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Health Services Use Among Veterans Using U.S. Department of Veterans Affairs and Mainstream Homeless Services

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We examined the use of health and behavioral health services for two groups of homeless veterans (N = 1,302) in the New York City area who were enrolled in the U.S. Department of Veterans Affairs (VA) healthcare system—veterans who use VA homeless programs, and veterans who use mainstream homeless programs only. Using administrative records from the VA and the New York City Department of Homeless Services, we compared the characteristics of users of VA and mainstream homeless programs and examined between-group differences in VA inpatient and outpatient services use and within-group changes in services use prior and subsequent to onset of homelessness. Roughly 41 percent of veterans only used mainstream homeless services. There were no significant differences between users of VA and mainstream homeless services in terms of gender, age, ethnicity, and level of VA eligibility. Veterans who used only mainstream homeless assistance services were less likely to be engaged with—and made less intensive use of—VA health and behavioral health inpatient and outpatient services than those who used VA homeless services. Efforts should be made to identify and engage veterans who, while enrolled in VA healthcare, may go unidentified as homeless by the VA.

KEY WORDS: homelessness, veterans, health services

Introduction

Preventing and ending homelessness among veterans is a national priority (U.S. Interagency Council on Homelessness, 2010); the U.S. Department of Veterans Affairs (VA) has set the goal of ending homelessness among veterans by 2016. There has been substantial progress toward this goal during recent years: the number of veterans experiencing homelessness on any given night decreased by 17 percent between 2009 and 2012 (U.S. Department of Housing and Urban Development, 2012). Nonetheless, the U.S. Interagency Council on Homelessness recently emphasized that continued progress toward ending veteran homelessness is contingent on identifying all veterans who are homeless or at risk of

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homelessness and linking them with needed housing, health, and other services (U.S. Interagency Council on Homelessness, 2013).

The process of identifying veterans experiencing homelessness is likely hindered by the fact that a substantial number of homeless veterans who are enrolled in VA healthcare do not use the specialized homeless programs that are operated or funded by the VA and therefore may not be identified as homeless by the VA. Recent research suggests that roughly 1 percent of all users of VA outpatient health services are currently homeless, but do not have a record of VA specialized homeless program use (Montgomery, 2013). Although limited, evidence suggests that veterans experiencing homelessness may not use VA homelessness programming due to perceived or actual administrative obstacles in obtaining services, lack of information about services, or past adverse experiences with the VA, and may instead seek assistance from mainstream, community-based providers of emergency shelter and homeless assistance (Applewhite, 1997). In addition, evidence from studies that have examined the more general use of VA versus non-VA healthcare services among veterans suggests that dissatisfaction with VA services is a strong predictor of seeking health care from providers outside of the VA system, although these studies did not specifically examine utilization of specialized VA homeless programs (Bean-Mayberry, Chang, McNeil, Hayes & Scholle, 2004; Borowsky & Cowper, 1999).

A significant limitation of research on homelessness among veterans is that most studies have relied on samples comprised of veterans whose homeless status was based solely on their use of VA homeless programs; no study has included both veterans who use VA homeless services and those who access mainstream homeless programs, leaving a gap in the knowledge regarding the extent to which homeless veterans access mainstream—as opposed to VA—homeless assistance services, and whether veterans who use mainstream homeless programs have different characteristics than their counterparts who use VA homeless programs. Addressing this gap will inform strategies to identify and engage all veterans experiencing homelessness.

It is equally important to understand whether patterns of VA healthcare services use among homeless veterans vary depending on whether they use VA or mainstream homeless programs as contact with the VA system for healthcare may represent an important intervention point for identifying veterans experiencing homelessness and linking them with housing and other interventions. Existing research shows that homeless veterans, like the overall homeless population, rely on acute forms of health and behavioral care and may face barriers to accessing preventive or outpatient services (Buchholz et al., 2010; Desai, Rosenheck, & Kasprow, 2003; Gordon, Haas, Luther, Hilton, & Goldstein, 2010; Gordon et al., 2006; Kushel, Perry, Bangsberg, Clark, & Moss, 2002; McGuire & Rosenheck, 2011; O'Toole, Conde-Martel, Gibbon, Hanusa, & Fine, 2011; Rosenheck & Seibyl, 1998). In addition, limited evidence suggests that many homeless veterans who use mainstream homeless assistance programs lack access to VA health services: one study found that only 41 percent of self-identified veterans in a community-based survey of homeless adults used the

VA healthcare system (O'Toole et al., 2003). An additional study of veteran participants in a non-VA homeless program for persons with mental illness found that roughly one half of the veterans had ever used VA healthcare, with even fewer receiving mental health treatment through the VA (Gamache, Rosenheck, & Tessler, 2000). While prior studies have examined factors associated with the utilization of health and behavioral health services among homeless veterans (Desai, Rosenheck, & Kasprow, 2003; McGuire, Gelberg, Blue-Howells, & Rosenheck, 2009; Wenzel et al., 1995), no study to date has compared the health and behavioral health services use of veterans who use VA homeless services and those who use mainstream homeless services. Even though there is evidence that a veteran's involvement in a VA homeless assistance program may decrease his or her use of acute health and behavioral healthcare and increase engagement with preventative outpatient care (Rosenheck, Gallup, & Frisman, 1993), it is unclear whether a similar pattern is evident among veterans who access mainstream homeless assistance services.

Additional research is needed to better understand the extent to which veterans experiencing homelessness access mainstream as opposed to VA homeless services, and whether veterans using mainstream homeless services have different characteristics and experience different patterns of VA health and behavioral health services compared to their counterparts who use specialized VA homeless programs. Such information would inform efforts to identify homeless veterans and link them with targeted interventions to address their housing and health needs. This study addresses this need by using an incidence cohort of veterans presenting for homeless assistance services in the mainstream and VA systems. The aims of this study are fourfold: (1) to assess the extent to which veterans experiencing homelessness access mainstream as opposed to VA homeless assistance programs; (2) to compare the characteristics of veterans who use mainstream homeless assistance programs and veterans who use VA homeless assistance programs; (3) to compare the extent and volume of VA health and behavioral health services utilization between these two groups both before and after the onset of homelessness; and (4) to examine within-group changes in the extent and volume of VA health and behavioral health services utilization before and after the beginning of a homeless episode.

Methods

Data and Sample

This study is a secondary analysis of administrative data from five sources:

1. VA's Health Care for Homeless Veterans (HCHV) Program, which is the primary mechanism through which the VA provides outreach to homeless veterans: emergency shelter, transitional housing, residential care, and other services. Data include intake dates for all veterans who accessed HCHV services provided in Veterans Integrated Service Network (VISN) 3,

which encompasses the New York City metropolitan area and northern New Jersey.
2. VA's Grant and Per Diem (GPD) Program, which provides transitional residential homeless assistance that is funded by the VA but operated by contracting agencies. Data include date of entry for all veterans who stayed in a GPD program in VISN 3.
3. New York City's Department of Homeless Services (DHS), which operates the mainstream public shelter system in New York City and maintains a database that tracks utilization of DHS shelters (Culhane, Dejowski, Ibanez, Needham, & Macchia, 1994; Culhane, Metraux, & Wachter, 1999). The services analyzed here are use of emergency shelter.
4. Health service use records extracted from the Veterans Health Administration (VHA) Corporate Data Warehouse (CDW), which is a national repository of VHA clinical and administrative data (U.S. Department of Veterans Affairs, 2012). The CDW includes patient-level inpatient and outpatient files that contain *International Classification of Diseases-9th Revision* (ICD-9) diagnosis codes for each encounter as well as the hospital bed section at time of inpatient discharge and outpatient clinic stop codes, which describe the type of treatment provided. Demographic data available in the CDW include gender, race, and age.
5. VHA Enrollment Files, which provide information about enrollment for VA healthcare and information about category of eligibility for VHA care. VHA uses a set of eight eligibility groups, prioritized from 1 to 8; veterans with disabilities connected to their military service are in the highest priority groups (U.S. Department of Veterans Affairs, 2013). We created a VA eligibility status variable by collapsing the eight VA priority groups into four mutually exclusive categories as follows: (1) veterans with a service connected disability rating of 10 percent or higher (priority groups 1–3); (2) veterans who receive aid and attendance or housebound benefits or are catastrophically disabled (priority group 4); veterans who receive VA pension benefits, are eligible for Medicaid, or have incomes below the VA means test threshold (priority group 5); and (4) veterans all other priority groups (6–8), which generally include higher-income veterans.

We integrated records from these five data sources using Social Security numbers, which were available in all sources, and deterministic matching procedures. The sample selected for inclusion in the study—an incidence cohort of veterans who accessed VA or DHS homeless services in 2008—met the following criteria: (1) experienced an onset of homelessness (i.e., used a VA or DHS homeless program) between January 1, 2008 and December 31, 2008, but did not use either of these homeless programs in the three preceding years and (2) had a matching record of VA enrollment during the 3-year period prior to 2008 (i.e., 2005–07). The use of the first inclusion criterion is consistent with a number of prior studies (Kuhn & Culhane, 1998; McAllister, Kuang, & Lennon, 2010) that have used the same procedure (i.e., a record of homeless service in a given year

with no record of such service in the preceding 3 years) to identify incidence cohorts of homeless services users. The second inclusion criterion was to ensure that all veterans in the sample were enrolled in VA care prior to the onset of homelessness.

We defined the 1-year periods prior to and following onset of homelessness by the date of a veteran's initial entry into either a VA homeless assistance program or DHS shelter. For veterans who accessed both VA homeless programs and a DHS shelter, we used the earliest date of entry to either. The final sample comprised 1,302 veterans, who were classified into two groups: 59 percent ($n = 774$) used a VA homeless assistance program (either exclusively or in addition to a DHS shelter) and 41 percent ($n = 528$) used only a DHS (i.e., mainstream) shelter.

Measures

We used VA medical records (CDW) to identify all episodes of inpatient and outpatient VA service use during the 1-year periods before and after a veteran's onset of homelessness. We used ICD-9 codes to classify inpatient hospitalizations by type of treatment, and excluded any inpatient episode with a bed section code indicating that the stay occurred in a specialty residential program for homeless veterans or in a nursing home. We categorized inpatient hospitalizations as mental health treatment if it was associated with a primary ICD-9 code indicating a mental health issue (ICD-9 codes 290, 293–298, 300, 301, and 306–314). Similarly, hospitalizations for substance abuse treatment included those that had a primary diagnosis indicating a substance abuse disorder (ICD-9 code of 291, 292, and 303–305). All other inpatient stays were categorized as medical hospitalizations. We also classified outpatient visits as mental health, substance abuse, or medical treatment based on clinical stop codes and excluded outpatient visits associated with VA homeless assistance services.

We constructed two service use variables for each type of inpatient and outpatient treatment. The first was a dichotomous measure of any service receipt and the second measured the volume of service use (i.e., the length of stay, in days, for inpatient hospitalizations and the number of visits for outpatient services). We constructed separate measures for the 1-year periods before and after the veterans' onset of homelessness.

Analysis. We conducted bivariate tests to compare the demographic characteristics (gender, race, age, and VA eligibility status) of the two study groups. We also conducted bivariate comparisons of the proportion of veterans in each of the two groups who used each type of health or behavioral health service—as well as the volume of each type of service use—during the 1-year periods prior to and following their onset of homelessness. We used chi-square tests for all categorical variables, and *t*-tests for all continuous measures.

In addition, we estimated a series of regression models to assess between-group differences in the extent and volume of service use in the 1-year period

following the onset of homelessness after adjusting for gender, race, age, VA eligibility status, and service use during the 1-year period prior to the onset of homelessness. We used logistic regression models for the dichotomous outcome measures (i.e., whether a veteran received a specific service). Because the length of stay in inpatient care and number of outpatient visits are count variables rather than continuous measures that follow a normal distribution, we used a modeling approach that is well-suited for count data, as opposed to ordinary least squares regression models. Specifically, we used negative binomial regression models to model the length of inpatient stays and number of outpatient visits because such models are suitable for dealing with count variables that may have a large number of zeros and a skewed distribution of positive values. We also selected this method over Poisson regression, another common method for modeling count data, because negative binomial regression can handle variables that are overdispersed (i.e., where the variance is greater than the mean), as was the case for the inpatient days and outpatient visits in the present study (Gardner, Mulvey, & Shaw, 1995). Veterans with missing gender, race, age, or VA eligibility status data were excluded from the regression models.

We examined within-group changes in the utilization of VA health and behavioral health services during the 1-year periods before and after onset of homelessness; chi-square tests compared the proportion of each group that used each type of service in the before and after periods, while paired *t*-tests compared the volume of service across the two time periods.

Results

Veteran Characteristics

Table 1 displays the characteristics of the study sample. There were no significant differences between the two groups in terms of gender, race, age, or VA eligibility status; members of each group were overwhelmingly male,

Table 1. Sample Characteristics ($N = 1{,}302$)

	VA ($n = 774$)	DHS-Only ($n = 528$)	*p*-Value
Male	92.4	91.9	0.76
Race			
African American	67.9	64.1	0.19
Other	32.2	36.0	
Age			
18–30 years	7.0	6.0	0.78
31–50 years	41.6	41.6	
51+ years	51.4	52.4	
VA eligibility status			
>10% Service-connected disability	24.7	23.5	0.21
Aid and attendance/housebound/catastrophically disabled	7.0	10.4	
VA pension/Medicaid-eligible	60.0	58.8	
Other	8.2	7.4	

predominantly African American, aged 51 years or older at the time of their onset of homelessness in 2008, and roughly 60 percent were very low-income (i.e., receiving VA pension or Medicaid-eligible).

Between-Group Comparison of Health and Behavioral Health Services Utilization

The results of the bivariate comparisons of health and behavioral health services utilization in the year prior and subsequent to onset of homelessness are shown in Table 2. During the year prior to onset of homelessness, rates of service use were uniformly higher for the VA group compared to the mainstream-only group. While roughly 30 percent of the VA group had at least one VA inpatient stay in the year prior to their onset of homelessness, only 8 percent of the mainstream-only group did. In addition, nearly three quarters (73.8 percent) of the VA group had an outpatient visit compared to only one in three (30.1 percent) of those in the mainstream-only group. A similar pattern emerged when comparing the number of outpatient visits and length of inpatient stay during the year prior to onset of homelessness; veterans in the VA group had longer inpatient stays and more outpatient visits, with the exception of inpatient medical stays where there was no statistically significant difference between groups.

Table 2. Comparison of VA Health Services Use Before and After Homeless Episode, by Type of Service ($N = 1{,}302$)

	12 Month Period Prior to Homelessness			12 Months Period After Homelessness		
	VA	Mainstream-Only	*p*-Value	VA	Mainstream-Only	*p*-Value
Inpatient: Mental health						
% Using service	10.08	3.41	<0.0001	9.82*	2.84*	<0.0001
Mean length of stay	3.45	1.02	<0.0001	3.96	.87	0.06
Inpatient: substance abuse						
% Using service	13.82	2.84	<0.0001	10.72*	2.65*	<0.0001
Mean length of stay	3.89	0.3	<0.0001	3.54	0.76	<0.0001
Inpatient: medical						
% Using service	12.02	4.17	<0.0001	13.95*	5.49*	<0.0001
Mean length of stay	1.16	0.58	0.09	1.44	0.38	0.0001
Any inpatient services						
% Using service	29.97	7.95	<0.0001	29.33*	8.14*	<0.0001
Mean length of stay	8.50	1.89	<0.0001	8.95	2.00	0.0002
Outpatient: mental health						
% Using service	41.21	13.26	<0.0001	73.39*	17.42*	<0.0001
Mean visits	7.61	1.02	<0.0001	22.64*	1.51*	<0.0001
Outpatient: substance abuse						
% Using service	27.13	4.55	<0.0001	48.71*	4.73*	<0.0001
Mean visits	8.09	2.95	0.0027	18.08*	1.68	<0.0001
Outpatient: medical						
% Using service	72.09	30.11	<0.0001	93.02*	37.31*	<0.0001
Mean visits	14.83	4.58	<0.0001	33.39*	6.31*	<0.0001
Any outpatient services						
% Using service	73.77	30.87	<0.0001	93.8*	38.45*	<0.0001
Mean visits	30.53	8.55	<0.0001	74.11*	9.5	<0.0001

Note: *Significantly different from the 12-month period prior to homelessness at $p < 0.05$.

The pattern was nearly identical for the 1-year period after onset of homelessness, with the bivariate comparisons showing statistically significant differences between the two groups in the rates of all types of inpatient and outpatient service use. The difference between groups was especially pronounced when considering outpatient treatment, with nearly 94 percent of veterans who used VA homeless services having at least one outpatient visit of any type, compared to <40 percent (38.5 percent) of their counterparts who used only a mainstream homeless shelter. Likewise, there were statistically significant differences between groups in terms of the volume (i.e., number of visits or length of stay) of each type of inpatient and outpatient service, with the exception of inpatient mental health length of stay. Once again, the difference in volume of service utilization was especially pronounced for outpatient services.

The results of the regression models are consistent with the bivariate comparisons. The logistic regression models (Table 3) present adjusted odds ratios comparing the likelihood of VA health services use of veterans who only used mainstream homeless services, compared to their counterparts who used VA homeless services. Adjusted odds ratios provide the odds that an outcome will occur given the value for a particular independent variable of interest, while also accounting for other covariates that may have a relationship with the outcome (Szumilas, 2010). The results of the logistic regression models show that after adjusting for gender, race, age, VA eligibility status, and service use during the 1-year period prior to onset of homelessness, veterans in the mainstream-only group were far less likely (AOR = 0.26; 95 percent CI = 0.17–0.39; $p < 0.001$) than those in the VA group to have any inpatient hospitalization during the 1-year period following onset of homelessness, and were also less likely to have an inpatient stay for mental health, substance abuse, or medical reasons. Similarly,

Table 3. Logistic Regression Models Predicting Likelihood of VA Inpatient and Outpatient Service Use in the 1-Year Period Subsequent to the Initial Date of Homeless Services Use ($N = 1{,}106$)

	Mainstream-Only	
Models	AOR	95% CI
Inpatient		
Mental health	0.30*	0.16–0.56
Substance abuse	0.25*	0.12–0.50
Medical	0.37*	0.23–0.61
Any	0.26*	0.17–0.39
Outpatient		
Mental health	0.09*	0.06–0.12
Substance abuse	0.06*	0.04–0.10
Medical	0.06*	0.04–0.09
Any	0.06*	0.04–0.09

Notes: *$p < 0.001$. VA group is reference group for all models. AOR, adjusted odds ratio; CI, confidence interval. The models show AOR for mainstream-only versus VA group and are adjusted for gender, race, age group, VA eligibility status, and use versus non-use of each type of service in year prior to onset of homelessness.

veterans in the mainstream-only group were far less likely (OR = 0.06; 95 percent CI = 0.04–0.09; $p < 0.001$) to have an outpatient visit for any reason in the 1-year period following onset of homelessness and were also substantially less likely to have outpatient visits for mental health, substance abuse, or medical reasons.

Table 4 presents the findings from the negative binomial regression models. Compared to the VA group, veterans in the mainstream-only group used significantly fewer inpatient days (IRR = 0.15; 95 percent CI = 0.09–0.26; $p < 0.001$) and had significantly less outpatient visits (IRR = 0.11; 95 percent CI = 0.09–0.14; $p < 0.001$) during the 1-year period following onset of homelessness. The one substantive difference between the bivariate tests and the regression models was in the length of stay for mental health inpatient visits; in contrast to the bivariate comparison, there was a statistically significant difference between groups after adjusting for the other covariates in the model.

Health and Behavioral Health Services Utilization Before and After Onset of Homelessness

The results of statistical tests examining the within-group changes in health and behavioral health services utilization between the 1-year periods before and after the onset of homelessness indicate that rates of any inpatient service use decreased slightly for those in the VA group (29.97 percent prior to homelessness vs. 29.33 percent after homelessness), but increased slightly for those in the mainstream-only group (8.50 percent vs. 8.95 percent; see Table 2). This increase was largely driven by an increase in the proportion of the mainstream-only group having a medical inpatient stay (4.17 percent vs. 5.49 percent), and the proportion of the VA group with a medical inpatient stay also increased (12.0 percent vs. 13.95 percent). In contrast, rates of mental health and substance abuse inpatient stays decreased between the 1-year periods before and after onset of homeless-

Table 4. Negative Binomial Regression Models Predicting Volume of VA Inpatient and Outpatient Service Use in the 1-year Period Subsequent to the Initial Date of Homeless Services Use ($N = 1{,}106$)

	Mainstream-Only	
Models	IRR	95% CI
Inpatient		
Mental health	0.07*	0.02–0.21
Substance abuse	0.13*	0.05–0.34
Medical	0.28*	0.14–0.56
Any	0.15*	0.09–0.26
Outpatient		
Mental health	0.06*	0.05–0.08
Substance abuse	0.03*	0.02–0.05
Medical	0.18*	0.15–0.22
Any	0.11*	0.09–0.14

Notes: *$p < 0.001$. VA group is reference group for all models. IRR, incidence rate ratio; CI, confidence interval. The models show IRR for mainstream-only versus VA group and are adjusted for gender, race, age group, VA eligibility status, and use vs. non-use of each type of service in year prior to onset of homelessness.

ness for both groups. There were no statistically significant within-group changes in the number of inpatient days.

Utilization rates for all types of outpatient treatment increased significantly for both groups between the 1-year periods before and after the onset of homelessness, although the increases were larger for the group that used VA homeless services. The number of mental health, substance abuse, and medical outpatient visits all increased significantly for veterans who used VA homeless services, with the total number of outpatient visits more than doubling for the VA group (30.53 prior to homelessness vs. 74.11 after homelessness). By contrast, the group of veterans who used mainstream-only homeless services had statistically significant, but substantively small, increases in the number of outpatient mental health (1.02 vs. 1.51) and medical (4.58 vs. 6.31) visits, but no significant change in the number of substance abuse or total outpatient visits.

Discussion

By examining the characteristics and VA health and behavioral health services utilization of an incidence cohort of veterans who were enrolled in VA healthcare but were first-time recipients of homeless services (i.e., had no record of homeless services utilization during the previous 3 years), this study found that a substantial minority of the study cohort—41 percent—accessed community-based homeless services, but did not use services provided by a VA homeless program. Veterans in the group that only used mainstream homeless services had lower levels of engagement in VA health and behavioral health services during the year prior to their onset of homelessness than veterans who used VA homeless services. Although not surprising, this finding likely reflects the fact that veterans who are more engaged with the VA for one type of care at baseline are also more likely to use VA services for another type of care, should the need arise. This finding suggests that a considerable number of homeless veterans, who are eligible and enrolled in VA healthcare, are not being identified as homeless by the VA, making it more difficult for VA's efforts to prevent and end homelessness to reach these veterans.

Consistent with existing research (Gamache et al., 2000), the present study found that veterans who used mainstream-only homeless assistance services were far less likely to be engaged with—and made less intensive use of—VA health and behavioral health services than their counterparts who used VA homeless services. Given the well-documented evidence of the myriad health challenges associated with homelessness (Baggett, O'Connell, Singer, & Rigotti, 2010; Barrow, Herman, Cordova, & Struening, 1999; Breakey, 1997; Desai, Rosenheck, & Agnello, 2003; Haddad, Wilson, Ijaz, Marks, & Moore, 2005; Hwang, 2000, 2001; Kasprow & Rosenheck, 2000; Wolitski, Kidder, & Fenton, 2007) the low levels of engagement in VA health and behavioral health treatment among veterans who used mainstream-only homeless services merits further examination. Future research should investigate the drivers of these lower levels of engagement. To this end, a number of explanations are possible. For example, the lower levels of

VA health services use observed among users of mainstream homeless services may reflect fewer health problems in this group, or alternatively, they may reflect unmet health and behavioral health needs among this group. The lower levels of VA health services use among veterans using mainstream health services may also be due to the fact that veterans who access mainstream homeless services are also more likely to receive health and behavioral health treatment from providers outside of the VA healthcare system. Similarly, it is possible that use of VA—as opposed to mainstream—healthcare providers may vary depending on the specific health or behavioral healthcare need. For example, it seems likely that the healthcare provider may differ depending on whether care is sought for emergent health needs or chronic conditions. The same may be true for physical health problems as opposed to behavioral health disorders. Access and convenience of location of VA healthcare services, and perceived or real differences in the quality of care provided by the VA and mainstream healthcare providers, may also affect use of services in one system versus the other. Regardless of the explanation, the low levels of utilization of VA health services among veterans who use mainstream homeless services point to the potential challenges that likely confront the VA in identifying those veterans who have housing problems, but with whom the VA healthcare system has only limited contact, and therefore limited opportunities, to link veterans with specialized VA homeless programs for which they may be eligible and which may help resolve their homelessness.

Finally, this study found that, regardless of the system in which veterans received homeless assistance services, there were significant changes in utilization of VA healthcare services between the period prior to and following the onset of homelessness. For those who used a VA homeless program, significant decreases in the use of VA inpatient services were accompanied by increases in the use of VA outpatient care, a finding consistent with prior research (Rosenheck, Gallup, & Frisman, 1993). This suggests that engagement in VA homeless services is an important mechanism for fostering connections to VA health and behavioral health treatment. This study also identified significant overall increases in the rates of VA inpatient and outpatient treatment among veterans who used mainstream-only homeless services. These increases were relatively small in substantive terms and may reflect veterans seeking care for increased health problems they encounter following the onset of homelessness, or alternatively, may be the result of veterans receiving care for health problems that existed at the time of their initial admission to a mainstream shelter.

In sum, the findings from this study indicate that there is a sizeable group of homeless veterans who do not use VA homeless assistance services and who also have lower levels of engagement with VA health and behavioral health services. Importantly, there were no significant differences in the demographic characteristics or VA eligibility status veterans who do and do not use VA homeless assistance programs. While the available data provide little insight as to why veterans used mainstream as opposed to VA homeless services and why they utilized VA healthcare services at a lower level, it appears that factors beyond eligibility for such services played an important role. As noted above, a number

of potential factors may be at work, and this remains an important question for future research.

The main implication of this study is that it further underscores the need for the VA to identify and engage veterans who are homeless but not identified as such by the VA system. Increased efforts should be made to ensure that these veterans are able to receive VA healthcare, homeless assistance, and other services for which they are eligible. The low levels of VA health services utilization that were observed for veterans who used mainstream homeless assistance services following the onset of homelessness likely represent a challenge to such efforts; many veterans in this group appear to have limited contact with the VA healthcare system subsequent to becoming homeless. The process of identifying and assisting *all* veterans experiencing homelessness is likely to require both increased efforts on the part of the VA as well as increased collaboration between the VA and community partners. In this respect, two recent developments are encouraging.

First, in the fall of 2012, the VA implemented a two-question homelessness screening clinical reminder, which is administered system-wide to all veterans who have an outpatient visit (Montgomery, 2013). The intent of this screener is to identify veterans who are currently homeless or at imminent risk of homelessness and to facilitate linkages of those veterans who screen positive to needed social work or homeless services available at the VA. Second, the VA has recently introduced the Supportive Services for Veteran Families (SSVF) program, a homelessness prevention and rapid rehousing program, which is funded by the VA, but operated by community-based providers of homeless assistance (Funding Availability Under Supportive Services for Veteran Families Program, 2012). The recent growth in funding for the SSVF program represents a promising development in efforts to engage veterans who are seeking services through mainstream homeless assistance providers, but who may be eligible for additional homeless services provided through the VA, including, but not limited to, SSVF.

This study has several limitations. First, the findings are based on data from a single jurisdiction with a particularly large mainstream homeless service system, which may limit its applicability to other settings. Second, it was not possible to assess differences in the prevalence of health, behavioral health, and other clinical conditions between veterans who used VA homeless services and those who used mainstream-only homeless services; this information was only available for the study cohort through VA medical records, and therefore confounded with the utilization of VA services. The extent to which differences between groups on these and other measures may have explained the observed differences in the use of VA homeless assistance and healthcare services remains unclear.

Third, it was impossible to deduce from available data *why* veterans accessed mainstream, as opposed to VA, homeless services, and whether these reasons influenced patterns of VA healthcare services utilization. Fourth, it was also not possible to assess whether the patterns of homeless service utilization (e.g., length of stay or number of stays) and housing outcomes varied depending on whether a veteran used VA or mainstream-only homeless services. Differences on such

measures may also have had an influence on the use of VA health services following onset of homelessness. Finally, the sample only included veterans enrolled in VA health-care and did not include homeless veterans who may be eligible for VA services but had no connection to the VA system, which may be the most important group to target for VA services, and who may be particularly difficult to identify. Unfortunately, there are no existing datasets that reliably identify this population.

Future research should expand on the present study by addressing these limitations, and more generally, to develop a better understanding of the experiences of homeless veterans who either have no connection to the VA or who are enrolled for VA care but do not use VA homeless services. Such research would prove valuable information to ensure that all veterans who are experiencing or at risk of homelessness are identified and connected to the VA resources for which they are eligible and that are best suited to meet their housing and health needs.

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