Supplemental Online Content

Haghighat L, Ramakrishna S, Salazar JW, et al. Homelessness and incidence and causes of sudden death: data from the POST SCD study. *JAMA Intern Med.* Published online October 23, 2023. doi:10.1001/jamainternmed.2023.5475

eTable. Proportion of Sudden Arrhythmic Deaths with Causes Known Premortem in Homeless vs. Housed Populations

eAppendix.

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable. Proportion of Sudden Arrhythmic Deaths with Causes Known Premortem in Homeless vs. Housed Populations

	Homeless	Housed	p-value
Total	13/44 (29.5%)	141/385 (36.6%)	0.35
Coronary artery disease	3/20 (15%)	70/238 (29.4%)	0.17
Cardiomyopathy	4/14 (28.6%)	20/71(28.2%)	0.98
Hypertrophy	6/10 (60%)	46/65 (70.8%)	0.49
Valvular cause	0/0 (0%)	5/11 (45.5%)	N/A

eAppendix.

Person-years at risk was calculated as the sum of estimated person-years at risk in two different age groups. For the housed population, these age groups were as reported in the Census Bureau data: 18-64 and 65+ years of age. Estimated person-years at risk in each age group in 2011 was calculated by multiplying the percent of individuals within the age group by the total housed population in 2011. We performed the same calculation for 2013. Total estimated person-years at risk in each age group was then calculated as the sum of the product of 11/12 and the 2011 person-years at risk estimate (to account for the study starting in February 2011); plus the 2011 estimate of person-years at risk (to account for 2012 data); plus the 2013 estimate of person-years at risk; plus 2/12 of the 2013 person-years at risk (to account for the initial cohort ending in March 2014); minus the person-years at risk in the homeless population. Calculations for the homeless population were performed similarly, using age groups of less than 18-60 and 61+ years of age, which were the age groups that most closely matched those reported for the housed population.

Example calculation of presumed sudden cardiac death incidence is provided below.

Determination of Countywide Presumed Sudden Cardiac Death Incidence, Study Duration 2/1/2011-3/1/2014

Person-years at risk by age group: (11 months / 12 months/year) * % of age group in 2011 population count*2011 population count + (12 months / 12 months/year) * % of age group in 2011 population * 2011 population + (12 months / 12 months/year) * % of age group in

<u>2013 population * 2013 population + (2 months / 12 months/year) * % of age group in 2013 population * 2013 population</u>

<u>Housed Individuals Incidence</u>

Age Group 1 (18-64 years old): (11 months / 12 months/year) * 0.69 * 815650 persons + (12 months / 12 months/year) * 0.69 * 815650 + (12 months / 12 months/year) * 0.69 * 828876 + (2 months / 12 months/year) * 0.69 * 828876 = 1733290.55 person-years

Age Group 2 (65+ years old): (11 months / 12 months/year) * 0.18 * 815650 persons + (12 months / 12 months/year) * 0.18 * 815650 + (12 months / 12 months/year) * 0.18 * 828876 + (2 months / 12 months/year) * 0.18 * 828876 = 442811.45 person-years

Total person-years at risk among housed individuals = Person-years at risk in housed age group 1 + person-years at risk in housed age group 2 – total person-years at risk among homeless individuals = 1733290.55 + 442811.45 – 20799.47= 2,155,302.53 person-years

454 Housed Presumed Sudden Cardiac Deaths / 2,155,302.53 person-years * 100,000 = **21.06 per 100,000 person-years**

273 Housed Presumed Sudden Arrhythmic Deaths / 2,155,302.53 person-years * 100,000 = **12.66 per 100,000 person-years**

<u>Homeless Individuals Incidence</u>

Age Group 1 (18-60 years old): (11 months / 12 months/year) * 0.93 * 6455 persons + (12 months / 12 months/year) * 0.93 * 6455 + (12 months / 12 months/year) * 0.96 * 7350 + (2 months / 12 months/year) * 0.96 * 7350 = 19700.92 person-years

Age Group 2 (61+ years old): (11 months / 12 months/year) * 0.07 * 6455 persons + (12 months / 12 months/year) * 0.07 * 6455 + (12 months / 12 months/year) * 0.03 * 7350 + (2 months / 12 months/year) * 0.03 * 7350 = 1098.55 person-years

Total person-years at risk = 19700.92 + 1098.55 = 20,799.47 person-years

71 Homeless Presumed Sudden Cardiac Deaths / 20,799.47 person-years * 100,000 = **341.35 per 100,000 person-years**

19 Homeless Presumed Sudden Arrhythmic Deaths / 20,799.47 person-years * 100,000 = **91.35 per 100,000 person-years**