

Identifying superusers of health services with mental health and addiction problems

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Objective

The objective of this research is to identify people with mental health and/or addiction (MHA) problems and determine characteristics that led to them becoming a superuser of health services (i.e., the most expensive 10% of all health service users).

Approach

In Saskatchewan, Canada, we used hospital and physician administrative data spanning 2005 to 2014 to identify the MHA cohort. We will calculate total health care costs for each individual and assign them to one of three groups: low cost users (<50th percentile), moderate cost users (50- <90th percentile), and superusers (90th percentile and above). For each group, we will describe sociodemographic characteristics, disease characteristics, and use of health services, and describe their trajectory towards becoming a superuser. Predictors of becoming a superuser will be identified. A novel aspect of this research is the inclusion of sociobehavioural risk factors by linking 4 population and public health administrative datasets obtained from the Saskatoon Health Region to the provincial administrative health services data. Sociobehavioral factors are widely accepted as strongly influencing health. Each database was selected because it captures data on a sociobehavioral factor. The Oral Health Database contains data on early childhood development, including early childhood tooth decay, dental health status, and tobacco use in elementary school-aged children. The Integrated Public Health Information System contains data on self-reported ethnicity, the oc-

currence of an infectious notifiable disease, and behavioural and social risk factors for the notifiable disease. The Sexually Transmitted Infection (STI) Clinic Data contains data on exposure to and contraction of STIs, as well as referrals given for mental health and/or addiction services. Finally, the Street Outreach Program provides services to individuals living a high-risk lifestyle on the street. Their database contains information on self-reported ethnicity, hypodermic needle exchange, and homelessness.

Results

In a province of approximately 1.1 million people, we identified 417,724 people as having at least 1 MHA diagnosis, of which two-thirds were depression and/or anxiety. Substance abuse was found in 9.4%, and schizotypal and psychotic disorders were found in 7.9%, of the MHA cohort.

Conclusion

Individuals with severe MHA problems account for a disproportionate amount of health care costs. Identifying predictors of becoming an MHA superuser may afford an opportunity to intervene, possibly years in the future, to prevent a person from becoming a superuser. If true, this has significant implications for health care costs, wait times to access health services, and quality of life for this vulnerable population.

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