person household and over 20% below the 2010 federal poverty level" (p. 5).

Given that SSI payments are intended for individuals who are disabled as well as have limited income and resources (Social Security Administration, 2011), one possibility for reducing the risk of homelessness for these individuals would be to increase the cash benefit associated with SSI to at least a level where individuals with disabilities could afford housing at fair market rent. The National Low Income Housing Coalition has developed an estimate of a housing wage, which is the amount of income that a household would require to afford housing at local fair market rent. The national average for a housing wage is more than \$15 per hour, which, when extrapolated to a monthly amount, is almost four times that of SSI (Cooper, O'Hara, & Zovistoski, 2011).

In addition to increasing disability income for individuals with serious mental illness, the responsibility for identifying individuals with homelessness risk because of a variety of factors should be placed in part on the mental health services system in which these individuals receive treatment. The provision of "light-touch" interventions such as negotiations with landlords, facilitating a payment plan for unpaid utilities, or discussing budgeting concerns could decrease risk of homelessness among this population in the course of their regular interaction with services providers.

Of particular importance in considering novel policy approaches to preventing homelessness among persons with serious mental illness is how the Patient Protection and Affordable Care Act may impact the way Medicaid provides funding for services for low-income persons with disabilities. It has been estimated that one in six uninsured individuals has a serious mental illness and, given that uninsured individuals are likely to be low-income, the population of Medicaid-eligible individuals with serious mental illness may increase dramatically with the revised eligibility standards for Medicaid (Kaiser Commission on Medicaid and Uninsured, 2011). A creative use of existing programs will be necessary to provide secondary and tertiary homelessness prevention interventions to this expanded

eligible population. Secondary interventions would be focused on providing supportive services to identified households as well as relocation, emergency rent, and housing stabilization services; this could be based on the CTI model, described above. Tertiary interventions would include deeper subsidies and perhaps more intensive, long-term services to address the more entrenched nature of homelessness among this population.

For the most intensive, tertiary prevention intervention, three components would be necessary: (1) a housing subsidy, (2) relocation and stabilization services (e.g., CTI) that are time-limited and focused on rehousing individuals with serious mental illness who have been chronically homeless, and (3) ongoing treatment and rehabilitation services delivered through community-based mental health systems. Although the regular, ongoing mental health treatment would likely be funded under Medicaid—particularly with expanded coverage—other components of permanent supportive housing may need to be addressed through new mechanisms.

One option to fund the housing service model would be to create a rehousing/resettlement assistance program similar to CTI that would be eligible under the Home and Community-Based Services Waiver, which currently targets persons with serious and long-term disabilities and funds a variety of services—case management, home-based services, services to avoid institutionalization—in either the individual's home or in a small group home (Burt, Wilkins, & Mauch, 2011). This program would ensure that recently homeless individuals with serious mental illness achieve housing stabilization and develop a solid connection with the community treatment system, including any necessary supports. This program would be time-limited (6–9 months) and focused on providing relocation and home-start assistance, including temporary rent and deposits, as well as life skills training and limited case management.

Ongoing support services would be delivered by the community treatment system—in the case of individuals with serious mental illness, this would be the mental health system—and could include peer support, which is fundable under the waiver and a good practice for providing ongoing support for individuals with a history of chronic homelessness. These services would be the core of the secondary prevention intervention. None of the ongoing services would be unique to individuals experiencing homelessness and would be provided within the "mainstream" services system. However, this set of supportive services would not be funded by Medicaid for one's lifetime—similar to how supportive services are provided in traditional permanent supportive housing programs. If an individual experiences a housing crisis it may be possible for the household to become reeligible for time-limited stabilization services, but on-site support services would not be provided indefinitely.

Although Medicaid is the likely source of supportive services, obtaining the housing subsidy remains a challenge. This program would require a subsidy that

could be accessed quickly and used more flexibly for this population. Although the subsidy may not need to be as deep as a Housing Choice Voucher, it would need to be sufficient for individuals to obtain housing, which could include apartment units or a room in the home of family or friends. Regardless, the subsidy would need to be independent of the time-intensive inspection and overhead processes required by Housing Choice Vouchers.

Although this expansion of Medicaid, both in access and in scope of services, would be welcome, it is not likely to be a panacea. Medicaid currently underwrites much of the funding for mental health services (other than States), but low reimbursement levels and other difficulties associated with Medicaid provide a lackluster incentive for providing services to Medicaid-eligible individuals. If the greater quality of mental health services is to accompany this Medicaid expansion, then increased reimbursements and other reforms will need to accompany this process.

#### Conclusion

Although serious mental illness is neither a sufficient nor necessary cause of homelessness, the link between poverty and serious mental illness does pose some risk of homelessness. The socioeconomic deprivation associated with living with serious mental illness is more likely than psychiatric morbidity to account for homelessness risk. This understanding of homelessness among persons with serious mental illness presents an opportunity to restructure homeless services so that they are focused on homelessness prevention as opposed to responding to a housing crisis.

The traditional homelessness response system often responds to episodes of homelessness rather than actively preventing them. This article proposes a system where homelessness is prevented by ensuring housing stability and supporting an individual's connection to mainstream, community-based services. Specifically for individuals with serious mental illness, the mental health system would be responsible for providing more intense, secondary and tertiary prevention services including critical time intervention for individuals leaving institutions and permanent supportive housing for those who require long-term housing and supports to sustain housing stability. Primary prevention services—provided by the homeless system or community-based mainstream agencies—would include "light-touch" services to maintain a household in its residence. The Affordable Care Act provides a promising direction for future support of a prevention-focused system for ending homelessness among individuals with serious mental illness.

# References

Ahmadjian, C. L., & Robinson, P. (2001). Safety in numbers: Downsizing and the deinstitutionalization of permanent employment in Japan. *Administrative Science Quarterly*, 46(4), 622–654.

Apgar, W. C. (1993). An abundance of housing for all but the poor. In G. T. Kingsley & M. A. Turner (Eds.), *Housing markets and residential mobility* (pp. 99–123). Washington, DC: The Urban Institute.

Arce, A., Tadlock, M., Vergare, M., & Shapiro, S. (1983). A psychiatric profile of street people admitted to an emergency shelter. Hospital and Community Psychology, 34(9), 812–817.

Bassuk, E. L., Buckner, J. C., Weinreb, L. F., Browne, A., Bassuk, S., Dawson, R., & Perloff, J. N. (1997). Homelessness in female-headed families: Childhood and adult risk and protective factors. *American Journal of Public Health*, 87(2), 241–248.

Bassuk, E. L., Rubin, L., & Lauriat, A. (1984). Is homelessness a mental health problem? American Journal of Psychiatry, 141(12), 1546-1550.

Baxter, E., & Hopper, K. (1982). The new mendicancy: Homeless in New York City. *American Journal of Orthopsychiatry*, 52(3), 393–408.

Blackburn, A. (1996). Single room living in New York City. New York: New York City Department of Housing Preservation and Development.

Blanch, A. K., Carling, P. J., & Ridgway, P. (1988). Normal housing with specialized supports: A psychiatric rehabilitation approach to living in the community. *Rehabilitation Psychology*, 33(1), 47–55.

Blow, F. C., McCarthy, J. F., Valenstein, M., Austin, K., & Gillon L. (2004). Care for Veterans with psychosis in the Veterans Health Administration. Ann Arbor, MI: Department of Veterans Affairs Serious Mental Illness Treatment Research and Evaluation Center.

Burt, M. R., & Cohen, B. E. (1989). America's homeless: Numbers, characteristics, and programs that serve them. Washington, DC: The Urban Institute Press.

Burt, M. R., Pearson, C. L., & Montgomery, A. E. (2005). Strategies for preventing homelessness. Washington, DC: U.S. Department of Housing and Urban Development.

Burt, M. R., Pearson, C. L., & Montgomery, A. E. (2007). Community-wide strategies for preventing homelessness: Recent evidence. *Journal of Primary Prevention*, 28, 213–228.

Burt, M. R., Wilkins, C., & Mauch, D. (2011). Medicaid and permanent supportive housing for chronically homeless individuals: Literature synthesis and environmental scan. Washington, DC: U.S. Department of Health and Human Services.

Capian, G. (1964). Principles of preventive psychiatry. New York: Best Books.

Carling, P. J. (1990). Major mental illness, housing and supports. American Psychologist, 45(8), 969–975.

Carling, P. J. (1992). Community integration of people with psychiatric disabilities. In J. W. Jacobson, S. N. Burchard, & P. J. Carling (Eds.), Community living for people with developmental and psychiatric disabilities (pp. 20–32). Baltimore, MD: The Johns Hopkins University Press.

Caton, C. L., Hasin, D., Shrout, P. E., Opler, L. A., Hirshfield, S., Dominguez, B., & Felix, A. (2000). Risk factors for homelessness among indigent urban adults with no history of psychotic illness: A case-control study. *American Journal of Public Health*, 90(2), 258–263.

Caton, C. L., Shrout, P. E., Dominguez, B., Eagle, P. F., Opler, L. A., & Cournos, F. (1995). Risk factors for homelessness among women with schizophrenia. *American Journal of Public Health*, 85(8), 1153–1156.

Caton, C. L., Shrout, P. E., Eagle, P. F., Opler, L. A., Felix, A., & Dominguez, B. (1994). Risk factors for homelessness among schizophrenic men: A case-control study. *American Journal of Public Health*, 84(2), 265–270.

Caton, C. L., Wilkins, C., & Anderson, J. (2007). People who experience long-term homelessness: Characteristics and interventions. In D. Dennis, G. Locke, & J. Khadduri (Eds.), Toward understanding homelessness: The 2007 National Symposium on Homelessness Research, (pp. 4-1-4-4). Washington, DC: U.S. Department of Health and Human Services and Department of Housing and Urban Development.

Caton, C. L., Wyatt, R., & Felix, A. (1992). Follow-up of chronically homeless mentally ill men. American Journal of Psychiatry, 150, 1639–1642.

Chantala, K. (2006). Guidelines for analyzing Add Health data. Working paper. Carolina Population Center, University of North Carolina at Chapel Hill.

Cherlin, A. (2004). The deinstitutionalization of American marriage. Journal of Marriage and Family, 66, 848–861.

- Cohen, C. I. (1993). Poverty and the course of schizophrenia. Implications for research and policy. Hospital and Community Psychiatry, 44(10), 951–958.
- Cohen, C. I., & Thompson, K. S. (1992). Homeless mentally ill or mentally ill homeless? American Journal of Psychiatry, 169, 816–823.
- Cook, J. A., & Wright, E. R. (1995). Medical sociology and the study of severe mental illness: Reflections of past accomplishments and directions for future research. *Journal of Health and Social Behavior*, 36(extra issue), 95-113.
- Cooper, E., O'Hara, A., & Zovistoski, A. (2011). 2010 priced out: The housing crisis for people with disabilities. Boston, MA: Technical Assistance Collaborative, Inc.
- Culhane, D. P., Averyt, J., & Hadley, T. R. (1997). The rate of public shelter admission among Medicaid-reimbursed users of behavioral health services. *Psychiatric Services*, 48, 390–392.
- Culhane, D. P., Averyt, J., & Hadley, T. R. (1998). The prevalence of treated behavioral disorders among adult shelter users. American Journal of Orthopsychiatry, 26, 207–232.
- Culhane, D. P., & Metraux, S. (1999). Analyzing shelter stays and shelter stay patterns using administrative data: An overview of practical methods. Presentation at Homeless Data Users Conference #3 (sponsored by US Department of Health and Human Services), September, Washington, DC.
- Culhane, D. P., Metraux, S., & Byrne, T. (2011). A prevention-centered approach to homelessness assistance: A paradigm shift? *Housing Policy Debate*, 21(2), 295~315.
- Culhane, D. P., Metraux, S., & Hadley, T. (2002). Public service reductions associated with placement of homeless persons with severe mental illness in supportive housing. *Housing Policy Debate*, 13(1), 107–163.
- Culhane, D. P., Metraux, S., Park, J. M., Schretzman, M., & Valente, J. (2007). Testing a typology of family homelessness based on patterns of public shelter utilization in four U.S. jurisdictions: Implications for policy and program planning. *Housing Policy Debate*, 18, 1–27.
- Dear, M. J. (1992). Overcoming and understanding the NIMBY syndrome. *Journal of the American Planning Association*, 58(3), 288–300.
- Dear, M. J., & Wolch, J. R. (1987). Landscapes of despair: From deinstitutionalization to homelessness. Princeton, NJ: Princeton University Press.
- Dennis, D. L., Buckner, J. C., Lipton, F. R., & Levine, I. S. (1991). A decade of research and services for homeless mentally ill persons: Where do we stand? *American Psychologist*, 46(11), 1129–1138.
- Dennis, D. L., Levine, I. S., & Osher, F. C. (1991). The physical and mental health status of homeless adults. *Housing Policy Debate*, 2(3), 815–835.
- Dolbeare, C. N. (1996). Housing policy: A general consideration. In J. Baumohl (Ed.), Homelessness in America (pp. 34–45). Phoenix, AZ: Onyx Press.
- Drake, R. E., Wallach, M. A., & Hoffman, J. S. (1989). Housing instability and homelessness among aftercare patients of an urban state hospital. Hospital and Community Psychiatry, 40(1), 46–51.
- Drake, R. E., Wallach, M. A., Teague, G. B., Freeman, D. H., Paskus, T. S., & Clark, T. A. (1991). Housing instability and homelessness among rural schizophrenic patients. *American Journal of Psychiatry*, 148(3), 330–336.
- Fakhoury, W. K. H., Murray, A., Shepherd, G., & Priebe, S. (2002). Research in supported housing. Social Psychiatry and Psychiatric Epidemiology, 37, 301–315.
- Fakhoury, W., & Priebe, S. (2002). The process of deinstitutionalization: An international overview. Current Opinion in Psychiatry, 15, 187–192.
- Farr, R. K., Koegel, P., & Burnam, A. (1986). A study of homelessness and mental illness in the skid row area of Los Angeles. Los Angeles, CA: Los Angeles County Department of Mental Health.
- Fazel, S., Khosla, V., Doll, H., & Geddes, J. (2008). The prevalence of mental disorders among the homeless in Western countries: Systematic review and meta-regression analysis. PLoS Medicine, 5(12), 1670–1681.
- Fischer, P. J., & Breakey, W. R. (1991). The epidemiology of alcohol, drug, and mental disorders among homeless persons. *American Psychologist*, 46, 1115–1128.
- Folsom, D. P., Hawthorne, W., Lindamer, L., Gilmer, T., Bailey, A., Golshan, S., Garcia, P., Unutzer, J., Hough, R., & Jeste, D. V. (2005). Prevalence and risk factors for homelessness and utilization

of mental health services among 10,340 patients with serious mental illness in a large public mental health system, *American Journal of Psychiatry*, 162(2), 370–376.

Gounis, K., & Susser, E. (1990). Shelterization and its implication for mental health services. In N. Cohen (Ed.), Psychiatry takes to the streets (pp. 231–257). New York: Guilford.

Grant, B. F., Kaplan, K., Shepard, J., & Moore, T. (2003). Source and accuracy statement for wave 1 of the 2001–2002 National Epidemiological Survey on alcohol and rated conditions. Bethesda: National Institute on Alcohol Abuse and Alcoholism.

Greenberg, G. A., & Rosenheck, R. A. (2010). Mental health correlates of past homelessness in the National Comorbidity Study Replication. *Journal of Health Care for the Poor and Underserved*, 21(4), 1234–1249.

Greenwood, R. M., Schaefer-McDaniel, N. J., Winkel, G., & Tsemberis, S. J. (2005). Decreasing psychiatric symptoms by increasing choice in services for adults with histories of homelessness. *American Journal of Community Psychology*, 36(3/4), 223–238.

Gronfein, W. (1985). Psychotropic drugs and the origins of deinstitutionalization. Social Problems, 32(5), 437–454.

Hartman, C. (1986). The housing part of the homelessness problem. In E. Bassuk (Ed.), The mental health needs of homeless persons: New directions for mental health services (pp. 71-86). San Francisco: Jossey-Bass.

Herman, D., Conover, S., Felix, A., Nakagawa, A., & Mills, D. (2007). Critical time intervention: An empirically supported model for preventing homelessness in high risk groups. *Journal of Primary Prevention*, 28, 295–312.

Herman, D., Opler, L., Felix, A., Valencia, E., Wyatt, R. J., & Susser, E. (2000). A critical time intervention with mentally ill homeless men: Impact on psychiatric symptoms. The Journal of Nervous and Mental Disease, 188(3), 135–140.

Hoch, C., & Slayton, R. A. (1989). New homeless and old: Community and the skid row hotel. Philadelphia: Temple University Press.

Hopper, K., & Hamburg, J. (1986). The making of America's homeless: From skid row to new poor. In R. G. Bratt, C. Hartman, & A. Meyerson (Eds.), Critical perspectives on housing (pp. 12–39). Philadelphia: Temple University Press.

Hopper, K., Jost, J., Hay, T., Welber, S., & Haughland, G. (1997). Homelessness, severe mental illness, and the institutional circuit. *Psychiatric Services*, 48(5), 659–664.

Jenks, C. (1994). The homeless. Cambridge, MA: Harvard University Press.

Johnson, A. B. (1986). Unraveling of a social policy: The history of the deinstitutionalization of the mentally ill in New York state. Doctoral dissertation, New York University, New York.

Kaiser Commission on Medicaid & the Uninsured. (2011). Medicaid policy options for meeting the needs of adults with mental illness under the Affordable Care Act. Publication No. 8181. Washington, DC: Author.

Krauthammer, C. (January 4, 1985). For the homeless: Asylum. The Washington Post, p. A15.

Kuhlman, T. L. (1994). Psychology on the streets: Mental health practice with homeless persons. New York: J. Wiley & Sons.

Kuhn, R., & Culhane, D. P. (1998). Applying cluster analysis to test a typology of homelessness by pattern of shelter utilization: Results from the analysis of administrative data. *American Journal* of Community Psychology, 26, 207–232.

Kuno, E., Rothbard, A. B., Averyt, J., & Culhane, D. (2000). Homelessness among persons with serious mental illness in an enhanced community-based mental health system. *Psychiatric Services*, 51(8), 1012–1016.

Lamb, H. R., & Bachrach, L. L. (2001). Some perspectives on deinstitutionalization. Psychiatric Services, 52, 1039–1045.

Lehman, A. F., & Cordray, D. S. (1993). Prevalence of alcohol, drug, and mental itlness among the homeless: One more time. Contemporary Drug Problems, 20, 355–383.

Levine, I. S., & Rog, D. J. (1990). Mental health services for homeless mentally ill persons: Federal initiatives and current service trends. American Psychologist, 45(8), 963–968.

Lewis, D. A., & Lurigio, A. J. (1994). *The state mental patient and urban life.* Springfield, IL: Charles C. Thomas Publishing.

- Lewis, D. A., Shadish, W. R., & Lurigio, A. J. (1989). Policies of inclusion and the mentally ill: Long-term care in a new environment. *Journal of Social Issues*, 45, 173–186.
- Link, B. G., & Phelan, J. C. (2001). On stigma and its public health implications. Paper presented at the conference Stigma and Global Health: Developing a Research Agenda, September, Bethesda, MD.
- Lurigio, A. J., & Lewis, D. A. (1989). Worlds that fail: A longitudinal study of urban mental patients. Journal of Social Issues, 45(30), 79–90.
- Manderscheid, R. W., Atay, J. E., & Crider, R. A. (2009). Changing trends in state psychiatric hospital use from 2002 to 2005. Psychiatric Services, 60(1), 29–34.
- Mechanic, D., & Rochefort, D. A. (1990). Deinstitutionalization: An appraisal of reform. Annual Review of Sociology, 16, 301–327.
- Mechanic, D., & Rochefort, D. A. (1992). A policy of inclusion for the mentally ill. *Flealth Affairs*, 11(1), 128–150.
- Men's Shelter Study Group. (1976). Report on men housed for one night. New York: Human Resources Administration.
- Metraux, S., Byrne, T., & Culhane, D. P. (2010). Institutional discharges and subsequent shelter use among unaccompanied adults in New York City. *Journal of Community Psychology*, 38(1), 28–38.
- Moore, M. K. (2009). Piecing the puzzle together: Post-Olmstead community-based alternatives for homeless people with severe mental illness. Georgetown Journal on Poverty, Law & Policy, 16(1), 249–270.
- Moses, D. J., Kresky-Wolff, M., Bassuk, E. L., & Brounstein, P. (2007). The promise of homelessness prevention. *Journal of Primary Prevention*, 28, 191–197.
- Mossman, D. (1997). Deinstitutionalization, homelessness, and the myth of psychiatric abandonment: A structural anthropology perspective. *Social Science and Medicine*, 44(1), 71–83.
- North, C. S., Eyrich, K. M., Pollio, D. E., & Spitznagel, E. L. (2004). Are rates of psychiatric disorders in the homeless population changing? *American Journal of Public Health*, *94*(1), 103–108.
- O'Hara, A., & Miller, E. (2001). *Priced out in 2000: The crisis continues.* Boston, MA: Technical Assistance Collaborative, Inc.
- Phelan, J. C., & Link, B. G. (1999). Who are "the homeless"? Reconsidering the stability and composition of the homeless population. *American Journal of Public Health*, 89(9), 1334–1338.
- Reich, R., & Siegel, L. (1978). The emergence of the bowery as a psychiatric dumping ground. Psychiatric Quarterly, 50, 191–201.
- Ridgway, P., & Zipple, A. M. (1990). The paradigm shift in residential services from the linear continuum to supported housing approaches. *Psychosocial Rehabilitation Journal*, 13(4), 11–31.
- Rog, D. (2004). The evidence on supported housing. *Psychiatric Rehabilitation Journal*, 27(4), 334–344
- Roman, C. G., McBride, E. C., & Osborne, J. W. L. (2005). Principles and practice in housing for persons with mental illness who have had contact with the justice system. Presentation at the Evidence Based Practice for Justice Involved Individuals: Housing Expert Panel Meeting, June. Bethesda. MD.
- Rosenfeld, S. (1991). Homelessness and rehospitalization: The importance of housing for the chronically mentally ill. *Journal of Community Psychology*, 19(1), 60–69.
- Salkow, K., & Fichter, M. (2003). Homelessness and mental illness. Current Opinion in Psychiatry, 16(4), 467–471.
- Scull, A. T. (1996). Asylums: Utopias & realities. In D. Tomlinson & J. Carrier (Eds.), Asylum in the community, (pp. 7–18). New York: Routledge.
- Shelton, K. H., Taylor, P. J., Bonner, A., & van den Bree, M. (2009). Risk factors for homelessness: Evidence from a population-based Study. *Psychiatric Services*, 6(4), 465–472.
- Shinn, M., Baumohl, J., & Hopper, K. (2001). The prevention of homelessness revisited. Analyses of Social Issues and Public Policy, 1(1), 95–127.
- Shinn, M., Weitzman, B. C., Stojanovic, D., Knickman, J. R., Jimenez, L., Duchon, L., James, S., & Krantz, D. H. (1998). Predictors of homelessness among families in New York City.

From shelter request to housing stability. American Journal of Public Health, 88(11), 1651–1657

Shlay, A., & Rossi, P. (1992). Social science research and contemporary studies of homelessness. Annual Review of Sociology, 18, 129–160.

Social Security Administration. (2011). Understanding Supplemental Security Income. Downloaded April 3, 2012 from http://www.ssa.gov/ssi/text-understanding-ssi.htm].

Sosin, M. R. (1992). Homeless and vulnerable meal program users: A comparison study. Social Problems, 39(2), 170–188.

Sullivan, G. M., Burnam, A., & Koegel, P. (2000). Pathways to homelessness among the mentally ill. Social Psychiatry and Psychiatric Epidemiology, 35(10), 444–450.

Susser, E., Conover, S., & Struening, E. L. (1989). Problems of epidemiologic method in assessing the type and extent of mental illness among homeless adults. *Hospital and Community Psychiatry*, 40(3), 261–265.

Tessler, R. C., & Dennis, D. (1992). Mental illness among homeless adults: A synthesis of recent NIMH-funded research. Community and Mental Health, 7, 3–53.

Toro, P. A., Bellavia, C. W., Daeschler, C. V., Owens, B. J., Wall, D. D., Passero, J. M., & Thomas, D. M. (1995). Distinguishing homelessness from poverty: A comparative study. *Journal of Consulting and Clinical Psychology*, 63(2), 280–289.

Toro, P. A., & Wall, D. D. (1989). Assessing the impact of some sampling and measurement methods in research on the homeless. Unpublished manuscript.

Tsemberis, S. (2010). Housing first: The pathways model to end homelessness for people with mental illness and addiction. Center City, MN: Hazelden.

U.S. Department of Housing and Urban Development. (2010). The 2009 annual homelessness assessment report to Congress. Washington, DC: HUD.

Wilton, R. (2004). Putting policy into practice? Poverty and people with serious mental illness. Social Science & Medicine, 58, 25–39.

Wiseman, J. (1970). Stations of the lost: The treatment of skid row alcoholics. Chicago: University of Chicago Press.

Wong, Y.-L. I., & Solomon, P. (2002). Community integration of persons with psychiatric disabilities in supportive independent housing: A conceptual model and methodological considerations. *Mental Health Services Research*, 4(1), 13–28.

Wong, Y.-L. I., & Stanhope V. (2009). Conceptualizing community: A comparison of neighborhood characteristics of supportive housing for persons with psychiatric and developmental disabilities. Social Science and Medicine, 68, 1376–1387.

Wright, J. D., Devine, J. A., & Rubin, B. A. (1998). Behind the golden door: Policy, politics, and the homeless. New York: Aldine de Gruyter.

Since 2009, ANN ELIZABETH MONTGOMERY has been conducting research with the National Center on Homelessness among Veterans and the University of Pennsylvania. In her role with the Center, Dr. Montgomery collaborates with researchers to develop and implement a diverse research agenda, emphasizing homelessness prevention, interventions to end homelessness among high-need populations, and the demography and epidemiology of homelessness among Veterans. Dr. Montgomery has been particularly involved in developing and piloting a system-wide Homelessness Screening Clinical Reminder and evaluating several model development projects including the Housing First pilot and Safe Haven demonstration. In addition to master's degrees in Social Work and Public Administration from Columbia University, Dr. Montgomery holds a doctorate from the University of Alabama at Birmingham School of Public Health.

82

STEPHEN METRAUX, an Associate Professor of Health Policy and Public Health at University of the Sciences, received his Ph.D. in sociology at the University of Pennsylvania, and is also affiliated with Penn' Center for Mental Health Policy and Services Research. His research interests center around urban health, especially in the context of issues such as homelessness and housing, community mental health, and incarceration and prisoner reentry. His current research includes examining services use patterns among persons at risk for homelessness, using administrative data for evaluation of homeless and related services, and assessing residential segregation among persons with mental illness.

DENNIS CULHANE, the Dana and Andrew Stone Chair in Social Policy at the University of Pennsylvania and the Director of Research for the National Center on Homelessness among Veterans, focuses his research on homelessness and assisted housing policy. His research includes studies of vulnerable youth and young adults, including those transitioning from foster care, juvenile justice, and residential treatment services. Dr. Culhane received his PhD in Social Psychology from Boston College.