



RESEARCH BRIEF

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VA Outpatient Health Care Status Prior to Death in Veterans with History of Homelessness

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Introduction

The health problems experienced by homeless individuals are exacerbated because of exposure to environmental toxins and communicable diseases, barriers to access to health care, and chronic stress. Primary stressors include low socioeconomic status, malnutrition, and psychiatric and substance use disorders. Stress exposure is associated with chronic severe disorders, such as hepatitis and cardiovascular disease, and, as a result, substantial risk of early death.¹⁻⁴

In the United States, Veterans represent a significant minority of the homeless population, comprising 11% of homeless adults in the United States in 2014.⁵ Several studies have explored early mortality among Veterans who are homeless. These studies have produced substantial findings to support the hypothesis that homelessness, and factors associated with homelessness, reduce the lifespan of Veterans. In Veterans experiencing homelessness at age 55 and older, the mortality rate is approximately twice that of Veterans with no history of homelessness, and older homeless Veterans die 2.5 years earlier than Veterans with no homelessness history.⁶ In younger Veterans, age 30-54, the mortality rate for homeless Veterans is 2.5 times that of Veterans with no history of homelessness.⁷

Improving access to health care has been a continuing effort in the Veterans Health Administration (VHA), and recent research argues for a focus on enhancing outreach and engagement at sites where homeless individuals congregate.⁸ The objective of this research brief is to explore the extent and nature of engagement in VHA health care services by Veterans with a history of homelessness, specifically in the period prior to death.

Method

We collected administrative data from the VHA's Northeast Program Evaluation Center (NEPEC) and the VHA's Homeless Operations Management and Evaluation System (HOMES) for Veterans who had received homeless services from 2000 to 2014. We then examined the Center for Disease Control National Death Index to select from that group those Veterans who died during fiscal years 2013-2014. There was a total of 14,615 deaths. We then examined these Veterans' VHA medical records, accessed through the VHA Corporate Data Warehouse, to look at the characteristics of outpatient care they received in the 180 days prior to death.

Results

OUTPATIENT CARE AND VISIT PATTERNS

Almost three quarters (10,934; 74.8%) of the Veterans had received VA outpatient services in the 180 days prior to death. The remaining Veterans (3,681; 25.2%) had no record of outpatient care in this period. There was a meaningful difference in age at time of death between the two groups. The mean age of death for Veterans who received care was 64.8; for Veterans with no history of care the mean age was 67.7.

Veterans with a history of outpatient care had 29 outpatient visits, on average, in the 180-day period prior to death. On average, these Veterans had received their last outpatient care 27 days prior to the day of death. The largest proportion of these visits were for treatment (41.3%) and diagnostic (29.1%) purposes. Outpatient visits to medical clinics comprised the majority of visits (65.8%). Between 10 and 15% of visits were to Mental Health/Substance Abuse (13.7%) and Homeless Program (11.5%) clinics.

CAUSES OF DEATH

We examined the categories of cause of death for Veterans in the two groups, defined by receipt of health care services in the period prior to death. These are provided in Table 1. There were very few differences in the proportion of deaths between the two Veteran groups for the top seven specific causes of death, which accounted for roughly 90% of death in total for both groups. The only notable difference was a higher proportion of deaths due to cancer in the Veterans with history of outpatient services (24.7) in comparison to Veterans with no history (17.2%).

CHARACTERISTICS OF VETERANS BASED ON CARE HISTORY

To determine if there were Veteran characteristics that might be associated with use of VHA health care, we examined available Veterans' records in the HOMES database. This search revealed 3,259 Veterans with HOMES data: 3,012 (27.6%) of Veterans with history of outpatient care and 247 (6.7%) of Veterans without history of outpatient care. The remainder of Veterans in the cohort of 14,615 deaths (11,356, 77.7%) had received homeless services prior to the initiation of the HOMES data collection effort in 2010.

We examined a variety of HOMES variables to determine differences between the two Veteran groups distinguished by their history of VA health care services prior to death.

Table 1. Causes of Death

Cause of Death Category	Veterans with history of outpatient services		Veterans with no history of outpatient services	
	%	Cumulative %	%	Cumulative %
Diseases of circulatory system	27.0	27.0	32.0	32.0
Neoplasms	24.7	51.7	17.2	49.2
External causes (overdose, accidents)	13.0	64.7	11.8	61.0
Diseases of respiratory system	8.6	73.3	11.0	72.0
Diseases of digestive system	7.8	81.1	6.8	78.8
Infectious and parasitic diseases	4.8	85.9	4.7	83.5
Endocrine, nutritional, metabolic disease	4.6	90.5	3.7	87.2

There was only a small difference in age at the time Veterans in the two groups entered the housing program (55.3 years for Veterans with history of outpatient care and 56.0 years for Veterans without treatment). Both groups were similar in terms of years of education, self-rating of health, and self-rating of dental condition. Veterans who received outpatient services prior to death reported 1.95 medical problems on average in comparison with Veterans without services (1.65 problems). Table 2 presents comparison proportions for these two groups on characteristics for which there was a notable difference.

Table 2. Characteristics of Veterans With and Without History of VA Outpatient Health Care Prior to Death

Characteristic	Veterans with history	Veterans without history
	Percent	Percent
Race (non-White)	64.9	74.4
VA pension	27.3	16.6
History of substance abuse treatment	65.3	56.9
History of treatment for psychiatric disorder	41.1	33.3
Completed housing program	17.7	29.1
Receives VA benefits on discharge	67.1	44.4

Veterans with history of outpatient treatment prior to death were characterized by higher proportions of histories of treatment for substance abuse or psychiatric disorder, VA pension, and VA benefits at time of program discharge. Veterans without a history of care prior to death were characterized by higher proportions of non-Whites and housing program completion.

Summary

In the six months prior to death, the large majority of deceased Veterans with a history of homelessness had received outpatient care from the VA. The care received by these Veterans appears to have included the full range of diagnostic, treatment, and specialty (e.g., substance abuse, homeless program) services offered by the VA. Except for a higher proportion of Veterans who received health care services dying of cancer, there were no differences in the proportions dying by cause of death between the two groups. Notably, Veterans who had not received any outpatient care were substantially older.

There was a large discrepancy between the two groups in the percentage of Veterans who had records in the HOMES database. These data suggest that some segment of Veterans who did not receive VHA healthcare prior to death may have been healthier and/or had more successful life outcomes and were able to receive health care outside of the VA system.

There are several meaningful differences between these two groups of Veterans in terms of information captured at the time of their latest admission into VA housing programs. Perhaps the most significant of these is that the Veterans with health care services had histories of psychiatric or substance abuse treatment combined with VA pensions that may have been associated with mental health and/or

substance abuse disorders. This constellation of characteristics is likely associated with continuing contact with VA health care services. In contrast, the Veterans without history of VHA health care services reported fewer health problems, were more likely to be non-White, and were more likely to have completed the housing intervention program.

There are no simple explanations for these results. That most Veterans are receiving VHA health care at the time of death is noteworthy and speaks to the success of the efforts of the VHA to increase access to health care services. These Veterans appear to have had histories with greater complications from psychiatric disorder, substance abuse, and health problems, suggesting that health care services were being delivered to those most in need. The critical question may be to determine what proportion of the remaining Veterans, those not accessing VHA health care, were receiving adequate health care services in the private community or were unable to access VHA health care services.

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