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Predicting who applies to Public Housing using Linked Administrative Data

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Objective

Public housing residents, who live in low income government rental housing, are often in poorer health than the rest of the population. However, few studies have been able to untangle the relationships between health and public housing residency, and to assess whether health contributes to the decision to apply. We used linked population-based administrative data from one Canadian province to compare the health and health service use of people who applied to public housing to that of people who did not apply.

Approach

Administrative data housed in the Manitoba Centre for Health Policy's Population Health Research Data Repository were used to identify a cohort of individuals who applied to public housing in 2005 and 2006. They were matched one-to-one to a cohort from the general population using socio-demographic variables. A population registry provided demographic and geographic characteristics. Economic measures included receipt of income assistance and an area-level measure from the Statistics Canada Census. Measures of health and health service use were derived from hospital, physician, emergency department, and prescription drug databases. Conditional logistic regression was used to test the association between a public housing application and health status and health service use, after controlling for income.

Results

There were 10,324 individuals in each of the public housing applicant and matched cohorts; the majority were female (72.4%), young (62% less than 40 years), urban residents (61.2%), and received income assistance (52.8%). A higher percent of the

public housing applicant cohort had physician-diagnosed physical and mental health conditions and used more health services compared to the matched cohort. Having a physician-diagnosed respiratory illness (odds ratio [OR] = 1.14, 95% confidence interval [CI] 1.05,1.25), diabetes (OR = 1.24, 95% CI 1.09,1.40), schizophrenia (OR = 1.58, 95% CI 1.30,1.92), affective disorders (OR = 1.37, 95% CI 1.27,1.48), and substance abuse disorders (OR = 1.46, 95% CI 1.25,1.71) were associated with an increased likelihood of applying for public housing, while being diagnosed with cancer (OR = 0.76, 95% CI 0.61,0.96) was associated with a decreased likelihood of applying, after controlling for income differences. High health service users were also more likely to apply for public housing, after controlling for income differences.

Conclusion

Individuals who move into public housing are in poor health before they apply. Health and social service supports that are co-located with public housing facilities may help to ensure that residents have successful tenancies.

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