

VA



U.S. Department
of Veterans Affairs

An Analysis of Returns to Homelessness among Veterans Exiting VA Homeless Programs to Permanent Housing

THOMAS BYRNE, PH.D.

JACK TSAI, PH.D.

—

NATIONAL CENTER ON
HOMELESSNESS AMONG VETERANS

—

JUNE 2023

—

INTRODUCTION AND OVERVIEW

This report summarizes analyses on Veterans who exit VA homeless programs to permanent housing destinations and subsequently return to VA homeless programs. These analyses are based on a data set comprised of all exits from VA homeless programs to permanent housing destinations that occurred between 2018 and 2022. The analysis uses administrative data from VA specialized homeless programs as well as Veterans' electronic medical records. The specific questions that this report seeks to address are as follows:

- 1.** To what extent do Veterans exiting VA specialized homeless programs to permanent housing destinations subsequently return to such programs?
- 2.** To what extent are Veteran sociodemographic, military service, health, and health services utilization factors associated with risk of returns to VA homeless programs?

In the remainder of this report, we provide a brief overview of the data and methods used to address these questions. We then summarize findings with respect to each question.

DATA AND METHODS

EXITS AND RETURNS TO HOMELESSNESS

To examine returns to VA homeless programs, we constructed a data set comprised of all 293,820 exits to permanent housing destinations between 1/1/2018 and 12/31/2022 from one of the following VA homeless programs: Housing and Urban Development-Veterans Affairs Supportive Housing (HUD-VASH), the rapid rehousing component of Supportive Services for Veteran Families (SSVF), Grant and Per Diem (GPD), Contract Emergency Residential Services (CERS), and Low-Demand Safe Haven (LDSH).

Because some Veterans exited and returned to VA homeless programs multiple times between the beginning of 2018 and the end of 2022, some Veterans contributed multiple exits to this data set. However, in situations where Veterans experienced multiple exits within the same calendar year, we only retained their first exit within that calendar year for analysis.

We tracked whether and when a return to a VA homeless program occurred following an exit to a permanent housing destination for a period of up to 2 years following the date of exit. We defined a return based on whether a Veteran experienced any of the following:

- A record of completion of a HOMES assessment for which the housing status was “literally homeless.”
- A record of entry into the SSVF rapid rehousing or prevention programs, for which a Veteran’s living situation was sheltered or unsheltered homelessness at the time of entry.

PREDICTORS OF RETURNS TO HOMELESSNESS

We used a statistical modeling approach known as the Cox proportional hazards regression to examine the relationship between an array of Veteran sociodemographic, military service, health, and health services utilization factors and risk of return to a VA homeless program following exit to a permanent housing destination. The sociodemographic factors we considered were Veteran age at the time of exit, gender, race, ethnicity, and marital status. The military service factors we considered were period of service, whether a Veteran served in Operation Enduring Freedom (OEF) or Operation Iraqi Freedom (OIF), whether a Veteran had combat experience, VA eligibility category, service-connected disability rating, and whether a Veteran had experienced any military sexual trauma.

The health variables we considered were whether, in the 12 months prior to exit from a VA homeless program, Veterans had diagnoses in their VA electronic medical record for alcohol use disorder, drug use disorder, psychosis, major depression, cancer, or any major health condition (which included a wide array of physical health conditions such as HIV/AIDS, severe liver or lung disease, diabetes, and autoimmune disorders).

The health services utilization measures we considered were, in the 12 months prior to exit from a VA homeless program, number of outpatient visits to primary care, mental health clinics, substance use clinics, other specialty clinics, rehabilitation services and ancillary services; number of visits to emergency departments; and number of inpatient mental health, substance use, medical, or long-term care hospitalizations.

We provide more details on our modeling approach in the Results section, but it bears mentioning briefly here that the full set of these predictors were not available for Veterans who we could not identify as having a record of using VA health care. As such, our analysis of the predictors of the risk of return to homelessness does not include these Veterans and only includes the subset of Veterans with a record of using VHA health care.

RESULTS

RETURNS TO HOMELESSNESS

Table 1 summarizes the overall rates of returns to homelessness following an exit from VA homeless programs within 6, 12, and 24 months. There are 3 important things to note when considering these results:

- 1.** The denominators used in calculating rates of returns within 6, 12, and 24 months are different. This is because only exits with sufficient post-exit exposure time are included in the denominator when calculating these rates. For example, our data set includes exits that occurred anytime between 2018 and the end of 2022. More than 24 months have elapsed since the beginning of that time period, so exits occurring earlier in this time period would be included in the denominator when calculating return rates at 6, 12, and 24 months. However, less than 24 months has elapsed since the end of this study period, so exits occurring later in this time period would only be included in the denominator when calculating return rates at 6 months (and even then, not all exits in our data set have sufficient exposure time to be included in the 6-month denominator).
- 2.** The return rates are cumulative. That is, an exit that resulted in a return within 6 months would also be counted when calculating 12 and 24 month return rates, assuming the exit has sufficient exposure time to be included in the denominator for those time points.
- 3.** Return rates vary depending on the VA homeless program the Veteran initially exited from. For example, return rates from Veterans who exited CERS and GPD tend to be higher than HUD-VASH and SSVF. Return rates also vary by geographic region, with some VISNs having higher rates than others. We only present the aggregate return rates across VA homeless programs and geographic regions.

As Table 1 shows, 5.8% of exits to permanent housing resulted in a return to homelessness within 6 months, 10.2% resulted in a return within 12 months, and 16.7% resulted in a return within 24 months. These figures indicate that, of all returns that occurred within 2 years, the majority happened within the first year of exit from a VA homeless program.

Table 1: Summary of Returns to Homelessness Following Exits from VA Homeless Programs to Permanent Housing

DURATION	TOTAL EXITS	NUMBER RETURNING	% RETURNING
6 months	280,839	16,335	5.8
12 months	261,483	26,626	10.2
24 months	218,710	36,580	16.7

Table 2 shows return rates stratified by the fiscal year in which an exit occurred. The table shows that return rates at all 3 time points (6, 12, and 24 months) were fairly consistent for exits that occurred between 2018 and 2020, but that rates of return were lower for exits that occurred in 2021 and 2022.

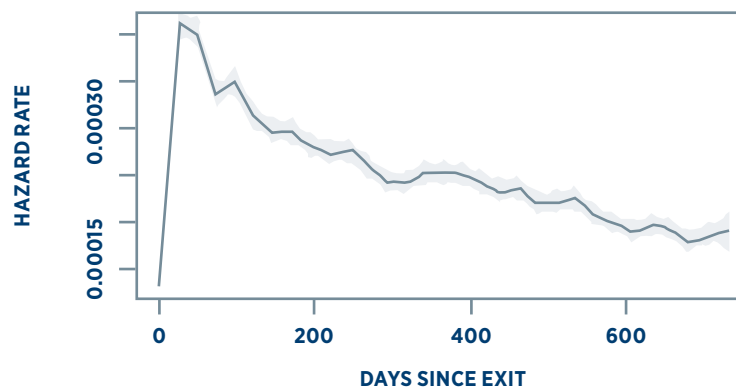
Table 2: Summary of Returns to Homelessness Following Exits from VA Homeless Programs to Permanent Housing, by Fiscal Year of Exit

Fiscal Year	6 MONTHS		12 MONTHS		24 MONTHS	
	Total Exits	% Returning	Total Exits	% Returning	Total Exits	% Returning
2018	58,915	6.4	58,915	11.1	58,915	18.3
2019	71,095	6.2	71,095	10.8	71,095	16.8
2020	60,011	5.5	60,011	9.4	60,011	15.6
2021	57,343	5.2	57,343	9.4	28,689	15.7
2022	33,475	5.6	14,119	9.7	--	--

EVALUATING RISK TO RETURN TO HOMELESSNESS OVER TIME FOLLOWING EXIT

It is clear from Table 1 that the majority of returns to homelessness occurred within each Veteran's first year after exiting to permanent housing. However, to get a more granular assessment of how risk of return to homelessness changes over time following exit, we used a class of statistical methods known as survival analysis. Specifically, we estimated what is known as a hazard function, which essentially provides an estimate of the level of risk of return to homelessness on each day following a Veteran's exit to permanent housing. Figure 1 below displays the resulting hazard function, with the number of days since exit to permanent housing shown on the x-axis, and the hazard rate shown on the y-axis (higher hazard rates indicate greater risk of return). As is clear from the figure, the risk of return to homelessness is relatively low in the period immediately following a Veteran's exit to permanent housing, then increases rapidly after about 90 days. Thereafter, the risk of returning to homelessness decreases steadily over time. It seems the period of 90-100 days after exit is the time for the highest risk for returns.

Figure 1: Estimated Hazard Rate of Returns to Homelessness Over Time



In addition to examining the extent to which Veterans returned to homelessness at any point, we also examined the extent to which Veterans experienced multiple returns to homelessness. In this analysis, we define “multiple returns” as a Veteran who had at least 2 discrete exits to permanent housing and 2 discrete returns to homelessness within 12 and 24 months of their initial exit to permanent housing. Whereas prior analysis used the exit as the unit of analysis, in this analysis, we use Veterans as the unit of analysis (i.e., the results should be interpreted as the proportion of Veterans exiting to permanent housing who experienced multiple returns to homelessness).

Table 3 summarizes the results of this analysis and shows the proportion of Veterans with multiple returns within 12 and 24 months of their initial exit. As the table makes clear, there were very few Veterans who had multiple returns within 12 or 24 months of their initial exit to permanent housing.

Table 3: Summary of Multiple Returns to Homelessness Following Exits from VA Homeless Programs to Permanent Housing

DURATION	TOTAL EXITS	# W/MULTIPLE RETURNS	% W/MULTIPLE RETURNS
12 months	226,287	781	0.3
24 months	222,287	3,659	1.6

PREDICTORS OF RETURNS TO HOMELESSNESS

In addition to understanding aggregate rates of returns to homelessness following exit from VA homeless programs to permanent housing, it is also of interest to understand what factors may place Veterans at a higher (or lower) risk of such a return. Thus, to address this report’s second question, we used a set of statistical methods known as survival analysis to assess the relationship between the above-described Veteran-level factors and the risk of return to homelessness following exit from a VA homeless program. The benefit of these statistical methods is that they enable us to include all exits from VA homeless programs, regardless of the length of post-exit exposure time. In other words, whereas before, we excluded certain exits with insufficient exposure time in calculating overall rates of return to homelessness, we do not have to exclude any exits due to exposure time in this analysis.

However, as noted above, because many of the Veteran-level predictors of risk of return that we considered were extracted from VA electronic medical record data, we excluded a total of 53,784 exits for Veterans who did not have a record of using VHA medical care and for whom we therefore could not construct these predictors. Descriptive statistics regarding the Veteran-level factors included as predictors are shown in the Appendix Table 1.

Table 4 below summarizes the results of a Cox proportional hazards regression that we used to examine the relationship between our Veteran sociodemographic, military service, health, and health services utilization factors and risk of return to homelessness following exit to a permanent housing destination. We estimated 2 different models. The first model included all Veteran exits, and the second model was restricted to only include exits among Veterans who were aged 65 and older.¹ The latter model was intended to assess whether predictors of returns to homelessness differed for older Veterans relative to the full Veteran population, since aging homeless Veterans are an important and growing subgroup in VA. As the results show, there were not major differences in the salience of predictors between these 2 models.

1. We also estimated a model that only included Veterans who exited the HUD-VASH program. Results of that model are shown in Appendix Table 2.

The table presents hazard ratios, which summarize the relationship between each characteristic and the risk of returns to homelessness. Hazard ratios less than 1 indicate an increased risk of return to homelessness, and hazard ratios greater than 1 indicate an increased risk of return to homelessness. The presence of asterisks in the table indicate that the hazard ratio is statistically significant.

With the foregoing in mind, a number of key findings emerged from Table 3:

- **Age:** Older age was associated with a reduced risk of returning to homelessness in the models that included exits among Veterans aged 65 and older.
- **Sex:** The risk of returning to homelessness was roughly 32% lower for females as compared to males. This finding held true in the full sample of Veterans and specifically among Veterans aged 65 and older.
- **Race:** The risk of returning to homelessness was about 1.13 times higher for Black Veterans as compared to white Veterans. This same finding held true for Veterans aged 65 and older. Native Hawaiian and Pacific Islander Veterans have a significantly lower risk than white Veterans of returning to homelessness in the models that just included exits among Veterans aged 65 and older. Except for these two findings, there was no other difference in risk of return for other racial groups as compared to white Veterans in either model.
- **Marital status:** Veterans who were single, separated/divorced, or widowed all had elevated risks of return to homelessness as compared to married Veterans.
- **Combat exposure:** Veterans with indicators in their medical records of having been exposed to combat had a significantly lower risk of returning to homelessness in the model that included all Veterans.
- **VA eligibility category/service-connected disability:** Veterans with service-connected disability ratings of less than 50%, those who were receiving a non-service-connected VA pension, and those with an eligibility category of “other” all had significantly higher risks of returning to homelessness compared to Veterans with a service-connected disability rating of between 50% and 100%.
- **Military sexual trauma:** Veterans with an indicator of experiencing military sexual trauma had a 1.18 times greater risk of returning to homelessness in the model that included all Veterans.
- **Behavioral health diagnoses:** Indicators of the presence of drug and alcohol use disorders and mental health diagnoses were generally associated with an elevated risk of returning to homelessness. Veterans with alcohol use disorders had a 1.16 times greater risk, Veterans with drug use disorders had a roughly 1.40 times greater risk, and Veterans with a diagnosis indicating psychosis had a roughly 1.20 times greater risk in both models. Major depression was associated with a higher risk of returning to homelessness, but only in the model that just included exits among Veterans aged 65 and older.

- **Health conditions:** Physical health conditions were generally associated with a decreased risk of returning to homelessness. In the model that included all Veterans, those with any major physical health condition had a slightly (3%) lower risk of returning to homelessness. The presence of a cancer diagnosis was associated with a roughly 25% decrease in the risk of returning to homelessness in both models.
- **Outpatient services use:** More frequent use of outpatient services in the 12 months prior to exit from a VA homeless program was generally associated with a reduced risk of returning to homelessness following exit. More outpatient mental health, substance use, specialty care, rehabilitation, and ancillary care visits were all associated with a reduced risk of returning to homelessness.
- **Acute care services use:** More frequent use of emergency department and inpatient services in the 12 months prior to exit from a VA homeless program was generally associated with an increased risk of returning to homelessness following exit. More emergency department visits and more inpatient mental health, substance use, and long-term care admissions were all associated with an elevated risk of returning to homelessness in the model that included all Veterans.
- **Year of exit:** The risk of returning to homelessness was generally lower in the fiscal years after 2018. For example, the risk of returning to homelessness for an exit that occurred in fiscal year 2019 was about 11% lower than an exit that occurred in fiscal year 2018. The risk of return for an exit that occurred in fiscal year 2022 was about 15% lower than an exit that occurred in fiscal year 2018.

Table 4: Results of Regression Models Examining Association Between Veteran Predictors and Risk of Returns to Homelessness

	ALL VETERANS HAZARD RATIO	65+ VETERANS HAZARD RATIO
Age (10-year increments)	1.02*	0.802***
Female (ref = Male)	0.679***	0.669***
Race (ref = White)		
Unknown	0.955*	0.951
Am. Indian/Alaska Native	1.075+	1.056
Asian	0.969	0.712
Black	1.130***	1.133***
Native Hawaiian/Pacific Islander	0.873*	0.910
Ethnicity (ref = Non-Latino)		
Unknown	1.468**	1.287***
Latino	0.957+	1.002
Marital status (ref = Married)		
Unknown	0.992	0.967
Separated/divorced	1.220***	1.203**
Single	1.153***	1.134*
Widowed	1.299***	1.391***

	ALL VETERANS HAZARD RATIO	65+ VETERANS HAZARD RATIO
Period of service (ref = Post-Vietnam)		
Unknown	0.877	0.922
Pre-Vietnam	0.536***	0.938
Persian Gulf	1.021	1.137
Vietnam	0.825***	0.965
OEF/OIF	0.976	1.191
Combat exposure	0.907***	0.898*
VA eligibility (ref = Service connected 50-100%)		
Unknown	0.006	---
Other	1.264***	1.111
Not service connected	1.015	0.904*
Not service connected, VA pension	1.201***	1.049
Service connected <50%	1.132***	1.072***
Military sexual trauma	1.184***	1.084
Alcohol use disorder	1.159***	1.151***
Drug use disorder	1.397***	1.350***
Psychoses	1.197***	1.195***
Major depression	0.985	1.086*
Any major health condition	0.971*	1.011
Any cancer	0.768***	0.739**
Outpatient primary care visits	1.001	1.001
Outpatient mental health visits	0.999***	1.000
Outpatient substance use treatment visits	0.999***	0.999+
Outpatient specialty care visits	0.985***	0.985***
Outpatient rehab visits	0.998**	0.999
ER visits	1.044***	1.045***
Outpatient ancillary care visits	0.997***	0.998
Inpatient mental health admissions	1.050***	1.090***
Inpatient substance use treatment admissions	1.117***	1.143**
Inpatient medical admissions	1.004	0.966
Inpatient long-term care admissions	1.148***	1.042
Fiscal year (ref = 2018)		
2019	0.886***	0.897*
2020	0.789***	0.841**
2021	0.824***	0.818***
2022	0.845***	0.988
2023	1.023	1.334*
Observations	219666	35407

Note: +p<.10; *p<.05; **p<.01; ***p<.001

CONCLUDING SUMMARY

This report provides answers to 2 major questions concerning returns to homelessness in VA homeless programs. The first question was: To what extent do Veterans exiting VA specialized homeless programs to permanent housing destinations subsequently return to such programs? The answer is that only a small minority of Veterans return to homelessness (10% within the first year), and of Veterans who do return, the majority return within the first year. The second question was: To what extent are Veteran sociodemographic, military service, health, and health services utilization factors associated with risk of returns to VA homeless programs? The answer is that being Black, unmarried, having a substance use disorder, and being less engaged with VA outpatient care and more engaged with VA acute care were all independently associated with greater risk of returns to VA homeless programs. Together, these results may inform VA leadership on program planning in homeless programs. While this report focused on returns to homelessness as a phenomenon to address, it may be important to consider that in some instances, a return to homelessness is part of a Veteran's journey to recovery and long-term housing stability.

APPENDIX

Appendix Table 1 - Comparison of Characteristics of Veterans by Return Status

CHARACTERISTIC	OVERALL, N = 220,371	NO RETURN, N = 184,421	RETURN, N = 35,950	P
Age¹	53(13)	53(13)	52(13)	<0.001
Sex²				
Female	26,973(12)	23,739(13)	3,234(9.0)	
Male	193,398(88)	160,682(87)	32,716(91)	
Race²				
White	109,385(50)	92,293(50)	17,092(48)	<0.001
Black	85,174(39)	70,252(38)	14,922(42)	
Asian	1,846(0.8)	1,584(0.9)	262(0.7)	
American Indian/Alaska Native	4,450(2.0)	3,731(2.0)	719(2.0)	
Native Hawaiian/Pacific Islander	2,665(1.2)	2,319(1.3)	346(1.0)	
Unknown	16,851(7.6)	14,242(7.7)	2,609(7.3)	
Ethnicity²				<0.001
Non-Latino	188,219(85)	157,460(85)	30,759(86)	
Latino	14,992(6.8)	12,831(7.0)	2,161(6.0)	
Unknown	17,160(7.8)	14,130(7.7)	3,030(8.4)	
Marital status²				<0.001
Married	31,880(14)	27,571(15)	4,309(12)	
Single	68,044(31)	56,822(31)	11,222(31)	
Separated/divorced	111,218(50)	92,299(50)	18,919(53)	
Widowed	7,476(3.4)	6,205(3.4)	1,271(3.5)	
Unknown	1,753(0.8)	1,524(0.8)	229(0.6)	
Period of service²				<0.001
Pre-Vietnam	1,647(0.7)	1,501(0.8)	146(0.4)	
Vietnam	46,457(21)	39,585(21)	6,872(19)	
Post-Vietnam	77,061(35)	63,613(34)	13,448(37)	
Persian Gulf	94,802(43)	79,367(43)	15,435(43)	
Other/unknown	404(0.2)	355(0.2)	49(0.1)	
OEF/OIF/OND²	26,998(12)	22,622(12)	4,376(12)	0.600
Combat exposure²	8,664(3.9)	7,380(4.0)	1,284(3.6)	<0.001
VA eligibility²				
Not service connected	78,041(35)	65,982(36)	12,059(34)	
Not service connected, VA pension	14,794(6.7)	12,166(6.6)	2,628(7.3)	
Service connected <50%	51,315(23)	42,401(23)	8,914(25)	
Service connected 50-100%	74,088(34)	62,106(34)	11,982(33)	
Other	2,132(1.0)	1,765(1.0)	367(1.0)	
MST ²	27,404(12)	22,613(12)	4,791(13)	<0.001
Alcohol abuse ²	57,591(26)	45,324(25)	12,267(34)	<0.001
Drug abuse ²	56,874(26)	43,916(24)	12,958(36)	<0.001

CHARACTERISTIC	OVERALL, N = 220,371	NO RETURN, N = 184,421	RETURN, N = 35,950	P
Psychoses²	42,507(19)	33,425(18)	9,082(25)	<0.001
Depression²	74,317(34)	61,107(33)	13,210(37)	<0.001
Major health²	77,693(35)	64,670(35)	13,023(36)	<0.001
Cancer²	3,250(1.5)	2,902(1.6)	348(1.0)	<0.001
Visits, primary care¹	5.4(6.0)	5.4(6.0)	5.5(6.0)	<0.001
Visits, mental health¹	16(33)	16(33)	20(36)	<0.001
Visits, substance abuse¹	11(30)	10(30)	14(32)	<0.001
Visits medical specialty¹	4.4(9.1)	4.5(9.3)	3.7(7.7)	<0.001
Visits, rehabilitation¹	3.7(11.4)	3.6(11.3)	4.1(11.4)	<0.001
Visits, ER/UC¹	1.52(2.81)	1.40(2.63)	2.18(3.49)	<0.001
Visits, ancillary¹	11(15)	11(15)	12(14)	<0.001
Admissions, mental health¹	0.20(0.72)	0.16(0.63)	0.37(1.04)	<0.001
Admissions, substance abuse¹	0.047(0.246)	0.041(0.228)	0.078(0.321)	<0.001
Admissions, medical/surgical¹	0.26(0.90)	0.25(0.87)	0.32(1.01)	<0.001
Admissions, long-term care¹	0.048(0.243)	0.0450(0.233)	0.067(0.289)	<0.001
Fiscal year¹				<0.001
2018	41,152(19)	32,713(18)	8,439(23)	
2019	50,821(23)	41,454(22)	9,367(26)	
2020	44,428(20)	36,960(20)	7,468(21)	
2021	42,146(19)	35,250(19)	6,896(19)	
2022	33,682(15)	30,286(16)	3,396(9.4)	
2023	8,142(3.7)	7,758(4.2)	384(1.1)	

Notes: 1-mean(SD); 2-N(%)