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Characteristics and Likelihood of Ongoing Homelessness among Unsheltered Veterans

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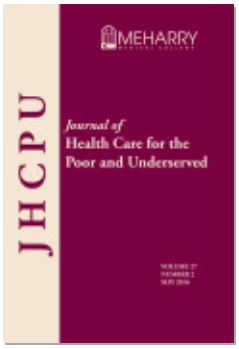

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Characteristics and Likelihood of Ongoing Homelessness Among Unsheltered Veterans

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Abstract: **Introduction**. Unsheltered homelessness is an important phenomenon yet difficult to study due to lack of data. The Veterans Health Administration administers a universal homelessness screener, which identifies housing status for Veterans screening positive for homelessness. **Methods**. This study compared unsheltered and sheltered Veterans, assessed differences in rates of ongoing homelessness, and estimated a mixed-effect logistic regression model to examine the relationship between housing status and ongoing homelessness. **Results**. Eleven percent of Veterans who screened positive for homelessness were unsheltered; 40% of those who rescreened were homeless six months later, compared with less than 20% of sheltered Veterans. Unsheltered Veterans were 2.7 times as likely to experience ongoing homelessness. **Discussion**. Unsheltered Veterans differ from their sheltered counterparts—they are older, more likely to be male, less likely to have income—and may be good candidates for an intensive housing intervention. Future research will assess clinical characteristics and services utilization among this population.

Key words: Veteran, homelessness, health care, unsheltered.

Unsheltered homelessness is a visible and significant social policy issue, but one about which we know very little, due in large part to a dearth of reliable data. Individuals experiencing unsheltered homelessness "stay in places not meant for human habitation, such as streets, abandoned buildings, vehicles, or parks."[1[p.2]] The most recent Annual Homeless Assessment Report (AHAR) to Congress reported 152,806 unsheltered individuals on a single night in January 2015, comprising 27.1% of the overall homeless population; the same report found that 34% of Veterans experiencing homelessness were unsheltered, accounting for 16,220 individuals.[1]

While service providers enter information about individuals accessing emergency shelter or transitional housing into a local Homeless Management Information System

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(HMIS), there is no parallel system to collect information about individuals staying in unsheltered situations, making both the scope of the problem and characteristics of this population difficult to assess. Communities typically arrive at estimates of their unsheltered homeless populations using two general classes of methods endorsed by the U.S. Department of Housing and Urban Development (HUD): canvassing the local area or assessing individuals' housing status when they present for services. Both of these methods may be biased in the direction of an undercount of unsheltered homelessness; no method is able to fully identify people who are not service users or who reside in locations that are not visible or accessible to enumerators.[2]

Although limited, researchers have successfully conducted work concerning unsheltered homelessness using both primary and secondary data. They have collected primary data at social service agencies for people experiencing homelessness such as psychiatric rehabilitation centers, soup kitchens, homeless shelters, and health care clinics[3–7] as well as through outreach at outdoor places where people experiencing homelessness may congregate, including parks and encampments.[4–9] Other researchers have conducted studies using existing survey data such as the 1996 National Survey of Homeless Assistance Providers and Clients[10] and the Center for Mental Health Services' Access to Community Care and Effective Services and Supports (ACCESS) program.[11] In addition, studies have abstracted data regarding people experiencing unsheltered homelessness through chart reviews conducted at free health care clinics[12] and administrative data from Veterans Health Administration (VHA) Homeless Programs.[13]

This somewhat limited body of research has identified general characteristics of the unsheltered homeless population. Among a number of samples, researchers have found that those experiencing unsheltered homelessness tend to be chronically homeless,[3,7,8,13] often lack employment,[3,7] and have low educational attainment.[3,7] They are more likely than their sheltered counterparts to be diagnosed with a serious mental illness, substance abuse, and chronic physical illness, and those with substance abuse diagnoses are more likely to remain unsheltered.[3] While this population clearly has great needs—in terms of both health care and social services—they often lack access to care[11] and are less likely than those who are sheltered to have entitlement income or health insurance.[9] Further, the majority of the medical care that this population receives is for acute or chronic conditions.[7]

There are no published studies that report findings specifically related to unsheltered homelessness among Veterans. To address gaps in this body of research, the present study used recently-available medical record data to explore unsheltered homelessness among Veterans accessing VHA health care. The analyses presented here compared the characteristics of Veterans experiencing homelessness who were living in unsheltered situations with those who were otherwise sheltered, determined the frequency with which both sheltered and unsheltered Veterans remained homeless over time, and identified predictors of persistent homelessness among these groups.

Methods

Homelessness Screening Clinical Reminder (HSCR). This study used data collected from the HSCR, which is a two-question screener administered annually to all Veterans

who access VHA outpatient services to identify Veterans who are currently experiencing homelessness or are at imminent risk of homelessness. The HSCR is not administered to Veterans who are receiving homelessness assistance or living in a long-term care facility and is administered semi-annually to Veterans who screen positive or decline to participate. Positive screens are defined as follows:

- *Homelessness*—Veteran indicates that for the past two months s/he has not been living in stable housing that they own, rent, or stay in as part of a household.
- Homelessness *risk*—Veteran indicates that s/he was worried or concerned that in the next two months s/he may not have stable housing that they own, rent, or stay in as part of a household.

Details on the development and validation of the HSCR are available elsewhere.[14] The data used for this study were from the U.S. Department of Veterans Affairs (VA) Corporate Data Warehouse, which is a repository of electronic health records as well as demographic and VA service eligibility information;[15] these data were deidentified prior to analysis and stored on a secure server. Corporal Michael J. Crescenz VA Medical Center Institutional Review Board approved this study.

Sample. The study sample comprised 35,897 Veterans who responded to the HSCR between October 1, 2012 and September 30, 2013, and screened positive for homelessness and a subgroup of 6,536 Veterans who responded to a rescreen during the study period.

Measures. We assessed three types of measures: housing status, demographic and geographic variables, and rescreen disposition.

Housing status. The HSCR asks Veterans who screen positive for homelessness or risk where they have lived for most of the previous two months. Veterans may choose among eight types of living situations, which we have dichotomized into unsheltered (i.e., anywhere outside including street, vehicle, abandoned building) and sheltered, which includes the remaining categories: apartment/house/room—no government subsidy; apartment/house/room—with government subsidy; with friend/family; motel/hotel; hospital, rehabilitation center, drug treatment center; homeless shelter; and other.

Demographic and geographic variables. Demographic variables included age, gender, race/ethnicity, and whether a Veteran had been deployed to Afghanistan or Iraq as part of Operations Enduring Freedom (OEF) or Iraqi Freedom (OIF). We included information regarding Veterans' eligibility for VHA health care based on VHA Enrollment Priority Groups, collapsed into five categories: (1) not service-connected (neither disabled nor low income); (2) not service-connected, VA Pension (not disabled but low income); (3) service-connected disability less than 50% disabling; (4) service-connected disability more than 50% disabling; and (5) other criteria (e.g., exposure to certain hazards).[16] Geographic variables included whether Veterans responded to the HSCR at a rural location[17] and in what region of the country (Northeast, South, Midwest, West), Puerto Rico, or the Philippines.[18] Additional variables included the outpatient clinic type where staff administered the HSCR and whether Veterans accepted a referral to VHA Homeless Programs. Information on whether Veterans accepted a referral was unavailable for a small proportion (4.3%) of Veterans in the sample. These Veterans were retained in the sample for all analyses with their referral acceptance status coded as "unknown."

Rescreen disposition. We categorized Veterans who submitted to a rescreen during the study period as either positive for homelessness *or* risk or negative for both, based on the definitions described above.

Analysis. We first calculated the proportion of unsheltered Veterans among all Veterans who reported homelessness on their initial response to the HSCR and used bivariate tests to compare the characteristics of unsheltered and sheltered Veterans. Descriptive measures assessed differences in Veterans' rescreen disposition based on whether they were homeless in a sheltered or unsheltered situation at their initial screen. Finally, we estimated a mixed-effect logistic regression model to examine the relationship between rescreening disposition (positive for homelessness or risk) and unsheltered status at initial screen, while adjusting for demographics, OEF/OIF service, VHA Enrollment Priority Groups, geographic location, and screening environment. The model included a random intercept for the VA facility in which Veterans completed their second HSCR to account for within-facility clustering of Veterans responding to the HSCR.

Results

Eleven percent (N = 4,034) of the 35,897 Veterans who screened positive for homelessness during the study period indicated that they were living in an unsheltered situation. Table 1 presents a comparison of demographic and geographic variables for Veterans based on housing status (i.e., unsheltered and sheltered). Compared with sheltered Veterans, a greater proportion of unsheltered Veterans were male and a smaller proportion served during OEF/OIF. More than three-quarters (76.8%) of Veterans who were unsheltered were aged 50 years or older compared with two-thirds (66.1%) of those who were sheltered. One-half of unsheltered Veterans responded to the HSCR in the West, compared with less than one-third of those who were sheltered. Echoing previous findings, rates of service-connectedness among the unsheltered group were lower than those who reported being in a sheltered situation. Unsheltered Veterans also accepted referrals to social work or homeless services at a slightly higher rate than their sheltered counterparts.

Of the 35,897 individuals screening positive for homelessness initially, 18.2% (6,536) completed a subsequent screen at least six months later; 19.5% (1,275) screened positive a second time. Compared with sheltered Veterans, unsheltered Veterans had significantly higher rates of homelessness or risk at rescreen, 40.1% compared with 17.7%. (See Figure 1.)

Table 2 presents the results of a logistic regression model predicting a positive rescreen for homelessness or risk among Veterans who were positive for homelessness at their initial screen, regardless of housing status. After controlling for other characteristics, Veterans who were unsheltered at the time of their initial screen were 2.7 times as likely to screen positive for homelessness or risk at least 6 months later. In addition, Veterans who accepted a referral for homeless services, were male, were Black or African American, had no or lower levels of service-connectedness, and responded to the HSCR in clinics other than primary care at non-rural locations and in the West had significantly higher odds of rescreening positive. Veterans who responded to the

Table 1.

CHARACTERISTICS OF VETERANS SCREENING POSITIVE FOR HOMELESSNESS, BY HOUSING STATUS (N = 35,897)

	Unsheltered (N = 4,034, 11.2%)		Sheltered (N = 31,863, 88.8%)		Total (N = 35,897)	
	N	%	N	%	N	%
Accepted Referral to Social Work/Homeless Services*						
Declined Referral	1,232	30.5	10,945	34.4	12,177	33.9
Accepted Referral	2,626	65.1	19,553	61.4	22,179	61.8
Unknown	176	4.4	1,365	4.3	1,541	4.3
Age*						
18–29	154	3.8	2,289	7.2	2,443	6.8
30–39	304	7.5	3,864	12.1	4,168	11.6
40–49	477	11.8	4,637	14.6	5,114	14.3
50–59	1,662	41.2	11,040	34.7	12,702	35.4
60–69	1,179	29.2	7,784	24.4	8,963	25.0
70+	258	6.4	2,249	7.1	2,507	7.0
Gender*						
Female	144	3.6	2,964	9.3	3,108	8.7
Male	3,890	96.4	28,899	90.7	32,789	91.3
Race/Ethnicity*						
Non-Hispanic White	2,250	55.8	16,165	50.7	18,415	51.3
Hispanic/Latino	273	6.8	2,297	7.2	2,570	7.2
Black	957	23.7	9,270	29.1	10,227	28.5
Other	122	3.0	894	2.8	1,016	2.8
Unknown	432	10.7	3,237	10.2	3,669	10.2
OEF/OIF*	291	7.2	4,548	14.3	4,839	13.5
VA Priority Enrollment Group*						
Not Service Connected	2,088	51.8	14,976	47.0	17,064	47.5
Not Service Connected, VA Pension	418	10.4	1,989	6.2	2,407	6.7
Service Connected <50%	831	20.6	6,920	21.7	7,751	21.6
Service Connected 50–100%	677	16.8	7,647	24.0	8,324	23.2
Other	20	0.5	331	1.0	351	1.0
Screening Location*						
Primary Care	2,449	60.7	19,148	60.1	21,597	60.2
Mental Health	516	12.8	4,876	15.3	5,392	15.0
Substance Abuse	80	2.0	747	2.3	827	2.3
Other	989	24.5	7,092	22.3	8,081	22.5
Rural*	341	8.5	3,529	11.1	3,870	10.8
Region*						
Northeast	279	6.9	3,893	12.2	4,172	11.6
West	2,047	50.7	9,661	30.3	11,708	32.6
Midwest	404	10.0	5,947	18.7	6,351	17.7
South	1,294	32.1	12,041	37.8	13,335	37.2
Puerto Rico/Philippines	10	0.3	321	1.0	331	0.9

*$p < .0001$

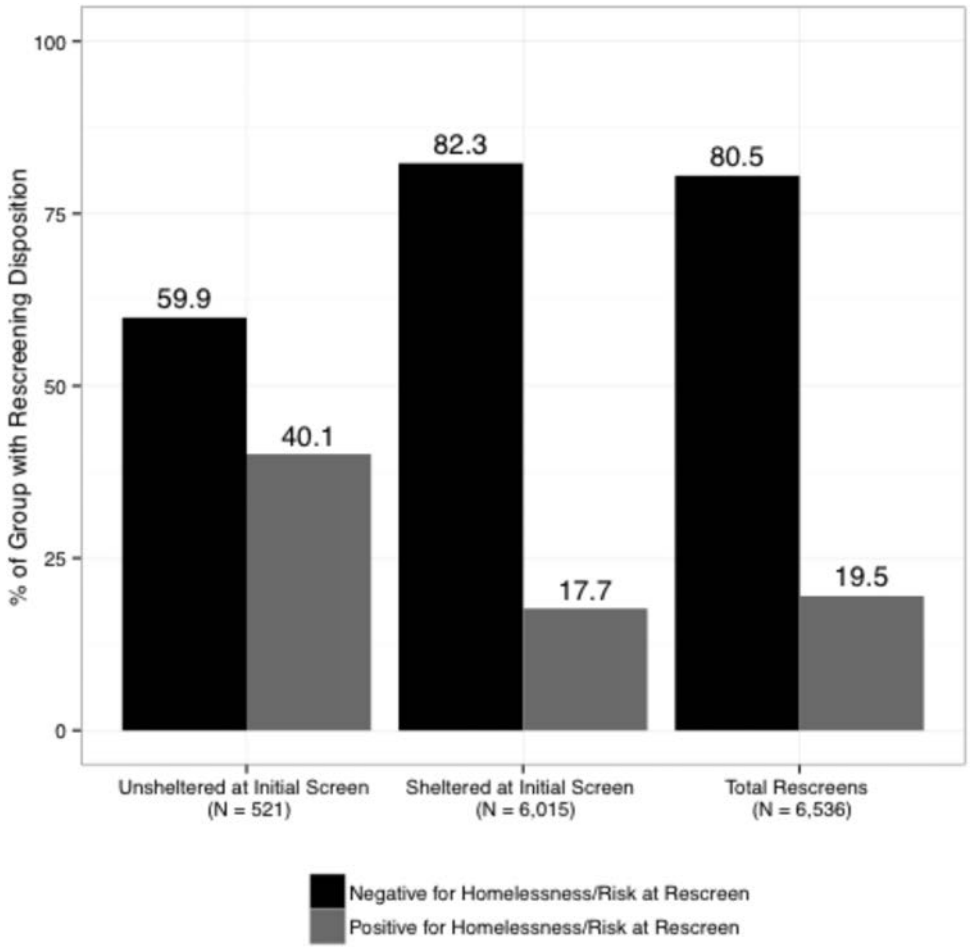

Figure 1. Rescreening disposition among veterans identified as homeless at initial screen, by housing status (N = 6,536).

HSCR in Puerto Rico or the Philippines had lower odds of rescreening positive relative to those in the Northeast.

Discussion

This study found that slightly more than one in 10 Veterans who screened positive for homelessness in response to VA's HSCR that is administered throughout VHA outpatient clinics indicated that they were living in an unsheltered situation. Veterans experiencing unsheltered homelessness were demographically distinct from those experiencing sheltered homelessness, and were more likely to remain homeless for an extended period of time.

The only point of comparison for the rate of unsheltered homelessness among

Table 2.

MIXED-EFFECT LOGISTIC REGRESSION MODEL PREDICTING A POSITIVE RESCREEN FOR HOMELESSNESS OR RISK AMONG VETERANS IDENTIFIED AS HOMELESS AT INITIAL SCREEN (N = 6,536)

	Reference	OR	95% CI
Unsheltered at Initial Screen*		2.73	2.24–3.34
Accepted Referral to Social Work/Homeless Services	Declined Referral		
Accepted*		1.42	1.23–1.63
Unknown*		2.18	1.53–3.11
Age	18–29		
30–39		0.88	0.60–1.30
40–49		1.05	0.70–1.57
50–59		1.40	0.95–2.06
60–69		1.06	0.71–1.57
70+		0.70	0.44–1.09
Female*		0.65	0.51–0.83
Race	White		
Hispanic/Latino		1.22	0.94–1.59
Black*		1.28	1.09–1.50
Other		1.37	0.97–1.94
Unknown		0.99	0.79–1.24
Served in OEF/OIF		0.97	0.73–1.28
VA Enrollment Priority Group	Service Connected >50–100%		
Not Service Connected*		1.44	1.22–1.71
Not Service Connected, VA Pension*		1.94	1.50–2.51
Service Connected <50%*		1.33	1.10–1.60
Other		1.09	0.55–2.13
Screening location	Primary Care		
Mental Health*		1.74	1.48–2.05
Substance Abuse*		2.77	1.81–4.26
Other*		1.40	1.17–1.67
Rural*		0.68	0.55–0.85
Region	Northeast		
West*		1.45	1.13–1.87
Midwest		0.97	0.74–1.28
South		0.89	0.70–1.14
Puerto Rico/Philippines*		0.24	0.08–0.70

*$p < .001$

Veterans accessing VHA outpatient health care (11.2%) is HUD's most recent point-in-time (PIT) estimate, which found that 34% of Veterans experiencing homelessness on one night in 2015 were staying in unsheltered situations. The discrepancy between these estimates is likely an artifact of differences in how they were produced: the HSCR only captured Veterans who presented for outpatient care at a VA facility and who had not accessed a VHA Homeless Program during the previous six months, while the HUD estimate was the result of an attempt to fully enumerate the population of homeless Veterans on a single night. Prior research shows that individuals experiencing homelessness who are staying in a sheltered situation are more likely to access health care services than those in an unsheltered situation,[7] which suggests that many Veterans experiencing homelessness in unsheltered situations may not be accessing VHA health care and housing assistance for which they may be eligible. Identifying and engaging these Veterans represents an important challenge for ongoing efforts to prevent and end homelessness among Veterans.

Findings from this study indicate that Veterans experiencing homelessness in an unsheltered situation are different from their sheltered counterparts. We found that unsheltered Veterans were more likely than sheltered Veterans to be male, which is in line with research on the general unsheltered homeless population.[9,13] While the majority (67.3%) of the sample studied here was older than 50 years, Veterans in the unsheltered group were disproportionately older than 50 years in comparison to the sheltered group (76.8% vs. 66.1%). This finding is consistent with evidence of a cohort effect in the single adult homeless population that has conferred persistently higher risk of homelessness over the past 2 decades on those who are now older than 50 years.[19] Given the evidence that older homeless adults have medical conditions akin to persons 15 to 20 years older than their biological age[20] and the increased health problems associated with unsheltered homelessness, older, unsheltered Veterans represent a particularly vulnerable group.

Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) Veterans were represented to a greater extent among the sheltered than the unsheltered population and were more likely to not rescreen positive for homelessness. The fact that OEF/OIF Veterans were more likely to be sheltered may be in part explained by their younger age; younger Veterans were also more likely to be sheltered. Other factors may help explain these findings as well. For example, these younger Veterans have likely returned more recently from service and may have more access to the support of family and friends. In addition, younger Veterans may have a spouse or children and therefore more able to access supportive services specifically for families, such as the Supportive Services Veteran Families (SSVF) program, which provides case management and financial assistance to Veterans who have recently become homeless or are at imminent risk of homelessness.

Overall, unsheltered Veterans were less likely to be service-connected, indicating that they do not receive compensation related to a disability incurred during military services. Therefore, unsheltered Veterans likely have less income than sheltered Veterans and less access to VHA health care services, pointing to their increased vulnerability. A particular intervention for which these unsheltered Veterans may be suitable candidates is the HUD-VA Supportive Housing (HUD-VASH) program, which provides subsidized permanent housing with ongoing supportive services; the intensity of this

program may be particularly appropriate for aging Veterans with complex and chronic medical conditions who may otherwise be unable to afford housing.[21]

This study found a striking difference in the geographic distribution of Veterans identified by the HSCR as being homeless and living in unsheltered as opposed to sheltered situations. More than one-half of unsheltered Veterans were located in the West, compared with only 30% of sheltered Veterans. This finding is likely explained by the fact that the Western region includes California and other states with warmer and drier climates, which has been linked to higher rates of unsheltered homelessness.[22–24] In fact, based on the 2015 PIT, more than 62% of Veterans who were homeless in California were living in an unsheltered situation.[1] From a programmatic standpoint, substantial gains in addressing unsheltered homelessness among Veterans may be achieved by allocating additional resources to the areas where the population is disproportionately located.

Finally, this is the first study to our knowledge to include longitudinal administrative data on the evolving housing status of persons experiencing homelessness in unsheltered locations. Other studies have used retrospective self-reports to assess duration of homelessness[6,8] or chart reviews to gauge repeated utilization of health services[12] among unsheltered populations, but none have tracked unsheltered populations prospectively. This is an important contribution as research conducted to date using longitudinal administrative homelessness data has been limited to individuals accessing emergency shelter; these studies have consistently found that only a small minority of persons in shelter on a given night stay in shelter for an extended period of time.[25–28] The low rate of positive rescreens (17.7%) among Veterans who initially reported being homeless in a sheltered situation and resolved their housing instability at least 6 months later is consistent with that body of research. It is also important to note that, in addition to living in one's own home or a homeless shelter, sheltered situations also included supportive environments such as hospitals, rehabilitation centers, and drug treatment centers. This may indicate that such recovery-oriented services may support Veterans' resolution of housing instability.

In contrast, 40.1% of Veterans who initially reported being unsheltered remained either homeless or at risk at the time of their second screening. Even after controlling for a number of possible confounders, Veterans who reported being unsheltered at their initial screen were almost three times as likely as their sheltered counterparts to report homelessness or risk on a followup screen 6 months or more later. This finding provides insight into the dynamics of unsheltered homelessness over time and underscores the fact that those experiencing unsheltered homelessness are more likely to remain homeless for extended periods of time and may require more intensive forms of assistance to regain permanent, stable housing. The findings also indicate that increasing benefits and compensation as well as supportive services related to mental and behavioral health conditions may support Veterans in not only resolving their housing instability but reducing risk of homelessness.

While contributing important information about an understudied, yet significant, homeless subpopulation, this study has several limitations. First, as noted above, this study only includes Veterans who received outpatient care at a VA facility and may not be representative of the broader population of Veterans experiencing homelessness in sheltered and unsheltered locations. Second, the study did not include information on

the health and behavioral health conditions of the Veterans studied here; it remains unclear whether there are significant differences between sheltered and unsheltered Veterans in this regard, as prior studies would suggest. Finally, while the analysis comparing rates of positive rescreens among sheltered and unsheltered Veterans controlled for whether Veterans accepted a referral for homeless services, it was not possible to determine whether and which services were provided nor whether services contributed to observed differences in the rates of positive rescreen between the two groups. Future research should examine differences in medical, mental, and behavioral health comorbidities as well as utilization of VHA health care services based on sheltered status.

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