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Measuring social determinants of health and their impact on service use and medical complexity

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Introduction

Population based data on the social determinants of health are not widely available, despite a wide body of evidence pointing to their importance. The Manitoba Population Research Data Repository offers a unique opportunity to leverage data from multiple government departments to assess the relationship between measurable social determinants and health.

Conclusion/Implications

The proportion of individuals with social complexities is large, and a substantial number have multiple risk factors. These individuals are for the most part a unique group, distinct from medically complex patients. Different strategies for care may be necessary to promote and sustain mental and physical health and wellbeing.

Objectives and Approach

Using population based data from health, small area level census survey questions, social assistance, education, social housing, child protective services and justice, linked at the individual level, we measured indicators of social complexity and mapped them in the province of Manitoba. Individuals with high level of social complexity were then compared with indicators of medical complexity and/or high use of medical services to determine the degree of overlap between these attributes of individuals. A matched group of individuals without any of the measured social complexities was developed and the number and reason for visits to primary care providers was compared.

Results

The rate of individuals having three or more social complexities varied from a low of ~7% to a high of 35%, depending on the geographic location. High residential mobility, involvement with the justice system and history of social assistance were the most frequent (>15%). Individuals with social complexities tended to be younger and live in poorer neighbourhoods than medically complex individuals or high users of health services. Socially complex persons had on average 5.5 primary care visits annually, compared to only 3.5 for matched individuals with no social complexities. The overlap with high users of health services was slight (14.4%) and depended on the characteristics of the population. The overlap with medically complex patients was higher (16.2%), particularly when medical complexity included mental health related diagnoses (20.4%).