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Left Out in the Cold: Homicide Amongst Persons Experiencing Homelessness

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Introduction

Over 580,000 persons experienced homelessness in the United States in 2020. Persons experiencing homelessness (PEH) have a life expectancy estimated up to 30 years lower than the general population. Most research on mortality among PEH has focused on morbidity and mortality of chronic diseases.

Research in the Netherlands has shown that 26% of deaths of PEH are classified as "unnatural" and largely preventable. Similarly, in a study of the Maryland Violent Death Reporting System, 2% of homicide victims were experiencing homelessness at the time of their death, which is extremely high given that only .2% of the Maryland population was experiencing homelessness at the time.

Our objective is to explore the risk factors for death by homicide among PEH on a national scale in order to advise future targeted interventions.

Methods

We examined all adult victims of homicide reported through the National Violent Death Reporting System (NVDRS) from 2003-2018. Comparison of factors was performed across victims who were identified as homeless and not-homeless.

We utilized the U.S. Department of Housing and Urban Development (HUD) Point-In-Time (PIT) Data and the United States Census Bureau Population Estimates to estimate homicide rates per 100,000 for the general and homeless populations for adults age 18+. Furthermore, only data from the 17 states that had complete NVDRS data from 2013-2018 were included.

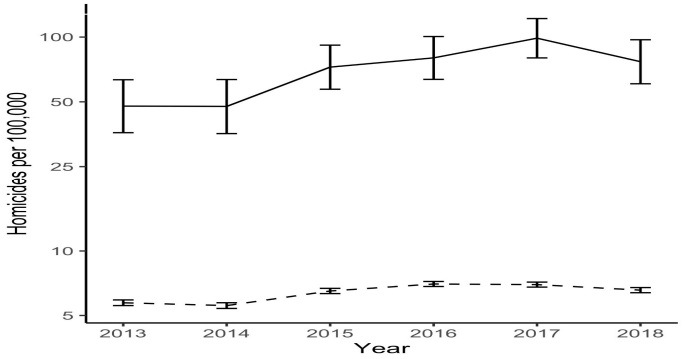
We performed statistical analysis using the R Project for Statistical Computing version 4.0.0 (Vienna, Austria). Mann-Whitney's U-tests were used for comparison of non-normally distributed continuous variables. When comparing proportions, a chi-square test was used except where the prevalence was less than 5%, in which case a Fisher's exact test was used. A p-value of less than 0.05 was considered as statistically significant. Additional data analysis and confirmation of preliminary results for this paper were generated using SAS software, Version 9.4.

Results

Table 1: Comparison of demographics and circumstances surrounding incidents of homicide victims who identified as homeless versus identified as not homeless

	Not Homeless n=79728 (%)	Homeless n=1484 (%)	p-value
Demographics			
Age in years	32 [24, 45]	43 [32, 52]	<0.001
Race/ethnicity minority	52,426 (65.8)	753 (50.7)	<0.001
Mental health problem	2250 (2.8)	102 (6.9)	<0.001
Alcohol problem	1939 (2.4)	211 (14.2)	<0.001
Other substance abuse problem	5527 (6.9)	343 (23.1)	<0.001
Circumstances			
Weapon type- Firearm	5824 (73.0)	568 (38.3)	<0.001
Weapon type- sharp/ blunt instrument	13954 (17.5)	574 (38.7)	<0.001
Random violence	1243 (1.6)	71 (4.8)	<0.001
Location - House/apartment	38720 (48.6)	272 (18.3)	<0.001
Location – Street/ road/ sidewalk or natural area	19221 (24.1)	624 (42.0)	<0.001
Location - Supervised residential facility	236 (0.3)	28 (1.9)	<0.001

Figure 1: Homicide Rates among PEH and the General Population



The above figure shows homicide rates for the homeless population (solid line) and overall population (dotted line), for the years 2013-2018 (including data from 17 states). Data from NVDRS.
States included (have 2013-2018 data):
Alaska, Colorado, Georgia, Kentucky, Maryland, Massachusetts, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Utah, Virginia, Wisconsin

Table 2: Comparison of alcohol and substance abuse problems stratified by pre-existing mental health problem

	Not Homeless (%)	Homeless (%)	p – value
Alcohol Problem	389 (17.3)	35 (34.3)	<0.001
Alcohol Use Suspected	376 (16.8)	28 (27.5)	0.013
Substance Abuse Problem	624 (27.8)	55 (53.9)	<0.001
Hx Mental Illness Treatment	1,367 (60.8)	53 (52.0)	0.074
Active Mental Health Treatment	1,019 (45.3)	25 (24.5)	<0.001

Conclusion

PEH are over ten times as likely as others to die by homicide. While shelters are often avoided by PEH due to violence, most incidents involving PEH took place outside. PEH are three times more likely to experience death by random homicide.

Interventions into homeless homicide should focus on risk factors specific to PEH including the markedly increased rates of alcohol/ substance abuse problems and mental health issues among homeless victims.

References

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