Submission Id: 5655

Title

Self-harm and rurality in Canada: an analysis of hospitalization data from 2015 to 2019

Priority 1 (Research Category)

Population health and epidemiology

Presenters

Newsha Mahinpey, MPH

Abstract

Context: In Canada, rural–urban differences have been observed for many non-communicable diseases, injuries, and causes of death. Suicide was found to be the second leading cause of preventable death in remote communities. The incidence of self-harm is an important indicator in suicide surveillance and a target outcome for suicide prevention. Self-harm rates vary by geographic location and rurality appears to be a risk factor. Objective: The objectives of this study were to estimate rates of self-harm hospitalization in Canada over a 5-year period by sex and age group, and examine relationships between self-harm and rurality. Study Design and Analysis: Self-harm hospitalization rates were calculated and stratified by year, sex, age group, and level of rurality, as measured using the Index of Remoteness. A Poisson regression was fit to estimate rate ratios for the levels of rurality. Setting or Dataset: The Discharge Abstract Database (DAD) was the main source of data in this study. The DAD is comprised of demographic, administrative, and clinical information about patients discharged from acute care. Population Studied: All patients aged 10 years or older who were discharged from hospital between 2015 and 2019. We used a subnational version of the DAD that covered 77% of the 2016 population; data from Quebec, Yukon, and the Northwest Territories was not included. Intervention/ Instrument: The Index of Remoteness developed by Statistics Canada was used in order to measure rurality. Outcome Measures: Self-harm hospitalizations, identified by ICD-10 diagnosis codes for intentional self-injuries. The DAD captures those who visited the emergency department and were admitted for more medically serious self-harm events that require interventions such as trauma management or psychiatric care. Results: Rates of self-harm hospitalization were higher for females than males across all levels of rurality and increased with each level for both sexes, except for among young males. The widest rural-to-urban disparities were observed for the 10–19 and 20–34-year old age groups. Females aged 10–19 in very remote areas had the highest self-harm hospitalization rate. Conclusion: The rate of self-harm hospitalization in Canada varied by sex, age group, and level of rurality. Clinical and community-based interventions for self-harm, such as safety planning and increased access to mental health services, should be tailored to the differential risks across geographic contexts.