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Social-determinants of self-reported multi-morbidity among adults in Northern Ireland: a census-based administrative data study

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Background

A combination of increased life expectancy and improvements in childhood survival rates has resulted in a persistent increase in the population at risk of chronic conditions and multi-morbidity (WHO, 2016). Relatively little is known about levels of multi-morbidity, combinations of multi-morbid disorders or risk factors among the Northern Ireland (NI) population.

Objectives

This study aims to estimate rates of multi-morbidity among adults aged 25 and over in the NI population and examine the association of multi-morbidity and combinations of multi-morbid conditions with a range of social determinants.

Methods

Analyses are based on 1,123,604 individuals enumerated in the 2011 NI census, aged 25-64 and 65 plus. Descriptive statistics report prevalence rates and logistic regression examined the association between social determinants and multi-morbidity.

Results

Overall, 40.08% reported at least one health condition, while 19.23% reported multi-morbidity. Results confirm a clear social gradient and association between age and multi-morbidity. Multi-morbidity was more likely among females aged 25-64 (OR=1.09), but less likely among females aged 65 plus (OR=0.93). Marriage was protective among those aged 25-64, while those who were never married had lower risk among those aged 65 plus (OR=0.64). Further analyses exploring social determinants of morbidity profiles present a complex array of associations. Among 25-64 year olds, while females were more likely to report single mental and less likely to report single physical problems, they were less likely to report multiple mental conditions and more likely to report combined physical/mental conditions.

Conclusions

Results suggest that multi-morbidity is common among the NI adult population and is a public health issue across the lifespan. While studies assessing the validity of self-reported health conditions within census are required, findings provide tentative evidence of the complex nature of associations between social determinants and multi-morbidity and how these vary among younger and older adults.

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