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Using linked health survey and Census data to understand transitions to institutional care among Canadian seniors

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Objectives

While existing data sources, such as the 2011 Census, provide an accurate count of who is currently institutionalized, there is a significant gap in terms of our understanding of who is at risk for institutionalization and what the future demand for care will be. The objective of this study is to use linked national health survey, the 2005 Canadian Community health Survey (CCHS), to the 2011 Census to identify factors associated with transitions from private households to alternative living arrangements, specifically long-term care (nursing homes), and retirement homes among Canadians 55 years of age and older.

Approach

Hierarchical deterministic methods were used to link the 2005 CCHS (n=114,000) to the 2011 Census (n=35 million) using identifying variables common to both data sets (i.e. name, birth-date, sex, postal code, social insurance number). Sex specific multivariate regression models with multiple outcomes were used to assess the impact of a comprehensive set of factors (i.e. demographic, socio-economic, health status, chronic conditions and marital status) available in the CCHS on the likelihood of residing in three possible home environments, relative to living in a private dwelling (PD): long-term care (LTC), retirement homes (RH) or private dwelling with support (PDS) as identified in the 2011 Census. Analyses were adjusted for mortality.

Results

Over 85% of CCHS records were linked to the 2011 Census (n=92,849). Among those 55 years of age and older (n=29,934), approximately 2.0% and 1.6% were living in LTC and RH respectively: an additional 7.2% were living in PDS. Results of the regression analyses, revealed that those with Alzheimer's disease were at highest risk of transition to LTC

(OR=11.7 females; 6.8 males). Losing a spouse was significantly associated with transitions to LTC, RH and PDS for both men and women. Being an immigrant was protective, with immigrant seniors less likely to transition to LTC and RH. Other factors significantly associated with transitions to LTC included low income, poor mental health (women only), and assistance with activities of daily living (meal preparation for women, finances for men). Regional variations were also noted.

Conclusion

Newly linked health survey and census data provide a unique opportunity to take a comprehensive look at those most at risk for institutionalization.

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