

DATA INSIGHTS\_

# Factors influencing the receipt of social care

Author: David Henderson | [d.henderson@napier.ac.uk](mailto:d.henderson@napier.ac.uk)

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Multimorbidity - the presence of two or more long term conditions - is increasing in prevalence. It has several negative outcomes including higher mortality, decreased quality-of-life, decreased functional status, and higher usage of healthcare. Little is known, however, about the relationship between multimorbidity and social care and how sociodemographic factors influence receipt of care.

Our research shows that for those aged over 65 in Scotland multimorbidity is associated with receipt of care and that the probability of receiving social care increases with severity of multimorbidity. We also found that those living in more deprived areas were more likely to receive social care.

## WHAT WE DID

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We created a cohort of all individuals with a valid Community Health Index (CHI) number aged over 65 in Scotland for the years 2011-2016 (~ 1.1 million people). We linked administrative data records from the NHS and Scottish Government including: sociodemographic and death records, all community prescribing records from the Prescribing Information System (PIS), unscheduled healthcare records from the Unscheduled Care DataMart (UCD), and social care information from the Social Care Survey (SCS).

As disease data is not readily available for research at a population-level we used prescribing data to create a proxy measurement of multimorbidity. Our main outcome variable was receipt of social care measured by presence in the Social Care Survey and we assessed the relationships between this outcome, sociodemographic variables, and multimorbidity status.

## WHAT WE FOUND

- 1 Almost all of those receiving social care had multimorbidity (measured by the number of body systems individuals were prescribed medicines for – indicated by chapter codes from the British National Formulary (BNF)). For example, 93% had repeat medicines prescribed from two-or-more BNF chapters and over two-thirds were prescribed repeat medicines from four-or-more BNF chapters.
- 2 After adjusting for age, sex, and deprivation status, the probability of receiving social care increased with severity of multimorbidity. For example, those prescribed medicines from two-or-more BNF chapters had a 4% increased probability and those with medicines from six-or-more BNF chapters had a 19% increased probability of receiving social care compared to those with no prescribed medicines.
- 3 Unsurprisingly, increasing age is associated with receipt of social care. Those aged over 95 had an increased probability of almost 50% of receiving care compared to those aged 65-69.
- 4 Despite accounting for two-thirds of all social care receipt, after adjustment for other variables in our models women were only marginally more likely to receive care social care than men. This difference could itself be explained by the possibility that women are more likely to survive their partners and are therefore more likely to be living alone. We were unable to account for this fact in our models.
- 5 The probability of receiving social care increased with deprivation status (measured by SIMD decile of residence) although the magnitude of this effect was lower than seen for multimorbidity and age factors after adjustment. A lack of a good measure of need means we cannot accurately ascertain if provision matches need.

## WHAT NEXT?

Recent policy and legislative initiatives, such as the integration of health and social care services, aim to reduce unscheduled healthcare use by shifting the balance of care to community settings. We are now using our data to investigate the relationships between multimorbidity, social care receipt and unplanned admission to hospitals. We hope to identify if receipt of social care is associated with a reduced probability of admission.

Looking further forward, we aim to utilise the linked health and social care dataset to investigate care at the end-of-life, and to identify if receipt of social care is a good predictor of mortality.

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NINE Edinburgh BioQuarter | 9 Little France Road | Edinburgh EH16 4UX  
scadr@ed.ac.uk | [www.scadr.ac.uk](http://www.scadr.ac.uk) | [@scadr\\_data](https://twitter.com/scadr_data)

## WHY IT MATTERS

This is one of the first projects to utilise individual-level data on social care for research purposes. Cross-sectoral linkage to health records offers a wealth of opportunity to learn how health and social care services interact. This study provides previously unavailable information about those that utilise social care services. We have also been able to identify where gaps in data coverage exist (e.g. in measures of social care 'need').

The relationship between multimorbidity and social care described by our research is important as it provides the first empirical evidence of this association. Much has been written about the increasing prevalence of multimorbidity and the effect this is having on healthcare services. Our results provide a reminder that there are also large implications for non-health care organisations with knock-on effects for funding and policy.

