ARTICLE

INSTITUTIONAL DISCHARGES AND SUBSEQUENT SHELTER USE AMONG UNACCOMPANIED ADULTS IN NEW YORK CITY

Stephen Metraux
University of the Sciences in Philadelphia

Thomas Byrne and Dennis P. Culhane
University of Pennsylvania

This study empirically examines the link between homelessness and discharges from other institutions. An administrative record match was undertaken to determine rates of discharge from institutional care for 9,247 unaccompanied adult shelter users in New York City. Cluster analysis and multinomial logistic regression analysis was then used to assess associations between different types of institutional discharges and the likelihood of persons subsequently experiencing extended shelter stays. Results show that 28% of the cohort was discharged from institutional care within the 90-day period preceding their initial shelter entry, with different types of institutional discharge associated with differences in subsequent patterns of shelter use. Based on these findings, transitions from institution to the community are potentially a key intervention point for reducing homelessness and shelter use. © *2009 Wiley Periodicals, Inc.*

INTRODUCTION

The role of institutional discharges and, conversely, problematic community reentry in generating homelessness has been an issue at least since the early 1980s. This is a process whereby individuals are discharged from an institution and become homeless due to a combination of absent community supports and inadequate preparation for living in the community. Initially, an increasing homeless population was cast as a consequence of the haphazard, large-scale deinstitutionalization of the public mental

Correspondence to: Stephen Metraux, Department of Health Policy & Public Health, University of the Sciences in Philadelphia, 600 South 43rd Street, Philadelphia, PA 19143. E-mail: s.metraux@usp.edu

JOURNAL OF COMMUNITY PSYCHOLOGY, Vol. 38, No. 1, 28–38 (2010)
Published online in Wiley InterScience (www.interscience.wiley.com).
 DOI: 10.1002/jcop.20349

health system (Bachrach, 1992; Jencks, 1994; Lamb, 1984). More recently, a higher risk of subsequent homelessness has also been noted in conjunction with release from jail and prison (Roman & Travis, 2004), "aging out" from foster care and other out-of-home child welfare placements (Roman & Wolfe, 1995; Page, 2008), and discharge from hospitals (Bear, 2007).

In this article we examine the role of shelters as de facto aftercare facilities for a set of public institutional systems. This is done in two parts. First, rates of institutional discharge immediately prior to shelter admission are determined for a cohort of 9,247 persons entering the New York City (NYC) shelter system for the first time in 1997. Also assessed is whether or not such transfers from institution to shelter are associated with differential shelter stay patterns. In other words, does an institutional discharge increase the risk of subsequently experiencing an extended (or diminished) tenure of shelter use?

Background

Hopper, Jost, Hay, Welber, and Haugland (1997) present findings suggesting that there remains a well-worn "institutional circuit" circumscribing the landscape of homelessness. Their study presented the residential histories of a small group of persons who were both homeless and diagnosed with severe mental illness. On average, the study group spent almost half of the 5 years previous to the study either in institutional settings (hospitals, prisons, jails, psychiatric facilities, etc.) or homeless. In this context, shelters often functioned as way stations between institutional discharges and the community. Beyond that, for 20 of the 36 subjects in the study, "shelters appeared to be part of a more durable pattern of a life lived on the 'institutional circuit' with occasional breaks for temporary housing on their own" (Hopper et al., 1997, p. 662).

These findings are consistent with an examination of data used in Culhane, Metraux, and Hadley (2002) on services use by 4,679 persons before their placements into supportive housing in NYC. These persons all were formerly homeless and had diagnoses of severe mental illness. In previously unpublished findings, this group spent, aggregately, 37% of the 2-year period prior to housing placement in one of a limited set of public facilities (see Figure 1). Half of this time was spent in institutions

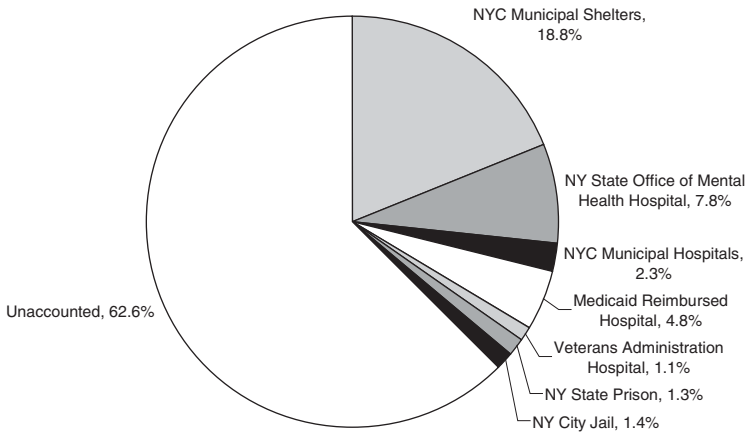

Figure 1. Percentage of days spent in various public system facilities by homeless persons with severe mental illness in New York City during a 2-year period prior to placement in supportive housing ($N = 4,679$).

other than shelters. Like the institutional circuit described by Hopper and his colleagues (1997), this suggests a dynamic that supersedes literal homelessness. What instead emerges is a broader pattern of residential instability that includes both shelter use and stays at multiple institutions.

Research on the intersection between homelessness and individual systems also supports the enmeshed nature of these relationships. For example, adults in homeless populations frequently cycle in and out of inpatient health and mental health services (D'Amore, Hung, Chiang, & Goldfrank, 2001; Folsom et al., 2005; McNiel & Binder, 2005; Pearson, Bruggman, & Haukoos, 2007; Salit, Kuhn, Hartz, Vu, & Mosso, 1998; Winkleby, Rockhill, Jatulis, & Fortmann, 1992). More than 70% of adults in emergency shelters used some form of health services in a 6-month period and nearly a quarter of all homeless adults had experienced an inpatient hospital stay over the course of a year (Kushel, Vittinghoff, & Haas, 2001; O'Toole, Gibbon, Hanusa, & Fine, 1999). Culhane et al. (2002) in their aforementioned study found that in the 2 years prior to placement in supportive housing, 26% of their study group had an inpatient stay in a state psychiatric hospital and 54% had an inpatient stay in a city run hospital.

History of incarceration is also commonplace among sheltered populations (Metraux, Roman, & Cho, 2008). Upwards of 20% of single adult shelter populations have a history of incarceration (Burt et al., 1999; Eberle, Kraus, Pomeroy, & Hulchanski, 2000; Kushel, Hahn, Evans, Bangsberg, & Moss, 2005; Schlay & Rossi, 1992). In NYC, Metraux and Culhane (2006) found that among a sheltered single-adult population, 23% experienced at least one incarceration episode over a 2-year period. This included 8% with a prison stay and 17% with a jail stay.

This research supports the existence of substantial, often inconspicuous linkages with mainstream systems among the homeless population. Less clear, however, is the temporal order of these linkages. More insight on this comes from the most recent Annual Homeless Assessment Report to Congress (AHAR), a report that draws on homeless management information system (HMIS) data collected by shelter providers in a nationally representative sample of jurisdictions (U.S. Department of Housing and Urban Development [HUD], 2008). According to these findings, 21% of all single adults who were first-time shelter users reported entering a shelter directly after discharge from a hospital, treatment program, or incarceration facility. These findings are based on self-reported responses to a question on prior living situation, and provide no further detail into the dynamics between shelter and sustained residential instability.

The AHAR findings suggest that shelter use is often preceded by discharges from other institutions, but leave unanswered questions concerning the nature of this subsequent homelessness. More specifically, time in shelter may take on one of two general patterns for persons making a crossover from an institution to a shelter. A shelter stay may be of a liminal nature during which individuals transition either to the community or back to an institutional setting. Alternately, a shelter stay may be part of a more extended period of residential instability marked either by long-term homelessness or repeated episodes of homelessness. Both possibilities raise concerns. The latter is consistent with Hopper et al.'s (1997) institutional circuit. Here shelters and other institutions function as substitutes, rather than as facilitators, for obtaining more stable and appropriate housing. Such critiques have origins at least as far back as skid row era monographs describing "stations of the lost" (Wiseman, 1970) and doing a "life sentence on the installment plan" (Spradley, 1970). However, subsequent literature has largely failed to take up Hopper and his colleagues' call to examine the structural underpinnings of the services' delivery system in this context. Hopper and

his colleagues took pains to differentiate this from the second general pattern, where transitional use of shelters acts as a residential intermediary between institution and community. Here homeless services are a stand-in for ineffective or nonexistent discharge planning among an array of systems (Culhane & Metraux, 2008).

In examining institutional discharge and shelter use among an incidence cohort of unaccompanied adults in the NYC shelter system, this study has two objectives. First, it assesses and expands upon the finding in HUD's (2008) AHAR that one fifth of first-time shelter users come directly from institutional settings. Second, it assesses associations between a recent institutional discharge and the nature of subsequent shelter use. In other words, are those who enter shelters in the wake of a discharge from hospitals and carceral facilities any more (or less) likely to experience an extended experience of shelter use?

METHOD

Data

This study is based on analysis of administrative records for 9,247 unaccompanied adults who, for the first time in 1997, entered shelters administered by the NYC Department of Homeless Services (DHS). The DHS cares for unaccompanied adults and for families in two separate shelter systems. Because of this and because the dynamics of shelter and other services use among families differs substantially from those of unaccompanied adults, adults entering shelter with families are not included here. In 1997, DHS administered over 80% of the shelter beds in NYC for unaccompanied adults.

For this study, DHS administrative records provided data on shelter use for 3 years following initial shelter entry, and demographics (age, gender, race/ethnicity) for this incidence cohort. The DHS records were available from 1987; thus anyone in this incidence cohort had no record of a DHS shelter stay in the 10 years prior to 1997. These records were linked to administrative records from six other public systems that provided either hospital or carceral services. This made it possible to identify discharges within a 90-day period preceding shelter entry from a range of institutional settings, which included:

- Jail releases from facilities administered by the New York City Department of Corrections (NYC DOC).
- Prison releases from facilities administered by the New York State Department of Correctional Services (NYS DOCS).
- Discharges from hospitals where care was reimbursed by Medicaid through the New York State Department of Health, Office of Medicaid Management (MA).
- Discharges not reimbursed through MA from hospitals administered by both the New York City Health and Hospital Corporation (HHC) and the U.S. Department of Veterans Affairs (VA).
- Discharges from psychiatric hospitals administered by the New York State Office of Mental Health (NYS OMH).

Detailed information regarding the data sources and about the matching procedures may be obtained elsewhere (Culhane et al., 2002).

Procedure

There are three components to the analyses for this study. First, the records for the 1997 incidence cohort are matched to data from the six public providers of institutional care. This provided rates by which first-time shelter users had recently (within 90 days) left other types of institutional care. Second, DHS records were used to tally days and shelter episodes for this cohort for the 3-year period following initial shelter entry. These two measures of shelter use were the basis for a cluster analysis consistent with those used in Kuhn and Culhane (1998) and Culhane, Metraux, Park, Schretzman, and Valente (2007). This cluster analysis was used to assign each record in the incidence cohort to one of three groups by virtue of shelter use patterns. These groups included (a) transitional users, i.e., persons use shelter for one or two stays and for a limited number of days; (b) chronic users, i.e., persons use shelter for a limited number of extended stays; and (c) episodic users, i.e., persons tally frequent shelter stays of a relatively brief duration. Each of these shelter use patterns reflects distinct types of homeless trajectories.

Finally, a multinomial logistic regression model (Allison, 1999) was fitted. This permitted assessing whether recent institutional discharges were associated with differentials in the likelihood of subsequent extended shelter use patterns (either chronic or episodic) as compared to transitional shelter use for the incidence cohort.[1]

RESULTS

The basic demographic profile of the 9,247 persons entering DHS's single-adult shelter network for the first time in 1997 is given in Table 1. These demographics are consistent with most unaccompanied adult homeless populations. Specifically, the study group was disproportionately comprised of men (over four fifths of total population) and racial and ethnic minorities (over half being of non-Hispanic Black race and another quarter of Hispanic ethnicity). The median age in the study group was 35.

As shown in Table 2, 28% of the entire cohort entered shelter for the first time within 90 days of an institutional discharge from one of the six systems included in this analysis. A higher proportion of discharges came from hospitals (18%) than from carceral facilities (11%), and among the hospital discharges, the large majority (13.2%) came from stays paid for by Medicaid. Also noteworthy is that only a small percentage of the incidence cohort entered shelter following a discharge from state-run psychiatric facilities (OMH).

Table 2 also shows shelter utilization and rates of institutional discharge for the three groups created through cluster analysis. When breaking down the incidence cohort using cluster analysis, the large majority fell into the transitional group. Specifically, 83% of this group stayed in a shelter for a relatively brief duration (33 days over 1.3 stays) within the 3-year period following their initial shelter entry. The others fell into the remaining two groups of persons with patterns of heavy shelter use. Thirteen percent exhibited a chronic stay pattern marked by long, infrequently interrupted tenure in shelter (586 days over 1.7 stays). The remaining 5% exhibited

[1] The results provided here come from previously unpublished analyses of system crossovers and associated stay patterns. Time-limits for data access to the various systems has limited reanalysis of the data sources.

Table 1. Demographics for Unaccompanied Adults Entering the New York City Municipal Shelter System for the First Time in 1997

Total N	*9,247*
Male	80.4%
Age (median years)	35
Race/ethnicity	
White (non-Hispanic)	16.6%
Black (non-Hispanic)	51.2%
Hispanic	27.6%
Other/unknown	4.7%

Table 2. Shelter Utilization And Institutional Discharges for Unaccompanied Adults Entering the New York City Municipal Shelter System for the First Time in 1997

	Total	*Transitional*	*Episodic*	*Chronic*	*(7)*
N (% of total)	9,247 (100)	7,635 (82.6)	430 (4.7)	1,182 (12.8)	
Days in shelter: *Mdn* (1)	60	33	198	586	
Shelter episodes: *M* (1,2)	1.5	1.3	4.8	1.7	
% Recent discharge from (3):					
NYC Dept. of Corrections	4.6	4.7	2.8	4.2	
NYS Dept. of Correctional Services	6.7	7.1	4.2	5.0	**
NYS Dept. of Health (4)	13.2	13.1	16.7	12.9	
NYC Health & Hospitals Corporation (5)	2.8	2.8	1.6	3.1	
NYS Office of Mental Health (6)	0.5	–	–	–	
US Veterans Administration	2.2	2.2	2.3	2.2	
Any hospital (6)	18.2	18.1	20.5	17.9	
City or state corrections (6)	11.3	11.8	7.0	9.1	***
Any included facility (6)	28.2	28.5	27.2	26.1	

Note. (1) Within a 3-year period following first entry into shelter, includes all shelters in the New York City (NYC) municipal shelter system; (2) episode refers to a discrete period of time preceded and followed by at least 30 days of not being in a NYC municipal shelter; (3) "recent" is a discharge within 90 days of entering a NYC municipal shelter for the first time; (4) all hospitalizations reimbursed directly through Medicaid; (5) excludes hospitalizations reimbursed directly through Medicaid; (6) New York State Office of Mental Health data is unavailable for cluster breakdowns; (7) chi-square test: $^{*}p<.05$; $^{**}p<.01$; $^{***}p<.001$.

an episodic shelter use pattern, staying in shelters for multiple, relatively short stays (198 days over 4.8 stays).

Despite the substantially different shelter use patterns for these three groups, the overall rates of prior institutional discharge for the groups were similar. Breaking down the overall rates shows that there was also no statistical difference in the rates of hospital discharges among the three groups. However, the rates of discharge from corrections facilities were higher for the transitional group (11%) than for the other groups. This difference was largely due to the higher proportion of discharges from State prison (NYS DOCS) among the transitional group (7%), as the higher rate of jail discharge (NYC DOC) for the transitional group (5%) was not significantly different. Data were not available to gauge differences in state psychiatric hospital (OMH) discharges by cluster, an insubstantial omission given the low proportions of persons with discharges from this system.

Table 3. Multinomial Logistic Regression Results Assessing Determinants for Three Cluster Stay Patterns by Unaccompanied Adults Entering the New York City Municipal Shelter System for the First Time in 1997 (n = 9,247)

	Chronic (vs. transitional)		*Episodic (vs. transitional)*	
	Coefficient	*SE*	*Coefficient*	*SE*
Institutional discharge				
Jail release – NYC DOC	−0.10	0.16	−0.68	0.30*
Prison release – NYS DOCS	−0.35	0.14*	−0.63	0.25*
Hospital discharge – Medicaid reimbursed	−0.07	0.10	0.30	0.14*
Hospital discharge – HHC	0.04	0.18	−0.50	0.39
Hospital discharge – VA	−0.32	0.22	−0.02	0.33
Demographics				
Age	0.04	0.003**	−0.01	0.005
Male	0.03	0.08	0.65	0.16***
Race-ethnicity				
Black (non-Hispanic)	0.41	0.09***	0.35	0.15*
Hispanic	0.07	0.10	0.04	0.16
Other/unknown	0.03	0.18	−1.56	0.60**
White (non-Hispanic)	(reference cat)		(reference cat)	
Intercept	−3.52	0.16***	−3.38	(0.27)***

Note. New York State Office of Mental Health data is unavailable for the regression model. NYC DOC = New York City Department of Corrections; NYS DOCS = New York Department of Correctional Services; HHC = New York City Health and Hospital Corporation; VA = U.S. Department of Veterans Affairs.
*$p < .05$. **$p < .01$. ***$p < .001$.

The association between each type of institutional discharge and subsequent shelter tenure, controlling for demographic factors shown in Table 1, was estimated using multinomial logistic regression; the results are given in Table 3. In the results, the likelihood of being in each of the two groups with extended shelter use patterns is compared to being in the transitional group. Prison release was the only discharge-related covariate to have a decreased likelihood of subsequently experiencing both of the two long-term shelter stay patterns. Jail release also had a statistically significant association, but only with a decreased likelihood of having an episodic stay pattern subsequent to release. Among the hospital discharge covariates, Medicaid-related hospital discharges had a statistically significant association with an increased likelihood of experiencing an episodic stay. Finally, it is worth noting that among the demographic factors that functioned as control variables, Black race, increased age, and male sex all were associated with an increased likelihood of experiencing one or both types of extended shelter stay.

DISCUSSION

Among the total cohort of persons using a shelter for the first-time in New York City in the late 1990s, 28% were discharged from institutional care in one of six systems within 90 days of their first shelter entry. This finding, consistent with the previously mentioned AHAR finding, indicates that institutional discharge is a common and immediate precipitating factor for persons entering the shelter system. The role of institutional discharge in the subsequent duration of homelessness is more mixed,

however. Persons entering shelter from jail or prison were more likely than others in the cohort to make lasting shelter exits relatively quickly. In contrast, those exiting from hospital stays reimbursed by Medicaid, the most common type of hospital discharge in these findings, were more likely than others in the cohort to subsequently experience an extended or episodic pattern of shelter use.

The use of shelters as bridges from institutions to the community shows an inadequacy in the discharge planning process of systems providing institutional care. This has long been pointed out in the context of deinstitutionalization and mental health care. Interestingly, discharges from state psychiatric hospitals, which were blamed for much of the increase in NYC's homeless population in the 1980s and 1990s, only contributed marginally to the institutional discharges studied here. Although this reflects positively on OMH, it also is likely an outcome related to changes in how inpatient care is provided. Much of the long-term hospital care once previously provided by OMH is instead delivered by psychiatric units in community hospitals and is often Medicaid reimbursed. Thus, in this post-deinstitutionalization era, the rates of shelter users with preceding discharges linked in this study to Medicaid (i.e., NYS Department of Health) or HHC likely includes many persons with severe mental illness. Data are not available to assess diagnoses of those in this study exiting hospital settings, but studies of homeless persons using the NYC public hospital system have found high proportions of inpatient treatment to involve mental illness diagnoses (Culhane & Metraux, 1998; Salit et al., 1998).

This study shows, however, that homelessness following institutional discharges now affects a population more diverse than persons with psychiatric disabilities. Along with acute care hospital discharges, discharge from the criminal justice system is now a primary institutional precursor to shelter use. This suggests the transition from institution to the community is a key intervention point for reducing homelessness, and that service systems can assume more responsibility for addressing the community needs of the persons they discharge from inpatient or residential settings. In doing so, the different dynamics of shelter use among the first-time shelter users studied here provides the basis for two approaches by which this may be done.

The first approach builds upon the findings that discharges from inpatient hospital settings are associated with increased risk for extended, episodic periods of shelter use. This pattern is consistent with Hopper and his colleagues' (1997) description of an institutional circuit, where shelters and other institutional facilities work in an uncoordinated manner to "[manage] the basic needs of a population no single system seems prepared to claim" (p. 660). This population, due to persistent housing instability and higher rates of disability, will likely make high, costly demands upon a range of resources for an extended period. Persons here fit the profile of those best targeted under a "housing first" approach. Housing first provides permanent housing along with access to services targeting psychiatric disability, substance abuse, and other problems that would otherwise contribute to extended homelessness (Newman & Goldman 2008). Although such housing is costly, substantial cost offsets may accrue when directed at persons who are long-term homeless, psychiatrically disabled, and users of multiple services' systems (Culhane et al., 2002; Rosenheck, Kasprow, Frisman, & Liu-Mares, 2003). Such housing also demonstrates high retention rates among those who are among the heaviest of shelter users (Pearson, Locke, Montgomery, & Buron, 2007). This promises a disproportionate reduction in shelter demand compared to the number of persons targeted.

A different approach, however, is needed to prevent homelessness among those persons for whom shelter use assumes a more transitional, time-limited nature following institutional discharge. This pattern, by far the more predominant of the two discussed here, may be inefficiently served through a long-term response such as a permanent supportive housing placement. Transitional residential programming, discussed in further detail elsewhere (Culhane & Metraux, 2008), is one viable method for providing the appropriate support services for those exiting institutions. Such programming would target individuals who, in the absence of support services, would become homeless and likely enter a shelter upon discharge from an institution. Instead, transitional residential programming could include anything from residential facilities such as halfway houses and supported communities to more independent living arrangements with on-call services available to residents as needed. These types of programs could be vertically integrated into the systems that provided the inpatient or correctional services. In so doing they could provide more focused services while also bypassing or supplanting the current shelter system.

Using this framework, transitional supports would become extensions of the various systems from which individuals are exiting. This would increase accountability and responsibility for client outcomes among mainstream social service providers and help prevent homelessness among those leaving institutions. The availability of more transitional services for persons released from jail and prison, for example, would extend the criminal justice system's jurisdiction into providing community-based services as it decreased demand upon the shelter system. Here the impact on the shelter system would not be as great as that made by taking the more long-term users out of the shelter system. However, additional savings could accrue from reductions in recidivism. For example, although shelter stays following incarceration are more likely to be of a transitional nature, such shelter use often precedes and at times, increases the risk of undesirable and costly outcomes such as reincarceration (Metraux & Culhane 2004).

This study finds that institutional discharges immediately precede more than one quarter of all entries into shelter in NYC. This number is conservative. Administrative data matches, even one as extensive as this one, can only assess the systems for which there are data available. Thus, it necessarily misses discharges from systems not included this study. One conspicuous omission here is the impact of young adults who recently "aged out" or otherwise exited out-of-home child welfare placements as young adults. Park, Metraux, and Culhane (2005) using NYC shelter data found that 20% of adults under 25 who first entered the shelter system between 1997 and 1999 (a study group overlapping with the study group examined here) had exited an out-of-home placement at age 16 or older. The gap between leaving a child welfare placement and entering shelter was not specified in that study, and would not be expected to be as precipitous as exits from the institutions studied here. Nevertheless, inclusion of foster care exiters would significantly increase the proportion of adult shelter users coming from institutions among those under age 25. This issue may become of increasing importance as recent federal data show a growth in the number of adults who are homeless in this age group (HUD, 2009). Finally, this study is also limited in that it does not look at the extent to which the homelessness captured here precedes additional inpatient or residential stays in institutional settings, which would stand to further evaluate Hopper et al.'s (1997) concept of the institutional circuit.

Such omissions notwithstanding, this study highlights the cumulative impact of social welfare institutions on the incidence of homelessness. It also shows how

discharges from these institutions are potentially effective intervention points for approaches that prevent subsequent homelessness and thereby contribute to the decreased need for shelter services.

REFERENCES

Allison, P.D. (1999). Logistic regression using the SAS® system. Cary, NC: SAS Institute, Inc.

Bachrach, L.L. (1992). What we know about homelessness among mentally ill persons: An analytical review and commentary. Hospital and Community Psychiatry, 43, 453–464.

Bear, T.M. (2007). Hospitals discharging patients to emergency homeless shelters in Allegheny County, Pennsylvania: An ecological perspective. Unpublished manuscript, University of Pittsburgh School of Public Health, Pittsburgh, PA.

Burt, M.R., Aron, L.Y., Douglas, T., Valente, J., Lee, E., & Iwen, B. (1999). Homelessness: Programs and the people they serve. Washington, DC: The Urban Institute.

Culhane, D.P., & Metraux, S. (2008). Rearranging the deck chairs or the lifeboats? Homelessness assistance and its alternatives. Journal of the American Planning Association, 74, 111–121.

Culhane, D.P., & Metraux, S. (1998). The utilization of inpatient public hospital care by persons staying in New York City's municipal shelter system. New York: United Hospital Fund.

Culhane, D.P., Metraux, S., & Hadley, T.R. (2002). The impact of supportive housing for homeless people with severe mental illness on the utilization of the public health, corrections, and emergency shelter systems: The New York-New York Initiative. Housing Policy Debate, 13, 107–163.

Culhane, D.P., Metraux, S., Park, J.M., Schretzman, M.A., & Valente, J. (2007). Testing a typology of family homelessness based on patterns of public shelter utilization in four US jurisdictions: Implications for policy and program planning. Housing Policy Debate, 18, 1–28.

D'Amore, J., Hung, O., Chiang, W., & Goldfrank, L. (2001). The epidemiology of the homeless populations and its impact on an urban emergency department. Academic Emergency Medicine, 8, 1051–1055.

Eberle, M., Kraus, D., Pomeroy, S., & Hulchanski, D. (2000). Homelessness—Causes and effects: A review of the literature, Vol. 1. Vancouver, Canada: British Columbia Ministry of Social Development and Economic Security.

Folsom, D.P., Hawthorne, W., Lindamer, L., Gilmer, T., Bailey, A., Golshan, S., et al. (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, 370–376.

Hopper, K., Jost, J., Hay, T., Welber, S., & Haugland, G. (1997). Homelessness, severe mental illness, and the institutional circuit. Psychiatric Services, 48, 659–665.

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

Kuhn, R.S., & 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.

Kushel, M.B., Hahn, J.A., Evans, J.L., Bangsberg, D.R., & Moss, A.R. (2005). Revolving doors: Imprisonment among the homeless and marginally housed population. American Journal of Public Health, 95, 1747–1752.

Kushel, M.B., Vittinghoff, E., & Haas, J.S. (2001). Factors associated with the health care utilization of homeless persons. Journal of the American Medical Association, 285, 200–206.

Lamb, H.R. (Ed.). (1984). The homeless mentally ill: A Task Force Report of the American Psychiatric Association. Washington, DC: American Psychiatric Association.

McNiel, D.E., & Binder, R.L. (2005). Psychiatric emergency service use and homelessness, mental disorder, and violence. Psychiatric Services, 56, 699–704.

Metraux, S., & Culhane, D.P. (2006). Recent incarceration history among a sheltered homeless population. Crime & Delinquency, 52, 504–517.

Metraux, S., & Culhane, D.P. (2004). Homeless shelter use and reincarceration following prison release: Assessing the risk. Criminology & Public Policy, 3, 139–160.

Metraux, S., Roman, C.G., & Cho, R. (2008). Incarceration and homelessness. In D. Dennis, G. Locke, & J. Khadduri (Eds.), Toward understanding homelessness: The 2007 National Symposium on Homelessness Research (pp. 9-1, 9-31). Washington, DC: U.S. Department of Housing and Urban Development.

Newman, S., & Goldman, H. (2008). Putting housing first, making housing last: Housing policy for persons with severe mental illness. American Journal of Psychiatry, 165, 1242–1248.

O'Toole, T.P., Gibbon, J.L., Hanusa, B.H., & Fine, M.J. (1999). Utilization of health care services among subgroups of urban homeless and housed poor. Journal of Health, Politics, Policy and Law, 24, 91–114.

Page, J. (2008). Foster care and homelessness: Preventative measures to help youth who are aging out of foster care. In R.H. Macnamara (Ed.), Homelessness in America (Vol. 1, pp. 127–140). Westport, CT: Praeger.

Park, J.M., Stephen Metraux, S., & Culhane, D.P. (2005). Childhood out-of-home placement and dynamics of public shelter utilization among young homeless adults. Child and Youth Services Review, 27, 533–546.

Pearson, C.L., Locke, G., Montgomery, A.E., & Buron, L. (2007). The applicability of housing first models to homeless persons with serious mental illness. Washington, DC: U.S. Department of Housing and Urban Development Office of Policy Development and Research.

Pearson, D.A., Bruggman, A.R., & Haukoos, J.S. (2007). Out-of-hospital and emergency department utilization by adult homeless patients. Annals of Emergency Medicine, 50, 646–652.

Roman, C.G., & Travis, J. (2004). Taking stock: Housing, homelessness and prisoner reentry. Washington, DC: The Urban Institute.

Roman, N.P., & Wolfe, P. (1995). Web of failure: The relationship between foster care and homelessness. Washington, DC: National Alliance to End Homelessness.

Rosenheck, R., Kasprow, W., Frisman, L., & Liu-Mares, W. (2003). Cost-effectiveness of supportive housing for homeless persons with mental illness. Archives of General Psychiatry, 60, 940–951.

Salit, S.A., Kuhn, E.M., Hartz, A.J., Vu, J.M., & Mosso, A.L. (1998). Hospitalization costs associated with homelessness in New York City. New England Journal of Medicine, 338:1734–1740.

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

Spradley, J.P. (1970). You owe yourself a drunk: Adaptive strategies of urban nomads. Boston: Little Brown.

U.S. Department of Housing and Urban Development. (2008). The Third Annual Homelessness Assessment Report to Congress. Washington, DC: Author.

U.S. Department of Housing and Urban Development. (2009). The Fourth Annual Homelessness Assessment Report to Congress. Washington, DC: Author.

Winkleby, M.A., Rockhill, B., Jatulis, D., & Fortmann, S.P. (1992). The medical origins of homelessness. American Journal of Public Health, 82, 1394–1398.

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