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One Island – Two Systems: A comparison of health status and health and social service use by community-dwelling older people in the Republic of Ireland and Northern Ireland

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ONE ISLAND – TWO SYSTEMS

A comparison of health status and health and social service use by community-dwelling older people in the Republic of Ireland and Northern Ireland

H McGee, A O'Hanlon, M Barker, A Hickey, R Garavan, R Conroy, R Layte, E Shelley, F Horgan, V Crawford, R Stout & D O'Neill

on behalf of the Healthy Ageing Research Programme (HARP)

Royal College of Surgeons in Ireland
Trinity College Dublin
Economic and Social Research Institute
Queen's University of Belfast

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- No 1 Inequalities in Mortality 1989 – 1998. A Report on all-Ireland Mortality Data. Prepared by Kevin P Balanda and Jane Wilde. Dublin: The Institute of Public Health in Ireland; 2001.
- No 2 Mortality in the CAWT Region: Comparison with the rest of the island 1989 – 1998. A Report on all-Ireland Mortality Data. Prepared by Kevin P Balanda. Belfast: The Institute of Public Health in Ireland; October 2001.
- No 3 Inequalities in Perceived Health. A Report on the All-Ireland Social Capital and Health Survey. Prepared by Kevin P Balanda and Jane Wilde. Dublin: The Institute of Public Health in Ireland; 2003.
- No 4 Urban-Rural Differences in Mortality: 1989-1998: A Report on All-Ireland Mortality Data. Prepared by Niamh K Shortt and Kevin P Balanda. Dublin: The Institute of Public Health in Ireland, 2003.
- No 5 One Island – Two Systems. A comparison of health status and health and social service use by community-dwelling older people in the Republic of Ireland and Northern Ireland. Prepared by the Healthy Ageing Research Programme (HARP) Steering Group. Dublin: The Institute of Public Health in Ireland, 2005.

Foreword

The Institute of Public Health in Ireland has been set up to promote co-operation in public health between Northern Ireland and the Republic of Ireland. Its priority is to reduce inequalities in health.

The Institute published the All-Ireland Mortality report in 2001. This report highlighted the inequalities that exist between the highest and lowest social classes and between Northern Ireland and the Republic of Ireland. These differences in mortality were further delineated in reports on the CAWT region (a region consisting of four border health boards) and on urban/rural differences. These inequalities highlight specific problems and emphasise the need for further examination of the causes and consequences of such differences. In 2003 the Institute published a report considering social capital across the island. This provided a profile of the perceived social and health context in which Irish people live and identified interesting differences across regions.

The Institute is now supporting a cross-border research team to further examine and understand aspects of health and social wellbeing and related health and social service delivery in Ireland. The Healthy Ageing Research Programme is a research programme focusing on the experience of ageing and its interactions with the health and social services on an all-island basis. It is funded by the Republic of Ireland's Health Research Board as part of an increasing pattern of all-island research funding on health-related issues. The research involves four academic and research institutions, the multi-disciplinary combinations of professionals needed to consider the issue and a North/South dimension. Ageing is a particularly useful area to consider from a cross-border perspective for a number of reasons: older people are often users of a wide range of services, they present many of the service delivery challenges of other groups such as those with disabilities, and their healthcare funding arrangements have differed somewhat across regions over time.

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The Institute is delighted to support the work of the Healthy Ageing Research Programme by publishing this report which focuses specifically on comparisons of health and social status and related service use in the Republic and Northern Ireland and in urban and rural settings within and across these regions. We congratulate the authors for a fine example of cross-institutional, cross-border and cross-disciplinary work. Understanding more about the experience and perspectives of older people is essential in developing better health and social services for older people on the island in the coming decades.

Dr Jane Wilde

Director

Institute of Public Health in Ireland

Preface

The Healthy Ageing Research Programme (HARP) is a five-year project aiming to document ageing and health and their interaction with health care and social services in Ireland. HARP commenced in 2003 and is funded by the Health Research Board. It is a cross-institutional, cross-border project involving the Royal College of Surgeons in Ireland (RCSI), Trinity College Dublin (TCD) (Department of Gerontology), the Economic and Social Research Institute (ESRI) and the Queen's University of Belfast (QUB) (Department of Geriatric Medicine). The programme is monitored by a Steering Group comprising Professor Hannah McGee (RCSI) (principal investigator), Professor Desmond O'Neill (TCD – Adelaide and Meath Hospitals incorporating the National Children's Hospital) (Co-Investigator), Dr Tony Fahey (ESRI) (co-investigator), Professor Bob Stout (QUB) (co-investigator), Dr Anne Hickey (RCSI), Dr Ronán Conroy (RCSI), Ms Rebecca Garavan (RCSI), Dr Emer Shelley (RCSI), Dr Frances Horgan (RCSI), Dr Richard Layte (ESRI), Dr Vivienne Crawford (QUB) and Dr David Hevey (TCD). HARP research staff comprise Dr Ann O'Hanlon (RCSI), Ms Maja Barker (RCSI), Ms Karen Grogan (RCSI), Ms Claire Donnellan (TCD) and Mr John Dinsmore (QUB). The work is coordinated at the Health Services Research Centre, Department of Psychology, RCSI.

The report here is of an interview-based study of community-dwelling older adults in the Republic and Northern Ireland in 2004. The focus is their health and social status and experiences with, and perspectives on, health and social services needed and used. It is the first large comparison study of older people on the island of Ireland with about 1,000 older individuals interviewed in each region. As such it complements and builds on previous work on a similar group in the Republic in the year 2000. We have opted to present the results in this report in quite a lot of detail. While this makes it somewhat dense reading, our view was that many people would be interested in specific aspects rather than the overall results, e.g urban/rural differences or profiles of service use across regions. They would thus want significant detail on these specific issues. We were conscious that information not provided here would probably not appear in another public format in a way that was of help to the specific reader. The fundamental question addressed is whether, for an equivalently aged man or woman, health and social status and service provision differs between the Republic and Northern Ireland. We hope the detail will allow the reader to set this information in the broader context of an increasing number of region-specific studies in either the Republic or Northern Ireland in recent years. In combination, these studies can be used to reflect on both the level of service provision and on the organisation and delivery of services to this large user group in Ireland. While the Republic and Northern Ireland are currently the 'youngest' countries in these islands in terms of proportions of the population over age 65 years, the services available for older people are likely to be quite a good reflection of the strengths and weaknesses of the services overall. Combined with parallel studies on specific patient populations in both regions, the research can help to advance understanding of ageing and the quality of health and social services for older people more generally.

We acknowledge the support of many individuals in the consultation and interview process for this study: older people in Carnew Day Care Centre, Leopardstown Day Hospital, Beaufort Day Care Centre, the Federation of Active Retirement Associations (FARA) and Age Concern (Northern Ireland) took part in interviews and focus groups to shape the final interview protocol. Thanks to Ms Janet Convery of the former Eastern Regional Health Authority (ERHA) and staff at individual centres for facilitating these groups. We also thank Professor James Williams and Ms Bernadette Ryan of the ESRI who coordinated interview teams in the Republic of Ireland and Mr Donal McDade and Mr Peter Ward of Social and Market Research, Belfast for equivalent work in Northern Ireland.

We thank the Institute of Public Health in Ireland for their support in publishing this comparative report in their series. Thanks in particular to Dr Jane Wilde (director) and to Ms Arlene McKay for their assistance. This report is produced in tandem with a sister report called HeSSOP-2. The original Health and Social Services for Older People (HeSSOP) research report was funded by the National Council on Ageing and Older People (NCAOP) in association with the ERHA and Western Health Board. We thank the National Council on Ageing and Older People for production of the original and now of the HeSSOP-2 report as part of their series. With regard to the latter, we particularly thank Mr Bob Carroll (director) and Ms Gabrielle Jacob. Support with the publication of these reports by two national agencies means that the information can be more easily available to a wider group of interested readers in the medium and longer term.

Most importantly, we thank over 2,000 older people who agreed to give their time from other commitments to be interviewed for the study. We hope their efforts will be rewarded through increased understanding of ageing in contemporary Ireland. In this context, we hope the comparison of the two regions can help health and social care providers and policymakers in each region to learn from each other in a way that improves the situation for all older people in Ireland.

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Professor Hannah McGee

on behalf of the Healthy Ageing Research Programme Steering Group

October 2005

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Executive Summary

Introduction

- Significant differences exist in policy, structures, coverage and funding between the healthcare systems of the Republic of Ireland (RoI) and Northern Ireland (NI). These differences – a ‘one island – two systems’ situation – provide a unique opportunity to learn by comparing the health and social status and service experiences of two groups of older people on one island.
- The aim of this report is to compare health and social status and related service provision in the RoI and NI from the perspective of community-dwelling older people needing and/or using these services. Part of this comparison includes evaluation of possible urban/rural differences within and across regions.

Methodology

- This study involves two primary samples of approximately 1,000 individuals in each: one from the RoI and one from NI. All of those interviewed were age 65+ years.
- The RoI sample comprises a group interviewed for the first time in 2004 combined with a sample previously interviewed and now included for a longitudinal study in the larger Healthy Ageing Research Programme. The NI group were all interviewed for the first time. Interviews took place in participants’ homes.
- Participants for the RoI study were recruited randomly through the electoral register of two of the country’s health boards and the combined sample is representative of the regions sampled. The NI sample was recruited through the Royal Mail’s Postal Address File (PAF) to provide a representative sample across NI.
- The survey included questions on general health and functional capacity, psychological and social wellbeing, health behaviours and health promotion activities, as well as use and experiences of health services. A comprehensive consultation process was carried out in advance to determine priority questions.

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Demographic profile of participants in the Republic of Ireland and Northern Ireland

- Participants for the RoI (N=1,053) and NI (N=1,000) were similar in age, gender and social class but different in terms of marital status, education, and household income. Those in the RoI were more likely to be married, more likely to have second level education or higher and less likely to be in lower income groups.
- Participants from urban and rural settings were similar in age, gender and social class but different in terms of education, and household composition. Those in urban areas had higher levels of education and were more likely to live in multigenerational households (25% vs. 19%).

- By comparison with participants from the RoI, NI participants were more likely to live alone (57% vs. 28%) and correspondingly less likely to live in multigenerational households (11% vs. 32%).
- Participants over age 75 were more likely to be in low income groups, irrespective of living in particular policy (RoI/NI) or geographic (urban/rural) regions.
- Women were more likely to be older and in low income groups, the latter was especially the case in the RoI.
- These known socio-demographic differences were controlled for in subsequent analyses.

Health status and health behaviour

Health status and self-rated health

- The majority of participants had good functional capacity. However, one in three people in NI had difficulties with complex activities such as shopping and reaching – twice the corresponding figure in the RoI. Approximately one in four in NI had difficulty with walking and personal care, compared with one in ten in the RoI.
- Women and those over age 75 had most problems with activities of daily living. This was more pronounced in NI. There were also notable differences based on social circumstances in NI, with lower social class groups and those living alone having significantly more difficulties. This pattern was not evident in the RoI.
- Those living in rural locations reported significantly more difficulties with the many activities of daily living than their urban counterparts. These problems were more pronounced in rural parts of the RoI.
- With the exception of walking sticks (used by 19-31% of older people), use of devices to assist mobility and hearing was low across both policy and geographic regions. Differences were seen in the use of walking sticks, hearing aids and Zimmer frames or crutches with higher use in NI. There were no urban/rural differences in the use of devices.
- Participants in the RoI rated their current health, and their health relative to a year ago, much more positively than those in NI (64% vs. 44% rating current health as good/excellent and 71% vs. 66% rating their health the same as it was a year ago). Differences appear to reflect differences in functional capacity rather than differences in psychological wellbeing. Participants in the RoI also held more positive health expectations than did those in NI (87% vs. 79% expected their health to be the same in a year's time).
- No urban / rural differences were found on self-ratings of current health, but rural participants rated their health relative to a year ago more positively, and held more positive expectations for future health.
- There were no policy level differences in blood pressure or cholesterol monitoring by GPs; 91% of RoI and 87% of NI participants had their blood

pressure checked by their GP in the previous year, while 74% of RoI and 75% of NI participants had their cholesterol checked by their GP in the previous year. There were also no differences between urban and rural participants.

- In terms of preventive health, NI participants were more likely than those in the RoI to have received the flu injection in the previous winter (78% vs. 72%). There were no urban / rural differences.

Support and care-giving

- RoI participants were more likely than their NI counterparts to avail of support from spouses (21% vs. 14%), relatives (21% vs. 11%) and neighbours (13% vs. 10%).
- There was no urban / rural difference in the proportion of people receiving support from spouses or relatives, but participants in urban areas were significantly more likely than those in rural areas to avail of necessary support from neighbours (13% vs. 10%).
- Participants in NI were more likely than those in the RoI to be caregivers (17% vs. 8%). A higher proportion of carers were women in both policy regions. NI had a higher proportion of men in caring roles than did the RoI.
- Over one-tenth of the total sample acted as carers for others. Many of these would be other older people.

Psychosocial well-being

- A minority (7%) were categorised as clinically depressed. Women were more likely than men to be depressed. Of those who were indicated as borderline or clinically depressed, just 3% had availed of counselling services. There were no RoI/NI or urban / rural differences in levels of depression or morale.
- Participants in NI were more likely than those in the RoI to report that in terms of functional impairments it was impossible for them to attend social events outside their homes (24% vs. 12%) or to visit friends or family in their homes (15% vs. 10%). There were no urban / rural differences. The majority of participants (70% in urban and 69% in rural areas) reported no difficulties in attending events or family gatherings.
- A high proportion of participants reported having regular emotional and informational support (84% and 83%) with somewhat fewer reporting regular practical support (72%).
- Groups with the least levels of support included those living alone, those with higher levels of functional impairments and those in lower social class groups. There were no significant RoI/NI differences in levels of emotional, informational or practical support received.

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Health behaviours and health promotion

- There were no RoI/NI or urban/rural differences in prevalence rates for smoking (17% and 19%, and 21% and 18%, respectively).

- Participants in the RoI were significantly more likely than those in NI to believe that they exercised enough (77% and 56%). There was no urban / rural difference (66% vs. 67% respectively).
- Over two-thirds of participants had received the flu injection in the previous Winter; NI participants were more likely than those in the RoI to have received it (78% vs. 72%) and there were no urban / rural differences (76% vs. 74% respectively).

Perceptions and use of health and social services

GP services

- Participants in the RoI were more likely than those in NI to have visited their GPs in the previous year. They visited GPs on average 5.3 (SD 5.4) and 4.4 (SD 5.7) times annually. Older RoI participants (aged 75+ years) attended GPs more frequently than others (mean 6.0 (SD 6.4)).
- RoI participants were more likely than those in NI to say they would change GPs if dissatisfied with their care (49% vs. 27%). There were no overall urban / rural differences. However, analysis by policy region showed that in NI rural participants were less likely than urban participants to say that they would change GPs if dissatisfied with their care.
- Satisfaction ratings for aspects of GP care, i.e. with the quality of information received, with concerns being taken seriously, and with the availability of the GP were very high with almost 90% satisfaction in each area. There were no North / South differences on these measures.
- Participants reported few barriers to accessing GP care with no regional or geographic differences.

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Hospital services

- Similar proportions in each policy (36% from the RoI and 39% from NI) and geographic area (40% from urban and 33% from rural) had attended hospital in some capacity in the past year.
- Similar proportions in each policy (15% from the RoI and 16% from NI) and geographic (16% from urban and 15% from rural) region had attended in-patient services in the previous twelve months.
- NI participants were more likely than RoI participants to have availed of out-patient services in the previous year (27% vs. 20%). There were no urban / rural differences; similar proportions (25% vs. 21% respectively) had attended outpatient services in the previous year.
- There were no significant RoI/NI differences (12% from the RoI and 10% from NI) or urban / rural (11% and 10% in urban and rural areas) in the proportion of participants who had attended A&E in the previous twelve months.
- In A&E, NI participants were seen more quickly by a doctor than were those in the RoI; 81% of NI vs. 46% of RoI participants reported being seen by a

doctor within an hour of arrival. More of the RoI patients attending A&E were admitted to hospital (40% vs. 17%). However, there was a trend for NI participants to be admitted to a ward more quickly.

- In NI, all those admitted to a ward following A&E treatment were already on waiting lists for in-patient treatment; in the RoI, this figure was 29%. There were no NI/RoI differences, however, in the length of time these A&E attenders were waiting.
- For all those who had planned in-patient experiences in the previous year, participants from NI had been longer on waiting lists (43% for over a month vs. 21% in the RoI).
- Considering current waiting lists, more were waiting in NI: 5% and 8% (RoI/NI respectively) were waiting for inpatient treatment while 7% and 12% (RoI/NI respectively) waited for out-patient services. More NI participants were also waiting for day hospital (2% vs. 1%) but not daycare services. Men were more likely to be waiting for in patient care than women with no age differences and more lower social class participants waiting in the RoI only. Out-patient services differed only by age with more older people (age 75+) waiting.
- Few people reported barriers or problems other than waiting lists in accessing hospital services.

Social services

- There were no NI/RoI or urban / rural differences in the proportion of people using day hospitals (RoI 3% and NI 3%; urban 3% and rural 2%) or day centres (RoI 2% and NI 2%; urban 2% and rural 2%).
- Significant North / South differences were found for a range of services, including use of home-helps, meals-on-wheels, chiropody, and services from opticians, dentists and social workers. Of 15 services compared, 9 were availed of by a higher proportion of older people in NI. No service was availed of more frequently in the RoI than in NI. In the RoI, six services were availed of by more urban than rural dwellers with one service (personal care attendants) availed of by very few overall but by more rural than urban dwellers. In NI, one service differed by urban / rural use: optical care was most often provided to rural older people.
- Condensing primary care services into groupings, those in NI were significantly more likely than RoI counterparts to have received one or more of four home provided services such as meals-on-wheels or home help (26% vs. 18%); one or more of five assessed therapies such as chiropody or physiotherapy (29% vs. 20%); one or more of four assessed out-patient services such as dental services (80% vs. 30%). Regarding urban / rural comparisons, there was no overall urban / rural difference in use of home services (22% in each geographic region received at least 1 home service).

Use of therapies and out-patient services differed in the RoI and NI. In the RoI, urban dwellers received more of the therapies (28% vs. 9% received at least one of these) and out-patient services (38% vs. 20%). In NI, the proportion of urban dwellers who received therapies or out-patient services was significantly lower than rural dwellers (therapies: 26% vs. 36%; out-patient services: 48% vs. 56%).

Needs and barriers to health and social services

Barriers to health and social services

- There were no RoI/NI or urban / rural differences in reported ability to drive (43% vs. 46%, and 47% vs. 41%, respectively). Similar proportions in the RoI and NI and in urban and rural regions used public transport in the past six months (48% vs. 37%). Urban participants were more likely than rural participants to have availed of public transport in the past year (53% vs. 24%).
- A small proportion of participants would feel stigmatised and not use meals-on-wheels, home help or personal care assistants even if needed (ranging from 3% to 6%). There were no differences by policy or geographic region.
- A proportion of participants paid in full or partially for home services, therapies, and out-patient services used in the past year. Significant RoI/NI differences were found for five of 15 services: NI participants who used optician services, dental services, and personal care attendants were more likely than their RoI counterparts to pay for these services. RoI participants who used physiotherapy and aural services were more likely than counterparts in NI to pay for these services. People in higher social classes were most likely to pay for most services.

Long-term care preferences

- The majority of participants chose living at home with family support as their care preference if they needed long-term care. There was, however, a significant regional difference with RoI participants being more likely than their NI counterparts to report this preference (89% vs. 81%). There was also an urban / rural difference: rural participants were more likely than urban participants to report this care preference (91% vs. 81%).
- The least preferred mainstream option if needing long-term care was a nursing home. A large proportion of participants (39% in the RoI and 42% in NI; 44% in urban and 37% in rural areas) would not accept this care option. Some participants, however, found this care option to be quite acceptable (14% in the RoI and 21% in NI; 16% in urban and 19% in rural areas).
- A large proportion of participants had never discussed their long-term care preferences with others (73% in the RoI and 71% in NI; 71% in urban and 76% in rural areas). Nonetheless, the majority of participants believed their wishes in this regard would be honoured (73% in the RoI and 77% in NI; 74% in urban and 79% in rural areas).

Discussion and conclusions

- The present study is the first detailed comparison of health and social service needs and related service use in one study in the RoI and NI.
- Levels of functional impairment were considerable and also significantly higher in NI than in the RoI. In terms of indices of disability elsewhere, these NI findings confirm that NI has a higher proportion of people with problems in activities of daily living than in neighbouring countries. In this context, many older people received or provided a lot of informal care, often for other older people, in the community.
- In terms of self-rated health, older people in the RoI rated their health as significantly better than did their counterparts in NI. The differential in self-rated health between NI and neighbouring countries has been noted in previous studies. On the basis of this study, it seems to relate more to the greater functional impairments than to differing levels of psychological well-being in the NI group.
- Experienced social support was high with approximately 70% reporting 'no lack' of social support. There was some evidence of increases in levels of primary care service provision in the recent past with, for instance, rates of flu injections increasing in both the RoI and NI in recent years.
- Use of hospital services was broadly similar. A&E service experiences were speedier in NI but more people were on waiting lists for longer in NI. Conversely, those in NI were significantly more likely to have received a range of primary care services. Findings thus suggest complex patterns of health and social status and service use across the regions with neither system presenting a uniformly better profile of older age experiences and service use than the other.
- Ongoing and systematic reflection on patterns in both regions can help to create a greater understanding of the ageing process and to shape services for the old age that we ourselves aspire to enjoying.

This project involves a cross-sectional study of community-dwelling older people aged 65 + years in the Republic of Ireland and Northern Ireland. Significant differences exist in policy, structures, coverage and funding between the two healthcare systems. These differences – a ‘one island – two systems’ situation – provide a unique opportunity to learn by comparing the health, social status and service experiences of two groups of older people on one island with two differing health and social services. Little comparative research has been conducted on the island to date. The aim of this report is to compare health and social status and related service provision in the Republic and Northern Ireland from the perspective of community-dwelling older people needing and/or using these services. Part of this comparison includes evaluation of possible urban/rural differences within and across regions.

1.1 Background

The ageing of populations is assuming increasing importance in healthcare planning and delivery. An increasing proportion of the Irish population now lives well into old age. In the Republic of Ireland for instance, 11.5% were aged 65+ in 1996 with projections to rise to 14.1% by 2011 – a 26% increase (Fahey 1995). These proportions are still low by European standards and Ireland would be seen as having a relatively young population. Comparatively, 13.1% in the Republic of Ireland (RoI) and 15.7% in Northern Ireland (NI) were aged 60+ years in 2003. While Northern Ireland has a higher proportion of retirement-aged older people than the Republic, in terms of its potential health and social care profile, it has the lowest proportion of older people of the four countries in the United Kingdom (i.e. England, Scotland, Wales and Northern Ireland) (Evason, Lloyd, McKee & Devine 2004). Strategies are required to decrease ill-health and disability and to maximise quality of life in what will be an increasing proportion of the population in Irish society in the future (Brenner & Shelley 1998). Research is an essential prerequisite for policy development in this area. A recent European Commission survey of ageing research from 1991-1997 placed the RoI as the third lowest EU Member State in terms of focused scientific output on the older population (European Commission 2000). Much of the European research undertaken focuses on single diseases in older populations and the more generic aspects of ageing are often ignored (Medical Research Council 1994). This reflects a general confusion of chronological age with ageing and/or a perception of ageing as a collection of independent deficits rather than as part of the development of the individual across the lifecycle. There is thus an unmet need for descriptive (*What do we know?*) and theoretical (*What do we understand?*) information about ageing.

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Generic research on ageing in Ireland is essential for the planning and delivery of health and social services. It can contribute importantly to the broader scientific understanding of ageing processes. Research on ageing and health must consider three facets simultaneously to best inform both science and practice: ageing,

quality of life and quality of care. Ageing needs to be evaluated as a psychological and social process (Baltes & Baltes 1990). This is intertwined with quality of life as a continuum from impairment, disability and handicap through to individual and carer quality of life (McGee 2004; Hickey, Barker, McGee & O'Boyle 2005). Both ageing and its related quality of life challenges are influenced by 'quality of care' – a concept which reflects individual, population and professional criteria for assessing elements of a quality health care system. The report presented here is part of a larger programme of research called HARP (Healthy Ageing Research Programme) which addresses the challenges of ageing in an all-Ireland context. HARP is a multidisciplinary inter-institutional research programme funded for five years by the Health Research Board (the major health-related research funding agency in the RoI). The aim of the Programme is to examine the experience of health and illness for older people in Ireland and to evaluate the role of health and social services in enabling or impeding successful ageing and quality of life. The objective of this aspect of the Programme was to compare health and social service systems for community-dwelling older people in the RoI and NI.

The wider programme evaluates the experience of ageing in contemporary Ireland, in the context of health challenges of differing complexity (from those identified as living in the community to those attending out patient hospital services, those living with a chronic health condition and those admitted to hospital for life-threatening events). It considers how health and social services enable or impede successful ageing and the maintenance of quality of life for older people. Significant differences exist in policy, structures, coverage and funding between the health systems in the RoI and NI. For instance, NI has universal healthcare coverage for primary and secondary care services and a purchaser-provider split in service selection. These differences – a 'one island – two systems' situation – provides a unique natural experiment for observing effects of differing systems on issues such as health service uptake. Greater collaboration has been recommended between the RoI and NI systems in both service delivery and research (Jamison, Butler, Clarke, McKee & O'Neill 2001).

1.2 Healthcare systems in the Republic and Northern Ireland

It is worth briefly outlining the characteristics of the two systems and how they differ from each other. A good overview of both is provided in a recent overview of EU countries (Gross-Tebbe & Figueras 2004) and more specific guides relating to older people have also been produced for the RoI (O' Neill & O'Keefe 2003) and NI (Evason *et al.* 2004). The system in the RoI is a mix of public and private health service provision. Just under a third (29%) are eligible for completely free medical care. This is income and/or age related with all people aged 70 years and over eligible for free medical care (a 'medical card') since late 2001. Others pay mainly for primary care services. Almost half of the population (e.g. 42% in 2001 (Wiley, 2001)) also has privately funded health insurance to cover mainly hospital

care. The RoI spends 8.2% of gross domestic product (GDP) on healthcare (6.6% is public spending). This ranked 8th in 15 EU countries in 2002. General practice is approximately half single practice and half group practices. Many of the population live in rural areas. In 2002 there were 3.0 acute hospital beds and 2.4 doctors overall per 1,000 population – both below the EU-15 average. It is not clear what the breakdown of hospital and community-based doctors is in the RoI. At 15.3 nurses per 1,000, coverage is among the highest in the EU-15 countries.

NI is part of the overall UK health system but responsibility is locally devolved to NI (and the other constituent countries). The UK operates a universal public healthcare coverage system with only 11.5% of the population having private health insurance (2001 figures). The UK spends 7.7% of GDP on healthcare. This ranked 10th in 15 EU countries in 2002. General practice is arranged in group practices with an average 3 GPs per practice. Most of the population lives in urban areas. One difference between NI and the rest of the UK is that NI has always had an integrated health and social care service. In 2002 there were 3.9 acute hospital beds per 1,000 population – also below the EU-15 average. There were 0.6 GPs per 1,000 population but it is not clear how many other doctors there were in the UK. No up-to-date figures on nursing levels were reported. These combined figures mean it is not clear how different the NI sector of the UK system is in terms of staffing or other parameters. However, the information provides a broad comparison of similarities and differences in the RoI and NI systems.

1.3 Studies evaluating the health and social status of older people in the Republic and Northern Ireland

Life expectancy in middle age is increasing in men and women in Ireland, though still comparing poorly with other EU countries (Fahey 1995). Death rates from cardiovascular disease, the largest single cause of mortality, are falling rapidly. For instance, Bennett, Zabir, Unal *et al.* (in press) documented a 47% reduction in cardiovascular mortality from myocardial infarction in the Republic from 1985-2000. Medical advances and individual behavioural change contributed approximately equally to this improvement. Such findings prompt further evaluation of the processes involved in generating those changes. However, the prevalence of chronic disease and of co-morbidity is increasing, with longer survival after the onset of disease. Health service provision has failed to keep pace with the resulting increased demand. Older people are the main users of society's health and social care services (e.g. 40% of services in the UK) (Department of Health 2001). While this is so, there is also evidence of inequity, with older people being less likely to receive recommended services.

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Systematic planning is required to meet future service needs, including ensuring equity. Targets have been set for health gain in older people (Fahey 1995) but there has not been a systematic approach to attaining these and there have been no

cohort studies to date in older people in Ireland. In contrast, the National Service Framework for England (Department of Health 2001) sets out strategies to achieve targets for health gain in older people and over 50 longitudinal population studies are underway (cf Medical Research Council 1994), providing a wealth of information to understand and plan for service needs in older people. A number of recent studies in the Republic and Northern Ireland can provide health and social service information on older people.

Projects comparing effectiveness across the systems are particularly opportune to understand the interplay of disease and treatment processes and to consider the similar and different challenges faced in the two parts of Ireland. Some initiatives have already been taken in this regard at a structural level in Ireland. The Institute of Public Health in Ireland is a recently established all-island organisation committed to promoting co-operation for public health between the Republic of Ireland and Northern Ireland. Integral to its role is a comparative study of major health challenges on the island. Its first report, the first comprehensive profile of comparative death rates and causes of mortality in the RoI and NI since 1921, found all-cause mortality rates in 1989-1998 were 6% higher in RoI over the decade 1989-1998 (Balanda & Wilde 2001). Concerning specific causes of death, circulatory disorders were also higher in the RoI (5%) while deaths from respiratory disease were 6% higher in NI. There were notable social class gradients in standardised mortality rates. A parallel report on urban/rural differences in All-Ireland mortality showed higher mortality rates in urban areas with very few exceptions: notable in the context of a report on older people – deaths from transport accidents and influenza were higher in rural areas (Shortt & Balanda 2003). In 2003, the Institute for Public Health in Ireland conducted an all-island study of social capital among 2,000 adults selected from electoral registers (Balanda & Wilde 2003). This provided the first North/South comparison data on a range of perceived health variables, on health behaviour profiles and on aspects of the social environment among all adults. Interesting North/South differences emerged on a range of indices. The relevant findings from this and the previously described studies will be discussed later in the report in the context of the present study findings.

In the RoI, a series of studies by agencies such as the National Council on Ageing and Older People [www.ncaop.ie] have informed current understanding of the experiences and circumstances of older people. One such study has provided the most comprehensive evaluation to date of the health and social status and related service experiences of older people in the RoI. The Health and Social Services for Older People (HeSSOP) study focused specifically on two former health board regions (one rural and one urban) and documented reported health and social status, and related service use and perceived need of 937 community-dwelling people aged 65+ years in the year 2000 (Garavan, Winder & McGee 2001). As

part of the wider Healthy Ageing Research Programme (HARP) to which this report belongs, the original HeSSOP study sample has been re-assessed in a four-year longitudinal follow-up study (HeSSOP-2)(O’Hanlon, McGee, Barker, Garavan, Hickey, Conroy & O’Neill 2005). Slán, a national survey of health behaviours in adults aged 18+ years, began in 1998 and is held 4-yearly. It has provided some specific information from 1998 and 2002 on profiles for older people (Shiely & Kelleher 2004).

In Northern Ireland, a large Health and Social Wellbeing Survey was conducted in 1997 with a second survey in 2001 (Department of Health, Social Services and Public Safety 2001). These included 3,520 and 5,205 households respectively. Adults aged 16+ years living in private households were included. The surveys involved interviews on health and social status and related service use. Some physical measures and blood sampling for cholesterol were also undertaken. Information is available on those aged 65-74 and then 75+ years. In 1998, a sample of 6,204 adults was interviewed and 3,817 dental examinations were carried as part of a UK Adult Dental Health Survey. Annual food surveys are also conducted in association with the rest of the UK. Findings from some of these studies have been considered in developing appropriate issues to assess and will be discussed further later in the report in conjunction with study findings from the present project.

The context and aim of this research study is outlined next.

1.4 The Healthy Ageing Research Programme (HARP)

HARP is a four-year cross-institutional research programme funded by the Irish Health Research Board since 2003. The aim of HARP is to outline how health and social services enable or impede successful ageing and the maintenance of quality of life for older people. This information is important if health professionals and others are to provide good quality healthcare for older people. HARP includes a series of studies to build on and expand our existing knowledge on these issues in older Irish people.

In a previous study, conducted in 2000 and called HeSSOP (Health & Social Services for Older People)(hereafter referred to as HeSSOP-1), community-based adults aged 65 years and over were identified from the electoral register and interviewed in their own homes (n = 937) (Garavan *et al.* 2001). A 2004 HeSSOP study (HeSSOP-2) was coordinated as part of the five-year HARP research. HARP aimed to provide continuity in knowledge of health and social service usage for older people in Ireland. The research programme undertook to do this in three ways: firstly to repeat HeSSOP-1 in a new cohort of participants of similar age in the same regions (N = 1,000) four years after HeSSOP-1 (repeat sample); secondly to conduct a four-year follow-up of participants from HeSSOP-1 (longitudinal

sample); and thirdly to compare this group of 1,000 interviewed in 2004 with a similarly selected group in NI. This latter project, the focus of this report, provides an opportunity to learn by comparing the health and social status and service experiences of two groups of older people on one island with two differing health and social services.

HeSSOP-2 allows insights into the healthcare system for a defined group of older people in Ireland. The study sample is selected to be equivalent to that of HeSSOP-1 and so provides a 'repeat sample'. As well as creating a profile of morbidity, informal and formal health and social service use, and perceptions of service quality in older adults in 2004, the repeat study also enables comparisons to be made between the two time points (2000 and 2004).

These two studies are part of the larger HARP which was developed to examine psychological and social concepts of ageing and to consider the interaction of ageing with the concepts of quality of life and quality of healthcare. These concepts are being examined in older general community populations and in older patient populations. The overall profile from experiences of community dwelling older people in the RoI and NI, and of patients in both regions representing acute life-threatening illness (stroke) and chronic serious illness (heart failure), will be combined over this five-year research programme to advance understanding of ageing quality of life and quality of health and social services for older people generally. The concepts of this overall research programme have been developed and included in a refined interview protocol. Thus interviews in 2004 constitute a combination of the most useful information items originally obtained in 2000 for HeSSOP-1 and the additional materials developed for HARP. New repeat variables are identified in the Methodology Section (Chapter 2). The insights gained from a repeat study and a longitudinal study are important given the ongoing reform in the Irish healthcare system. For instance, changes in the RoI to the provision of 'medical cards' (i.e. free point of delivery health services for primary and secondary services) to all those aged 70+ years in 2001 provide an opportunity to compare pre-2001 information in the RoI to that in 2004, and in NI since GP services are free for all residents there. The information collected in the RoI in 2004 is also reflective of the period before significant structural reform of the health services. Specifically the Health Service Reform Programme includes the abolition of existing health board structures, consolidation and amalgamation of existing health service agencies; establishment of a Health Service Executive to manage and deliver the health service as a single national entity; devolution of responsibility for budgets to service providers and establishment of a Health Information and Quality Authority to promote high quality and effective healthcare. These new structures came into effect in the RoI in January 2005. In NI, the most notable recent change in healthcare structures has been the introduction of the 'new GP contract'. Introduced across the UK in April 2004, this

new service contract for general practitioners (GPs) involves a radical change in how GPs are paid, with income closely related to a series of specified quality indicators. The quality indicators specified relate to management of ten disease groups (including many which would be expected to be more common among older people, e.g. coronary heart disease, chronic obstructive pulmonary disease and diabetes) and to other aspects of service delivery such as access to appointments, duration of appointments and medicines management (Department of Health, 2003). Evidence on the impact of these changes is not yet available. However, the potential for benefit as modelled statistically is significant (McElduff, Lyratzopoulos, Edwards, Heller, Shelleke & Roland, 2005). The potential for older people to benefit is particularly obvious.

One of the factors inherent in a North/South or within region comparison is the issue of care for urban vs rural residents. Differential access to services, with rural dwellers having lower levels of access, is a challenge in many countries (e.g. Hartley, 2004; Scottish Executive, 2003). HeSSOP-1, by its comparison of two specified health board areas in the RoI, was also primarily comparing urban and rural dwelling older people. Some differences in favour of urban dwellers were found there. The urban/rural issue is thus an important one to consider in the North/South study.

1.5 Study aims and objectives

The aim of this aspect of the HARP programme was to evaluate and compare health and social status and related service provision in the RoI and NI from the perspective of community-dwelling older people needing and/or using these services.

Specific study objectives were:

- a) to compare information across the two regions (RoI and NI) to identify common and specific areas of achievement and concern.
- b) to compare information jointly and separately across the two regions (RoI and NI) to determine if there were urban/rural differences in status or service use.

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Areas considered included documenting experiences of a broad range of health and social services recently received or required: hospital, domiciliary (e.g., public health nursing) services and 'social' (e.g., home helps/meals-on-wheels) services; and provision of informal care of older people at home. The study sought also to assess preferences for long-term care (e.g. home vs. institutional care; home services by care professionals; and other concerns for future health needs).

Findings were to be used to develop recommendations for service improvements. A specific focus of recommendations for future research was to be about lessons learned concerning longitudinal follow-up of cohorts of older Irish people for future studies.

The next chapter outlines the study methodology.

This study involves two primary samples of approximately 1,000 individuals in each: one from the RoI and one from NI. The RoI sample comprises a group interviewed for the first time in 2004 combined with a sample previously interviewed and now included for a longitudinal study in the larger Healthy Ageing Research Programme. Participants for the RoI study were recruited randomly through the electoral register and the combined sample is representative of the regions sampled. The NI sample was recruited through the Royal Mail's Postal Address File (PAF) to provide a representative NI sample. Many of the survey items used in a previous study (HeSSOP-1) were repeated. To consider new questions for inclusion, a comprehensive consultation process was also carried out. The survey included questions on general health and functional capacity, psychological and social wellbeing, health behaviours and health promotion activities, as well as use and experiences of health services. North/South and urban/rural differences in these variables are examined in the chapters to follow.

2.1 Design

This project involves a cross-sectional study of community dwelling older people aged 65 years and older in urban and rural areas in the Republic of Ireland and Northern Ireland. The design of the study was based on HeSSOP-1 (Garavan, Winder & McGee 2001). The present study sought to replicate the design of this earlier study while extending it to include community-dwelling older people from Northern Ireland.

2.2 Participants

Participants were older people recruited to represent the relevant regions in Ireland. Such a sample would enable a comparison of health and social service experiences among a representative group of adults aged 65 years and over. To recruit participants in the Republic of Ireland, the Register of Electors was used. This is the most comprehensive listing of community-dwelling adults in the Republic of Ireland. Participants were selected using a computer-based random sampling system in two former health board regions¹ - the Western Health Board (WHB) and the Eastern Regional Health Authority (ERHA). The ERHA is responsible for health and social services for the 1.4 million people who live in counties Dublin, Kildare, and Wicklow. The WHB covers over 380,000 people who live in counties Galway, Mayo and Roscommon. These two health boards represent the most densely populated (ERHA) and one of most sparsely populated boards (WHB) in Ireland. Together, they represent approximately one-third of the population in the Republic of Ireland, with a demographic profile similar to that of the nation as a whole.

¹ These regions have been replaced with a new organisational structure – the Health Services Executive – since January 2005.

To recruit participants in Northern Ireland the Royal Mail's Postal Address File (PAF) (a listing of all private households in Northern Ireland) was used. The electoral register strategy used in the Republic of Ireland could not be used as electors in Northern Ireland can opt to have their names and addresses removed from the publicly accessible register. Thus the postal address file is a more representative listing. Participants were from all four Northern Ireland health boards: the Northern Health & Social Services Board (NHSSB) which includes Antrim, and Ballymena; the Southern Health & Social Services Board (SHSSB) which includes the cities of Newry and Armagh; the Eastern Health & Social Services Board (EHSSB) which includes Lisburn and the greater Belfast area; and the Western Health & Social Services Board (WHSSB) which includes the city of Derry/Londonderry.

The EHSSB is the largest of the four health and social service boards in Northern Ireland. Over 670,000 people live within the Board's area, which covers the Councils of Ard Borough, Belfast City, Castlereagh Borough, Down District, Lisburn City, and North Down Borough. The WHSSB serves a population of over 285,000 people who live in the district council areas of Limavady, Derry, Fermanagh, Strabane and Omagh. These two health boards represent the most densely populated (NHSSB) and the most sparsely populated (WHSSB) boards in Northern Ireland.

2.3 Procedure

2.3.1 Consultation process

The consultation process in HeSSOP-1 determined the most focused themes and questions about health and social services for the survey administered. This consultation process involved key health and social services providers, including geriatricians, GPs, directors of nursing and nursing services, long-stay hospital nursing staff, carers' association members, home help managers and health professionals such as occupational therapists, physiotherapists and social workers. The final survey administered included questions on finances, housing, general health and independence, health behaviours and health promotion activities, social support and utilisation of services, including factors that influence service access and perceptions of acceptability. Questions were also administered on older adults' preferences for long-term care. To determine if the issues remained valid for the current study, and to consider possible new priorities for measurement, further consultation was carried out with professionals and older people via focus groups.

2.3.1.1 Focus groups with older people

Five focus groups were conducted with older adults in the Republic of Ireland, in part to ask about experiences in accessing health and social services, and the factors that can help or hinder the experience of ageing. Each group comprised 8-14 participants aged 65 years and over (n = 41). Focus group participants were contacted through community service managers and other key service providers (e.g. day centre managers) working in Dublin and the Eastern Regional Health Authority area. Participants represented adults across the health continuum, e.g. from adults who were relatively independent with little experience of health and social services to those needing high levels of support and care from social services. Participants in these groups also represented those living in urban and rural locations, and different socio-economic groups. Locations for the groups were neutral, i.e. not health board venues. The focus groups were conducted by two experienced researchers and each lasted approximately two hours. All participants were asked to give their consent prior to the start, and to have the groups audio taped. The aim of these focus groups was to gain insight into the experiences, preferences and attitudes of older people themselves. Topic areas were kept broad to elicit as much information as possible about a variety of issues. Participants were given an honorarium in appreciation of their involvement in the focus groups and to cover travel expenses. Based on data from these interviews, along with consultations and advice from HARP Steering Group members, the final survey was agreed. Information on the final survey is outlined next.

2.3.1.2 Pilot study

A pilot of the survey was conducted to test the revised questionnaire. The sample for this pilot study was derived from the original 937 respondents who had completed HeSSOP-I. A random sample was re-contacted and 30 individuals completed interviews. The questionnaire was subsequently edited on the basis of this pilot experience. A lengthy (c. one hour) interview (called the 'extended interview') and a shorter four-page version (called the 'short-form interview') were devised.

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2.4 Survey

2.4.1 Selection and interview process

Details of participant recruitment for the Republic of Ireland (RoI) longitudinal and repeat samples and the Northern Ireland (NI) sample can be seen in Table 2.1.

2.4.1.1 Republic of Ireland

In the Republic of Ireland there were two methods for recruiting the 2004 (cross-sectional) sample. The first involved the selection of a new or repeat cohort of participants (repeat sample), and the second involved the recruitment of individuals who had already participated in HeSSOP-1 (longitudinal sample). Thus, the 2004 sample consisted of both new (repeat sample) and previously recruited (longitudinal sample) participants.

Repeat sample: The Economic and Social Research Institute's (ESRI) Survey Unit conducted the RoI interviews using a procedure similar to that of HeSSOP-1. Names and addresses were randomly drawn from the Register of Electors for the health board counties. Interviewers called on the identified household and, if a person aged 65 years or older lived there, he or she was asked to take part in a study on health and social services for older people. Where more than one person aged 65 years or over lived in the household, the person whose birthday was nearer the date was invited to take part. Where the individual selected to take part in the survey was unable to do so (due to serious illness, for example), a primary carer or next of kin living in the same household was invited to participate as a 'proxy' participant. While there are weaknesses with proxy responding, it was very important to have some representations of service use and needs of those unable to respond and also potentially those most needing health and social services in the community. This is because complete exclusion of those unable to participate themselves would under-represent the level of health problem, service need and service provision in the general population.

For recruiting this repeat sample, a total of 4,217 addresses were contacted. Of these 2933 (69%) were ineligible for interview, mainly because they did not have a household resident aged 65 years or older. Of the eligible households, 39% (n = 504) were non-respondents. Reasons for non-response were direct refusal or permanent unavailability for interview i.e. interviewers could not make contact with the older person despite multiple return visits. Interviews were conducted with 780 participants. Of these 739 were extended interviews. Seven of these were completed by proxy respondents. The overall response rate was 61% with an extended interview rate of 58%. For the purpose of the present study, only those participants who completed the extended interview were considered in the analysis. A flow-chart depicting the recruitment outcomes for this repeat study can be seen in Figure 2.1, Appendix 1.

Longitudinal sample: Interviewers also sought to follow up as many of the original HeSSOP-1 participants as possible. In doing this all participants from HeSSOP-1 were telephoned using the contact numbers that had previously been recorded. Sixty per cent of the original participants were contactable through this means. Individuals who were not contactable by phone were assigned to an interviewer and an effort was made by the interviewer to visit their houses and fill out contact information. Finally a letter and a short-form questionnaire were sent to the participant's last known address. At the end of this recruitment process, there were 64 participants for whom it was not possible to gain longitudinal information.

Of the original sample of 937, vital status was ascertained for 93% of participants (n = 873). Almost a third (n=299) of the original group had had their status confirmed but were subsequently unavailable for interview. Over half (n=160) of this unavailable group were confirmed as deceased, 19% (n=57) were too ill to participate, and the remainder (n=82) had either moved or were unknown at the address. Of those remaining at their original addresses and who were eligible for interview, 19% refused participation, and 10% agreed but were never available for interview or the timing was never suitable. Consequently, of those participants who were potentially available for interview 71% (n = 408) were interviewed (314 extended, 83 short-form and 11 incomplete questionnaires). This was the response rate for the longitudinal study. Only those participants who completed the extended interview, however, were considered in the analysis. Thus, full information was available for 55% of those who had been potentially available for interview. A flow-chart depicting the outcomes of recruitment for the longitudinal sample is presented in Figure 2.2, Appendix 1.

Combining response rates for the repeat study and the longitudinal study the mean response rate in the Republic of Ireland was 64% $[(780 + 408)/(1284 + 574)]$. The rate for extended interview completion was 58% $[(739 + 314)/(1284 + 574)]$. The response rate in this study is comparable to those reported in general population surveys in the Republic of Ireland where similar methodologies have been employed, for example, Kelleher, Friel, Nic Gabhainn & Tay (2003) reported a response rate of 62%.

Table 2.1: Outcome of recruitment attempts for HeSSOP-2 sample

Sample recruitment	Republic of Ireland		Northern Ireland
	Longitudinal sample	Repeat sample	NI sample
Total contact addresses	873	4217	2722
Eligible households	574	1284	1125
Respondents	408	780	1000
Interviewed - extended questionnaire complete	314	739	1000
Interviewed - short-form (4 page) questionnaire complete	83	0	0
Interviewed - incomplete	11	41	0
Non-respondents	166	504	125
Declined participation/permanently unavailable	108	471	125
Other reason for non-participation (e.g. no suitable time)	58	33	0
Ineligible households	-	2933	1597
No one in household aged 65+	-	2774	1491
Complete refusal: household composition unknown	-	22	66
'Household' was institution (i.e. not private residence)	-	56	22
Other (e.g. no access)	-	47	0
Over 65 but too ill/cognitively impaired and no proxy available	-	34	18
Unavailable	299	-	-
Deceased/ too ill to participate	217	-	-
Moved/unknown at address	82	-	-
Non contacts*	64	566	218
TOTAL TARGET SAMPLE	937	4783	2940
Response rate:	71%	61%	89%
	(408/574)	(780/1284)	(1000/1125)
Completed interview rate:	55%	58%	89%
	(314/574)	(739/1284)	(1000/1125)

Note: * household vacated, could not locate address

2.4.1.2 Northern Ireland

In Northern Ireland there was one method of recruitment. The organisation 'Social and Market Research' conducted interviews using a procedure similar to that of HeSSOP-1. Names and addresses were randomly drawn from the Royal Mail's Postal Address File (PAF) across the entire region. Interviewers called on the identified household and, if a person aged 65 years or older lived there, he or she was asked to take part in a study on health and social services for older people similar to the procedure used in the Republic of Ireland.

A total of 2,722 potential addresses were used to recruit the sample. Of these 58% were ineligible for interview primarily because no household resident was aged 65+ years. 1,000 participants completed the extended questionnaire; 987 in person and 13 by proxy respondents. The sample response rate was 89%. This figure is high in comparison to response rates for other surveys of older adults in Northern Ireland e.g. the response rate on the routinely conducted Northern Ireland Life and Times Survey was 70% in 1999 (<http://www.ark.ac.uk/nilt/>) while the response rate for surveys conducted between 1998 and 2003 was 66%. A flow-chart depicting overall sample recruitment can be seen in Figure 2.3, Appendix 1.

2.5 Measures

The final extended interview schedule was a questionnaire consisting of 421 items (not all participants completed all items). As with HeSSOP-1, questions were developed, where possible, from previously used and standardised tools to aid comparison with data from other studies. Questions broadly focused on:

- current health status and health and social service experiences over the past year
- satisfaction with current health and social services
- level of demand for services not currently being used, and
- preferences for services that may be used in the future.

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2.5.1 Demographic characteristics

Specific variables included in this category were age, gender, household composition (living alone, spouse only, number of generations etc.), and geographic location (city, town, village). Information on household income, final health coverage for care (State-covered medical care, private insurance) and payment for these services were also asked. For household income, participants were asked for the amount of net income in euro per week (in Northern Ireland interviewers asked about pounds sterling and recorded relevant category in euros). Participants were also asked about the highest level of formal education completed and their main pre-retirement occupation.

2.5.2 General health status and functional capacity

Functional ability was measured using the Stanford Health Assessment Questionnaire Disability Index (HAQ-DI) (Fries, Spitz & Young 1982). The HAQ-DI is used to measure levels of physical ability in the general population, in terms of the activities that are performed on a daily basis. Participants are asked to rate their ability to perform seventeen daily tasks within eight activity categories in the past week, on a four point scale ('without any difficulty', 'with some difficulty', 'with much difficulty' or 'unable to do'). For each category of two to five activities, participants are also asked 'Do you usually need help from another person in carrying out any of these tasks?' An overall measure of independence (ranging from 0-3) can be calculated from the eight categories, yielding four levels of ability to maintain independence in activities of daily living (ADL). These scores have been interpreted as follows: 0-0.5 – the person is completely self-sufficient; 0.51-1.25 – the person is reasonably self-sufficient and experiences some minor and even major difficulties in performing ADL; 1.26-2.0 – the person is still self-sufficient, but has many major difficulties in performing ADL; 2.1-3.0 – the person may be called 'severely handicapped' (Siegert, Vlemin, Van Den Broucke *et al.* 1984). The HAQ-DI scores for the present study have been interpreted in this manner. While the HAQ-DI has been widely used in community settings, its primary purpose was for use in the hospital setting amongst rheumatoid arthritis patients. For the purposes of this study therefore, some amendments were made to the tool to include activities that older people in particular may find difficulty with in their usual (home) surroundings. Additions were made to the questionnaire to incorporate eight items, such as those requiring fine finger movement and sensation, and physical flexibility (e.g., 'taking care of feet and toenails' or 'making a cup of tea'). An extra category was added to address difficulties with concentration, memory and reasoning skills (e.g., 'managing your own affairs', or 'remembering daily plans'). Participants self-reported their abilities, taking into account the use of a device or aid if one was usually used. Thus the measure provided a guide to those activities which required extra help to overcome barriers to independence, as well as providing a measure of physical ability itself.

2.5.3 Psychological wellbeing

The seven-item depression scale from the Hospital Anxiety and Depression Scale-item (HADS) (Zigmond & Snaith 1983) was used to assess depression. A Likert-scale ranging from 1 to 4 is used to indicate the extent to which each statement is applicable to how participants had been feeling over the past week. Items 4 and 5 on the scale are reverse-scored. The HADS is a widely used self-report instrument (Birks, Roebuck & Thompson 2004) which has been found to perform well in

assessing severity and causes of anxiety disorders and depression in both somatic, and psychiatric cases and (not only in hospital practice for which it was first designed) in primary care patients and the general population (Bjelland, Dahl, Haug & Neckelmann 2002). For the depression scale scores can range from 0 (no symptoms) to 21 (maximum distress), possible clinical cases are reflected in the case of individuals scoring between 8 and 10 points, and probable clinical cases are reflected in the case of individuals scoring more than 10 points.

2.5.4 Health behaviours and health promotion activities

Exercise and smoking were selected as important health promotion targets for older people. Weekly levels of activity, smoking status and barriers to more healthy behaviours were investigated. Where applicable, the role of health professionals in encouraging smoking cessation, and stage of readiness to give up smoking were assessed using concepts from the transtheoretical model. The concepts or stages outlined in this model are pre-contemplation, contemplation, preparation, action and maintenance (Prochaska & DiClemente 1983). These items were adaptations of items administered in HeSSOP-1. With regard to possible preventive and screening strategies recommended for use with older individuals, frequency of blood pressure measurement and utilisation of general health check-ups were investigated. The frequency with which participants had their blood pressure and cholesterol checked was assessed. Specifically, they were asked to indicate when they had last had these checked by their GP on a six-point scale ranging from 'Less than 3 months ago', to 'Never'. The variable items were taken from HeSSOP-1. Participants were also asked about levels of uptake of the influenza vaccination ('flu injection'). In the case of a negative response participants were asked to give their reasons for not receiving it.

2.5.5 Social contact and support

Social issues assessed included perceived emotional support and level of interest in availing of visiting services/group membership. Participants were asked about the extent to which they were able to attend social engagements, i.e. their functional capacity to attend them. These items asked whether participants had been able to attend events outside their own home, and visit friends or family in their own home, over the last month. Responses were rated on a 4-point scale ranging from 1 (Without difficulty) to 4 (Unable to do).

Loneliness was assessed by asking participants how often they had been bothered by loneliness in the last 12 months. Responses were rated on a 4-point Likert scale ranging from 'very often' to 'never.' Fear of loneliness has been shown to be a frequently reported concern in older adults (Beyene, Becker & Mayen 2002). Furthermore, loneliness has been linked to physical and mental health problems (Ye, Loh & Ye 2004) thus rendering it an important factor for investigation.

The extent to which individuals perceived themselves as being in receipt of social support was assessed using two measures that had also been used in HeSSOP-1. The first measure was concerned with functional support and asked participants to indicate if they received support necessary for them to maintain their independence from five different sources: specifically, spouse/partner, other relative in household, other relative living elsewhere, neighbour, and voluntary organisation. If participants indicated that they did receive this functional support from any of these sources, they were then asked to specify how often they received it. Responses for this latter question were scored on a 5-point scale ranging from 'continuously including night' to 'once weekly or less'. The second measure of social support was a three-item scale that had been developed for HeSSOP-1. This scale was concerned with receipt of social provisions specifically emotional support, informational support, and practical support. Responses were rated on a 5-point scale ranging from 'none of the time' to 'all of the time'. Scores for items on this scale were summed to give a global level of perceived social support.

2.5.6 Use of services

Service use, need, access and satisfaction were assessed across a wide spectrum of available services and professionals: GP and locum GP, A&E, hospital in-patient and out-patient experiences, day care/day hospital, day centre/club, respite care, public health nurse, care attendant, home help, social work, meals-on-wheels, chiropody, occupational, speech, physiotherapy, dietary, optical, dental, audiological, psychological and rehabilitation services were examined. Participants were asked whether they had received or availed of the service in the past year, if they had received the service whether they had paid for it, if they had not received the service whether they would like to receive it, and what factors prevented them from receiving the services (more often). Response options were 1) 'Never heard of', 2) 'No availability', 3) 'Transport', 4) 'Cost', 5) 'Lack of time', 6) 'On waiting list', 7) 'Too much hassle', 8) 'Not helpful', and 8) 'Other' (to be specified accordingly).

The findings of HeSSOP –1 revealed that the embarrassment (or stigma) associated with a variety of services also posed a barrier to care. Thus, the same services (e.g., meals-on-wheels, chiropody services) were assessed in the current study. Other barriers to service use, such as cost, and lack of information, and the role of transport in service access were also examined. To further examine the role of transport in older people’s lives, participants were also asked to identify which types of transport they had used in the last six months.

2.5.7 Preferences for long-term care

Views on preferences for long-term or high-intensity care, if required, were investigated. Participants were asked whether their preferences for long-term care had ever been discussed with family members or someone else they trusted. Participants were also asked if they felt that their wishes in relation to long-term care would be honoured.

Preferences for various care options in relation to living arrangements were assessed by asking participants to rate their acceptability. Some examples of care options that were queried were ‘Living in your current home with medical or health board staff to come in and provide services’ and ‘Moving permanently to the home of a child or other family member with your family to care for your needs’. Response options ranged from ‘very acceptable’ to ‘not acceptable’.

2.6 Proxy questionnaire

Participants who were interested in participating in the study, but were unable to take part themselves, e.g. due to health problems, were asked if another person could complete the interview on their behalf. Similarly, where an older person lived at the address but could not themselves consent to participation (because of cognitive impairment or serious illness), proxy participants were invited. The proxy questionnaire consisted of practical and factual type questions only. Preference or attitudinal type questions (e.g. HADS which measured psychological wellbeing) were not asked since responses would not necessarily represent those of the older person.

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2.7 Data analyses/statistical methodology

As is standard with population survey data, the information collected from the questionnaire was statistically adjusted or ‘re-weighted’ prior to analysis. This re-weighting adjusts the results to compensate for the over-representation or under-representation of particular population subgroups in the sample. Statistically adjusting data prior to analysis is standard practice in surveys and addresses any

potential bias which may arise from issues related to sample design and also to differential non-response within subgroups of the population. The re-weighting procedure used was based on a minimum information loss algorithm which adjusts an initial weight so as to ensure that the distributional characteristics of the sample matches those of the population according to a set of externally determined controls. These latter are based on independent national sources such as the Census of Population 2002 and the Quarterly National Household Survey (both undertaken by the Central Statistics Office (CSO)).

Census data from 2002 was used to weight the data for the RoI sample. The HeSSOP studies were carried out in 2000 and 2004. Both HeSSOP-1 and the follow-on RoI data set were weighted according to the 2002 Census; this was the closest Census to each study (two years from the data collection time) and means that the RoI data is a reflection of a combined dataset for these two boards. Census data from 2001 was used to weight the data in Northern Ireland. The variables used in the statistical adjustment or re-weighting procedure were gender, age cohort, and health board.

The current survey was carried out in two separate locations, the Republic of Ireland and Northern Ireland. The report describes the profile of older people in these two separate regions and makes statistical comparisons to assess similarities and differences. Sometimes, apparent differences between groups can be due to demographic difference, such as the groups having a different age structure, social class composition or gender balance. In a case like this, statistical methods can be used to calculate what the difference would be if the two groups were comparable demographically. This process is referred to as 'controlling for' or 'adjusting for' demographic variables. A second major opportunity for comparison is the urban/rural one. Using a cut-off of towns with less than 1,500 population as 'rural', 44% of the Republic of Ireland sample (8% of the ERHA and 79% of the WHB samples) were designated as rural. The Northern Ireland sample was 27% rural. All of those designated as rural in the Republic and Northern Ireland were combined and compared with urban counterparts.

Logistic regression was used to explore the relationship between variables. This is one of the most commonly-used statistical techniques. It estimates a relationship between specific factors (predictors) and an outcome variable. Multivariate results are generally reported for parsimony, given the volume of univariate calculations and the number of these that will be significant solely by chance².

The statistical analyses to follow are of two basic types:

- *North/South differences*: comparisons between those living in the Northern Ireland and the Republic of Ireland;
- *Urban/rural differences*: comparisons between those living in urban compared with rural locations.

Further analyses was carried out examining key group differences identified as being influential in other literature, i.e. differences by gender, age, socio-economic status and functional impairment. These subgroup analyses allow a better general understanding of those using and not using key health and social services.

To focus attention on policy implications, additional analyses were carried out on three of the most policy-relevant themes to identify if patterns of service use differed among possible vulnerable groups. These groups were identified from previous research profiling on vulnerability factors (e.g. Lund, Due, Modvig *et al.*, 2002). These were a demographic variable (i.e. those aged ≥ 74 years vs. those aged 75+ years), a social-psychological variable (those living alone vs. all others) and a health status variable (functional impairment as assessed by the HAQ - those scoring 2 or 3 on the HAQ (i.e. moderate to severe impairments in physical capacity) vs. others) (Data was typically not analysed by depression group given the relatively small percentages in the population with clinical levels of depression). The next chapter examines the demographic characteristics of the study participants.

² The information provided by statistical tests is the probability that the pattern in the data could have arisen by chance. This pattern could be, for example, a difference in hospital use between two groups of people, or a tendency for physical activity to decline with age. When this probability is less than 5%, chance is not a likely explanation for the pattern in the data. In this case, we conclude that, for instance, the two groups of people really have different levels of hospital use, or that physical activity really does decline with age. When the probability (often referred to as 'p-value' or just 'p') is 5% or more, chance is a reasonable explanation for the pattern in the data.

Chapter Three:
Demographic profile of participants in the Republic of
Ireland and Northern Ireland

The sample comprised 1,053 participants from the Republic of Ireland (RoI) and 1,000 from Northern Ireland (NI). Fewer RoI participants lived in urban areas, defined as towns and cities with at least 1,500 people (53% RoI vs. 73% NI). There were no regional (i.e. North / South) differences in sample age or gender. Differences were found in terms of marital status, education and household composition (living alone vs. living in intergenerational families), i.e. those in the RoI were more likely than those in NI to be married, to have higher levels of education and to live with others. No urban/rural differences were found between samples in age or gender. Urban/rural differences were found for education and household composition, e.g. rural participants were more likely than their urban counterparts to live in intergenerational families and less likely to have received a post-primary level of education. Participants over age 75 were more likely to be in low income groups, irrespective of policy region (North/South) or geography (urban/rural). Women were also more likely to be in low income groups, especially in the RoI. These differences were controlled for in subsequent analyses.

3.1 Age and gender distribution

Summary information on age and gender for sample groups can be seen in Table 3.1.

North / South differences: In the RoI, participant age ranged from 65 – 102 (median: 75 years), with 59% of participants being aged 74 years or under. In NI, participant age ranged from 65 – 99 years (median: 73 years), with 57% being aged 74 years or under. Forty-four per cent of participants in the RoI were men and 56% were women; in NI, 42% of participants were men and 58% were women. There were no significant North / South differences in either age or gender, although in both regions, women were more likely than men to be in the over 75 age group (RoI 61%, $p = .005$; NI 63%, $p = .01$).

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Table 3.1: Age and gender profile by policy (RoI & NI) and geographic (urban & rural) region

Age group (years)	Republic of Ireland			Northern Ireland		
	Urban %	Rural %	Total %	Urban %	Rural %	Total %
Age group (years)						
- 65-74	62	54	59	56	58	57
- 75-84	31	37	34	35	34	34
- 85+	7	9	7	9	8	9
Gender						
- Men	45	44	44	41	43	42

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286

When comparing sample data with those from recent census reports, age and gender profiles of the samples were found to be comparable to that of the general population. For instance, the percentage of participants aged 65-74 was 59% and 57% in the RoI and NI respectively. This compares to the RoI and NI census data, specifically in the RoI 56% of individuals over the age of 65 were in this age group (RoI Census 2002), the corresponding figure for NI was 55% (NI Census 2001). For the 75-84 year age-bracket 34% of participants from both policy areas were in this category. This was also comparable to census data showing that 34% of individuals over the age of 65 in the RoI and 35% in NI were in this age group (RoI Census 2002; NI Census 2001).

3.2 Marital status

Marital status is known to have a significant effect on a range of health and psychosocial outcomes. For instance, married men have been found to be healthier than married women or single adults (Chipperfield & Havens 2001); similarly single women have been found to be in better health in comparison with their married counterparts (Goldman, Korenman & Weinstein 1995). Gliksmann and colleagues (Gliksmann, Lazarus, Wilson & Leeder 1995) describe marital status as 'an important predictor of risk factor status' (p.813), especially with regard to smoking behaviours and cardiovascular disease for men. For these reasons, the relationship between marital status and other outcomes is examined in later analyses.

North / South differences: Fifty-four per cent of those in the RoI reported being married or in marital-type relationships, and 37% reported being widowed; the corresponding figures for NI were 34% and 42% respectively (see Table 3.2). Compared to their counterparts in NI, a smaller proportion of RoI participants were never married/single or separated/divorced (9% vs. 23%). Of those who reported being married, 55% in the RoI lived in intergenerational families, as did 41% in NI.

Table 3.2: Marital status profile by policy (RoI & NI) and geographic (urban & rural) region

Marital Status	Republic of Ireland			Northern Ireland		
	Urban %	Rural %	Total %	Urban %	Rural %	Total %
With partner						
Married/living as married ^{ab}	58	48	54	34	37	34
Without partner						
Widowed ^{ab}	34	42	37	42	42	42
Never married /single ^a	7	9	8	15	15	15
Separated/divorced ^a	1	1	1	9	6	8

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05, ^bwithin RoI policy region urban/rural differences where p < .05

Participants were grouped into those who had had a partner and those who had not (i.e. those who were single, separated or widowed). A North / South difference was found on this variable ($p < .001$), i.e. RoI participants were significantly more likely than those in NI to be living with partners (54% vs. 34%). Participants were also grouped into those who were widowed, and all other groups. Again, a significant North / South difference was found on this measure, with a greater proportion of participants in NI being widowed in comparison to those in the RoI (42% vs. 37%, $p = .02$).

The proportion of married and widowed participants in the study samples was reasonably comparable to age matched census data from both regions. For instance, 54% of the RoI sample (and 47% of those in the same age group in the 2002 census) were married. Similarly, the proportion of widowed participants in the RoI is comparable to that from census data (37% and 33% respectively). In parallel, census data from NI indicate that the proportion of married and widowed persons was 48% and 35% respectively (NI Census 2001); these data are comparable to the study sample data (34% and 42%).

3.3 Living arrangements or household composition

The relationships between living arrangements or household composition and a range of other variables are examined in this and later chapters.

3.3.1 Living alone

There is a lot of evidence to confirm that adults who live alone are at increased risk of problems of morbidity and mortality (e.g. Lund *et al.* 2002). The present study examined differences in the proportion of those living alone, and in later analyses, the effect that this variable has on other outcomes.

North / South differences: In the RoI, 28% of participants lived alone; of this group, 77% were widowed, 17% were never married or were single, 4% were married, and 2% were separated or divorced. In NI, 57% of participants lived alone; of this group 66% were widowed, 21% were never married or were single and 13% were separated or divorced. Participants in NI were significantly more likely than those in the RoI to live alone (57% vs. 28%, $p < .001$, see Table 3.3).

Table 3.3: Household composition by policy (RoI & NI) and geographic (urban vs. rural) regions

Household composition	Republic of Ireland			Northern Ireland		
	Urban %	Rural %	Total %	Urban %	Rural %	Total %
Living alone ^{ab}	32	25	28	59	51	57
With spouse only	30	34	32	30	29	30
Family: 2+ generations ^{ab}	32	31	32	9	15	11
Other	6	90	8	2	5	2

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05, ^bwithin NI policy region urban/rural differences where p < .05

Furthermore, in both the RoI and NI those aged 75+ years were more likely than those aged 65-74 years to live alone; similarly women were more likely than men to live alone. In both policy regions, women aged over 75 years were most likely to live alone (see Figure 3.1).

Figure 3.1: Percentage living alone by policy region (RoI & NI), gender and age group



The proportion of people living alone in this study was comparable to that of the 2002 Census data from the RoI (28% vs. 26% respectively). However, the proportion of people living alone in the NI sample study was high at 57%; this was also notably higher than the 2001 Census data from NI (where 33% of individuals aged 65+ years lived alone).

3.3.2 *Living with spouse only*

Older people living with their spouses can enjoy many shared experiences over several decades; support from such relationships can also be crucial in dealing successfully with challenges and problems. However, if one or both partners become ill or need additional support, this marital group may be more vulnerable to other psychosocial and physical health problems. For this reason, the experiences of those living with spouses only are examined through coming chapters.

North / South differences: Thirty-two per cent of those in the RoI lived with spouses only, as did 30% of those from NI; this difference was not significant (see Table 3.3). The age profile of those who lived with spouses was similar in both regions (RoI: 40% of those aged 74 years or less lived with spouses only compared with 23% aged 75+ years. Corresponding percentages for NI were 37% and 20% respectively). In both regions, men were more likely than women to live with spouses only (RoI: 44% men vs. 24% women, $p < .001$; NI, 44% men vs. 19% women, $p < .001$).

3.3.3 *Living in multigenerational households*

The pattern of extended family accommodation was evaluated.

North / South differences: Thirty-two per cent of participants in the RoI and 11% of those in NI lived with children and grandchildren; this difference was significant ($p < .001$). In neither region, however, were women any more likely to live in intergenerational families than men, nor were there any differences in the proportion of younger (65-74) and older participants living in intergenerational households (see Table 3.3).

3.4 **Socio-economic status**

Socio-economic status was determined by education, household income and social class.

3.4.1 *Education*

Researchers have found significant relationships between levels of education and a range of health and psychosocial variables. For instance, in a five-year follow-up study of 2,247 adults aged over 55, Grundy & Holt (2000) found that education predicted variation in levels of health and disability. Similarly, Herzog, Franks, Markus & Holmberg (1998) found higher education to be a significant factor in facilitating better health and lowered levels of depression.

North / South differences: A significant North / South difference in education was found, with education levels being significantly higher for participants in the RoI ($p < .001$). Primary school education was the highest level of education attained for over half the RoI sample but for two thirds of the NI sample (54% vs. 65%) (see Table 3.4). Twelve per cent of RoI participants and 3% of NI participants had completed second-level education i.e. Leaving Certificate or A-level, and just 11% (RoI) and 4% (NI) went on to third-level education.

Table 3.4: Educational status by policy (RoI & NI) and geographic (urban & rural) regions

Education ^a	Republic of Ireland			Northern Ireland		
	Urban %	Rural %	Total %	Urban %	Rural %	Total %
Primary education only	38	75	54	60	77	65
Some 2nd level, no exams	13	9	11	20	9	17
NI only: Junior Cert	-	-	-	10	7	9
Group Cert/O-Level	15	7	12	3	2	2
Leaving Certificate or A-level	17	4	12	3	3	3
Diploma or equivalent from University/RCT/IT	7	2	5	2	1	2
Primary/Bachelors degree or equivalent	5	1	3	1	0	1
Higher degree	5	1	3	2	0	1

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where $p < .05$

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Participants aged over 75 years were less likely than those aged 65-74 years to have had a post-primary level of education (RoI 34% vs. 53%, $p < .001$; NI 27% vs. 41%, $p < .001$). There were no gender differences in education in the RoI or NI.

3.4.2 Household income

Household income was measured by asking participants about the total income of all members of the household after tax, pay-related social insurance and other deductions. This question was asked given evidence that income levels can have a significant effect on other variables and health outcomes.

North / South differences: For this analysis, individuals were grouped into three broad income groups (low, medium and high incomes) based on a separate frequency distribution for each policy region (see Table 3.5).

Table 3.5: Income by policy (RoI & NI) and geographic (urban & rural) region

Income Group ^a	Republic of Ireland			Northern Ireland		
	Urban %	Rural %	Total %	Urban %	Rural %	Total %
Low income group	28	41	34	42	51	44
Middle income group	34	38	36	34	33	31
High income group	38	21	30	24	16	22

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^a North/South differences where p < .05

Comparing absolute values however in each policy region can be problematic in that income levels can have different values across regions. For this reason, further analyses were carried out on characteristics associated with income, e.g. the relationship between income and gender and age group. More men than women were in the highest income groups (see Table 3.6, RoI p = .02; NI p = .03). Similarly, in the RoI only, lower income was significantly associated with being older (age 75+ years) (p < .001).

Table 3.6: Income by policy region (RoI & NI), gender and age group

Income Group ^a	Republic of Ireland ^{ab}			Northern Ireland ^d		
	Low %	Middle %	High %	Low %	Middle %	High %
Gender:						
Men	29	38	33	38	37	25
Women	37	35	27	49	31	20
Age:						
≤74 yrs	28	37	34	43	33	24
75+ yrs	41	35	30	45	35	20

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aGender differences within RoI policy region where p < .05; ^bAge differences where p < .05

Income levels among vulnerable groups

Older adults are not a homogeneous group of individuals; while the majority remain active and healthy into their later years, others can be in need of focused attention and support from healthcare professionals, not least because some groups of older people have greater difficulties in accessing and using services, including services designed to help them live independently at home. In addition to shedding light on the experience of ageing, analyses of data from these groups can facilitate in service planning. The experiences of three possible vulnerable groups are examined on the basis of previous research profiling them as vulnerability factors (e.g. Lund *et al.* 2002). These were a demographic variable

(i.e. those aged 75+ years vs. those aged \leq 74 years), a social-psychological variable (those living alone vs. all others) and a health status variable (those scoring 2 or 3 on the HAQ which is indicative of moderate to severe impairments in physical capacity vs. others).

Significant age group differences were found in the RoI only, with participants here aged 75+ years being less likely to be in the higher income groups (see Tables 3.7a and 3.7b, RoI $p = .002$). In the RoI only, those living alone and those with greater functional impairments were also more likely than others to be in the low income group (both $ps < .05$). Living alone and lower income have both been independently linked with health-risk behaviours (Donkin, Johnson & Lilley *et al.* 1998). Thus the finding that these variables co-occur in the RoI is a cause for concern.

Table 3.7a: Income levels among vulnerable groups in the Republic of Ireland (RoI)

Income group ^{abc}	Age Group		Living alone		HAQ	
	\leq 74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Low income group	28	41	27	48	32	47
- Middle income group	38	35	44	20	37	32
- High income group	34	24	29	32	31	21

Note: \leq 74 yrs $n = 605$; 75+ yrs. $n = 448$; Numbers living alone = 298; High HAQ: $n = 108$ (moderate/severe disabilities), Low HAQ: $n = 942$ (no/few disabilities), ^aAge differences where $p < .05$, ^bLiving alone differences where $p < .05$, ^cHAQ differences where $p < .05$

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Table 3.7b: Income levels among vulnerable groups in Northern Ireland (NI)

Income group	Age Group		Living alone		HAQ	
	\leq 74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Low income group	43	45	45	44	45	41
- Middle income group	33	35	33	34	33	36
- High income group	24	20	22	22	22	23

Note: \leq 74 yrs $n = 491$; 75+ yrs $n = 509$; Numbers living alone = 586; High HAQ: $n = 248$ (moderate/severe disabilities); Low HAQ: $n = 752$ (no/few disabilities)

3.4.3 Social class

While the incomes of older people can be similar, life-time occupational categorisation can be very informative in terms of also encapsulating differences in accumulated resources over a person's working life. Participants were classified in terms of social class, using the CSO six category classification system: higher professional, managers and farmers with 200+ acres (group 1); lower professional, proprietors and farmers with 100-199 acres (group 2); other non-manual workers, and farmers with 50-99 acres (group 3); skilled manual workers and farmers with 30 – 49 acres (group 4); semi-skilled workers and farmers with less than 30 acres (group 5); and unskilled manual workers (group 6). One per cent of participants in the RoI and 4% of participants in NI could not be classified. In some analyses, groups 1-3 were combined to form a 'higher' non-manual social class grouping, while groups 4–6 were combined to form a 'lower' manual social class group. Many older women would have left formal employment when they married, so occupational status may not accurately reflect their social class status. For this reason, social class grouping for married women was based on their husband's occupation. The proportion of participants in each social class can be seen in Table 3.8.

Table 3.8: Socio-economic groups (CSO classification) by policy (RoI & NI) and geographic (urban & rural) region

Social class group	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
0 Unclassified	1	1	1	4	3	4
1 Higher professional including managers and farmers with 200+ acres	12	3	8	7	3	6
2 Lower professional, proprietors and farmers with 100-199 acres	19	28	23	9	9	9
3 Other non-manual workers, and farmers with 50-99 acres	16	4	11	17	16	17
4 Skilled manual workers and farmers with 30 – 49 acres	24	10	18	18	15	17
5 Semi-skilled workers and farmers with less than 30 acres	13	23	17	19	24	20
6 Unskilled manual workers	15	31	23	26	30	27

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286

North / South differences: There were no overall North/South differences in social class. A significant relationship was found between age group and social class in the RoI ($p < .001$) but not NI. As can be seen in Table 3.9a, a higher proportion of RoI participants aged 75+ years were in the unskilled manual social class group, compared to RoI participants in younger age groups. A significant relationship was also found between gender and social class in the RoI ($p < .001$) but not NI. For instance, 5% of RoI men were in the unskilled manual group, but 37% of RoI women were in this category. In NI in contrast, 24% of men and 29% of women were in this occupational class. Finally, there was no significant relationship between living alone and social class either in the RoI or NI.

Table 3.9a: Social class by policy region (RoI & NI) and age group

Social class group ^a	Republic of Ireland		Northern Ireland	
	≤74 yrs	75+ yrs	≤74 yrs	75+ yrs
	%	%	%	%
0 Unclassified	1	1	4	4
1 Higher professional including managers and farmers with 200+ acres	9	6	5	6
2 Lower professional, proprietors and farmers with 100-199 acres	22	25	10	7
3 Other non-manual workers, and farmers with 50-99 acres	11	10	17	16
4 Skilled manual workers and farmers with 30-49 acres	22	12	18	17
5 Semi-skilled workers and farmers with less than 30 acres	16	19	17	25
6 Unskilled manual workers	19	27	29	25

Note: RoI n = 1,053 (≤74 yrs n = 605, 75+ years n = 448) NI n = 1000 (≤74 yrs n = 491, 75+ years n = 509);
^awithin RoI policy region age differences where $p < .05$

Table 3.9b: Social class by policy region (RoI & NI) and gender

Social class group ^{ab}	Republic of Ireland		Northern Ireland	
	Men	Women	Men	Women
	%	%	%	%
0 Unclassified	1	1	2	5
1 Higher professional including managers and farmers with 200+ acres	14	3	9	3
2 Lower professional, proprietors and farmers with 100-199 acres	26	21	7	10
3 Other non-manual workers, and farmers with 50-99 acres	8	13	11	21
4 Skilled manual workers and farmers with 30-49 acres	26	11	32	7
5 Semi-skilled workers and farmers with less than 30 acres	20	15	15	24
6 Unskilled manual workers	5	37	24	29

Note: RoI n = 1,053 (men n = 493, women n = 560) NI n = 1000 (men n = 389, women n = 611);^awithin RoI policy region gender differences where $p < .05$; ^bwithin NI policy region gender differences where $p < .05$.

3.5 Urban / Rural differences in demographic factors

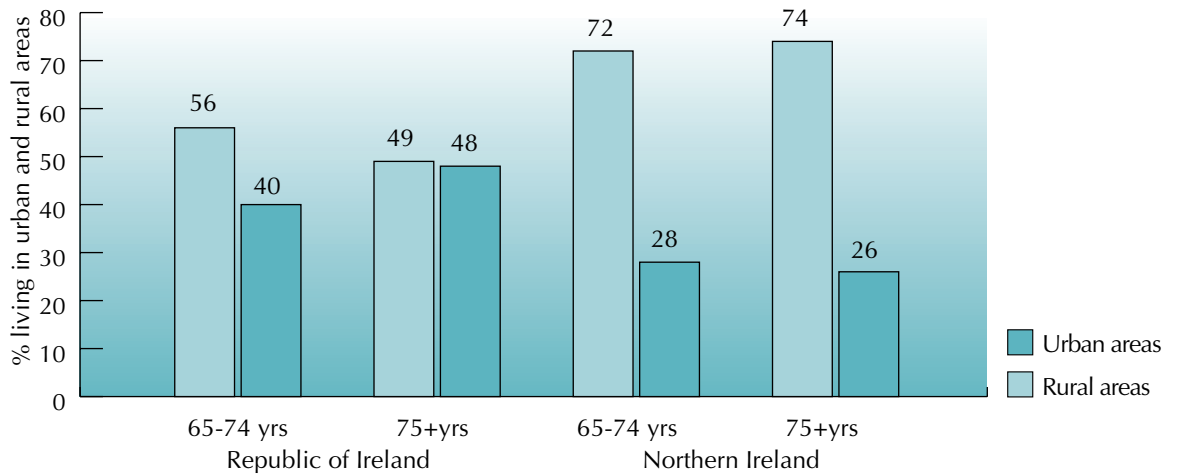
This section repeats the sequence of North/South analyses by considering urban/rural comparisons within the sample.

3.5.1 Age and gender distribution

Summary information on age and gender for sample groups has been documented in Table 3.1.

Urban / Rural differences: Participants in NI were significantly more likely than those in the RoI to live in urban areas ($p < .001$); in NI 73% of participants lived in urban areas, while in the RoI this figure was just 53%. There were no gender differences in either geographic region but, in the RoI only, a significant urban / rural difference in age group was found ($p = .04$), i.e. in the RoI those over age 75 years were significantly more likely to live in rural rather than urban areas (see Figure 3.2).

Figure 3.2: Geographic location by age, gender and policy region (%)



3.5.2 Marital status

Urban / Rural differences: 43% of those in each geographic region reported being married or in marital type relationships; this difference was not significant, nor were there significant urban / rural differences when this analysis was run separately for participants in the RoI and then NI. Significant age and gender differences on this measure were found; women and those aged 75 years or over were less likely to report having partners (both $p < .001$). For instance, while 60% of men reported having partners, 30% of women did so. Similarly, while 55% of those aged 74 years or less reported having partners, just 28% of those over 75 years did so (see also Table 3.2).

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An urban / rural difference in widowhood was only found for participants in the RoI, where a greater proportion in rural areas were widows/widowers compared to those from urban areas (42% vs. 34%, $p = .01$). Again, age and gender differences were found in widowhood; women were more likely to be widowed than men (55% vs. 20%, $p < .001$), as were adults aged 75 years or more in comparison with those aged 74 years or less (57% vs. 28%, $p < .001$). The fact that women were more likely to be widowed may be due in part to the greater longevity of women over men. Census data from the RoI in 2002 and NI in 2001 corroborate this (57% (RoI) and 65% (NI) of the population over the age of 65 were women).

3.5.3 Living arrangements or household composition

3.5.3.1 Living alone

Urban / Rural differences: Forty-five per cent of all participants in urban areas lived alone, as did 38% of those living in rural areas; this difference was statistically significant ($p = .02$). Further analysis in each policy region, however indicated that this urban/rural difference was significant in NI ($p = .03$) but not in the RoI (see Table 3.3), i.e. urban participants in NI were more likely to live alone than were those in rural areas (59% vs. 51%). In both regions, women were significantly more likely to live alone, as were adults of 75 years or more (all $ps < .001$, see Table 3.10).

Table 3.10: Living alone by geographic region (urban and rural), gender and age group

Living Alone	Urban areas ^{ab}	Rural areas ^{ab}
	%	%
Age:		
≤74 yrs	36	34
75+ yrs	57	47
Gender:		
Men	33	29
Women	53	47

Note: urban areas $n = 1,265$, rural areas $n = 756$; ^awithin geographic region age differences where $p < .05$; ^bwithin geographic region gender differences where $p < .05$

3.5.3.2 Living with spouse only

Urban / Rural differences: An almost identical proportion of urban and rural participants lived in households with their spouses only (32% vs. 31%). In both geographic regions, men were more likely to live with spouses only; in urban areas 44% of men lived with spouses only, as did 22% of women. The corresponding figures for those in rural areas were 44% and 20% respectively. In both urban and rural areas, adults aged 75 years or more were significantly less likely to live with spouses only; in urban areas, 40% of those aged 74 years or less lived with spouses only, while 19% of those aged 75 years or more did so ($p < .001$). The corresponding figures for those in rural areas were 38% and 22% respectively ($p < .001$).

3.5.3.3 Living in intergenerational households

Urban / Rural differences: Nineteen per cent of those in urban areas and 25% of those in rural areas lived in intergenerational families; this difference was significant ($p = .006$). Further analysis indicated that this urban / rural difference was significant for participants in NI ($p = .004$) but not the RoI, i.e. in NI, rural participants were significantly more likely to live in intergenerational families than were their urban counterparts (see Table 3.3). Age differences in intergenerational households were also found for urban ($p < .05$) and rural ($p < .05$) areas such that in urban areas, participants who lived in intergenerational families were more likely to be 74 years or younger, while in rural areas participants living in intergenerational families were more likely to be older (see Table 3.11). Furthermore, gender differences in intergenerational households were found for rural ($p = .01$) but not urban areas, i.e. in rural areas, women were more likely than men to live in intergenerational households (see Table 3.11).

Table 3.11: Living in intergenerational families by geographic region (urban vs. rural), age group and gender

Living Alone	Urban areas ^a	Rural areas ^{ab}
	%	%
Age:		
≤74 yrs	22	22
75+ yrs	16	29
Gender:		
Men	19	21
Women	19	28

Note: urban areas $n = 1,265$, rural areas $n = 756$; ^awithin geographic region age differences where $p < .05$; ^bwithin geographic region gender differences where $p < .05$.

3.5.4 Socio-economic status

Socio-economic status was determined by education, household income and social class.

3.5.4.1 Education

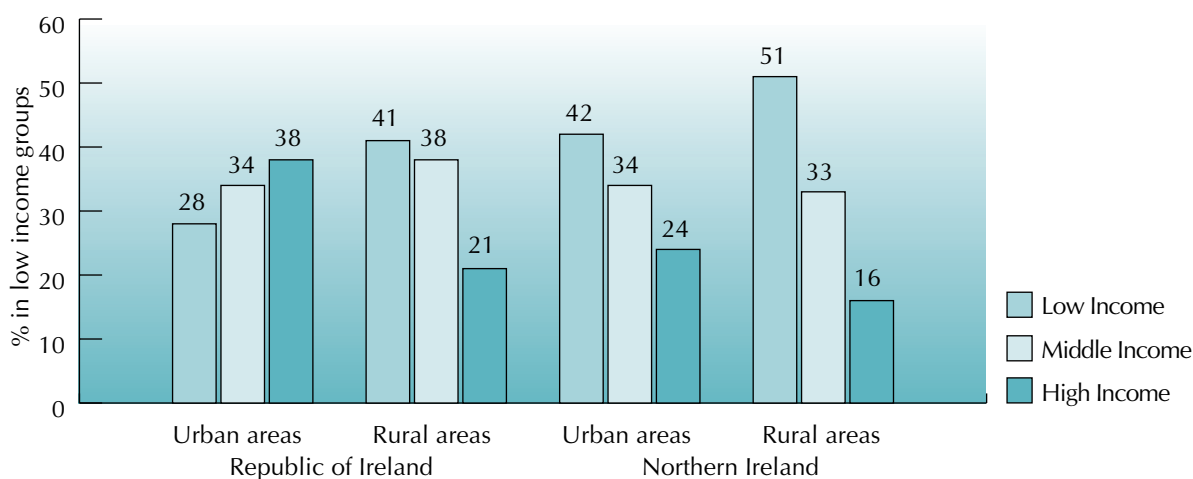
Urban / Rural differences: 49% of participants in urban areas, and 24% of those from rural areas had received a post-primary level of education; this urban-rural difference was significant ($p < .001$). Significant relationships were found between education and geographic region in both the RoI and NI (both $ps < .001$); in the RoI 61% of urban participants received a post-primary education, while just 25% of rural participants did so. In NI, the figures were 40% and 22% respectively.

In both urban and rural areas, participants aged 74 years or less were significantly more likely to have received a post-primary level of education (both p s < .001); in the RoI, 55% of those aged 74 or less had received a post-primary level of education, while 40% of those aged 75 years or more did so. The corresponding figures for NI were 32% and 14% respectively. Gender differences in education levels were also found for participants in rural areas only; for participants in rural areas, women were more likely than men to have received a post-primary level of education (29% vs. 17%, $p = .0001$). There were no gender differences in levels of education among participants in urban areas, with 48% of men and 49% of women receiving a post-primary level of education.

3.5.4.2 Household income

Urban / Rural differences: When the samples were combined, no significant urban / rural difference in income was found. When this analysis was repeated separately for participants in the RoI and then NI, a significant urban / rural income difference was found only in NI ($p = .01$) with those in urban areas being more affluent in comparison to their rural counterparts (see Figure 3.3).

Figure 3.3: Income by age group, geographic and policy regions (%)



Income levels among vulnerable groups in urban and rural areas

In addition to shedding light on the experience of ageing in urban and rural areas, analyses of data from possible vulnerable groups can facilitate in health and social service planning. Age group differences in income were found with participants aged 75+ years being more likely to be in the lower income groups (see Table 3.12a and 3.12b, rural areas $p = .03$, urban areas $p = .07$). In both urban and rural areas, those living alone were also more likely to be in the lower income groups (both p s < .005), but those who were functionally impaired were not any more likely to be in the lower income groups in either region.

Table 3.12a: Income levels among vulnerable groups in urban areas

Income level	Age Group ^a		Living alone ^a		HAQ	
	≤74 yrs	75+ yrs.	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Low income group	33	43	40	52	34	41
- Middle income group	34	35	41	28	34	35
- High income group	33	22	19	20	32	24

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 573; High HAQ: n = 211 (moderate/severe disabilities), Low HAQ: n = 1,053 (no/few disabilities), ^aIncome level differences where p < .05

Table 3.12b: Income levels among vulnerable groups in rural areas

Income level	Age Group ^a		Living alone ^a		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Low income group	42	53	29	43	43	49
- Middle income group	37	34	39	28	37	31
- High income group	21	13	32	29	20	20

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 302; High HAQ: n = 141 (moderate/severe disabilities); Low HAQ: n = 613 (no/few disabilities), ^aIncome level differences where p < .05

3.5.4.3 Social class

Urban / rural differences: Urban / rural differences in social class were not found, either for the sample as a whole or when re-running urban / rural analyses separately for participants in the RoI and then NI.

The next chapter examines indices of health status and health behaviour among the sample of older Irish adults.

Chapter Four:
Health status and health behaviour

This chapter reports on the health status and behaviour of older adults in the Republic of Ireland (RoI) and Northern Ireland (NI); the second half of the chapter reports similar data for participants in both urban and rural areas. NI participants reported lower functional capacity and more negative self-rated health than did those in the RoI. RoI participants were more likely to report availing of social support from spouses, relatives and neighbours. The health status of participants in urban and rural areas was similar, but rural participants experienced greater difficulties attending social events outside their homes. Levels of loneliness were similar in each policy and geographic region, with about one in six reporting being quite often or often lonely. In terms of health promotion, almost one in five smoked in both regions with smokers in NI being more likely than those in the RoI to be trying to quit smoking. Conversely, RoI participants were more likely to believe that they exercised enough. In terms of preventive health NI participants were more likely than those in the RoI to have received the flu injection in the previous winter. Few differences were found between the samples in terms of blood or cholesterol monitoring by GPs.

4.1 Health and functional ability

4.1.1 Activities of daily living

Functional ability was measured using the Stanford Health Assessment Questionnaire (HAQ). Participants were asked to rate their current ability to perform seventeen tasks within eight activity categories; participants were also asked whether they usually needed help to perform these activities. They were then categorised into one of four groups based on their ability to maintain independence in activities of daily living (ADL); categories ranged from 0 (person is completely self-sufficient) to 3 (person is severely disabled) (see Bruce & Fries 2003). In the analyses to follow group scores are examined along with scores on specific subscales.

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4.1.1.1 HAQ scores

Contrary to ageist stereotypes that depict older people as being helpless or dependent, the majority of participants (67%) reported being self-sufficient with good functional ability and no impairments or difficulties in activities of daily living. A further 14% were self-sufficient but had some minor difficulties. Nine per cent of participants had some major difficulties with activities of daily living, while 7% were severely disabled.

North / South differences: Table 4.1 shows the distribution of HAQ scores for RoI & NI participants. Levels of functional ability were significantly higher in the RoI compared with NI ($p < .001$). For instance, in the RoI 81% of participants indicated that they were completely self-sufficient, while the corresponding figure for participants in NI was 61%. In contrast, 4% of participants in the RoI and 11% in NI reported experiencing severe impairment.

Table 4.1: Functional ability - Health Assessment Questionnaire (HAQ) scores by policy (RoI & NI) and geographic (urban & rural) regions

HAQ Score ^a	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
0 (self-sufficient)	82	79	81	63	57	61
1 (mostly minor difficulties)	10	9	10	15	18	16
2 (some major difficulties with ADL)	5	7	6	12	13	12
3 (severe impairment)	3	5	4	10	12	11

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^a North/South differences where $p < .05$

Table 4.2 shows the percentage of those reporting difficulty by policy and gender; women had lower levels of functional ability, particularly in NI. In fact, older women (75 years +) in both regions were the least functionally able (RoI $p = .01$; NI $p < .001$, see also Figure 4.1).

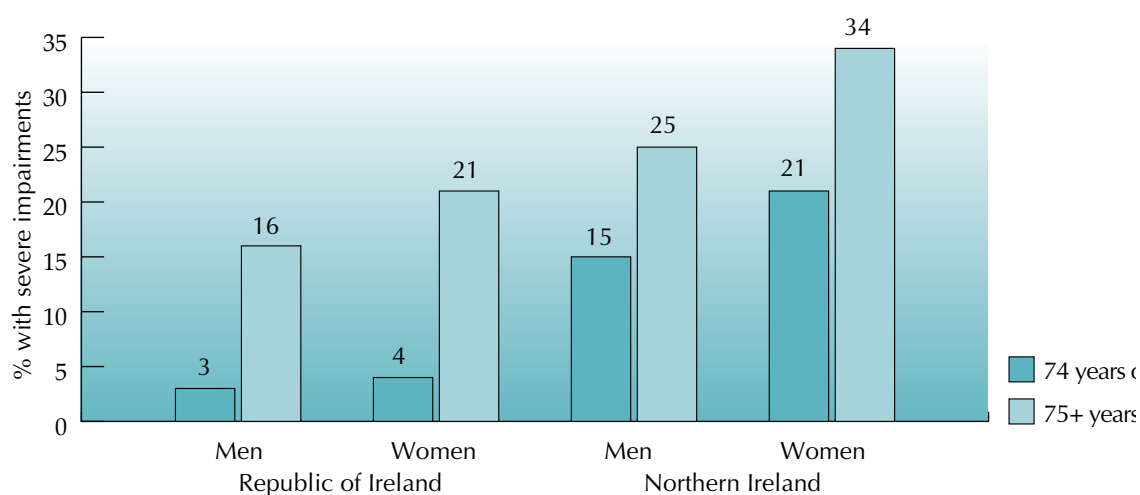
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Table 4.2: Functional ability - Health Assessment Questionnaire (HAQ) scores by policy region (RoI & NI) and gender

HAQ Groups	Republic of Ireland		Northern Ireland	
	Men	Women	Men	Women
	%	%	%	%
0 (self-sufficient)	85	77	70	54
1 (mostly minor difficulties)	7	11	12	19
2 (some major difficulties with ADL)	5	7	10	14
3 (severe impairment)	3	5	8	13

Note: RoI n = 1,053 (men n = 493; women n = 560); NI n = 1000 (men n = 389; women n = 611); 0 = HAQ score of 0-0.5 indicating self-sufficiency; 1 = HAQ score of 0.51-1.25 indicating mostly minor difficulties with ADL; 2 = HAQ score of 1.26-2.0 indicating major difficulties with ADL; 3 = HAQ score of 2.01-3.0 indicating severe impairment.

Figure 4.1: Moderate and severe impairment by gender, age and policy region (RoI & NI)



Age and social class differences in HAQ scores were also examined (see Table 4.3). A greater proportion of those aged ≤ 74 years were self-sufficient. In NI, a significant relationship was found between HAQ and social class ($p = .02$); 68% of those in higher social class groups were in the most functionally able group (group 0) in contrast to 57% of those in lower social class groups. No relationship was found between functional ability and social class in the RoI, e.g. 82% of participants in the higher social classes and 80% in lower social classes were in the most functionally able group.

Table 4.3: Functional ability - Health Assessment Questionnaire (HAQ) scores by policy region (RoI & NI) and age

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HAQ Groups	Republic of Ireland		Northern Ireland	
	≤ 74 yrs	75+ yrs	≤ 74 yrs	75+ yrs
	%	%	%	%
0 (self-sufficient)	93	64	70	49
1 (mostly minor difficulties)	4	17	12	22
2 (some major difficulties with ADL)	2	12	11	14
3 (severe impairment)	1	7	7	15

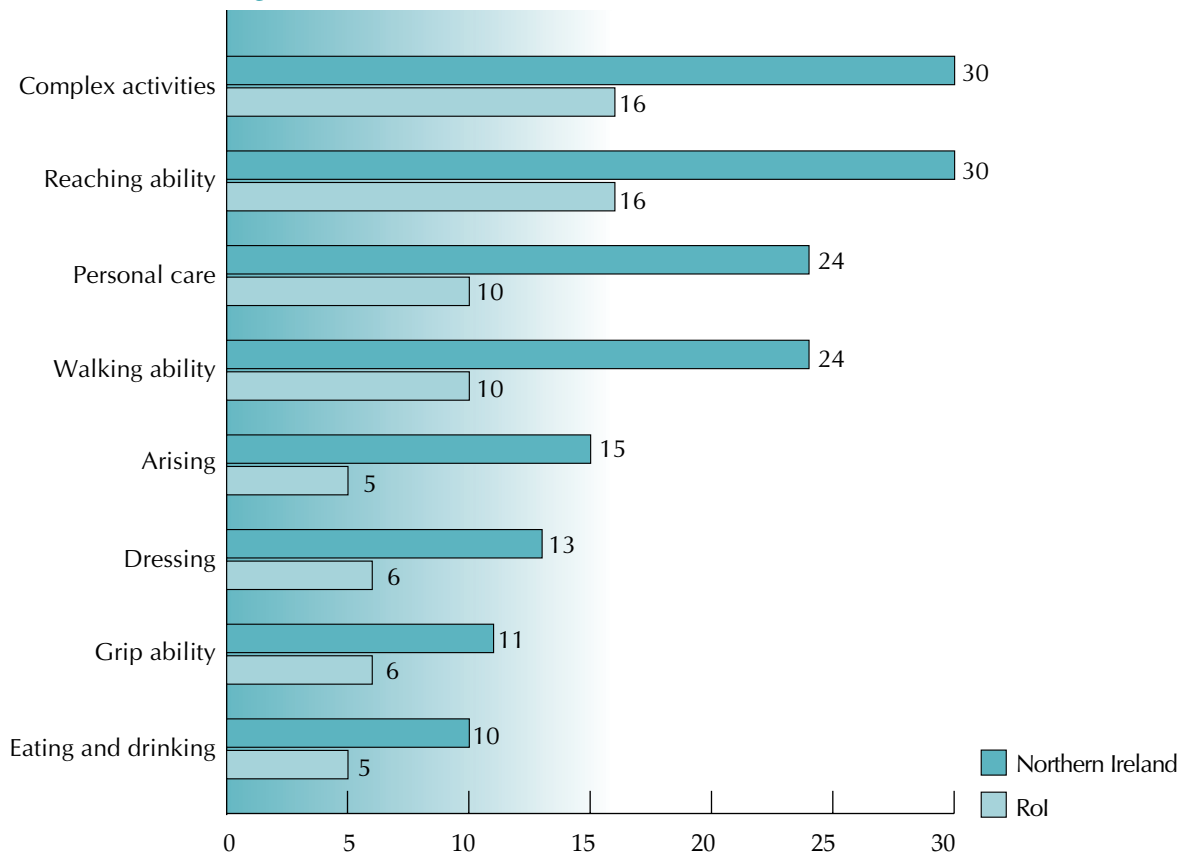
Note: RoI $n = 1,053$ (≤ 74 yrs $n = 605$; 75+ yrs $n = 448$); NI $n = 1000$ (≤ 74 yrs $n = 491$; 75+ yrs $n = 509$); 0 = HAQ score of 0-0.5 indicating self-sufficiency; 1 = HAQ score of 0.51-1.25 indicating mostly minor difficulties with ADL; 2 = HAQ score of 1.26-2.0 indicating major difficulties with ADL; 3 = HAQ score of 2.01-3.0 indicating severe impairment.

4.1.1.2 HAQ tasks

Each of the tasks within the eight HAQ categories was also examined individually, to understand better the types of activities which were difficult for older people.

North / South differences: RoI participants experienced significantly fewer difficulties in all activities. For instance, while reaching was very difficult or impossible for 16% of the RoI sample, this was the case for 30% of the NI sample ($p < .001$). Similarly, 16% in the RoI vs. 30% in NI found complex activities like shopping very difficult/impossible ($p < .001$). The activities deemed most difficult for participants in both policy regions were complex activities (such as shopping), reaching, personal care and walking (see Figure 4.2 and Appendix 2, Table A4.1).

Figure 4.2: Moderate and severe impairment by gender, age and policy region (RoI & NI)



Gender differences in difficulties with daily living activities were examined for each policy region. A greater proportion of women had difficulties, especially in NI (see Appendix 2, Table A4.2). Those over age 75 years also had greater difficulties in all key activities. The activities found to be most difficult by older participants and women are similar to those in the overall sample as shown in Figure 4.2.

Social class differences in difficulties with activities of daily living were examined while controlling for the effects of age and gender. In the RoI, no significant relationship was found between any of the key activities of daily living and social class. In NI however, significant social class effects were found for arising ($p < .001$), walking ($p < .001$), reaching ($p < .001$), complex activities such as shopping ($p < .001$), gripping ($p = .01$), dressing ($p = .02$), eating ($p = .03$) and hygiene ($p = .004$). Even when controlling for gender and age, a greater proportion of those in lower social class groups had difficulties in all activities of daily living. For example, while 27% of those in lower social classes had serious difficulties in complex activities such as shopping, this was the case for just 17% of those in higher social classes. Similarly, 25% of those in lower social classes (vs 15% in higher) had difficulties in activities involving reaching.

Functional impairment among possible vulnerable groups

As noted in the previous chapter, older adults are not a homogeneous group so further analyses were carried out examining data for possible vulnerable groups¹. In addition to documenting the experience of ageing, analyses of data from these groups can facilitate in service planning. Significant age group differences were found in both policy regions, with participants aged 75+ years being significantly more likely to have difficulties in all activities of daily living. Specific tasks found either very difficult or impossible to do included complex activities such as shopping, as well as daily activities involving reaching, personal care, and walking. In NI but not the RoI, those living alone also had more difficulties than others in many activities of daily living, particularly complex activities such as shopping, reaching, personal care and walking (see Tables 4.4a and 4.4b).

¹ Vulnerable groups were based on a demographic variable (i.e., those aged 75+ years vs. those aged ≤ 74 years), a social-psychological variable (those living alone vs. all others) and, in later analyses of vulnerable groups, a health status variable (those scoring 2 or 3 on the HAQ which is indicative of moderate to severe impairments in physical ability).

Table 4.4a: Profile of activities found to be difficult or impossible among vulnerable groups in the Republic of Ireland (RoI)

	Age Group		Living Alone	
	≤74 yrs	75+ yrs	No	Yes
	%	%	%	%
Complex activities ^a	6	31	17	16
Reaching ^a	7	27	15	17
Personal care ^a	3	19	11	11
Walking ^a	3	19	9	11
Dressing ^a	2	13	5	7
Arising ^a	2	10	7	6
Gripping ^a	2	13	8	7
Eating/Drinking ^a	2	8	7	4

Note: RoI n = 1,053 (≤74 yrs n = 605; 75+ yrs n = 448); Numbers living alone = 298; ^aAge differences where p < .005

Table 4.4b: Profile of activities found to be difficult or impossible among vulnerable groups in Northern Ireland (NI)

	Age Group		Living Alone	
	≤74 yrs	75+ yrs	No	Yes
	%	%	%	%
Complex activities ^{ab}	21	41	24	35
Reaching ^{ab}	23	39	24	34
Personal care ^{ab}	19	30	18	28
Walking ^{ab}	20	29	17	28
Dressing ^a	10	19	11	15
Arising ^a	12	19	13	17
Gripping ^a	8	15	9	12
Eating/Drinking ^a	8	12	9	10

Note: NI n = 1000 (≤74 yrs n = 491; 75+ yrs n = 509); Numbers living alone = 586; ^aAge differences where p < .005; ^bLiving alone differences where p < .05.

4.1.1.3 Support needed with tasks

This section is concerned with the level of support needed to maintain function necessary for independence and well-being.

North / South differences: North / South differences were found in the level of support received on all activities of daily living ($p < .001$ in all cases), with significantly more older people in NI needing support compared with those in the RoI (see Appendix 2, Table A4.3). Three activities are considered in more detail to reflect the range of activities and their associates. These are complex activities (such as shopping, reaching and picking things up, and dressing).

Complex activities such as shopping necessitated the most support from others in both policy regions. A greater proportion of those aged 75+ years availed of support for complex activities when compared to those aged 65–74 years (RoI 35% vs. 12% respectively; NI 47% vs. 26% respectively). Similarly, a greater proportion of women than men availed of support for complex activities (RoI 24% women vs. 18% men; NI 40% women vs. 29% men). In NI, but not the RoI, participants from lower social class groups were more likely to avail of support from others for complex activities (RoI 23% vs. 20%, $p = .79$; NI 39% vs. 27%, $p = .001$), as were people who had more serious functional impairments (RoI, 23% vs. 20%, NI, 39% vs. 27%). In the RoI, 95% of those with major or severe impairments (HAQ scores 2-3) availed of support from others for complex activities, in contrast to just 18% of others who were self-sufficient or had minor functional impairments. In NI, the corresponding figures were 97% and 28% respectively.

Reaching was another activity that necessitated support by about a fifth of the sample in each policy region. A greater proportion of women than men availed of support for activities involving reaching (RoI 21% women vs. 11% men; NI 26% women vs. 17% men), as did those aged over rather than under 75 years (RoI 17% vs. 4% respectively; NI 27% vs. 19% respectively). In NI, but not the RoI, a greater proportion of participants from lower social class groups availed of support from others for reaching in contrast to those from the higher social class (RoI 9% vs. 9%, NI, 17% vs. 12%). In the RoI, 85% of those with major or severe functional impairments (HAQ scores 2-3) availed of support from others for activities involving reaching, in contrast to just 14% of those with few/no functional impairments. In NI, the corresponding figures were 88% and 15% respectively.

Dressing was also an activity which necessitated support from others, particularly participants in NI. A higher proportion of women than men availed of support to dress (RoI 11% vs. 7% respectively, NI 22% women vs. 16% men), as did those aged over rather than under 75 years (RoI 18% vs. 3% respectively; NI 22% vs. 17% respectively) and those from lower rather than higher social classes in NI (RoI

9% vs. 9% respectively; NI 21% vs. 16% respectively). In both policy regions, a higher proportion of those with major rather than minor functional impairments availed of support for dressing (RoI 95% vs. 6% respectively; NI 80% vs. 12% respectively). Only functional impairment (all p s < .001) was significant in explaining use of support for dressing in both regions. Additionally, age group significantly explained use of support for dressing in the RoI (p < .001) but not NI (p = .36).

4.1.2 Use and need of devices

Participants were asked if they currently used a range of aids or devices to help maintain their independence. Some devices can play a major role in improving quality of life and well-being as participants in the focus groups noted:

I use my stick to put on the lights because I can't reach the light switch, and She has something with a little crunch thing at the end of it that picks up the paper or whatever off the floor.

Devices included in the present survey were walking sticks, Zimmer frames, crutches, wheelchairs and hearing aids.

North / South differences

The proportion of participants in the RoI and NI using the above devices can be seen in Table 4.5. The most commonly used device was a walking stick (19% in RoI, 31% in NI). A minority of participants used a wheelchair (3% of participants in the RoI, 5% in NI) and almost one tenth of participants in the RoI and NI used a hearing aid.

Table 4.5: Use of aids and devices by policy (RoI and NI) and geographic (urban & rural) region

Aid or device	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- Walking stick ^a	15	22	19	29	34	31
-Use of hearing aid ^a	10	6	8	10	11	10
-Walking/Zimmer frame/crutches ^a	6	4	5	13	11	12
- Wheelchair	3	2	3	4	5	5

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05

Walking sticks: A significant North / South difference was found in use of walking sticks ($p = .002$), with RoI participants being significantly less likely to use these when compared to their NI counterparts (see Table 4.5). Gender and social class differences in the use of walking sticks were examined together for participants in both the RoI and NI. There were no gender differences in either policy region. Social class was not significantly related to use of walking sticks in the RoI. In NI however, even when controlling for age and gender, those in lower social classes were significantly more likely than those in higher social classes to use walking sticks (34% vs. 24% respectively, $p=.04$).

Walking/Zimmer frame/crutches: A significant North / South difference in use of frames or crutches was found ($p = .01$) with fewer RoI participants using these compared with those in NI (see Table 4.5). Gender and social class differences in use of walking sticks were examined for participants in both the RoI and NI. Women were more likely than men in both regions to use frames or crutches (RoI 7% vs. 3%, $p = .01$; NI 15% vs. 8%, $p = .001$). In neither region was there any significant relationship between use of frames or crutches and social class.

Wheelchair: Three per cent of RoI participants used wheelchairs, as did 5% of NI participants; even when controlling for known North / South differences in demographic factors, this difference was significant ($p < .001$) (see Table 4.5). Gender and social class differences in use of walking sticks were examined for participants in the RoI and NI. More women than (RoI 3% vs. 2%, NI 6% vs. 4%) as did those in lower and higher social classes used wheelchairs (RoI 2% vs. 3% respectively, NI 5% vs. 3% respectively).

Hearing aids: A significant North/South difference in use of hearing aids was found ($p < .001$), with RoI participants less likely to use these (see Table 4.5). If participants were not using a hearing aid, they were asked if they felt they needed one; 7% of RoI participants and 9% of NI participants responded affirmatively to this question. Controlling for known North / South differences in demographic variables, this difference was significant ($p < .001$). Women were not any more likely than men in either region to use hearing aids (RoI 8% vs. 8%; NI 9% vs. 11%), and no gender differences were found in the proportion who felt they needed a hearing aid (RoI, 8% men vs. 5% of women; NI, 10% men vs. 8% of women). Those from the higher social class group were no more likely to indicate that they used a hearing aid than those in the lower social group (RoI 7% vs. 6% respectively; NI 9% vs. 8% respectively).

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Use of devices among vulnerable groups

Use of devices among vulnerable groups in the RoI and NI can be seen in Tables 4.6a and 4.6b respectively. In both policy regions, those aged 75+ years were more likely than others to use walking sticks, frames or crutches and hearing aids

(all $ps < .005$), but in neither region were they any more than others to use wheelchairs. In NI only, participants living alone were more likely than others to use walking sticks, frames or crutches, and wheelchairs, but not hearing aids. Those with greater functional impairments were more likely than others to use walking sticks, frames and wheelchairs (all $ps < .001$, see Tables 4.6a and 4.6b).

Table 4.6a: Use of devices among vulnerable groups in the Republic of Ireland (RoI)

Use of devices	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Walking stick ^{ab}	8	34	17	20	14	62
- Hearing aid ^{ab}	3	13	7	6	5	19
- Walking/Zimmer frame/crutches ^{ab}	2	9	4	7	2	34
- Wheelchair ^b	2	4	3	2	1	20

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe functional impairments), Low HAQ n = 942 (no/few functional impairments), ^aAge differences in use of devices where $p < .05$, ^bHAQ differences in use of devices where $p < .05$

Table 4.6b: Use of devices among vulnerable groups in Northern Ireland (NI)

Use of devices	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Walking stick ^{abc}	22	42	25	35	19	69
- Hearing aid ^a	6	12	9	8	8	11
- Walking/Zimmer frame/crutches ^{abc}	9	16	8	15	3	41
- Wheelchair ^{bc}	4	6	3	6	1	17

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe functional impairments); Low HAQ n = 752 (no/few functional impairments), ^aAge differences in use of devices where $p < .05$, ^bLiving alone differences in use of devices where $p < .05$, ^cHAQ differences in use of devices where $p < .05$

4.1.3 Perceived health status

Self-assessed health ratings are simple but important health indicators in population settings. For instance, self-assessed health has been found to predict a range of health outcomes, including health care utilisation, morbidity, recovery from illness, and decline in functional ability and mortality (see Benyamini, Leventhal & Leventhal 2003). Surprisingly, little is known about the ways older adults perceive their own health, the factors that can influence those perceptions, or the effect that perceptions of health have on quality of life and well being.

North / South differences

To examine self-assessed or perceived health status, participants were asked a series of questions. They were asked to rate their health currently and to compare it to one year ago. They were also asked what they expected their health to be like one year from now, and how they would rate their own health compared to others their age (see table 4.7). Ratings are presented in Table 4.7.

Table 4.7: Perceived health status by policy (RoI & NI) and geographic (urban & rural) region

Health ratings	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Ratings of health^{ab}						
- Good/excellent	67	62	66	44	42	44
- Fair	25	30	26	35	42	37
- Poor /Very poor	8	8	7	21	16	19
Health compared to year ago^{ab}						
- better/much better	10	5	8	8	9	8
- same	68	76	71	66	66	66
- worse/much worse	22	19	21	26	25	26
Health one year from now^{ac}						
- better/much better	6	2	4	7	8	7
- same	86	88	87	78	82	79
- worse/much worse	8	10	9	15	10	14
Health compared to others of same age						
- Good/Excellent	35	29	33	29	23	27
- Fair	49	51	50	41	40	41
- Poor /Very poor	16	20	17	30	36	32

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth / South differences where p < .05, ^burban / rural differences where p < .05, ^cwithin RoI policy region urban / rural differences where p < .05

Current health: A significant North/South difference was found on ratings of current health ($p < .001$), participants in the RoI rating their current health more positively compared with those in NI (see Table 4.7).

Women were more likely than men to rate their current health negatively in the RoI (RoI $p = .006$) but not in NI; in the RoI 40% of women rated their current health as being fair, poor or very poor, in contrast to just 29% of men. Corresponding figures for NI were 55% and 56% respectively. Participants aged under and over age 75 rated their current health similarly in the RoI, but in NI, those over rather than under age 75+ years rated their current health more positively ($p = .007$); for instance, while 46% of those aged 75+ rated their current health as good or excellent, 42% of those aged 74 years or less did the same. There was no relationship between social class and self-rated health for participants in the RoI or NI. In NI 20% and 17% of those in lower and higher social classes respectively rated their current health as being poor or very poor; the corresponding figures for the RoI were 9% and 7%. People with serious functional impairments (HAQ groups 2-3) had more negative self-ratings of current health compared with those with no/minor impairments (both $ps < .001$).

Health compared to one year ago: A significant North/South difference was found for ratings of health compared to one year previously ($p = .004$). RoI participants rating their health now, relative to a year ago, more positively in comparison to those in NI (see Table 4.7).

Women were not more likely than men to rate their current health negatively in either region; in the RoI 23% of women rated their current health as being somewhat or much worse compared to a year ago, in contrast to 18% of men. Corresponding figures for NI were 25% and 26% respectively. In the RoI ($p = .003$) participants aged 75+ years rated their health relative to a year ago more negatively compared to those aged ≤ 74 years. Corresponding figures for NI were 28% and 23% respectively. There was no relationship between social class and self-rated health relative to a year ago for participants in the RoI or NI. In the RoI 21% and 20% of those in lower and higher social classes respectively rated their current health as being worse relative to a year previously; corresponding figures for NI were 26% and 23%. Participants with serious functional impairments rated their health relative to a year ago more negatively in comparison to those with no/minor impairments (RoI $p < .001$; NI $p < .001$). For instance, of those in the RoI with serious functional impairments (HAQ scores 2-3), 73% indicated their health was somewhat or much worse than a year ago, in contrast to just 18% of those with no/few impairments who reported the same.

Health one year from now: A significant North / South difference was found for expectations one year ahead ($p = .01$). Expectations in the RoI were more positive in comparison to those in NI (see Table 4.7).

Future health expectations differed for those over and under 75 years in the RoI ($p = .007$) but not NI; a greater proportion of RoI participants aged 75+ years expected their health to be somewhat or much worse compared to those aged ≤ 74 years (RoI 15% vs. 5% respectively; NI 16% vs. 12% respectively). There was no relationship between future health expectations and social class in the RoI or in NI; in the RoI 9% from lower and 10% from higher social class groups expected their health to get somewhat or much worse in the year ahead. Corresponding figures for NI were 13% and 15% respectively. People with serious functional impairments held more negative future health expectations in comparison to those with no/minor impairments (RoI $p < .001$; NI $p < .001$). For instance, of those in the RoI with serious functional impairments (HAQ scores 2-3), 53% had pessimistic expectations for their health one year ahead, in contrast to just 8% of those with no/few impairments. The corresponding figures for NI were 41% and 11% respectively.

Health compared to others of the same age: Participants in the RoI rated their health compared to others more positively ($p < .001$, see Table 4.7). There were no gender differences in either region in ratings of health compared to others, but there was a significant effect for age group in NI only (NI $p = .03$); in NI, those over 75 years rated their health more negatively in comparison to others. Health evaluations differed by social class in the RoI but not NI ($p = .009$); in the RoI those from manual or lower social classes rated their health compared to others more negatively than did those from higher or non-manual social classes. In both regions, those with greater functional impairments rated their health more negatively in comparison to others (both $ps < .001$); for instance, while 61% of those with moderate or serious functional impairments rated their health poor or very poor by comparison with others, so too did just 14% of those with no/few impairments. Corresponding figures for those in NI were 70% and 25% respectively.

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4.1.4 Informal networks of support

For many older people, household companions, relatives, neighbours and friends provide an important role in helping them maintain their independence. For some, this informal care may be a vital support, without which they would be unable to continue to live in the community. Participants were asked about support they received from informal sources which was necessary to maintain their independence on a regular basis. Participants were then asked how often they received this help from a predetermined list of potential helpers.

4.1.4.1 Sources and frequency of support

Participants were asked about whether they received help necessary to maintain their independence on a regular basis from a number of people or groups: spouses/partners, other relatives in the household, other relatives living elsewhere, neighbours and voluntary organisations. If they received such help, participants were also asked how often they received it, ranging from once weekly or less, to continuously, including at night. It will be shown that the most frequent support came from partners or spouses and other relatives in the household with frequent support referring to support received continuously including at night and most of the day.

North / South differences

Support from spouses and partners: RoI participants were more likely than those in NI to avail of support from spouses (21% vs. 14%, $p = .01$) (see Table 4.8). Furthermore when support was given, it tended to be given continuously. For instance, of those who did receive support from partners/spouses, the majority (64% in the RoI and 83% in NI) received this support frequently, including at night.

Table 4.8: Support provision by policy (RoI & NI) and geographic (urban & rural) region

Support	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Support provided by:						
- Spouse/Partner ^a	24	18	21	14	15	14
- Other relatives in household ^a	19	22	21	10	16	11
- Other relative living elsewhere ^a	24	30	27	29	35	31
- Neighbour ^{abc}	18	5	13	7	15	10
- Voluntary organisations	3	1	2	3	4	3

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth / South differences where $p < .05$, ^bacross policy regions urban / rural differences where $p < .05$, ^c within RoI policy region urban / rural differences where $p < .05$

In each policy region, men were more likely than women to avail of support from spouses (RoI 43% vs. 28%, $p < .001$; NI 28% vs. 16%, $p < .001$), as were adults over rather than under age 75 years in the RoI (RoI 43% vs. 33%, $p = .003$; NI 17% vs. 24%, $p = .03$). There was no relationship between social class and use of support from spouses in either policy region; in the RoI 35-36% of those from lower and higher social class groups respectively availed of support from spouses necessary to maintain independence; the corresponding figures for NI were 21%

and 22%. In the RoI, 77% of participants with major functional impairments (HAQ scores of 2-3) availed of support from partners, in contrast to just 35% of those with no/few impairments (HAQ scores of 0-1, $p = .01$). In NI, the figures were 34% and 20% respectively ($p = .009$).

Support from relatives in household: 21% in the RoI and 11% in NI received support from relatives in the household that was necessary to maintain their independence (see Table 4.8); a further 26% and 25% in the RoI and NI respectively indicated this question was not relevant to them. Analyses indicated that RoI participants were more likely than those in NI to avail of this support ($p = .005$). However, there was no statistical North/South difference for frequency of support accessed from relatives in the household, i.e., 48% of RoI and 58% of NI participants who availed of support, did so frequently, including at night.

In NI only, women were more likely than men to avail of support from others in their households (NI 18% vs. 11%, $p = .01$; RoI 32% vs. 24%) as were adults over rather than under age 75 years in the RoI (RoI 41% vs. 19%, $p < .001$; NI 19% vs. 12% respectively). There was no relationship between social class and use of support from others in the household in either policy region. In the RoI, 85% of participants with major functional impairments (HAQ scores 2-3) availed of support from household members, in contrast to just 26% of those with no/few impairments (HAQ scores 0-1, $p = .001$). In NI, the figures were 40% and 12% respectively ($p < .001$).

Support from neighbours: 13% of those in the RoI and 10% of all those in NI were receiving support from neighbours necessary to maintain independence (see Table 4.8); a further 11% and 5% in each area respectively indicated this question was not relevant to them. Participants in the RoI were significantly more likely than those in NI to avail of support ($p < .001$). A small but significant North/South difference was also found for frequency of support received from neighbours ($p = .05$), with RoI participants who availed of support from neighbours doing so less frequently in comparison to their counterparts in NI (5% vs. 14%).

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Age and gender were not related to receipt of support from neighbours in the RoI or NI, however in NI, those aged 75+ years were significantly more likely to avail of support from neighbours compared to those aged 74 years or less (RoI 17% vs. 12%; NI 14% vs. 6% respectively, $p = .006$). In NI only, those from lower rather than higher social class groups were more likely to avail of support from neighbours (12% vs. 5%, $p = .009$). Although not significant, a greater proportion of participants with functional impairments availed of support from neighbours (11 and 22% in the RoI and NI respectively) in contrast to those with no/few impairments (8 and 11% in the RoI and NI respectively).

Support from voluntary organisations: Similar proportions (2% of all participants from the RoI and 3% from NI) indicated that they received support from voluntary organisations necessary to maintain their independence (see Table 4.8); a further 15% and 5% in each area respectively indicated this question was not relevant to them. There was a North/South difference found for frequency of support from voluntary organisations ($p = .001$); of those who did avail of support from voluntary organisations, RoI participants tended to do so less frequently by comparison with those in NI, i.e., 22% of those in NI and just 5% of those in the RoI tended to avail frequently of support from voluntary organisations, including support either most of the day or at night.

Age, gender or social class differences in the proportions of people availing of support from voluntary organisations were not found for participants in either the RoI or NI. Furthermore, there was no relationship between functional ability and use of voluntary services in either region.

4.1.5 Care-giving

Understanding the experiences of carers is important because carers can face physical, emotional, social and financial problems as a consequence of their role (Travers, 1996) and older carers may be at particular risk of depression and other psychiatric problems (Livingston, 1996). When administering this question, care-giving was defined to exclude child minding for adult children or others, because in these instances the main caregiving responsibilities were seen to lie with others. Twelve per cent of the total sample were caregivers, i.e. taking the main responsibility for the care of another individual, including taking responsibility as appropriate for major decisions relevant to that individual.

North / South differences: Eight per cent of the sample in the RoI were caregivers, as were 17% of those in NI ($p < .001$, see Table 4.9).

Table 4.9: Provision of care to others by policy (RoI & NI) and geographic (urban & rural) region, gender, marital status and household composition

Participants Providing care:	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Whole sample ^{abc}	6	9	8	20	10	17
Gender: ^b						
- Men	4	6	5	23	8	19
- Women	7	12	10	17	10	15
Marital status:						
- Single	0	10	5	28	6	21
- Married	8	14	11	23	13	20
- Separated/Divorced	-	-	-	19	16	18
- Widowed	4	5	4	16	7	13
Household composition:						
- live alone	2	2	2	18	4	14
- live with spouse only	6	13	9	24	13	21
- live in intergenerational families	7	13	10	23	19	22

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where $p < .05$, ^bacross policy region urban / rural differences where $p < .05$, ^cwithin NI policy region urban / rural differences where $p < .05$

Age was significantly related to being a caregiver in the RoI ($p = .005$) but not NI; in the RoI 4% of those over 75 years were taking the main caring responsibility for others in contrast to 10% of those aged ≤ 74 years. The corresponding proportions in NI were 17% and 17% respectively. While a higher proportion of carers were women (71% in RoI and 54% in NI) men in NI were more likely to be carers than men in the RoI. In terms of marital status, in the RoI married people were most likely to be carers (11%); in NI however, a similar proportion of single, married and separated/divorced participants (18-21%) had taken on caregiving responsibilities. Most carers were living with either spouses only or in intergenerational families (see Table 4.9).

Caregiving was not associated in either policy region with social class or functional impairments; however 4% and 6% of those with moderate to serious impairments in the RoI and NI respectively (HAQ scores of 2-3) had taken the main responsibility of caring for another person. Such participants may need additional resources and support.

4.2 Psychological health

It is important to assess the psychological wellbeing of respondents in a community type survey. Two concepts – depression and morale – were assessed in this study. Rates of depression are believed to be less frequent in later life compared to earlier in the life course (Charles, Reynolds & Gatz 2001), but little information is available about rates of depression on the island of Ireland. This question is especially important given that depression can impair quality of life among older people and have major consequences for morbidity and mortality (Blazer 2003). Positive health, as measured by morale, was also examined given that psychological health is not solely the absence of pathology (Seligman 2002).

4.2.1 Depression

The Hospital Anxiety and Depression Scales (HADS) provides a useful screening scale to distinguish three levels of depression (normal, borderline and significant or depressed). Scores in the borderline range may be interpreted as meaning that the person is at risk of developing the disorder, while scores that reach significant levels suggest that the person may meet the criteria for diagnosis of the disorder and require a professional formal assessment.²

North / South differences: North / South differences on depression were not found. As can be seen in Table 4.10, a majority in both policy regions were found not to be depressed (RoI: 89%, NI: 78%). Two per cent and 8% of participants in the RoI and NI respectively, had scores on the HADS which were indicative of significant depression; a further 19% and 14% respectively had scores which suggested borderline levels of depression. Gender and social class were unrelated to depression in both regions.

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Table 4.10: Ratings of depression with the Hospital Anxiety and Depression Scale (HADS) by policy (RoI & NI) and geographic (urban & rural) region

Level of depression	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- None	90	88	89	78	78	
- Borderline	8	9	9	13	14	14
- Clinical depression	3	2	2	8	8	8

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286

² Depression scores are not available for the small number of cases where interviews were completed by proxy.

Depression and use of counselling services

Of those who were indicated as borderline or significantly depressed on the HADS, just 3% had availed of counselling services. Although those who were depressed were more likely to receive counselling services than were others ($p = .002$), it was nevertheless surprising that use of counselling services among this group was so small. There are many possible explanations. Further analysis was carried out to consider factors that might explain uptake in counselling services. Possible predictor variables were age, gender, income, marital status, and social class. Only social class was significant ($p = .05$): those in higher social classes being more likely to avail of counselling services than others.

Depression among vulnerable groups

Significant relationships were found between age group and depression. In both policy regions, participants aged 75 years or older were more likely than others to be depressed; for instance in the RoI 10% of those aged 75+ years were clinically depressed in contrast to just 6% of all others. Corresponding figures for NI were 10% and 6% respectively. Living alone was also significantly associated with depression, but in NI only ($p < .05$) (see Tables 4.11a and 4.11b).

Those with greater functional impairments were more likely than others to be depressed in both policy regions (both $ps < .001$). For instance, in the RoI 39% of participants who had severe functional impairments were classified as being significantly depressed, in contrast to just 2% of all others. A similar pattern emerged for NI, 23% of participants with moderate to severe functional impairments were classified as being clinically depressed, in contrast to just 2% of those with no/few impairments.

Table 4.11a: Ratings of depression with the Hospital Anxiety and Depression Scale (HADS) among vulnerable groups in the Republic of Ireland (RoI)

Level of depression ^{ab}	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
- None	89	74	84	82	89	29
- Borderline	8	16	11	13	9	32
- Clinical depression	3	10	5	5	2	39

Note: 74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe functional impairments), Low HAQ n = 942 (no/few functional impairments), ^aAge differences where $p < .05$; ^bHAQ differences where $p < .05$

Table 4.11b: Ratings of depression with the Hospital Anxiety and Depression Scale (HADS) among vulnerable groups in Northern Ireland (NI)

Level of depression ^{abc}	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
- None	83	73	86	73	86	51
- Borderline	11	17	8	17	10	26
- Clinical depression	6	10	6	10	4	23

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe functional impairments); Low HAQ n = 752 (no/few functional impairments), ^aAge differences where $p < .05$; ^bLiving alone differences where $p < .05$; ^c HAQ difference where $p < .05$

4.2.2 Morale

A measure of morale was used to complement scores on the HADS and to consider positive aspects of psychological functioning and health (as distinct from the absence of pathology). These were based on items from a questionnaire used in the 1993 study on Health and Autonomy in the Over 65s in Ireland (Fahey & Murray, 1994). Items included: 'I often find that I am bored or have time on my hands that I don't know how to fill' and 'I feel I still contribute to my community and society in general as much as I would like to do'. Participants responded to these items on a five point scale from strongly agree to strongly disagree. Participants were then grouped into three categories based on the summed scores from these items: those with low, moderate and high levels of morale (see Table 4.12).

Table 4.12: Ratings of morale by policy (RoI & NI) and geographic (urban & rural) region

Morale	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
- low	4	3	4	5	6	6
- moderate	16	22	19	23	21	22
- high	80	75	77	72	73	72

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286

North / South differences: No significant North / South effect was found for levels of morale. Seventy per cent of participants in the RoI and 64% in NI agreed with the statement 'I feel I still contribute to my community and society as much as I would like to'. Conversely, 19% in RoI and 23% in NI disagreed with this statement. Similarly, 16% of participants in the RoI and 23% of those in NI agreed with the statement 'I often find that I am bored or have time on my hands that I don't know how to fill', while 76% (RoI) and 69% (NI) disagreed.

There were no gender differences in levels of morale in either policy region, but in the RoI morale was lower among participants over age 75 years and those in lower SES groups. Better physical health was also associated with higher levels of morale ($p < .05$). While 78% of RoI participants with no/few physical impairments enjoyed high levels of morale, just 22% of those with major impairments did the same. Corresponding figures for NI were 76% and 36% respectively.

4.3 Social contact and support

Social isolation or a lack of social support can significantly impair quality of life and wellbeing for older people. This might especially be the case for adults living in rural areas, who might also live alone or who have limitations in social activity because of mobility problems. The issue of social contact and support came to the fore during the earlier focus groups with older adults. Participants made several comments and statements that highlighted the important role that other people played in determining health and wellbeing:

*Well the way I look at it, if I can get out and meet people it keeps you fit in mind and body,
and
It's very important (to get out); people are more important in this world than anything else.*

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4.3.1 Social contact

Participants were asked about the level of difficulty they had in attending events outside their homes (e.g., community or social events), and visiting friends or family in their homes.

North / South differences: The majority of participants in the RoI and NI did not have difficulty in attending events or family gatherings (Table 4.13). However, 12% of participants in the RoI and 24% of participants in NI reported that it was impossible for them to attend events outside their homes. Furthermore, 10% of participants in the RoI and 15% of those in NI found it very difficult or impossible to visit friends or family in their homes. These differences were significant, i.e. participants in the RoI were less likely than their NI counterparts to report having difficulties either attending events outside their homes ($p < .001$), or visiting friends in their homes ($p < .001$).

Table 4.13: Difficulties with social contact by policy (RoI & NI) and geographic (urban & rural) region

Level of depression	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Difficulty in attending events outside the home ^a						
- No difficulty	83	76	78	58	60	58
- Some difficulty	7	12	11	19	14	18
- Very difficult/impossible	10	12	11	23	26	24
Difficulty in visiting friends or family in their homes ^a						
- No difficulty	84	77	81	65	68	66
- Some difficulty	7	11	9	20	18	19
- Very difficult/impossible	9	12	10	15	14	15

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05

Gender differences in difficulties with social contact were found in both policy regions (p < .02). Women were significantly more likely than men to report having much difficulty in attending events outside their homes (RoI 14% vs. 7%; NI 26% vs. 19%). In NI, but not the RoI, participants in the lower social groups were more likely than those in the higher groups to report having much difficulty in attending events outside their homes (RoI 12% vs. 10% p = .82; NI 26% vs. 17%, p = .006).

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Social contact among vulnerable groups

In both regions, participants aged 75+ years were more likely than their younger counterparts to have difficulties in attending events outside their homes (all ps < .001). For instance, while 19% of RoI participants aged 75+ years found attending events outside their homes as very difficult or impossible (this figure rose to 29% for those aged 80+ years) this was the case for just 5% of those aged 65-74 years. In NI but not in the RoI, those living alone had more difficulties in attending events outside their homes, or visiting friends and family in their homes. Social contact outside the home was very difficult or impossible for more vulnerable participants in both policy regions (all ps < .001, see Tables 4.14a and 4.14b).

Table 4.14a: Difficulties with social contact among vulnerable groups in the Republic of Ireland (RoI)

	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
Difficulty in attending events outside home ^{ab}						
- Very difficult/impossible	5	19	11	11	5	71
Difficulty in visiting friends or family in their homes ^{ab}						
- Very difficult/impossible	5	17	9	9	4	66

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe functional impairments), Low HAQ n = 942 (no/few functional impairments);^aAge differences where p < .05, ^bHAQ differences where p < .05

Table 4.14b: Difficulties with social contact among vulnerable groups in Northern Ireland (NI)

	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
Difficulty in attending events outside home ^{abc}						
- Very difficult/impossible	20	28	16	29	10	68
Difficulty in visiting friends or family in their homes ^{abc}						
- Very difficult/impossible	12	20	19	12	5	52

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe functional impairments); Low HAQ n = 752 (no/few functional impairments);^aAge differences where p < .05, ^bLiving alone differences where p < .05, ^cHAQ difference where p < .05

4.3.2 Loneliness

Loneliness can be a substantial risk factor for health problems including depression (Heikkinen & Kauppinen 2004; Jongenelis, Pot, Eisses, Beekman & Ribbe 2003) and physical conditions (Hawkey, Burlison, Berntson & Cacioppo 2003).

North / South differences: A minority (13% and 17% in the RoI and NI respectively) reported feeling lonely quite or very often. North / South differences in loneliness were not significant (see Table 4.15).

Table 4.15: Ratings of loneliness by policy (RoI & NI) and geographic (urban & rural) region

Loneliness frequency	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- never	62	57	60	57	56	57
- not very often	26	28	27	26	27	26
- quite often	9	12	10	11	12	11
- very often	3	3	3	6	5	6

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286

Women were also significantly more likely than men to experience loneliness (RoI 16% vs. 11%, $p = .03$; NI 20% vs. 12%, $p = .03$). However, there was no relationship between loneliness and social class in the RoI or NI.

Loneliness among vulnerable groups

In the RoI but not NI, adults aged 75+ years were more likely than others to experience loneliness (RoI 17% vs. 11%, $p < .001$). In both regions people who lived alone were also significantly more likely than others to experience loneliness (RoI $p < .001$; NI $p = .02$). For instance, while 29% of participants in the RoI who lived alone reported experiencing loneliness quite or very often, just 6% of all others did so; corresponding figures for NI were 29% and 7% respectively. Those with higher functional impairments experienced loneliness more frequently than did others (both $ps < .001$, see Tables 4.16a and 4.16b).

Table 4.16a: Loneliness among vulnerable groups in the Republic of Ireland (RoI)

Loneliness frequency ^{ab}	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- sometimes	25	30	26	31	26	38
- quite/very often	11	17	7	29	11	32

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe functional impairments), Low HAQ n = 942 (no/few functional impairments); ^aLiving alone differences where p < .05, ^bHAQ difference where p < .05

Table 4.16b: Loneliness among vulnerable groups in Northern Ireland (NI)

Loneliness frequency ^{ab}	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- sometimes	23	29	19	32	24	36
- quite/very often	17	16	7	24	14	25

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe functional impairments); Low HAQ n = 752 (no/few functional impairments), ^aLiving alone differences where p < .05, ^bHAQ difference where p < .05

4.3.3 Social support

Support available through relationships with others has much value throughout the life course. Emotional support can enable people to take on new projects and activities; informational support means that people have access to information to help solve challenges and dilemmas, while even limited practical support can mean the difference between living independently at home rather than moving into residential care. Participants were asked about these different types of support: emotional support ('someone who makes you feel loved and appreciated'), informational support ('someone whom you can confide in and who will give you advice or information') and practical support ('someone who will help you with practical tasks like preparing meals, household chores or shopping'). The scores from all items were averaged for each person and divided into three categories of 'none/little of the time', 'some of the time', and 'most of the time' (see Table 4.17).

Table 4.17: Ratings of support by policy (RoI and NI) and geographic (urban & rural) region

Support	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Emotional support^{abc}						
- none/little of the time	7	3	5	9	6	8
- some of the time	8	5	7	14	7	12
- most of the time	85	92	88	77	87	80
Informational support^{ab}						
- none/little of the time	6	5	5	8	7	8
- some of the time	8	4	6	16	9	14
- most of the time	86	91	88	76	84	78
Practical support^c						
- none/little of the time	15	8	12	20	16	19
- some of the time	10	8	9	16	14	15
- most of the time	75	84	79	64	70	65

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aacross policy urban / rural differences where p < .05, ^bwithin RoI policy region urban / rural differences where p < .05, ^cwithin NI policy region urban / rural differences where p < .05

North / South differences

Emotional support: The majority of participants (88% in the RoI and 80% in NI) reported high levels of emotional support. There were no North /South differences. There were no gender or age differences in the receipt of emotional support. For instance, 86% of women and 89% of men in the RoI reported emotional support most or all of the time. Corresponding figures for NI were 81% and 79%. Similarly, high levels of emotional support were reported by 85% and 89% of those under and over age 75 years in the RoI; corresponding figures for NI were 82% and 76%. Participants who lived alone were more likely than all others to report less emotional support, especially in NI (p < .001); of those NI participants who reported little/no emotional support, 83% lived alone (see Appendix 2, Table A4.4). Participants in each area with functional impairments reported similar amounts of emotional support to those with no/few impairments (see Appendix 2 Table A4.4). Finally, there was no relationship between emotional support and social class.

Informational support: 88% in the RoI and 78% in NI reported high levels of informational support; this difference was not significant. There were no gender, age or social class differences in informational support in either policy region. NI (but not RoI) participants with impairments were more likely than those with no/few impairments to report having informational support (NI 80% vs. 78%, $p = .007$).

Practical support: There were no significant differences in levels of practical support across regions – 79% of participants in the RoI and 65% of those in NI indicated that they experienced practical support most or all of the time. Meanwhile, 12% in the RoI and 19% in NI felt that they had practical support none or just a little of the time. In the RoI, there were no age, gender or social class differences in levels of perceived practical support. In NI, there was no relationship between practical support and either gender or social class, but a significant effect was found for age group with a higher proportion of those under 75 years experiencing none or little practical support in contrast to those aged 75+ years (NI 21% vs. 16% respectively, $p = .04$; RoI 79% vs. 78%, $p = .26$). In both regions, those who lived alone were significantly less likely to experience practical support (RoI: 23% vs. 8% respectively, $p < .001$; NI: 27% and 9% respectively, $p = .02$) (see Appendix 2, Table A4.5). There was also a relationship between functional ability and practical support in NI ($p < .001$) but not the RoI (see Appendix 2, Table A4.5). A higher proportion of those with major impairments in NI received practical support a lot (12%) vs. a little (2%) of the time. Corresponding figures in the RoI were 4% vs. 2%.

4.4. Health behaviours and health promotion

Health behaviours and health promotion: activities concerned the individual's own health-related behaviours (smoking and physical activity), and preventive and screening activities provided by health professionals (the flu injection).

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4.4.1 Smoking

Smoking among older people receives little attention despite clear evidence of the benefits of quitting at any time in the lifecycle. Previous research has shown that doctors in the RoI may be less active in giving smoking advice to older people (Maguire, Ryan, Kelly *et al.* 2000).

North / South differences: Almost a fifth of the total sample in both regions reported smoking (see Table 4.18); this difference was not significant. North / South differences were found, however, on intentions to quit smoking, with RoI participants less likely to be thinking about or planning to quit (RoI 16% quitting vs. 84% non-quitting; NI 22% quitting vs. 78% non-quitting, $p = .001$).

Table 4.18: Smoking behaviour by policy (RoI & NI) and geographic (urban & rural) region

Smoking behaviour	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
Smoking	%	%	%	%	%	%
	16	18	17	26	17	19
Intention to quit ^a						
- trying to quit	12	5	9	13	13	13
- actively planning to quit	10	2	7	11	4	9
- thinking but not planning to quit	31	12	22	27	33	29
- not thinking about quitting	48	81	62	49	50	49

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth / South differences where p < .05, ^bwithin NI policy region urban/rural differences where p < .05

More men than women smoked (RoI: 19% men and 15% women, p = .07; NI 25% men and 16% women, p < .001). Those from lower social classes were more likely than others to smoke (RoI 20% vs. 14%, p = .009; NI 21% vs. 15%, p = .03). (For information on smoking among vulnerable groups, see section 4.4.5.)

4.4.2 Physical activity

Physical activity is a significant factor in disease prevention and health promotion in later years. Physical activity can reduce levels of cardiovascular disease (Wannamethee, Shaper, Walker & Ebrahim 1998), diabetes (Manson, Rimm, Stampfer *et al.* 1991), cancer (Bernstein, Clark-Stewart, Roy *et al.* 1994) and osteoporosis (Dalsky, Stocke, Ehsani *et al.* 1988). Physical activity can also improve psychological wellbeing (Morgan, Dallosso, Basse et al. 1991). Within the time constraints of the present study participants were asked: 'All things considered, do you think you exercise enough at present?' If they responded 'no', they were asked to choose from a list of barriers to physical activity that they had experienced.

North / South differences: 77% of participants from the RoI and 56% of those from NI believed that they exercised enough at present; this difference was significant (p < .001) and remained so even when other known demographic North / South differences were controlled for. Health was the main reason given in both regions for not exercising enough (see Table 4.19).

Table 4.19: Engagement in physical activity by policy (RoI and NI) and geographic (urban & rural) region

Engagement in physical activity	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Participants believing they exercise enough at present ^a	75	80	77	57	53	56
Reasons for not exercising						
- Health reasons	15	11	14	30	33	31
- Areas for walking not safe/accessible	1	1	1	2	3	2
- Afraid of 'overdoing it'	2	2	3	4	3	4
- Not interested	5	2	3	7	6	7
- No time	3	1	2	1	2	1

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where $p < .05$

Gender differences in beliefs about exercise were found with men more likely than women to believe that they exercised enough (RoI 60% vs. 52% $p = .03$; NI 80% vs. 74%, $p = .03$). There was no relationship between beliefs about exercise and social class in either region ($p > .05$) indicating that resources were not a barrier to exercise of this sample.

4.4.3 Flu injection

Inoculation against influenza (i.e., flu injection) is an important preventive health measure, particularly for older people.

North / South differences: As can be seen in Table 4.20, the majority of participants in both policy regions had received the flu injection in the previous year. There was a significant North / South difference with participants in NI more likely to have had the flu injection ($p = .01$). There were no gender or social class differences in flu injection uptake in the RoI or NI. (For information on uptake of flu injection among vulnerable groups, see section 4.4.5.).

Table 4.20: Uptake of flu injection by policy (RoI and NI) and geographic (urban & rural) region

Flu injection	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Uptake of flu injection^a	73	70	72	78	77	78

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth / South differences where $p < .05$

Reasons for not receiving flu injections

Participants who had not received the flu injection in the previous year were asked about this decision; they could choose reasons from a list of seven, or give their own reason(s) (see Table 4.21). The main reasons for not having the flu injection were not believing that the injection would reduce the risk of flu and having concerns about side effects. This suggests that many older people still need to be convinced about the benefits of flu injections. There was no significant difference between policy regions in the reasons given for non-uptake of the injection.

Table 4.21: Reasons for not receiving flu injection by policy (RoI and NI) and geographic (urban & rural) region

Reasons for not receiving flu injection	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- concerned about side effects	4	5	5	5	10	8
- did not believe that it would reduce the risk of flu	8	6	7	8	5	6
- doctor did not suggest it	4	2	3	1	0	1
- previous negative experience with flu injection	2	2	2	3	3	3
- doctor said I did not need one	2	1	1	1	1	1
- other reason	8	14	11	6	4	5

Note: RoI urban n = 551, rural n = 470; NI urban n = 714; rural n = 286

4.4.4 Blood pressure and cholesterol monitoring

Engaging in preventive health behaviours can help decrease morbidity in older adults (Kahana, Lawrence, Kahana *et al.* 2002). Regular monitoring of blood pressure (BP) and cholesterol are specific preventive or regulatory behaviours and key elements of health responsibility (Song & Lee 2001). As elevated blood pressure and cholesterol are modifiable cardiac risk factors it is important to assess the extent to which these features are addressed by older Irish people and general practitioners. The proportion of participants who had their blood pressure and cholesterol checked by their GP can be seen in Table 4.22.

Table 4.22: GP blood pressure and cholesterol checks by policy (RoI and NI) and geographic (urban & rural) region

GP blood pressure and cholesterol checks	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Last blood pressure check by GP						
- less than 3 months ago	64	68	66	53	69	57
- up to 1 year ago	28	22	25	34	22	30
- up to 3 years ago	5	5	6	9	5	8
- 3+ years ago	2	3	2	3	1	4
- never	1	2	1	1	1	1
Last cholesterol check by GP						
- less than 3 months ago	47	43	45	38	54	42
- up to 1 year ago	31	27	29	35	26	33
- up to 3 years ago	8	10	9	12	5	10
- 3+ years ago	5	6	5	5	5	5
- never	9	14	12	10	10	10

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Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286, *within NI differences where p < .05

North / South differences: 91% of RoI and 87% of NI participants had their blood pressure checked in the previous year. Three per cent of participants in each policy region had either never had their blood pressure checked, or had it checked over three years previously.

Seventy-four per cent of RoI participants and 75% of NI participants had their cholesterol checked in the previous year by their GPs. A further 12% in the RoI and 10% in NI had never had their cholesterol checked by their GP. North / South comparisons were made between those who had their blood pressure and cholesterol checked in the previous year and all others. There was a trend for RoI participants to have been more likely than those in NI to have had a blood pressure check in the past year ($p = .07$). North / South differences were not found for cholesterol checks.

In the RoI only, women were more likely than men to have had their blood pressure checked (RoI 93% vs. 88%; NI 88% vs. 88%, $p < .02$), but they were not any more likely to have had their cholesterol checked. Social class differences in having blood pressure checked were not found, although there was a trend in the RoI for those in the higher or professional social class to be more likely than those in the lower social class group to have had their blood pressure checked in the past year (RoI 93% vs. 89%, $p = .06$; NI 86% vs. 89%, $p = .39$). Social class differences in cholesterol checks were found in the RoI ($p = .03$) but not NI ($p = .14$). For instance, 75% of RoI participants from higher social classes and 69% of those from lower social class groups had had their cholesterol tested in the previous year; corresponding figures for NI were 71% and 67%. Similarly 11-12% of participants from each social class in the RoI, and 8-9% in each social class in NI had never had their cholesterol checked.

4.4.5 Health promotion, blood pressure and cholesterol monitoring among vulnerable groups

In both policy regions, participants aged over 75 years were significantly less likely than their younger counterparts to smoke (RoI 15% and 19% respectively, $p = .05$; NI 11% and 25% respectively, $p < .001$). There was no age group difference in the proportion of participants believing they exercised enough at present. In the RoI, but not NI, participants aged 75+ were more likely than others to have had the flu injection ($p < .01$, see Table 4.23a). In neither region were participants over age 75 years any more likely than others to have had either their BP or cholesterol checked.

In both policy regions, those living alone were less likely than others to have had their BP checked recently ($p < .001$). In NI, those living alone were more likely than others to have had their cholesterol checked ($p = .02$). No other differences on health promotion variables were found between those living alone and others.

Participants in the high functional impairment group were also more likely than others to believe that they did not exercise enough ($p < .001$); for instance, of those who reported having major physical impairments (HAQ scores 2-3) 86% in the RoI and 85% in NI reported that they did not exercise enough. The

corresponding figures for those with no/few impairments (HAQ scores 0-1) were 19% and 39% respectively. Those with moderate to serious functional impairments were not any more likely than others to have had the flu injection, but they were more likely than others to have had their BP checked (see Tables 4.23a and 4.23b). No relationship was found between functional impairment and cholesterol checks in either policy region.

Table 4.23a: Health promotion and GP blood pressure and cholesterol checks among vulnerable groups in the Republic of Ireland (RoI)

Health Promotion	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
Smoking ^a	19	15	16	19	17	19
Participants believing they exercise enough ^c	81	51	78	77	82	27
Uptake of flu injection ^a	65	82	70	76	70	86
Last BP check ^{bc}						
- less than 3 months ago	62	71	65	52	65	75
- up to 1 year ago	27	23	26	33	26	21
- up to 3 years ago	7	4	5	11	6	1
- 3+ years ago	2	1	3	3	2	2
- never	2	1	1	1	1	1
Last cholesterol check						
- less than 3 months ago	44	47	44	39	45	42
- up to 1 year ago	31	25	30	33	29	28
- up to 3 years ago	11	7	8	13	10	4
- 3+ years ago	5	6	5	5	5	12
- never	9	15	13	10	11	14

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe functional impairments), Low HAQ n = 942 (no/few functional impairments), ^aAge differences where p < .05, ^bLiving alone differences where p < .05, ^cHAQ differences where p < .05

Table 4.23b: Health promotion and GP Blood pressure and cholesterol checks among vulnerable groups in Northern Ireland (NI)

Health Promotion	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
Smoking ^a	25	11	18	20	21	15
Participants believing they exercise enough ^c	57	64	60	52	66	23
Uptake of flu injection	76	82	76	80	77	81
Last BP check ^{bc}						
- less than 3 months ago	58	53	64	52	53	70
- up to 1 year ago	29	31	28	33	34	22
- up to 3 years ago	7	9	5	11	9	6
- 3-5 years ago	2	1	1	2	1	1
- over 5 years ago	2	2	1	1	2	-
- never	2	4	1	1	1	1
Last cholesterol check ^b						
- less than 3 months ago	44	40	48	39	40	52
- up to 1 year ago	31	34	32	33	34	26
- up to 3 years ago	10	11	7	13	11	9
- 3-5 years ago	2	3	1	3	2	5
- over 5 years ago	4	1	3	2	3	-
- never	9	11	9	10	10	8

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe functional impairments); Low HAQ n = 752 (no/few functional impairments), ^aAge differences where p < .05, ^bLiving alone differences where p < .05, ^cHAQ differences where p < .05

4.5 Urban / rural differences in health and functional ability

The next section addresses the same set of core variables and considers if there are urban / rural differences.

4.5.1 Urban / rural differences in activities of daily living

Urban / rural differences: Overall seventy per cent of urban participants and 71% of rural participants were in the self-sufficient functional health group (HAQ score of 0); this difference was not significant when analyses were run separately for participants in the Rol and NI.

4.5.1.1 HAQ tasks

Each of the tasks within the eight HAQ categories was also examined individually, to understand better the types of activities which were difficult for older people in each of the samples.

Urban / rural differences: When examining individual tasks for the sample as a whole, significant urban / rural differences were found for dressing ($p = .01$), eating ($p = .01$), walking ($p = .02$), personal care ($p = .04$), gripping ($p < .01$), and complex activities such as shopping ($p = .008$); in these instances a higher proportion of rural participants found tasks difficult or impossible to do. No significant urban / rural differences were found for activities involving arising or reaching.

Urban / rural differences were also examined separately for participants in the RoI and those in NI. Some differences were found for one region only. The RoI, a greater proportion of rural participants were having difficulties compared to with their urban counterparts on activities such as personal care and washing (12% compared with 9%, respectively), walking (13% compared with 8%), and complex activities such as shopping (18% compared with 14%). In NI, a greater proportion of rural participants had difficulties with dressing compared with those in urban areas (19% vs. 11% respectively).

Age and gender differences in daily living activities were examined (see Appendix 2, Tables A4.6 and A4.7). Those aged 75+ years in both urban and rural areas had greater difficulties with activities of daily living than did those under 74 years. Furthermore, in all but two activities, a greater proportion of participants aged 75+ in rural areas had difficulties compared to those in the same age-group from urban areas. A greater proportion of women had difficulties in comparison to men. On several activities, women in rural areas did less well compared to women in urban areas, e.g., on activities such as walking, personal care and arising.

In rural areas, those from lower social class groups had more impairments than others for all HAQ measures: arising, walking, reaching, complex activities such as shopping, gripping, dressing, eating and hygiene (all $ps < .05$). For instance, while 22% of those from lower social class groups had difficulties with complex activities such as shopping, just 11% of those from professional class groups were the same. No significant relationship was found between social class group and any of the daily living activities for participants living in urban areas.

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4.5.1.2 Support needed with tasks

This section considers the level of support needed to maintain function necessary for independence and wellbeing in each of the urban and rural areas.

Urban / rural differences: Urban / rural differences in levels of support were found for activities such as shopping ($p = .004$), walking ($p = .04$), and arising ($p = .02$); for these activities, rural participants availed of more support for these activities. When examining urban / rural differences separately, however, for the RoI and NI, few additional differences were found (see Appendix 2, Table A4.3).

Socio-demographic differences were examined to identify participants in both urban and rural areas who were most likely to avail of support for complex activities such as shopping, reaching and picking things up and dressing; these three tasks were examined as they were the more frequently cited tasks necessitating support by participants in both urban and rural areas. For all activities, women in urban and rural areas were more likely than men to avail of support, as were adults in each geographic region aged 75 years and over. In urban areas, a greater proportion of participants in lower social-class groups were availing of support compared with those from professional or higher social class groups. For example, while 15% of urban participants from lower social class groups availed of support for dressing, just 10% of those from higher social class groups did so. Similarly, while 31% of urban participants from lower social class group availed of support for complex activities such as shopping, just 19% of those from higher social class groups did so. In contrast, however, a similar proportion of rural adults in each social class group availed of support. For instance, while 15% of rural participants from the lower social class group availed of support for dressing, so too did 18% of those from the higher social classes. In contrast, 30% of rural participants in lower social class groups and 31% of rural participants in higher social class groups availed of support complex activities for such as shopping.

In both urban and rural areas, a much greater proportion of those with major rather than minor functional impairments availed of support in all activities. Also, in both geographic regions, the majority of those who were in the depressed group availed of support for all activities (58-79% of participants across the three activities), in contrast to those from the non-depressed groups (7-21% of participants across activities).

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4.5.2 Use and need of devices

Participants were asked if they currently used a range of aids or devices to help maintain their independence.

Urban / rural differences: There were no urban / rural differences overall, or within RoI and NI regions, in the use of walking sticks, wheelchairs or hearing aids (see Table 4.5).

4.5.3 Urban / rural differences in perceived health status

Urban / rural ratings are presented in Table 4.7.

Current health: No significant urban / rural differences were found on ratings of current health. In urban areas participants in the professional social class group were more likely to rate their health as good compared to those in the lower social class group (60% vs. 51%, $p = .001$). In rural areas, however, differences between the classes were not as apparent, 57% of participants in the professional social class group and 53% of participants in the lower social class group rated their health as good.

Health compared to one year ago: A significant urban / rural difference was found for ratings of health compared to one year previously ($p = .03$), with rural participants rating their health relative to a year ago more positively than their urban counterparts (see Table 4.7). Gender was not significantly related to health ratings compared to a year ago in urban areas but women in rural areas were more likely to rate their health relative to a year ago more negatively ($p = .01$). A significant difference was found also in temporal health ratings for adults over and under 75 years in urban ($p = .02$) but not rural areas. 28% of urban participants aged 75+ years, but just 20% of those aged ≤ 74 years rated health relative to a year ago more negatively. There was no relationship between social class and temporal ratings of health in urban areas but in rural areas a higher proportion of those in higher social class groups rated their health relative to a year ago more negatively compared to those in lower social class groups (24% vs. 19% respectively, $p = .03$).

Health expectations one year from now: Even when controlling for other known urban / rural differences on demographic variables, a significant urban / rural difference was found on participants' expectations for their health one year ahead ($p = .02$). Further analyses indicated this difference was only significant for participants in the RoI (RoI $p < .001$) where rural participant expectations were more pessimistic compared to their counterparts in urban areas (see Table 4.7). The interaction of future health expectations with gender, age or social class did not vary by urban or rural area.

Health compared to others: There were no urban / rural differences in the ways participants evaluated their own health compared to others of a similar age. When

these analyses were run separately for participants in the RoI and then NI, results remained the same.

4.5.4 Informal networks of support

4.5.4.1 Sources and frequency of support

Participants were asked about whether they received help necessary to maintain their independence on a regular basis from a number of people or groups.

Urban / rural differences

Support from spouses and partners: There was no significant urban/rural difference in the proportion of participants availing of support (see Table 4.8), or the frequency of support received from partners and spouses. When these analyses were run separately for participants in the RoI and NI, results remained the same.

Support from relatives in household: There were no significant differences in the proportion of urban and rural participants availing of support from relatives in their households (see Table 4.8). Furthermore, there was no difference in the frequency of support received. However, when data was examined separately for RoI and NI the NI rural participants availed of support from relatives living with them more frequently than those in urban areas ($p = .02$).

Support from neighbours: Participants in urban areas were significantly more likely than those in rural areas to avail of support from neighbours necessary to maintain independence (13% vs. 10%, $p < .001$). When examining urban / rural differences separately this difference was found only for participants in the RoI ($p < .01$; NI $p = .06$) (see Table 4.8). There was no urban / rural difference for frequency of support from neighbours.

Support from voluntary organisations: Three per cent of all urban participants and 2% of those from rural areas reported that they received support from voluntary organisations necessary to maintain their independence; this difference was not significant.

4.5.5 Care-giving

Urban / rural differences: Significantly more participants in urban areas were caregivers (13% vs. 8% overall). This urban / rural difference was only significant in NI ($p < .001$), i.e. in NI significantly more caregivers were living in urban rather than rural areas. Of this group, there were higher proportions of male caregivers than elsewhere (see Table 4.9).

4.6 Psychological health

Psychological health was measured in terms of depression and morale. There were no urban/rural differences in either measure overall or when examining urban /

rural data separately for participants in the RoI and NI (See Table 4.10).

4.7 Social contact and support

4.7.1 Social contact and loneliness

Urban / rural differences: The majority of participants (overall 70% and 69% in urban and rural areas respectively) reported no difficulties in attending events or family gatherings (see also Tables 4.13 and 4.15). There were no urban / rural differences in maintaining social contact and in levels of loneliness: (Difficulties in social contact among non-drivers, specifically, can be seen in Appendix 2, Table A4.8 while urban/rural differences in driving can be seen in Chapter 6).

4.7.2 Social support

Urban /rural differences

Emotional support: The proportion of participants reporting that they received emotional support 'most of the time' was higher in rural areas compared with urban areas (90% vs. 81%, $p < .001$). When this analysis was run separately for participants from the RoI and then NI, this significant urban / rural difference remained (RoI $p < .001$; NI $p = .03$) (see Table 4.17).

Informational support: Those in rural areas reported more informational support compared with those in urban areas (88% vs. 81%, $p < .001$). However, this difference in informational support was only found for participants from the RoI (RoI $p < .001$) (see Table 4.17).

Practical support: The proportion of participants reporting that they received practical support 'most of the time' was similar overall in urban and rural areas. However, when this analysis was run separately for participants from NI and the RoI a significant urban / rural effect was found only for participants in the RoI (RoI $p = .01$). Here rural participants experienced more frequent practical support when needed compared with their urban counterparts (see Table 4.17).

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4.8. Health behaviours and health promotion

4.8.1 Smoking, physical activity and flu injection

Urban / rural differences: There were no overall urban / rural differences in smoking. However, when this analysis was run separately, a significant urban / rural difference was found for NI with rural participants being more likely to smoke compared with their urban counterparts (26% vs. 16%, $p = .002$). No urban / rural difference was found in intentions to quit smoking (see Table 4.18). Regarding physical activity there were no significant urban / rural differences in the proportion of participants believing they exercise enough at present (see Table 4.19). Similarly there were no urban / rural differences in uptake of the flu injection (see Table 4.20). The only factor associated with differential uptake in

urban vs. rural areas was age. Higher age was significantly associated with a greater probability of receiving the flu injection in urban ($p < .001$) but not rural areas (see Table 4.20).

4.8.2 Blood pressure and cholesterol monitoring

Urban / rural differences: Urban / rural differences were not found either in terms of blood pressure checks or cholesterol monitoring.

4.8.3 Health promotion among vulnerable groups in urban and rural areas

Further analyses were carried out examining smoking behaviours amongst vulnerable adults, given that this was the only health promotion variable to differ between participants in urban and rural areas. Analyses indicated that in both urban and rural areas, adults over rather than under age 75+ years were less likely to smoke compared with their counterparts in younger age groups (see Table 4.24, both $ps < .001$).

Table 4.24: Smoking among vulnerable groups in urban and rural areas (%)

% smoking	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
In urban areas ^a	22	11	17	18	19	11
In rural areas ^a	23	15	17	24	19	24

Note: in urban areas ≤74 years $n = 733$, 75+ years $n = 522$; Numbers living alone = 573; High HAQ $n = 211$ (moderate/severe functional impairments), Low HAQ $n = 1,053$ (no/few functional impairments). In rural areas ≤74 years $n = 413$, 75+ years $n = 342$; Numbers living alone = 302; High HAQ $n = 141$ (moderate/severe functional impairments); Low HAQ $n = 613$ (no/few functional impairments), ^aAge differences where $p < .05$.

The next chapter examines participant perceptions and use of health and social services.

Chapter Five:
Perceptions and use of health and social services

Participants in the RoI were more likely than those in NI to have visited their GP in the previous year. Older RoI participants (aged 75+ years) attended GPs more frequently than others. Less than half would change GP if dissatisfied with their care; but the majority of RoI participants were more likely to say they would change. Satisfaction ratings for GP care were very high across regions and urban / rural settings. Few barriers prevented people from accessing GP care. Similar proportions in each policy and geographic area had attended hospital in some capacity in the past year. There were no significant North / South or urban / rural differences in the proportion of participants who had attended A&E in the previous twelve months. Similar proportions in each policy and geographic region had attended in-patient services in the previous twelve months. However NI participants were more likely than RoI participants to have availed of out-patient services in the previous year. There were no geographical differences in out-patient service use. RoI A&E attenders were more likely to be admitted to hospital than those in NI. NI participants were seen more quickly by a doctor than were those in the RoI. Although more of the RoI patients attending A&E were admitted to hospital, there was a trend for NI participants to be admitted to a ward more quickly. In NI all those admitted to a ward following A&E treatment were on waiting lists for in-patient treatment; in the RoI, this figure was 29%. There were no North / South differences however in the length of time these groups were on waiting lists. Few people reported barriers or problems in accessing hospital services. Significant North / South differences were found for a range of primary care services including use of home-helps, meals-on-wheels, chiropody, and services from opticians, dentists and social workers. In all cases, a greater proportion of those in NI had availed of these services in the previous year.

5.1 General practitioner services

Determining quality of care is a crucial first step in encouraging good practice and a continuous quality improvement approach within healthcare. Participants were asked about the extent and quality of contact with GP services.

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5.1.1. Use of GP services

Almost all participants had access to a personal GP (99% in both the RoI and NI). Participants typically reported having a long association with their doctor, with participants in NI attending the same GP for significantly longer than those in the RoI ($p < .001$); 64% of participants in NI and just 39% of those in the RoI had been with their GPs for more than 20 years and a further 25% in the RoI and 18% in NI for between 10 and 19 years.

North / South differences: Even when controlling for known demographic differences, participants in the RoI were more likely than those in NI to have visited their GPs in the previous year ($p < .001$). For participants in the RoI the mean number of visits to a GP in the past year was 5.3 (SD = 5.4; median = 4.0;

range = 0 to 84); for NI, it was 4.4 (SD = 5.7; median = 3.0; range = 0 to 92). Five per cent of participants in the RoI and 13% of those in NI had not visited their GPs in the previous year; 37% in the RoI and 43% in NI had had 1-3 visits, while 58% in the RoI and 44% in NI had had four or more visits (Table 5.1).

Table 5.1: Number of GP visits by policy (NI & RoI) and geographic region in past year

GP Visit Group ^{ab}	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
- No visits	4	5	5	14	11	13
- 1-3 Visits	43	30	37	45	37	43
- 4+ visits	53	65	58	41	52	44

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; *North/South difference where $p < .05$; ^bwithin NI policy region differences where $p < .05$

Women visited their GPs more often than men in the RoI but not in NI (RoI $p = .05$). For instance, while 62% of women in the RoI had visited their GP 4+ times in the previous year, just 54% of men had done so; corresponding figures for NI were 45% and 42% respectively. A significant relationship between GP visit group and social class was also found in NI ($p = .01$) but not in the RoI; even when controlling for gender and age, NI participants in lower or manual social class groups visited their GPs less frequently than those in professional or non-manual social class groups.

Although not significant when controlling for demographic factors such as age and gender, a greater proportion of participants with major functional impairments visited their GPs more often compared to those with no/few impairments. For instance, while 83% of NI participants with major functional impairments visited their GPs 4+ times in the previous year, the figure for those with no/few functional impairments was just 57%. Corresponding figures for the RoI were 55% and 43% respectively (further information on use of GP services is given in Chapter 7).

Cost and use of GP services

Cost can significantly influence GP service use. In the RoI a Government initiative in 2001 to provide free GP care through a medical card to all citizens aged 70+ years provided a 'natural experiment' to investigate the relationship between cost and GP service use. For participants in NI, there was no significant relationship between age (being under and over age 70 years) and the number of visits to GPs. For those in the RoI, however, a significant age difference was found ($p < .001$), with RoI participants under age 70 years (the only group in these comparisons to pay for GP visits) being significantly less likely to have attended their GPs in the previous year (see Table 5.2).

Table 5.2: Number of GP visits in the previous year by policy (NI & RoI) and geographic (urban & rural) region and age

GP Visit Group ^{ab}	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Total ^{ab}						
Mean	5	6	5	4	5	4
SD	3.8	6.5	5.4	6.1	4.6	5.7
Median	4	4	4	3	4	3
Range	0-24	0-84	0-84	0-92	0-50	0-92
Age <70 years ^c						
Mean	4	5	4	4	4	4
SD	3.9	4.1	4.0	5.7	3.8	5.2
Median	3	3	3	3	3	3
Range	0-24	0-20	0-24	0-52	0-20	0-52
Age ≥ 70 years						
Mean	5	7	6	4	5	4
SD	3.7	7.2	5.8	6.2	4.9	5.9
Median	4	4	4	3	4	3
Range	0-20	0-84	0-84	0-92	0-50	0-92

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South difference where p < .05, ^bacross policy urban/rural differences where p < .05, ^cwithin RoI policy region age difference where p < .05

GP use among vulnerable adults

In the RoI but not NI, adults over age 75 years visited their GPs more frequently compared to those aged 65-74 years (RoI p = .02, see Table 5.3a and 5.3b). In NI but not the RoI, living alone was significantly associated with visiting GPs less frequently (NI p = .005). In both policy regions, higher levels of functional impairment were associated with significantly greater number of visits to GPs (both ps < .001).

Table 5.3a: Number of GP visits in the previous year among vulnerable groups in the Republic of Ireland (RoI)

GP visits ^{ab}	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
Mean	5	6	5	5	5	8
SD	4.6	6.4	5.7	6.2	4.8	9.1
Median	4	4	3	3	4	6
Range	0-40	0-84	0-84	0-24	0-50	0-84

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities), ^aAge differences where p < .05, ^bHAQ differences where p < .05

Table 5.3b: Number of GP visits in the previous year among vulnerable groups in Northern Ireland (NI)

GP visits ^{abc}	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
Mean	5	4	5	4	4	7
SD	5.9	6.1	6.0	3.9	4.1	9.4
Median	3	3	4	4	3	4
Range	0-52	0-92	0-50	0-92	0-30	0-92

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities), ^aAge differences where p < .05, ^bHAQ differences where p < .05, ^cLiving alone differences where p < .05

5.1.2 Attitudes and satisfaction with GP services

5.1.2.1 Attitudes

The freedom to move services if dissatisfied with care received is an important aspect of choice in healthcare. Participants were asked if they would consider changing GPs if dissatisfied with some aspect of care from him/her.

North / South differences: 49% of participants in the RoI indicated they would change GPs if dissatisfied with some aspect of their care; the corresponding figure for participants in NI was 27%. Even when controlling for other known differences on demographic variables, this North / South difference was statistically different ($p < .001$). Reasons for not changing even if dissatisfied can be seen in Table 5.4. These included worries about offending the GP, not having information about other GPs in the area, barriers to moving to another GP, and not being able to get onto another GP list.

Table 5.4: Attitudes towards changing GP if dissatisfied with care by policy (NI & RoI) and geographic (urban & rural) region

Attitude	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Change GP if dissatisfied? ^{ab}						
Yes definitely	50	48	49	30	20	27
Yes possibly	27	34	30	36	23	33
No	23	38	21	34	57	40
Reason for not changing GP:						
- would not like to offend GP	6	3	4	13	19	14
- do not know other GPs in location	2	1	2	5	6	6
- not easy to move to another GP	5	5	5	5	9	6
- could not get onto another GP's list	1	1	1	1	1	1
- afraid new GP would not approve	1	1	1	2	5	3

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^a North/South differences where $p < .05$, ^b within NI policy region urban/rural differences where $p < .05$

5.1.2.2 Satisfaction

Participants were asked about their level of satisfaction with aspects of their GP care, including satisfaction with the availability of their GP (e.g. can get appointments when needed), with the quality of information they received about health, and with the interpersonal components of the consultation (particularly that their GP takes their concerns seriously). Levels of satisfaction were very high (at least 84%) on all dimensions and across sub-groups (see Table 5.5).

Table 5.5: Satisfaction with components of GP care by policy (NI & RoI) and geographic (urban & rural) region

Satisfaction	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Satisfied or very satisfied:						
- with the quality of information received about health	90	95	92	91	93	92
- that GP takes concerns seriously	95	94	92	91	91	91
- with availability of GP (e.g. that can get appointments when needed)	94	95	94	84	90	86

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286

North / South differences: 92-94% of all participants in the RoI were satisfied or very satisfied with the quality of information they received about their health, with the availability of their GPs and that their GPs took their concerns seriously. Corresponding figures for those in NI were 86-92%. Controlling for known North / South differences on demographic factors, there were no significant differences on any of these ratings of satisfaction.

Group differences (gender, age, social class, or functional status) were not found in levels of satisfaction with GPs, i.e. in terms of either the quality of information being received from GPs, satisfaction regarding GPs taking concerns seriously, or satisfaction with the availability of GPs.

5.1.3 Barriers and problems with GP services

Older adults can be denied adequate care given practical barriers such as cost and transport, or psychological barriers such as the ageist attitudes of some health professionals (e.g. Treharne 1990). Participants were asked about a range of possible barriers to care from their GP. They were also asked if they ever experienced difficulties (discrimination) on the basis of a range of factors such as age, sex or educational attainment. Almost all participants indicated that 'nothing' prevented them from seeing a GP as much as they would like.

North / South differences: Few participants reported ever feeling disadvantaged or discriminated against; in both policy regions, just 1-2% of participants reported that their age, sex, address, race or religion constituted a barrier to services. Four per cent of participants in the RoI believed their education levels were a barrier to services; in NI this figure was 2%.

Barriers among vulnerable groups: Analyses were carried out to examine whether those from vulnerable groups (over 75 years, living alone, or with moderate-severe functional impairments) experienced significant barriers to GP services. However, with only one exception, less than 2% of participants in these groups reported that their age, sex, address, race or religion was a barrier to services. The exception was in NI only; here adults with moderate to serious levels of impairment were significantly more likely than others to report feeling that their age was a barrier to services from GPs (NI 3% vs. 1%, $p = .03$; RoI 5% vs. 2%, $p = .16$). The overall findings here demonstrate that barriers based on professional judgement or other structural and policy forms of discrimination were not experienced by older people.

5.2 Hospital services

With an ageing population the demands being placed on hospital services are increasing (Davison & Philip 2003). In the RoI, 71% of in-patients are currently admitted through A&E departments with the majority of admissions being older people with medical conditions (Department of Health and Children 2002). Identifying factors associated with acute hospital admission in older adults may help characterise those at risk and help facilitate focused and timely intervention (Aliyu, Adediran & Obisesan 2003). This study examined the extent to which older people in Ireland are in receipt of these hospital services, and how they perceive them. Participants were specifically asked about their use of hospital services over the past twelve months, including visits to accident and emergency (A&E), scheduled in-patient admissions, and hospital out-patient appointments. Similar proportions of the total samples attended hospital in the previous year (RoI 36%, $n = 386$; NI 38%, $n = 380$); this group is further divided (as discussed) next into those who attended Accident and Emergency (A&E), in-patient and out-patient.

5.2.1 Use of services in Accident and Emergency (A&E)

North / South differences: Twelve per cent of participants in the RoI and 10% of those in NI attended A&E in the previous year. When controlling for known North / South differences in demographic factors, this difference was not significant (see Table 5.6)

Table 5.6: Hospital service use by policy (RoI and NI) and geographic (urban & rural) regions

Hospital Service Use	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- Accident & Emergency	12	11	12	10	9	10
- Scheduled hospital in-patient	16	14	15	16	16	16
- Scheduled hospital out-patient	22	15	20	28	26	27

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286

There were no gender or social class differences in A&E attendance in either policy region. (For use of A&E services among possible vulnerable groups see section 5.2.4. More information on A&E patients who were then admitted to a ward, see section 5.2.5.).

Frequency of attendance at A&E

Of those attending A&E for services, the majority attended just once in the previous year; only 1% visited four or more times. There was no North / South difference in frequency of attendance at A&E.

5.2.2 Use of in-patient services

Research has shown that older people in Ireland account for a percentage of admissions that is disproportionate to the number of older people in the population on the island (Department of Health and Children 2002).

North / South differences: Fifteen per cent of RoI and 16% of NI participants attended in-patient services in the previous twelve months; this difference was not significant (see Table 5.6). More men than women attended in-patient services in NI but not the RoI (NI 20% vs. 13%, $p = .004$; RoI 16% vs. 14%). There were no social class differences in attendance for scheduled in-patient hospital appointments. (For use of in-patient hospital services among possible vulnerable groups see section 5.2.4. More information on planned in-patient experiences is given in section 5.2.5.)

Frequency of attendance for in-patient services

Of those attending in-patient services, the majority attended just once in the previous year (8% in the total RoI sample and 9% of all those in NI); this difference was not significant.

5.2.3 Use of out-patient services

Lower consultation rates may be associated with poorer health outcomes for individuals with chronic conditions (Jones 1996). As the proportion of individuals who endure chronic health strains increases with age (Smith, Borchelt, Maier & Jopp 2002), low usage of out-patient services amongst older adults may consequently lead to an increase in acute hospital admissions and greater hospital in-patient usage. In order to prevent this it is important that older people are encouraged to use out-patient or primary care services in an appropriate way. This shift to primary care has become a central focus of the official health strategy in Ireland (Nolan & Nolan 2005).

North / South differences: Participants in NI were more likely to avail of out-patient services compared to those in the RoI (27% vs. 20%, $p < .001$, see Table 5.6). There were no gender differences in out-patient services for participants in the RoI or NI. A significant relationship, however, was found between social class and out-patient services for participants in NI but not in the RoI. In NI, 35% of those from higher social classes attended for out-patient hospital services, in contrast to 24% from the lower social classes ($p = .002$). In the RoI, both corresponding figures were 19%.

5.2.4 Hospital use among vulnerable groups

Considering all types of hospital use, age differences were found only for A&E use in the RoI and scheduled hospital out-patient services in NI. In the RoI those aged 75+ years were more likely than others to use A&E services (16% vs. 9%, $p = .003$). Whereas NI participants aged 75+ years were significantly less likely than others to avail of hospital out-patient services (24% vs. 29%, $p = .03$). In neither region was there any relationship between living alone and use of any of the hospital services. However, those with greater functional impairments were more likely than others to avail of hospital services (all $ps < .005$) (see Tables 5.7 and 5.8). For instance, while 27% of RoI participants with moderate to serious functional impairments attended A&E in the previous year, just 10% of all others did so. Similarly, while 24% of NI participants with high functional impairments attended for scheduled hospital in-patient services, just 14% of all others did so.

Table 5.7: Hospital attendance among vulnerable groups in the Republic of Ireland (RoI)

Hospital Service Use	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
- Accident & Emergency ^{ab}	9	16	12	12	10	27
- Scheduled hospital in-patient ^b	14	16	15	13	13	27
- Scheduled hospital out-patient	18	22	19	18	19	26

Note: ≤74 years n =653, 75+ years n = 400; Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities), ^aAge differences where p < .005, ^bHAQ difference where p < .005

Table 5.8: Hospital attendance among vulnerable groups in Northern Ireland (NI)

Hospital Service Use	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
- Accident & Emergency	10	10	10	9	7	18
- Scheduled hospital in-patient	15	18	16	16	14	24
- Scheduled hospital out-patient ^{ab}	29	24	28	26	25	35

Note: ≤74 years n =512, 75+ years n = 477; Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities), ^aAge differences where p < .05, ^bHAQ difference where p < .005

5.2.5 A&E and in-patient experiences

Participants were asked about a range of hospital experiences including the length of time in hospital, the length of time on a waiting list for in-patient treatment, and the length of time in A& E before being seen by a doctor and then, where relevant, being admitted to a ward.

North / South differences: When A&E services were considered, NI participants were seen more quickly by a doctor than were those in the RoI; 81% of NI vs.

46% of RoI participants reported being seen by a doctor within an hour of arrival ($p < .01$). More of the RoI patients attending A&E were admitted to hospital (40% vs. 17%, $p < .001$), however there was a trend for NI participants to be admitted to a ward more quickly ($p = .08$, see Table 5.9).

Further analysis was undertaken to determine the proportion of those who became in-patients after visiting A&E who were also on waiting lists for hospital treatment. In NI, all those admitted to a ward following A&E treatment were on waiting lists for in-patient treatment; in the RoI, this figure was 29% ($p < .001$); there were no North / South differences, however, in the length of time these groups were on waiting lists (see Table 5.9).

Table 5.9: Accident and Emergency (A&E) experiences by policy (RoI and NI) and geographic (urban & rural) region

Satisfaction Rating	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Time to treatment by doctor ^a						
- Don't know / not sure	17	11	14	2	–	1
- ≤ 1 hour	40	54	46	77	94	81
- 1-4 hours	18	16	19	15	6	13
- 4+ hours	25	19	22	6	–	5
Admitted as in-patient following A&E visit ^a	38	42	40	13	27	17
Time waiting before being admitted to a ward						
- ≤ 1 hour	27	24	25	64	79	70
- 1-4 hours	20	33	26	17	–	10
- 4+ hours	54	43	49	19	21	20
Time on waiting list for this in-patient treatment						
- 0-1 month	97	78	87	86	69	78
- 1-2 months	3	16	7	5	0	3
- 2-6 months	0	9	6	0	21	10
- 6-12 months	0	0	0	9	0	5
- 12+ months	0	0	0	0	10	4

Note: Participants attending A&E $n = 218$ (RoI $n = 121$; NI $n = 97$); participants admitted following A&E visit $n = 110$ (RoI $n = 89$; NI $n = 21$); ^aNorth/South differences where $p < .005$

When scheduled in-patient services were considered, there were no North / South differences in nights spent in hospital, however, NI participants spent longer on a waiting list for treatment than did those in the RoI ($p < .001$, see Table 5.10).

Table 5.10: Planned in-patient experiences by policy (RoI and NI) and geographic (urban & rural) region

Satisfaction Rating	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Attended for scheduled in-patient admission	16	14	15	16	16	16
Nights spent in hospital						
- 1-3 nights	41	27	34	40	25	36
- 4-7 nights	17	26	22	27	43	31
- 7+ nights	42	47	44	33	32	33
Length of time on waiting list for this treatment ^a						
- ≤ 1 month	82	76	79	58	52	57
- 1-2 months	10	7	9	8	5	7
- 2-6 months	5	8	7	20	22	20
- 6-12 months	3	6	4	10	11	10
- 12+ months	0	3	1	4	10	6

Note: Participants attending for planned in-patient treatment $n = 320$ (RoI $n = 161$; NI $n = 159$);

^a North/South differences where $p < .005$

5.2.6 Problems and barriers to hospital services

Equity implies universal access to care that does not vary in quality because of personal characteristics (Institute of Medicine 2001). Participants were asked whether they felt disadvantaged or discriminated against due to a range of factors including age, sex, race and religion. Participants were also asked whether a range of factors prevented them from attending their most recent out-patient appointments; these factors included transportation, cost and unhelpful staff or perceived ineffectiveness of treatment. In both regions, virtually all participants reported no barriers or problems.

5.2.7 Adequacy of out-patient appointments

One marker of quality of care is the patient's perception of adequacy of access to services. Any high quality process should attempt to reduce delays and waiting times for healthcare users. A timely service is essential in order to prevent distress and physical harm, e.g. through delays in diagnosis and treatment, and through preventable complications arising from such delays (Institute of Medicine, 2001).

In order to assess the adequacy or timeliness of out-patient appointments, participants were asked if they felt their out-patient appointment schedule was about right, not enough, or too frequent. Participants generally perceived their appointment schedule as adequate (91% in the RoI and 92% in NI) with 9% (RoI) and 6% (NI) believing they did not have appointments frequently enough, these differences were not significant.

Adequacy of out-patient appointments for vulnerable groups

Group differences (age, living alone, or functional impairments) were not found in either region in evaluations about the adequacy of out-patient appointments in the past year (see Tables 5.11 a and 5.11b).

Table 5.11a: Adequacy of out-patient appointments among vulnerable groups in the Republic of Ireland (RoI)

Enough out-patient appointments over past year?	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs.	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Not enough	12	6	10	8	8	17
- About right	88	94	90	92	92	83
- Too many	–	–	–	–	–	–

Note: ≤74 yrs n =605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/ severe disabilities), Low HAQ n = 942 (no/few disabilities)

Table 5.11b: Adequacy of out-patient appointments among vulnerable groups in Northern Ireland (NI)

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Enough out-patient appointments over past year?	Age Group		Living alone		HAQ	
	≤74 yrs	75+ yrs	No	Yes	Low	High
	(%)	(%)	(%)	(%)	(%)	(%)
- Not enough	6	7	7	5	7	4
- About right	93	91	91	93	93	91
- Too many	1	2	2	2	–	5

Note: ≤74 yrs n =491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities)

5.3 Day services (day hospitals, day centres/clubs)

Day services offer an important opportunity to enable older people to remain in their own homes by facilitating social interaction and/or managing health needs. They can also serve as important meeting places for older people who would otherwise be isolated in their homes because of physical restrictions. Research has shown that attending day-care centres can lead to improvements in psychosocial function (Sviden, Tham & Borell 2004). This is corroborated by comments from older people in focus groups which highlighted the value of day care services to them. Of particular interest in the present study were participants' experiences of services at day hospitals and day centres. The former provides a comprehensive range of both health and social services, e.g. blood pressure checks, physiotherapy or chiropody. In contrast, day centres provide social services for the most part, offering a range of activities that can include services such as meals or baths, often for a longer duration than day hospitals. This distinction is a loose one and some 'day care centres' have more of a health focus than others and vice versa. To differentiate insofar as was possible, interviewers were briefed about this distinction and asked to clarify with participants.

5.3.1 Day hospitals and day centres

A very small percentage of participants used day hospitals (RoI 3% and NI 3%) and day centres (RoI 2% and NI 2%) in the previous year.

North / South differences: There were no North / South differences regarding the use of day hospitals or day centres. Of those attending day hospitals, most attended once each week; 81% for RoI participants and 54% for NI participants.

118 Gender differences were found for use of day hospital services in the RoI but not NI ($p = .004$, $p = .33$, respectively); in the RoI more women than men attended day hospitals (RoI: 4% vs. 1%; NI 2% vs. 3%). Women in the RoI were also more likely than men to attend day centres (RoI 3% vs. 2%, $p = .01$; NI 2% vs. 1%, $p = .35$). No differences were found between social class and attendance at either day hospitals or day centres.

Use of day hospitals and day centres among vulnerable groups

There were no significant differences in use of day hospitals or day care centres among those over or under age 75 years, or among those who lived alone and all others in either policy region (see Tables 5.12a and 5.12b). However, those with moderate or serious functional impairments were more likely than others to avail of day hospitals (RoI $p = .03$; NI $p = .005$) and day centres (RoI $p = .05$; NI $p = .01$).

Table 5.12a: Use of day hospitals and day centres among vulnerable groups in the Republic of Ireland (RoI)

Used in past 12 mths	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
Used services in day hospital ^b	3	3	3	3	2	7
Used services in day centres ^{ab}	1	4	2	3	2	10

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities); ^aAge differences where p < .05; ^bHAQ differences where p < .05

Table 5.12b: Use of day hospitals and day centres among vulnerable groups in Northern Ireland (NI)

Used in past 12 mths	Age Group		Living alone		HAQ	
	≤74 yrs. (%)	75+ yrs. (%)	No (%)	Yes (%)	Low (%)	High (%)
Used services in day hospital	3	3	2	1	1	7
Used services in day centres ^a	1	2	1	2	1	4

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities); ^aHAQ differences where p < .05

5.4 Waiting lists

Waiting times are among the leading challenges to accessing healthcare (Schoen, Blendon, des Roches & Osborn 2002). In addition to the inconvenience and distress they cause, long waiting lists for treatment can result in harm through delays in diagnosis and treatment, and through preventable complications arising from such delays. According to the US Institute of Medicine (2001), high quality healthcare involves reducing delays and waiting times for healthcare users. Some North / South comparisons on waiting times for those who attended A & E in the previous year can be seen in Table 5.9.

North / South differences: The proportion of participants reporting being on waiting lists for a range of services (hospital in-patient, hospital out-patient, day hospital and day centre) can be seen in Table 5.13. North / South differences were found in the proportion of people on waiting lists for in-patient treatment (p = .007), outpatient treatment (p = .01), and day hospital (p = .001) but not day

centre. In all but the last named, waiting lists were higher in NI compared with the RoI. These differences remained, even when other known demographic North / South differences were controlled.

Table 5.13: Proportion reporting as on waiting list for treatment by policy (RoI and NI) and geographic (urban & rural) region

Type of Treatment	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
Inpatient treatment ^a	3	5	5	8	9	8
Out-patient treatment ^a	7	6	7	12	11	12
Day hospital ^a	1	0	1	3	2	2
Day care centre ^b	1	0	1	1	0	0

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South difference where $p < .05$, ^bacross policy urban/rural differences where $p < .05$

Men were more likely than women to be on a waiting list for in-patient treatment in the RoI (RoI 6% vs. 4%, $p = .053$; NI 8% vs. 8%, $p = .99$). There were no age differences, however, in the proportion of adults waiting for in-patient treatment service; in the RoI 4% and 5% of those under and over age 75 years respectively were waiting for in-patient treatment; corresponding figures for those in NI were 9% and 7%. A social class difference was found in the RoI ($p = .02$) but not NI. In the RoI, 6% of those from the lower social classes and 3% from the higher or professional social classes were on a waiting list for in-patient treatment services. Corresponding figures for those from NI were 8% and 9% respectively. In the RoI, but not NI, adults with higher levels of functional impairments were significantly more likely to be waiting for in-patient services than those with no or few impairments (RoI 20% vs. 4%, $p = .02$; NI 8% vs. 8%, $p = .85$).

Seven per cent of those from the RoI and 12% from NI reported being on waiting lists for out-patient hospital services. There were no gender or social class differences in either region. However, in the RoI, but not NI, a significantly greater proportion of those over rather than under age 75 years were waiting for out-patient hospital services (RoI 10% vs. 6%, $p = .01$; NI 11% vs. 12%).

Since socio-demographic differences have been controlled in the main analyses outlined here, and since a similar proportion in both regions received in-patient and A&E services (with more NI participants availing of out-patient care) in the last year, a greater proportion on waiting lists in NI is indicative of more health service activity in the NI system.

5.5 Use of other health and social services

In recent years social and health services in Europe have been paying increased attention to the provision of support for older people who want to remain living at home (De Jong-Gierveld & Van Solinge 1995). In Ireland, health boards provide many services to facilitate better health and quality of life among older people living in the community. Some of these services are available to respondents in their own homes. Use of such services is described next.

5.5.1 Use of home services

Given the changing focus to home-based services, a closer look needs to be taken at their structure. In this study participants were asked about their preferences and experiences of home services; these included home help, meals-on-wheels, public health nurses and personal care attendants (see Table 5.14).

Table 5.14: Profile of those receiving services by policy (RoI and NI) and geographic (urban & rural) region

Received in past 12 months	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Home services						
Public health nurse/District nurse	12	14	13	12	16	13
Home-help ^{ac}	8	6	7	17	18	17
Meals-on-wheels ^{abc}	2	1	2	7	6	6
Personal care attendant ^{abc}	1	2	1	6	6	6
% received at least 1 home service ^a	17	17	18	25	30	26
- received 2 home services	4	3	3	7	8	7
- received 3+ home services	1	1	2	3	4	4
Therapies						
Chiropody services ^{abc}	22	7	16	20	30	23
Physiotherapy services	8	2	5	5	6	5
Social worker ^{ac}	2	0	1	7	8	8
Occupational therapy	2	1	1	1	0	1
Psychological/counselling services	2	1	2	2	3	2
% received at least 1 therapy ^{abcd}	28	9	20	26	36	29
- received 2 therapy services	6	1	4	4	8	5
- received 3+ therapy services	1	1	1	2	2	2
Out-patient services:						
Optician services ^{abcd}	30	15	24	32	43	35
Dental services ^{ab}	19	5	13	25	27	26
Hearing services ^a	6	3	5	7	8	7
Dietician services	4	3	3	5	-	5
% received at least 1 Out-patient service ^{abcd}	38	20	30	48	56	50
- received 2 out-patient services	15	5	11	15	21	17
- received 3+ out-patient services	4	1	2	3	3	3
Respite services:						
Respite care as a receiver of care ^c	2	1	2	2	4	3
Respite care as a carer ^{ab}	0	0	0	1	3	2

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05, ^bacross policy urban/rural differences where p < .05, ^cwithin RoI policy region urban/rural differences where p < .05, ^dwithin NI policy region urban/rural differences where p < .05

Public health nursing services

North / South differences: Thirteen per cent of participants from each of the RoI and NI policy regions availed of services from public health nurses; there were no North / South differences. Women in the RoI were significantly more likely than men to avail of public health nursing services (RoI 16% vs. 10%, $p = .04$; NI 15% vs. 11%). There were no social class differences in use of public health nursing services.

Services from home helps

International research testifies to the importance of the home-help service in helping older people to remain facilitating in their own homes (Lundström & McKeown 1994).

North / South differences: Seven per cent of participants in the RoI and 17% in NI availed of home help services; this difference was significant ($p < .001$) and remained even when controlling for other known demographic differences between the samples. In both policy regions, women were significantly more likely than men to avail of home helps (RoI 9% vs. 5%, $p = .01$; NI 21% vs. 12%, $p = .001$). In NI only, a greater proportion of those from lower rather than professional groups availed of home helps (RoI 7% vs. 8%, $p = .12$; NI 18% vs. 14%, $p = .09$).

Meals-on-wheels

Older adults often have an increased nutritional risk, particularly for the oldest-old, the poor, the functionally impaired, minorities, women, and those with little or no outside support (Sharkey, Branch, Zohoori *et al.* 2002). The benefits of meal-on-wheels as a service is illustrated through research showing that recipients of good quality home-delivered meals services demonstrate reduced risk of malnutrition, as well as improved appetite, perceived health, and outlook on life (Gollub & Weddle 2004).

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North / South differences: Two per cent of RoI participants and 6% in NI availed of meals-on-wheels. This difference remained significant ($p < .001$) even when controlling for other known demographic differences between the samples (see Table 5.14). There were no gender or social class differences for use of meals-on-wheels in either policy region.

Personal care attendant services

Personal care attendant services are a feature of formal health care. They can play an important role by facilitating older peoples' ability to continue dwelling in the community (Hellstrom & Hallberg 2004).

North / South differences: One per cent of RoI participants and 6% in NI participants availed of services from personal care attendants; this North / South

difference was significant ($p < .001$) (see Table 5.14). In the RoI only, women were significantly more likely than men to avail of services from a personal care attendant (RoI 2% vs. 1%, $p = .01$; NI 7% vs. 5%, $p = .42$). There were no social class differences in use of services from personal care attendants.

5.5.2 Use of therapies

A range of therapies to address health-related problems and facilitating health and wellbeing are available for older adults. In order to create a profile of therapy use in Ireland, participants were asked about their preferences for and experiences of therapies, including physiotherapy, occupational therapy, chiropody, speech therapy and psychological therapy or counselling.

Chiropody services

Many older individuals complain of painful feet from a variety of causes, ranging from diabetes to vascular and biomechanical problems. Despite their high incidence, foot problems receive insufficient attention particularly in the way of foot care screening and education (Plummer & Albert, 1996). Chiropody services can help to prevent symptoms and facilitate mobility amongst older people so they should be made widely available and their uptake encouraged.

North / South differences: Participants in the RoI were significantly less likely to avail of chiropody services compared to those in NI (16% vs. 23%, $p < .001$; see Table 5.14). Women were significantly more likely than men to avail of chiropody services (RoI 19% vs. 12%, $p = .006$; NI 28% vs. 16%, $p < .001$). However, there are no social class differences in the use of chiropody services.

Physiotherapy

Rheumatologic conditions are amongst the most prevalent pathologies affecting older people; they can cause disability and incur very large direct and indirect healthcare costs (Hurley, Dziedzic & Bearne *et al.* 2001). Physiotherapy services specifically aim to relieve pain and stiffness, prevent deformity, maximise function and provide education and advice to enable self-management.

North / South differences: Five per cent of both RoI and NI participants availed of physiotherapy services; this difference was not statistically significant (see Table 5.14). More women than men availed of physiotherapy services, particularly in the RoI (RoI 7% vs. 3%, $p = .004$; NI 6% vs. 3%, $p = .07$). In NI, adults from the higher or professional social class group were more likely to have received physiotherapy services than those from the lower social class group (NI 8% vs. 4%, $p = .003$; RoI 7% vs. 5%, $p = .07$).

Occupational therapy

Through a variety of methods including the use of adaptive equipment, occupational therapists can help community-dwelling older people to lead more productive and independent lives, thereby promoting health and wellbeing in the general population (Scott, Butin, Tewfik *et al.*, 2001).

North / South differences: One per cent of participants in each of the RoI and NI policy regions received occupational therapy services in the previous year (see Table 5.14). There were no gender or social class differences in the proportion of participants who had received occupational therapy services.

Psychological / counselling services

In contrast with older medically ill in-patients, there has been little systematic research into psychiatric morbidity in older out-patients (Neal & Baldwin, 1994). As seen previously, the present study has demonstrated that 5% and 8% of participants in the RoI and NI respectively meet the criteria for significant depression. Uptake of counselling services is lower than these prevalence rates.

North / South differences: There were no significant differences in the percentage of participants who had received counselling or psychological services in the previous year (RoI 1% vs. NI 1%) (see Table 5.14). There were no gender differences in use of psychological services. However, those who had received psychological services in the previous year were significantly more likely to be from the lower rather than the higher social class group, particularly in NI (NI 1% vs. 0%, $p = .01$; RoI 2% vs. 1%, $p = .82$).

5.5.3 Use of other primary care services

Participants were asked about their preferences and experiences of a range of those other primary care services including services of dietitians, opticians, dental and hearing specialists.

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Optician services

Loss of vision among older adults is a major health care problem. Vision impairment is associated with a decreased ability to perform activities of daily living and an increased risk of depression (Shmueli-Dulitzki & Rovner 1997). Visual impairment can, however, be corrected and research has shown that this, in turn, has positive implications for health-related outcomes such as physical rehabilitation following a hip fracture (Lieberman, Friger & Lieberman 2004). Consequently, it is important that adults have access to optical care in later life. The present study shows that optical care is one of the most widely used primary care services by older adults in Ireland.

North / South differences: NI participants were significantly more likely than those from the RoI to have availed of services from an optician in the previous year (35% vs. 24%, $p < .001$) (see Table 5.14). Women in both policy regions were significantly more likely than men to have availed of services from an optician in the previous year (RoI 28% vs. 19%, $p = .003$; NI 37% vs. 31%, $p = .053$). There were no social class differences in the use of services from opticians.

Dental services

In a review of oral health in Ireland in 1990 (O'Mullane & Whelton, 1992), 48 per cent of people over the age of 65 were found to be edentulous. The condition of dentures in many older people is poor, and this can have health implications (Drummond, Newton & Yemm 1996). The extent to which older people avail of dental services can inform efforts to facilitate oral health in the community.

North / South differences: NI participants were more likely than those from the RoI to have availed of dental services in the previous year (26% vs. 13%, $p < .001$) (see Table 5.14) There were no gender differences in the proportion of men and women who availed of dental services in the previous year. However, in NI, adults from higher rather than lower social class groups were more likely to have received dental services (RoI 15% vs. 12%, $p = .051$; NI 36% vs. 15%, $p < .001$).

Aural (hearing) services

Approximately one quarter of the population over the age of 65 in most industrialised nations, and perhaps more in the rest of the world, experience hearing loss. Hearing loss is strongly associated with depression and functional decline (LaForge, Spector, & Sternberg, 1992). A study in Ireland revealed a prevalence of 30 per cent in those aged 75 and over (Maguire, Boland, NcDowell & Prosser 1997). Despite the prevalence and consequences of hearing impairment it is, however, both underdiagnosed and undertreated in older persons (Yueh, Shapiro, MacLean & Shekelle 2003). This is discouraging in light of evidence that the use of hearing aids can improve quality of life (Mulrow, Aguilar, Endicott *et al.* 1990). The present study assessed uptake of aural services.

North / South differences: Five per cent of participants in the RoI and 7% in NI availed of aural services in the previous year; this difference was statistically significant ($p = .009$) (see Table 5.14). In NI, men were significantly more likely than women to have availed of aural or hearing services (NI 9% vs. 6%, $p = .05$; RoI 4% vs. 6%, $p = .13$), but social class differences on this variable were not found in either policy region.

Dietician services

Dietician services can help to prevent and treat illnesses by promoting healthy eating habits and recommending dietary modifications. Dietician services were assessed (see Table 5.14).

North / South differences: Only a small proportion of participants availed of dietician services: 3% in the RoI and 5% in NI (see Table 5.14). The difference between NI and RoI participants did not reach significance level ($p = .07$). Men were not any more likely than women to have received dietician services in either policy region (RoI 4% vs. 4%, $p = .94$; NI 4% vs. 4%, $p = .19$). There were no social class differences in the use of dietician services.

Social work services

The uptake of services from social workers was assessed.

North / South differences: Results from the present study indicate that only a small proportion of participants in the RoI and NI reported using the services of social workers. Nevertheless, a significant North / South difference in use of social work services was found ($p < .001$) (see Table 5.14). More women than men in both policy regions availed of social work services in the previous year, particularly in the RoI (RoI 3% vs. 1%, $p = .02$; NI 9% vs. 5%, $p = .07$). There were no social class differences in the use of social work services.

Respite care

The strain of caregiving has been found to be an independent risk factor for mortality (Schulz & Beach 1999). Respite care (as currently understood) is generally a short-term institutional admission for the person who is receiving care. It can provide the support necessary to continue caregiving. Respite care use was assessed.

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North / South differences: Very few participants (RoI 2% and NI 3%) availed of respite care as a receiver of care. NI participants were more likely than those in the RoI to have availed of respite care as a carer (RoI < .5% vs NI 2%; $p = .002$) (see Table 5.14). In neither policy region were there gender or social class differences in use of respite care as a receiver of care. For instance, in both policy regions, 1-3% of men and women received respite care as a receiver of care, as did 2-3% of adults in lower and higher social class groups.

5.5.4 Spread of services

Further analyses was undertaken to examine the spread of services in each region, i.e. did more people receive one service, or did a smaller proportion receive multiple services. In every situation, a greater proportion of people were in receipt of a greater number of services in NI. In the RoI, a smaller proportion of people

tended to receive fewer services. For instance, it can be seen in Table 5.14 that 18% of all participants in the RoI and 26% of all participants in NI received at least 1 home-based service; of these groups, 13% in the RoI and 15% in NI received just the one service, while 3% and 7% respectively in each area received 2 home services, and 2% in the RoI vs. 4% in NI received 3 or more of these services.

5.5.4.1 Use of services among vulnerable groups

Given the heterogeneity that occurs between people in later life (and the need to plan services accordingly), use of services was also examined for possible vulnerable groups, i.e. those over 75 years, those living alone, and those with moderate-severe functional impairments (see Tables 5.15a and 5.15b).

Use of services by age group: under and over age 75+ years

Those under age 75 years were more likely than others to avail of public health nursing services (RoI 22% vs. 7%, $p < .001$; NI 18% vs. 10%, $p = .04$) and home helps (RoI 12% vs. 4%, $p = .02$; NI 29% vs. 8%, $p < .001$). Adults aged over rather than under 75 years were significantly more likely to avail of meals-on-wheels in NI but not the RoI (RoI 3% vs. 1%, $p = .58$; NI 10% vs. 4%, $p = .009$). There were no age group differences in use of services from personal care attendants.

In terms of the therapies, those over rather than under age 75 years were more likely than others to avail of chiropody services (RoI 23% vs. 11%, $p < .001$; NI 27% vs. 20%, $p = .03$). Participants under rather than over age 75 years in NI were more likely than others to have received physiotherapy services (RoI 6% vs. 5%, $p = .19$; NI 6% vs. 3%, $p = .01$). There were no age group differences in the use of occupational therapy, social work services or counselling/psychological services.

In the RoI only, those over age 75 years were more likely than others to have availed of services from an optician in the previous year (RoI 30% vs. 20%, $p = .01$; NI 33% vs. 36%, $p = .40$). In NI only, adults over rather than under age 75 years were significantly less likely than others to have received dental services (NI 21% vs. 29%, $p = .02$; RoI 14% vs. 12%, $p = .65$) and dietician services (NI 3% vs. 7%, $p = .009$; RoI 4% vs. 4%, $p = .52$). In RoI only, this age group was more likely than others to have availed of aural or hearing services (RoI 9% vs. 3%, $p = .002$; NI 9% vs. 6%, $p = .07$). There were no age group differences in use of respite care services, either as a receiver of care or as a carer.

Use of services among those living alone

There was a trend in the RoI for those living alone to be more likely than others to avail of meals-on-wheels ($p = .08$) and personal care attendants ($p = .06$), but not public health nurses. Those living alone in the RoI were also more likely than others to avail of services from home-helps ($p < .001$). No other group differences

were found in use of services between those living alone and others (see Tables 5.15a and 5.15b).

In NI, those living alone were more likely than others to have availed of home help services ($p < .001$), meals-on-wheels ($p = < .003$), and social work services ($p = < .002$). No other group differences were found in use of services between those living alone and others (see Table 5.15b).

Table 5.15a: Current use of primary care services by selected vulnerable groups in the Republic of Ireland (n =1,053)

Recd in past 12 mths	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low (%)	High (%)
Home Services:						
Public health / District nurse ^{ac}	7	22	12	15	10	45
Home-help ^{abc}	4	12	5	12	5	29
Meals-on-wheels ^c	1	3	1	3	1	10
Personal care attendant	1	3	1	2	–	11
Therapies:						
Chiroprody services ^{ac}	11	23	15	20	14	33
Physiotherapy services ^c	6	5	6	5	5	4
Social Worker ^c	1	2	1	2	1	8
Psychological/ counselling services ^c	1	1	2	1	1	4
Occupational therapy ^c	1	2	2	1	1	8
Out-patient services:						
Optician services ^a	20	30	23	27	24	27
Dental services	12	14	13	13	13	12
Hearing services ^a	3	9	6	4	5	10
Dietician services	4	4	4	3	4	4
Respite services:						
Respite care as receiver of care ^c	1	1	2	1	1	12
Respite care as a carer	1	1	0	0	0	1

Note: ≤74 years n = 653, 75+ years n = 400; Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities); ^aAge differences where $p < .05$; ^bLiving alone differences where $p < .05$; ^cHAQ differences where $p < .05$

Table 5.15b: Current use of primary care services by selected vulnerable groups in Northern Ireland (n =1000)

Recd in past 12 mths	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low ^a (%)	High (%)
Home services:						
Public health / District nurse ^c	10	18	12	14	6	38
Home-help ^{abc}	8	29	8	24	10	41
Meals-on-wheels ^{abc}	4	10	3	9	3	16
Personal care attendant ^c	4	8	4	7	1	20
Therapies:						
Chiroprody services ^{ac}	20	27	25	21	18	37
Physiotherapy services ^{abc}	6	3	7	3	4	10
Social Worker ^{abc}	5	10	4	10	3	21
Psychological/ counselling services	1	1	1	1	1	1
Occupational therapy ^c	3	2	2	3	1	7
Out-patient services:						
Optician services ^b	36	33	40	31	35	34
Dental services ^{ac}	29	21	32	21	28	17
Hearing services	6	9	10	5	6	10
Dietician services ^c	6	3	6	4	4	9
Respite services:						
Respite care as receiver of care ^c	1	2	2	2	1	8
Respite care as a carer ^c	1	2	2	3	1	7

Note: ≤74 years n = 512, 75+ years n = 477; Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities); ^aAge differences where p < .05; ^bLiving alone differences where p < .05; ^cHAQ differences where p < .05

Use of services among those with functional impairments

People with functional impairments were more likely than others to avail of a range of home services (all ps < .005). In both regions, those with moderate to severe functional impairments (HAQ groups 2 and 3) were more likely than others to avail of services from public health nurses, home helps, and meals-on-wheels (see Tables 5.15a and 5.15b). In the NI but not the RoI, those with functional

impairments were also more likely than others to avail of services from personal care attendants (Rol 5% vs. 1%, NI 11% vs. 4%).

In both regions, participants with functional impairments were also more likely to avail of a range of therapies and out-patient services, including chiropody services, physiotherapy, social work services and occupational therapy (all p s < .001, again see Tables 5.15a and 5.15b). Participants with functional impairments in both regions were also more likely than others to avail of respite care as a receiver of care (all p s < .001) and as receiver of care (Rol p = .04; NI p < .001).

5.6 General practitioner services

The next section repeats the sequence of North/South comparisons by considering urban/rural comparisons within the samples.

5.6.1. Use of GP services

Urban / rural differences: For participants in urban areas, the mean number of visits to any GP in the past year was 4.4 (SD = 5.2; median = 3.0; range = 0 to 92); for participants in rural areas, the mean number of visits was 5.7 (SD = 5.9; median = 4.0; range = 0 to 84). When the samples were combined no significant urban / rural difference on GP visits was found. However, when this analysis was re-run separately for participants from the Rol and then NI, a significant urban / rural difference was found for participants in NI with rural participants visiting GPs more frequently (p = .001) (See also Table 5.1).

5.6.2 Attitudes and satisfaction with GP services

5.6.2.1 Attitudes

Urban / rural differences: Similar proportions (40% and 36% in rural areas) indicated that they would definitely change GPs if dissatisfied with some aspect of their care. When this data was analysed separately for participants from the Rol and NI, a significant urban/ rural difference was found in NI (p < .001) but not in the Rol (p = .30), i.e. rural participants in NI were less likely than their urban counterparts to say that they would change GPs if dissatisfied with some aspect of their care.

Forty-six per cent of participants from urban areas, and 61% from rural areas had visited their GPs 4+ times in the previous year; this urban/ rural difference was significant (p < .001) (see Table 5.4). There were no gender differences in frequency of visits to GPs. Adults from professional social class groups visited their GPs more frequently compared to those from lower social class groups (urban areas 93% vs. 89%, p = .04; rural areas 98% vs. 91%, p = .03). For instance, 11% of those from lower social class groups had not visited their GPs in the previous year, in contrast to just 7% of those from the higher social class

group; corresponding figures for those in rural areas were 9% and just 2% respectively.

5.6.2.2 Satisfaction

Urban / rural differences: Over 90% of all participants in urban areas were satisfied or very satisfied with the quality of information they received about their health, with the availability of their GPs and with the fact their GPs took their concerns seriously. There were no urban / rural differences in or across regions.

5.7 Hospital services

Participants in urban and rural areas were asked about their use of different hospital services.

5.7.1 Use of Accident and Emergency (A&E), in-patient and out-patient services

Urban / rural differences: Similar proportions of participants in urban and rural areas had utilised or attended A&E (11% vs. 10% respectively), in-patient services (15% vs. 14% respectively) and outpatient services (25% vs. 19% respectively). There were no significant differences in frequency of attendance for any of these services.

5.7.2 In-patient and A&E experiences

Urban / rural differences: No urban / rural differences were found regarding the length of time spent in hospital, length of time on waiting list for in-patient treatment or length of time waiting before being admitted to a ward.

When examining data for A&E patients only, there were no urban / rural differences in the time taken to be admitted to a ward, or for the proportion of urban and rural participants who attended A&E and were admitted to a ward. However, when the latter analysis was run separately for participants in NI and then the RoI, a significant difference was found in NI ($p = .02$), i.e. rural participants in NI were more likely to be admitted to hospital following an A&E visit than were those from urban areas (NI 27% vs. 13%). This difference remained even when controlling for known demographic differences in urban and rural areas, and levels of functional impairment as measured by HAQ. No significant urban / rural difference was found in time on a waiting list for those who were admitted as in-patients following an A&E visit.

Among participants admitted for scheduled in-patient treatment there were no urban / rural differences in the number of nights spent in hospital or the time on waiting lists for treatment.

5.7.3 Problems and barriers to hospital services

Urban / rural differences: Urban / rural differences could not be computed because of the small percentages.

5.7.4 Adequacy of out-patient appointments

Urban / rural differences: Similar proportions (91% in urban areas and 92% in rural areas) attending out-patient appointments believed the number of appointments they had was about right.

5.8 Day services (day hospital, day centre/clubs)

5.8.1 Day hospitals and day centres

Urban / rural differences: There were no urban / rural differences in use of these services.

There were no gender age or social class differences in attendance at day hospitals or day centres across urban and rural settings.

5.9 Waiting lists

Urban / rural differences: The two services with the longest waiting lists were those for in-patient and out-patient hospital services. There were no urban / rural differences between the proportion of participants on waiting lists for in-patient treatment, out-patient treatment, day hospital or day centres (see Table 5.16).

Table 5.16: Waiting lists for treatment by geographic (urban & rural) region

Type of treatment	Urban areas	Rural areas
	(%)	(%)
Inpatient treatment	6	7
Out-patient treatment	10	8
Day hospital	2	1
Day care centre	1	0

Note: urban n = 1,265, rural n = 756

5.10 Use of other health and social services

5.10.1 Use of home services in urban and rural areas

Public health nursing and home help services: Similar proportions (12% and 15%) from urban and rural areas availed of services from public health nurses and from home helps (12% urban and 10% rural) (see Table 5.14).

Services from home helps: Twelve per cent of participants from urban areas and 10% from rural areas availed of home help services; this difference was not significant, nor were there any urban / rural differences for use of services from home helps when analysing urban / rural differences separately for participants in the RoI and then NI (see Table 5.14).

Meals-on-wheels: Participants in urban areas were significantly more likely to receive meals-on-wheels than those in rural areas (5% vs. 3%, $p = .001$) (see Table 5.14). Further analysis indicated however that this urban / rural difference was only relevant for participants from the RoI (RoI $p < .001$; NI $p = .15$). In rural but not urban areas, RoI women were more likely than men to receive meal-on-wheels (3% vs. 1%, $p = .002$), as were adults over rather than under age 75 years (4% vs. 1%, $p = .002$).

Personal care attendant services: There was an urban / rural difference in the proportion of people availing of services from personal care attendants with rural participants less likely to avail of services (3% vs. 4%; $p = .01$) (see Table 5.14). When examined separately this urban / rural difference was significant for participants from the RoI ($p = .03$) but not for those in NI. Women were significantly more likely than men to avail of services from a personal care attendant in rural but not urban areas (rural areas 5% vs. 2%, $p = .04$; urban areas 4% vs. 3%, $p = .51$). There were no age or social class differences.

5.10.2 Therapies in urban and rural areas

Chiropody services: Participants in rural areas were significantly less likely to avail of chiropody services compared to those in urban areas (16% vs. 21%, $p = .002$). However, when examining this data separately for participants from the RoI and those from NI, this urban / rural difference was only in NI ($p = .002$) (see also Table 5.14).

Women were significantly more likely than men in each geographic area to avail of chiropody services (urban areas 25% vs. 15%, $p < .001$; rural areas 20% vs. 11%, $p = .02$), as were participants over rather than under age 75 years in urban areas (urban areas 29% vs. 15%, $p < .001$; rural areas 18% vs. 14%, $p = .69$). Similar proportion of adults from higher and lower social class groups received chiropody services. Participants with major physical impairments were

significantly more likely than those with no/few impairments to have received chiropody services, but this result remained a trend only in rural areas (urban areas 48% vs. 19%, $p < .001$; rural areas 32% vs. 15%, $p = .06$).

Other therapy services: There were no urban / rural differences in physiotherapy, occupational therapy and psychological/counselling services (see Table 5.14).

5.10.3 Out-patient services in urban and rural areas

Participants were asked about their preferences for and experiences of a range of out-patient services including those of dieticians, opticians, dental specialists and hearing specialists.

Optician: Thirty-one per cent of urban participants and 25% of rural participants had received services from an optician in the previous year; this urban / rural difference was significant ($p = .051$). Furthermore, urban participants were significantly more likely than those from rural areas to have received services from opticians when examining data separately for participants in the RoI ($p = .01$) and NI ($p = .003$) (see Table 5.14). Women were significantly more likely than men to have availed of services from an optician in the previous year (urban areas 34% vs. 27%, $p = .01$; rural areas 29% vs. 21%, $p = .01$), as were adults over age 75 years in urban areas (urban areas 35% vs. 28%, $p = .02$; rural areas 25% vs. 26%, $p = .18$). There were no social class differences in use of services from opticians. In urban areas 30-32% of participants from lower and higher social class groups availed of optician services, as did 20-27% of those from lower and higher social class groups in rural areas. There was no relationship in either geographic region between use of services from an optician and level of functional impairment.

Dental services: Twenty-three per cent of participants in urban areas, and 13% of those in rural areas had received dental services in the previous year; this difference was significant ($p = .007$) (see Table 5.14). There were urban / rural gender differences in use of dental services in either geographic region. However, in rural areas, adults under age 75 years were significantly more likely to have received dental services (rural areas 16% vs. 9%, $p = .002$; urban areas 23% vs. 23%, $p = .69$). Furthermore, in urban but not rural areas, participants from the higher or professional social classes were significantly more likely to have received dental services by comparison with those from lower social classes (urban areas 29% vs. 19%, $p = .001$; rural areas 13% vs. 13%, $p = .61$). There was no relationship in either geographic region between physical impairment and use of dental services.

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Aural (hearing), dietician, social work and respite services: There were no urban / rural differences, in either geographic region, for use of aural, dietician or social work services. Two per cent of participants in each of the urban and rural areas

availed of respite care as a receiver of care. In contrast, 1% in each geographic region received respite care as carers. Urban / rural differences in respite care as a receiver of care were not found, but urban participants were more likely than their rural counterparts to have received respite care as a carer ($p = .03$) (see Table 5.14). There were no significant age, gender, or social class differences in use of respite care as a carer in either geographic area.

The next chapter examines reported needs and barriers to health and social services.

Chapter Six:
The need for barriers to health and social services

There were no policy or geographic region differences in ability to drive with just under half of older people still driving. Similar proportions of NI/Rol participants used public transport but fewer rural than urban dwellers did. Participants can feel stigmatised and do not use meals-on-wheels, home help or personal care assistants even if needed. Almost all participants chose living at home with family support as their care preference if they needed long-term care. The least preferred option if needing long-term care was a nursing home. A large group would not accept a nursing home option of care. Many had never discussed their long-term care preferences with others. Nonetheless, they believed their wishes would be honoured.

6.1 Barriers to health and social services

A range of factors can impede access to health and social services; including transportation, the stigma associated with the use of these services, for medical care and funding. Findings on these issues are presented below.

6.1.1 Transportation

6.1.1.1 Driving

Driving is associated with better health, fewer physical limitations and higher cognitive function. Understanding the transition from driver to non-driver has theoretical and applied value. Compulsory or voluntary surrender of one's car or status as a driver can have important psychological consequences as the following quote from the focus groups illustrates:

I think loss of independence is the worst thing. Yes, yes I think that is, yes it is the worst. Until October when this hit me I was driving everywhere giving people lifts. Now I have to depend on people to pick me up. I find it awful but they say 'but you've given people lifts all these years, what's wrong with it' (but)... it doesn't work like that.

North / South differences: Participants in the Rol were not any more likely than those in NI to report the ability to drive (see Table 6.1). In both regions, men were significantly more likely than women to drive (both $ps < .001$), (Rol 69% men and 30% women; NI 61% men and 26% women; both $ps < .001$). Those from non-manual or higher social class groups were also more likely than others to drive (Rol 61% v. 37%, $p < .001$; NI 54% vs. 35%, $p < .001$). (For information on driving among possible vulnerable groups, see section 6.1.1.4).

Table 6.1: Transportation by policy (NI & RoI) and geographic (urban & rural) region

	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Car driving	49	46	47	39	46	41
Walking/Cycling	68	46	58	54	33	49
Getting lifts	57	60	58	61	66	62
Public transport ^a	65	25	48	41	23	37

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aUrban/Rural differences where $p < .05$

Participant status as an ex-driver (i.e., those who had given up driving) was also examined, with those in NI significantly more likely to have given up driving than those in the RoI (24% vs. 18%, $p < .001$). Men and women were both equally likely to have given up driving in NI (27% vs. 23%, respectively), while in the RoI, men were more likely than women to have given up (21% vs. 15%, $p < .05$). Of the reasons stated for giving up driving, health-related concerns accounted for the largest percentage (47%).

6.1.1.2 Walking/cycling and getting lifts from family and friends

North / South differences: Similar proportions (58% of RoI and 49% of those in NI) reported that they had walked or cycled in the previous year (see Table 6.1). Men were less likely to have walked than women ($p = .04$), as were those aged 75+ years ($p = .02$) and those in lower social class groups ($p = .03$). Similar proportions also had received lifts from family and friends (58% from the RoI and 62% from NI). In both regions, women were more likely than men to avail of lifts (RoI 67% vs. 45%, $p < .001$; NI 71% vs. 51%, $p < .001$), as were those over rather than under age 75 years (RoI 39% vs. 51%, $p < .001$; NI 68% vs. 60%, $p = .03$). There was no relationship between social class and use of lifts from family or friends.

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6.1.1.3 Public Transport

North / South differences: Similar proportions (48% in the RoI and 37% in NI) availed of public transport. Neither was there a significant relationship between use of public transport and either gender or social class.

6.1.1.4 Transportation among vulnerable groups

In the RoI those aged 75+ years were significantly less likely than others to drive, to walk, or to avail of public transport. However, they were more likely than

others to avail of lifts from family and friends (see Table 6.2a). In NI, those aged 75+ years were less likely than others to drive ($p = .001$); no other age group differences were found (see Table 6.2b.) Those living alone were significantly less likely than others to drive, but they were not any less likely to avail of other forms of transport. In both policy regions, those with higher functional impairments were less likely to drive, to use walking as a form of transportation, or to use public transport. In the RoI only, there was a trend for those with greater functional impairments to be more likely to have availed of lifts from family or friends ($p = .08$).

Table 6.2a: Transport among vulnerable groups in the Republic of Ireland

Percentage involved in each form of transport	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low ^a (%)	High (%)
Driving ^{abc}	61	27	52	35	51	8
Walking ^{ac}	64	51	59	58	62	29
Getting lifts ^a	50	70	57	62	56	76
Public transport ^{ac}	52	40	36	37	51	13

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities), ^aAge differences where $p < .05$, ^bLiving alone differences where $p < .05$, ^cHAQ differences where $p < .05$

Table 6.2b: Transport among vulnerable groups in Northern Ireland

Percentage involved in each form of transport	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low ^a (%)	High (%)
Driving ^{abc}	48	30	55	30	47	19
Walking ^c	54	43	49	48	61	11
Getting lifts	60	67	62	63	61	68
Public transport ^c	40	32	49	44	44	12

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities), ^aAge differences where $p < .05$, ^bLiving alone differences where $p < .05$, ^cHAQ differences where $p < .05$

6.1.2 Stigma

Embarrassment and perceived stigma may mean that some older adults do not avail of services that could otherwise facilitate their greater independence and autonomy. Participants were asked how acceptable it was for them or embarrassed they would be if they needed to use particular services; acceptability was rated on

a five-point scale. Table 6.3 shows the level of embarrassment associated with a range of services: meals-on-wheels, home help, and personal care assistants coming into the participant's home.

Table 6.3: Embarrassment about use of services by policy (RoI and NI) and geographic (urban & rural) region

	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Meals-on-wheels						
- Not/slightly embarrassing, but acceptable	84	85	84	84	84	84
- Somewhat embarrassing, but acceptable	7	5	6	7	6	5
- Fairly / very embarrassing and not acceptable	9	10	10	11	10	11
Home help ^a						
- Not/slightly embarrassing, but acceptable	87	85	86	91	89	91
- Somewhat embarrassing, but acceptable	7	5	6	3	5	3
- Fairly / very embarrassing and not acceptable	6	10	8	6	6	6
Personal care assistant coming into home						
- Not/slightly embarrassing, but acceptable	82	85	84	85	86	84
- Somewhat embarrassing, but acceptable	8	5	6	5	6	6
- Fairly / very embarrassing and not acceptable	10	10	10	11	8	10

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where $p < .05$

North / South differences: There were no North / South differences in levels of embarrassment for use of meals-on-wheels with very few in either policy region (10% in RoI and 11% NI) being so embarrassed about availing of this service that they would find it unacceptable (see Table 6.3). There were also no age, gender or social class differences in perceived stigma associated with use of meals-on-wheels.

RoI participants were significantly more embarrassed at the prospect of availing of home helps than were those from NI ($p = .01$) (14% of RoI participants would be embarrassed about availing of home help services compared to 9% of NI participants, see Table 6.3). There were no age, gender or social class differences in perceived stigma associated with use of home help services.

There was no North / South difference in levels of embarrassment for personal care assistants coming into participants' homes with 84% in each region finding this service acceptable (see Table 6.3). There were no age, gender or social class differences in perceived stigma associated with use of services from personal care attendants.

Embarrassment about service use among vulnerable groups

There were no significant differences in any of the vulnerable group comparisons in levels of embarrassment associated with meals-on-wheels, home helps, or personal care assistants coming into homes.

6.1.3 Funding for medical care

Funding can be a barrier to health and social services. Participants were asked if they had personally paid for a range of services from health and social services. Very few older people paid in full or partially for the services in the past year with the exception of chiropody, optician and dental services.

North / South differences: Significant North / South differences were found for five of 15 services (see Table 5.14): optician services, dental services, personal care attendants, physiotherapy services, and hearing services. For the first of these three services, NI participants were more likely to pay than were those in the RoI. For the latter two services, RoI participants were more likely to pay (see Table 6.4).

The most used services in each of three categories of services are discussed next in more detail (home services, therapies, and out-patient services). Respite care services are not discussed further as they were used by so few participants.

Table 6.4: Profile of those using and paying for key services by policy (RoI and NI) region

	Republic of Ireland		Northern Ireland	
	Used	Paid	Used	Paid
	%	%	%	%
Home services:				
Public health nurse / District nurse	13	5	13	5
Home Help	7	36	17	22
Meals on wheels	2	47	6	73
Therapies:				
Chiropractic services	16	48	23	26
Physiotherapy services ^a	5	49	5	17
Outpatient services:				
Optician services ^a	24	45	35	55
Dental services ^a	13	52	26	60
Hearing services	5	40	7	13

Note: Used services (RoI n = 1,053, NI n = 1000); ^aNorth/South differences where $p < .05$

Thirteen per cent of the total sample in each policy availed of services from public health or district nurses; of this group, just 5% of participants in each policy area paid for these services themselves. In the RoI, there were no gender or social class differences in the proportion paying for services from public health or district nurses, however those over rather than under age 75 years were more likely to pay (9% vs. 3%, $p < .001$). People with functional impairments were not any more likely than others to pay for this service. In NI, gender or social class differences were not found on this measure, however, men were more likely than women to pay for services from nurses (9% vs. 6%, $p = .03$), as were those with higher functional impairments (10% vs. 6%, $p = .03$).

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Of those receiving home help services, 36% in the RoI and 22% in NI paid to do so. There were no gender or age differences in this group. Participants from the higher social classes were more likely than those from lower social classes to pay for home help services (RoI 37% vs. 18%, $p = .02$; NI 47% vs. 29%, $p = .003$). There was no relationship between functional impairments and paying for home help services.

Of those receiving meals-on-wheels, many users paid for this service (73% of those receiving services in NI and 47% in the RoI). Age, gender or social class differences in the proportion of people paying for meals-on-wheels were not found. There was a trend in NI for those with minor rather than major functional

impairments to be more likely to pay for meals-on-wheels (NI 83% vs. 52%, $p = .06$; RoI 53% vs. 0%, $p = .20$).

Of those receiving chiropody services, 48% in the RoI and 26% in NI paid to do so. There were no gender differences in either policy region in the proportion paying to receive chiropody services, however adults under rather than over age 75 years in the RoI were more likely to pay for chiropody (RoI 59% vs. 41%, $p = .04$; NI 29% vs. 24%, $p = .50$). In the RoI, participants from the higher rather than the lower social class group were significantly more likely to pay for chiropody services (RoI 58% vs. 42%, $p = .02$; NI 36% vs. 21%, $p = .09$). There were no health differences in the proportion of those paying for chiropody services, although there was a trend in the RoI for those with minor rather than major functional impairments to be more likely to pay for chiropody services (RoI 50% vs. 25%, $p = .07$; NI 28% vs. 18%, $p = .25$).

Participants in the RoI were significantly more likely than those in NI to pay for physiotherapy services; of those receiving physiotherapy services, 49% in the RoI and 17% in NI paid to do so. There were no gender differences in either policy region in the proportion paying to receive physiotherapy services, however in the RoI adults under rather than over age 75 years were likely more to pay (RoI 68% vs. 25%, $p = .004$; NI 11% vs. 31%, $p = .16$). In the RoI, participants from the higher rather than the lower social class group were more significantly likely to pay for physiotherapy services (RoI 68% vs. 36%, $p = .003$; NI 13% vs. 19%, $p = .55$).

Of those receiving optician services, 45% in the RoI and 55% in NI paid to do so. There was no gender difference in either policy region in the proportion of those paying to receive optician services, however in the RoI adults under rather than over age 75 years were again more likely to pay (RoI 55% vs. 36%, $p = .01$; NI 57% vs. 52%, $p = .50$). In the RoI, participants from the higher rather than the lower social classes were more likely to pay for optician services (RoI 56% vs. 38%, $p = .02$; NI 62% vs. 53%, $p = .06$). There was no relationship in either policy region between physical impairments and paying for optician services.

Of those receiving dental services, 52% in the RoI and 60% in NI paid to do so. There was no gender difference in either policy region in the proportion of those paying to receive dental services, however in the RoI adults under rather than over age 75 years were again more likely to pay (RoI 66% vs. 35%, $p = .007$; NI 61% vs. 59%, $p = .83$) as were participants from the higher rather than the lower social class group (RoI 61% vs. 46%, $p = .03$; NI 81% vs. 43%, $p < .001$). There was no relationship in either policy region between functional impairment and paying for dental services.

Five per cent of participants in the RoI and 7% of those in NI availed of hearing services; of this group, RoI participants were more likely than those in NI to pay (40% vs. 13%, $p = .04$). Group differences (by age, gender, social class or level of functional impairment) on this measure were not found in either region.

6.2 Needs and preferences for long-term care

As people get older, there can be an increasing need for long-term care options. Participants were asked about their preferences for care across situations where they would continue to live at home and situations where they would move to another residence.

6.2.1 Care at home

Participants were asked to rate the acceptability of two situations if necessary: living at home with family taking care of needs, and living at home with health board involvement to meet needs. In evaluating the acceptability of these situations, participants were asked to assume that cost was not a factor/issue for consideration, and that adaptations to their homes could be made. As can be seen in Table 6.5, the majority of participants preferred to live in their current homes with support either from family or professionals.

North / South differences: Although high in both regions, RoI participants were more likely than those from NI to have a preference for living in their own homes with only their families to care for their needs if long-term care was needed (89% vs. 81%, $p = .003$) (see Table 6.5). In the RoI more men than women found it acceptable or very acceptable to remain in their own homes with just family to care for their needs (RoI 91% vs. 87%, $p = .03$; NI 80% vs. 79%, $p = .59$). In both policy regions, a greater proportion of those in lower rather than higher social classes found this care option acceptable or very acceptable (RoI 91% vs. 86%, $p = .03$; NI 83%, vs. 74%, $p = .003$).

Table 6.5: Home care options for participants by policy (RoI and NI) and geographic (urban & rural) region

Health Care Options	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Living in current home with only family to care for needs^{ab}						
- Acceptable	85	95	89	79	86	81
- Would accept with reservations	8	2	5	8	5	7
- Would not accept	2	1	2	5	3	4
- Not applicable (e.g. no family)	5	2	4	9	6	8
Living in current home with medical or health board staff to come in to provide services^{ac}						
- Acceptable	70	84	76	81	87	83
- Would accept with reservations	26	13	21	14	9	13
- Would not accept	4	3	3	5	2	4
- Not applicable	1	1	0	0	0	0

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05, ^bacross policy urban/rural differences where p < .05, ^cwithin NI policy region urban/rural differences where p < .05

In contrast, NI participants were more likely than those from the RoI to find it acceptable to live at home with support from professionals; 83% of NI participants found this care option quite or very acceptable, as did 76% of those from the RoI (see Table 6.5). There were no gender or social class differences in these preferences.

Care at home preferences among vulnerable groups

No age differences were found in home care preferences for those over and under age 75 years. However, for those living alone, continued care in their homes with only family caring for their needs was reported as less applicable with a significantly greater proportion of those living alone in the RoI expressing a preference to continue living at home, with medical or health board staff assistance (82% of RoI participants living alone expressed a preference for this option, just 74% of all others did so, see Table 6.6a). In NI only, those with major functional impairments were more likely than others to express a preference for care at home with only family caring for their needs (see Table 6.6b).

Table 6.6a: Home care options among vulnerable groups in the Republic of Ireland

Home Care Options	Living Alone		HAQ	
	No	Yes	Low	High
	%	%	%	%
Living in current home with only family to care for needs ^a				
- Acceptable	93	79	89	90
- Accept with reservations	5	6	5	6
- Would not accept	1	4	2	2
- Not applicable (e.g. no family)	1	11	4	2
Living in current home with medical or health board staff to come in to provide services ^a				
- Acceptable	74	82	76	79
- Accept with reservations	23	16	21	15
- Would not accept	3	2	3	6

Note: Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities), ^aLiving alone differences where p < .05

Table 6.6b: Home care options among vulnerable groups in Northern Ireland

Home Care Options	Living Alone		HAQ	
	No	Yes	Low	High
	%	%	%	%
Living in current home with only family to care for needs ^{ab}				
- Acceptable	87	76	79	86
- Accept with reservations	6	8	7	6
- Would not accept	4	5	5	4
- Not applicable (e.g. no family)	3	11	9	4
Living in current home with medical or health board staff to come in to provide services				
- Acceptable	82	83	81	89
- Accept with reservations	14	12	14	8
- Would not accept	4	5	5	3

Note: Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities), ^aLiving alone difference where p < .05, ^bHAQ differences where p < .05

6.2.2 Care in the community

Participants were also asked for their views on and preferences towards moving residence if needed. Care options included moving permanently to the home of their adult child or other family members with only that family member caring for needs; living in sheltered/group accommodation (i.e. purpose built with a caretaker on site); or living in a nursing home. Rates of acceptability for these options can be seen in Table 6.7.

Table 6.7: Community care options for participants by policy (RoI and NI) and geographic (urban & rural) region

Care Options in Community	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Permanent move to home of child/other family member with only family to care for needs ^a						
- Acceptable	17	38	26	26	26	26
- Would accept with reservations	40	45	42	27	29	27
- Would not accept	35	12	25	36	35	36
- Not applicable(e.g. no family)	7	5	7	12	10	12
Sheltered/group accommodation ^{ac}						
- Acceptable	23	19	22	46	35	43
- Would accept with reservations	46	48	46	29	32	30
- Would not accept	29	31	30	25	33	27
- Not applicable	2	3	2	0	0	0
Move to nursing home						
- Acceptable	9	20	14	22	18	21
- Would accept with reservations	44	47	45	36	38	27
- Would not accept	45	30	39	42	44	42
- Not applicable	2	3	2	0	0	0

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05, across policy urban/rural differences where p < .05, ^cwithin NI policy region urban/rural differences where p < .05

North / South differences: NI participants were less likely than those from the RoI to find it acceptable to move permanently to the home of another family member with only family caring for needs ($p < .001$) (36% of NI and 25% of RoI participants). In the RoI, men were more likely than women to find this care option acceptable (RoI 30% vs. 24%, $p = .01$; NI 24% vs. 27% $p = .57$). There were no social class differences in this preference.

A sizable proportion of participants did not find it acceptable to move to sheltered / group accommodation. RoI participants found moving to sheltered / group accommodation less acceptable than did those from NI ($p < .001$) (43% of NI participants and 22% of those from the RoI found this care option acceptable, see Table 6.7). In neither policy region were there gender or social differences in preferences about sheltered accommodation.

The least favoured option for long-term care if needed was moving to a nursing home. A sizable and statistically similar proportion of participants (39% of RoI and 42% of NI) reporting that they would not accept this care option (see Table 6.7). There were no gender or social differences in terms of preferences about moving to nursing homes.

Care in the community among vulnerable groups

No age differences were found in community care preferences for those over and under age 75 years in either region. For those living alone, continued care with family was less likely to be an option in both policy regions; this may explain why participants living alone in the RoI were more likely than others to accept nursing home care. Although significantly different, proportions living alone who would unreservedly accept nursing home care were still very low. Those without functional impairments in both regions were significantly more likely than others to report that they would accept sheltered or group accommodation, or nursing home care (see Tables 6.8a and 6.8b).

Table 6.8a: Community care options among vulnerable groups in the Republic of Ireland

Care options in community	Living Alone		HAQ	
	No	Yes	Low	High
	%	%	%	%
Permanent move to home of child/other family member with only family to care for needs ^a				
- Acceptable	27	26	26	35
- Accept with reservations	44	37	43	29
- Would not accept	24	27	24	30
- Not applicable (e.g. no family)	5	10	7	6
Sheltered/group accommodation ^b				
- Acceptable	20	26	22	15
- Accept with reservations	49	41	48	33
- Would not accept	29	30	27	49
- Not applicable	2	3	3	3
Move to nursing home ^{ab}				
- Acceptable	13	17	14	12
- Accept with reservations	45	46	47	33
- Would not accept	40	35	37	51
- Not applicable	2	2	2	4

Note: Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities), ^aLiving alone differences where p < .05, ^bHAQ differences where p < .05.

Table 6.8b: Community care options among vulnerable groups in Northern Ireland

Care Options in community	Living Alone		HAQ	
	No	Yes	Low	High
	%	%	%	%
Permanent move to home of child/other family member with only family to care for needs ^a				
- Acceptable	24	26	25	28
- Accept with reservations	32	24	28	24
- Would not accept	36	36	35	38
- Not applicable (e.g. no family)	8	14	12	10
Sheltered/group accommodation ^b				
- Acceptable	41	44	45	36
- Accept with reservations	29	30	31	25
- Would not accept	30	26	24	39
- Not applicable	–	–	–	–
Move to nursing home ^b				
- Acceptable	21	22	21	22
- Accept with reservations	33	39	38	30
- Would not accept	46	39	41	48
- Not applicable	–	–	–	–

Note: Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities), ^aLiving alone differences where $p < .05$, ^bHAQ differences where $p < .05$

6.2.3 Expectations of care preferences

Participants were asked whether they had discussed their care preferences with their families or someone they trusted, and whether they thought their wishes would be honoured.

North / South differences: Most participants (over 70%) had not discussed their care preferences with others. NI participants were marginally significantly likely to have done so compared to those in the RoI (NI 71% vs. RoI 73%, $p = .04$, see also Table 6.9). In the RoI, women were significantly more likely than men to have discussed their care preferences with others (RoI 29% vs. 23%, $p = .03$; NI 29% vs. 28%, $p = .73$), as were those in the higher rather than lower social class group (RoI 30% vs. 23%, $p = .003$; NI 32% vs. 27%, $p = .22$).

Table 6.9: Discussion about care preferences by policy (RoI and NI) and geographic (urban & rural) region

	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
Discussed care preferences^{ab}						
- No	72	74	73	69	78	71
Feel wishes would be honoured						
- Yes	75	71	83	73	86	77
- Not sure	23	27	24	23	13	20

Note: ^aNorth/South differences where $p < .05$, ^bwithin NI policy region urban/rural differences where $p < .05$.

Despite not discussing their preferences with others, the majority of participants (83% in the RoI and 77% in NI) believed that their wishes would be honoured; a further 24% in the RoI and 20% in NI were not sure if their wishes would be honoured. There was no North / South difference on this measure (see Table 6.9). Furthermore, there were no gender or social differences regards to preferences being honoured.

Discussion about care preferences among vulnerable groups

In the RoI, those aged 75+ years were significantly more likely than others to have discussed their care preferences with others (RoI 33% vs. 24%, $p = .03$; NI 32% vs. 26%, $p = .08$, see Table 6.10a). Those with functional impairments in both regions were also significantly more likely than others to have discussed their care preferences (both regions $p = .002$). There was no relationship between living alone and discussing preferences with others. The only relationship between vulnerability and feeling that the person's wish would be honoured was in NI, those living alone were significantly less confident than others that their wishes would be honoured ($p < .001$, see Table 6.10b).

Table 6.10a: Discussion about care preferences among vulnerable groups in the Republic of Ireland

Discussion about care preferences	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low ^a (%)	High (%)
Discussed care preferences ^{ab}						
- No	76	67	73	71	74	56
Feel wishes would be honoured						
- Yes	73	73	74	70	73	69
- Not sure	17	17	16	21	25	29

Note: ≤74 yrs n = 605; 75+ yrs n = 448; Numbers living alone = 298; High HAQ n = 108 (moderate/severe disabilities), Low HAQ n = 942 (no/few disabilities), ^aAge differences where p < .05, ^bHAQ differences where p < .05

Table 6.10b: Discussion about care preferences among vulnerable groups in Northern Ireland

Discussion about care preferences	Age Group		Living alone		HAQ	
	≤74 yrs (%)	75+ yrs (%)	No (%)	Yes (%)	Low ^a (%)	High (%)
Discussed care preferences ^b						
- No	74	68	70	72	74	59
Feel wishes would be honoured ^a						
- Yes	77	76	86	70	76	79
- Not sure	20	21	12	26	21	18

Note: ≤74 yrs n = 491; 75+ yrs n = 509; Numbers living alone = 586; High HAQ n = 248 (moderate/severe disabilities); Low HAQ n = 752 (no/few disabilities), ^aLiving alone differences where p < .05, ^bHAQ differences where p < .05

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6.3 Urban / rural analyses

This section repeats the sequence of North/South analyses by considering urban/rural comparisons within the sample.

6.3.1 Barriers to health and social services

Urban / rural differences: Forty-three per cent of those in urban areas and 46% in rural areas were car drivers; this difference was not significant. Fifty-nine per cent

of those from urban areas availed of lifts from family and friends, as did 62% of those from rural areas; this difference was not significant. There were no differences in car drivers, those walking / availing of lifts from family or friends across urban/ rural regions. However, urban participants were more likely than their rural counterparts to have availed of public transport in the last year (53% from urban and 24% from rural areas, see Table 6.1).

Urban / rural differences: No overall or region-specific urban / rural differences were found on any of the stigma measures (see Table 6.1). Neither were there urban / rural differences in personal payment for services (see Table 6.4).

6.4 Needs and preferences for long-term care

6.4.1 Care at home

Urban / rural differences: Most participants found it acceptable to live in their own homes with family taking care of their needs. This was significantly so in rural areas (91% of rural participants found this care option acceptable, as did 82% from urban areas); ($p = .01$) (see Table 6.5).

There were no gender differences in this preference for care at home with support from family. However, in urban areas those from the lower rather than higher social class group were more likely to say that it was acceptable to remain in their own homes with only family caring for their needs (urban areas 85% vs. 76%, $p = .008$; rural areas 92% vs. 93%). Similarly, in urban areas those with major rather than minor functional impairments were more likely to find this option acceptable or very acceptable (urban areas 88% vs. 81%, $p = .051$; rural areas 93% vs. 92%).

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No overall urban / rural differences were found in preferences for living at home with medical or health board staff coming in to provide services and support. When examining urban / rural data separately for the RoI and NI, a significant urban /rural difference was found in NI only ($p = .03$) NI urban participants found this option more acceptable than their rural counterparts (see Table 6.5).

6.4.2 Care in the community

Urban / rural differences: There were no overall urban / rural differences for any of the community care options. When analyzing urban / rural community care preferences separately for NI and the RoI, significant urban / rural differences were found only for living in sheltered accommodation with NI urban participants finding this option more acceptable than their NI rural counterparts (75% vs. 67%; $p = .04$, see Table 6.7). Descriptive information on the relationship between demographic variables and different care preferences can be seen in section 6.2.2.

6.4.3 Expectations of care preferences

Urban / rural differences: There were no overall urban / rural differences for discussing preferences with others or feeling that preferences would be honoured. However, when examining data separately by region, urban participants from NI only were significantly more likely than those from NI rural areas to have discussed their care preferences ($p = .01$) (see Table 6.9).

The chapter that follows discusses the findings of this research.

The present study is the first detailed comparison of health and social service needs and related service use in one study in the RoI and NI. Levels of functional impairment were considerable and also significantly higher in NI than in the RoI. In terms of indices of disability elsewhere, these NI findings confirm that NI has a higher proportion of people with problems in activities of daily living than in neighbouring countries. Nonetheless, many older people receive or provide a lot of informal care, often for other older people, in the community. In terms of self-rated health, older people in the RoI rated their health as significantly better than did their counterparts in NI. This differential in self-rated health between the RoI and NI has been noted in previous studies and on the basis of this study seems to relate more to the greater functional impairments than to differing levels of psychological well-being in the NI group. Experienced social support was high with approximately 70% reporting 'no lack' of social support. There was some evidence of increases in levels of primary care service provision in the recent past with, for instance, rates of flu injections increasing in both the RoI and NI in recent years. Use of hospital services was broadly similar. A&E service experiences were speedier in NI but more people were on waiting lists for longer in NI. Conversely, those in NI were significantly more likely to have received a range of primary care services. Findings thus suggest complex patterns of health and social status and service use across the regions with neither system presenting a uniformly better profile of older age experiences and service use than the other. Ongoing and systematic reflection on patterns in both regions can help to create a greater understanding of the ageing process and to shape services for the old age that we ourselves aspire to enjoying.

7.1 Introduction

The present study, part of the larger HARP, is the first detailed comparison of health and social service needs and related service use in one study in the RoI and NI. It builds on the comparative work on mortality and on social capital conducted by the Institute of Public Health in Ireland. It also builds on the work of Evason and colleagues who have used mainly secondary sources of information from both parts of the island to develop comparisons (Evason, Lloyd, McKee & Devine 2005). The project was developed from experience with an earlier RoI project, funded by the National Council on Ageing and Older People with health board support, and undertaken in the year 2000. Almost 1,000 older people were interviewed then and a separate report of HARP describes a four-year longitudinal follow-up of this group (O'Hanlon, McGee, Barker, Garavan, Hickey, Conroy & O'Neill, 2005). Because of funding constraints, the RoI aspect of the project focused on two of the eight health board areas existing in 2000 and 2004 – one that represented the most urban area of Ireland (Eastern Regional Health Authority (including Dublin)) and one of the most rural areas (Western Health Board (including Galway)). Demographic comparisons of the sample with the overall population of those aged 65+ years in the RoI suggest they represent the overall

pattern quite well although we cannot be sure how well they represent health status or service use. Sampling in NI was region-wide. Thus, while there are some caveats because of the project constraints, the present dataset provides a unique opportunity to examine many aspects of contemporary ageing on the island of Ireland. Although the structure of the health service in terms of designated geographic regions in the RoI changed shortly after the interviews were completed (i.e. in January 2005), the lessons here of similarities and differences across policy (NI vs. RoI) and geographic (urban vs. rural) regions in terms of healthcare needs and health service delivery are the most relevant and up-to-date available on older people for health service planners in 2006 and beyond. The sample obtained is considered next.

7.2 Sample representativeness

The sample was broadly representative of the populations in the respective areas. The most notable difference from census figures in each region related to living arrangements. While more people in the general population in NI live alone than in the RoI (33% in NI vs. 26% in the RoI), proportions in the sample obtained here were 57% (NI) and 28% (RoI). Thus the sample over-represents older people living alone in NI relative to their prevalence. It is not clear why this was the case. Cross-checking suggested that it was not because of over-sampling in urban areas where more people live alone (e.g. in NI 73% of the sample and 6% of the overall population aged 65+ lived in urban areas; in the RoI, 53% of the sample and 55% of the overall population lived in urban communities). Thus some caution in terms of analysis is needed.

Health and social status information on participants is reviewed next.

7.3 Health and social status

Findings concerning functional capacity are considered first, followed by support available to people in their own families and community. Then results concerning self-rated health and markers of psychological wellbeing are considered. Health behaviours such as smoking and having flu injections follow.

Levels of functional impairment were considerable and also significantly higher in NI than in the RoI. For instance, one in three people in NI had difficulties with complex activities such as shopping and reaching – twice the corresponding figure in the RoI. Approximately one in four older people in NI had difficulty with walking and personal care, compared with one in ten in the RoI. Women and those over 75 years were found to have most problems with activities of daily living. This was more pronounced in NI. There were also notable differences based on social circumstances in NI, with lower social class groups and those living alone having significantly more difficulties across all activities of daily living. This pattern was not evident in the RoI. Those living in rural locations reported

significantly more difficulties with the many activities of daily living than their urban counterparts; these problems were more pronounced in rural parts of the RoI. In terms of indices of disability elsewhere, these NI findings reiterate information from other sectors, e.g. NI has a higher proportion of people on disability allowance than anywhere else in the UK (Evason *et al* 2005). A new index of disability-free life expectancy to be used in the European Union has been developed by the European Healthy Expectancy Monitoring Unit. Comparing the RoI with the UK (analysis for NI was not separately available), there was an increase in life expectancy in both genders and countries. In terms of disability, direct comparisons were made about the prevalence of disability by gender for those aged 65-69 from 1995 to 2003. The prevalence for men in the RoI was 29.6% in 1995 and 26.9 in 2003 (an improvement of 2.7%). For men in the UK it was much higher at both time points: 38.1% (1995) and 43.2% (2003); a disimprovement of 5.1% over that time. For women in the RoI, levels in 1995 were similar to RoI men in 1995, at 28.9%. This moved in the opposite direction to patterns for RoI men and 31.8% were disabled in 2003 (a 2.9% disimprovement). Women in the UK were the most disabled group at both times (41.3% in 1995 and 51.1% in 2003 (a 9.8% difference over time) (see www.hs.le.ac.uk/reves/ehemutest/index.html). The findings overall are evidence that older people are living longer but are now spending more years in disability during their lives. These findings may help explain the increasing demand on health services and the sense that the services are delivering inadequate coverage despite greater investment in health in both the RoI and NI/UK. They signal a likely increase in demand for a range of health and social services into the future if people are living longer and in increasing levels of disability. In tandem, they signal the urgency with which preventive health strategies need to be put in place both for this generation of older people and the coming generations if the rising tide of disability in older age is to be reversed.

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In terms of supporting older people through provision of devices and technology to assist with functional impairment, there appeared to be a very low level of use of a range of devices. Such judgment is not confirmable without a needs assessment. Participants from NI made use of hearing aids and mobility devices to a significantly greater extent than their counterparts in the RoI, particularly women, those aged 75 or over and those living alone. Urban participants, both in the RoI and NI, were more likely to use devices to assist with walking than their rural counterparts despite the fact that the problems were more prevalent in rural locations.

The informal support available to older people with functional impairments is an important societal resource. Support in carrying out activities of daily living was more likely to be availed of by those in rural settings, in particular by women, those over age 75, those with greater functional impairment and, in urban areas

only, those in lower socioeconomic groups. More generally, support from spouses and from relatives living in the same household was availed off significantly more in the RoI than in NI (of course many more in NI lived alone). Support from spouses was availed of predominantly by men, those aged over 75 and those with major functional impairments. Support from relatives within the same household was availed of to a greater extent by women than men in NI, by participants over 75 in the RoI and by those with major functional impairment in both policy regions. This support was used significantly more frequently by rural than urban participants in NI. A similar proportion of older adults in the RoI and NI availed of support from neighbours and voluntary organisations. Those in urban areas of the RoI availed of support from neighbours significantly more frequently than their rural and Northern Ireland counterparts. Urban dwelling older people, both in the RoI and NI, were significantly more likely than those living in rural areas to avail of support from voluntary organisations.

In the RoI, older adults who were themselves providing care for sick or infirm relatives were predominantly women and under age 75. However, carers in NI were equally likely to be over as under 75 years and the division of female to male carers was almost equal. Therefore, care-giving older adults in NI were as likely to be over age 75 and men as they were to be under age 75 and women, a finding that was not reflected in the RoI. Significantly more carers in NI were living in urban than rural locations. Approximately one in twenty carers in both policy regions had, themselves, a moderate to serious functional impairment. Evason *et al.* (2005) reported on the NI Household Panel Survey of 2002 which found that 12.7% of those aged 65+ cared for a person with a disability, i.e. the largest group of carers after the 50-64 year old group (at 14.2%). The RoI Census 2002 (asking the question differently so NI/RoI rates are not directly comparable) found 3.6% of men aged 65+ and 4.0% of women reported themselves as carers of another person with half of those reporting full-time caring roles, i.e. over 40 hours per week. Thus older people provide a lot of care, often for other older people, in the community.

In terms of self-rated health, older people in the RoI rated their health now, one year ago, and expected health one year hence as significantly better than did their counterparts in NI. Almost two-thirds of participants in the RoI in the present survey rated current health as good or excellent, compared with less than half of their counterparts in NI. While significantly lower than RoI estimates, these health ratings from older people in NI were more positive than those previously reported in the NI Health and Wellbeing Survey of 2001 (32% reporting health as good in the 65-74 age group; 24% reporting good health in the 75+ age group). This differential in self-rated health between the RoI and NI has been noted in previous study comparisons of older people, e.g. in a large study of 2,000 adults of all ages in NI and the RoI (Balanda & Wilde 2003). Overall 62% of RoI vs. 53% in NI

reported very good or excellent health. Evason *et al.* (2005) summarised ratings of the four countries of the UK and the RoI. All but NI had scores of c.60%, with the RoI ranking highest at 62% and NI rates almost half that at 32%. This NI/RoI difference has been further confirmed in this current joint study.

Concerning psychological wellbeing, a majority of participants in both regions were not depressed. Nonetheless, approximately one in five older adults in both policy regions had elevated levels of depression (borderline or higher scores on HADS-D). This is a similar proportion to that reported in NI in the Health and Wellbeing Survey (2001). Of those with elevated depression scores, approximately one in three had levels of depression that would be considered of clinical significance, indicating a need for further investigation. Gender was not related to depression, and no differences were found between urban and rural participants. However, age was a significant determinant of depression, with those aged over 75 years significantly more likely to be depressed (approximately one in ten aged over age 75 in each policy region). Those with greater levels of functional impairment also were significantly more likely to be depressed, as were NI participants who lived alone. Only 3% of those who reported symptoms of depression had received counselling services. This group was predominantly from lower socio-economic groups. Levels of positive psychological wellbeing (assessed using a brief indicator of morale) were found to be high in both policy regions.

Social contact or isolation is an important contributor to quality of life in all ages. Related to earlier points about functional impairment, participants from NI reported significantly more problems in maintaining social contact through visiting people or attending events outside their own homes than their counterparts in the RoI. Approximately one in four older adults in NI reported such difficulties, compared with half that number (one in eight) in the RoI. These difficulties were reported in particular by those in lower socio-economic groups and by those living alone in NI. In both policy regions, this issue was identified as a particular problem for women and by those aged over 75. Similarly, in both policy regions, those experiencing loneliness were significantly more likely to be women, those living alone and those with greater functional impairment.

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Despite regional differences, levels of emotional, informational and practical support experienced by older adults did not differ significantly between policy regions. Approximately 4 out of 5 older adults in both NI and the RoI reported high levels of social support; this proportion was somewhat less in relation to practical support in NI where just under two-thirds reported receiving adequate practical support. Similar proportions of older adults reported adequate levels of social support in the Northern Ireland Health and Wellbeing Survey (2001), where approximately 70% of adults aged 65 and over reported 'no lack' of social support. When urban/rural comparisons were examined in the current survey, rural

participants reported significantly greater levels of support in each of the areas questioned than their urban counterparts. In NI, significantly more practical support was available to those with more serious levels of functional impairment. However, in the RoI, where more practical support was available to all, this relationship did not emerge.

In terms of understanding differences in self-rated health, but not depression, morale or social support, across regions, it appears within the framework of themes considered that this self-rated health difference may relate more to the greater functional impairments present in the NI group. A recent review of health and social care provision in NI reported overall health status to be poorer than in the UK overall (Appleby 2005). Appleby linked this to poorer diet, smoking, lack of exercise and other environmental and lifestyle factors. There are also other considerations as have been documented elsewhere. An over-riding consideration is that older people in NI have lived through over 30 years of constant civil unrest. A recent study on the effect of the 'Troubles' on 3,000 adults in NI and border counties showed that half of all respondents had some experience of violence and/or saw themselves as being affected by the Troubles (Muldoon *et al.* 2005). One in four in NI reported some experience of intimidation with one in ten having been bereaved as a result of the Troubles. In tandem, one in ten reported some symptoms indicative of post-traumatic stress disorder with no gender differences. Age differences in experiences and effects were not outlined in this overall report but will be the subject of future analyses. Whatever the differential effects by age, this over-riding social context cannot but have had an influence.

Attitudes to older people can clearly influence a wide range of experiences for older people themselves. A very interesting recent study compared aspects of ageism in NI and RoI groups across all adult ages (Evason & Dowds 2005). Older people in NI were much more likely than those in the RoI to believe that their peers are treated more negatively because of their age, e.g. in the 65-74 year group, 45% in NI and 29% in the RoI believed that older people were treated 'worse than people in the general population because of their age' while 9% in NI vs. 30% in the RoI thought older people were treated better. In a related question concerning authorities supporting older people ('Do you think that the authorities in Northern Ireland/Republic of Ireland do all they should for older people, do too much or do not do enough?'), 71% of those aged 65-74 in NI (vs. 52% in the RoI) believed that not enough is done. The discrepancy was not so evident in older groups (those aged 75+: NI 55% vs. 48% RoI believing not enough is done). However, findings from other surveys as summarised by Evason *et al.* (2005) suggest a more positive experience of older age. For instance, in one NI survey only 8% of older people often felt 'left out of things' while 85% reported that 'family and friends make me feel an important part of their lives'. These findings on experiences of ageism and exclusion in older age seem to conflict. It may be

that a distinction needs to be made between more interpersonal and formal/institutional interactions with older people reporting ongoing relationships with family and friends which are not altered in a negative way as the individual ages but also reporting that the wider public and institutions interface to be less supportive of older people.

Aspects of health behaviour in the older population are considered next. High proportions, and significantly more of those living in the RoI (approximately three out of four compared with just over half in NI) believed that they took enough exercise. This finding must be tempered by data on actual levels of physical activity. SLAN-2, conducted in 2002 (Kelleher, NicGabhainn, Friel *et al.* 2003) found that almost a third of RoI participants aged 65-69, rising to 60% of those aged 85+, did not walk for 30 minutes or more on any day of the week. In the Northern Ireland Health and Wellbeing Survey (2001), 18% of those 65-74 years and 10% of those aged 75+ years old adults reported taking above the recommended amount of physical activity. Clearly there is a health promotion challenge in both NI and the RoI to promote both knowledge about and performance of appropriate levels of weekly physical activity in older people.

Regarding smoking, almost one in five participants in both RoI and NI were current smokers, with no difference in smoking rates between policy regions. Those in NI were more likely to be actively trying to quit with anything from a quarter to half of smokers trying, actively planning or thinking of quitting. The evidence suggests that doctors have been actively involved in promoting a quit smoking message with more than half of all smokers in both regions reporting having been spoken to about smoking by their doctors in the previous year. In a previous NI/RoI survey involving adults from age 18, one in three people were current smokers in NI, compared with approximately one in four in the Republic, a difference that was found to be significant (Balanda & Wilde, 2003). In the current survey, older adults in both policy regions appear to be substantially less likely to smoke than rates quoted in the general population, this being particularly the case in Northern Ireland. This lower rate of smoking in those over age 65 in NI was also reported in a previous Health and Wellbeing survey (Northern Ireland Health and Wellbeing Survey, 2001), with smoking rates were found to be particularly low in women aged 65+ years. Similarly, in the current survey, more men were current smokers in both policy regions. They were also more likely to be under age 75, from lower socio-economic groups and, in Northern Ireland, living in a rural location. This information was collected in Summer 2004 – shortly after the introduction of the workplace and public place smoking ban in the RoI (April 2004). There has been a clear shift in smoking status in the RoI in an equivalent sample of older people in 2000 with fewer smokers and with some relative increase in those seriously intending to quit over that four-year period (O’Hanlon *et al.* 2005). In NI, a similar smoking ban was announced in October

2005 – this will take effect from April 2007. It will be interesting in the future to observe the relative effect of these bans on smoking profiles in older people. Complacency in this health target is not justified given the life-long impact of smoking. For instance, it has been estimated for people aged 70 years and older in EU Member States, smoking contributes to 20 per cent of deaths in men and to five per cent of deaths in women (European Commission 1995).

Approximately three out of four older adults both in NI and the RoI have had a flu injection in the past year, with 6% more older adults in the NI receiving the injection than in the RoI, a difference that was statistically significant. In the RoI, those aged over 75 and those with moderate to serious functional impairment were significantly more likely to have received a flu injection than those under age 75, and with less serious impairment – differences that were not apparent in NI. These levels are a significant improvement over rates in both regions since the year 2000 – levels were 65% in NI (O'Reilly *et al.*, 2003) and 47% in the ERHA and 63% in the WHB in the RoI (Garavan *et al.* 2001). Levels of other health promotional activities engaged in by GPs in the two policy regions were high and similar in relation to recent monitoring of blood pressure and cholesterol. Women and those over age 75 were significantly more likely to have their blood pressure checked in the RoI, but these gender and age differences were not apparent in NI. In NI, those living alone and those with more serious functional impairments were significantly more likely to have both blood pressure and cholesterol checked than others.

Aspects of hospital service use are considered next.

7.4 Hospital service use

A significant minority of the population came into contact with hospital services in the previous year. Similar proportions in each policy (36% from the RoI and 39% from NI) and geographic area (40% from urban and 33% from rural) had attended hospital in some capacity in the past year. Similar proportions in each policy (15% from the RoI and 16% from NI) and geographic region (16% from urban and 15% from rural) had attended in-patient services in the previous twelve months. Nights in hospital were similar in both regions. NI participants were more likely than RoI participants to have availed of out-patient services in the previous year (27% vs. 20%). There were no urban/rural differences; similar proportions (25% vs. 21% respectively) had attended outpatient services in the previous year. There were no significant RoI/NI differences (12% from the RoI and 10% from NI) or urban / rural (11% and 10% in urban and rural areas) in the proportion of participants who had attended A&E in the previous twelve months. However, in terms of A&E experiences, NI participants were seen more quickly in A&E by a doctor than were those in the RoI; 81% of NI vs. 46% of RoI participants reported being seen by a doctor within an hour of arrival with a trend for NI participants, if admitted, to

have access to a ward more quickly. This may have been in part because more of the RoI patients attending A&E were admitted to hospital (40% vs. 17%). In NI, all those admitted to a ward following A&E treatment were already on waiting lists for in-patient treatment; in the RoI, this figure was 29%. There were no NI/RoI differences in the length of time A&E attenders on waiting lists had been on those lists. There were however, notable NI/RoI differences in overall population waiting lists and times. For those who had planned in-patient experiences in the previous year, participants from NI had been longer on waiting lists (43% for over a month vs. 21% in the RoI). Considering current waiting lists, 5% and 8% (RoI/NI respectively) were waiting for in-patient treatment while 7% and 12% (RoI/NI respectively) waited for out-patient services. Men were more likely to be waiting for in-patient care than women with no age differences and more lower social class participants waiting in the RoI only. Out-patient services differed only by age with more older people (age 75+) waiting. In both situations, more were waiting in NI. Very few used day hospitals or day care centres (<3% in any region). Within these small proportions, more people in NI were on waiting lists (2% vs. 1%). Few people reported barriers or problems other than waiting lists in accessing hospital services.

Those on waiting lists, while appearing low in percentage terms, represent a large number of people. Interpretation of NI/RoI waiting list differences is difficult since, for instance, waiting may be proportional to demand or to inefficiency in other parts of the healthcare system. More people on waiting lists for longer in NI can equally be a sign of inefficiency, under-resourcing or higher treatment provision in the system. Waiting lists for hospital services have attracted significant attention in NI, as in the RoI. A recent *British Medical Journal* summary of news reported longer waiting lists in NI than in the other countries of the UK (Dyer 2005). Figures cited were that at least 4 people per 1,000 of the NI population were waiting at least 12 months for surgical procedures. In a detailed analysis of NI health and social care services, Appleby (2005) noted that overall hospital activity tended to be higher in the NI system compared with other parts of the UK. A&E service use, for instance, was almost a third higher than in England. He identified large numbers on waiting lists and waiting times for treatment, particularly out-patient appointments, as indicators of poorer system performance in NI than in the rest of the UK. Hospital activity, e.g. activity per available bed, was also seen as poorer in NI. Direct comparison with the RoI system was not possible with the information available. Notably, however, percentages of older people on waiting lists for in-patient procedures had not changed significantly in the RoI from 2000 to 2004 (O'Hanlon *et al.* 2005). This finding does not concur with reports from the RoI's National Treatment Purchase Fund (NTPF), an initiative established in 2001 to reduce hospital waiting lists in the RoI by funding private and or/other country treatment of patients waiting an unacceptable length time for treatment (www.ntpf.ie). However, figures from this scheme are still being collated. They

currently summarise the 6 large Dublin hospitals and one regional hospital (of approximately 40 hospitals in the scheme). While this accounts for c.40% of all procedures, it will be important to see the overall patterns of waiting times and levels when the NPTF coverage is complete. No age profile is available but in August 2005 there were 4,944 patients awaiting surgical procedures (in-patient and day cases) with 24% waiting more than a year. In tandem there were 2,103 waiting for in-patient medical procedures with 39% waiting for more than a year. The largest waiting lists for medical procedures were in gastroenterology, neurology, cardiology and respiratory medicine, in that order and with almost twice as many waiting in gastroenterology as the next nearest specialty. In the present study, numbers on waiting lists for long periods were also significant. While the treatments needed by these older people were not specified, and a more sophisticated analysis of the operation of waiting list criteria and access would be needed to make definitive statements, such numbers represent a significant challenge.

The next section reviews findings from primary care services.

7.5 Primary care service use

Community-based services, with the exception of the GP, were used by a minority. This was paralleled by low levels of use of appliances such as mobility aids. One of the general challenges in considering low use of primary care services is the fact that older people have been found to be relatively undemanding in terms of services. A part of this is the well-described discrepancy between older people's subjective wellbeing and objective measures of health and functioning (Schneider, Driesch, Kruse, Wachter, Nehen & Heuft 2003). It is also difficult for people to gauge service need for services with which they are unfamiliar. Thus the estimates of service need by older people as provided here must ultimately be considered in the context of professionally assessed levels of need. A somewhat controversial explanation is that of Walker (1999) who argues that a dominant biomedical conceptualisation of ageing, as a sequence of decline and infirmity, has left older people disempowered and relatively passive in terms of their approach to healthcare needs and services. This might be challenged as actually representing a more widespread and pervasive ageism (to which older people are themselves not immune) and is also challenged by the more holistic biopsychosocial approach that is now central to healthcare thinking on health and ability/disability (Engel 1977; Ustun, Chatterji, Bickenbach, Kostanjsek & Schneider 2003). Also, older people themselves have complex attitudes to entitlement to health services, for instance, studies from the UK and Italy have shown that older people would give up their places on waiting lists for cardiac surgery to younger people (Bowling, Mariotto & Evans 2002; Marriotto, De Leo, Buono, Favaretti, Austin & Naylor 1999).

Regarding GP services, while 99% of participants reported having access to a personal GP, significantly more in NI had not visited a GP in the previous year (13% NI vs. 5% RoI). Reasons for not visiting a GP by over one in ten in NI were not clear. Those in the RoI were also more likely to have visited their GPs more often in the previous year. They visited GPs on average 5.3 times (SD 5.4) (RoI) and 4.4 (SD 5.7) (NI) times annually. Older RoI women attended GPs more frequently than others. Those aged 70+ in the RoI (those who had universal GP coverage since 2001) were also significantly more likely to avail of GP services than younger RoI participants with no age differential in NI where all participants had free GP access. There were very high levels of satisfaction on three dimensions of care – quality of information received, having concerns taken seriously by the GP and GP access for appointments – with no differences across regions. RoI participants were more likely than those in NI to say they would change GPs if dissatisfied with their care with no overall urban / rural differences. However, analysis by policy region showed that in NI rural participants were less likely than urban participants to say that they would change GPs if dissatisfied with their care. Participants reported few barriers to accessing GP care with no regional or geographic differences. Thus GP service uptake appears to be very accessible and acceptable to older people. Notably, introduction of free access to GP care for those over age 70 years in the RoI since 2001 was associated with increased levels of service use in the 2000 to 2004 comparison, particularly in the most rural health board area (O’Hanlon *et al.* 2005). The value of this increased use is unknown, but preliminary indications are that it leads to improvement in parameters of health promotion such as flu vaccination and diagnosis of hypertension (Fitzpatrick, Harrington & Mahony 2004; Usher, Bennett & Feely 2004). It is clear however that GP charges had acted to some, albeit small, extent as a deterrent to service use for older people in the past.

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Considering the more specific primary care findings in this study, public health nursing was the most used home delivered service (used by 13% in each region). Chiropody services were also used by a considerable number (16% in the RoI and 23% in NI). Optician and dental services were the other most commonly used services (optician: 24% RoI vs. 35% NI and dentist: 13% RoI and 26% NI). It is not possible to determine degree of need met in this level of service provision. However, services such as aural (hearing) services were used by few participants in either region (5% in the RoI and 7% in NI). Meanwhile, levels of hearing difficulty in older people (aged 75+ years) in the RoI have been reported to be as high as 30% (Maguire, Boland, McDowell & Prosser 1997, cf. Brenner & Shelley 1998). Thus it is quite likely that service provision does not meet the needs in existence, at least in some areas. Further emphasising this point, there were significant RoI/NI differences for a range of primary care services, including use of home-helps, meals-on-wheels, chiropody, and services from opticians, dentists and social workers. Of 15 services compared, 9 were availed of by a higher

proportion of older people in NI. This difference was most obvious in home help levels – 7% in the RoI and 17% in NI. No service was availed of more frequently in the RoI than in NI. In the RoI, six services were availed of by more urban than rural dwellers with one service (personal care attendants) availed of by very few overall but by more rural than urban dwellers. In NI, one service differed by urban / rural use: optical care was most often provided to rural older people. Condensing primary care services into groupings, those in NI were significantly more likely than RoI counterparts to have received one or more of four home provided services such as meals-on-wheels or home help (26% vs. 18%); one or more of five assessed therapies such as chiropody or physiotherapy (29% vs. 20%); one or more of four assessed out-patient services such as dental services (80% vs. 30%). Regarding urban / rural comparisons, there was no overall urban / rural difference in use of home services (22% in each geographic region received at least 1 home service). Use of therapies and out-patient services differed in opposite directions in the RoI and NI. In the RoI, urban dwellers received more of the therapies (28% vs. 9% received at least one of these) and out-patient services (38% vs. 20%). In NI, the proportion of urban dwellers who received therapies or out-patient services was significantly lower than rural dwellers (therapies: 26% vs. 36%; out-patient services: 48% vs. 56%). In all of the analyses outlined, demographic differences such as gender and age were controlled. Thus differential need between NI and the RoI or urban /rural was not a feature of the differing age or gender mix, for instance, across groups. Service capacity is an important challenge in delivering primary care services. For services such as home helps, levels of service availability in the RoI are still remarkably low by international standards (O’Neill & O’Keeffe 2003). While they have increased from about 3.5% nationally in the early 1990s to 7% in this study in 2004, it is still less than half the rate of countries such as Sweden (19%). The NI rate in this study, at 17%, equated more to the Swedish system. Both the RoI and NI health authorities have signalled building capacity in primary care services as is discussed later.

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It is useful to be able to observe the whole picture in primary care when making cross-region comparisons. Thus higher use of GP services in the RoI was offset by higher use of many other primary care services in NI. It may be that increased GP use exists where other primary care services are in short supply. In the previous analysis in the RoI (O’Hanlon *et al.* 2005), GPs were seen more frequently by those in the more rural health board area and conversely other primary care services were availed of by more participants in the urban region.

In the primary care sector, a significant proportion of participants paid in full or partially for home services, therapies, and outpatient services used in the past year. Significant RoI/NI differences were found for five of 15 services: NI participants who used optician services, dental services and a personal care attendant were more likely than their RoI counterparts to pay for these services. RoI participants

who used physiotherapy and aural services were more likely than counterparts in NI to pay for these services. People in higher social classes were most likely to pay for most services. In the RoI, there has been a trend of increasing numbers of people paying for community-based health and social care services from the year 2000 to 2004 (O'Hanlon *et al.* 2005). Many of the services identified as being paid for in the RoI would not be reimbursed by private health insurance even though many people had such insurance. In NI, while GP attendance is free to all regardless of age, there is a pattern of shared costs with a prescription charge per item in pharmacies and charges for dental and optical care. Thus NI figures reflect the requirement for part-payment of dental and optician services. The figures reported here signal significant personal investment in health services by older people themselves, i.e. direct payment for community services in both regions and notable levels of indirect (private insurance) payment in anticipation of hospital service need in the RoI. If direct payments in particular are driven by unmet need, then implications for those unable to afford such services or unable to access them because of geographic location, transport or knowledge about service availability would be significant. There are important implications for this inequality arising from a recent survey showing a drop in older peoples' incomes in the RoI (Layte, Fahey & Whelan 1999) and from similar statistics showing many older people at risk of poverty in NI (Evason *et al.* 2005).

Overall, this emerging pattern of personal payment for health services to which these older people are entitled needs to be studied further. Another factor in service use is its acceptability. A minority of participants reported they would feel stigmatised and would not use primary care services such as meals-on-wheels, home help or personal care assistants even if needed (ranging from 16% who find services at least somewhat embarrassing but acceptable to 6% overall who find services so embarrassing that they would not use them even if needed). There was only one difference by policy or geographic region (RoI participants would be more embarrassed to use home helps). The acceptability of certain health and social services had however, increased significantly from 2000 in the RoI (when almost a third in the rural region would find using meals on wheels 'highly embarrassing' and would use the service 'with difficulty' while one in five would not use home helps even if needed because of a sense of shame or stigma (Garavan *et al.* 2001; O'Hanlon *et al.* 2005)). Nonetheless, a small but significant group of older people continue to perceive some stigma surrounding the use of these services, thus denying themselves services that could improve their quality of life. As Reidpath, Chan, Gillford & Allotey (2005) have recently argued, when resources are limited, certain individuals and groups in society can become stigmatised and socially excluded as a crude way to protect these resources. More specifically, those who are seen as not having social value or the ability to reciprocate in society are most vulnerable to this treatment. Portrayals of older people as a burden in society have perpetuated their stigmatisation. While

information and communication campaigns can help correct misperceptions, proper support and environmental infrastructure can minimise functional losses in old age, thus allowing older people to continue to engage in reciprocal relationships with others (Reidpath *et al.* 2005).

In parallel, older people's perspectives on potential health care needs and associated costs/service availability need consideration. A recent international survey found high retirement anxiety and low preparedness regarding income and healthcare costs in groups from age 45+ years – with 40% of those in the 45-54 year age group extremely anxious and 21% in the 65+ years group; 35% of women and 27% of men reported extreme anxiety (Hunt, Ramji & Walker 2005). It is likely, in the current climate of discussion of charges for services such as nursing home care, that many older people have significant concerns about their care should they need long-term and/or intensive service provision. While there is often a perception that older people are income poor but asset rich (i.e. they own homes that are valuable), Evason *et al.* (2005) have warned that the assets of most people in NI would 'barely fund four years of [nursing home] care'. Fear of loss of independence and of social or healthcare needs that cannot be met may thus be a significant burden. The views of older Irish people on where they would choose to live if they needed long-term care were investigated in this study.

7.6 Long-term care preferences

In order to assess preferences rather than what older people thought affordable, they were asked to consider their preference if cost was not an issue for this study. The study showed that were they to need long-term care in the future, there was a clear preference to be cared for in their own homes with family support and minimal health service involvement. There was a significant regional difference with RoI participants being more likely than their NI counterparts to report this preference (89% vs. 81%). There was also an urban / rural difference; rural participants were more likely than urban participants to report this care preference (91% vs. 81%). The least preferred option if needing long-term care was a nursing home. A large proportion of participants (39% in the RoI and 42% in NI; 44% in urban and 37% in rural areas) would find this option unacceptable to them. Some however, found this care option to be quite acceptable (14% in the ROI and 21% in NI; 16% in urban and 19% in rural areas). Although most older people expressed very strong preferences about their own long-term care, almost about three-quarters in the RoI/NI and urban/rural settings had never discussed these issues with others (73% in the RoI and 71% in NI; 71% in urban and 76% in rural areas). Nonetheless, the majority of participants believed their wishes in this regard would be honoured (73% in the RoI and 77% in NI; 74% in urban and 79% in rural areas). These findings suggest little evidence of forward planning by older people. While a difficult subject to address for many, there is a clear need to encourage discussion of long-term care needs much more widely and earlier in

life. That said, independence and choice is intrinsically linked to the availability of the services that the older person needs, where and when the individual needs those services. There is strong evidence of an imbalance between need and availability of community-based services to support independent living for older people or others who need support to function independently.

Directions for the future are considered next.

7.7 Priorities for the future

Many challenges exist in understanding and appropriately addressing aging in the coming decades. This section addresses some of the challenges ahead and the policy context into which they will or should fit. It then reminds the reader that ageing is a process, one part of which concerns health and social functioning and services to support these. There is a need to understand the possibilities of ageing more fully.

In terms of the challenges of considering ageing, the study highlighted many positive aspects of ageing in the two regions. These can serve to tackle negative views of old age as a time of illness and social exclusion. However, in tandem, there must of course be a focus on the significant minority who have major difficulties as well as the majority who appear to function well and avail of health and social services. As a very general rule, at least one in ten people had some difficulty regarding the issues assessed in the study, e.g. in functional capacity, in depression, in loneliness or in lack of social supports.

It can be difficult to summarise many separate comparisons into an overall statement about the relative status of health and social status and related services in the two parts of Ireland. For instance, those in NI reported lower self-rated health, higher levels of functional impairments and higher levels of use of some hospital and primary care services. Those in the RoI were more likely to see a GP and to see him or her more often in the previous year. RoI participants on waiting lists for in-patient and out-patient services who were seen in the year waited less time than counterparts in NI. However, A&E waiting times were longer in the RoI. Few of these differences translated into urban/rural differences. Whatever the comparisons suggest, it is useful to be able to stand back to see how both regions compare in an international context. A broad survey of the health, social and economic indicators of life circumstances for older people was recently published by the American Association of Retired People (Edwards 2004). They covered 16 nations and assessed them by 17 criteria including life expectancy, public funding for healthcare and requirements for mandatory retirement. They included the RoI and the UK. While the methods of scoring were not given in detail, the broad findings are informative. Of 11 more developed European countries included, the RoI came eighth (after the Netherlands, Sweden, Finland, Norway, Switzerland,

Denmark and France, in that order). Spain was ninth with the UK and Italy being joint tenth place. Internationally, countries such as Australia, Canada and Japan were all doing better than either the RoI or UK with the US ranked between the RoI and the UK. Thus both the RoI and NI (as part of the UK) were seen as closer to the US than to mainland Europe in terms of the environment it provides for older people. The broad international listing highlights the fact that the bigger picture is of older people in both the RoI and NI living in situations that are less supportive than in many other European countries. A recent National Council on Ageing and Older People position statement lists many of the aspects which need attention to make Ireland a more age friendly society (NCAOP 2005).

In terms of the policy context of developing health services, current embargos on recruitment of additional public service staff in the RoI particularly prevent the service developments necessary in primary care to meet the needs of older people and to meet the government's own aspirations in this area. There is already clear evidence of shortage in specialist services needed in primary care, e.g. of physiotherapy and chiropody. For instance, an additional 1,300 physiotherapists were identified as needed for the RoI health service overall in a staffing needs report in 2001 (O'Neill & Bacon 2001). What is not clear is the relative impact of these professional staff shortages on service provision for older people in need of services. It is quite likely, however, that the shortages impinge more on older people than other groups in society. A recent RoI government announcement about focusing on building the State's health and social services capacity, to match the unparalleled growth in its economic capacity, is welcome in this regard if it can deliver greater services in a manner which supports the independence of older people at whatever level appropriate to their healthcare need. However, the current focus on the costs of delivering nursing home care, and on legislative changes in the RoI to make older people pay for an increasing portion of these costs through deductions from their weekly pension may have one of two possible outcomes: it may focus attention on the possibility of providing this care in the community, or it may divert attention away from other models of supporting people in need of care in their old age. This point has been made repeatedly since the publication, in 1988, of the current national strategy on older people. The strategy – *The Years Ahead: A Policy for the Elderly* – became official government policy in 1993. However, the strategy uniquely qualified all proposed developments as dependent on budgetary constraints. The current National Health Strategy in the RoI – *Quality and Fairness – a Health System for You* (2001) – and its companion primary care strategy – *Primary Care: a New Direction* (2002) – is committed to a high quality, integrated, inter-disciplinary health service with a strong emphasis on primary care service delivery. These strategies are not sufficiently focused on the needs of older people, and evidence from this report suggests that many of the challenges present in the 2000 survey (Garavan *et al.* 2001) remain. A new strategy is needed that would be more integrated than

previously, including a re-activation of the work of the Inter-Departmental Group on the Needs of Older People. This group was originally established in 2002 with the aim of providing a focus on integration of activities across sectors and agencies, to include, for instance housing, home improvements, security and equality, alongside health and social service provision. Groups such as the National Council on Ageing and Older People have called for a new strategy and for a consultation and research agenda to accompany its development (NCAOP 2005). In NI, on the other hand, services are delivered against a framework on care for older people – The National Service Framework for Older People – launched in 2001. More recently, a new primary care strategy has been developed for NI. Called Caring for People beyond Tomorrow and launched in October 2005, the strategy outlines four goals and a series of related objectives. Goal 2 concerns more effective partnership across professions to achieve teamwork goals. There are 9 objectives including two specific to older people - by 2008, develop a single assessment tool for the care of older people and implement across HPSS; and by 2010 have piloted and published a new integrated assessment process. These provide clearer implementation plans than are available in RoI documents such as Quality and Fairness - a Health System for You.

While this report has focused on the health and social status, and related service uptake of older people, the larger HARP agenda is to build a better understanding of ageing per se and not just a profile of health and social deficits and service use. There needs to be a greater understanding of how older people themselves view ageing and how they experience their own ageing. The larger HARP work is testing a new method of assessing perceptions of ageing in the 2,053 older people surveyed across Ireland in 2004. The method – a self-report instrument developed through focus group work with older people and using theoretical models of illness representations as a template – is called the Ageing Perceptions Questionnaire (Barker, O’Hanlon, McGee, Hickey & Conroy, unpublished). This will allow the ageing perceptions of those of any age, and of those with or without health, social or other constraints, to be documented in a systematic manner. It will also allow for tracking of changes across time or location. The larger project also includes a pilot of a brief vulnerability measurement tool with potential for use by professionals such as GPs and public health care nurses when assessing risk in older people. This two-pronged approach – to pay particular attention to identifying and assisting the most vulnerable older Irish people while also developing a greater understanding of the meaning of ageing to older people and all others in society – can represent the twin challenges of advocating on behalf of all older people. This study has demonstrated that older people themselves provide significant support as primary carers for other people, mainly other older people. The message that older people are contributors to society overall in this way, in addition to activities in the voluntary sector and in terms of child-minding and grandparenting, is an important one to keep in focus to help counter ageist

economic articles such as 'The demographic deficit: how ageing will reduce global wealth' (Farrell, Ghai & Shavers 2005) which provide a gloomy picture of life with the increasing burden of economically inactive older people.

Quality of life and quality of healthcare are equally important criteria in assessing how life is and how it should be for older people. Our concern as a society needs to keep the twin focus on the best health and quality of life for the whole population while ensuring a specific and appropriate focus on those who are most vulnerable and in need of care. In this way, the challenges of providing for older people in society are no different to those for other groups. When focusing on older people, we can embrace the findings as equally relevant for other potentially vulnerable groups such as children and those with disabilities. This project provides a heretofore unavailable profile of the health and social status and related service use of a large group of older people in contemporary Ireland. Some of the challenges with using existing datasets to consider issues for older people have been outlined by Evason *et al.* (2005). While some resources in the UK are publicly available through the UK Data Archive (e.g. data from the British Household Panel Survey), fewer such studies have been conducted in the RoI and there has not been a tradition of making datasets publicly accessible. This needs to change. More importantly, these datasets have not been developed to specifically address the challenges and experiences of ageing in a way that informs our understanding of ageing as distinct from attitudes and service use of older people. A more holistic understanding of ageing is needed as an evolving phenomenon in this fast-changing society. The RoI government has recently commissioned a National Longitudinal Children's Study. This followed extensive consultation with key stakeholders. We need urgently to begin the same dialogue regarding substantial longitudinal research to inform understanding, policy and practice in relation to ageing in the coming decades in Ireland. In sum, annual business plans provide immediate feedback on levels of service provision for older people. They need to do this in the medium-term context of a contemporary national strategy for older people. These in turn need to be set against a back-drop of a national longitudinal study of older people such that the longer-term trends in numbers, health status, and health and social care needs of older people can be anticipated. Taking steps to establish a longitudinal study at this point would, interestingly, provide the type of information needed to best understand ageing as a phenomenon and to best plan the services that many reading this report will experience in their own old age.

7.8 Conclusions

This report provides a wide-ranging coverage of the health and social status and related service use for older people in the RoI and NI. It is one of an increasing number of reports to compare the two systems and the first to look closely in one study at older people's experiences of their lives and their interactions with health

and social services. Both similarities and differences can be usefully studied to reflect on needs from public health through to secondary care services. Findings also have implications for social policy and for consideration of the role of older people in today's society. Findings suggest complex patterns of health and social status and service use across the regions with neither system presenting a uniformly better profile of older age experiences and service use than the other. In time, efforts to coordinate more routine data collection systems to allow for direct comparisons of equivalent markers of quality of care will promote greater use of this unique opportunity to compare two systems on the one island. Ongoing and systematic reflection on patterns in both regions can help to create a greater understanding of the ageing process and to shape services for the old age that we ourselves aspire to enjoying.

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Appendix 1

Figure A2.1: Recruitment profile of HeSSOP-2 repeat sample ('new' participants in 2004)

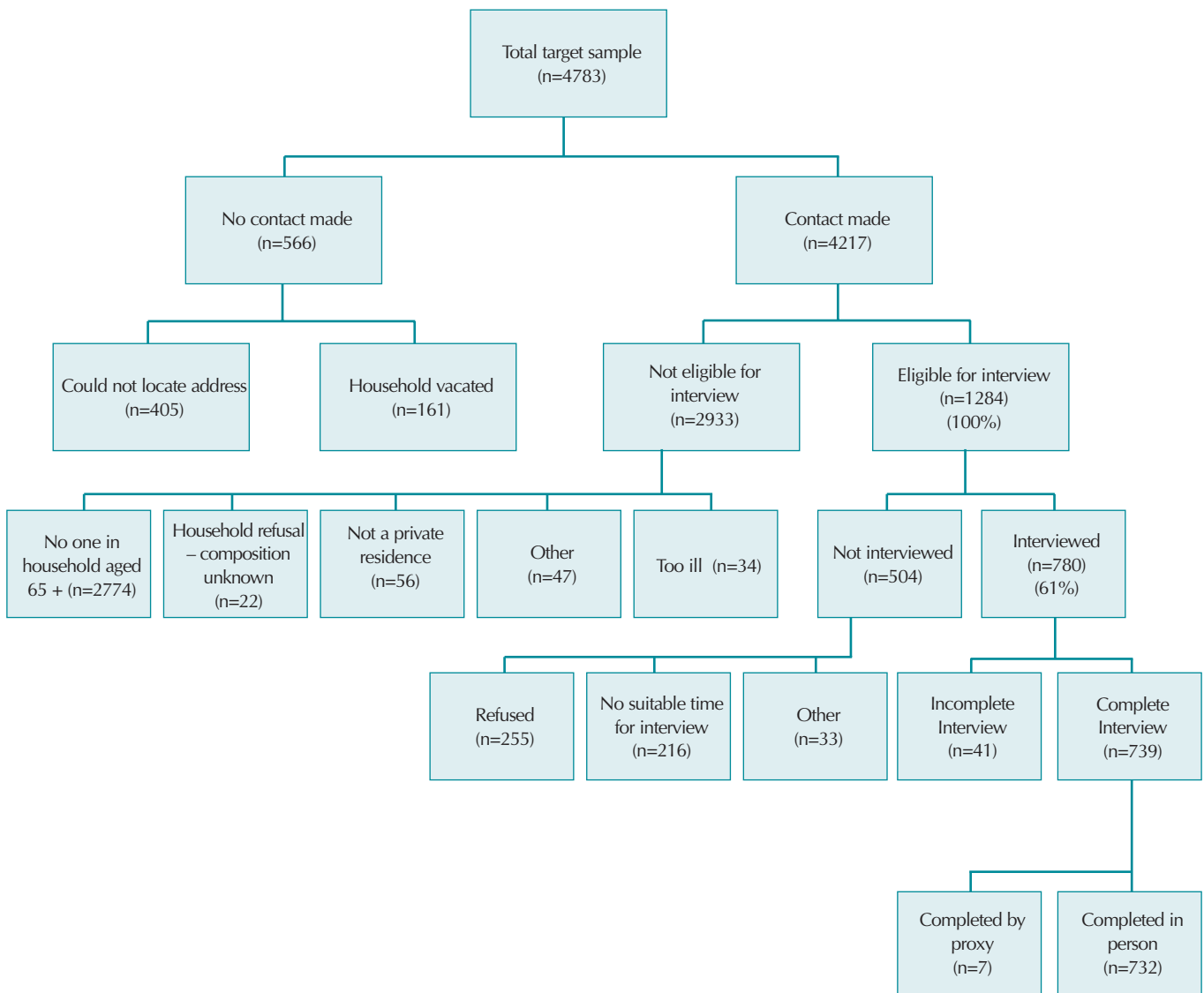


Figure A2.2: Recruitment profile of HeSSOP-2 longitudinal sample (participants originally interviewed for HeSSOP-1 in 2000)

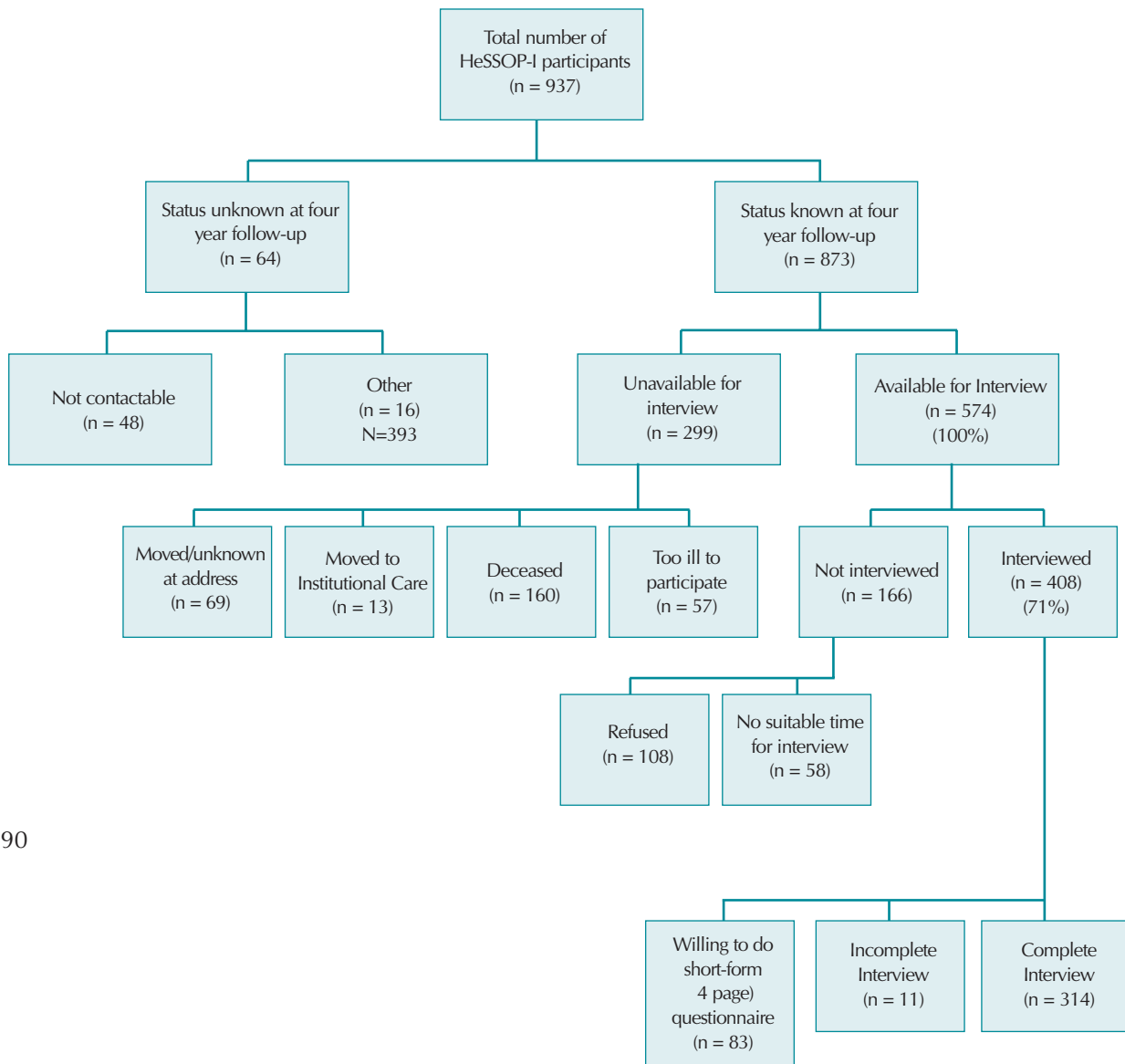
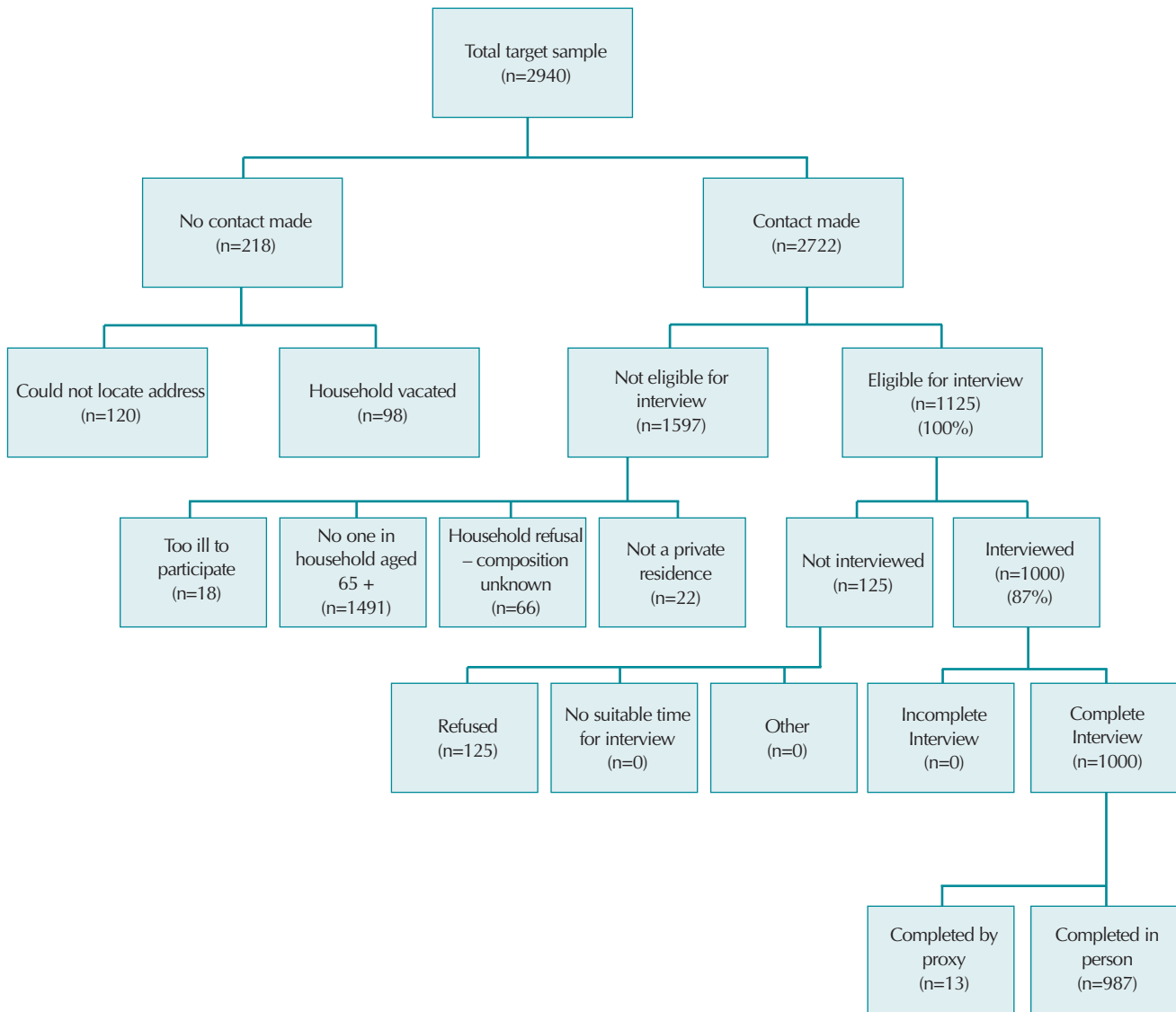


Figure A2.3: Recruitment profile for Northern Ireland sample



Appendix 2

Table A4.1: Percentage finding HAQ tasks very difficult or impossible to do by policy (RoI & NI) and geographic (urban & rural) regions

HAQ Score	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- Complex activities, e.g. shopping ^{abc}	14	18	16	28	33	30
- Reaching ability ^a	16	17	16	29	32	30
- Personal care, e.g. washing entire body ^{abc}	9	12	10	24	28	24
- Walking ability ^{abc}	8	13	10	23	27	24
- Arising, e.g. getting in and out of bed ^{abc}	4	7	5	14	17	15
- Dressing ^{abd}	7	8	6	11	19	13
- Grip ability, e.g. jars ^{abd}	5	8	6	11	10	11
- Eating and drinking ^a	4	6	5	9	10	10

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05, ^bacross-policy regions urban/rural differences where p < .05, ^cwithin RoI policy region urban/rural differences where p < .05, ^dwithin NI policy region urban/rural differences where p < .05

Table A4.2: Profile of activities found to be difficult or impossible to do by policy region (RoI & NI) and gender

	Republic of Ireland			Northern Ireland		
	Men	Women	Total	Men	Women	Total
	%	%	%	%	%	%
Complex activities ^{ab}	12	20	16	23	35	30
Reaching ^{ab}	10	20	16	24	34	30
Personal care ^b	9	11	10	18	28	24
Walking ^{ab}	8	11	10	19	27	24
Arising ^b	4	7	5	12	17	15
Dressing ^b	5	8	6	9	17	13
Gripping ^{ab}	5	10	6	6	15	11
Eating/drinking ^b	4	6	5	7	11	10

Note: RoI n = 1,053 (men n = 493; women n = 560); NI n = 1000 (men n = 389; women n = 611); ^awithin RoI policy region gender differences where p < .05

Table A4.3: Support usually needed with tasks by policy (RoI & NI) and geographic (urban & rural) regions

Percentage needing support for:	Republic of Ireland			Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- Complex activities, e.g. shopping ^{abd}	19	25	22	33	42	35
- Reaching or picking up things ^a	14	20	17	20	30	22
- Dressing ^a	7	11	9	17	24	19
- Walking ^{abc}	6	13	9	16	21	17
- Gripping, e.g. jars ^a	8	12	9	15	18	15
- Personal care e.g. washing entire body ^a	8	11	9	14	20	15
- Arising e.g. getting in and out of bed ^a	3	6	7	11	12	11
- Eating and drinking ^a	3	8	6	10	13	11

Note: RoI urban n = 551, rural n = 470; NI urban n = 714, rural n = 286; ^aNorth/South differences where p < .05, ^bacross policy regions urban/rural differences where p < .05, ^cwithin RoI policy region urban/rural differences where p < .05, ^dwithin NI policy region urban/rural differences where p < .05

Table A4.4: Ratings of emotional support by policy region (RoI and NI), gender, household composition (living alone, vs. all others), and level of functional ability

Groups	Republic of Ireland			Northern Ireland		
	None/little of the time	Some of the time	Most of the time	None/little of the time	Some of the time	Most of the time
	%	%	%	%	%	%
Gender						
- Men	45	29	44	45	44	41
Live alone^{ab}						
- Yes	59	58	24	83	91	49
Functional ability						
- Self sufficient	78	58	82	58	51	63
- Mostly minor difficulties	9	19	5	22	19	15
- Some major difficulties	9	13	9	10	20	12
- Severe impairment	4	10	4	10	10	10

Note: RoI n = 1,053; NI n = 1000; ^awithin RoI policy region group differences where p < .05, ^bwithin NI policy region group differences where p < .05

Table A4.5: Ratings of practical support by policy region (RoI and NI), household composition (living alone, vs. all others), and level of functional ability

Groups	Republic of Ireland			Northern Ireland		
	None/little of the time	Some of the time	Most of the time	None/little of the time	Some of the time	Most of the time
	%	%	%	%	%	%
Live alone^{ab}						
- Yes	54	57	21	81	80	45
Functional ability^b						
- Self sufficient	86	78	80	74	52	60
- Mostly minor difficulties	9	15	9	19	18	14
- Some major difficulties	3	2	7	4	19	14
- Severe impairment	2	4	4	2	11	12

Note: RoI n = 1,053; NI n = 1000; ^awithin RoI policy region differences where p < .05, ^bwithin NI policy region differences where p < .05

Table A4.6: Profile of activities found to be difficult or impossible to do by geographic region (urban vs. rural) and age group

	Urban areas		Rural areas	
	Age ≤74	Age 75+	Age ≤74	Age 75+
	%	%	%	%
Complex activities ^{abc}	14	34	12	37
Reaching ^{bc}	15	32	13	34
Gripping ^{abc}	5	13	4	28
Walking ^{abc}	11	23	11	27
Personal care ^{abc}	11	25	11	25
Dressing ^{abc}	4	14	8	17
Arising ^{bc}	7	15	8	15
Eating/drinking ^{abc}	5	10	8	11

Note: urban areas n = 1,265 (≤74 yrs. n =694; 75+ years n = 571); rural areas n = 756 (≤74 yrs. n =384; 75+ years n = 372); ^aurban/rural differences where p<.05, ^bwithin urban geographic region age differences where p < .05, ^cwithin rural geographic region age differences where p < .05

Table A4.7: Profile of activities found to be difficult or impossible to do by geographic region (urban vs. rural) and gender

	Urban areas		Rural areas	
	Men	Women	Men	Women
	%	%	%	%
Complex activities ^{ab}	16	28	20	26
Reaching ^{bc}	16	27	14	28
Personal care ^{abc}	13	19	13	21
Walking ^{abc}	13	18	15	21
Dressing ^{ab}	6	11	9	15
Arising ^c	8	11	7	13
Gripping ^{abc}	4	12	6	11
Eating/drinking ^{ab}	5	8	5	9

Note: urban areas n = 1,265 (men n = 557; women n = 708); rural areas n = 756 (men n = 312; women n = 444); ^aurban/rural differences where p<.05, ^bwithin urban geographic region gender differences where p < .05, ^cwithin rural geographic region gender differences where p < .05

Table A4.8: Difficulties in social contact by policy region (RoI & NI) and geography (urban & rural) amongst non-drivers

Difficulty in attending social events	Non-drivers in the Republic of Ireland			Non-drivers in Northern Ireland		
	Urban	Rural	Total	Urban	Rural	Total
	%	%	%	%	%	%
- No difficulty	45	44	44	51	35	46
- Some difficulty	72	79	79	72	80	73
- Much difficulty or impossible	85 ¹	87	87	79	84	80

Note: RoI non-drivers n = 549 (urban n = 260; rural n = 265; unknown n = 24); NI non drivers n = 599 (urban n = 448; rural n = 151); ¹of RoI urban participants who experienced much difficulty in attending social events 85% were non-drivers, and just 15% were drivers