



Northern Ireland
Assembly



Queen's University
Belfast



The Open
University



Ulster
University

Knowledge Exchange Seminar Series (KESS)

Admission to care homes for older people

A data linkage study of factors associated with entry to care

Dr Mark McCann¹, Dr Dermot O'Reilly²

¹MRC/CSO Social and Public Health Sciences Unit, University of Glasgow

²Centre for Public Health, Queen's University Belfast

Summary

- An ageing population requires a better understanding of the needs of older people including the requirement for long term care
- Linking routine data sources allows us to study the dynamics of people as they age
- A study based on the Northern Ireland Longitudinal Study (NILS) shows that living with close family provides an important source of support, substituting for formal care resources
- Owning a home reduces the likelihood of an older person being admitted to a care home and that this is not due to health differences between affluent and deprived groups
- People in rural areas are also less likely to be admitted to a care home but this is not due to their more supportive family living arrangements, or better health than their urban counterparts
- The study also suggests that future policy must take into account a reducing pool of unpaid carers, and a reducing proportion of housing assets to pay for care
- The potential for policy to facilitate multiple generation households, and alternative deployment of formal services in the community, both deserve greater attention

The age and structure of the future population

The health and wellbeing of the older population in Northern Ireland in the future depends on the quality of public policy decisions, and the extent to which these decisions can bring about positive changes in service delivery and in people's day to day lives. A closer look at changes in the composition of the population can help identify future challenges for population health, and shed light on how policy decisions can respond to healthcare demands.

Compared to other areas of Europe, Northern Ireland is experiencing a high rate of population growth. People are living longer than in previous decades, leading to an increasing proportion of older people in Northern Ireland. The proportion of the population aged 85 years and over increased by 38% between 2002 and 2012; there are more than 32,000 people over 85, and more than 2,000 over 95 years. This change in population composition is of key importance for future planning of care for older people.

It is worth noting that old age does not necessarily mean poor health; while life expectancy is increasing, it is possible that healthy life expectancy will also increase. Changes in risk factors for diseases (e.g. smoking), and medical treatment

(e.g. preventive prescribing for heart disease) during the 20th Century manifest themselves in changed disease patterns among the older population today. Extending this logic forward – current policies relating to alcohol consumption, healthy eating, and physical inactivity (as the leading causes of disease in Northern Ireland), and treatment for diseases will have the greatest influence on the health of the population in future, and thus the requirement for care in the latter half of the 21st Century.

Projections for an ageing population are already well understood. It will become increasingly important to make projections that account for other more complex factors that influence healthcare utilisation. An increasing proportion of people may have no children, it has become much more common for adult children to live too far away from their parents to provide assistance, and the average number of residents in households has decreased over the last Century. All of these factors are of importance to the future provision of unpaid care and may in turn have implications for the deployment of health and social care resources. Furthermore, the current financial crisis is likely to have long term implications for the experience of deprivation, and the economic squeeze may lead to an increasing reliance on a smaller pool of informal carers. This may lead to changes in the patterns of health inequalities in future.

Care for older people in Northern Ireland

The 'Transforming Your Care' review set out the new direction for care provision in Northern Ireland. The first key principle was that of placing the individual at the centre of the care model; in relation to care for older people, there was a broader focus on delivering care 'at home' or in the community, and tailoring services to help maintain people in the community and reduce reliance on long term care facilities. In addition to developing a preventive approach, there was a greater use of short term placements in care homes or step up/down facilities to improve health outcomes by 'reabling' people to live independently.

At the time of writing, the DHSSPS is in the midst of the reform of adult care and support. The consultation process outlined a series of concerns and wishes for the future of care. Of note were the wishes expressed in terms of greater user involvement, and to facilitate access to public transport for older people (particularly in rural areas). There was a strong resistance to the idea of paying for care, paying for some elements of care but not others, and selling the family home to pay for care. The findings from this consultation are of great importance, as they reflect the positive and negative feelings about the success of existing care policy and misgivings about future change.

In addition to an appreciation of public perceptions of policy decisions; an examination of the patterning of current health and health care utilisation at the population level can sometimes shed light on how future policy directions will firstly, be received, and secondly, influence the lives of individuals. This briefing provides an evidence basis for how social factors amendable to policy influence affect people's outcomes in terms of being placed in care.

Previous research

International gerontological research has identified a number of factors that place people at risk of admission to a care home. While it is no surprise that advanced age is associated with a greater likelihood of admission, there are specific features of the ageing process that are more important; they are difficulty with activities of daily living (e.g. washing, eating, toileting), and extent of cognitive impairment. Although these need-based factors are the main drivers for care, the relationship between need and service use is moderated by a host of other demographic, social and geographical factors that influence who does and doesn't enter a care home. According to some models of health care utilisation equitable access is driven by demographic factors and need while inequitable access is a result of social structure, beliefs and enabling resources. It is these social factors that are the focus of the research outlined below.

Administrative data in Northern Ireland

Traditional surveys cannot provide the scale of detail necessary to study health and social dynamics and outcomes at the population level, and using aggregated population statistics (for example, standard Census tables) cannot appropriately account for the variety of individuals' experiences and characteristics. Linked administrative data provides researchers with the ability to look at questions at the population level, and maximises the utility and efficiency of routine data that already exist. The ability to conduct analysis on information relating to individuals anonymously, legally, and in a secure environment also means that research studies can focus research around individuals; this use of linked data provides researchers with the capacity to conduct research that aligns with the key principle of 'Transforming your care'; placing the individual at the centre of the process. The findings from this study provide an example of the potential for future research using departmental information. We would encourage readers to contact the authors, or approach the Administrative Data Research Centre or Northern Ireland Longitudinal Study Research Support Unit to discuss the opportunities for research based on administrative data to inform their work.

The datasets for the care home admission project

Knowledge Exchange Seminar Series 2014-15

This project was made possible by the anonymous linkage of information relating to older people in Northern Ireland, along with linked information about their homes and households. These are described in more detail below:

The health card register holds information on everyone in Northern Ireland who has been contact with the health service, most usually obtained when they register with a GP (if migrating into NI) or when they are registered at birth. A 28% sample of this register is used to form the 'spine' of the Northern Ireland Longitudinal Study (NILS). The health card register also includes information on place of residence and on *change of residence*. The start point for this study was the 2001 Census and updates from the health card register provided information on moves (changes of address) during the next six years after the Census.

Information from the 2001 Census records was linked to the 28% sample of individuals aged 65 and over at the time of the Census. This information such as age, gender, marital status, self-reported general health, presence of a limiting long terms illness, and home ownership status. In addition, the Census household forms provided information on the characteristics and relationships to other household members, thus identifying the living arrangements for each older person in the study.

The Regulation and Quality Improvement Authority (RQIA) is responsible for registering and inspecting the quality of all care homes in Northern Ireland and therefore hold the definitive list and accurate address information on the of all care homes here. This address information was matched to the residential address information on the health card register enabling us to identify if and when members of the cohort moved into a care home. As people only change their health card register address when they make a permanent move, this method only identifies permanent moves into a care home, and therefore excludes temporary moves such as for respite care.

Land and property services hold information on the capital value of residential addresses (as per c2005); this was the reasonable open market sale value of homes and is used to calculate rateable payments. Linking this information onto address information therefore provided a measure of the value of an individual's home, and therefore, for homeowners, represents a measure of wealth.

Taken in conjunction, these datasets provide the ability to study the individual, household and socio-economic factors that influence care home admission in a way that would be prohibitively expensive using traditional survey-based methodologies. It is also extremely efficient and places no burden on the individuals being studied as it utilises data that has already been collected.

Study findings

There were 51,619 individuals aged 65 years or older and not living in a care home at the time of the 2001 Census. In the six years following Census day (29th April) 2001, 2,138 were admitted to a care home for older people, which is around four percent. As expected, older people were more likely to be admitted than younger people, as were those reporting poor general health or a limiting long term illness. In addition, women were more likely to be admitted than men; this was predominantly due to their poorer health and living to older ages than men. In addition, the research looked at the following factors in greater detail.

Living arrangements at older ages

Around 50% of older men lived in a two person household with their spouse, a further 21% lived alone, and 17% lived with their partner and adult children. By comparison, around 42% of older women lived alone, 29% lived with a spouse, 12% lived with adult children and 9% lived with a partner and children. This reflects the difference in life expectancy, as women tend to outlive their husbands. We then explored the implications of living arrangements for older people.

- People *living alone were more likely to be admitted* to a care home than those living with a partner. This trend was more marked for men than women. This reinforces the increased risk for those without immediate family support
- People living with a sibling were more likely to be admitted than those living with a partner; in fact, the risk was comparable to that found for those living alone. This demonstrates that *simply living with another person doesn't reduce admission* risk. The spousal relationship is important, most likely because of differences in undertaking caring roles.
- Living with children confers a comparable reduction in risk of admission as does living with a partner.
- Living with a partner and children leads to a lower admission risk than living with a partner without children. This demonstrates that there is an *accumulation of caring resource within an extended family* unit.
- Living with a partner and people other than children does not reduce admission risk compared to living with a partner only. This again points to the fact that the parent-child or spousal relationship is important in terms of providing a caring role; *larger households do not necessarily provide a greater care resource*.

Knowledge Exchange Seminar Series 2014-15

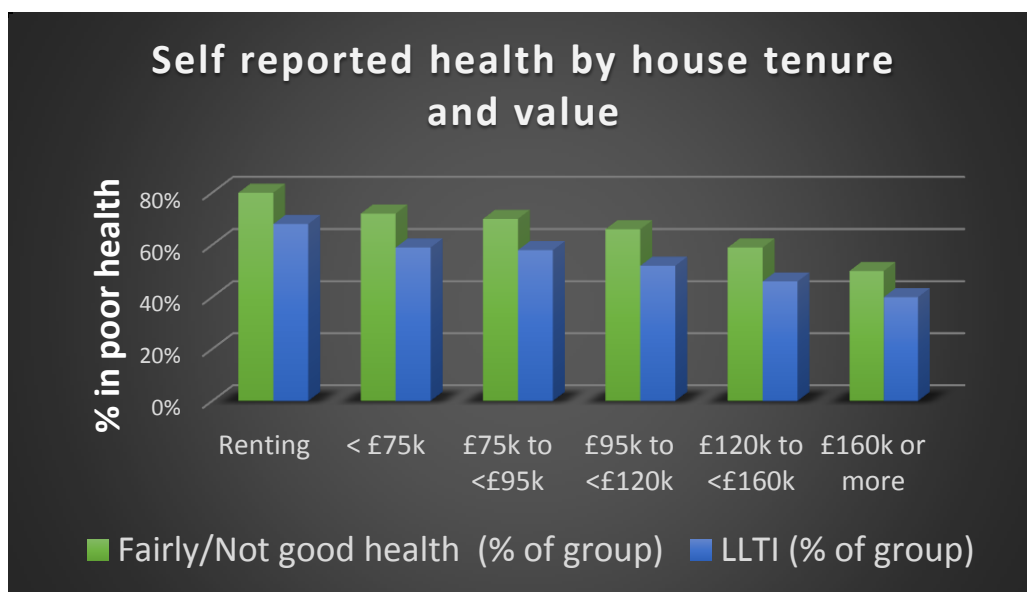
In summary, availability of support from a spouse or children *within the home* influences admission risk more than availability outside the home.

House value and housing tenure

Census questions on home ownership/mortgage vs. social/private renters, in conjunction with capital value of properties allowed us to create a measure of relative affluence based on a combination of housing tenure and value. The house values were split into evenly sized groups for home owners.

Wealth and health

The table below shows the proportion of older people reporting fairly good or not good general health (as opposed to good health) and the proportions reporting having an illness or condition that limits their day to day activities. There is clear evidence of a 'health inequality' with the richer groups living in houses of higher value having much lower rates of poor health than those in homes of lower value, or those in rented accommodation (including social renters).



House value, tenure and admission risk

This stage of analysis looked at the relative risk of care home admission for each housing tenure/value group. The analysis took account of differences in age, gender, health, living arrangements or the area where people live - as such, we were investigating the influence of wealth on admission over and above the effect of these other risk factors. We found that in all cases, *home owners were less likely to be admitted than those renting*; i.e. even after adjusting for all other factors known to be associated with risk of admission to a care home, people who owned their home were around 20% less likely to be admitted to a care home than those who rented their homes. Importantly, amongst home owners, there was *no difference in admission risk according to the capital value of the home*; it was simply the fact of homeownership that was important. This is despite the fact that we know more affluent homeowners were in better health.

Knowledge Exchange Seminar Series 2014-15

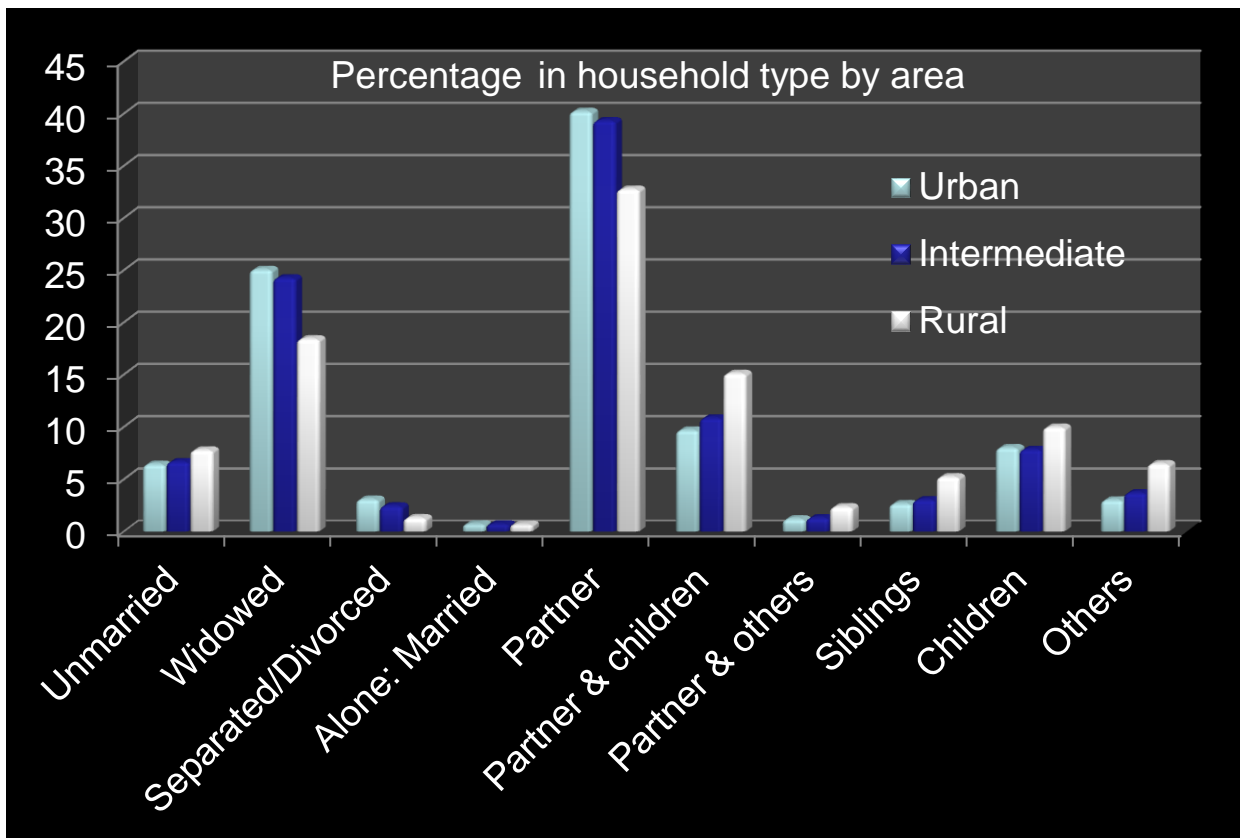
Urban and Rural areas

The final element of the project investigated urban / rural differences in the lives of older people. The first point of note is that older people in rural areas tend to report better health than those living in urban areas. Around 30% of people in urban areas reported 'not good' general health, compared to 26% in intermediate areas and 23% in rural areas.

Living arrangements in urban and rural areas

The table below shows that there are large differences in living arrangements comparing urban and rural areas. The most common living arrangement for older people is living with a partner, this is slightly less common in rural areas. It is also less common for older people to live alone in rural areas. However, it is much more common for older people to live with children, with children and a partner, or with other relatives and non-relatives.

Older people in rural areas are much more likely to experience high levels of social support by virtue of living in larger households with children, or children and spouses; which as we demonstrated above are the most supportive living arrangements in terms of care home admission risk.



Admission risk in urban and rural areas

The final stage of analysis looked at the relative admission risk in urban and rural areas, after accounting for variation due to all factors already looked at (age, health, wealth & living arrangements). We found that *older people in rural areas were much less likely to enter a care home*. There was a consistent trend for lower admission risk in rural areas, with rural dwelling older people having a 27% lower risk than their urban counterparts. Older people in intermediate areas had comparable risk to those in rural areas. Overall, there proportions admitted were; Urban areas 4.7%, intermediate areas 4.3%, and rural areas 3.2%.

Implications for Public Policy

The change in structure of the Northern Ireland population over the coming decades poses a number of challenges for those planning how best to meet the needs of older people. This is not simply a matter for the provision of health and social care, but for policymaking across all areas of government. It is likely that there will be many unforeseen developments in terms of technology, science, economics, culture and the political landscape, each of which could markedly change society and bring new considerations for public policy. However, political and social influences on long term health outcomes are perhaps more predictable and determinable. For this reason, ensuring that all areas of government policy are sensitive to how they may influence health outcomes of the population will mitigate against the future cost of health and care services and help develop a thriving society, regardless of what unexpected changes there are to society along the way. With this in mind, the findings of this project suggest the following should be taken into consideration.

Living arrangements

- Living with children and/or with a spouse provides the most supportive environment for older people; care and support outside the home does not influence admission risk as greatly. The current demographic shift is towards adult children living away from parents, smaller households, smaller families and a greater number of childless older people. Taken together, this means there are likely to be lower levels of unpaid caring resources for future generations of older people.
- While current policy recognises the need to provide greater support to unpaid carers, in future this resource may become scarce and overburdened. The current curtailing of formal services is likely to place an even greater demand on the increasingly limited number of carers. Alternative sources of support may become increasingly important.

Home ownership

- Home owners are less likely to be admitted to care homes. The actual value of the home seems to be unimportant. This suggests that homeowners and their families mobilise greater levels of caring resource to prevent the sale of a home, most likely to protect the home from sale to pay for the cost of their care home place.
- The policy of using the wealth invested in people's homes to fund long term care is very unpopular and generally resisted by the population. Given that less affluent homeowners are in poorer health, this may indicate a 'care inequality', whereby children of less affluent homeowners must provide a disproportionate amount of care, which in turn influences their own labour market participation, economic security, and mental health.
- The current financial crisis may lead to a lower proportion of young people getting on the property ladder; while property speculators acquire a greater proportion of the housing stock, in particular low value former social housing. This will mean that there will be fewer people with homes that could pay for the cost of their care.
- Policies using the value of people's homes to pay for the cost of care currently encounter widespread resistance, and current trends in housing purchases suggest that a decreasing proportion of the population will own housing stock in future to pay for their care.

Urban and rural areas

- People in rural areas tend to report better health. This may be due to different standards of living, but may in part reflect those who begin to experience poorer health moving into urban areas. In either case, there are important variations in the levels of 'illness burden' between areas.
- Older people in rural areas are also less likely to live alone, and more often live with children and thus have a more supportive social environment. The reasons for these urban/rural differences are not known, but may be due to a trend towards multiple generation households across the lifespan in rural areas, or may indicate older people moving to live with children as a result of deteriorating health. In either case, it may be that the size of rural dwellings makes it easier to accommodate ageing parents.
- The study has demonstrated that support from people outwith the home is not as efficacious at reducing admission risk as support within the home. This suggests that housing policy that facilitates older people living with adult children may provide the greatest benefits for health and wellbeing.
- It is possible that the lower admission risk in rural areas may point to a differential supply of home care services between rural and urban areas. Further research should therefore include a measure of accessibility of formal domiciliary services or to care homes to assess whether there is a 'rural model' of formal care that prevents reliance on residential and nursing home care.

Knowledge Exchange Seminar Series 2014-15

Acknowledgements:

The help provided by the staff of the Northern Ireland Longitudinal Study (NILS) and the NILS Research Support Unit is acknowledged. The NILS is funded by the Health and Social Care Research and Development Division of the Public Health Agency (HSC R&D Division) and NISRA. The NILS-RSU is funded by the ESRC and the Northern Ireland Government. The authors alone are responsible for the interpretation of the data and any views or opinions presented are solely those of the author and do not necessarily represent those of NISRA/NILS. Many thanks to the staff at the Regulation and Quality Improvement Authority for their help with the care home data. Mark McCann holds a Medical Research Council (MRC)/University of Glasgow fellowship supported by MRC partnership grant MC/PC/13027.

References:

McCann, M., Donnelly, M., and O'Reilly, D. (2011) Living arrangements, relationship to people in the household and admission to care homes for older people. *Age and Ageing*, 40 (3). pp. 358-363.

McCann, M., Grundy, E., and O'Reilly, D. (2012) Why is housing tenure associated with a lower risk of admission to a nursing or residential home? Wealth, health and the incentive to keep 'my home'. *Journal of Epidemiology and Community Health*, 66 (2). pp. 166-169.

McCann, M., Grundy, E., and O'Reilly, D. (2014) Urban and rural differences in risk of admission to a care home: a census-based follow-up study. *Health and Place*, 30 . pp. 171-176.

NISRA Report: Estimates of the population aged 85 and over, Northern Ireland 2012 (& Revised 2001 – 2011). http://www.nisra.gov.uk/archive/demography/population/OldestOld/85_Report0112.pdf

