



Ageing and Public Health – an overview of key statistics in Ireland and Northern Ireland

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Ageing and Public Health – an overview of key statistics in Ireland and Northern Ireland

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Introduction

People worldwide are living longer than ever before and this is also true on the island of Ireland. Over the last 100 years, average life expectancy at birth in Ireland and Northern Ireland, has risen by several decades. Life expectancy at birth in ROI is 80.4 years for men and 84.0 for women (Eurostat, 2017a) while in Northern Ireland (NI) it is 78.7 years for men and 82.4 years for women (DOH NI, 2019a).

Population ageing can be seen as one of the greatest successes of public health. However, a key challenge is not only the extension of life expectancy but to ensure those extra years are healthy and disability-free for as long as possible. All countries face major challenges to ensure that their health and social systems are ready to make the most of this demographic shift.

“Worldwide, populations are rapidly ageing. This demographic shift presents both opportunities and challenges...

Many of the challenges associated with population ageing can be addressed by changes in behaviour and policy, especially those that promote good health in older age. However, so far, the debate on how best to achieve these changes has been narrow in scope. A comprehensive public health approach to population ageing that responds to the needs, capacities, and aspirations of older people and the changing contexts in which they function is needed”.

(Beard and Bloom, 2015).

Ageing is a life-long process and ensuring people can age healthily and maintain independence in old age requires a life-course approach. Public health interventions can have a significant impact on the quality of ageing in terms of health outcomes, disability and quality of life. This paper highlights the areas where public health and ageing intersect, particularly focusing on relevant statistics in ROI and NI.

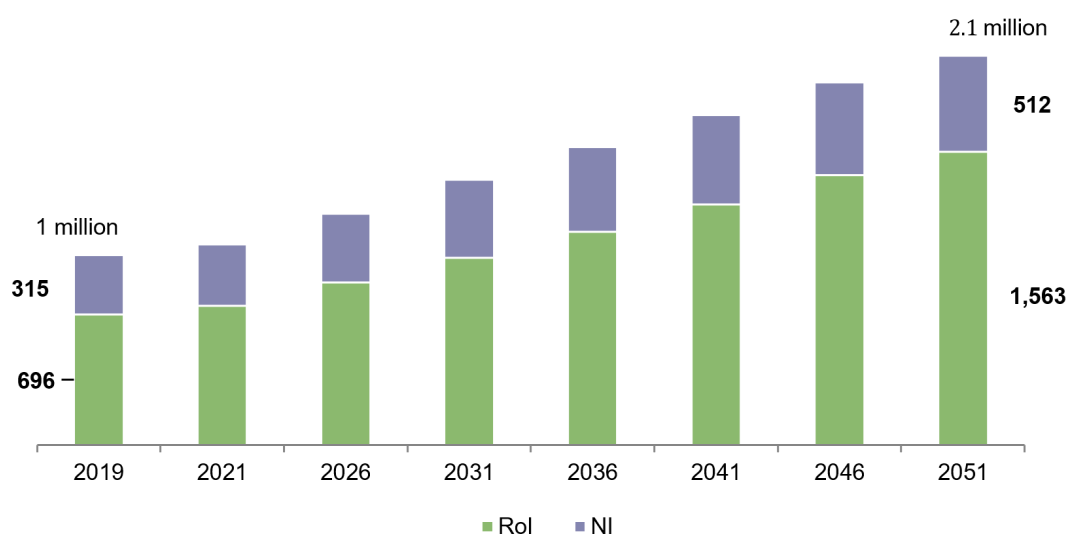
North/South Comparisons

It is important to note that direct comparisons between different data sources for Northern Ireland and the Republic of Ireland must be treated with caution, due for example to the use of different survey methodologies, definitions, question wording and timeframes, or the fact some disease prevalence data is taken from official registers based on different criteria and healthcare systems. Important differences have been footnoted in the report, and more details can be found in the original sources. Please note that for the reasons outlined, comparisons of trends within this paper are indicative rather than precise.

1. The Demographics of Ageing in Ireland and Northern Ireland

In line with global trends the populations of ROI and NI are getting older and the share of older people is set to rise steeply over coming decades.

Figure 1: Projected number of people aged 65+, thousands, 2019-2051



Source: CSO, 2018; CSO, 2019a¹; NISRA, 2019

The population aged 65 or over in ROI was estimated to have reached 696,300 in 2019 and 314,700 in NI, meaning the combined total on the island has exceeded 1 million for the first time (CSO, 2019a, NISRA, 2019).

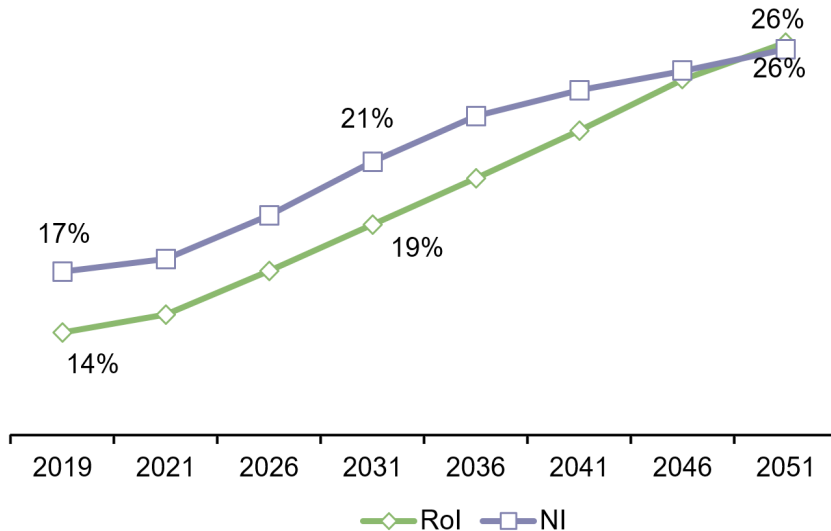
Figure 1 shows the projected number of people aged 65+ doubling to almost 1.6 million in ROI by 2051 and exceeding half a million in NI - bringing the total in this age group to over 2 million on the island (CSO, 2018, NISRA, 2019). The number of people aged 60 or over is estimated at 950,000 in ROI in 2019 and is projected to rise to 1.9m

by 2051. In NI there are currently 421,000 people aged 60+ and this is projected to rise to 631,000 by 2051.

In 2019 one in seven people on the island of Ireland was aged 65 or over – 17% of the NI population and 14% of the ROI population. It is projected that one in four people (26%) will be over the age of 65 by 2051 in both ROI and NI as shown in Figure 2. Three out of 10 people in the population of both jurisdictions will be aged 60+ by 2046.

¹ The 2019 figures for ROI are from the CSO's population estimates for April 2019. The CSO's M2F2 population projection based on moderate immigration and reduced fertility is used for the ROI component of the projected figures for 2021 to 2051 which are based on a 2016 starting point. All NI figures are from NISRA's 2018-based population projections.

Figure 2: People aged 65+ as a percentage of total population, 2019-2051



Source: CSO 2018; NISRA, 2019

The number of people in Ireland, north and south aged 85+ is also set to accelerate over coming decades. In 2019 there were 73,000 people aged 85+ in ROI and this is projected to rise to 301,000 by 2051 (CSO, 2018, CSO, 2019a). In NI there were 39,000 people aged 85+ in 2019 and this will rise to 103,000 by 2051 (NISRA 2019). One in 20 people on the island of Ireland will be aged 85+ by mid-century.

The growth in the ageing population has been very rapid on the island of Ireland in the last decade compared with other EU countries where this process began earlier. Growth in the older age groups far exceeds growth in other age cohorts. While ROI had one of the youngest populations in Europe for many years, by 2028 there will be more people in ROI aged 65+ than there will be children aged 0-14 (DOH, 2018a). A similar shift is projected for NI with more people aged 65+ than children aged 0-15 (NISRA, 2019).

The growth of our older population since the 20th Century has been the result of many factors including: increased life

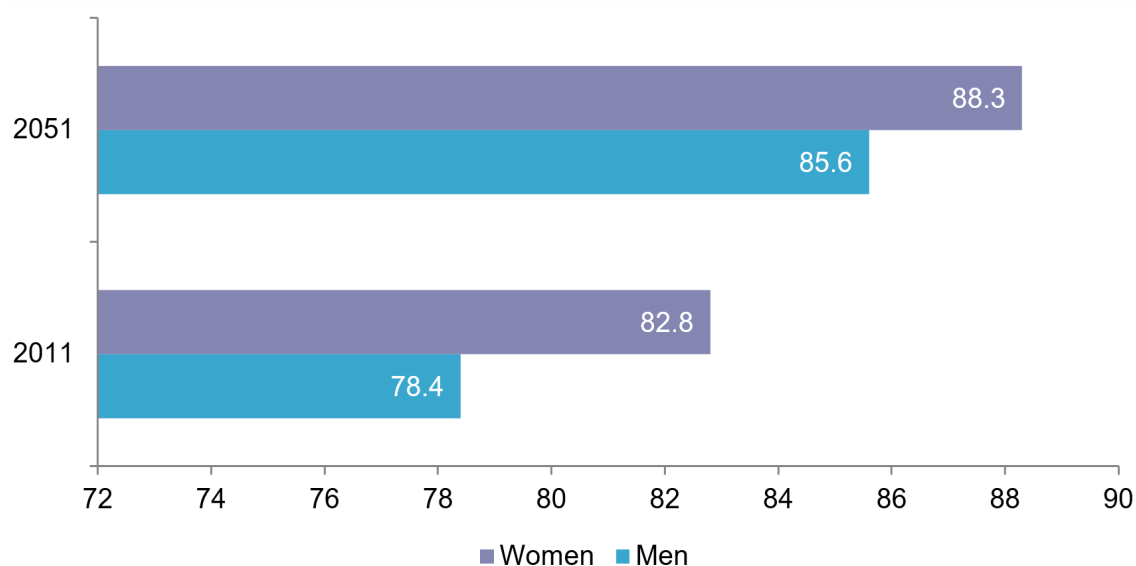
expectancy due to reduced infant and maternal mortality, the elimination of many infectious diseases, improved water-quality, medical advances and healthier lifestyles. This increased longevity in combination with reduced fertility led to huge increases in the share of older people in the population worldwide.

Improvements in life expectancy are projected to continue over coming decades. Figure 3 overleaf shows the projected increase in life expectancy at birth in ROI from 2011 to 2051, an increase of 5.5 years for women and 7.2 years for men (CSO, 2018). However recent data suggest the improvements in life expectancy of recent decades have started to slow down across the island of Ireland and many high-income countries, most notably the US where life expectancy has fallen slightly since 2015 (Raleigh, 2019). In ROI the slowing of life expectancy gains has been more pronounced amongst women than men (Murphy et al, 2019), while in NI there has also been a slowdown in life expectancy gains with no significant improvement for women since 2012-14

and a modest increase for men (DOH NI, 2019a). The stalling of life expectancy gains is not as pronounced in NI as in the UK as a whole (ONS, 2018). Reasons posited for slowing life expectancy gains in developed countries include high influenza mortality, a slowdown in cardiovascular health

improvements, and austerity, but the evidence is still unclear (Murphy et al, 2019). Increased mortality rates among the over-90s in ROI since 2011 has also been noted as a cause of concern (Naqvi and Whelan, 2019).

Figure 3: Projected increase in life expectancy in ROI, 2011-2051



Source: CSO, 2018

Life expectancy at age 65 is also an important measure of an ageing population. In ROI a woman aged 65 in 2017 had a remaining life expectancy of 21.4 years while a 65-year-old man could expect to live another 19.0 years (Eurostat, 2017a). In NI the corresponding figures are 20.7 years for women in 2016/18 and 18.4 years for men (DOH NI, 2019a).

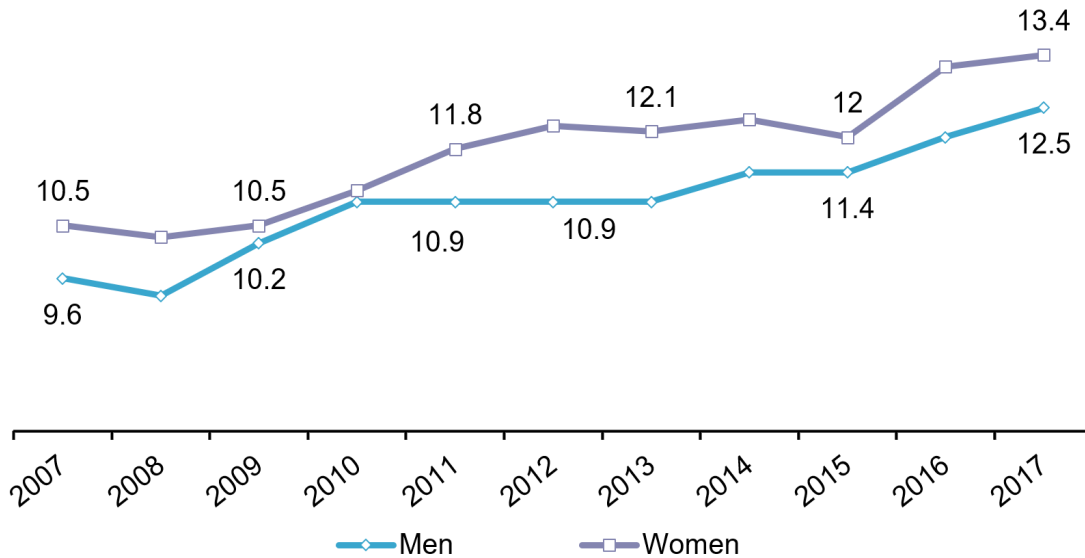
Increased longevity is not the only important measure however, as the number of those extra years spent in good health is crucial to both quality of life and service provision. Disability-free life expectancy is a measure used to assess this². In ROI, disability-free life expectancy at age 65 has been increasing, standing at 13.4 years for women and at 12.5 years for men in 2017 (Eurostat, 2017a). This is

higher than the European Union average of 10.2 years for women and 9.8 years for men, but lower than in the best-performing country Sweden where disability-free life expectancy at age 65 is 15.8 years for women and 15.4 years for men.

In NI meanwhile the figures for disability-free life expectancy at age 65 (calculated by the Office of National Statistics) to allow for UK-wide comparisons show a woman in NI could expect to live 9.0 years disability-free in 2016-18, while a 65-year-old man could expect to live 9.1 more years disability-free, several years less than their female and male counterparts in ROI as shown in Figures 4a and 4b overleaf, though differences in how this is measured must be taken into account (ONS, 2019).

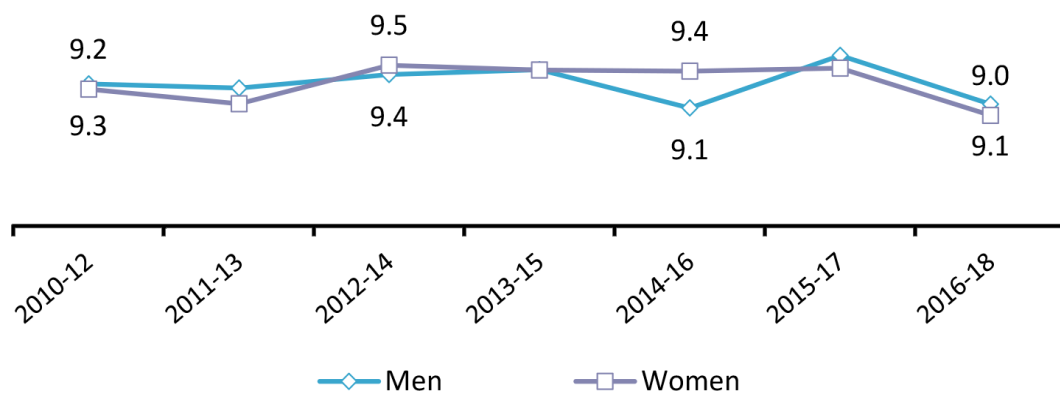
² The ROI measure (Eurostat) is Disability-Free Life Expectancy (DFLE), i.e. the number of years a person is expected to live in a healthy condition free of limitations to functioning/disability. The DFLE measure in NI (ONS) is estimated years of life free from limiting persistent illness or disability.

Figure 4a: Disability-free years expected at age 65 by sex, ROI 2007-2017



Source: Eurostat, 2017a

Figure 4b: Disability-free years expected at age 65 by sex, NI 2010/12-2016/18



Source: ONS, 2018, 2019

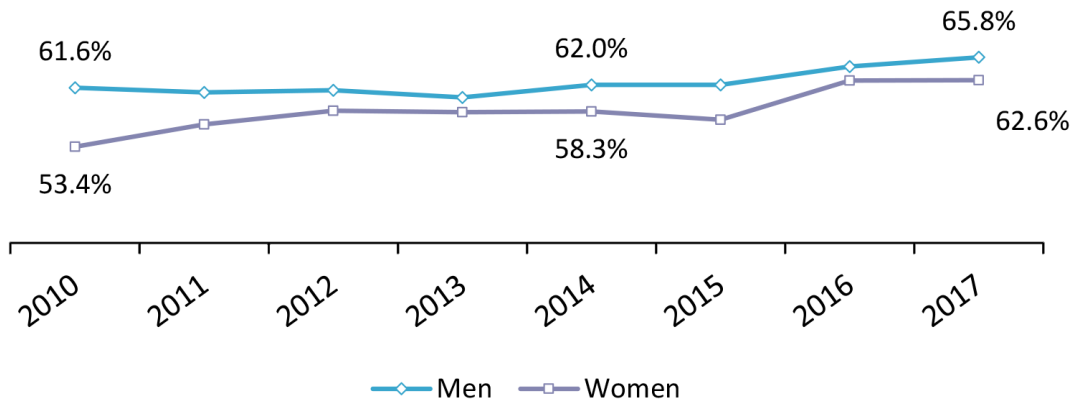
Looking at the proportion of years people aged 65 can expect to live in good health, Figure 5a overleaf shows that in ROI men can expect to spend 66% of their remaining years disability-free and for women it is 63%. Figure 5b overleaf shows

the corresponding proportions in NI are 49.3% for men and 43.8% for women. In both ROI and NI, women spend a smaller proportion of their remaining years from age 65 in good health than men do. This is more pronounced in NI, whereas the

gap has narrowed recently in ROI. The European Union average was 54% for men and 47% for women in 2017³. Sweden had

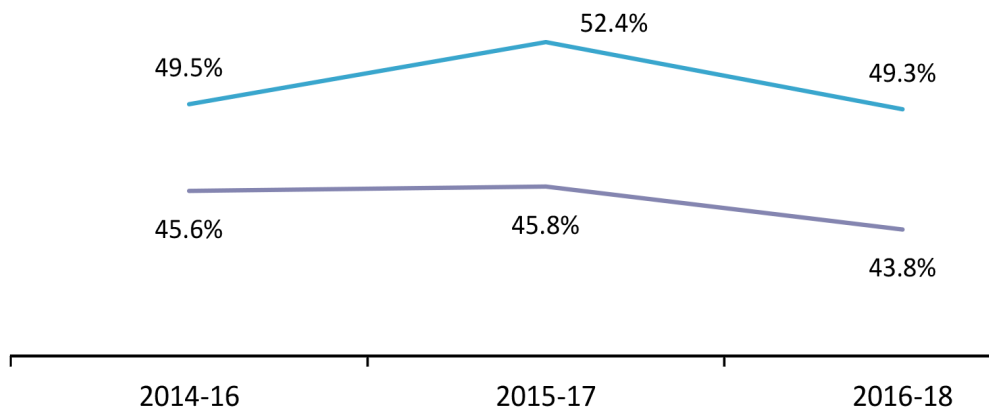
the highest proportion of disability-free life expectancy at 80% for men and 73% for women (Eurostat, 2017a).

Figure 5a Disability-free years expected at age 65 as a percentage of life expectancy, ROI 2010-17



Source: Eurostat, 2017a

Figure 5b Disability-free years expected at age 65 as a percentage of life expectancy, NI 2014/16-2016/18



Source: ONS, 2019

³ Calculation of % of disability-free life expectancy is derived from Eurostat figures for disability-free years expected at 65 divided by total years of life expectancy at age 65.

2. Chronic Conditions and Ageing

Chronic diseases are the major cause of morbidity and mortality in both developing and developed countries. This represents a shift from communicable diseases being the main cause of mortality in the early 20th Century. Many diseases that were previously considered to be infectious or acute conditions are now classified as chronic conditions due to medical advances in treatment (Scandlyn, 2000). Tobacco use, unhealthy diet, physical inactivity and lack of access to preventive care all contribute to increasing prevalence of

chronic diseases such as; heart disease, cancer, stroke, diabetes, and respiratory diseases (Halpin, Morales-Suarez-Varela, & Martin-Moreno, 2010). The prevalence of most chronic conditions increases with age. With the population in NI and ROI ageing, this will mean an increase in the percentage of the population with one or more of these conditions. Table 1 shows the most common chronic conditions associated with ageing, including prevalence statistics for ROI and NI.

Table 1: Chronic conditions and ageing statistics for Ireland, North and South 2009/11-2015/17

<p>Arthritis</p> <p>Arthritis is an inflammation of the joints that can cause pain and immobility. There are many different types, the most common of which is osteoarthritis. Arthritis is a major cause of pain and disability in older people.</p>	<p>Some 10% of the ROI population aged 15+ report having arthritis in the past 12 months (DOH, 2019). It is among the most prevalent chronic conditions amongst older adults in ROI, with TILDA data showing 39% of all those aged 56+ are affected, rising to 53% amongst those aged 75+ (McNicholas and Laird, 2018). Women are more likely than men to be affected.</p> <p>In NI 466,000 people or 27% of the total population are estimated to have a musculoskeletal condition, i.e. arthritis, back pain or osteoporosis (Arthritis Research UK, 2018). There were 12,721 people on the rheumatoid arthritis register⁴ in NI in 2019 (DOH NI, 2019d). Across the UK as a whole, a third of the population aged 45+ has sought treatment for osteoarthritis, rising to 49% of females and 42% of males aged 75 or over (Arthritis Research UK, 2013).</p>
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⁴ In NI there are registers of 15 different conditions or diseases for which patients are registered with their GP to receive treatment under the Quality and Outcomes Framework. These registers obviously do not include people who have not been formally diagnosed with the condition.

<p>Diabetes</p> <p>Diabetes is a disease caused by too high a level of sugar (glucose) in the blood. Type 1 diabetes is caused by an autoimmune condition, while Type 2 diabetes is a metabolic disorder which usually develops in adulthood and is often associated with being overweight.</p>	<p>There are 141,500 adults aged 20-79 years with diabetes in ROI (International Diabetes Federation, 2017). Diabetes prevalence increases with age in ROI, to over 11% of the population aged 75+ (McNicholas & Laird, 2018). This indicates that a sizeable number of people aged 80+ would have to be added to the above total with diabetes.</p> <p>In NI there were 99,833 people on the diabetes register in 2019, a prevalence rate of 6.4% for the population aged 17+ (DOH NI, 2019d)⁵.</p>
<p>Coronary Heart Disease</p> <p>Coronary heart disease (CHD) is a group of diseases that includes angina and heart attack. It is a leading cause of death among older adults in both NI and ROI.</p>	<p>In ROI TILDA data shows 6% of people aged 56+ report having had a heart attack and 4.5% report having angina (McNicholas and Laird, 2018).</p> <p>There were 74,154 people on the coronary heart disease (CHD) register in NI in 2019, a prevalence rate of 3.7% across the whole population (DOH NI, 2019d).</p> <p>Amongst older people (50+) prevalence of CHD is 12.4% in NI and 8.6% in ROI. More than twice as many older people in NI have both CHD and limiting long-term illness (8.8%) as in ROI (4.1%) (Cruise et al, 2015).</p> <p>CHD-related disability becomes more prevalent with age e.g. among those aged 50-59 the rates are 1.6% in ROI and 4.0% in NI; among those aged 80+ the rates are 8.3% in ROI and 15.2% in NI (Cruise et al., 2015).</p> <p>People in lower socio-economic classes are more likely to have CHD-related disability than those in high ones (5.0% v 2.9% in ROI and 11.1% v 7.6% in NI). It is also more common in men than women (Cruise et al., 2015).</p>
<p>Hypertension (high blood pressure)</p> <p>Hypertension is a chronic condition in which the blood pressure in the arteries is elevated, increasing the risk of heart attack and stroke.</p>	<p>In NI there were 273,895 people on the Hypertension Register in 2019 giving a prevalence rate of 13.8% (DOH NI, 2019d). People in the most deprived areas were 23% more likely to be on blood pressure medication than those in the least deprived areas (DOH NI, 2020b).</p> <p>TILDA results in ROI using objective measurements indicate 40% of older adults (54+) had high blood pressure (Nolan, Newman & Donoghue, 2016). Self-reported prevalence rose with age from 29% of those aged 56-64 to 49% of those aged 75+ (McNicholas and Laird, 2018).</p>

⁵ The raw prevalence rate for the total population of 1.97m GP patients is 4.8%, but the diabetes register only includes people aged 17+ so the prevalence rate of 6.2% for that age group is used.

<p>High cholesterol</p> <p>Cholesterol is a fatty substance found in the blood and necessary for healthy cells. However if levels are too high it can cause a build-up of plaque in blood vessels, increasing the risk of heart attack and stroke.</p>	<p>TILDA data shows that 41% of older adults (50+) in ROI have high cholesterol and this is much more common among women than men (51% versus 31%). High cholesterol is more common amongst people aged 50-64, and is lower amongst those aged 65+ (Nolan, Newman & Donoghue, 2016).</p> <p>In NI, 17% of NI adults aged 65+ had a marginally elevated cholesterol level while another 23% had a moderately increased level and a further 1% had a level consistent with severe risk of cardiovascular disease (Bates et al, 2012).</p>
<p>Stroke</p> <p>A stroke occurs when poor blood flow to the brain causes cell death. There are two main types of stroke: ischaemic due to lack of blood flow and haemorrhagic due to bleeding.</p>	<p>In ROI around 10,000 people of all ages have a stroke annually, while there are upwards of 30,000 people living with disabilities as a result of a stroke. (Irish Heart Foundation/HSE, 2016). TILDA data shows 2% of people aged 50+ have had a stroke and prevalence rises with age from 1% of those aged 50-64 to 4% of those aged 75+ (McNicholas and Laird, 2018).</p> <p>In NI 38,234 people or 1.9% of the total population of all ages were on the stroke register in 2019 (DOH NI, 2019d). Three out of four people who experience a stroke are aged 65 or over (HSC, 2017).</p>
<p>Cancer</p> <p>Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. There are over 100 different known cancers that affect humans.</p>	<p>An average of 22,321 new cases of cancer are diagnosed each year in ROI and the five most common cancers are non-melanoma skin cancer, prostate cancer, breast cancer, bowel cancer and lung cancer (National Cancer Registry of Ireland, 2018). It is projected that one in two people in ROI will develop cancer during their lifetime (Irish Cancer Society, 2018).</p> <p>The median age group of diagnosis for all cancers in ROI is 65-74 while almost three quarters (74%) of people who die from cancer are over the age of 65 (NCRI, 2018).</p> <p>In NI, there were 51,181 people on the cancer register in 2019, 2.6% of the population (DOH NI, 2019d). Around 9,400 cases of cancer are diagnosed each year in NI (not including non-melanoma skin cancer). Cancer occurs primarily among older people with 63% of cases in people aged 65+ and highest incidence rates in those aged 85-89 (N. Ireland Cancer Registry, 2019). The cancer mortality rate for under-75s is 70% higher in the most deprived areas compared to the least deprived areas (DOH NI 2020b)</p>

<p>Chronic Obstructive Pulmonary Disease (COPD)</p> <p>COPD is the umbrella term for a collection of lung diseases including chronic bronchitis and emphysema. It mainly affects those over 35 and is most commonly caused by smoking.</p>	<p>Around 110,000 people in ROI have been diagnosed with COPD but it is thought there are up to 380,000 people living with the disease who have not been diagnosed. It is more common in areas of high social deprivation. (HSE, nd). COPD causes over 1,600 deaths a year in ROI and a high number of hospitalisations. Prevalence increases with age with around one in five of medical card holders aged 75+ on COPD-related medication (Irish Thoracic Society, 2018). TILDA data indicates 13% of people aged 56+ in ROI have a respiratory condition (DOH, 2019).</p> <p>In NI there were 42,235 people on the COPD register in 2019, a prevalence rate of 2.1% of the total population. (DOH NI, 2019d). Respiratory mortality (all-cause) for under-75s is over three times higher in the most deprived areas compared to the least deprived areas (DOH NI, 2020b).</p>
<p>Dementia</p> <p>Dementia is a broad category of brain diseases that cause a long term decrease in mental capacity, particularly in the ability to process and remember. Alzheimer’s disease is the most common type of dementia, followed by vascular dementia which is related to impeded blood flow in the brain. There are several other types.</p>	<p>There were estimated to be around 47,000 people with dementia in ROI in 2011 and this number has been projected to grow to 132,000 by 2041 (Pierce, Cahill and O’Shea, 2014). The rate varies by gender and increases sharply with age – e.g. 1.8% of men and 1.4% of women aged 65-69 have dementia compared with 20.9% of men and 28.5% of women aged 85-89.</p> <p>There are 14,646 people on the dementia register in NI in 2019 (DOH NI, 2019d); note - this only includes diagnosed cases. There were estimated to be almost 20,000 people with dementia in NI in 2013 (Prince, 2014), with this figure projected to rise to 60,000 by 2051 (DHSSPS, 2011).</p>

3. Socio-economic Inequalities in Ageing and Health in Ireland and Northern Ireland

Across the island of Ireland there are socio-economic inequalities in health among older people. People in higher socio-economic groups are at lower risk of chronic conditions and associated disability. Greater socio-economic deprivation is associated with significantly lower cognitive performance and higher levels of both anxiety and depression and ultimately with earlier death (McNulty et al, 2014). There are also very marked gender inequalities in health behaviours, specifically in that women are less likely than men to be

physically active, but men are more likely to smoke and drink heavily.

Table 2 uses a selection of areas to compare ageing and health across the island of Ireland. It shows that multimorbidity is more common in NI and levels of physical activity are lower, but levels of smoking are broadly similar. The prevalence of frailty, stroke and CHD in the NI population is higher than in the ROI. However the underlying reasons for North South differences remain unclear.

Table 2: Key all-island comparative public health statistics

<p>Multimorbidity</p> <p>Multimorbidity is the presence of two or more chronic medical conditions in an individual. It can have a significant impact on activity and quality of life.</p>	<p>11% of the population over 50 in ROI suffer from two or more chronic diseases, compared to 18% of people over 50 in NI (Savva et al, 2011)⁶.</p> <p>People in lower socio-economic groups are twice as likely to suffer multimorbidity as people in higher socio-economic groups in both NI and ROI (Savva et al, 2011).</p> <p>People reporting two or more chronic diseases are nearly 20 times as likely to report disability as people with no chronic conditions (Savva et al, 2011).</p>
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⁶ Eight chronic conditions were included: heart attack, angina, stroke, diabetes, asthma, COPD, musculoskeletal pain and cancer.

<p>Smoking</p> <p>Smoking is the leading cause of avoidable death on the island of Ireland, causing 6,000 deaths in ROI and 2,300 in NI annually. It is a major cause of lung disease, cancer, stroke and heart disease.</p>	<p>In ROI 19% of those aged 55-64, 13% of those aged 65-74 and 8% of those aged 75+ smoke (DOH, 2018b).</p> <p>There are marked socio-economic inequalities - for example women in ROI aged 55-64 living in deprived areas are four times as likely to smoke as women in affluent areas (31% versus 8%) while for men in this age group smoking rates are 31% in deprived areas and 12% in affluent areas (DOH, 2018b).</p> <p>In NI 16% of those aged 55-64, 12% of those aged 65-74 and 6% of those aged 75+ smoke cigarettes (DOH NI, 2020a).</p> <p>NICOLA data indicates that people aged 50+ living in the most deprived areas of NI are three times as likely to smoke as those in the least deprived areas (30% versus 10%) (Tully, Scott and Cruise, 2017).</p>
<p>Alcohol Consumption</p> <p>Excessive alcohol consumption can lead to high blood pressure, liver disease, stroke, injuries and brain damage. The weekly low-risk guidelines in ROI are 17 standard drinks⁷ for men (170g pure alcohol) and 11 for women (110g). NI uses the UK weekly low risk guidelines of 14 units (112g) for both men and women⁸.</p>	<p>The proportion of older adults who drink alcohol is broadly similar in both jurisdictions falling from around three quarters of those aged 55-64 to just over half of those aged 75+ (DOH, 2018b; DOH NI, 2018).</p> <p>In ROI 52% of men aged 55-64 'binge drink' (6+ drinks on typical drinking occasion) compared with 8% of women (DOH, 2018b). TILDA data indicates 16% of men aged 65-74 report problematic alcohol use compared with 6.6% of women (DOH, 2019).</p> <p>'Binge drinking' in ROI is more common among men in deprived areas than in affluent areas at age 55-64 (45% versus 34%), but similar for those aged 65+ (DOH, 2018b).</p> <p>In NI 33% of men aged 55-64 drink more than the UK weekly recommended limits (14 units/week) as do 8% of women. This falls to 12% of men and 3% of women aged 75+ (DOH NI, 2018).</p> <p>NICOLA data indicates higher rates of drinking above weekly limits amongst people aged 50+ in the most deprived areas of NI compared to the least deprived areas (39% versus 31%), but little difference by education level (Tully et al, 2017).</p>

7 In ROI a 'standard drink' is 10g of alcohol.

8 In NI a 'unit' is 8g of alcohol.

<p>Physical Activity</p> <p>Physical activity has been associated with many benefits for physical and mental health, with inactivity linked to the development of many non-communicable diseases.</p>	<p>In NI NICOLA data indicates 43% of adults aged 50 or over did not meet UK recommendations of doing at least 150 minutes per week of moderate exercise. Inactivity rose with age and was lower in those living in deprived areas (Tully et al, 2017).</p> <p>Amongst NI women 41% of those aged 50-64 were deemed inactive (<150 mins/week), rising to 47% of those aged 65-74 and 68% of those aged 75+. Amongst men inactivity levels rose from 34% of those aged 50-64, to 37% of those aged 65-74 and 50% of those aged 75+ (Tully et al, 2017).</p> <p>In ROI TILDA data shows 39% of people aged 56+ report low levels of physical activity⁹ and the levels of inactivity rise with age. Amongst women low activity is seen in 37% of those aged 56-64, 43% of those aged 65-74 and 61% of those aged 75+. Amongst men, 24% of those aged 56-64 have low levels of activity, as do 30% of those aged 65-74 and 44% of those aged 75+ (Healthy and Positive Ageing Indicators, 2019).</p>
<p>Frailty</p> <p>Frailty is a general weakening of the body, usually, though not inevitably associated with ageing. It makes people more vulnerable to falls and infections.</p>	<p>A North South study found that frailty is three times more common in people aged 60+ in NI than ROI (21% versus 7%)¹⁰. Older people in NI were more likely than those in ROI to have difficulty with walking, stair-climbing, activity, co-morbidity, and especially, exhaustion (38% compared with 9%) (Scarlett et al., 2014).</p> <p>There was a strong socio-economic gradient with people from unskilled/semi-skilled backgrounds far more likely to be frail than people from professional/managerial backgrounds in both NI and ROI (Scarlett et al, 2014).</p> <p>TILDA data (using a different frailty measure to that cited above) shows frailty affects 12.7% of adults aged 50+ in ROI and increases with age, doubling in each age group from 50-64, 65-74 and 75+. It is twice as common amongst women as men and amongst those with primary compared to third level education (O'Halloran and O'Shea, 2018).</p>

⁹ There are a number of different measurements of physical activity available in Ireland North and South. Both NICOLA in NI and TILDA in ROI use the International Physical Activity Questionnaire but classify the results slightly differently. NICOLA defines those who do less than 150 minutes per week of moderate to vigorous activity as inactive in line with UK health guidelines. TILDA's cut off point for 'low' activity is less than 30 minutes moderate activity on 5 days per week or under specified thresholds for vigorous activities and/or walking.

¹⁰ Frailty data can often be difficult to compare because items and indices used to measure it may not be identical across different studies. However the North-South study cited above found NI fared worse than ROI on all frailty criteria considered.

Obesity

Obesity is an excessive accumulation of body fat which can have a negative impact on health. It increases people's risk of cardiovascular disease, type 2 diabetes, certain cancers and arthritis.

Around three quarters of older adults are overweight or obese across the island of Ireland with only around a quarter at a healthy weight.

Some 29% of adults aged 55-64 in ROI are obese, as are 34% of those aged 65-74 and 28% of those aged 75+. The proportions who are overweight are 47% aged 55-64, 41% aged 65-74 and 44% aged 75+ (DOH, 2019).

TILDA data shows obesity is more common in men than women aged 50+ and is less prevalent in wealthier people (Cronin et al, 2011).

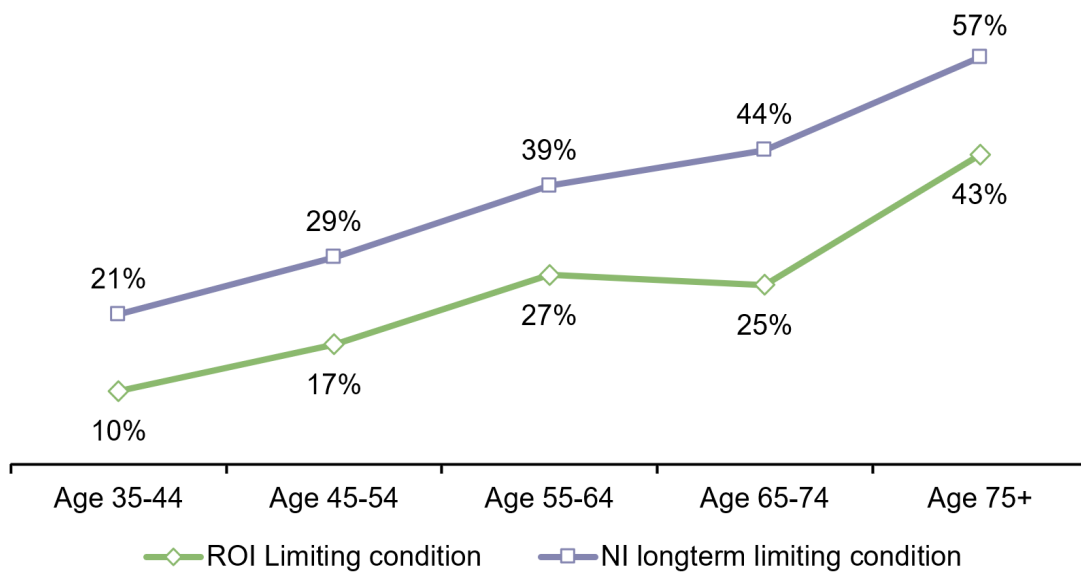
In NI 34% of adults aged 55-64 are obese – the highest rate of any age group. This falls to 28% of those aged 65-74 and 22% of those aged 75+. The proportions who are overweight are 39% aged 55-64, 41% aged 65-74 and 42% aged 75+, and this is more common in men than women. (DOH NI, 2020a).

Disability and Inequalities

This section explores patterns of disability in the population of the island, broken down by age, gender and socio-economic groupings.

Disability is classified in this section as self-perceived long-term limitations in day-to-day activity related to health problems. Figure 6 shows that rates of long-term limitation in activity generally increase with age in both ROI and NI¹¹.

Figure 6: Percentage of people with health-related limitations in activity ROI and NI (%)



Source: ROI EU-SILC Eurostat 2017; NI DOH 2020a

In ROI, EU-SILC figures for 2017 show that the proportion of the population with long-standing limitations in their usual activities due to health problems increases fourfold from the youngest to oldest age groups shown i.e. from 10.3% of those aged 35-44 to 43.4% of the 75+ cohort (Eurostat, 2017b).

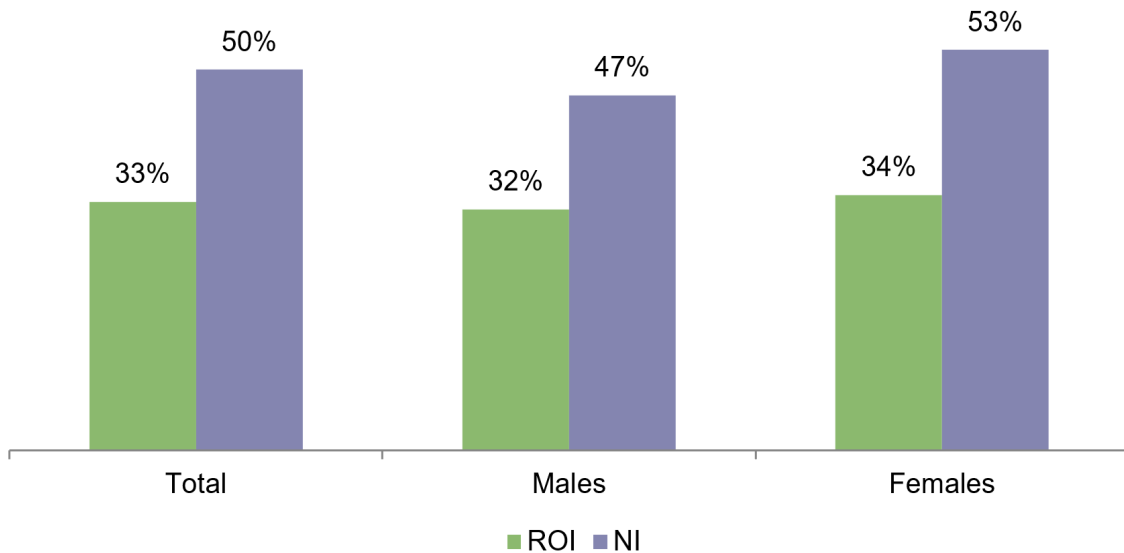
In NI using the Health Survey Northern Ireland 2018/19, there is a similar age gradient in the share of people with a limiting long-term illness (a condition or illness that reduces the ability to carry out day-to-day activities). The proportion almost trebles between the youngest and oldest age groups shown, i.e. from a rate of 21% in the 35-44 age group to 57% among those aged 75+ (Department of Health NI, 2020a).

The prevalence of limiting conditions is higher in NI for all age groups than it is in ROI, though the gap narrows in the oldest age group 75+. Overall, half of people aged 65+ in Northern Ireland report activity limitations compared with a third of people in the same age group in ROI. While the questions used to measure this are slightly different as outlined in Footnote 11, the gap is consistent with previous studies which have highlighted higher rates of disability in NI than ROI (McGee et al, 2005; Cruise et al, 2015).

The prevalence of limitation was broadly similar between men and women within each jurisdiction as shown in Figure 7 overleaf, with women reporting slightly higher rates of impairment than men, particularly in NI.

¹¹ The EU-SILC measure is of self-perceived long-standing limitation in usual activities due to a health problem. The wording of the question is: "For at least the last 6 months have you been limited in activities people usually do, because of a health problem? (If limited, specify whether strongly limited or limited)". The Health Survey Northern Ireland asks: "Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more". If yes, they are asked if this reduces their ability to carry out day-to-day activities.

Figure 7: People aged 65+ with long-term health-related limitations, ROI 2017 and NI 2018/19, (%)



Source: ROI EU-SILC Eurostat, 2017b; NI Department of Health NI, 2020a

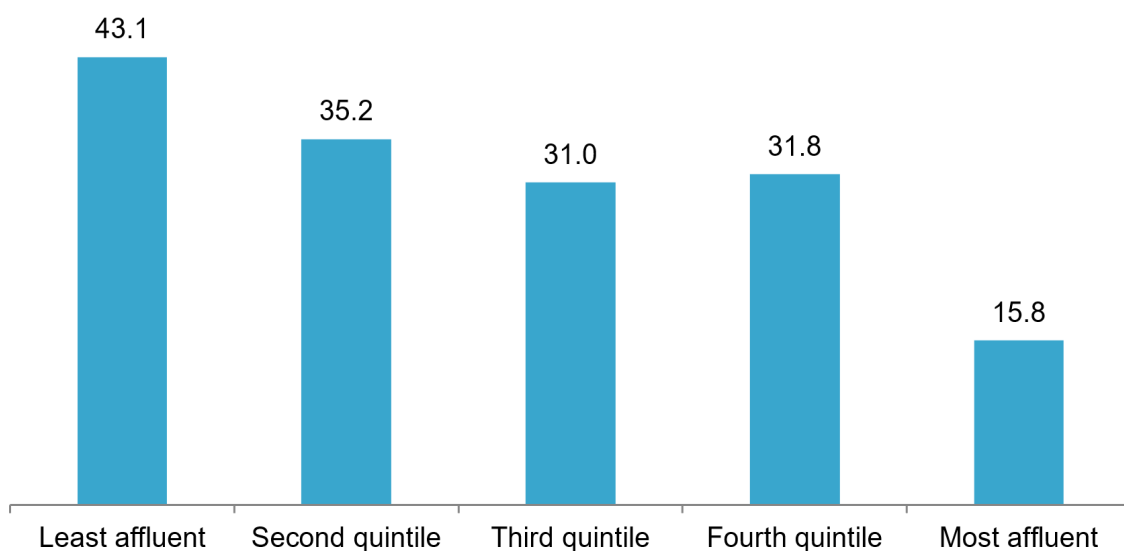
Socio-economic differences in disability

It is also important to present socio-economic factors in the rates of disability amongst the older population across the island of Ireland. Because of data constraints including differing measures of socio-economic position, this is explored separately within each jurisdiction rather than trying to make explicit North South comparisons.

Republic of Ireland

In ROI people on low incomes were far more likely to have health-related limitations. Using EU SILC data for 2017, Figure 8 shows a marked reduction in the level of functional disability from the least affluent group to the most affluent amongst people aged 65 or over. Some 43% of those in the lowest income quintile reported a long-term limiting health condition compared with 16% in the highest income quintile.

Figure 8. Long-term health limitations by income quintile for people aged 65+, ROI 2017, (%)

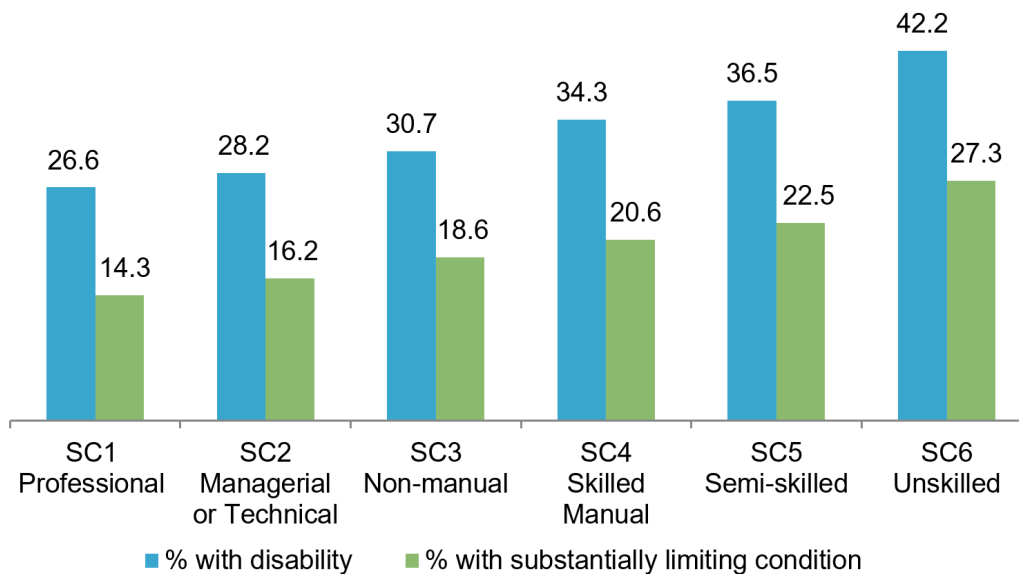


Source Eurostat EU SILC, 2017

Census data provides another measure of disability by socio-economic class for ROI. Figure 9 shows an unbroken increase in total disability and substantial limitation¹² for all people aged 65+ by social class. Older

unskilled workers are 59% more likely to be disabled than professional workers (42.2% compared with 26.6%) and nearly twice as likely to have a substantial limitation (27.3% versus 14.3%) on everyday activities.

Figure 9: ROI people aged 65+ with a disability and limitation by social class, 2016, (%)



Source: CSO 2017

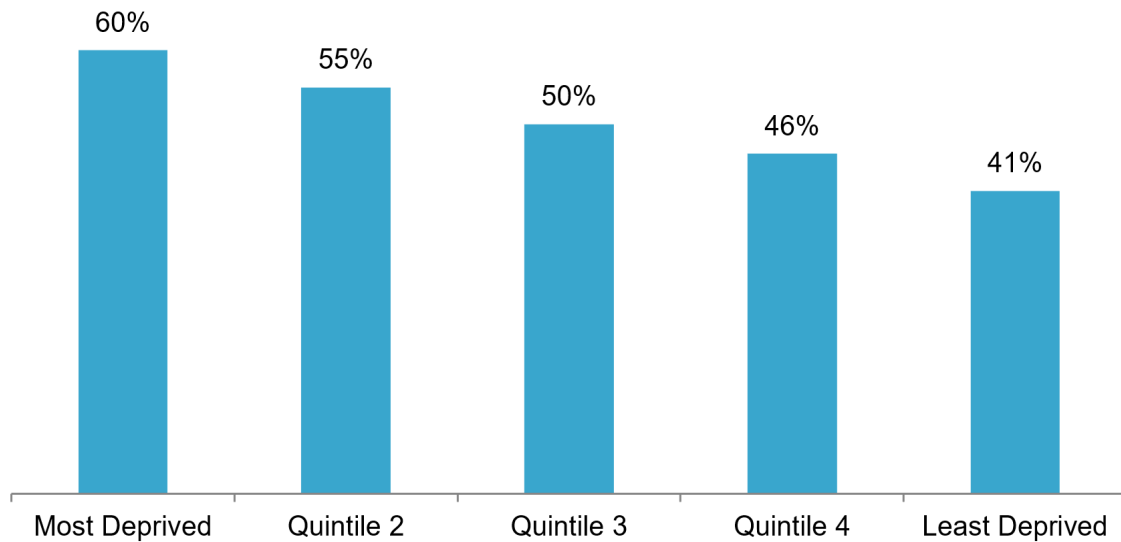
Northern Ireland

In NI there is also a pronounced gradient in the rate of disability between older people living in the most deprived areas and those

living in the least deprived areas, as HSNI 2018/19 data shows in Figure 10 overleaf. Those in the most deprived areas are 1.5 times more likely to have a limitation than those in the least deprived areas.

¹² The ROI Census 2016 asked about: difficulties with sight or hearing, a condition that substantially limits basic physical activities, difficulty in learning, remembering or concentrating, difficulty in dressing, bathing or getting around and difficulty in working. Individuals who answered yes to any of these questions were classified as having a disability, and the group with a "substantially limiting condition" is a subset of this category. Overall the Census data showed a marked increase in disability with age rising from 19.5% of those aged 55-64 to 49.5% of those aged 75+.

Figure 10: NI people aged 65+ with a long-term health limitation by deprivation quintile, 2018/19, (%)

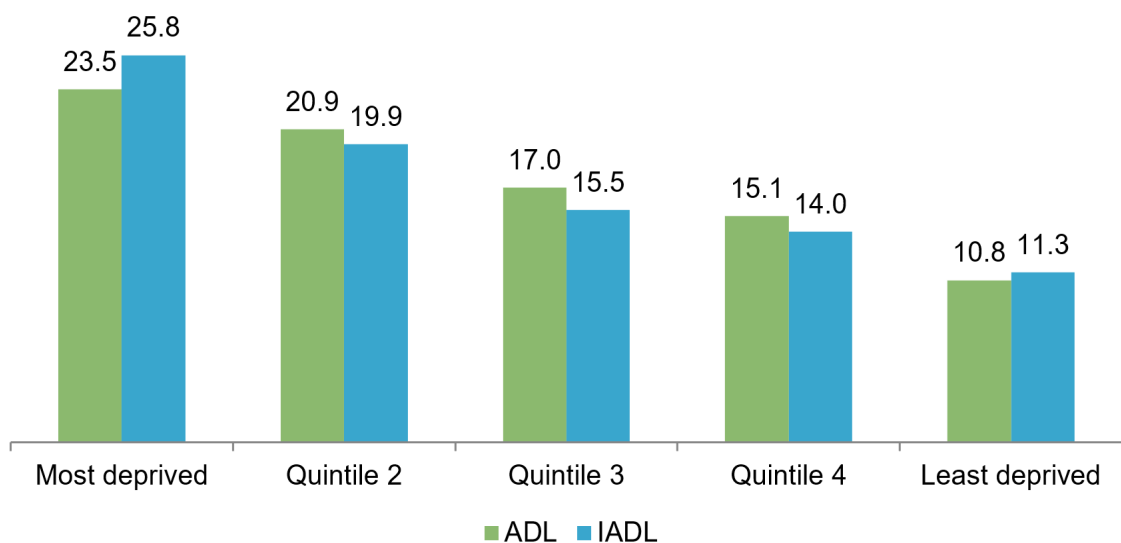


Source: Department of Health NI, 2020a¹³

NICOLA data for those aged 50+ in NI also shows a clear socio-economic gradient in measures of limitation and other self-reported health measures, with people in the most deprived areas generally 1.5 times more likely to experience poor health than those in the least deprived areas (O'Reilly and Cruise, 2017). Figure 11 illustrates

this pronounced socio-economic gradient for limitations in Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) with one in four in the most deprived areas experiencing a limitation compared to one in nine in the more affluent communities.

Figure 11: NI people aged 50+ with limitations in daily activities (ADLs and IADLs) by deprivation quintile, (%).



Source: NICOLA, 2017

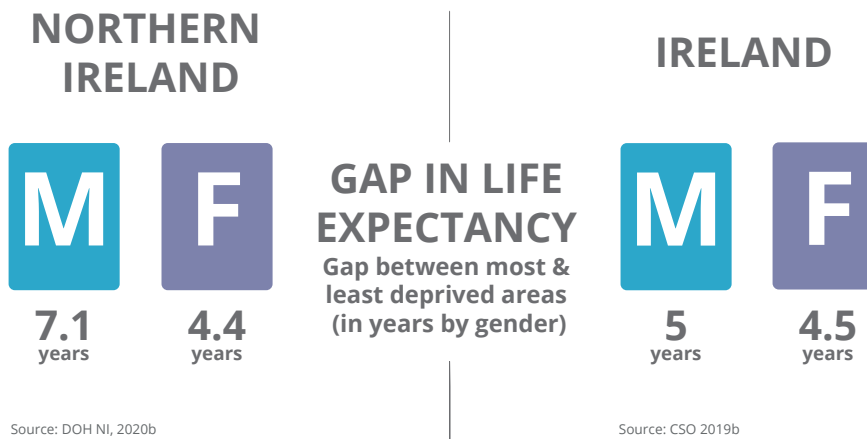
¹³ Data supplied directly by DOH NI, caution should be applied because of small numbers.

Inequalities in life expectancy

Poorer health ultimately translates into earlier death. Data for 2016-18 shows that men in the most deprived areas of NI can expect to live 7.1 years less than men in the

least deprived areas - 74.6 years compared to 81.7 years (DOH NI, 2020b) as seen in Figure 12. For women the gap is 4.4 years - 79.7 years compared to 84.1 years in the least deprived areas.

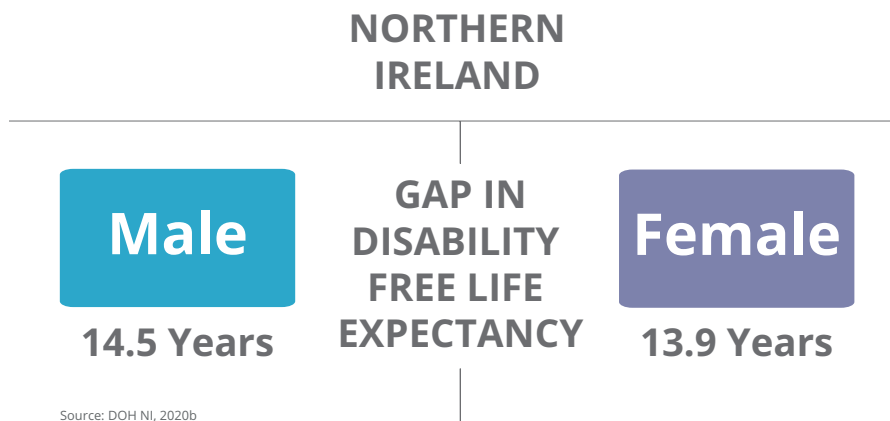
Figure 12. Life expectancy gap between most and least deprived areas for men and women in NI and ROI.



A similar socio-economic mortality differential is seen in ROI as data for 2016-2017 shows that men in the most deprived areas die 5 years earlier than men in the least deprived areas (79.4 versus 84.4 years). For women the gap in life expectancy is 4.5 years (83.2 in most deprived areas versus 87.7 in least deprived areas) (CSO, 2019b). At age 65, men and women in the most deprived areas have around three years less life expectancy than the least deprived areas¹⁴.

A wider and growing gap is seen in the number of years people can expect to live in good health. Disability free life expectancy has declined throughout Northern Ireland in recent years and the gap between the most deprived areas of NI and the least deprived has widened to 14.5 years for men and 13.9 years for women in 2016-18 (DOH NI, 2020b) as seen in Figure 13. That gap has widened by 3.2 years for men and 2.6 years for women since 2012-14.

Figure 13. Disability free life expectancy gap between most and least deprived areas for men and women in NI.



14 The deprivation index used by the CSO is the 2016 Pobal HP deprivation index developed by Haase and Pratschke. In NI the deprivation index used by NISRA is the Northern Ireland Multiple Deprivation Measure.

15 DOH NI suggests changes to the wording of the question measuring disability from 2013 including the explicit inclusion of mental health conditions could account for some of the disimprovement (DOH 2020b).

In summary the analysis of disability and socio-economic data in ROI and NI confirms that:

Half of people aged 65+ in NI have a long-term health-related limitation in day-to-day activities. The rate rises from 39% of people aged 55-64 to 57% of those aged 75+.

A third of people aged 65+ in ROI have a long-term health-related limitation. The rate rises from 27% of those aged 55-64 to 43% of those aged 75+.

There are substantial social class inequalities in disability rates with older people on lower incomes or in more deprived areas more likely to have long-term health-related limitations.

In ROI 43% of people aged 65+ in the lowest income group have a health-related limitation compared with 16% of those in the most affluent group.

In NI, 60% of those aged 65+ in the most deprived areas have a limitation compared with 41% in the least deprived areas.

Unskilled workers and the unemployed are more likely to face day-to-day health-related limitations in old age than professional workers.

In ROI 27% of professionals aged 65+ have a disability compared with 42% of unskilled workers.

Life expectancy is lower in deprived areas compared to more affluent areas in both NI and ROI.

In NI men in deprived areas die 7.1 years younger than men in the least deprived areas and for women the gap is 4.4 years.

In ROI the life expectancy gap between the most and least deprived areas is 5 years for men and 4.5 years for women.

In NI, the gap in disability-free life expectancy between the most and least deprived areas is 14.5 years for men and 13.9 years for women.

Conclusion

The populations of ROI and NI are ageing and this trend will accelerate over coming decades. This demographic shift has many implications for public health. Good health can help older people to remain independent and active for longer. Life-long health promotion and disease prevention activities can prevent or delay the onset of non-communicable and chronic diseases, such as heart disease, stroke, cancer and dementia, while environmental measures and technological advances can facilitate and prolong independent living (World Health Organization, 2017).

Ageing has been defined as “the life-long process of progressive change in biological, psychological and social structures of a person” (Kalache, 1999). In public health terms, healthy and active ageing require interventions across the life cycle to prevent chronic disease, promote independent living and maximise healthy life years. Public health action has the potential to draw on the capacities of older people, reaping huge benefits for society. For example, the world’s growing population of older people plays a critical role through volunteering, helping families with caring responsibilities and increasingly through participation in the paid labour force. In ROI half of older adults provide regular childcare to their grandchildren and half provide financial assistance to their children (Ward and McGarrigle, 2016). In NI meanwhile a quarter of older people provide care to family members

or friends with health issues, while 45% provide childcare and 18% do voluntary or community work (Cruise and Kee, 2017). Measures to extend healthy life expectancy and prevent or slow the onset of chronic disease can add to the already enormous economic and social contribution made by older people, while reducing the cost of health service delivery and improving quality of life in later years.

This report illustrates that it is important to more fully understand the differences in health and disability outcomes between the lowest and highest income groups and between NI and ROI so that lessons can be shared between both parts of the island to the benefit of both. The statistics presented on demographic change, public health and chronic conditions highlight why public health interventions are key across the full life cycle, and can help governments to meet their commitments of improving health and wellbeing at every stage of life and reducing inequality as outlined in NI’s Making Life Better strategic framework (DOH NI, 2013) and in ROI’s Healthy Ireland framework (DOH, 2013). The data in this report underscore the importance of addressing the pronounced differences in health and disability by age group, gender and socio-economic groups, and why it is imperative that we improve health outcomes and narrow the gaps in life expectancy between the most and least deprived communities if we are all to benefit from the longevity dividend.

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