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# Homeless Veteran Mortality and Suicide

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# Introduction

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- Studies in numerous countries have shown increased risk for early death in homeless populations.
- These studies note common factors affecting health status, such as
  - exposure to environmental toxins and communicable diseases
  - poor health care
  - chronic stressors such as low SES, malnutrition, and psychiatric and substance use disorders.



# Introduction

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- These stressors are associated with chronic disorders, such as hepatitis and cardiovascular disease, and, as a result, substantial risk of early death.
- Homeless Veterans are unique, however, in several respects that might influence life-span in both positive and negative ways.



# Introduction

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- Selection criteria eliminate those whose health and mental fitness failed to meet fairly rigorous standards.
- Military service provides health care and physical conditioning.
- Veteran status provides access to education, health, and housing benefits.
- These factors suggested that Veterans are healthier at early ages and more likely to enjoy benefits that are associated with good health and longevity.



# Introduction

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- However, several characteristics of military service act as counterbalancing factors in determining risk for early death:
  - Physical and psychological trauma experienced during military service
  - family disruption
  - absence from the workforce
  - exposure to unhealthy lifestyle behaviors (smoking, drinking).



# Introduction

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- The few extant studies specifically examining mortality of homeless veterans do suggest that homelessness is associated with early mortality, even after adjustments are made for the presence of other variables (e.g., mental illness) known to contribute to early death.
- These estimates may be biased, however, given that the study samples consisted of veterans who either were identified in records of medical care or were enrolled in general medical or psychiatric treatment programs.



# Center Studies of Mortality in Homeless Veterans

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- In order to determine if homelessness per se influences lifespan in Veterans, we conducted a study of 4,475 older (age 55+) Veterans who were admitted into VA homelessness programs in 2000–2003 and a separate sample of 20,071 Veterans with no history of homelessness.
- The control group cases were selected to match the homeless sample on the basis of sex and age.





# Center Studies of Mortality in Homeless Veterans

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- We searched records from the Centers for Disease Control National Death Index file for the years 2000-2011 to determine survival status, date of death, and cause of death.
- Survival functions and causes of death of the two groups were then compared.



# Center Studies of Mortality in Homeless Veterans

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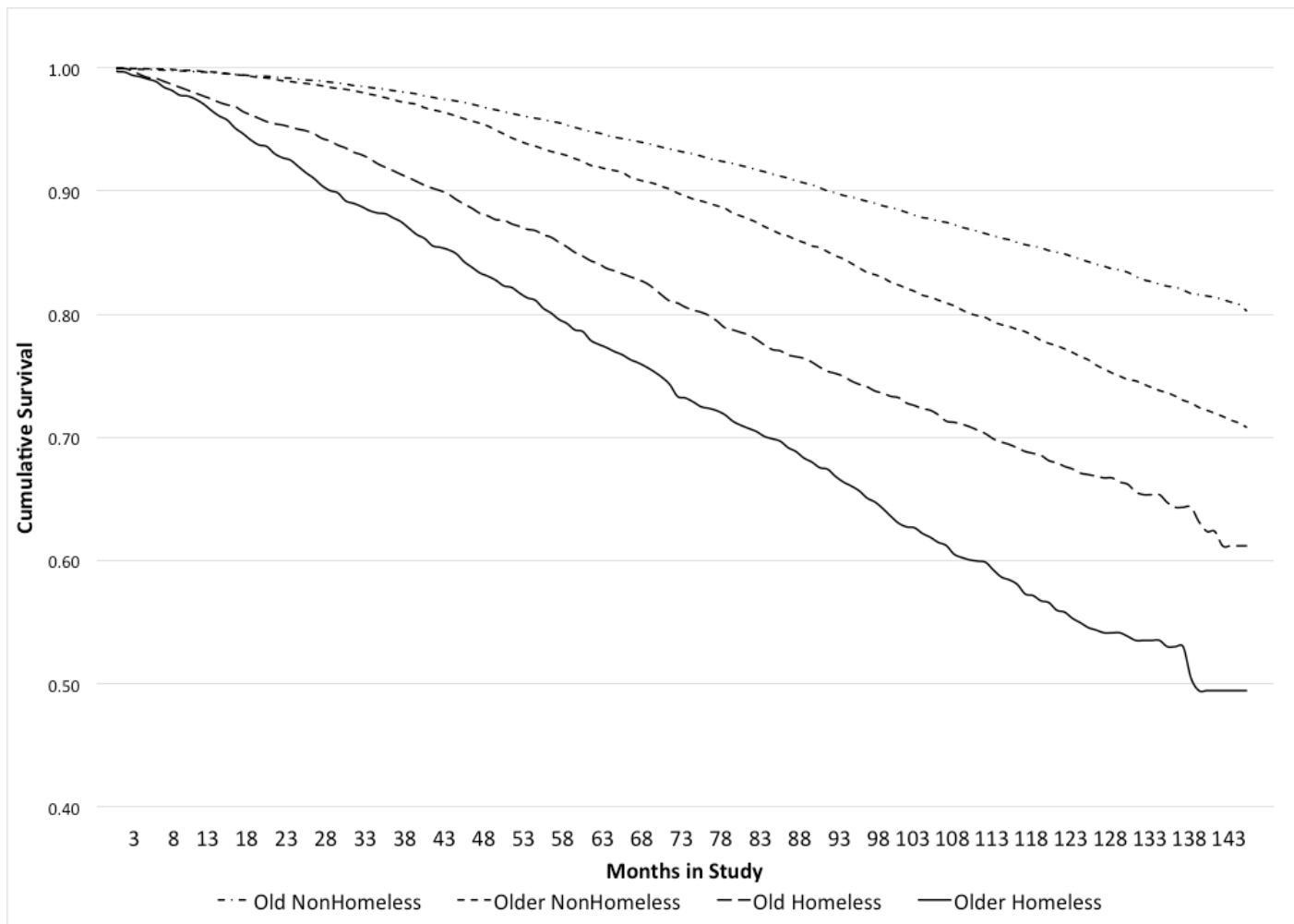
- During the follow-up period, 35% (1,560 of the 4,475) of the homeless Veterans died from all causes, compared with a significantly smaller proportion (3,649 of 20,071, 18%) of the Veterans with no history of homelessness.
- Veterans in the homeless sample were significantly younger at time of death (65.0 years of age) compared with the non-homeless sample (66.9 years of age).

# Center Studies of Mortality in Homeless Veterans

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- However, when we looked at the impact of increasing age (55-59 vs 60+), differences between the two groups were magnified:
  - Old nonhomeless, 15% deceased
  - Older nonhomeless, 24% deceased
  - Old homeless, 31% deceased
  - Older homeless, 43 % deceased

# Center Studies of Mortality in Homeless Veterans





# Center Studies of Mortality in Homeless Veterans

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- These results argue strongly that homelessness has an impact on older Veterans' risk for early death.
- Additionally, the risk increases more significantly with age in homeless Veterans than in Veterans with no history of homelessness.
- Almost all deaths (95% of the homeless sample; 94% of the non-homeless sample) were due to the same 11 causes.



# Center Studies of Mortality in Homeless Veterans

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- For both groups, the most frequent causes were cardiovascular disease, cancers, and respiratory diseases.
- The differences between the homeless and nonhomeless groups in terms of proportions of death were minimally different.
- Although homelessness is a risk factor for early death in Veterans, it does not appear to achieve that impact through an effect on specific causes of death, but rather earlier death from common causes.



# Center Studies of Mortality in Homeless Veterans

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- We used the same methods from our study of older homeless Veterans to examine early lifespan in 23,898 younger Veterans, ages 30 to 54, who were admitted to VHA homeless programs in in 2000-2003. For comparison purposes, we also identified a separate sample of 65,198 age-matched Veterans with no history of homelessness.
- Again, we searched records from the Centers for Disease Control National Death Index file for the years 2000-2011 to determine survival status, date of death, and cause of death.

# Center Studies of Mortality in Homeless Veterans

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- During the follow-up period, 16.3% of homeless Veterans died; a substantially smaller proportion of the nonhomeless Veterans died (6.4%). Using national death statistics, we estimate that 6.8% of men of similar age die over a time period equivalent to that used in the study follow-up period.
- Early death in the homeless Veterans, therefore, was not only greater than that of non-homeless Veterans, but was also more than twice what would be expected on the basis of national death estimates.





# Center Studies of Mortality in Homeless Veterans

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- A notable finding was that only a single category of cause of death, death due to external causes, was associated with a significant and meaningful proportional increase in early death in the younger homeless Veterans in comparison to non-homeless Veterans.
- Almost a quarter of homeless deaths were due to external causes that include drug overdose, suicide, homicide, and both vehicle and non-vehicle (e.g., falls, drowning, errors in operating machinery) accidents.



# Center Studies of Mortality in Homeless Veterans

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- Why do homeless veterans die at earlier ages than other veterans?
- With the exception of death due to external causes in younger homeless Veterans, the causes of death are the same diseases and disorders for both homeless and nonhomeless Veterans.
- More detailed analyses of our study showed that chronic homelessness and number of homeless episodes in and of themselves are not risk factors for early death in older homeless Veterans.



# Center Studies of Mortality in Homeless Veterans

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- These findings suggest that:
- 1) vulnerability factors common to homelessness and biological aging, and not homelessness per se, contribute to risk of early death
- 2) accelerated biological aging is the mechanism by which the same set of diseases and disorders produce earlier death in homeless Veterans.



# Center Studies of Mortality in Homeless Veterans

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- The mechanisms of biological aging are likely diminished repair and regeneration in widespread organ systems.
- With these conditions, common diseases and disorders have enhanced deleterious impact on overall health.



# Suicide in Homeless Veterans

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- Suicide is a major public health issue in the United States, accounting for over 42,000 deaths a year.
- Suicide is the tenth leading cause of death in the United States.
- In 2014 an average of 20 Veterans died by suicide every day; fourteen of the 20 were not receiving VA services in the year of their suicide or the year prior.



# Suicide in Homeless Veterans

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- Suicide is most common in older veterans. Sixty-five percent of Veteran suicides occurred in individuals 50 or older.
- The most common method of suicide in Veterans involves a firearm; only a third involve some other method.
- Controlling for age and gender, Veteran risk for suicide is 22% greater than that of civilian adults.



# Suicide in Homeless Veterans

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- Our studies of cause of death and risk of early death in homeless Veterans have shown that, in comparison to Veterans without a history of homelessness, homelessness is associated with an increased rate of death by suicide.
- We found that frequency of death by suicide in younger homeless Veterans was 2.5 times that of Veterans with no history of homelessness. In older Veterans, the frequency of death by suicide was twice that of Veterans with no history of homelessness.



# Suicide in Homeless Veterans

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- These data are consistent with a previous report that found that the suicide rate among Veterans with homelessness in the past year was 81.0 per 100,000 as compared to Veterans without recent history of homelessness with a rate of 35.8 suicides per 100,000.
- Available data thus show that in the Veteran population, a history of homelessness increases the rate of suicide by a factor of at least 2.





# Suicide in Homeless Veterans

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- Other studies have addressed suicidal behaviors. Estimates from these studies show that homeless Veterans frequently suffer from suicidal ideation:
  - 7.0% (past week)
  - 12.1%–18% (past month)
  - 74% (lifetime)
- And have frequent suicide attempts:
  - 0%–6% (past month)
  - 30.7%–31.5% (past 5 years)
  - 15%–46.6% (lifetime).



# Suicide in Homeless Veterans

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- Recent Center research has examined the sequencing of episodes of homelessness and the occurrence of suicidal behaviors, specifically of attempts and ideation. There is a clear temporal relationship between homelessness and suicidality.
- Notably, it appears that suicidality peaks just before onset of homelessness and not after. There is a sharp acceleration in suicidal behavior in the eight weeks prior to onset of homeless with a mirror deceleration in the eight weeks post onset.



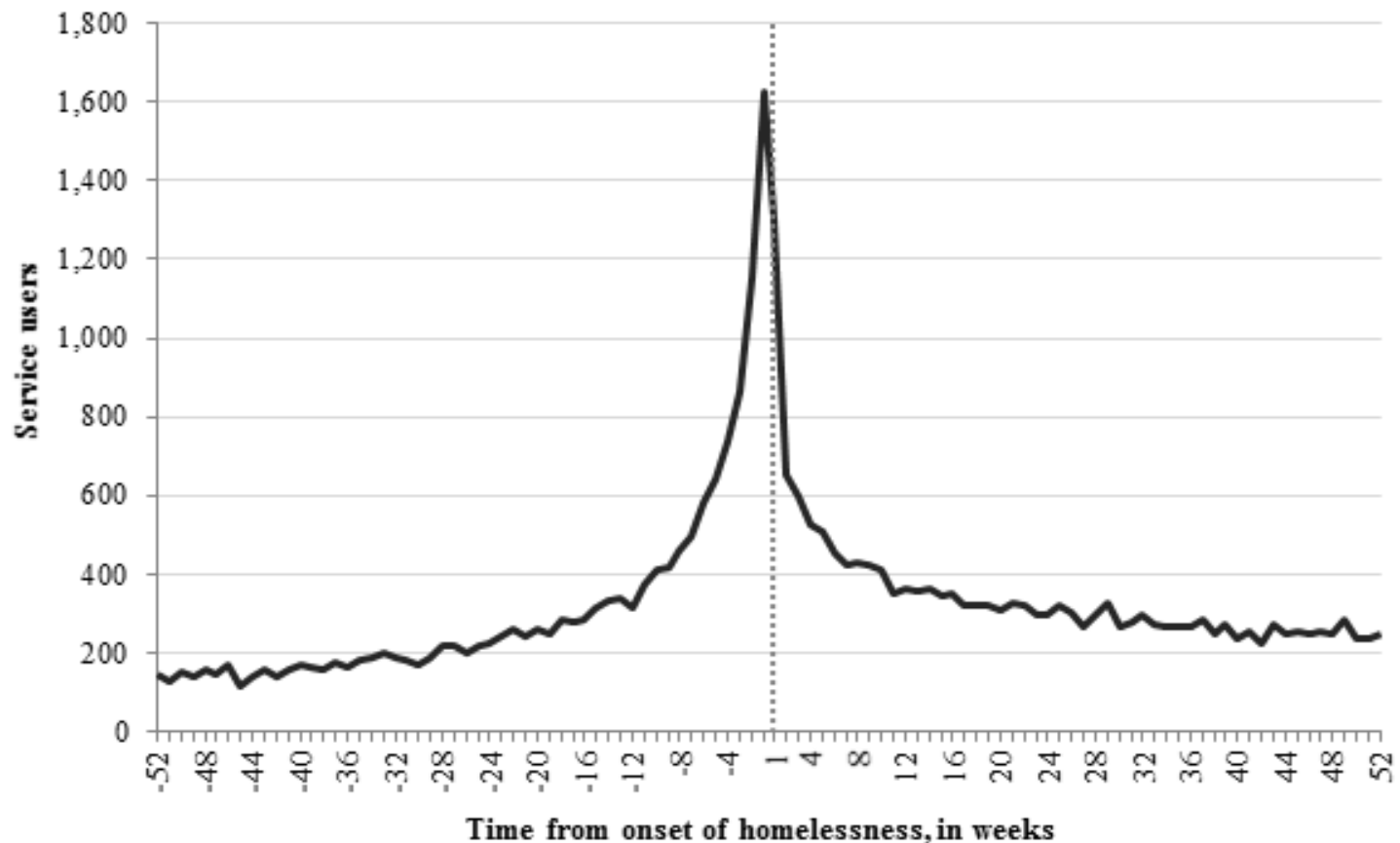
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# Suicide in Homeless Veterans

**Figure 1. Suicidality-related service use around onset of homelessness**





# Suicide in Homeless Veterans

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- Nearly a third (29.3%) of Veterans receiving care for suicidality showed evidence of homelessness. Homelessness appeared especially prevalent among Veterans with primary diagnoses of suicidality in acute care settings, 39.7% of whom showed evidence of homelessness before and/or after the acute care encounter.

# Key References

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Schinka, J.A., Bossarte, R.M., Curtiss, G., Lapcevic, W.A., & Casey, R.J. (2016). Increased Mortality in Older Homeless Veterans. *Psychiatric Services, 67*, 465-468.

Schinka, J.A., Curtiss, G., Bossarte, R.M., Lapcevic, W.A., & Casey, R.J. (2017). Predictors of Mortality in Older Homeless Veterans. *Journals of Gerontology: Psychological Sciences, 72*, 1103-1109.

Schinka, J.A., Leventhal, K.C., Lapcevic, W.A., & Casey, R. (2018). Mortality and Cause of Death in Younger Homeless Veterans. *Public Health Reports, 133*, 177-181.

Schinka, J.A., & Byrne, T. (2018). Aging and Mortality in Homeless Veterans. In J.Tsai (Ed.), *Homelessness Among U.S. Veterans: Critical Perspectives*. Oxford: Oxford University Press.

Culhane, D, Szymkowiak, D, & Schinka, J.A. (In press). Suicidality and the Onset of Homelessness: Evidence for a Temporal Association from Treatment Events in Veterans Health Administration Data. *Psychiatric Services*.



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