5 Health and Social Care Utilisation

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Staidéar Fadaimseartha na hÉireann um Dhul in Aois
The Irish Longitudinal Study on Ageing

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Key Findings

- The proportion of TILDA participants with a medical card or GP visit card increased overall between wave 1 and wave 2 (from 52% to 57%), but declined in those aged 70+ years.
- Between wave 1 and wave 2, private health insurance cover declined in those under 65 years and increased in those aged over 65 years.
- In wave 2, 21.1% of participants aged 80+ years old had attended an Emergency Department (ED) at least once in the previous year (the corresponding figure for wave 1 was 15.1%).
- Utilisation of community health and social care services by the older population remains low.
- The uptake of prostate cancer screening services in men and breast cancer screening services women is high but the uptake of flu vaccination is low, particularly for those who do not have a medical or GP visit card.
- Polypharmacy (i.e., taking five or more medications) has increased from 21% at wave 1 to 26% at wave 2.
- Participants who had died between wave 1 and wave 2 had higher levels of secondary care service utilisation (ED visits and hospital admissions) than survivors.

5.1 Introduction

Health service utilisation was reported in the first wave of TILDA on all those aged 50 years and over. This chapter reports on the health service utilisation two years later in those aged 52 years and older who took part in the second wave of the study (n=7,134). This includes 7,010 participants who took part in both waves and 124 new participants. New participants in wave 2 include those previously deemed eligible to participate in wave 1 but who declined to do so at that time (n=122) and new partners/spouses of study participants (n=2). Wave 2 participants are therefore slightly older on average than participants in wave

1 (mean age 65.5 years vs 63.8 yrs).

In this chapter an expanded age categorisation is used to highlight the different patterns of service utilisation with increasing age, as well as differing public healthcare entitlements by age. Although differences in the cohort between the first and second waves of TILDA are discussed in detail in Chapter 7, differences across the age groups are highlighted here due to their relevance in the context of health service utilisation. The youngest age group (52-59 years) in wave 2 is systematically different to the youngest age group in wave 1 which included participants aged 50-52 years. The oldest age group (≥80 years) are also older than the corresponding group in wave 1 (mean age 84.4 years vs 83.8 years). This reflects differences in eligibility to participate between the waves. In wave 2 it became possible to interview participants or their proxy where the participant had been admitted to a nursing home or had become cognitively impaired.

The chapter begins with a focus on health care entitlement status followed by utilisation of primary, secondary, community and home based services. The focus then turns to changes in prescribing patterns for older adults between the two waves. The final part of the chapter reports on health service utilisation in participants who died between wave 1 and wave 2 of the TILDA study.

5.2 Medical card and private health insurance coverage

There are two main categories of eligibility for public health services in Ireland, those with a medical card and those without. Those with a medical card are entitled to free General Practitioner (GP) care and public hospital services, free prescribed drugs and medicines subject to a €2.50 charge per item (from 1 December 2013), free dental, optical and aural services subject to certain limitations and a range of community care and personal social services. Eligibility for a medical card is means tested with different income thresholds applied at different ages. Those who do not meet the eligibility criteria for a medical card may qualify for a GP visit card, where the income thresholds are 50% higher than those for the medical card. The GP visit card entitles the holder to free GP visits; however, unlike the medical card the holder must pay out of pocket for all prescribed drugs and medicines. Under the Drugs Payment Scheme, all those without a medical card must pay the full cost of prescribed drugs and medicines up to a monthly deductible limit of €144 per family.

Universal entitlement to a medical card for all adults over 70 years was introduced in 2001. This universal entitlement was removed in 2009 and an income threshold for eligibility re-introduced. The over 70s income threshold has subsequently been revised downwards

on an annual basis. During wave 2, a single person aged 70 years and older with a gross income of €700 per week or less or a couple over 70 years with a gross income of €1,400 per week or less qualified for a medical card under the scheme. Under The Health (Alteration of Criteria for Eligibility) Act 2013 this was revised downwards to €600 for a single person and €1,200 for a couple (1). The income thresholds for a medical card for persons over 70 years will be further reduced in 2014 to €500 per single person or €900 per couple (2)

During wave 2 adults over 70 years with a gross weekly income of over €600 but not exceeding €700 for a single person (over €1,200 and not exceeding €1,400 for a couple) were entitled to a GP visit card (3). Prescription charges were subsidised above a threshold of €132 per month under the Drugs Payment Scheme during the data collection period for wave 2, and this was increased to €144 per month from 1 January 2013.

Those without a medical card or GP visit card must pay out of pocket for GP services. This group are entitled to free public hospital services subject to in-patient and out-patient hospital charges, subsidised prescription charges under the Drugs Payment Scheme and have no entitlement to personal social services. Supplementary private health insurance is purchased by many individuals in order to gain quicker access to hospital services. Some individuals with entitlement to a medical card or GP visit card purchase private health insurance in addition to these entitlements; this group is described as having ‘dual cover’ in this report. Those without private health insurance, a GP visit card or a medical card are described as having ‘no cover’ in this report.

During the period between wave 1 and wave 2 (wave 1 commenced in 2009, wave 2 in 2012), due to the impact of the economic recession in Ireland, the number of Irish people eligible for medical cards increased and the number purchasing private health insurance decreased. In this period, the proportion of people with medical cards in the Irish population increased from 33.2% (1.4 million) at the beginning of 2010 to 37% (1.7 million) at the beginning of 2012. The proportion of the population with GP visit cards also increased from 2.2% (98,300) to 3.1% (142,500) in the same time period (4, 5).

For ease of comparison with wave 1,Table 5.1 shows the pattern of health care cover for all participants aged 50 years and older in wave 1 and Table 5.2 shows the pattern in all participants aged 52 years and older in wave 2. Due to the small number of participants with GP visit only cards this category is combined with the medical card category. The first four columns provide information on exclusive categories, i.e., an individual can belong to one category only. The sixth column ‘All medical cards’ combines the two categories

of 'Medical card only' and 'Dual cover'. The seventh column 'All private health insurance' combines the two categories 'Private health insurance only' and 'Dual cover'.

Table 5.1: Health care entitlement status at wave 1 by age

	Not covered		Private health insurance only		Medical card only[a]		Dual cover		Total	All medical cards[a]		All private health insurance		Number in Sample
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)		%	(95% CI)	%	(95% CI)	
50-59	19	(17-20)	51	(49-53)	25	(23-27)	5	(4-6)	100	30	(28-33)	56	(54-59)	3271
60-64	10	(9-12)	50	(47-53)	31	(28-34)	9	(7-11)	100	40	(36-43)	59	(56-62)	1393
65-69	10	(8-12)	41	(37-44)	33	(30-36)	17	(14-19)	100	49	(46-53)	57	(54-62)	1196
70-79	1	(1-2)	8	(7-9)	53	(49-56)	38	(35-41)	100	91	(89-92)	46	(43-50)	1677
>=80	0	(0-1)	3	(2-4)	68	(64-72)	29	(25-33)	100	97	(95-98)	32	(28-36)	626
Total	11	(10-12)	37	(35-38)	36	(35-38)	16	(15-17)	100	52	(52-54)	53	(51-55)	8163

[a] Includes those with GP visit cards

Table 5.2: Health care entitlement status at wave 2 by age

	Not covered		Private health insurance only		Medical card only[a]		Dual cover		Total	All medical cards[a]		All private health insurance		Number in Sample
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)		%	(95% CI)	%	(95% CI)	
52-59	18	(16-20)	48	(46-51)	27	(25-30)	6	(5-7)	100	34	(31-36)	54	(52-57)	2344
60-64	13	(11-15)	46	(43-50)	32	(29-35)	9	(7-11)	100	41	(38-45)	55	(52-59)	1333
65-69	7	(5-9)	42	(38-45)	35	(32-38)	17	(14-19)	100	52	(48-55)	58	(55-62)	1182
70-79	1	(0-1)	10	(9-12)	50	(46-53)	39	(36-42)	100	89	(87-90)	50	(46-53)	1579
>=80	1	(0-2)	4	(3-6)	65	(61-70)	29	(25-33)	100	95	(93-96)	34	(30-38)	686
Total	10	(9-10)	33	(32-35)	39	(37-41)	18	(17-19)	100	57	(56-59)	52	(50-53)	7124

The second wave of TILDA provides information on changing eligibility for free public health care in Ireland. While most of the changes between waves are not statistically significant, some interesting patterns emerge. Overall, the proportion of participants with medical /GP visit cards has increased from 52% at wave 1 (see Table 5.1) to 57% in wave 2 (see Table 5.2). This increase however is confined to those aged less than 70 years. The proportion with a medical/GP visit card decreased from 91% to 89% between waves in those aged 70-79 years and from 97% to 95% between waves in those aged 80 years and older. In total 92% of participants aged 70 years and older have a medical card or GP visit card in wave 2.

A similar but opposite pattern can be seen in relation to private health insurance. The

overall proportion of the older population with private health insurance is slightly reduced from 53% at wave 1 to 52% at wave 2 (see Table 5.1 and Table 5.2). A decrease in the proportion with private health insurance can be seen in those aged under 65 years and an increase in those aged 65 years and older, although none of these comparisons are statistically significant. The largest increase between the two waves can be seen in the 70-79 year age group where 46% had private health insurance at wave 1 compared to 50% at wave 2.

The increase in private health insurance uptake at older ages is consistent with reports on the current age profile of the private health insurance market in Ireland. The numbers of people aged 60 years and over with private health insurance have increased annually between 2009 and 2011 compared to annual decreases in all age groups younger than 60 years (6). As the income thresholds for entitlement to a medical card among the over 70s have been reduced recently, this increase in uptake of private health insurance may suggest a need for reassurance by older people that they have sufficient cover in the event of need for health care.

Recently published data from the Central Statistics Office revealed that 44% of Irish adults aged 65 years and older had private health insurance in 2011 (7). Using this age as a cut-off point, 46.5% of TILDA participants were found to have private health insurance in wave 1 and 48% to have private health insurance in wave 2, representing a gradual increase in private health insurance uptake in this age group in the inter-wave period.

Almost a fifth of older adults have dual cover (private health insurance in addition to a medical/GP visit card). Dual cover is uncommon in the 52-59 year age group and is relatively static between the two waves in those under 70 years. The proportion of the population with no cover has changed little across the waves.

5.3 Changes in medical card and private health insurance coverage

To examine transitions in health care entitlement categories between wave 1 and wave 2, in this sub-section we focus just on individuals that took part in both waves and provided details of their health care entitlement status at both waves (n=6,904). Table 5.3 provides detailed information on the transitions from wave 1 to wave 2 between the five mutually exclusive health care entitlement categories defined in Tables 5.1 and 5.2.

Table 5.3: Changes in health care entitlement status between wave 1 and wave 2

	Medical card only (wave 2) %	GP card only (wave 2) %	Private health insurance only (wave 2) %	Dual private Health Insurance plus Medical/GP Card (wave 2) %	No Cover (wave 2) %	Total %	Number in sample (wave 1)
Medical card only (wave 1)	96.0	0.3	0.3	2.4	1.0	100	2,001
GP card only (wave 1)	42.2	29.8	0.0	1.2	26.8	100	62
Private health insurance only (wave 1)	1.0	0.1	87.0	8.9	3.0	100	2,929
Dual private health insurance plus medical card/ GP card (wave 1)	10.5	0.3	4.9	83.9	0.5	100	1,201
No cover (wave 1)	20.5	3.8	4.5	0.9	70.2	100	711
Number in sample (wave 2)	2210	60	2682	1334	618	100	6904

Of those who had a medical card only at wave 1, almost all continued to have a medical card only at wave 2 (96%) and a small proportion had purchased private health insurance in addition to their medical card cover by wave 2 (2.4%) (see Table 5.3). While the number of participants with a GP visit card only at wave 1 was small, less than a third of these continued to have a GP visit card only at wave 2, 42.2% had obtained a medical card and 26.8% had no cover at wave 2. Almost 96% of those with private health insurance only at wave 1 retain their private health insurance alone or in conjunction with a medical card or GP visit card in wave 2 with a small proportion (3%) transitioning to no cover. This contrasts with those who held private health insurance in addition to either a medical card or a GP visit card at wave 1, a proportion of whom have relinquished their private health insurance in the inter-wave period and now rely more heavily on a medical card only (10.5%). Of those with no cover at wave 1, 70.2% continued to have no cover at wave 2 and 20.5% had become eligible for a medical card with only 3.8% becoming eligible for a GP visit card.

5.4 Utilisation of primary and secondary care services

Primary and secondary care service utilisation increased between wave 1 and wave 2. Utilisation of GP services remains high with 89.6% of participants in wave 2 indicating that they had visited their GP at least once in the previous year compared to 87.4% in wave 1 (see Table 5.4). Utilisation was highest in those with dual cover, followed by those with medical or GP visit cards. The lowest level of utilisation was found in those classified as having no cover.

Frequency of GP visiting was examined at wave two. One tenth of those aged 52 years and older did not visit a GP in the previous year and 63% visited between one and four times, 25% visited between 5 and 19 times and only 2% visited 20 or more times in the previous year (See Appendix Table 5.A1). Frequency increased with age however a similar pattern can still be seen in those aged 80 years and older where 5% did not visit a GP in the previous year, 53 % visited 1-4 times, 39% visited 5-19 times and 3% visited a GP 20 times or more.

Table 5.4: Proportion utilising primary and secondary care services by age and health care entitlement status

	GP visit (%)		Outpatient visit (%)		Emergency Department (ED) visit (%)		Hospital Admission (%)	
	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2
Age								
50-59 (wave 1) 52-59 (wave 2)	80.7	84.3	35.7	38.6	14.0	14.4	10.5	10.2
60-64	88.0	88.0	42.0	42.2	14.3	14.0	11.3	11.3
65-69	90.8	91.7	45.2	51.0	16.0	15.9	15.0	14.7
70-79	94.7	94.7	46.2	51.5	16.7	19.4	16.6	18.2
>=80	95.4	94.1	36.9	47.0	15.1	21.1	15.6	24.8
Total	87.4	89.6	40.2	45.0	14.9	16.4	12.9	14.6
Health entitlement status								
Not covered	74.3	75.1	31.3	31.2	13.2	11.6	5.9	6.8
Private health insurance only	82.3	86.0	36.9	39.3	11.8	12.5	10.0	9.8
Medical/GP visit card only	93.0	92.8	43.3	49.4	18.0	19.5	15.9	16.9
Dual cover	95.3	97.0	46.8	53.1	16.2	19.7	17.1	22.6
Total	87.4	89.6	40.2	45.0	14.9	16.5	12.9	14.6

The proportion of older adults attending hospital as on outpatient in the year prior to the survey has increased by almost 5 percentage points between wave 1 and wave 2 (see Table 5.4). Utilisation increased the most between the two waves in those with dual cover and those with medical or GP visit cards only. The increase is especially apparent in those over 80 years where the proportion attending hospital as an outpatient in the previous year increased by over 10 percentage points between the two waves (36.9% to 47%). The increase in outpatient activity found at wave 2 may reflect a changing waiting pattern for outpatient services which came about as a result of the Department of Health's Special

Delivery Unit (SDU). The SDU was set up in 2011 by the Minister for Health and tasked with implementing performance improvement in Irish hospitals. One of the targets set was to reduce outpatient waiting lists to no more than 12 months in the 2011 period and to reduce this further to 9 months in 2012. As a result there was an increase in activity in the outpatient sector aimed at addressing those who had been waiting longest.

Utilisation of emergency department (ED) services in the year prior to the survey increased slightly between waves 1 and 2 of TILDA (see Table 5.4). Utilisation was highest and increased the most in those with dual cover. The largest increase in ED utilisation can be seen in those aged 80 years and older. Just over 15% of this age group reported an ED visit in the first wave compared to 21.1% in wave 2 (see Table 5.4). Some of this change is likely due to the older age profile of those over 80 years in wave 2. Given the high levels of multi-morbidity in older adults, this finding highlights the need for service providers to actively consider the needs of this older age group in EDs and to provide renewed focus on primary care and community-based interventions which aim to reduce dependency on the ED.

Admission to hospital in the previous year has also increased in the older age group 80+ years) in wave 2; 24.8% of those aged 80 and over had experienced at least one admission in the previous year compared to 15.6% in wave 1.

5.5 Primary prevention and Screening

5.5.1 Prostate cancer screening

Excluding non-melanoma skin cancer, prostate cancer is the most frequently diagnosed cancer in men in Ireland (8). There is no population-based screening programme for prostate cancer in Ireland due to insufficient evidence to recommend the introduction of a prostate cancer screening programme (9). Despite this, there is widespread screening at a local level. The majority of men in TILDA have had a prostate cancer test (an examination of their prostate to screen for cancer or a Prostate Specific Antigen (PSA) test). In wave 1 72.8% of men aged 50 years and older indicated that they had previously had a prostate cancer test. At wave 2 this proportion rose to 81.8% in those aged 52 years and older (see Table 5.5).

As this test is not population-based, health care entitlement status provides an insight into the pattern of uptake. A higher proportion of those with private health insurance (either in combination with a medical/GP visit card or private health insurance only) had prostate

cancer screening carried out compared to those with a medical or GP visit card only or those with no cover (in both waves). Overall the proportion of men being screened for prostate cancer is high suggesting perceived importance of this test and a willingness to pay for this service even in the group of men classified as having no cover.

Men who indicated that they had a PSA test carried out at wave 1 were asked in wave 2 if they had a repeat test conducted since the time of their first interview. Almost 79% had a repeat test carried out between the two waves. Men who had not been tested at the time of their first interview were asked if they had been tested between the two waves. In this group 44% were found to have been tested for the first time in the inter-wave period.

Table 5.5: Proportion utilising primary and secondary prevention services by age and health care entitlement status

	Prostate cancer test (Men only) (%)		Cholesterol test (%)		Flu vaccination (%)		Mammogram (Women only) (%)		Check for breast lumps (Women only) (%)	
	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2
Age										
50-59 (wave 1) 52-59 (wave 2)	65.2	74.8	83.2	91.4	28.5	32.8	83.7	94.6	72.8	69.8
60-64	77.9	81.7	89.7	94.5	41.8	44.9	91.9	96.6	73.5	71.5
65-69	82.0	86.7	92.1	95.6	60.4	62.7	83.6	91.7	67.9	64.1
70-79	78.7	89.1	91.0	97.0	79.1	81.7	55.2	66.4	59.4	55.5
>=80	72.2	83.1	86.3	92.7	83.9	88.4	26.1	31.4	48.3	36.5
Total	72.8	81.8	87.3	94.0	49.9	57.0	73.1	79.3	66.9	61.3
Health entitlement status										
Not covered	58.6	69.5	75.8	86.0	25.5	30.4	79.4	89.7	71.8	66.4
Private health insurance only	79.3	87.5	89.5	95.3	34.7	40.9	89.4	95.8	71.7	67.8
Medical/GP visit card only	64.7	75.3	86.1	93.1	63.2	68.8	59.0	66.4	63.6	57.5
Dual cover	85.2	92.0	92.9	97.7	71.6	75.2	70.2	76.1	62.7	57.1
Total	72.8	81.8	87.3	94.0	50.0	57.0	73.1	79.3	66.9	61.3

5.5.2 Cholesterol testing

Cholesterol testing is widespread in this population of older adults. In wave 1 87.3 % of those aged 50 years and older had ever had a blood test for cholesterol, and this rose to 94% at wave 2 in those aged 52 years and older (see Table 5.5). The proportions of men and women tested were similar.

Cholesterol testing was highest in those with dual cover and lowest in those with no cover. Participants who indicated that they had previously had a blood test for cholesterol carried out at wave 1 were asked in their second interview if they had a repeat test conducted since the time of their first interview. Of these 85% had a repeat cholesterol test carried out between the two waves. In those that had never had a cholesterol test at wave 1, 61% were tested for the first time between their two interviews. More than two thirds of these participants had their cholesterol tested as part of the health assessment in the first wave of TILDA suggesting that the study has impacted on the higher uptake of cholesterol testing at wave 2.

5.5.3 Flu vaccination

Annual vaccination for influenza with the most recent virus strains was previously recommended for all adults over 65 years of age but from 2013 it is recommended for all adults over 50 years of age (10). The vaccine is provided free of charge but for those without a medical or GP visit card a consultation fee for administering the vaccine must be paid. A GP consultation costs from €45-€60 or higher compared to a community pharmacy consultation which costs from €15-€27.50 (11-13). Evidence from TILDA suggests that the uptake of the flu vaccine is low overall. In the first wave of TILDA 49.9% of those over 50 years had ever received a flu vaccination; this increased to 57% of those aged 52 years and older in wave 2 (see Table 5.5).

A higher proportion of those with dual cover or with medical/GP cards received flu vaccination compared to those with private health insurance only or no cover. Although the vaccine is free to all, less than a third of those with no cover had received a flu vaccination in both waves. This suggests that the GP or pharmacy consultation fees for those without a medical or GP visit card may constitute a barrier to flu vaccination uptake.

There was a high level of repeat flu vaccination (81%) in those that had been vaccinated at wave 1. Repeat vaccination was especially high in those aged 80 years and older which reached almost 89%. This suggests that the perceived importance of this vaccine and the acceptability of it are high in this older age group. In those that had never been vaccinated against flu in wave 1, only 17% had received a flu vaccination by the time of their interview for wave 2. These figures are low considering the widespread campaigns for flu vaccination which are run on an annual basis.

5.4.4 Breast Cancer Screening

In Ireland the National Breast Screening Programme (BreastCheck) offers women aged

50-64 years a free mammogram every two years. The proportion of women over 50 years who had ever had a mammogram was 73.1% in wave 1. This increased to 79.3% of those over 52 years at wave 2 (see Table 5.5). The success of this national screening programme is reflected in the fact that breast screening by women in the target age groups is 95% at wave 2.

Of those that had a mammogram at wave 1 65% had undergone a repeat test in the inter-wave period. Repeat testing was highest in the younger age groups targeted for screening.

In wave 1 66.9% of women over 50 years indicated that they checked their breasts regularly for lumps; and this dropped to 61.3% of women over 52 years at wave 2 (see Table 5.5). A very clear age gradient can be seen in relation to breast self-examination with a lower proportion of older women conducting breast self-examination.

5.6 Utilisation of community-based state care services

Participants were asked if they had utilised any of the community-based state care services in Table 5.6 in the preceding twelve months. They were asked to exclude any services for which they had paid anything other than a token or nominal amount. Unlike utilisation of GP services and acute hospital services which increased between the two waves, three of the community-based services outlined below show decreases in utilisation.

Table 5.6: Proportion utilising community-based state care services

	wave 1 (≥50yrs)		wave 2 (≥52yrs)		Change Between waves
	%	(95% CI)	%	(95% CI)	
Public Health or Community Nurse	6.6	(5.9-7.3)	6.5	(5.8-7.3)	-0.1
Occupational therapy	1.5	(1.2-1.8)	1.7	(1.4-2.1)	0.2
Chiropody/podiatry services	4.5	(4.0-5.2)	5.2	(4.6-5.9)	0.7
Physiotherapy services	5.2	(4.7-5.7)	5.8	(5.2-6.5)	0.6
Psychological /counselling services	0.8	(0.7-1.1)	1.0	(0.8-1.3)	0.2
Day centre	1.2	(1.0-1.5)	1.5	(1.2-1.8)	0.3
Optician	12.3	(11.3-13.3)	14.8	(13.8-15.9)	2.5
Dental services	10.7	(9.9-11.6)	9.2	(8.4-10.1)	-1.5
Hearing services	1.8	(1.5-2.1)	3.2	(2.8-3.7)	1.4
Dietician services	1.5	(1.2-1.8)	1.4	(1.2-1.8)	-0.1
Respite services	0.5	(0.3-0.7)	0.6	(0.4-0.9)	0.1

Utilisation rates range from 14.8% for optician services to 0.6% for respite services (see Table 5.6). There was little change in utilisation of community-based services between the two waves. The largest increase can be seen in the optician services, where the proportion of the population utilising the service increased from 12.3% in wave 1 to 14.8% in wave 2. Utilisation of dental services, public health nurse or community nurse services and dietician services recorded small decreases between wave 1 and wave 2.

Almost 70% of participants in wave 2 use none of these community services. Utilisation is highest in those over 80 years where 59% of participants use at least one of the services identified.

The vast majority of older people utilising community-based state care services are medical card holders (see Appendix Table 5.A2). An interesting pattern is seen in these data in relation to those with dual cover. The data suggest that those with medical cards as well as private health insurance may also gain additional access to community-based state services where co-payments are a feature of the service. In the case of chiropody/podiatry services, 66% of users were medical card holders and a further 29% had dual cover (private health insurance in addition to a medical card or GP visit card) (see Appendix Table 5.A2). Although state chiropody/podiatry services are available to medical card holders, individuals are required to pay an additional co-payment of €15-40 per visit when attending private practitioners to avail of the service (14). These results suggest that the presence of a co-payment in some services may negatively impact access to services. As health care entitlement status is also strongly related to age and need for health care, this issue requires further investigation.

5.7 Disability prevalence and utilisation of home care services

5.7.1 Disability prevalence

Disability prevalence will now be discussed in relation to the wave 2 cohort aged 52 years and older. Disability prevalence has been discussed previously in a subgroup in Chapter 4 and will be discussed further in Chapter 6 in a subgroup who completed the self-completion questionnaire. The results in this section are not comparable with either of these chapters due to the different samples used in the analyses.

The prevalence of disability by age and sex is described in Table 5.7. Disability is defined here as difficulty in carrying out activities of daily living (ADL) and instrumental activities of daily living (IADL). ADL are the basic tasks of everyday life that pertain to personal care,

and six items are included in this scale: difficulty with dressing; walking across a room; bathing or showering; eating, getting in and out of bed; and using the toilet. IADL assesses difficulty in relation to carrying out household activity including: preparing a hot meal; doing household chores; shopping for groceries; making telephone calls; taking medications; and managing money. In the case of both ADL and IADL difficulties, participants were asked to exclude any activities that they expected would last less than three months.

The data revealed a slight increase in the proportion of older people in Ireland who are not disabled (87% in wave 1 to 88% in wave 2) (see Table 5.7). This positive trend can be seen in all age groups under 80 years, however the trend is in the opposite direction in those aged 80 years and older. Systematic differences in the older age category described at the beginning of this chapter may account for some of this difference.

The pattern of disability in wave 2 is broadly similar to wave 1 with more women than men experiencing disability. There is a strong age gradient in disability, only 5% of the youngest age group in wave 2 experience disability compared to 39% of those aged 80 years and older (Table 5.7). Although the number of participants aged 90 years and older is small, examination of the data using an expanded age category reveal that 65% experience some form of ADL or IADL disability (see Appendix Table 5.A3). These findings have particular policy relevance in relation to independent living for older adults and the support required to remain living at home in advanced older age.

Table 5.7: Prevalence of ADL and IADL disability by age and sex

	Not disabled % (95% CI)		IADL disability only % (95% CI)		ADL disability only % (95% CI)		IADL and ADL disability % (95% CI)	
	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2
Age								
50-59 (wave 1) 52-59 (wave 2)	93 (91-93)	95 (94-96)	3 (2-3)	2 (2-3)	3 (2-4)	1 (1-2)	2 (2-3)	2 (1-2)
60-64	90 (88-92)	94 (92-95)	2 (2-3)	2 (2-3)	5 (4-6)	2 (1-3)	2 (2-3)	2 (1-3)
65-69	89 (87-91)	90 (88-92)	3 (2-4)	3 (2-4)	6 (5-8)	4 (3-5)	3 (2-4)	3 (2-4)
70-79	82 (79-84)	85 (83-87)	5 (4-7)	7 (5-8)	7 (6-7)	3 (2-4)	6 (5-8)	6 (5-7)
>=80	66 (61-70)	61 (57-65)	12 (10-16)	16 (13-19)	7 (5-9)	4 (3-6)	15 (12-19)	19 (15-22)
Total	87 (86-88)	88 (87-88)	4 (3-4)	5 (4-6)	5 (4-5)	3 (2-3)	4 (4-5)	5 (4-6)
Sex								
Male	89 (88-90)	90 (89-91)	3 (2-3)	4 (3-5)	6 (5-7)	3 (2-3)	3 (2-4)	3 (3-4)
Female	86 (84-87)	85 (84-86)	5 (4-6)	6 (5-7)	4 (3-5)	2 (2-3)	5 (5-6)	6 (5-7)
Total	87 (86-88)	88 (87-89)	4 (3-4)	5 (4-6)	5 (4-5)	3 (2-3)	4 (4-5)	4 (4-6)

A decrease of two percentage points can be seen between the two waves in ADL disability. In wave 1, participants were asked about difficulty with dressing which included difficulty with putting on socks and shoes. At wave 2 the question was asked about difficulty with dressing only. This change in wording is likely to have impacted on the endorsement of this item in the survey. Future waves will capture both items.

5.7.2 Utilisation of home help, personal care and meals services

There was a slight change in the proportions utilising home-based social care services between the two waves. Home help utilisation increased from 3.5% at wave 1 to 4.4% at wave 2. In the context of an overall reduction in home help service hours from 11.9 million at the end of 2009 to 11 million hours at the end of 2011, this result appears counter intuitive (15, 16). Utilisation is concentrated in those over 80 years with one fifth of this group using home help services at wave 2 (see Table 5.8). It is likely that the increase found is related to the older age profile of community-living participants in this cohort as discussed earlier in this chapter.

Table 5.8: Proportion utilising home help, personal care and meals services by age, sex, health care entitlement status and disability status

	Home help (%)		Personal care attendant (%)		Meals services(%)	
	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2
Age						
50-59 (wave 1) 52-59 (wave 2)	0.5	0.5	0.1	0.3	0.1	0.1
60-64	1.0	1.2	0.1	0.5	0.3	0.2
65-69	1.6	2.0	0.2	0.9	0.3	0.5
70-79	6.2	5.4	0.9	1.7	2.4	1.8
>=80	19.2	20.5	3.4	5.2	3.3	3.6
Total	3.5	4.4	0.6	1.3	0.9	1.0
Entitlement status						
Not covered	0.1	0.6	0.0	0.0	0.0	0.0
Private health insurance only	0.4	0.3	0.1	0.1	0.1	0.1
Medical card only	6.7	8.3	1.2	2.5	2.0	2.0
Dual cover	5.7	5.1	0.7	1.7	1.0	0.7
Total	3.5	4.3	0.6	1.3	0.9	0.9
Disability status						
Not disabled	1.8	1.9	0.2	0.2	0.5	0.4
IADL disability only	16.6	20.5	1.1	2.4	4.6	3.3
ADL disability only	5.2	8.2	0.8	3.2	1.4	1.1
IADL and ADL disability	24.0	30.1	7.9	19.8	5.3	7.9
Total	3.5	4.4	0.6	1.3	0.9	1.0

In wave 1 IADL difficulty was found to be a strong driver of home help services for older adults (17). While this continues to be the case in wave 2 it is important to point out that 1.9% of the non-disabled population (i.e., those that self-report no ADL or IADL difficulty) are availing of home help services (see Table 5.8). While this constitutes a small percentage the numbers are large relative to the total number utilising home help services.

Intensity of home help service utilisation was examined in those that utilised the service in the previous month. The majority (70%) received one hour of help on the days when they received home help. The total number of hours of service utilised in the previous month was between one and eight hours for 37% of home help service users and was greater than 32 hours for just 12% of service users. These results paint a picture of a home help service which provides a low level of care intensity.

The proportion of the population using personal care services increased from 0.6% to 1.3% between the two waves. This result is likely to reflect the increase in the provision of home care packages by the Health Service Executive (HSE). These packages of care provide an enhanced level of support above the normal levels of home help and personal care available from mainstream community services. The number of older people in receipt of home care packages increased from 12,000 at the end of 2009 to 15,000 at the end of 2011(15, 16). The TILDA results reveal that utilisation of personal care services increased from 7.9% of those with a combined ADL and IADL disability at wave 1 to 19.8% at wave 2. Although the proportion utilising the service overall is low, the increased utilisation of personal care services by those with higher levels of ADL/IADL disability is consistent with Government policy to provide an enhanced level of home support for older people. Home care packages are allocated on the basis of assessed need and there is no requirement to have a medical card (18). Wave two data indicate that personal care utilisation increased between wave 1 and wave 2 in those with a medical card only (from 1.2% to 2.5%) and in those with dual insurance cover (0.7% to 1.7%). There was no change in the proportions of older people reporting use of meals services between the two waves.

5.8 Medication use and polypharmacy

Medication use in the older population is particularly important given the high levels of multi-morbidity and increased predisposition to side effects which comes with age. Polypharmacy, defined as the regular use of 5 or more medicines, is common among the older population and is associated with lower health and increased morbidity. Polypharmacy is often necessary for management of difficult illnesses or conditions, which require complex care. However, inappropriate or over-prescribing is also a factor, exposing

patients to risks of drug interactions and adverse drug reactions.

Changes in medication use in participants who took part in wave 1 and wave 2 is examined in Table 5.9. Total prevalence of medication use in wave 1 is displayed in the first column and total prevalence at wave 2 in the last row. As expected medication use has increased as the cohort is two years older. At wave 1 21% of participants reported using 5 or more medications regularly, and this increased to 26% in wave 2. Correspondingly, the number of participants reporting no regular medication use dropped from 28% in wave 1 to 24% in wave 2.

Changing patterns of medication use is also examined in Table 5.9. For those who have increased their medication use in wave 2 the majority have just moved up one group. For example of those who were not regularly taking medications at wave 1, the majority 69% were still not taking any regular medications at wave 2 while 24% had progressed to the 1-2 medications group. The same holds true for the other groups. The numbers who have significantly increased their medication use is relatively low; 2% of those using no medication and 7% of those using 1 – 2 medications in wave 1 are now in the polypharmacy category (5+ medications). While the prevalence of polypharmacy has increased overall, 15% of those who were taking 5 or more medications regularly in wave 1 have reduced their medication use in wave 2.

Table 5.9: Changes in medication use between wave 1 and wave 2

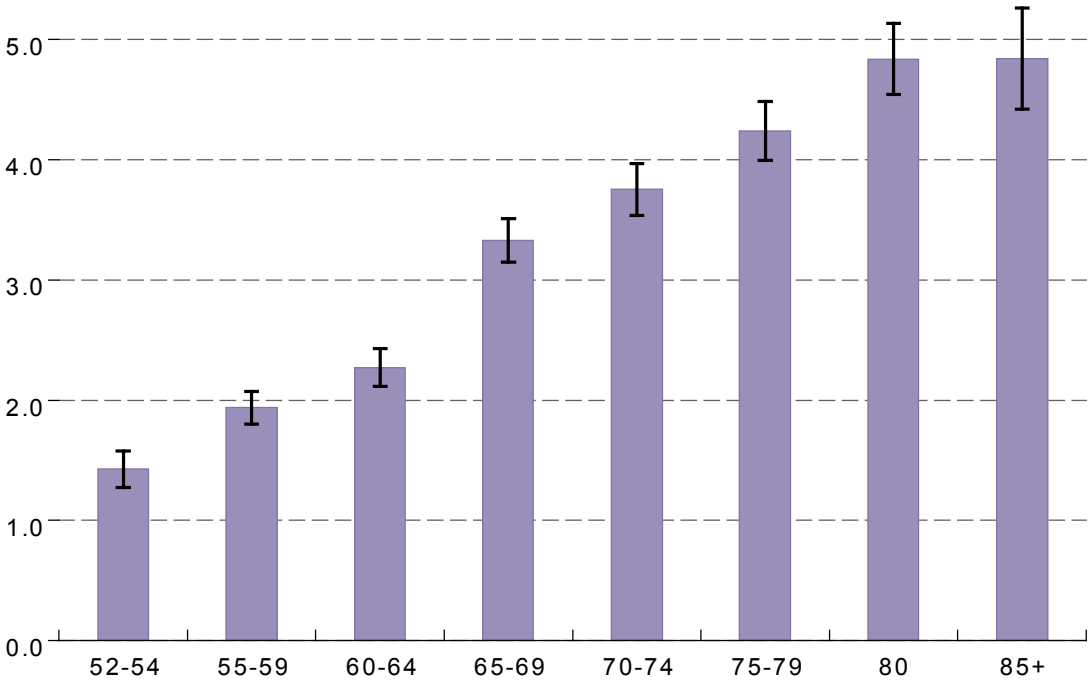
	Total (wave 1)%	0 Medications (wave 2) %	1-2 Medications (wave 2) %	3-4 Medications (wave 2) %	5+ Medications (wave 2) %	Total	Number in sample
0 Medications (wave 1)	28	69	24	4	2	100	2339
1-2 Medications (wave 1)	29	8	62	23	7	100	2215
3-4 Medications (wave 1)	21	2	14	52	33	100	1377
5+ Meds (wave 1)	21	1	2	12	85	100	1216
Total (wave 2) %	100	24	29	21	26	100	7147

Figure 5.1 breaks down the wave 2 numbers by 5-year age groups, revealing a broadly linear increase with age in the mean number of medications used until age 80, after which it levels off at age 85+.

Further information on medication use in wave 2 by both age and sex is available in

Appendix Figure 5.B1. Men report less medication use than women, particularly in the age range 52–64 years. This trend decreases over age, with both sexes reporting nearly the same medication use after age 75. Larger proportions of the older age groups use more medications, with nearly 50% of those aged 75 years and over reporting polypharmacy. Reporting higher medication use is also strongly associated with lower education, lower self-rated health and decreased physical activity (see Appendix Tables 5.A4-5.A6).

Figure 5.1: Mean number of medications (excluding food supplements) used in wave 2 by age



Note. N = 7282; Missing obs = 0; Error bars correspond to 95% confidence intervals

The five most common medications has remained similar across both waves with a slight alteration in order (see Table 5.10). Medication classes (ATC level 2) and food supplements have remained the same. Food supplements were defined according to the European Directive 2002/46/EC as any substance with a nutritional effect which is taken to supplement the normal diet. The five most frequently reported food supplements account for a similar proportion of the total supplements used (79% in wave 1 and 78% in wave 2).

Table 5.10: Top five most commonly used medications, medication classes and food supplements

	Individual medications (International Non-proprietary name)		Medication classes (ATC Level 2)		Food supplements	
	wave 1	wave 2	wave 1	wave 2	wave 1	wave 2
1	Aspirin	Aspirin	Lipid modifying agents (C10)	Lipid modifying agents (C10)	Calcium carbonate, combinations	Calcium carbonate, combinations
2	Atorvastatin	Atorvastatin	Agents acting on the rennin-angiotensin system (C09)	Agents acting on the rennin-angiotensin system (C09)	Omega-3-triglycerides	Omega-3-triglycerides
3	Levothyroxine	Rosuvastatin	Anti-thrombotic drugs (B01)	Anti-thrombotic drugs (B01)	Glucosamine	Glucosamine
4	Bisoprolol	Bisoprolol	Drugs for acid related disorders (A02)	Drugs for acid related disorders (A02)	Vitamin B, combinations	Vitamin B, combinations
5	Rosuvastatin	Levothyroxine	Beta blocking agents (C07)	Beta blocking agents (C07)	Multivitamins	Multivitamins

5.8.2 Use of generics: the case of Atorvastatin

Statins are one of the most commonly prescribed medicines in the older population and generate the largest expenditure (19). They are used to help lower low density lipoprotein cholesterol (LDL-C) in the prevention and treatment of cardiovascular disease. When looking at generic drug use we can use four broad categories of drug type: pure generic which is sold using the active pharmaceutical name (e.g. Atorvastatin); branded generic which is sold using a marketing name (e.g. Torvacol); proprietary brand with a generic equivalent (e.g. Lipitor); proprietary brand without a generic equivalent (i.e. a drug still under patent protection). Generic medicines are usually cheaper than the proprietary brand, and thus they provide the same level of medication intervention at a lower cost. Of all the medications used by the older population only 20% were generics at wave 1 with a slight increase to 22% at wave 2. There is a more dramatic increase in generic use for the statin group of medications, with the proportion of generics increasing from 8.5% at wave 1 to 23.5% at wave 2 due to the expiry of patents. Between the first and second waves of TILDA data collection the most prevalent statin, Atorvastatin, came off patent which allowed the entry of generic competitor medicines by wave 2. This provides an interesting insight into the initial effect of a drug patent expiry on medication use.

Table 5.11: Generic share of Atorvastatin at wave 2 by wave 1 use and medical card status

	wave 2 previous Lipitor users			wave 2 Market share New users % n=424	wave 2 Market share All users % n=1,357
	Market share % n=967	Medical cards users[a] % n=614	Non-medical card users[b] % n=351		
Pure generic	11.0	14.5	5.1	13.9	11.9
Branded generic	0.9	1.3	0	1.9	1.2
Proprietary brand with a generic equivalent	88.1	84.2	94.9	84.2	86.9
Proprietary brand without a generic equivalent[c]	0	0	0	0	0
Total	100	100	100	100	100

[a] Four individuals are missing medical card status.
[b] Includes GP card holders.
[c] This category does not apply once a drug comes off patent, but was 100% for Atorvastatin in wave 1.

Atorvastatin accounts for 57% of all statin use in wave 1 and 56% in wave 2, in addition to being the second most used medication in both waves. Table 5.11 shows the effect of the patent expiry on Lipitor (the branded version of Atorvastatin, which did not have a generic equivalent in wave 1) which occurred during the inter-wave period. While some individuals who were using Lipitor in wave 1 have moved to generic versions (11%) the majority of patients have remained on the proprietary brand (88.1%). This is most evident in those who do not have a medical card, with 94.9% remaining on the proprietary brand. This contrasts sharply with previous Lipitor users in England where only 31% of patients have initially remained on the proprietary brand (20). Evidence from TILDA wave 2 suggests that private patients (i.e., those without a medical card) in this case are more resistant to generic substitution, with only 5% switching. In general there is a higher use of generics in wave 2 among those who were not previously using Lipitor.

Two recent measures should have a considerable impact on future prescribing patterns in Ireland. Firstly, the HSE has commenced a medicines management programme to encourage cost effective prescribing. As part of this programme, Simvastatin has been designated the preferred statin for initial treatment. Secondly, the Health (Pricing and Supply of Medical Goods) Act 2013 has introduced the legislation to implement generic substitution at the pharmacy level and a system of drug group reference pricing for reimbursement (21). Generic substitution for Atorvastatin was introduced in August 2013

and drug group reference pricing was introduced in November 2013. The effects of both of these measures will be visible in future waves of TILDA.

5.9 Health service utilisation at the end of life

In this section the health service use of those who died since wave 1 of the TILDA survey is described. Patterns of service use among the deceased are compared to participants who were still alive at wave 2. At the end of wave 2 data collection, there were a total of 205 deaths among participants. Data from 'end of life' interviews were available from 155 individuals acting as a proxy participant for deceased participants. Most proxy participants were relatives of the deceased participant including the son or daughter (including in-law) (43.8%), or the spouse or partner of the deceased (30.9%). Other proxy participants included siblings (7.7%), other relatives (8.4%) and other non-relatives (8.4%). The end of life interview included questions on use of health services in the 12 months before the TILDA participant died, his/her physical and behavioural health, cognitive function and financial circumstances.

Of those who died, 55% were men and the average age of the deceased was 75.5 years (median 77 years). Most of those who died were married (40.6%) or widowed (40.0%) and 19.3% were single separated or divorced at the time of death. Almost half of the deceased died in hospital (48.4%), approximately one quarter died at home (24.5%) and 9.7% died in a nursing home or residential care setting. Approximately 13% died in a hospice and 4.5% died at other locations.

The most common causes of death reported by proxy participants were cancer (37.5%), followed by cardiovascular-related causes (28.9%), other causes such as digestive disorders, infectious disease, accidents (21.1%) and respiratory causes (12.5%). There were no differences between men and women in terms of the main causes of death. There was some evidence that more people died from respiratory diseases in the older age groups (3.4% of those aged 50-64 compared to 13.3% of those aged 65-74 and 15.2% of those aged ≥75 years) but the association between age and cause of death was not statistically significant. In terms of physical health prior to death, 41.3% of proxy participants described the deceased as mostly active and disability free but declining during the last few months before death. In total, 25.8% of proxy participants reported that the deceased had been ill for one year or more before he/she died.

Table 5.12: Proportion of deceased and survivors utilising primary and secondary care services at wave 2

	Deceased		wave 2 Survivors	
	%	(95% CI)	%	(95% CI)
GP visit	87.1	(81.8-92.4)	89.6	(88.7-90.2)
Outpatient	42.6	(34.7-50.5)	45.0	(43.4-46.2)
Emergency Department	44.5	(36.6-52.4)	16.4	(15.3-17.2)
Hospital admission	59.4	(51.5-67.2)	14.6	(13.5-15.2)

Table 5.12 shows the pattern of utilisation of different types of health services in the 12 months before death. Health service use in the deceased group is compared to those survivors who participated in wave 2. The percentages are for those who used the services at least once in the previous year. The majority of those who died had attended the GP in the 12 months before death according to the proxy respondent. In contrast, less than half had attended an out-patient clinic or the ED. A higher proportion of people who died had attended an ED or had a hospital admission in the 12 months preceding death compared to participants in wave 2.

The end-of-life interviews also allow for an examination of the proportions of deceased individuals who received three types of state-provided home care services in the last 12 months of life: home help, meals services and the services provided by personal care attendants. Approximately 25% of deceased individuals received home help in the year preceding death, 11% had the help of a state-provided personal care attendant and 7.7% received meals services (Table 5.13). The majority of proxy respondents reported that the deceased received none of the state services outlined above (67.1%). A higher proportion of those who died were utilising state-provided home services in the preceding 12 months, compared to survivors at wave 2.

Table 5.13: Proportion of deceased and survivors utilising home help, personal care and meals services at wave 2

	Deceased		wave 2 Survivors	
	%	(95% CI)	%	(95% CI)
Home help	25.2	(18.3-32.1)	4.4	(3.5-4.6)
Personal care attendant	11.0	(6.0-15.9)	1.3	(0.9-1.5)
Meals services	7.7	(3.5-12.0)	1.0	(0.7-1.2)

5.10 Conclusion

Maintaining and improving population health and well-being is a key goal of Irish health policy. Current Government policy aims to manage and prevent illness at the earliest stage possible (22). It is encouraging to find that the uptake of primary prevention and screening programmes has increased in the older population across the first two waves of TILDA, although there is some evidence that those without a medical card or GP visit card may face access barriers with regard to flu vaccination. The data identify a reduction in the proportion of older people over 70 years with full access to primary and secondary care services at a time in their life when their need for health and social care is increasing, especially in the period at the end of life. Current health service reforms are aimed at reducing the reliance on secondary care services and providing integrated primary and community-based care where possible. The findings in this chapter reveal a continued and increasing utilisation of primary GP services and secondary care services but minimal change in the community health and social care sector.

References

1. Government of Ireland. Health (Alteration of Criteria for Eligibility) Act 2013. In: Department of Health, editor. Dublin: Government Publications, 2013.
2. Reilly J. Opening Statement by the Minister for Health, Dr. James Reilly TD, at the Joint Oireachtas Committee on Health and Children, 2013.
3. Health Service Executive. Medical Card/GP Visit Card National Assessment Guidelines for People aged 70 years and over. Dublin: Health Service Executive, 2013.
4. Department of Health. Health in Ireland: Key Trends 2012. Dublin: Department of Health, 2012.
5. Department of Health and Children. Health in Ireland Key Trends 2010. Dublin: Department of Health and Children, 2010.
6. Health Insurance Authority. The Health Insurance Authority Annual Report and Accounts 2012. Dublin: Health Insurance Authority, 2013.
7. Central Statistics Office. Survey on Income and Living Conditions (SILC) Thematic Report on the Elderly. Dublin: Central Statistics Office, 2013.
8. National Cancer Registry. Cancer in Ireland 2013: Annual Report of the National Cancer Registry. Cork: National Cancer Registry Ireland, 2013.
9. Department of Health and Children. A Strategy for Cancer Control in Ireland. Dublin:

Department of Health and Children, 2006.

10. Health Service Executive. Chapter 11: Influenza. 2013. In: Immunisation guidelines for Ireland (Internet). Dublin: HSE, ICGP, HPSC. Available from: http://www.immunisation.ie/en/Downloads/NIACGuidelines/PDFFile_17361_en.pdf.

11. Pharmhealth integrative pharmacy. Pharmacy-services winter flu vaccination service 2013 (cited 2013 6/12/13). Available from: http://www.pharmhealth.ie/Pharmacy-services/winter-flu-vaccination-service.html.

12. Travel Health. Flu Vaccine Dublin,2013 (cited 2013 6/12/13). Available from: http://www.travelhealth.ie/FluVaccine/

13. The Competition Authority. Competiton in Professional Services: General Medical Practitioners. Dublin: The Competiton Authority, 2010.

14. Chiropody service. Advertisment for fees including Co-payment for chiropody card holders 2013 (cited 2013 9/12/13). Available from: http://www.treesroad.com/fees.htm; http://www.spectrumhealth.ie/our-fees/.

15. Department of Health and Children. Annual Output Statement 2010 for Health Group Votes. Dublin: Department of Health and Children, 2010.

16. Department of Health. Annual Output Statement for Health Group Votes 2012-38 and 39. Dublin: Department of Health, 2012.

17. Murphy C. Unpublished PhD thesis: The Distribution and Determinants of Home-Based Social Care Utilisation in Older People: Irish and Comparative Perspectives: Dublin, Trinity College; 2012.

18. Health Service Executive. National Guidelines and Procedures for Standardised Implementation of the Home Care Package Scheme. Dublin: Health Service Executive, 2010.

19. Primary Care Reimbursement Service. Statistical analysis of claims and payments 2011. Dublin: Health Service Executive, 2012.

20. Leonard S.A. Wilson T.L. Hamerslaget, L. Patterns of Generic and Proprietary Prescribing of Statins Over Time in England. Value in Health. 2013;16(7):A328.

21. Government of Ireland. Health (Pricing and Supply of Medical Goods) Act 2013. Government of Ireland; 2013.

22. Layte R, Sexton E, Savva G. Quality of Life in Older Age: Evidence from an Irish Cohort Study. Journal of the American Geriatrics Society. 2013;61:S299-S305.

Appendix 5A: Tables on Health and Social Care Utilisation

Table 5.A1: Intensity of GP service utilisation at wave 2

	Never		1-4 times		5-19 times		20 or more times		Total	Number in sample
	%	95% CI	%	95% CI	%	95% CI	%	95% CI		
50-59	16	(14-17)	66	(64-68)	16	(15-18)	2	(1-3)	100	2341
60-64	12	(10-14)	65	(62-68)	22	(19-24)	1	(1-2)	100	1335
65-69	8	(7-10)	65	(62-67)	25	(23-28)	2	(1-3)	100	1182
70-79	5	(4-6)	60	(58-63)	32	(30-35)	3	(2-4)	100	1574
>=80	5	(3-7)	53	(49-57)	39	(35-43)	3	(2-5)	100	684
Total	*10*	*(9-11)*	*63*	*(61-64)*	*25*	*(24-26)*	*2*	*(2-3)*	*100*	*7116*

Note. CI = confidence interval; Missing observations = 0.25%

Table 5.A2: Proportion utilising community-based state care services at wave 2 by health care entitlement status

	Not covered		Private health insurance only		Medical card only[a]		Dual cover		Total	Number in sample
	%	95% CI	%	95% CI	%	95% CI	%	95% CI		
PHN	1	(0-2)	3	(2-5)	79	(74-83)	18	(14-22)	100	388
OT	3	(1-8)	3	(1-10)	66	(56-75)	29	(20-39)	100	105
Chiropody services	1	(0-3)	3	(2-6)	66	(60-72)	29	(24-35)	100	330
Physiotherapy	5	(3-8)	10	(8-14)	58	(53-63)	26	(22-31)	100	403
Psychological services	5	(2-14)	8	(4-16)	76	(64-85)	11	(5-22)	100	67
Day centre services	2	(0-8)	0	(0-3)	83	(74-89)	15	(9-24)	100	87
Optician services	2	(1-3)	5	(4-7)	66	(62-69)	27	(24-30)	100	988
Dental services	3	(2-4)	9	(7-12)	58	(54-62)	30	(27-35)	100	667
Hearing services	2	(1-6)	4	(2-8)	69	(63-76)	24	(18-31)	100	194
Dietician	6	(3-12)	7	(3-14)	67	(57-76)	21	(13-30)	100	98
Respite	0	(.-.)	3	(0-18)	82	(66-91)	16	(7-31)	100	37
Total	*10*	*(9-10)*	*33*	*(32-35)*	*39*	*(37-41)*	*18*	*(17-19)*	*100*	*7124*

[a] medical card category includes GP visit cards

Table 5.A3: Prevalence of ADL and IADL disability by an expanded age category

	Not disabled		IADL disability only		ADL disability only		IADL and ADL disability		Total	Number in sample
	%	95% CI	%	95% CI	%	95% CI	%	95% CI		
50-59	95	(94-96)	2	(2-3)	1	(1-2)	2	(1-2)	100	2344
60-64	94	(92-95)	2	(2-3)	2	(1-3)	2	(1-3)	100	1335
65-69	90	(88-92)	3	(2-4)	4	(3-5)	3	(2-4)	100	1184
70-79	85	(83-87)	7	(5-8)	3	(2-4)	6	(5-7)	100	1581
80-89	64	(60-68)	15	(12-19)	4	(3-7)	16	(13-20)	100	631
>=90	35	(24-48)	19	(11-32)	3	(1-11)	43	(30-57)	100	59
Total	*88*	*(87-88)*	*5*	*(4-6)*	*3*	*(2-3)*	*5*	*(4-6)*	*100*	*7134*

Note. CI = confidence interval; Missing observations = 0.00%

Table 5.A4: Medication use in wave 2 by highest educational attainment

	0		1-2		3-4		5+		Total	Number in sample
	%	95% CI	%	95% CI	%	95% CI	%	95% CI		
Primary/none	16	(14-17)	25	(23-27)	22	(20-24)	37	(35-39)	100	2049
Secondary	29	(27-31)	31	(29-33)	21	(19-22)	20	(18-22)	100	2799
Third/higher	32	(30-34)	34	(32-36)	18	(16-20)	16	(14-18)	100	2268
Total	*24*	*(23-26)*	*29*	*(28-30)*	*21*	*(20-22)*	*26*	*(25-27)*	*100*	*7116*

Note. CI = confidence interval; Missing observations = 0.10%

Table 5.A5: Medication use in wave 2 by self-rated health

	0		1-2		3-4		5+		Total	Number in sample
	%	95% CI	%	95% CI	%	95% CI	%	95% CI		
Excellent/V. Good	37	(35-39)	35	(33-36)	18	(16-19)	11	(9-12)	100	3315
Good	19	(17-21)	30	(28-32)	25	(24-27)	26	(24-28)	100	2424
Fair/Poor	6	(5-7)	17	(15-19)	20	(18-22)	57	(54-60)	100	1308
Total	*24*	*(23-26)*	*29*	*(28-30)*	*21*	*(20-22)*	*26*	*(24-27)*	*100*	*7047*

Note. CI = confidence interval; Missing observations = 0.10%

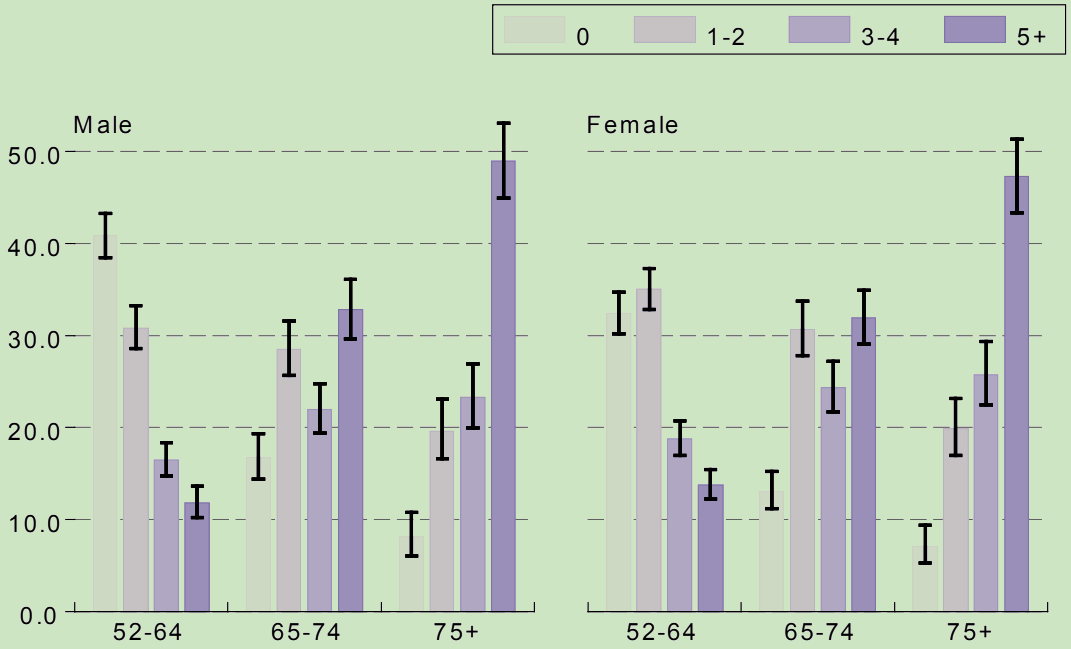
Table 5.A6: Medication use in wave 2 by physical activity levels

	0		1-2		3-4		5+		Total	Number in sample
	%	95% CI	%	95% CI	%	95% CI	%	95% CI		
W2 Low activity	16	(14-18)	25	(23-27)	22	(20-23)	38	(36-40)	100	2349
W2 Medium activity	24	(22-26)	30	(29-32)	22	(20-23)	24	(22-26)	100	2450
W2 High activity	34	(32-36)	32	(30-34)	19	(17-20)	15	(13-17)	100	2326
Total	*24*	*(23-26)*	*29*	*(28-30)*	*21*	*(20-22)*	*26*	*(25-27)*	*100*	*7125*

Note. CI = confidence interval; Missing observations = 0.10%

Appendix 5B: Figures on Health and Social Care Utilisation

Figure 5.B1: Medication use in wave 2 by age and sex



Note. N = 7127; Missing obs = 7; Error bars correspond to 95% confidence intervals