ScotPHN report

Scottish Public Health Network (ScotPHN)

Health and social care needs of older people in Scotland: an epidemiological assessment

August 2013

Oliver Harding
Laura Hay
Phil Mackie

CONTENTS

Foreword

Readers of reports such as this, produced by the Scottish Public Health Network (ScotPHN), will know that the network was established by the Scottish Directors of Public Health in 2006. One of its priorities is to undertake projects of national importance which are clearly needed.

In the context of developing Health and Social Care Partnerships for older people, many in the community of public health professionals have sought a meaningful needs assessment to inform planning for the future. I welcome the publication of this Epidemiological Assessment of the Health and Social Care Needs of Older People in Scotland. It seems unique in capturing such comprehensive synthesis of the scope to improve the health of this age group.

It is a seminal document and a tribute to the thorough and rigorous work of the authors. I believe that it is on this which we can build an evidence-based approach to promoting and protecting the health of older people. Such work is crucial to mapping assets and commissioning interventions and services to promote and protect the well-being of older people over coming years. Its explicit logical structure enables the reader to readily grasp the concepts of this complex area of work, despite the detail presented. For the time-pressed reader, the succinct summaries at the beginning of each chapter enable an almost immediate grasp of key issues which are then developed in detail in the chapter. The authors are careful to adduce as comprehensive an array of evidence as possible from which to draw a picture of the current health and well-being, in its broadest sense. It is therefore a reliable resource to help guide prioritising and developing the necessary interventions and services.

The report concludes that the data presented indicate that current health and social care needs of older people are substantial, but despite significant health problems, self-reported health tends to be relatively good. The evidence suggests that, taking into account the projected demographic trend, needs will increase, but the way in which these are met will have to change.

The report concludes with a helpful discussion of concepts on which next steps to promote and protect the health and well-being of older people should be founded. It underlines the importance of an assets based approach to this work. I trust it will be given the audience and use that it undoubtedly deserves, particularly in application to local work in smaller geographical areas. The related reports to follow will only add value to this foundational piece of work.

As Chair of the ScotPHN Executive Board, I would like to record my personal thanks, and that of the ScotPHN, to the principal authors of the report as well as those involved in supporting them. I commend this report to you!

Dr Eric Baijal
Chair, ScotPHN Executive Board
Joint Director of Public Health, NHS Borders and Scottish Borders Council

Project Group Membership

Project Group:	
Oliver Harding (Lead Author)	Consultant in Public Health Medicine, NHS Forth Valley
Laura Hay	*Formerly* ScotPHN Researcher
Phil Mackie	ScotPHN Lead Consultant
Ann Conacher	ScotPHN Co-ordinator
Libby Webb / Julie Gallagher	General Practitioner, NHS Lothian
Jane Douglas	Group Manager Social Care & Health, Scottish Borders Council Social Care & Health Department
Tricia Cantley	Clinical Director, Medicine of Elderly, NHS Lothian

Steering Group:	
Eric Baijal (Chair)	Director of Public Health, NHS Borders and Scottish Borders Council
Kathleen Bessos	Deputy Director for Integration of Health & Social Care, Scottish Government
Gillian Barclay	Scottish Government
Chris Bruce	Joint Improvement Team
Callum Chomczuk	*Formerly* Senior Policy Officer, Age Scotland
Peter Christie	Consultant in Public Health Medicine, Health Care Improvement Scotland
Ann Conacher	ScotPHN Co-ordinator
Ron Culley	CoSLA
Harry Garland	Executive Director, South Ayrshire Council / SOLACE

Anne Hendry	Joint Improvement Team
Anne Jarvie	*Formerly* Chief Nursing Officer for Scotland
Damien Killeen	Public Partner (until August 2012)
Kenny Leinster	Head of Community Care & Housing, South Ayrshire Council / Association of Directors of Social Work
Richard Lyall	Policy Lead for Reshaping Care, Scottish Government
Phil Mackie	ScotPHN Lead Consultant
Moira Smith	Public Partner
Debbie Tolson	Alzheimer Scotland Professor of Dementia University of the West of Scotland

Acknowledgements

The report's authors would like to acknowledge the contributions of the project and steering groups in supporting and guiding this report. Thank you to Kiera Murray from National Records of Scotland for advice on sources of demographic data. Thank you to Professor Bruce Guthrie for providing the age-specific disease prevalence estimates shown in section 5.10.5. The authors would also like to thank Steve Kendrick and Anthea Springbett from ISD for their help and support in providing data. We are indebted to Peter Knight, from the Joint Improvement Team, who provided the analysis and commentary that forms the basis for the Indicator of Relative Need section in Chapter 8. We are grateful to David McAllister, Gordon McLaren and George Cunningham from NHS Fife who permitted us to adapt their NHS Continuing Health Care analysis to form Figure 8.12 .

Executive Summary

Introduction

This report brings together information on the health and social care needs of older people in Scotland with the aim of supporting decision-making and planning for the future. It draws some conclusions and provides suggestions for next steps, including modelling work for smaller geographical areas within Scotland.

We define older people as those aged 65 years and over, with an age breakdown within this of 10 year intervals to 90 years. However, data are rarely available in this form, which has necessitated a variation in the age groups used throughout the report.

The data come from a wide range of sources, including: the Census; National Records of Scotland (formerly GROS); Scottish Household Survey; Scottish Health Survey; and Information Services Division (ISD).

Key findings

The following is a summary of the main findings:

Demography

- The most recent population projections confirm that the population of older people in Scotland is expected to increase over the next 20 years. It is predicted that the total population of Scotland will increase by 8% during the 20 year period from 2012 to 2032. However, the population aged 65 years and over is expected to increase by 49% during the same period.

Life Circumstances

- *Deprivation:* The distribution of older people across the Scottish Index of Multiple Deprivation is fairly even.
- *Work:* 9.5% of males and 5.0% females aged 65 to 74 years report that they are economically active.
- *Housing:* Most older people live in unshared accommodation – usually a house or bungalow. The proportion living in a communal establishment such as a care home increases with age (about 1% in those aged 65-74 to 22% in those aged 85 and over). People are more likely to live alone as they become older.
- *Marital status:* Most 65-74 year olds live in a married couple family, whereas at age 85+ most live alone or in a communal establishment.

Health Related Behaviours

- Smoking and excess alcohol consumption are less prevalent with increasing age.
- Diet, as indicated by fruit and vegetable consumption, is poor and tends to be worse in older age groups.
- Physical activity is again poor and worsens with increasing age.

Health Status

- Life expectancy in Scotland is improving - the expectation of life at birth is currently 76.1 years for men and 80.6 years for women for those born around 2010.
- People in Scotland aged 65 might expect to live another 15-20 years and those aged 75 another 10-12 years.
- Life expectancy is an issue of inequality – the gap in life expectancy at birth between least deprived and most deprived being about 10 years.
- 1 in 3 of all adults aged over 65 have a self-reported long term condition (LTC) of the musculoskeletal system. 1 in 4 has a LTC relating to the heart and circulatory system, and 1 in 10 a LTC relating to the respiratory system.
- But, 68% of 60-74 year olds and 55% of those aged over 75 years report no disability nor long term illness.
- The majority self-report good health, but this declines with age from 66% saying their health is ‘good/very good’ at age 65-69 years to 53% for those aged 85 years and over.
- Mental wellbeing, as measured by the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), is slightly higher among adults aged 65 and over compared to those aged 16-64 (mean WEMWBS score of 50.2 versus 49.8 respectively). However, mental wellbeing decreases with age among older adults.
- Overweight/obesity: The mean Body Mass Index (BMI) of those aged 65 and over is 28.1 compared to 27.3 for those aged 16-64. It seems to peak at age 65 to 69 years. 74% of those aged 65 and over are overweight or obese compared to 63% for those aged 16-64.
- Hypertension: More than 2/3 of those aged 65 and over have high blood pressure. This is 'uncontrolled' in a third of cases overall rising to 2/3 in those aged 85 and over.
- Multiple morbidity: Managing multiple, long term conditions is one of the biggest challenges facing the health care system. The prevalence of multimorbidity increases substantially with age. By age 50 years, half of the Scottish population have at least one morbidity, and by age 65 years most are multimorbid. Onset of multimorbidity occurs 10-15 years earlier in people living in the most deprived areas compared with the most affluent.

Use of Primary Care services

- Age and gender have a large effect on how often patients consult their GP or practice nurse.
- In 2011/12, GPs and practice-employed nurses combined had an estimated 24 million face-to-face contacts with patients. Of these, approximately 3.7 million (15.5%) were for those aged 75 years & over.
- The commonest condition seen by GPs and practice nurses for both men and women aged 75 plus is hypertension.
- Almost all of those aged over 65 consult their GP or practice nurse at least once a year.

- On average, people consult their GP 3.0 times per year and a practice nurse 1.4 times per year. Females and older people consult more frequently.
- Consultation rates for many specific conditions (e.g. coronary heart disease; dementia; hypertension; and stroke) show sharp increases with increasing age.
- Whilst the over 75s have the highest overall age-specific consultation rate in primary care, the actual number of consultations is higher amongst some of the younger age bands, reflecting the larger size of the younger population.

Use of Secondary Care services

- Total outpatient attendances have continued to rise throughout the period 1997/98 to 2010/11. Rates are highest for the 65+ age group in each NHS Board area.
- A&E attendances: Males aged 70 years and over, and females aged 75 years and over, have a greater than 50% chance of being admitted, following a new or unplanned return attendance at an Emergency Department.
- Emergency admissions in over 75s equate to a utilisation of 2 million bed days per year.
- In any given year we can expect about 60,000 over 75s to experience one emergency admission to hospital, 18,000 two admissions and 10,000 three or more admissions.
- The risk of being admitted as an emergency more than once in a particular year increases with age, and the number of multiple emergency admissions is increasing among those aged 75 years and over.
- Generally, average length of stay following emergency admission increases with increasing age. There seems to be an effect of rurality, with the more rural and remote NHS Boards showing greater average length of stay for 75+ age groups.
- Planned hospital admission rates have declined over the period 1997/98 to 2010/11, with the greatest reductions observed for the 65-69 (75%) and 70-74 (78%) age groups.
- Average length of stay following planned admission does not seem to have a discernible overall pattern. For the mainland NHS Boards, there is a modest suggestion of a relationship between increasing age and an increase in average length of stay. However, this is not observed for more rural and remote areas.
- Across surgical specialties, the number procedures rose by over 11% between 1997/98 and 2010/11 for people aged over 65 years.
- Trends by individual specialities present a complicated picture. Rates more than doubled for Orthopaedic and in Ear Nose and Throat Surgery in the period following 2002/03.
- Over the period 1997/98 to 2010/11, the number of cataract procedures carried out on a day case basis increased from 6,673 to 24,504.

- In the same period, day case upper GI tract endoscopy rates increased whilst those for lower GUI tract endoscopies decreased. After an initial fall, urinary tract endoscopy rates have risen again.

Use of Social Care and NHS Continuing Health Care services

- Across Scotland the rate of both new clients and new, free personal care service has remained constant across Scotland over the seven quarters to the third quarter of 2012.
- The age-specific rates of home care clients aged over 65 years reduced between 2005 and 2011. The interpretation of what this means in practice is unclear.
- The use of telecare has grown in response to The National Telehealth and Telecare Delivery Plan for Scotland. In 2011, the majority of clients using telecare packages were aged over 75 years.
- There is a wide variation between local authorities in the proportion of care home residents requiring nursing care.
- Whilst not all local authorities are collecting data which can be used to create the Indicator of Relative Need, the data that is available suggests the gradient of increasing hours of home care does increase with level of measured dependency.
- There is a decline in the number of NHS Continuing Health Care patients from medicine of old age and from psychiatric old age specialities. There is variation in the use of NHS Continuing Health Care within local authority areas.

Self-care, carers & caring

- Information is lacking, but self-care is the norm, with care from a spouse or other relative also significant. 1 in 8 (12%) of people aged over 65 years have a carer role.
- Provision of Self-directed Support (Direct Payment) packages is taken up by over 1400 over 65 year olds per year, and is increasing.

Healthy Life Expectancy

- Life expectancy (LE) and healthy life expectancy (HLE) are increasing but significant inequalities persist, with considerable variation by socio-economic status, for example.
- The gap between LE and HLE (i.e. the years expected to be spent in a 'not healthy' state during the average lifetime) has been fairly constant for females between 1980 and 2008, but has tended to increase for males.
- The health of future cohorts of older people will be influenced by the lifestyle choices made during their life course. Future cohorts of older people may therefore experience better or worse health than older people at present, depending on the choices made during their life course. This has important implications for primary and secondary prevention and the development of a life course approach to healthy ageing.

Conclusions

The report concludes that the data presented indicate that current health and social care needs of older people are substantial, but despite the presence of significant health problems, self-reported health tends to be relatively good. The evidence suggests that, taking into account the projected demographic trend, needs will increase, but the way in which needs are met will have to change.

Older people also contribute to society through paid employment, and to a greater extent, through caring, and this needs to be recognised and built upon.

There are opportunities for improvement in health behaviour (especially physical activity and diet and nutrition) which need to be supported by a range of contributors, and underpinned by changes in beliefs, values and attitudes.

The concept of ageing is discussed. It may be useful to draw a distinction between chronological age and 'ageing' as irreversible changes in structure or function. Using the second of these definitions, ageing can be prevented, and this is likely to be through maximising resilience. The concept of frailty may also be useful, though focussing on deficits, in order to identify needs better.

It seems clear that encouraging older people to be more active, in a number of ways, is likely to be beneficial: 'Active' in the sense of physical activity (and social and psychological activity), and active in engagement and involvement in their own health.

Next steps

The next steps are likely to include:

- A systematic programme for identifying and collating similar data down to local level (CHP/ Local authority, and ideally down to Intermediate Zone);
- Further development of modelling work, to forecast future needs in more detail; and
- Further develop stakeholder engagement and involvement – some potential methods are suggested – including a consideration of beliefs, values and attitudes.

Despite the substantial challenge that demographic change represents, and some difficult messages for the public, elected members and the public sector in general; we need to maintain a positive attitude to change. Demographic change cannot be resisted, so we need to facilitate Scottish society into its new future with as smooth a transition as possible.

1 Introduction

This section covers:

- Purpose of the report - target audience and use
- Background and context - policy and practice
- Outline of following sections
- Approaches to considering the health and social care needs of older people

1.1 Purpose of the report - target audience and use

The purpose of this report is to bring together epidemiological information from a range of sources in order to give an overview of the health and social care needs of older people in Scotland. It is intended that the need for health and social services, and other form of help and intervention can be inferred from this overview. It builds on and updates the report The Health and Wellbeing of Older People in Scotland (Wood, 2001).

The target audience consists of anyone with an interest in the epidemiology of older people in Scotland, especially those involved in planning and redesigning health and social care services. This may be within the NHS in Scotland, local authorities, third sector and independent organisations.

The report is intended to be used as a source of information for reference, in regard to the whole population of older people in Scotland. It contains references to sources of more detailed information, and where appropriate direct links to these sources. It is intended to be of use in providing, or signposting to, the information needed for the development of joint commissioning strategies, and progressing the integration agenda.

The report is intended also to stimulate a wider programme of work in this arena. This will include the development of local information sources for planning, the potential to apply models, and the bringing together concepts of health and involvement in order to integrate a deficit-based approach and an asset-based approach to a coherent whole.

1.2 Background and context - policy and practice

The background to this work is the Change Fund for Older People. The Directors of Public Health for Scotland had identified that in many local areas work was progressing apace on developing spending plans for the change fund, but the extent to which evidence on need had been gathered to support proposals was variable. The Scottish Public Health Network (ScotPHN) has been commissioned to deliver a programme of work to meet the need for epidemiological information to support the use of the change fund. This report represents the first output of this work.

The Change Fund exists in a broader context, the reality of which is now beginning to be appreciated by a wide range of stakeholders. Overall,

demographic change means that the way public sector services are provided currently are largely unsustainable, in the sense that (in particular, age-related) needs are increasing at a time when national debt is very high and there is UK-wide policy aimed at reducing the budget deficit, in part by reducing public spending.

This has led to a number of reports aimed at influencing the direction public sector services are taking, including 'Wanless' (2002) and 'Christie' (2011). The key themes may be summarised as follows:

- A need to increase efficiency – doing more for less;
- Increasing partnership working;
- Real, positive, engagement with the people themselves to encourage an interest in their own health, which translates to action e.g. self- care; and
- Whole sale redesign of the means of identifying and meeting need in the population, through a large range of providers and other stakeholders.

The response of the Scottish Government thus far has consisted of:

- The Change Fund as mentioned above, aimed at stimulating redesign, increasing efficiency and quality, and applying innovative approaches;
- A requirement for joint commissioning strategies between NHS and local authorities;
- Consultation on integration of health and social care; and
- Other initiatives such as self-directed support and personalisation.

In addition there are emerging concepts of 'co-production', 'recovery', and 'resilience', which are 'asset-based', as well as 'deficit-based' concepts of frailty considered in section 12.

1.3 Outline of the report

The report consists of the following sections:

Demography – This section describes the population of older people in Scotland and some of its basic parameters. It also provides information on population projections, which contribute basic information for estimating future need.

Life circumstances - physical and social environment – This section describes some attributes of the communities that older people exist in – housing and households and economic activity for example.

Health related behaviours – This section summarises the health related behaviour of older people in Scotland – focussing mainly on the greatest risk factors to health: smoking; alcohol use; inadequate physical activity; and poor diet.

Health status – This section gives information on self-reported health, as well as specific diseases.

Use of health services – These sections summarise the overall use of various parts of the NHS.

Use of social care services – This section summarises the overall use of various social care and other services provided by local authorities.

Self-care, carers & caring – This section summarises the information we have on self-care, the extent to which the needs of older people are met through informal caring (i.e. not through public services), and the extent to which older people have a caring role themselves.

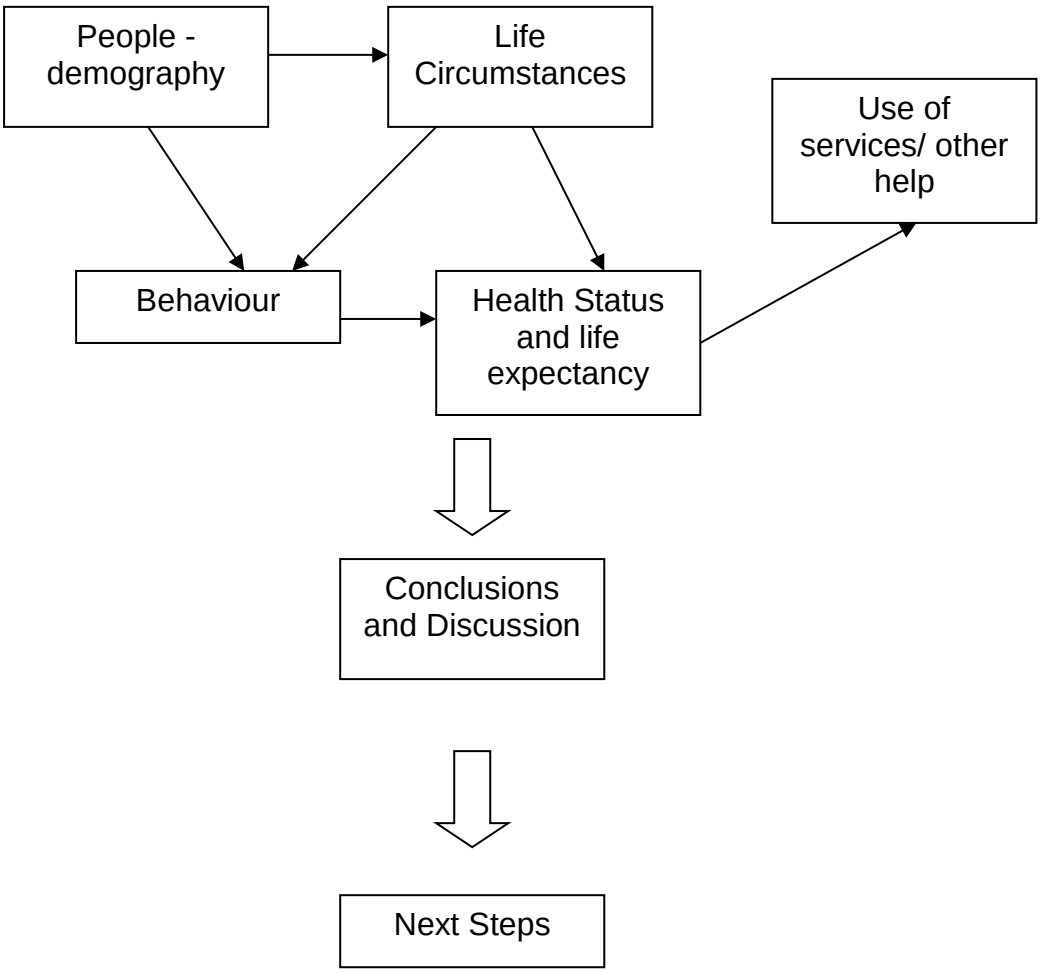
Healthy Ageing – This gives information on healthy life expectancy, inequalities and the possible impact of the health of cohorts on future health needs.

Conclusions – This section summarises the information, presented in the previous sections in order to allow some general conclusions on the health and social care needs of older people in Scotland.

Discussion – This section explores concepts of ageing, health and disease, with a discussion on loss of function, including frailty. It begins to consolidate some of the various frameworks to a coherent whole. There is consideration of stakeholders, and likely responses/ action required, and some outlines of possible future scenarios for public services.

Next steps – a summary of some possible next steps based on the findings of the work is presented.

The following diagram shows how the sections relate to each other to form the reports 'internal logic':



1.4 Approaches to considering the health and social care needs of older people

There are a range of possible approaches that can be taken to considering the health and social care needs of older people. A brief description follows, with cross-reference to the relevant sections of this report.

1.4.1 Scientific Approach: describe, explain, predict

Describe	Chapters 2-10: which present data relating to the health and social care needs of older people
Explain	Chapter 11: drawing conclusions in relation to the 'internal logic' of the report (Chapter 1)
Predict	Chapter 13: next steps

1.4.2 Systems Approach: entities, attributes, inter-relationships

Entities may be human, tangible, or intangible. The main 'entities' of the health and social care system for older people are:

- Older people themselves;
- Services and other contributors; and
- Other stakeholders.

Older people themselves:

	Entities	**Attributes**	**Chapter**
Human	People	Number	2: demography
		Ethnicity, etc	2: demography
		Behaviour	4: health behaviour
		Health status	5: health status
Tangible	Property and income		3: life circumstances
Intangible	Human relationships		3: life circumstances
	Information		-

Services and other contributors:

	Entities	**Attributes**	**Chapter**
Human	Staff	Knowledge, skills, attitudes etc.	-
Tangible	Facilities, materials and equipment		-
	Service activity	Number of interactions/ assessments/ interventions	6-9
		Quality	-
Intangible	Protocols, guidelines and pathways		-

Other stakeholders:

Information on the entities and attributes for other stakeholders is not considered here, but outlined in section 12.3.

Inter-relationships:

The possible inter-relationships are considered in chapters 11 to 13.

1.4.3 Strategic Approach: where we are now, where do we want to be, how do we get there?

Question	*Chapter*
Where are we now?	1-11
Where do we want to be?	12
How do we get there?	13

The strategic approach tends to focus on stakeholders – their level of interest and power/ influence (Chapter 12), and there is a consideration of vision, values and principles in this section also.

1.4.4 Pragmatic questions

Simple questions such as: Who? What? Where? Why? How?

Question	*Chapter*
Who?	
Older people themselves	2-5
Future older people	2
'Contributors' – services (public, independent providers), carers	6-9
Other stakeholders – policy makers, elected members	12
What?	
People, entities, attributes - assessment, intervention	See systems approach above
Where?	
Settings - home, community, work, service locations (e.g. surgery, hospital)	3: life circumstances 6-9: service use
How?	
Delivery of interventions	6-9
Why?	
Improvement, values-based rationale	1 & 12

2 Demography

This section covers:

- Total population size
- Age structure
- Gender
- Geographical variation in population ageing
- Ethnicity

For ease of reading, large data tables are included at the end of the chapter, rather than within the main text.

Key points:

- ❖ Like much of the developed world, the population in Scotland is ageing. This has implications for the planning, delivery and funding of health and social care services.
- ❖ It is predicted that the total population of Scotland will increase by 8% during the 20 years period from 2012 to 2032. However, the population aged 65 years and over is expected to increase by 49% during the same period (Figure 2.2).
- ❖ Particularly large proportionate increases in the population are expected among the very oldest groups (those aged 90 years and over) (Figure 2.4).
- ❖ There are more women than men across all the older age groups. However, over the next 20 years, the number of older men (aged 70+) is projected to increase more rapidly than the number of older women, especially among the very oldest groups (Table 2.1).
- ❖ The age structure of the population varies geographically across Scotland, with more rural areas tending to have older populations. By 2035 the Scottish population aged 75 years and over is projected to increase by 82 per cent, with increases expected in all local authorities and NHS Board areas but considerable variation in the size of the increase by local authority area (Figure 2.8) and NHS Board area (Figure 2.9).
- ❖ In the 2001 Census, the vast majority (99.5%) of those aged 65 years and over considered themselves to be 'White'. The proportion of older people from ethnic minority groups is predicted to increase over time (Table 2.7).
- ❖ Interactive population projections for 2010 to 2035 for Local Authority & NHS Board areas are available in the Scottish Government's Change Fund Spreadsheet.

2.1 Using population projections

This section includes data on population projections, which can be useful in indicating likely future demand on services. However, projections should be interpreted cautiously since they are just that – projections based on a set of underlying assumptions.

Projections use past trends to deduce future trends - they do not include the impact of behavioural or policy changes (e.g. local or central government policy) or the impact of unexpected events. Population size is driven by a combination of four factors: the number of births, deaths, immigrants and emigrants. Unexpected variations in any of these factors may affect the reliability of the projections.

National Records of Scotland (NRS) produce a number of variant projections based on different sets of assumptions. The data presented here concentrate on the principal projections, which use assumptions about fertility, mortality and migration which are thought to be most likely to occur over the next 25 years based on past trends. However, projections based on other variants (e.g. high and low migration variants, high and low life expectancy variants, high and low fertility variants, and a zero migration variant) are also available from NRS.

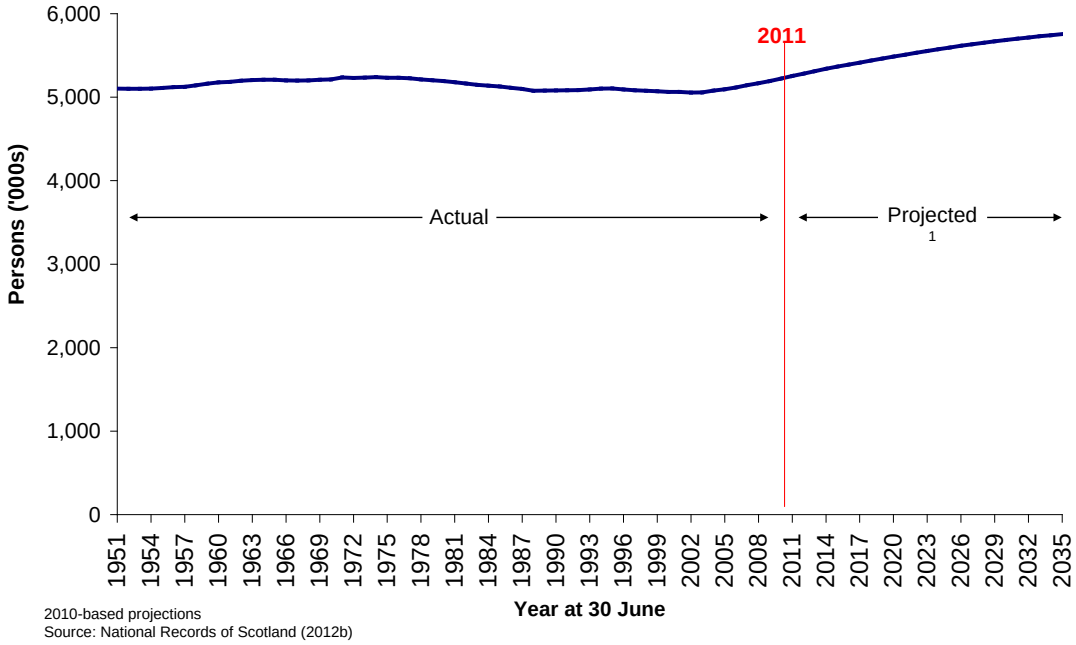
Further information on the uses and limitations of population projections is available from NRS.

2.2 Total population

The main factor influencing the needs of the population of older people in Scotland is the absolute number of people.
Figure 2.1 shows the total size of the population of Scotland since 1951, projected until 2035. It is projected that the total population of Scotland will increase from 5,281,693 in 2012 to 5,715,576 in 2032. This represents an 8% increase in the size of the Scottish population over the next 20 years.

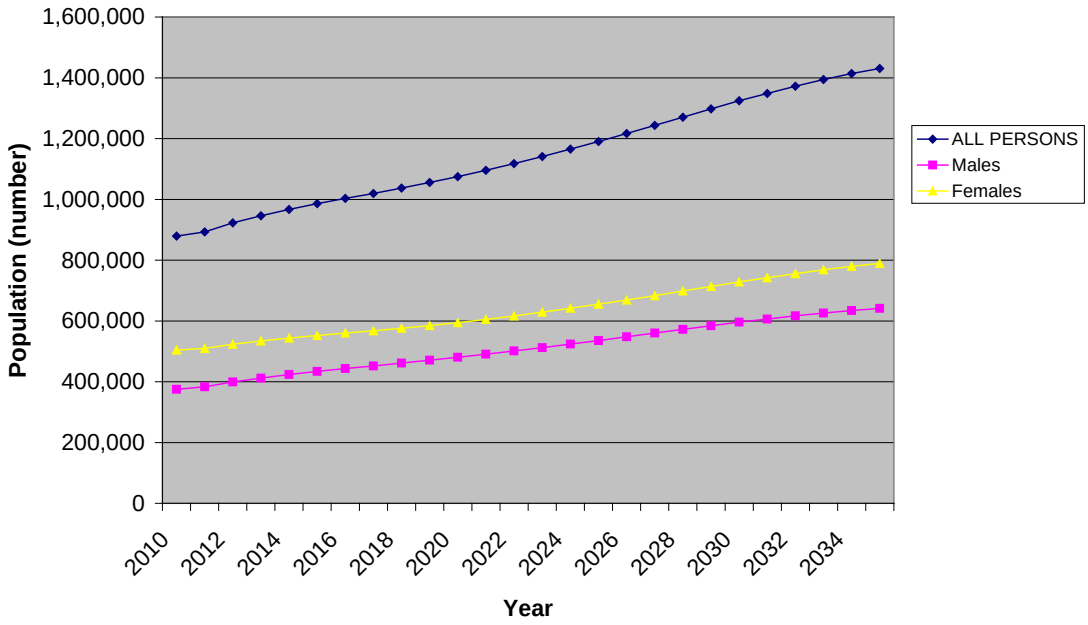
However, a much larger increase is expected in the population aged 65 years and over (Figure 2.2 and Table 2.2). Between 2012 and 2032, we can expect a 49% increase in the total population aged 65 and over (a 55% increase in males and 44% increase in females).

Figure 2.1: Estimated Population of Scotland, actual and projected, 1951-2035



2010-based projections
Source: National Records of Scotland (2012b)

Figure 2.2: Projected increase in the population aged 65 years and over, Scotland, 2010 to 2035

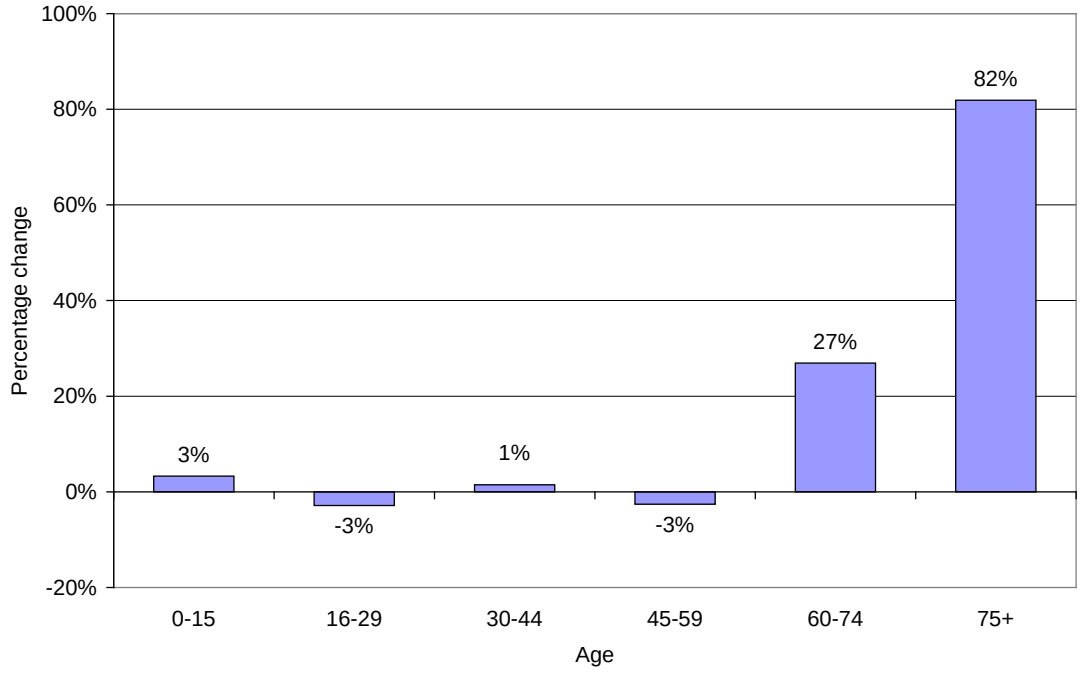


Source: National Records of Scotland, 2010-based population projections

2.3 Age Structure

The projected increase in Scotland's population is not spread evenly across all age groups of the population – the age structure of the population is projected to age noticeably. As Figure 2.3 shows, the population aged under 60 is projected to remain fairly constant whilst the number of older people is projected to increase significantly.

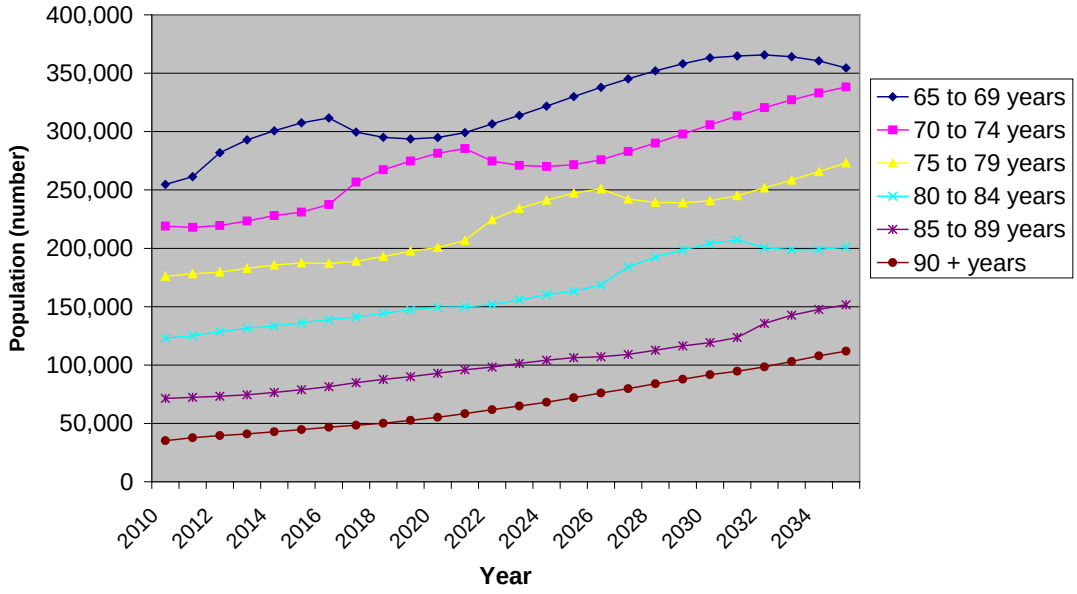
Figure 2.3: The projected percentage change in age structure of Scotland's population, 2010-2035



Source: National Records of Scotland (2011a)

Among the older age groups, the proportionate increase in population increases with increasing age. So, between 2012 and 2032 we can expect an increase of 30% in those aged 65 to 69 but an increase of 148% in those aged 90 and over (Figure 2.4 & Table 2.3).

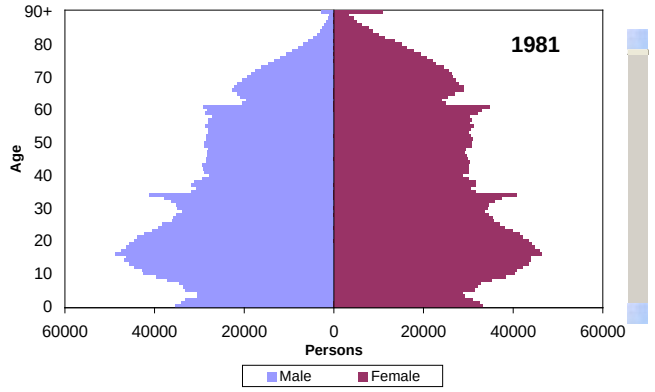
Figure 2.4: Population projections among those aged 65 years and over, by age group, Scotland, 2010 to 2035

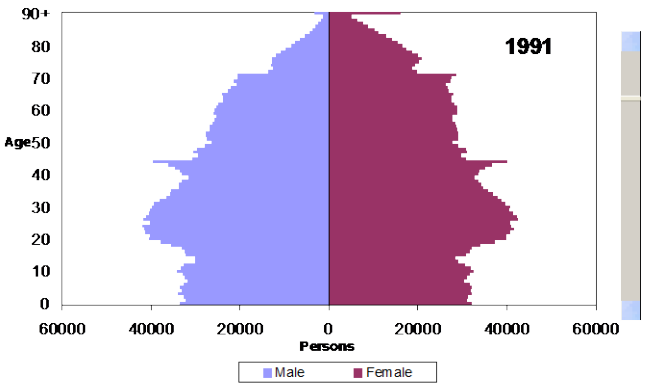


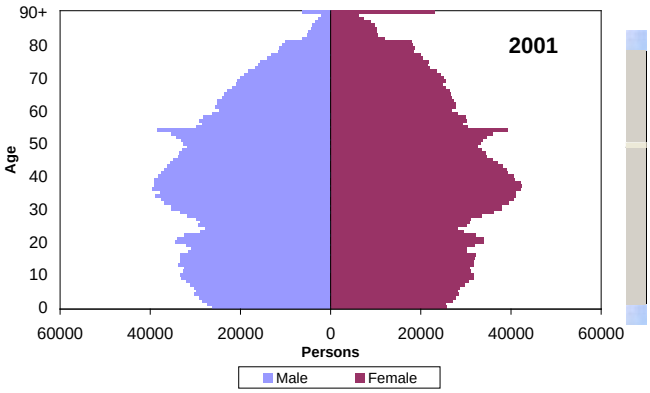
Source: National Records of Scotland, 2010-based population projections

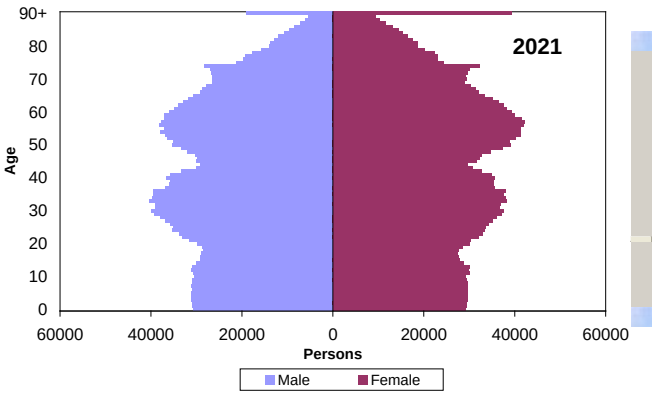
The ageing of the population is not a new phenomenon, as the population pyramids in Figure 2.5 show. However, the predicted increase in the number of people aged 90 years and over in the coming years is particularly striking.

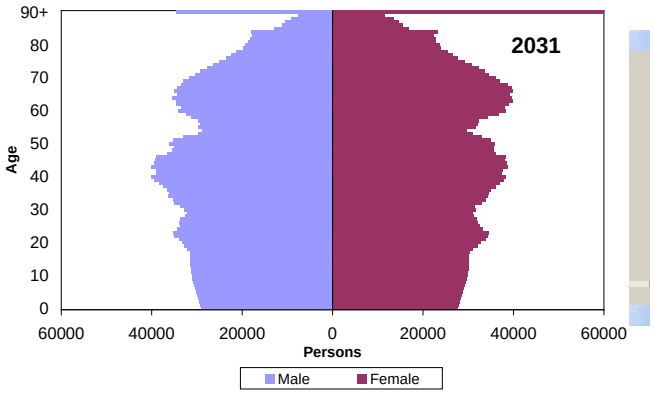
Figure 2.5: Population Pyramids, Scotland, 1981-2035

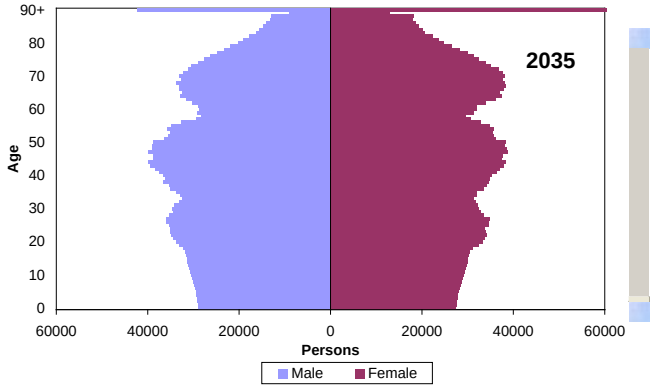












Data for 2011 to 2035 is from the 2010-based National Population Projections. Data prior to this is from the NRS mid-year population estimates.

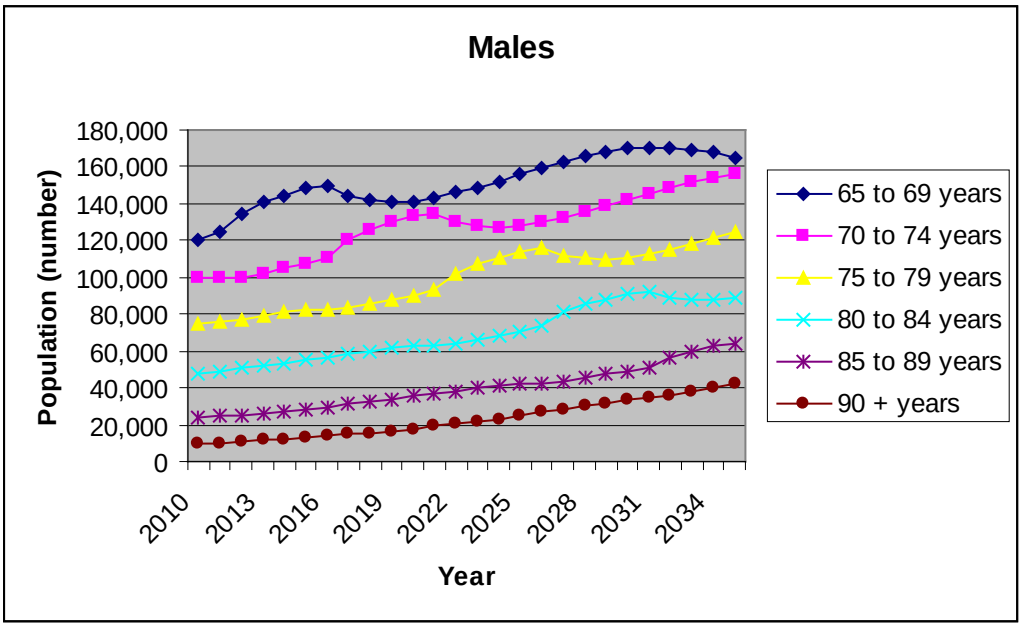
An interactive version of this data is available online at http://www.gro-scotland.gov.uk/files2/stats/population-projections/population-pyramids-1981-2035.xls

Source: National Records of Scotland

2.4 Gender

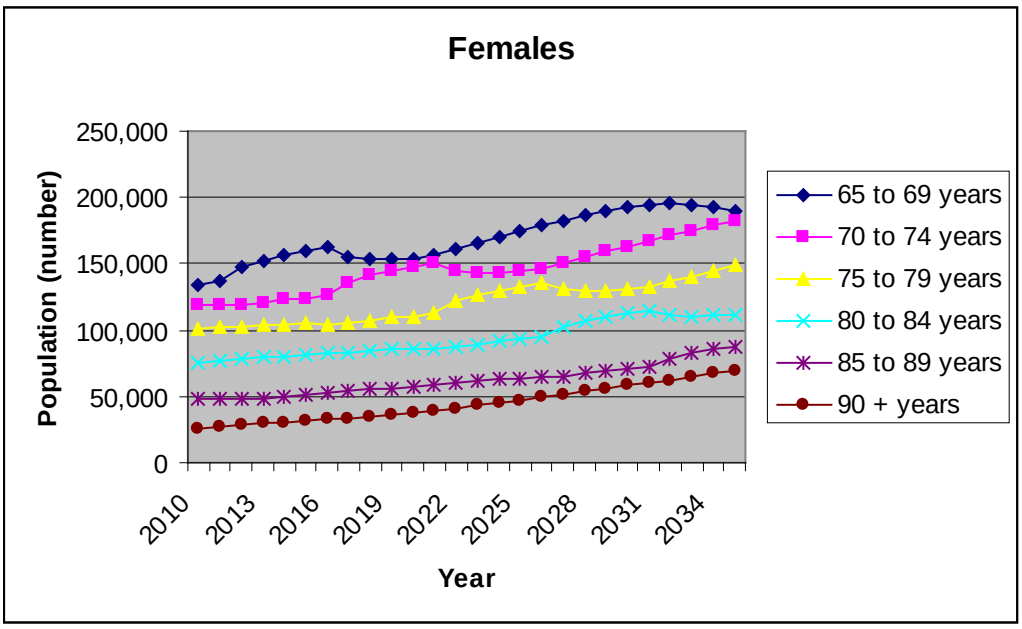
There are more women than men across all the older age groups (Figure 2.6, Figure 2.7). However, over the next 20 years, the number of older men (aged 70+) is projected to increase more rapidly than the number of older women, especially among the very oldest groups (Table 2.1, Table 2.4, Table 2.5).

Figure 2.6: Population projections among males aged 65 years and over, Scotland, 2010 to 2035



Source: National Records of Scotland, 2010-based population projections

Figure 2.7: Population projections among females aged 65 years and over, Scotland, 2010 to 2035



Source: National Records of Scotland, 2010-based population projections

Table 2.1: Projected percentage increase in population aged 65 and over by sex, Scotland, 2012 to 2032

	Percentage increase in population 2012 to 2032					
	65 to 69 years	**70 to 74 years**	**75 to 79 years**	**80 to 84 years**	**85 to 89 years**	**90+ years**
All Persons	30%	46%	40%	56%	85%	148%
Males	26%	49%	49%	76%	126%	231%
Females	33%	44%	34%	43%	64%	117%

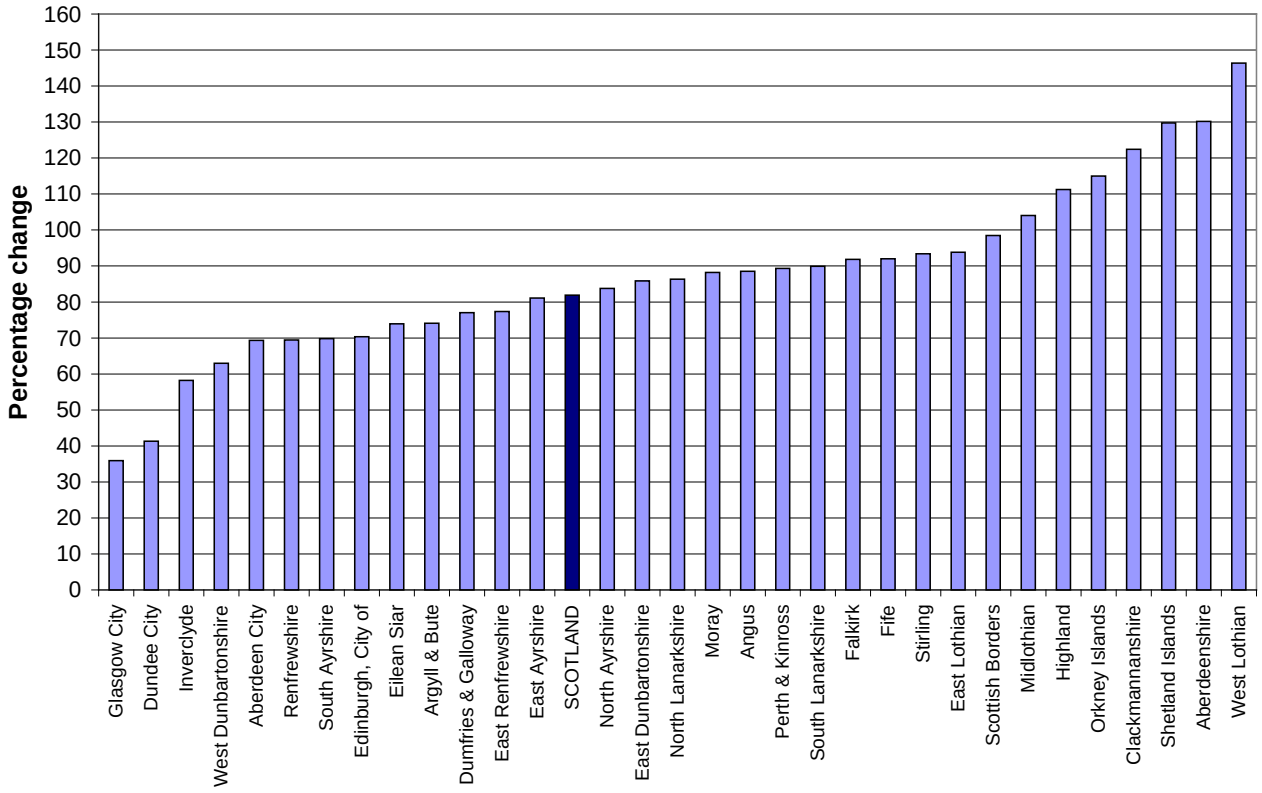
Source: National Records of Scotland, 2010-based population projections

2.5 Geographical variation in population ageing

The ageing of the population is not uniform across the country. There are large differences in the projected age structure for different areas in Scotland, with an urban-rural dimension to population ageing. This is due in part to people of working age tending to leave rural areas, and the migration of older people (65+) into the more rural parts of Scotland. More rural local authority areas therefore tend to have older populations, with implications for the provision of public services, such as health, social care, housing and transport.

By 2035 the Scottish population aged 75 years and over is projected to increase by 82 per cent (NRS, 2012b). Increases are expected in all local authority areas but the projected increases varies considerably by area, ranging from a projected increase of 36 per cent in Glasgow City to a projected increase of 146 per cent in West Lothian (as shown in Figure 2.8).

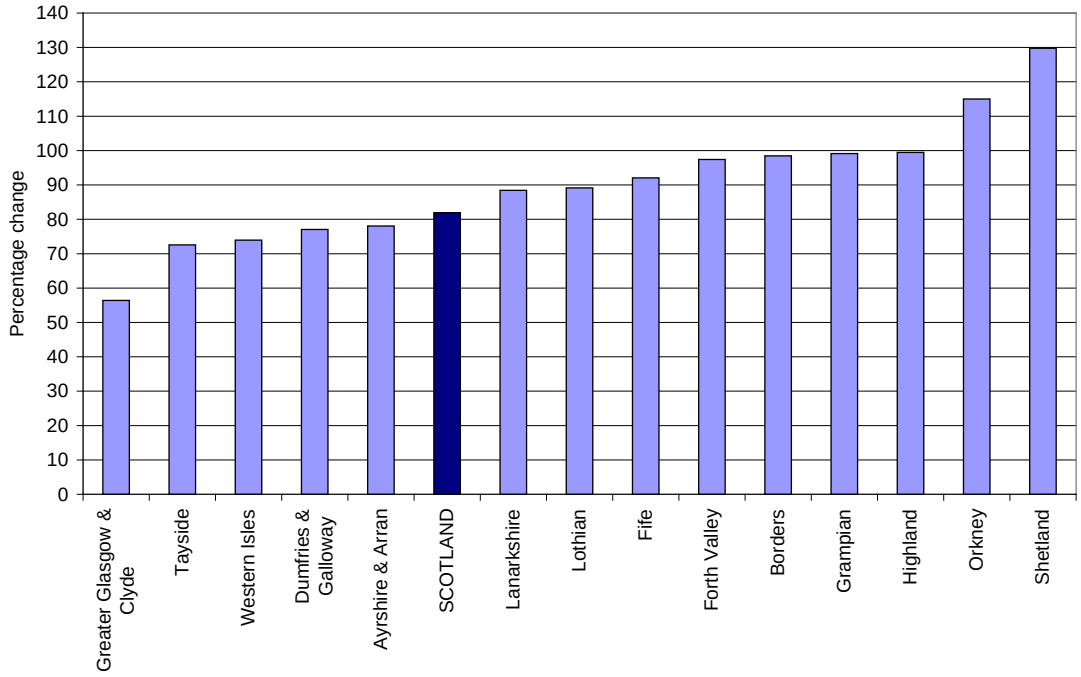
Figure 2.8: Projected percentage change in population aged 75+ (2010-based), by local authority area, 2010-2035



Source: National Records Scotland (2012b)

There are similar variations by NHS Board area (Figure 2.9). The population of people aged 75 and over is also projected to increase in all NHS Board areas, with the largest projected increase in Shetland (+130 per cent), and the smallest increase in Greater Glasgow & Clyde (+56 per cent).

Figure 2.9: Projected percentage change in population aged 75+ (2010-based), by NHS Board area, 2010-2035



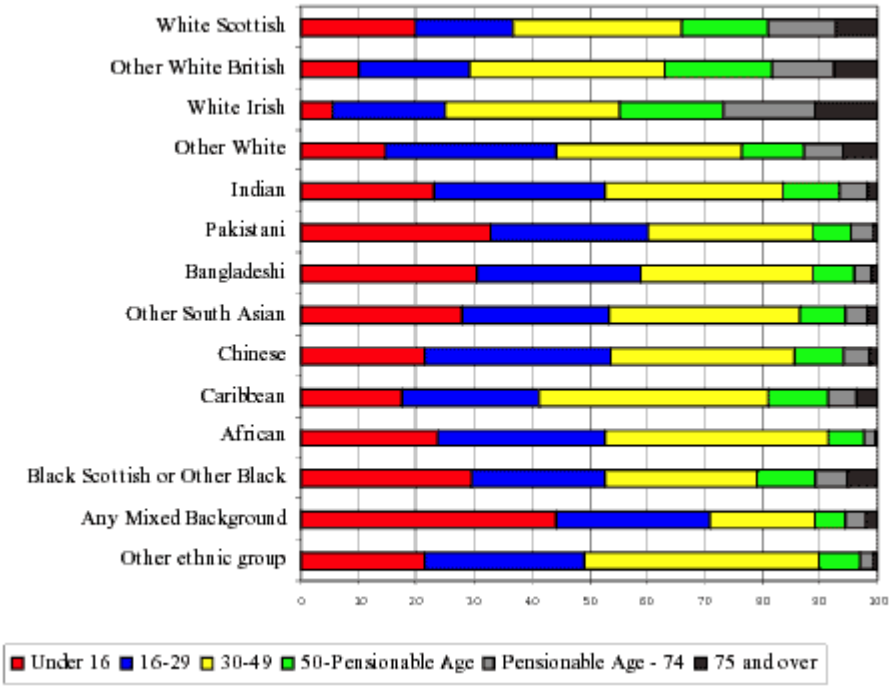
Source: National Records Scotland (2012b)

2.6 Ethnicity

The 2001 Census showed that at that time the vast majority (99.5%) of those aged 65 and over considered themselves to be 'White' (Table 2.6).

In general, ethnic minority groups in Scotland have a much younger age profile than White groups (Figure 2.10), however the data shown is from the 2001 Census and is therefore now quite old. Ethnicity data from Scotland's 2011 Census is due to be released from early spring 2013.

Figure 2.10: Age profile by ethnic group, All People, Scotland, using Census 2001 data (Percentages)



Source: Scottish Executive (2004a)

Modelling work from the University of Leeds (Rees, 2011) suggests that the ethnic composition of Scotland will change over time, with an increase in the proportion of older people from ethnic minority groups (Table 2.7).

2.7 Useful resources on demographic change

Local Authority & NHS Board level Population Projections
Interactive population projections for 2010 to 2035 for Local Authority & NHS Board areas are available in the Change Fund Spreadsheet. This collates data from various sources and allows comparison between local areas. Population projections can be found on Tab 1 of the spreadsheet.

Sub-national population projections (2010-based), including seven variant population projections at local authority and NHS Board area level, are available at:
http://www.gro-scotland.gov.uk/statistics/theme/population/projections/sub-national/index.html

Overview of Demographic Change in Scotland – SPICe Briefing Report
The recent Scottish Parliament Information Centre (SPICe) briefing produced for the Finance Committee inquiry into demographic change and population ageing provides a useful overview of demographic change in Scotland and its implications for health and social care, housing, pensions and the labour market.

Table list

Table 2.2: Projected increase in the population aged 65 years and over, Scotland, 2010 to 2035

YEAR	ALL PERSONS	MALES	FEMALES
2010	879,492	375,172	504,320
2011	892,794	383,325	509,469
2012	922,517	399,196	523,321
2013	945,983	412,001	533,982
2014	967,064	423,574	543,490
2015	985,799	433,890	551,909
2016	1,003,459	443,340	560,119
2017	1,019,625	452,019	567,606
2018	1,037,441	461,364	576,077
2019	1,055,983	470,887	585,096
2020	1,074,808	480,330	594,478
2021	1,095,433	490,631	604,802
2022	1,117,529	501,266	616,263
2023	1,140,959	512,269	628,690
2024	1,165,519	523,780	641,739
2025	1,190,421	535,519	654,902
2026	1,216,493	547,567	668,926
2027	1,243,249	560,103	683,146
2028	1,270,542	572,112	698,430
2029	1,297,944	584,160	713,784
2030	1,324,607	595,967	728,640
2031	1,348,540	606,290	742,250
2032	1,372,443	616,937	755,506
2033	1,394,285	626,017	768,268
2034	1,414,030	634,364	779,666
2035	1,430,628	641,145	789,483
% change 2012 to 2032	49%	55%	44%
% change 2010 to 2035	63%	71%	57%

Source: National Records of Scotland, 2010-based population projections

Table 2.3: Projected increase in population aged 65 years and over, by age group, Scotland, 2010 to 2035

Year	All persons (males & females combined)					
	65 to 69 years	70 to 74 years	75 to 79 years	80 to 84 years	85 to 89 years	90+ years
2010	254,771	219,086	176,095	122,936	71,417	35,187
2011	261,356	217,921	178,155	125,253	72,390	37,719
2012	281,893	219,422	179,627	128,670	73,300	39,605
2013	292,835	223,361	182,825	131,419	74,532	41,011
2014	300,603	228,045	185,598	133,436	76,488	42,894
2015	307,515	231,041	187,499	136,198	78,900	44,646
2016	311,754	237,446	187,074	138,921	81,537	46,727
2017	299,536	256,784	188,929	141,065	84,874	48,437
2018	295,015	267,272	192,965	144,397	87,669	50,123
2019	293,637	274,778	197,611	147,310	90,072	52,575
2020	294,898	281,364	200,746	149,508	93,003	55,289
2021	299,163	285,450	206,773	149,753	95,903	58,391
2022	306,486	274,711	224,425	151,839	98,308	61,760
2023	313,798	270,956	234,187	155,778	101,416	64,824
2024	321,761	270,066	241,230	160,164	104,150	68,148
2025	329,981	271,577	247,270	163,254	106,361	71,978
2026	337,865	275,859	251,066	168,611	107,082	76,010
2027	345,221	282,959	242,156	183,897	109,156	79,860
2028	352,036	290,080	239,333	192,507	112,672	83,914
2029	358,077	297,806	239,016	198,750	116,462	87,833
2030	363,235	305,744	240,787	203,938	119,219	91,684
2031	364,715	313,395	245,015	207,232	123,543	94,640
2032	365,659	320,546	251,727	200,507	135,659	98,345
2033	364,139	327,211	258,490	198,752	142,583	103,110
2034	360,511	333,152	265,794	199,064	147,599	107,910
2035	354,504	338,253	273,249	201,062	151,619	111,941
% change 2012 to 2032	30%	46%	40%	56%	85%	148%
% change 2010 to 2035	39%	54%	55%	64%	112%	218%

Source: National Records of Scotland, 2010-based population projections

Table 2.4: Population projections among males aged 65 years and over, Scotland, 2010 to 2035

Year	Males					
	65 to 69 years	70 to 74 years	75 to 79 years	80 to 84 years	85 to 89 years	90+ years
2010	120,391	99,722	74,873	47,282	23,672	9,232
2011	124,384	99,332	76,271	48,771	24,399	10,168
2012	134,811	100,267	77,497	50,537	25,142	10,942
2013	140,653	102,216	79,572	52,085	25,973	11,502
2014	144,554	105,010	81,254	53,405	27,016	12,335
2015	148,095	106,974	82,433	55,112	28,138	13,138
2016	149,803	110,830	82,426	56,718	29,566	13,997
2017	143,898	120,543	83,517	58,124	31,144	14,793
2018	141,558	126,096	85,511	60,097	32,547	15,555
2019	140,619	129,855	88,219	61,727	33,853	16,614
2020	140,840	133,196	90,199	62,957	35,409	17,729
2021	142,811	134,846	93,750	63,234	36,911	19,079
2022	145,915	129,780	102,452	64,376	38,236	20,507
2023	148,865	127,883	107,524	66,275	39,891	21,831
2024	152,244	127,239	111,001	68,732	41,279	23,285
2025	155,993	127,631	114,005	70,579	42,384	24,927
2026	159,324	129,618	115,522	73,626	42,807	26,670
2027	162,894	132,629	111,460	80,932	43,845	28,343
2028	165,656	135,513	110,085	85,257	45,462	30,139
2029	168,049	138,789	109,779	88,254	47,462	31,827
2030	170,042	142,392	110,348	90,756	48,989	33,440
2031	170,312	145,621	112,305	92,046	51,326	34,680
2032	170,494	149,066	115,132	89,123	56,861	36,261
2033	169,634	151,760	117,860	88,317	60,167	38,279
2034	168,017	154,116	120,932	88,365	62,470	40,464
2035	165,063	156,103	124,274	89,089	64,326	42,290
% change 2012 to 2032	26%	49%	49%	76%	126%	231%
% change 2010 to 2035	37%	57%	66%	88%	172%	358%

Source: National Records of Scotland, 2010-based population projections

Table 2.5: Population projections among females aged 65 years and over, Scotland, 2010 to 2035

Year	Females					
	65 to 69 years	70 to 74 years	75 to 79 years	80 to 84 years	85 to 89 years	90+ years
2010	134,380	119,364	101,222	75,654	47,745	25,955
2011	136,972	118,589	101,884	76,482	47,991	27,551
2012	147,082	119,155	102,130	78,133	48,158	28,663
2013	152,182	121,145	103,253	79,334	48,559	29,509
2014	156,049	123,035	104,344	80,031	49,472	30,559
2015	159,420	124,067	105,066	81,086	50,762	31,508
2016	161,951	126,616	104,648	82,203	51,971	32,730
2017	155,638	136,241	105,412	82,941	53,730	33,644
2018	153,457	141,176	107,454	84,300	55,122	34,568
2019	153,018	144,923	109,392	85,583	56,219	35,961
2020	154,058	148,168	110,547	86,551	57,594	37,560
2021	156,352	150,604	113,023	86,519	58,992	39,312
2022	160,571	144,931	121,973	87,463	60,072	41,253
2023	164,933	143,073	126,663	89,503	61,525	42,993
2024	169,517	142,827	130,229	91,432	62,871	44,863
2025	173,988	143,946	133,265	92,675	63,977	47,051
2026	178,541	146,241	135,544	94,985	64,275	49,340
2027	182,327	150,330	130,696	102,965	65,311	51,517
2028	186,380	154,567	129,248	107,250	67,210	53,775
2029	190,028	159,017	129,237	110,496	69,000	56,006
2030	193,193	163,352	130,439	113,182	70,230	58,244
2031	194,403	167,774	132,710	115,186	72,217	59,960
2032	195,165	171,480	136,595	111,384	78,798	62,084
2033	194,505	175,451	140,630	110,435	82,416	64,831
2034	192,494	179,036	144,862	110,699	85,129	67,446
2035	189,441	182,150	148,975	111,973	87,293	69,651
% change 2012 to 2032	33%	44%	34%	43%	64%	117%
% change 2010 to 2035	41%	53%	47%	48%	83%	168%

Source: National Records of Scotland, 2010-based population projections

Table 2.6: Ethnic group by age, Scotland, 2001 Census

	Age (years)							
	65 to 69	**70 to 74**	**75 to 79**	**80 to 84**	**85 to 89**	**90 and over**	**Total over 65**	**ALL AGES**
Persons (no.)	239,116	206,917	165,523	104,989	59,241	29,114	804,900	5,062,011
White Scottish	90.48%	90.27%	88.57%	88.59%	90.02%	90.39%	89.75%	88.09%
Other White British	6.67%	6.75%	8.05%	8.32%	7.25%	7.29%	7.25%	7.38%
White Irish	1.31%	1.41%	1.47%	1.57%	1.42%	1.11%	1.40%	0.98%
Other White	0.80%	1.04%	1.51%	1.16%	1.02%	0.87%	1.08%	1.54%
Indian	0.14%	0.10%	0.07%	0.07%	0.03%	0.07%	0.10%	0.30%
Pakistani	0.25%	0.13%	0.07%	0.06%	0.03%	0.09%	0.14%	0.63%
Bangladeshi	0.01%	0.01%	0.00%	0.00%	0.01%	0.01%	0.01%	0.04%
Other South Asian	0.05%	0.03%	0.03%	0.02%	0.03%	0.03%	0.04%	0.12%
Chinese	0.14%	0.10%	0.07%	0.07%	0.05%	0.05%	0.10%	0.32%
Caribbean	0.01%	0.01%	0.02%	0.02%	0.02%	0.01%	0.02%	0.04%
African	0.02%	0.02%	0.01%	0.01%	0.00%	0.01%	0.01%	0.10%
Black Scottish or other Black	0.01%	0.01%	0.02%	0.01%	0.03%	0.01%	0.01%	0.02%
Any Mixed Background	0.07%	0.08%	0.08%	0.06%	0.08%	0.05%	0.07%	0.25%
Other Ethnic Group	0.03%	0.03%	0.02%	0.03%	0.02%	0.03%	0.03%	0.19%

Source: 2001 Census
http://www.scrol.gov.uk/scrol/warehouse/NewWards_ER_All.jsp

Table 2.7: Scotland's population, 2001-2051, ethnic group composition by age (%)

Age group	Ethnic group	2001	2011	2031	2051
0-15	WHITE	97.0	95.2	92.8	91.3
	MIXED	0.4	1.8	2.9	3.4
	ASIAN	1.7	1.9	2.6	3.3
	BLACK	0.3	0.3	0.4	0.5
	OTHER	0.7	0.8	1.3	1.6
	ALL GROUPS	100.0	100.0	100.0	100.0
16-64	WHITE	97.9	96.7	94.1	92.4
	MIXED	0.3	0.3	0.9	1.4
	ASIAN	1.1	1.5	2.2	2.7
	BLACK	0.2	0.2	0.3	0.4
	OTHER	0.6	1.3	2.5	3.1
	ALL GROUPS	100.0	100.0	100.0	100.0
65+	WHITE	99.5	99.3	98.3	95.7
	MIXED	0.1	0.1	0.2	0.4
	ASIAN	0.3	0.4	0.8	1.7
	BLACK	0.0	0.0	0.1	0.2
	OTHER	0.1	0.2	0.6	2.1
	ALL GROUPS	100.0	100.0	100.0	100.0

Source: Rees, P (2011)

3 Life circumstances - physical and social environment

This section covers:

- Socio-economic circumstances - SIMD
- Economic activity
- Housing & household size
- Marital status & household composition
- Rurality

For ease of reading, large data tables are included at the end of the chapter.

Key points:

- ❖ Older people are fairly evenly distributed across the Scottish Index of Multiple Deprivation (SIMD) deciles, by area, with slight under-representation in the very most deprived and very least deprived areas (Figure 3.1).
- ❖ In the 2001 Census, 9.5% of males and 5.0% females aged 65 to 74 years indicated they were economically active (Table 3.2). Economic activity data from the 2011 Census is due to be published in early 2013.
- ❖ The majority of those aged 65 and over live in unshared accommodation – usually a house or bungalow (Table 3.3). The proportion living in a communal establishment such as a care home increases with age from just over 1% in those aged 65-74 to 22% in those aged 85 and over.
- ❖ People are more likely to live alone as they become older (Figure 3.3). The substantial projected increase in the number of older households (Figure 3.4), and the increase in older people living alone, has implications for services and policies aimed at supporting older people.
- ❖ Marital status and household composition vary with age. Most 65-74 year olds live in a married couple family, whereas at age 85+ most live alone or in a communal establishment (Table 3.7 & Table 3.8).

3.1 Socio-economic circumstances - SIMD

Work in relation to the Scottish Index of Multiple Deprivation (SIMD) in 2005, using 2001 Census data, showed that the age profile of areas is fairly similar across the range of deprivation (Table 3.1). It estimated that the number of people of pensionable age (over 65 for men and over 60 for women) was 941,982 and that 143,239 people in this age category were living in an area within the 15% most deprived in Scotland. About 18.4% of those living within the 15% most deprived areas were in this category, the figure for Scotland as a whole being 18.6%.

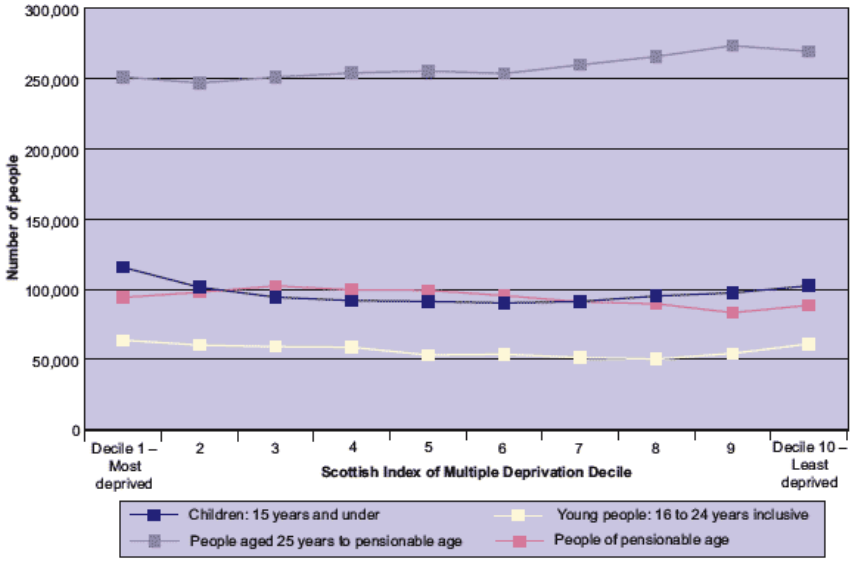
Older people are fairly evenly distributed across the SIMD deciles, by area, with slight under-representation in the very most deprived and very least deprived areas (Figure 3.1, Table 3.5).

Table 3.1: Age structure of the 15% most deprived areas, Scotland

	Children: 15 years and under		Young people: 16 to 24 years inclusive		People aged 25 years to pensionable age		People of pensionable age	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
15% most deprived	166,934	21.4	94,376	12.1	374,165	48.0	143,239	18.4
Rest of Scotland	805,131	18.8	472,101	11.0	2,207,322	51.5	798,743	18.6
Scotland	972,065	19.2	566,477	11.2	2,581,487	51.0	941,982	18.6

General Register Office for Scotland (2001 Census).
Note: Pensionable age refers to men aged 65 and over and to women aged 60 and over.
Source: Scottish Executive (2005)

Figure 3.1: SIMD deciles by age group, Scotland, 2001



General Register Office for Scotland (2001 Census).
Note: Pensionable age refers to men aged 65 and over and to women aged 60 and over.
Source: Scottish Executive (2005)

3.2 Economic activity

In terms of economic activity, the 2001 Census indicated that of those aged 65 to 74 years, 9.5% of males and 5.0% females were economically active (Table 3.2). Of those in this age group who were economically inactive 80% described themselves as retired. Those aged 75 and over were not asked about economic activity.

Table 3.2: Economic activity, 65 to 74 year olds, Scotland, 2001 Census

	Males	Females
	65 - 74	65 - 74
Economically active	**9.50%**	**4.96%**
Employee - part-time	2.22%	2.55%
Employee - full-time	2.33%	1.04%
Self-employed - part-time	1.89%	0.69%
Self-employed - full-time	2.72%	0.52%
Unemployed	0.33%	0.15%
Full-time student	0.01%	0.01%
Economically inactive	**90.50%**	**95.04%**
Retired	80.99%	82.33%
Student	0.11%	0.13%
Looking after home/family	0.05%	1.94%
Permanently sick/disabled	7.11%	6.25%
Other	2.23%	4.38%

Source: Census 2001 www.gro-scotland.gov.uk/files/theme16-23.xls

Economic activity data from Scotland's 2011 Census is due to be released late 2013.

3.3 Housing & household size

Data from the Census 2001, showing the estimated number and proportion of people aged 65 and over in various accommodation types, are presented in Table 3.6 and Table 3.3 respectively. In summary, the majority of those aged 65 and over live in unshared accommodation – usually a house or bungalow. The proportion living in a communal establishment such as a care home increases with age from just over 1% in those aged 65-74 to 22% in those aged 85 and over. Housing data from Scotland's 2011 Census was released September 2013.

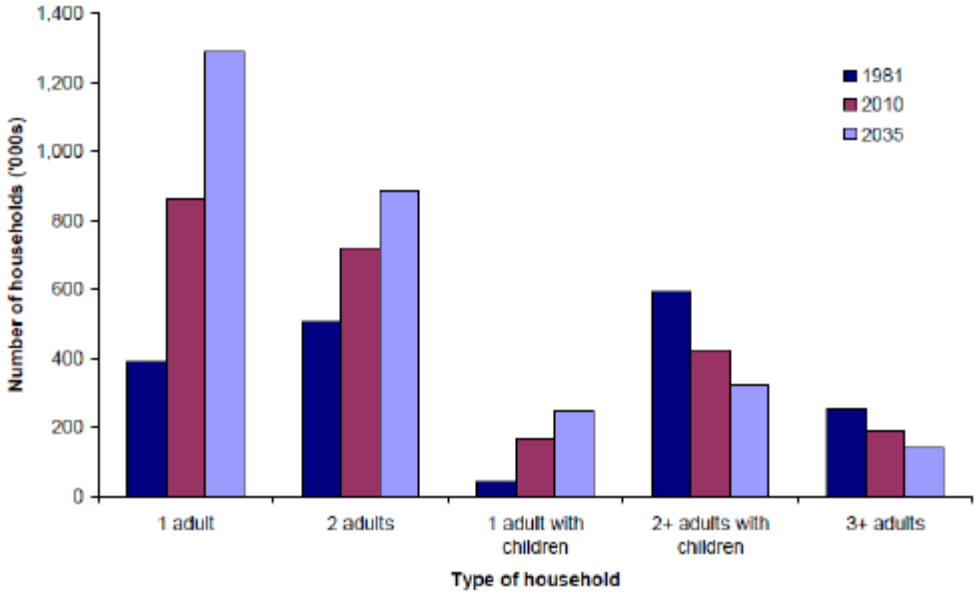
Table 3.3: Tenure and household type, among those aged 65 years and over, Scotland, 2001 Census

ACCOMMODATION TYPE	AGE (years)			
	65 - 74	75 - 84	85 and over	Total 65+
Households in unshared accommodation	98.64%	94.65%	78.03%	95.04%
House or bungalow	71.13%	61.27%	44.08%	64.85%
Flat, maisonette or apartment	27.29%	33.20%	33.84%	30.00%
Caravan or other mobile or temporary structure	0.21%	0.17%	0.11%	0.19%
Households in shared accommodation	0.03%	0.02%	0.03%	0.03%
Communal establishment	1.33%	5.33%	21.94%	4.94%
Medical and care establishment	1.21%	5.14%	21.56%	4.77%
Other type of establishment	0.12%	0.19%	0.38%	0.17%
Tenure				
Owns outright	52.28%	44.29%	32.43%	47.41%
Owns with a mortgage or loan	12.85%	9.07%	5.97%	10.83%
Shared ownership	0.39%	0.41%	0.31%	0.39%
Rented from local authority	23.07%	26.21%	22.55%	24.07%
Other social rented	4.55%	6.09%	6.74%	5.31%
Private rented	2.49%	2.88%	3.10%	2.69%
Living rent free	3.03%	5.72%	6.97%	4.37%
Living in a communal establishment	1.33%	5.33%	21.94%	4.94%

Source: Census 2001 http://www.gro-scotland.gov.uk/files/theme16-23.xls

The size of households in Scotland is changing, with a trend towards smaller households and solo living (Figure 3.2).

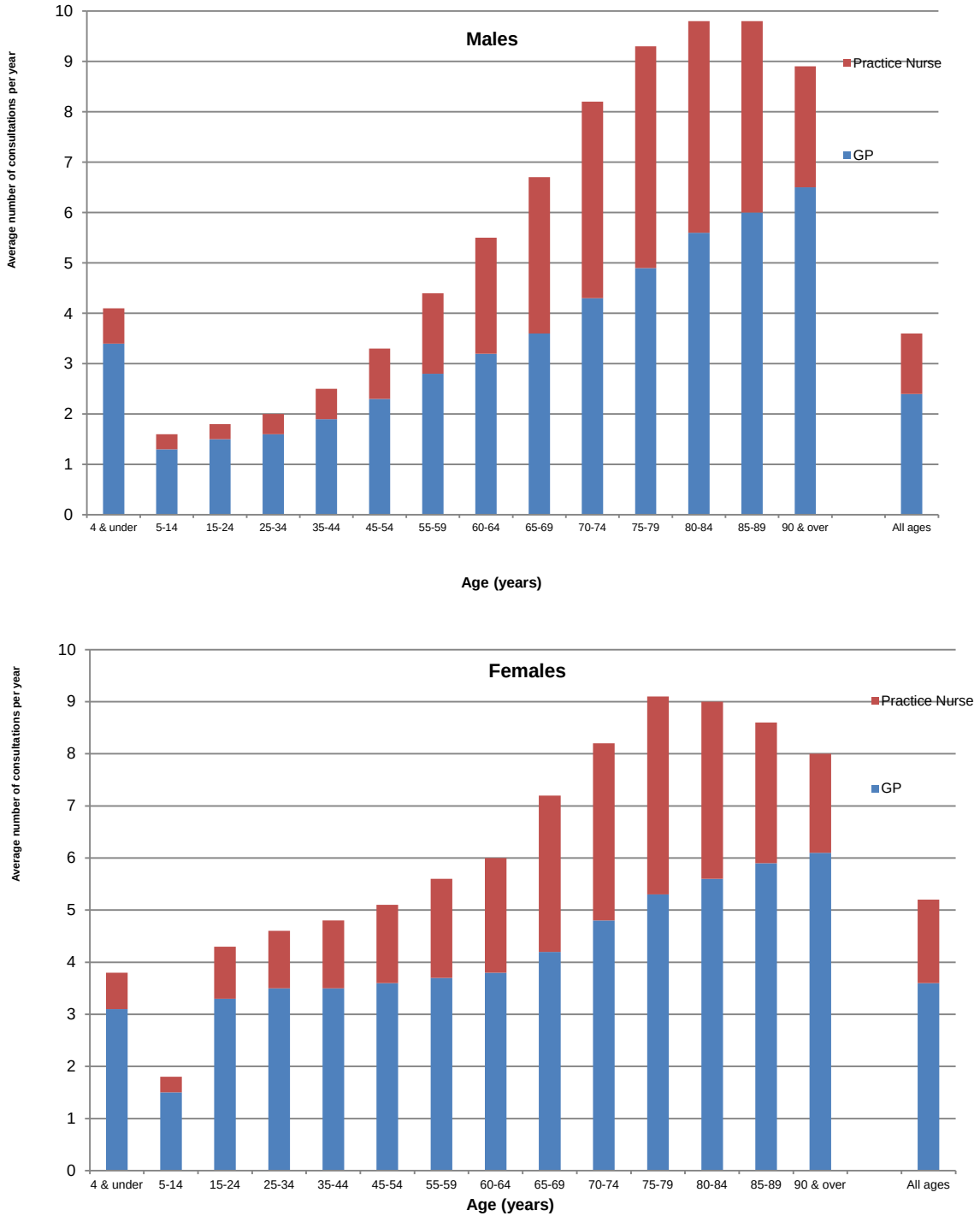
Figure 3.2: Households in Scotland by type: 1981, 2010 and 2035



NRS 2010-based projections. Source: SPICe (2012).

People are more likely to live alone as they become older (Figure 3.3). The percentages vary according to gender and age. In 2035, in most age groups up to the mid-60s, men are more likely to live alone than women. From the age of 65 onwards, however, women are more likely to live alone.

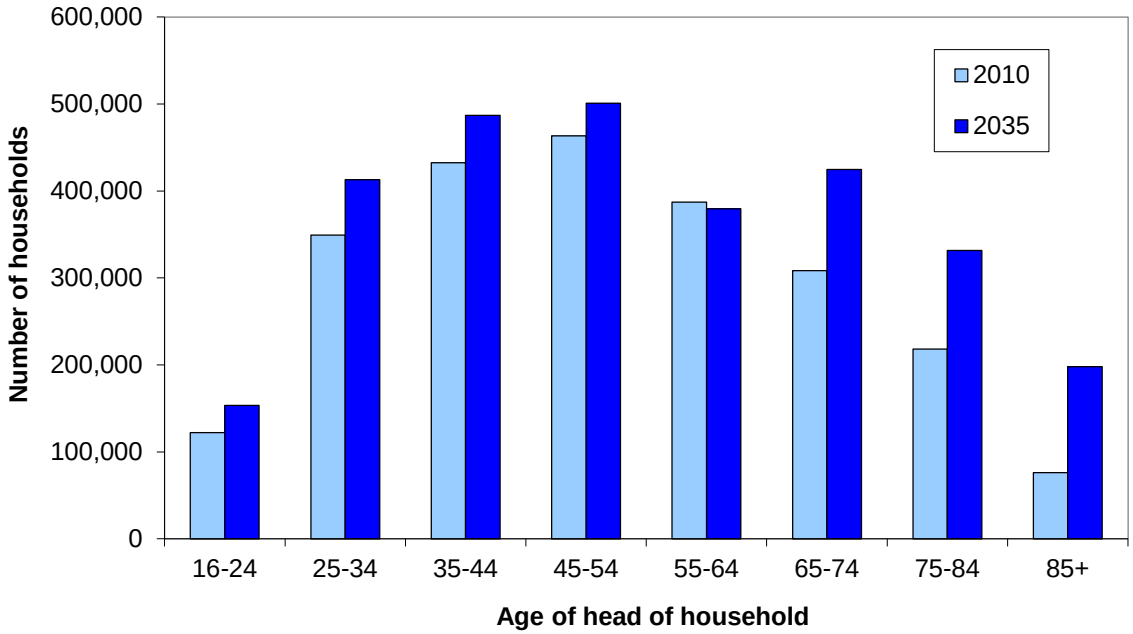
Figure 3.3: Projected percentage of people living alone in 2010 & 2035, by age and sex



Source: NRS (2012c)

The substantial projected increase in the number of older households (Figure 3.4), and particularly the increase in older people living alone, has implications for services and policies aimed at supporting older people.

Figure 3.4: Projected number of households in Scotland by age of head of household, 2010 and 2035



Source: NRS (2012c)

3.4 Marital status & household composition

Table 3.7 and Table 3.8 show Census 2001 data on marital status and household composition. In summary, most 65-74 year olds live in a married couple family, whereas at age 85+ most live alone or in a communal establishment.

3.5 Rurality

Geographical differences in the age structure of the population and the urban-rural dimension to the ageing of the Scottish population are discussed in section 2.5.

NRS have estimated the number of people living in different urban/ rural areas (2010) as per Table 3.4 below. This shows that the majority of those aged 65 years and over live in urban areas of some sort, with only about 8% living in remote rural areas.

Table 3.4: Place of residence by urban rural classification, by age, Scotland (percentage of people living in each area)

Urban/ rural classification	Age	
	65 years & over	All Ages
Large Urban Areas	35.3%	39.1%
Other Urban Areas	30.7%	30.4%
Accessible Small Towns	9.0%	8.4%
Remote Small Towns	4.7%	3.7%
Accessible Rural	12.3%	12.0%
Remote Rural	8.0%	6.5%

Source: National Records of Scotland (2012d)

Table list

Table 3.5: Distribution of age groups between SIMD deciles (mid-year estimates SIMD 2009)

Deciles	Age						
	65 to 69 years	70 to 74 years	75 to 79 years	80 to 84 years	85 to 89 years	90 years+	All 65+
ALL PERSONS							
1 (most deprived)	7.8%	8.3%	8.7%	8.3%	8.1%	8.9%	**8.2%**
2	8.9%	9.6%	9.6%	9.4%	9.1%	9.0%	**9.3%**
3	9.4%	9.8%	10.2%	10.2%	10.0%	8.9%	**9.8%**
4	10.1%	10.5%	10.7%	10.7%	11.1%	10.9%	**10.5%**
5	10.5%	10.4%	10.2%	10.3%	10.3%	9.5%	**10.4%**
6	10.6%	10.5%	10.3%	10.1%	10.5%	10.2%	**10.4%**
7	11.3%	10.7%	10.4%	10.4%	10.3%	10.3%	**10.8%**
8	10.9%	10.4%	10.2%	10.5%	10.8%	11.3%	**10.6%**
9	10.5%	9.9%	9.7%	9.9%	9.8%	10.7%	**10.0%**
10 (least deprived)	9.9%	9.8%	9.9%	10.2%	10.1%	10.3%	**9.9%**
MALES							
1 (most deprived)	7.7%	7.9%	8.1%	7.7%	7.8%	8.7%	**7.9%**
2	8.7%	9.3%	9.0%	8.8%	8.7%	8.2%	**8.9%**
3	9.2%	9.5%	9.7%	9.7%	9.5%	9.0%	**9.5%**
4	10.1%	10.4%	10.4%	10.7%	10.6%	11.1%	**10.4%**
5	10.6%	10.4%	10.3%	10.2%	10.1%	10.3%	**10.4%**
6	10.7%	10.8%	10.6%	10.1%	10.7%	10.8%	**10.7%**
7	11.5%	11.0%	10.9%	11.1%	10.7%	10.3%	**11.1%**
8	11.0%	10.8%	10.6%	11.0%	10.8%	10.9%	**10.8%**
9	10.6%	10.2%	10.1%	10.2%	10.4%	10.5%	**10.3%**
10 (least deprived)	9.9%	9.7%	10.3%	10.6%	10.7%	10.3%	**10.1%**
FEMALES							
1 (most deprived)	7.9%	8.7%	9.1%	8.6%	8.2%	9.0%	**8.5%**
2	9.1%	9.9%	10.1%	9.8%	9.2%	9.4%	**9.6%**
3	9.6%	10.1%	10.6%	10.6%	10.3%	8.9%	**10.1%**
4	10.2%	10.6%	11.0%	10.8%	11.4%	10.8%	**10.7%**
5	10.4%	10.5%	10.1%	10.4%	10.4%	9.2%	**10.3%**
6	10.5%	10.2%	10.0%	10.2%	10.3%	9.9%	**10.2%**
7	11.2%	10.5%	10.1%	9.9%	10.1%	10.4%	**10.5%**
8	10.8%	10.0%	10.0%	10.2%	10.8%	11.5%	**10.4%**
9	10.4%	9.7%	9.4%	9.7%	9.5%	10.7%	**9.8%**
10 (least deprived)	9.8%	9.8%	9.6%	9.9%	9.8%	10.3%	**9.8%**

Decile 1 = most deprived; Decile 10 = least deprived.

Source: National Records of Scotland (2012e)

Table 3.6: Accommodation type by age, Scotland, Census 2001

ACCOMMODATION TYPE	Males				Females				All			
	Age (years)				Age (years)				Age (years)			
	65 - 74	75 – 84	85 and over	Total 65+	65 - 74	75 - 84	85 and over	Total 65+	65 - 74	75 - 84	85 and over	Total 65+
Households in unshared accommodation	**197,079**	**98,014**	**19,575**	**314,668**	**242,884**	**158,019**	**49,368**	**450,271**	**439,963**	**256,033**	**68,943**	**764,939**
House or bungalow	146,685	68,319	12,467	227,471	170,591	97,432	26,483	294,506	317,276	165,751	38,950	521,977
Flat, maisonette or apartment	49,861	29,481	7,072	86,414	71,881	60,342	22,823	155,046	121,742	89,823	29,895	241,460
Caravan or other mobile or temporary structure	533	214	36	783	412	245	62	719	945	459	98	1,502
Households in shared accommodation	**72**	**26**	**7**	**105**	**70**	**41**	**23**	**134**	**142**	**67**	**30**	**239**
Communal establishment	**2,911**	**4,372**	**3,305**	**10,588**	**3,017**	**10,040**	**16,077**	**29,134**	**5,928**	**14,412**	**19,382**	**39,722**
Medical and care establishment	2,549	4,165	3,232	9,946	2,866	9,743	15,817	28,426	5,415	13,908	19,049	38,372
Other type of establishment	362	207	73	642	151	297	260	708	513	504	333	1,350
Tenure												
Owns outright	107,593	49,983	9,235	166,811	125,593	69,819	19,415	214,827	233,186	119,802	28,650	381,638
Owns with a mortgage or loan	26,901	9,616	1,588	38,105	30,415	14,929	3,688	49,032	57,316	24,545	5,276	87,137
Shared ownership	756	408	72	1,236	981	695	203	1,879	1,737	1,103	275	3,115
Rented from local authority	43,658	25,554	5,201	74,413	59,258	45,348	14,719	119,325	102,916	70,902	19,920	193,738
Other social rented	8,263	5,282	1,342	14,887	12,053	11,190	4,613	27,856	20,316	16,472	5,955	42,743
Private rented	5,282	2,938	715	8,935	5,826	4,861	2,022	12,709	11,108	7,799	2,737	21,644
Living rent free	4,698	4,259	1,429	10,386	8,828	11,218	4,731	24,777	13,526	15,477	6,160	35,163
Living in a communal establishment	2,911	4,372	3,305	10,588	3,017	10,040	16,077	29,134	5,928	14,412	19,382	39,722

Source: Census 2001. http://www.gro-scotland.gov.uk/files/theme16-23.xls

Table 3.7: Family type, adults aged 65 years and over (number), Scotland, Census 2001

	Males				Females				All			
	65 – 74 years	75 – 84 years	85 years and over	65+ years	65 – 74 years	75 – 84 years	85 years and over	65+ years	65 – 74 years	75 – 84 years	85 years and over	65+ years
Lone parent family	4462	3384	1091	8937	15253	12562	5240	33055	19715	15946	6331	41992
Married couple family	144282	60432	7978	212692	123010	40546	3809	167365	267292	100978	11787	380057
Cohabiting couple family	3282	909	170	4361	2218	665	156	3039	5500	1574	326	7400
Not living in a family but with others in the household	6965	4916	1580	13461	10518	10713	4901	26132	17483	15629	6481	39593
Living alone	38160	28399	8763	75322	91955	93574	35285	220814	130115	121973	44048	296136
Living in a communal establishment	2911	4372	3305	10588	3017	10040	16077	29134	5928	14412	19382	39722

Source: Census 2001. http://www.gro-scotland.gov.uk/files/theme16-23.xls

Table 3.8: Family type, adults aged 65 years and over (percentage), Scotland, Census 2001

	Males				Females				All			
	65 – 74 years	75 – 84 years	85 years and over	65+ years	65 – 74 years	75 – 84 years	85 years and over	65+ years	65 – 74 years	75 – 84 years	85 years and over	65+ years
Lone parent family	2.23%	3.30%	4.77%	2.75%	6.20%	7.47%	8.00%	6.89%	4.42%	5.89%	7.17%	5.22%
Married couple family	72.12%	59.01%	34.86%	65.37%	50.01%	24.12%	5.82%	34.90%	59.93%	37.33%	13.34%	47.22%
Cohabiting couple family	1.64%	0.89%	0.74%	1.34%	0.90%	0.40%	0.24%	0.63%	1.23%	0.58%	0.37%	0.92%
Not living in a family but with others in the household	3.48%	4.8 0%	6.90%	4.14%	4.28%	6.37%	7.49%	5.45%	3.92%	5.78%	7.34%	4.92%
Living alone	19.07%	27.73%	38.29%	23.15%	37.38%	55.67%	53.90%	46.05%	29.17%	45.09%	49.85%	36.79%
Living in a communal establishment	1.46%	4.27%	14.44%	3.25%	1.23%	5.97%	24.56%	6.08%	1.33%	5.33%	21.94%	4.94%

Source: Census 2001. http://www.gro-scotland.gov.uk/files/theme16-23.xls

4 Health related behaviours

This section covers:

- Smoking
- Alcohol use
- Diet and nutrition
- Physical activity

For ease of reading, large data tables are included at the end of the chapter.

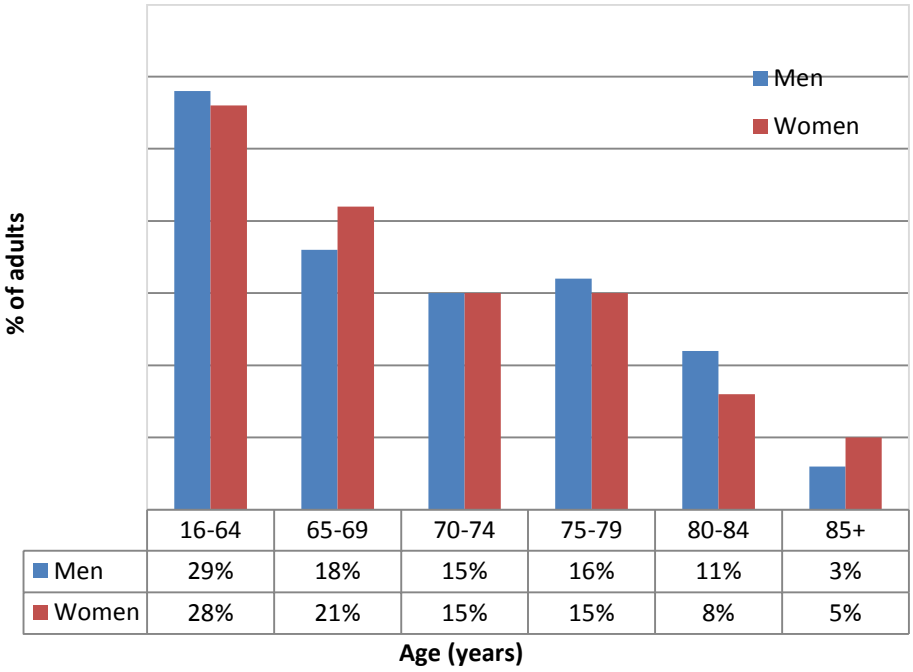
Key points:

- ❖ Smoking prevalence diminishes with age, with smoking prevalence in those over 65 years about half that of the population as a whole (Figure 4.1).
- ❖ Harmful and hazardous drinking reduce with age, as does average alcohol consumption (Figure 4.2). However, 1 in 3 men and 1 in 7 women aged 65+ still exceed the weekly and/or daily alcohol Government guidelines (Table 4.4).
- ❖ Adherence to the recommendation to consume 5 or more portions of fruit and vegetables per day is poor across all age groups, and if anything reduces with age, especially in those aged 85 and over (Figure 4.3).
- ❖ Most people do not meet the recommendation of 30 minutes of moderate to vigorous physical activity at least 5 days per week, and this reduces markedly in those aged 65 or more and reduces further with older age (Figure 4.4). Physical activity levels are lower among older women than men.
- ❖ The data presented in this chapter focuses on current levels of smoking, alcohol use, fruit/vegetable consumption and physical activity. However, the impact of these lifestyle factors on health also depends on their cumulative effects over a lifetime.
- ❖ The health of future cohorts of older people will be influenced by the lifestyle choices made during their life course. Future cohorts of older people may therefore experience better or worse health than older people at present, depending on the lifestyle choices made during their life course. This has important implications for primary and secondary prevention and the development of a life course approach to healthy ageing.

4.1 Smoking

Smoking prevalence seems to diminish with age (Figure 4.1). The combined results of the Scottish Health Survey 2008, 2009 and 2010 show that smoking in those over 65 years is about half that of the population as a whole (Table 4.2). The lower prevalence of smoking in older age reflects, in part, former smokers giving up smoking in middle age and also older smokers dying prematurely.

Figure 4.1: Percentage of current cigarette smokers, by age and sex



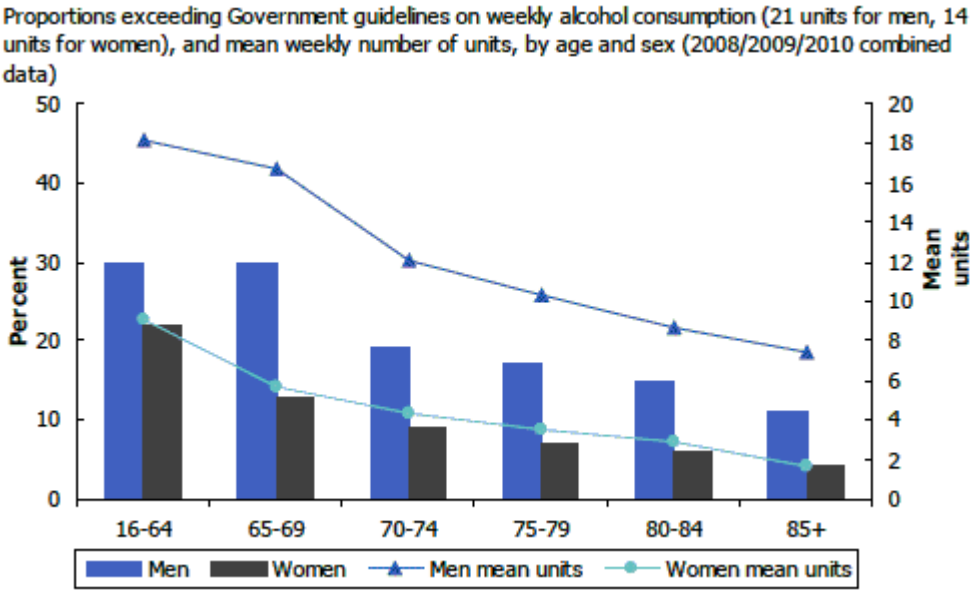
	16-64	65-69	70-74	75-79	80-84	85+
Men	29%	18%	15%	16%	11%	3%
Women	28%	21%	15%	15%	8%	5%

2008/2009/2010 data combined
Source: Scottish Health Survey (2011)

4.2 Alcohol use

The combined results of the Scottish Health Survey 2008, 2009 and 2010 show that harmful and hazardous drinking reduce with age, as does average alcohol consumption (Figure 4.2, Table 4.3).

Figure 4.2: Alcohol consumption by age and sex



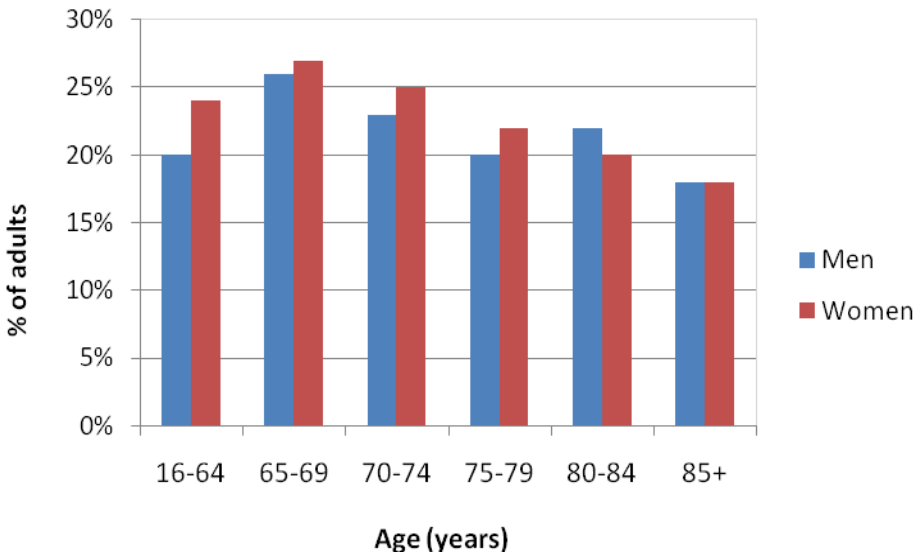
Source: Scottish Health Survey (2011)

While the proportion of men and women exceeding the weekly and/or daily alcohol guidelines falls with increasing age, a significant proportion of older people (1 in 3 men and 1 in 7 women aged 65+) still exceed the guidelines (Table 4.4).

4.3 Diet and nutrition

Adherence to the recommendation to consume 5 or more portions of fruit and vegetables per day is poor across all age groups, and if anything reduces with age, especially in those aged 85 and over (Figure 4.3, Table 4.1).

Figure 4.3: Fruit & vegetable consumption by age and sex - percentage of adults eating 5 or more portions of fruit and vegetables per day



2008/2009/2010 data combined
Source: Scottish Health Survey (2011)

Table 4.1: Prevalence of fruit and vegetable consumption, by age and sex

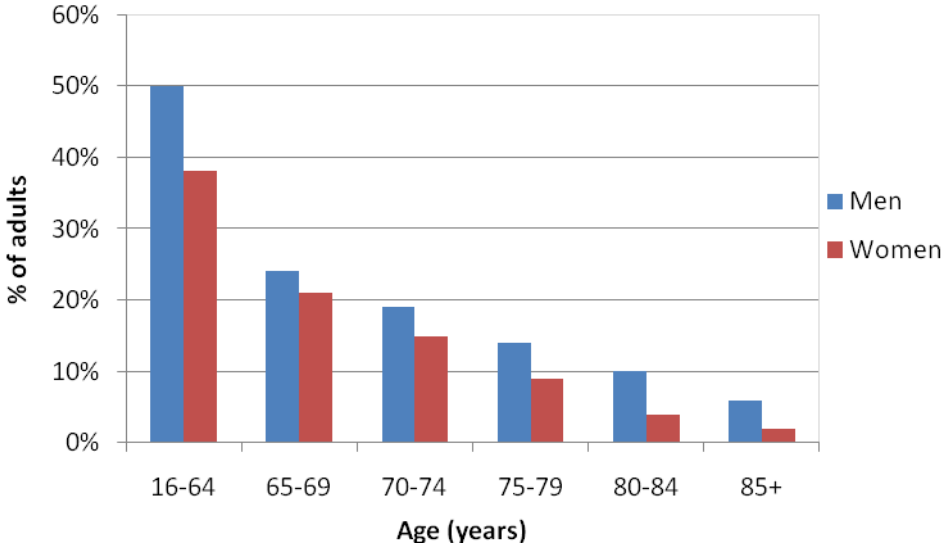
Portions per day		Age (years)						Total 65+
		16-64	65-69	70-74	75-79	80-84	85+	
MEN:	5 portions or more	20%	26%	23%	20%	22%	18%	23%
	Mean portions	3	3.4	3.3	3.1	3.3	3.3	3.3
WOMEN:	5 portions or more	24%	27%	25%	22%	20%	18%	23%
	Mean portions	3.4	3.6	3.5	3.4	3.2	3.1	3.4
ALL ADULTS:	5 portions or more	22%	27%	24%	21%	21%	18%	23
	Mean portions	3.2	3.5	3.4	3.3	3.3	3.2	3.4

2008/2009/2010 data combined
Source: Scottish Health Survey (2011)

4.4 Physical activity

Most people do not meet the recommendation of 30 minutes of moderate to vigorous physical activity at least 5 days per week, and this reduces markedly in those aged 65 or more and reduces further with age (Figure 4.4, Table 4.5). At the age of 85 or more only 3% meet the recommended levels of physical activity.

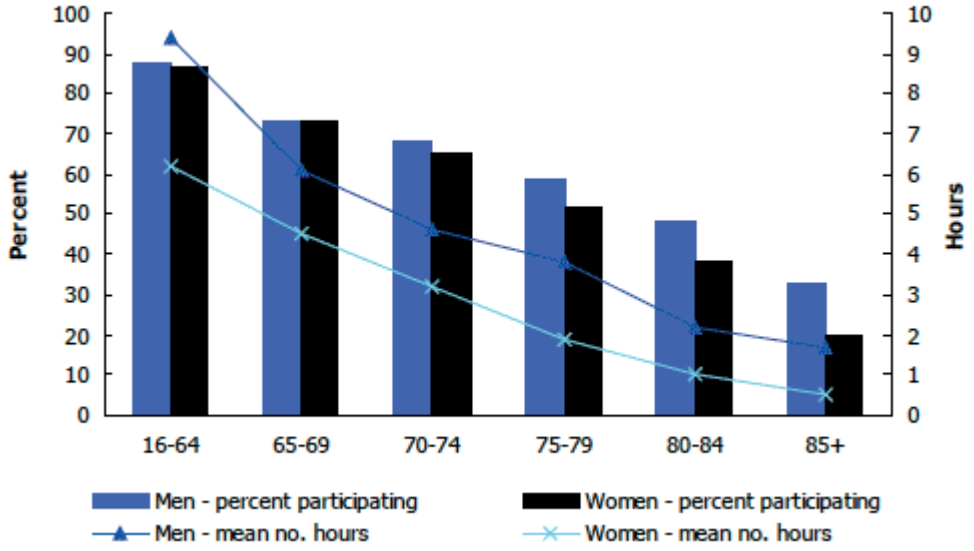
Figure 4.4: Proportion of adults meeting the physical activity recommendations of 30 minutes or more of moderate or vigorous physical activity on at least 5 days a week, by age and sex



2008/2009/2010 data combined, Source: Scottish Health Survey (2011)

The proportion of adults participating in lower levels of physical activity also shows reducing levels of physical activity with increasing age and lower physical activity levels among older women than men (Figure 4.5).

Figure 4.5: Percentage of adults participating in any physical activity in the last 4 weeks (for at least 10 minutes), by age and sex



2008/2009/2010 data combined, Source: Scottish Health Survey (2011)

4.5 Cumulative effects of lifestyle

The data presented in sections 4.1 to 4.4 focus on current levels of smoking, alcohol use, fruit & vegetable consumption and physical activity. However, it should be remembered that the impact of these lifestyle factors on health also depend on their cumulative effects over a lifetime - not just on current behaviour.

Looking to the future, the health of future cohorts of older people will be influenced by their smoking behaviour, alcohol intake, diet and physical activity levels - future cohorts of older people may therefore experience better or worse health than older people at present, depending on the lifestyle choices made during their life course. This has important implications for primary and secondary prevention and the development of a life course approach to healthy ageing. This is discussed further in Chapter 10.

Table list

Table 4.2: Prevalence of smoking, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Cigarette smoking status	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
							Men
Never smoked cigarettes at all	48	32	36	33	31	35	33
Used to smoke cigarettes occasionally	4	3	2	3	3	5	3
Used to smoke cigarettes regularly	19	48	47	48	55	57	49
Current cigarette smoker	29	18	15	16	11	3	15
							Women
Never smoked cigarettes at all	49	41	51	48	53	56	48
Used to smoke cigarettes occasionally	5	5	5	4	6	9	5
Used to smoke cigarettes regularly	18	33	29	32	34	30	32
Current cigarette smoker	28	21	15	15	8	5	14
							All adults
Never smoked cigarettes at all	49	37	44	42	44	50	42
Used to smoke cigarettes occasionally	5	4	4	4	5	8	4
Used to smoke cigarettes regularly	18	40	37	39	42	38	39
Current cigarette smoker	28	19	15	15	9	4	14

Source: Scottish Health Survey (2011)

Table 4.3: Estimated usual weekly alcohol consumption, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Drinking category [a]/ alcohol units per week	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
							Men
Never drank	4	3	4	5	7	11	5
Ex-drinker	5	10	12	13	15	15	12
Moderate	61	58	65	64	64	63	62
Hazardous	23	23	16	15	14	10	18
Harmful	7	7	3	2	1	1	4
Drank over 21 units per week	*30*	*30*	*19*	*17*	*15*	*11*	*21*
Mean units per week	18.1	16.7	12.1	10.3	8.7	7.4	12.5
Standard error of mean	0.41	0.85	0.64	0.69	0.99	0.99	0.39
							Women
Never drank	6	10	12	20	21	27	16
Ex-drinker	6	11	11	10	12	13	11
Moderate	66	65	67	62	61	56	64
Hazardous	18	11	8	7	5	3	7
Harmful	4	2	1	-	1	1	1
Drank over 14 units per week	*22*	*13*	*9*	*7*	*6*	*4*	*8*
Mean units per week	9.1	5.7	4.3	3.5	2.9	1.7	4.0
Standard error of mean	0.19	0.36	0.31	0.35	0.37	0.35	0.17
							All adults
Non drinker (never or ex)	11	17	20	25	29	35	23
Moderate	64	62	66	64	62	59	63
Hazardous	20	17	12	10	8	5	12
Harmful	5	5	5	2	1	1	1
Drank over 14/21 units per week	*26*	*21*	*14*	*11*	*9*	*6*	*14*
Mean units per week	13.5	10.8	7.9	6.3	5.2	3.5	7.7
Standard error of mean	0.24	0.48	0.38	0.37	0.49	0.42	0.23

a Moderate: >0 up to 21 (men) or 14 (women) units; Hazardous: >21 up to 50 (men) or >14 up to 35 (women) units; Harmful: >50 (men) or >35 (women) units.

Source: Scottish Health Survey (2011)

Table 4.4: Adherence to weekly and daily drinking advice, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Adherence to weekly and daily drinking advice	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
Men							
Never drunk alcohol	4	3	4	5	7	11	5
Ex drinker	5	10	12	13	15	15	12
Drinks within government guidelines [a]	37	43	50	57	59	59	51
Drinks outwith government guidelines [b]	53	45	34	26	19	15	33
Women							
Never drunk alcohol	6	10	12	20	21	27	16
Ex drinker	6	11	11	10	12	13	11
Drinks within government guidelines [a]	43	55	58	57	61	56	57
Drinks outwith government guidelines [b]	45	24	18	12	6	5	15
All adults							
Never drunk alcohol	5	7	9	14	15	22	11
Ex drinker	6	10	12	11	13	13	12
Drinks within government guidelines [a]	40	49	54	57	60	57	55
Drinks outwith government guidelines [b]	49	34	26	18	11	8	23

[a] Drank no more than 4 units (men) or 3 units (women) on heaviest drinking day, **and** drank no more than 21 units (men) or 14 units (women) in usual week.
[b] Drank more than 4 units (men) or 3 units (women) on heaviest drinking day, **and/or** drank more than 21 units (men) or 14 units (women) in usual week.

Source: Scottish Health Survey (2011)

Table 4.5: Summary of physical activity levels, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Summary activity level [a]	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
							Men
Meets recommendations	50	24	19	14	10	6	17
Some activity	27	30	28	26	18	10	26
Low activity	23	46	53	60	72	84	57
							Women
Meets recommendations	38	21	15	9	4	2	12
Some activity	36	35	30	23	18	7	26
Low activity	25	44	56	68	78	91	62
							All adults
Meets recommendations	44	22	17	11	7	3	14
Some activity	32	33	29	24	18	8	26
Low activity	24	45	55	65	76	89	60

a Meets recommendations: 30 minutes or more on at least 5 days a week; Some activity= 30 minutes or more on 1 to 4 days a week; Low activity= fewer than 30 minutes of moderate or vigorous activity a week.

Source: Scottish Health Survey (2011)

5 Health status

This section covers:

- Life expectancy
- Self-reported health status
- Limiting long term conditions
- Mental wellbeing
- Disability
- Sensory impairment
- Adults with Incapacity applications
- Dental health
- Obesity
- High blood pressure
- The occurrence of specific health problems common in older age
- Multiple morbidity

For ease of reading, large data tables are included at the end of the chapter.

Key points:

Life expectancy:

- Life expectancy in Scotland has increased dramatically over time (Table 5.11). Life expectancy at birth for those born around 2010 is currently 76.1 years for men and 80.6 years for women.
- People in Scotland aged 65 might expect, on average, to live another 15-20 years and those aged 75 another 10-12 years (Table 5.12).
- Improvements in life expectancy at birth are projected to continue, rising to 80.9 years for men and 85.1 years for women by 2035.
- While life expectancy is improving, important inequalities exist with more deprived populations experiencing lower life expectancy (Figure 5.1) and geographical variations in life expectancy at birth by local authority area (Figure 5.2) and NHS Board area (Figure 5.3).
- While life expectancy measures how many years a person might be expected to live, it does not take account of how healthy someone is during their life. 'Healthy life expectancy' is discussed in chapter 10.

Self-reported health status:

- The proportion of adults rating their health as 'good' or 'very good' reduces with increasing age (Figure 5.4).
- The reporting of poor or very poor health among those aged 65 and over is associated with deprivation, smoking status, and alcohol consumption.

Limiting long term conditions:

- Two-thirds of men and women aged 65 years and over in the Scottish Health Survey reported a long-term health condition (Table 5.14). The prevalence of limiting long-term conditions increases with age.

- 1 in 3 of all adults aged over 65 have a self-reported long term condition (LTC) of the musculoskeletal system. 1 in 4 have a LTC relating to the heart and circulatory system, and 1 in 10 a LTC relating to the respiratory system (Table 5.15)

Mental wellbeing:

- Mental wellbeing, as measured by the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), is higher among adults aged 65 and over than those aged 16-64, though decreases with age among older adults (Figure 5.5).

Disability:

- In the Scottish Household Survey, the prevalence of disability and/or long-term illness for both men and women increases steadily with age (Figure 5.6).

Sensory impairment:

- Almost two-thirds of those registered as visually impaired are aged over 75 years (Figure 5.7).

- Around 16/1000 people aged 65 and over are registered blind. This prevalence rate has fallen somewhat in recent years, partially off-set by an increase in those registered as partially sighted (currently about 13/1000) (Figure 5.8).

- 541,500 people of retirement age in Scotland have some significant hearing loss, with 56,500 of these having a hearing loss that is profound/ severe (Table 5.1)

- More than 70% of over 70 year-olds and 40% of over 50 year-olds have some form of hearing loss. The prevalence of hearing loss increases considerably with age (Figure 5.9). Changes in population demographics will, therefore, have important implications for future services.

'Clinical risk factors':

- *Obesity:* Mean Body Mass Index (BMI) increases with age from age 65, but then decreases from age 80 onwards. The prevalence of overweight and obesity both peak at age 65 to 69 (Figure 5.11).

- *High blood pressure:* More than 2/3 of those aged 65 and over have high blood pressure. This is 'uncontrolled' in a third of cases overall rising to 2/3 in those aged 85 and over (Table 5.19).

Occurrence of specific health problems common in older age:

- ❖ 16% of those over 75 and 12% of those aged 65-74 years have a diagnosis of Coronary Heart Disease (Table 5.3).

Multiple morbidity:

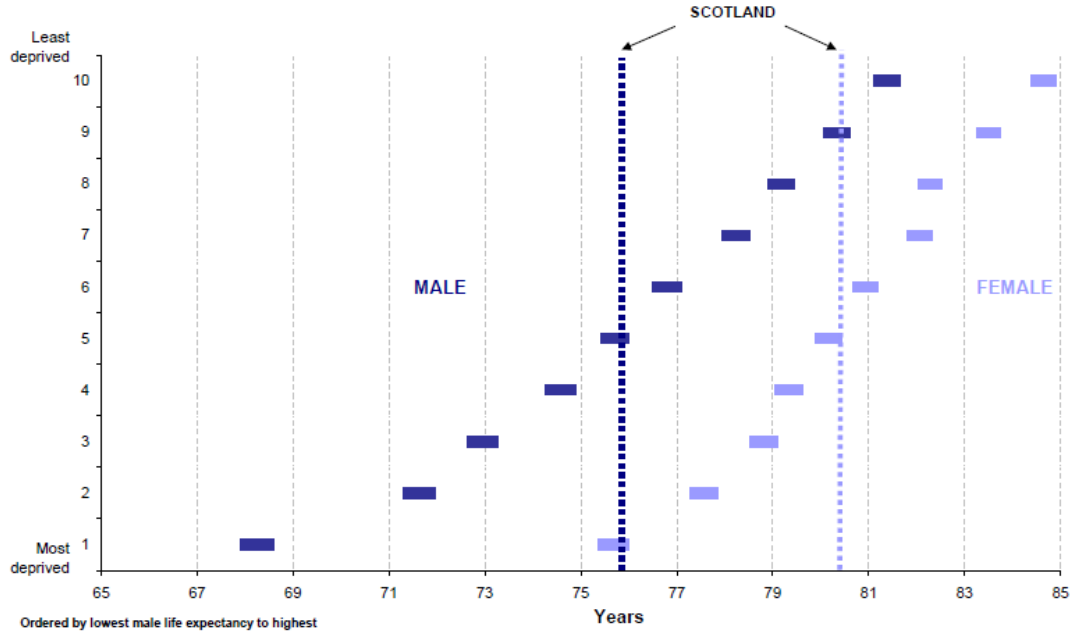
- ❖ Managing multiple, long term conditions is one of the biggest challenges facing the health care system.
- ❖ The prevalence of multimorbidity increases substantially with age. By age 50 years, half of the population have at least one morbidity, and by age 65 years most are multimorbid (Figure 5.13).
- ❖ Onset of multimorbidity occurs 10-15 years earlier in people living in the most deprived areas compared with the most affluent.

5.1 Life expectancy

Life expectancy is a useful measure of the health status of a population. In summary:

- Life expectancy in Scotland has increased dramatically over time (Table 5.11).
- The expectation of life at birth in Scotland is currently 76.1 years for men and 80.6 years for women for those born around 2010 (Scottish Government, 2012).
- Improvements in life expectancy at birth are projected to continue, rising to 80.9 years for men and 85.1 years for women by 2035 (Scottish Government, 2012). It is projected that around one-third of babies born in 2012 in the United Kingdom will survive to celebrate their 100th birthday (ONS, 2012).
- On reaching age 65, a Scottish man will then, on average, live until age 81 and a women until age 84 (Table 5.12). At the age of 85, men and women will, on average, live until age 90 and 91 respectively.
- While life expectancy is improving, important inequalities exist. Scottish males and females have the lowest life expectancy at birth in the United Kingdom and life expectancy for males is lower than that of females (National Records of Scotland, 2011b). Deprivation also has an important impact on life expectancy, with more deprived populations experiencing lower life expectancy (Figure 5.1).

Figure 5.1: Life expectancy at birth, 95% confidence intervals for Scottish Index of Multiple Deprivation 2009 Deciles, 2008-2010 (Males and Females)

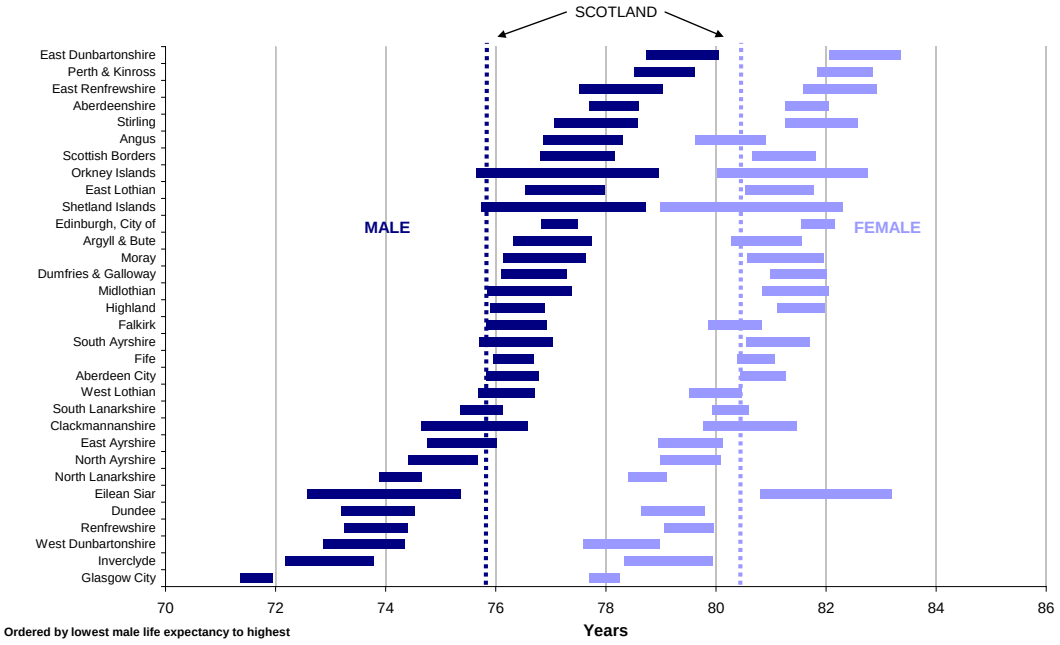


Source: National Records of Scotland, 2011b

- Geographical variations in life expectancy at birth by local authority area (Figure 5.2) and NHS Board area (Figure 5.3) are shown below. For males, the local authority area with the lowest life expectancy is Glasgow City (71.6 years) and the local authority area with the highest life expectancy is East Dunbartonshire (79.4 years), a difference of 7.8 years between highest and lowest. The NHS Board area with the lowest life expectancy is Greater Glasgow & Clyde NHS Board (for both males and females).

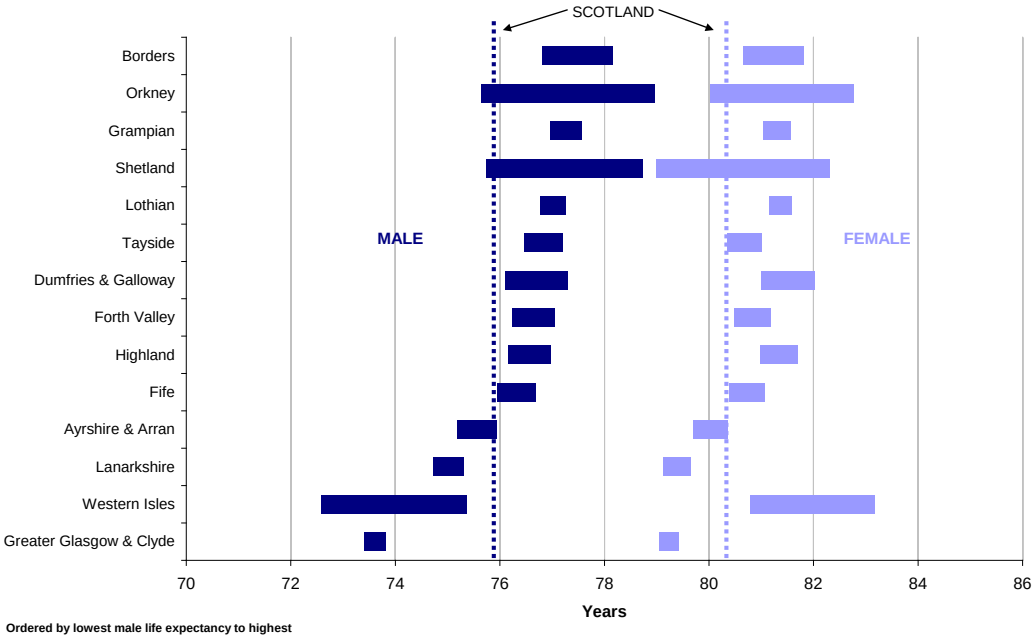
- While life expectancy is a useful measure, it does not take account of how healthy someone is during their life. ‘Healthy life expectancy’ (which estimates how long the average person might be expected to live in a 'healthy' state) is discussed in chapter 10.

Figure 5.2: Life expectancy at birth, 95% confidence intervals for local authority areas, 2008-2010 (males and females)



Source: National Records of Scotland, 2011b

Figure 5.3: Life expectancy at birth, 95% confidence intervals for NHS Board areas, 2008-2010 (Males and Females)



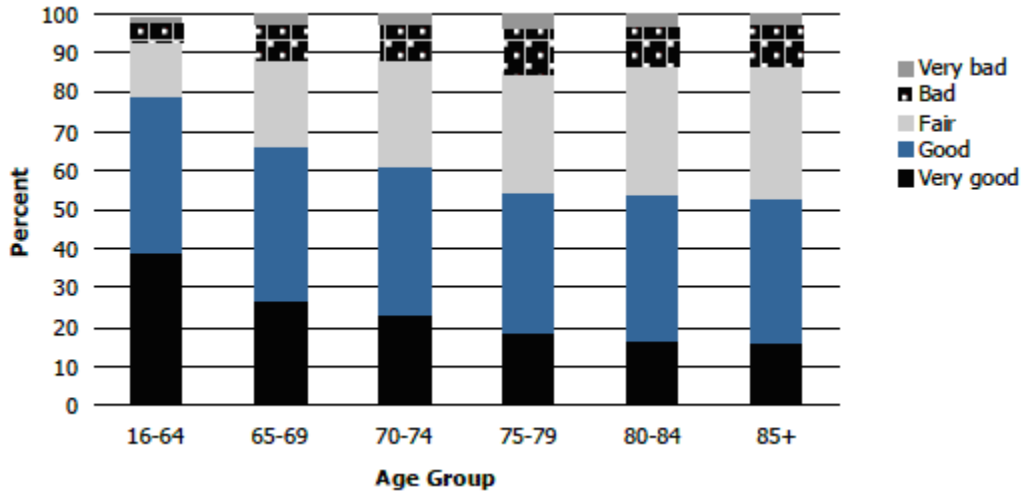
Source: National Records of Scotland, 2011b

5.2 Self-reported health status

The Scottish Health Survey asks respondents how they rate their health at the point of survey. Self-assessed general health varied significantly with age but not by sex. The proportion rating their health as 'good' or 'very good' was 80% for adults aged under 65 but only 59% for those aged 65 or more, with an age-related decline within the over 65s (Figure 5.4, Table 5.13).

While the proportion reporting 'bad' or 'very bad' health was significantly higher in adults aged 65 and over (12%) than in those aged 16-64 years (6%), this did not vary by age across the older age groups. Reporting poor or very poor health among those aged 65 and over was associated with deprivation, smoking status, and alcohol consumption (Scottish Health Survey, 2011).

Figure 5.4: Self assessed general health, by age



2008/2009/2010 data combined
Source: Scottish Health Survey (2011)

Self-reported health data by age from Scotland's 2011 Census is due to be released from early summer 2013.

5.3 Limiting long term conditions

Two-thirds of men and women aged 65 years and over in the Scottish Health Survey reported a long-term health condition, compared with around one third of men and women aged 16-64 years (Table 5.14). Among those aged 65+, the prevalence of limiting long-term conditions increases with age.

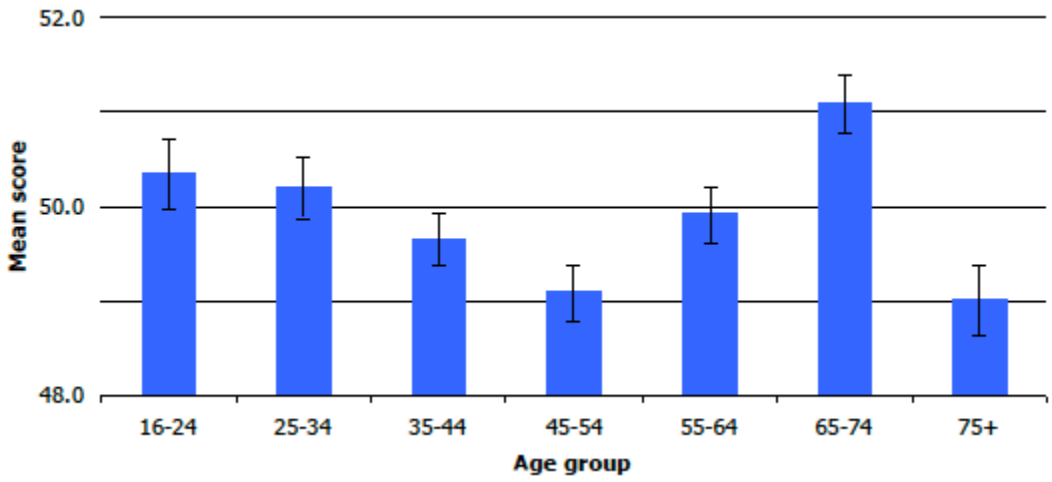
The three most common categories of conditions reported by adults aged 65 and over were musculoskeletal conditions, conditions of the heart and circulatory system, and endocrine and metabolic disorders (Table 5.15).

Data on self-reported long-term conditions by age from Scotland's 2011 Census is due to be released from early autumn 2013.

5.4 Mental wellbeing

In the Scottish Health Survey, mental wellbeing (as measured by the Warwick-Edinburgh Mental Wellbeing Scale - WEMWBS[1]) shows a slight rise in early old age (65-74 years) compared to 16-64 year age groups and a fall from 80 years, with a small increase in those categorised as having 'poor' mental wellbeing in this group (Table 5.16). Similar data (broken down by different age bands) is presented in Figure 5.5.

Figure 5.5: WEMWBS mean score, by age



2008-2011 data combined.
Source: Scottish Health Survey (2012)

Among adults aged 65 and over, the odds of having poor wellbeing were higher in men who were single, divorced or separated, and men and women who were widowed or surviving civil partners, compared with married or cohabiting people (Scottish Health Survey, 2011). The odds of poor wellbeing were also higher among people with a long-term condition (compared with those without), and among people with low physical activity levels (compared with people who did the recommended weekly amount of activity).

[1] The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) has 14 items designed to assess: positive affect (optimism, cheerfulness, relaxation) and satisfying interpersonal relationships and positive functioning (energy, clear thinking, self-acceptance, personal development, mastery and autonomy). The scale uses positively worded statements with a five-item scale ranging from '1 - None of the time' to '5 - All of the time'. The lowest score possible is therefore 14 and the highest score possible is 70. Higher scores therefore indicate higher levels of mental wellbeing.

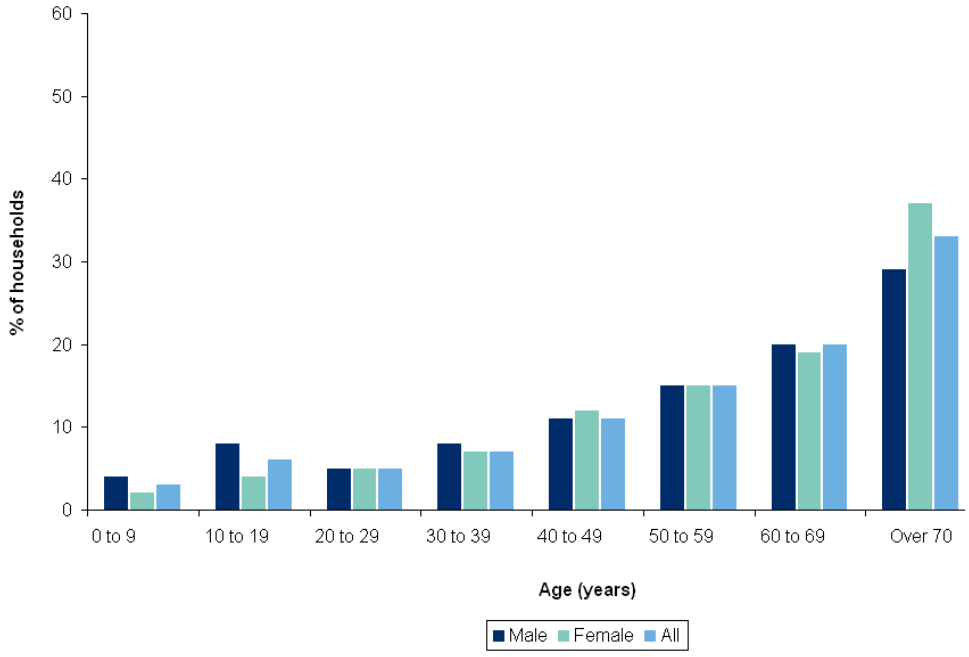
5.5 Disability

Disability is difficult to define and, therefore, the prevalence of disability is difficult to measure. The Scottish Household Survey provides subjective data on disability by asking participants whether anyone in their household, including children, has:

> "*Any long-standing illness, health problem or disability that limits your/their daily activity or the kind of work that you/they can do? By disability as opposed to ill-health, I mean a physical or mental impairment, which has a substantial and long-term adverse effect on their ability to carry out normal day to day activities.*"

For both men and women, the prevalence of disability - using this definition - increases steadily with age (Figure 5.6, Table 5.17).

Figure 5.6: Household members with a disability and/or long-term illness, by age and sex



2011 data. Source: Scottish Household Survey (2012).

Self-reported disability data by age from Scotland's 2011 Census is due to be released from early autumn 2013.

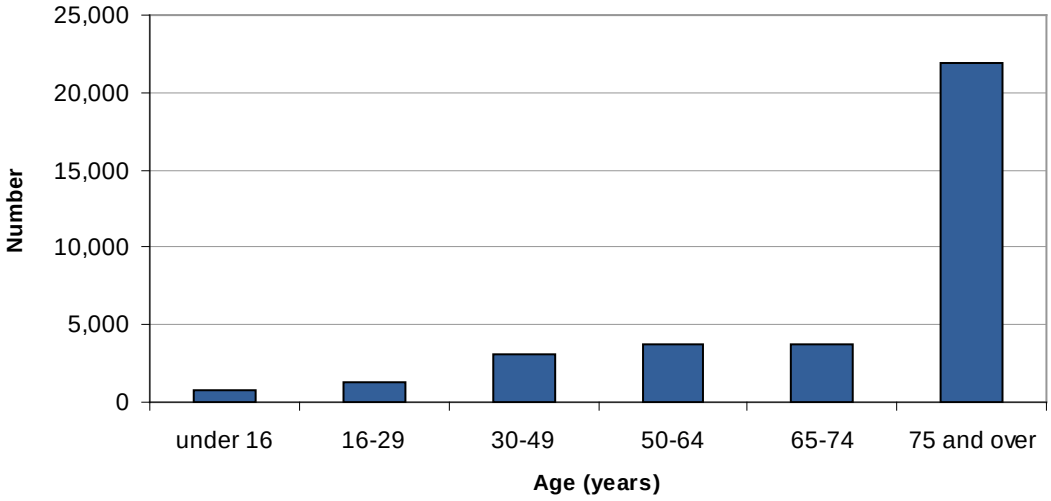
5.6 Sensory impairment

5.6.1 Blindness and partial sightedness

In 2010, the number of people in Scotland registered as blind or partially sighted was estimated to be 34,492 (Scottish Government, 2010). Registration with Local Authorities for blind and partially sighted persons is not compulsory, however, and it is estimated that only between a quarter and a third of visually impaired people are registered with Local Authorities.

The number of registrations increases with age, with approximately two-thirds (64%) of those registered as visually impaired being over the age of 75 (Figure 5.7). A significant proportion of those registered as visually impaired also have additional disabilities (Scottish Government, 2010).

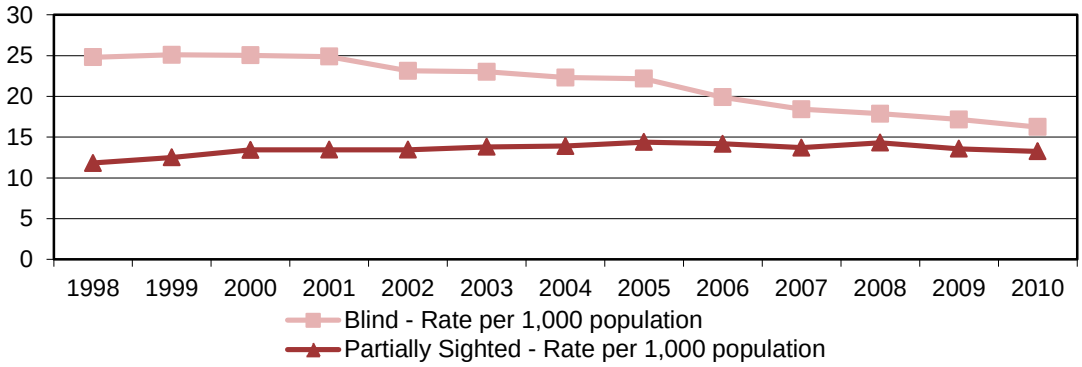
Figure 5.7: Registered Visually Impaired Persons by Age Group, Scotland, 2010



Source: Registration of Blind and Partially Sighted Persons Return Form SWB Scottish Government (2010)

About 16/1000 people aged 65 and over are registered blind. This prevalence rate has fallen somewhat in recent years, partially off-set by an increase in those registered as partially sighted (currently about 13/1000) (Figure 5.8).

Figure 5.8: Number of people registered as visually impaired, Aged 65 plus in Scotland, 1998-2010



Source: SEHD Community Care Statistics, SWB Return
Data by Local Authority is available from:
http://www.scotland.gov.uk/Topics/Statistics/Browse/Health/Data/RegisteredBPSinfo

Self-reported data on blindness and partial sight loss from Scotland's 2011 Census is due to be released from early autumn 2013.

5.6.2 Deafness & hearing impairment

Accurate data on the prevalence of hearing impairment is not known but it has been estimated that 730,000 adults in Scotland have hearing loss (PHIS, 2003). More recent estimates are higher (Table 5.1). More than 70% of over 70 year-olds and 40% of over 50 year-olds have some form of hearing loss (Action on Hearing Loss, 2011).

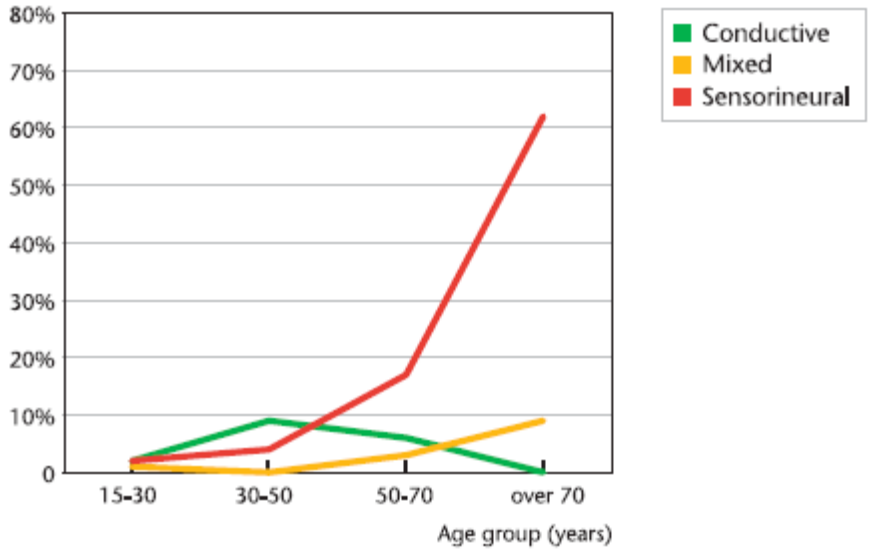
Table 5.1: Estimated number of people with hearing loss in Scotland

Scotland	Working age	Retirement age	Total
All hearing loss	326,000	541,500	867,500
Severe/ profound	13,000	56,500	69,500

Source: Action on Hearing Loss, 2011

Hearing problems arise from defects in either the middle or the inner ear. The former lead to conductive hearing losses and the latter to sensorineural hearing losses. Hearing loss in adults is predominantly sensorineural (inner ear) in origin and population prevalence in the United Kingdom increases exponentially with age (Figure 5.9). Changes in population demographics will, therefore, have important implications for future services (Scottish Government, 2009).

Figure 5.9: Prevalence of conductive, mixed and sensorineural hearing loss greater than 25 decibels hearing level (dB HL) in the better hearing ear as a function of age



Source: PHIS, 2003

Self-reported data on deafness or partial hearing loss from Scotland's 2011 Census is due to be released from early autumn 2013.

5.7 Adults with Incapacity applications

There are about 1000 new guardianship orders per year relating to people aged 65 and over, mostly relating to dementia (Table 5.2). For the purposes of the Act, “incapable” means incapable of:

- acting on decisions;
- making decisions;
- communicating decisions;
- understanding decisions; or
- retaining the memory of decisions.

Table 5.2: New guardianship orders granted under the Adults with Incapacity Act, age 65 years and over, Scotland, 1 April 2011 to 31 March 2012

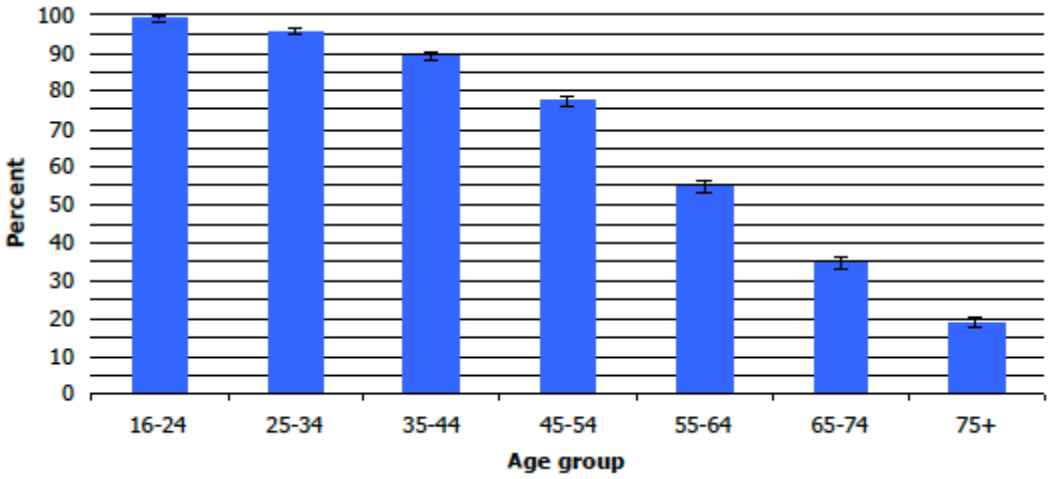
Condition	No.
Acquired Brain Injury	19
Alcohol Related Brain Disorder	21
Dementia / Alzheimer's Disease	850
Learning Disability	19
Mental Illness	15
Other	5
Total	**929**

Source: Mental Welfare Commission (Aiton, 2012)

5.8 Dental health

Dental health has a strong, linear association with age. In the Scottish Health Survey, almost all adults aged 16-24 (99%) had 20 natural teeth or more compared with one in five adults over 75 (19%) (Figure 5.10).

Figure 5.10: Proportion of adults with 20 or more natural teeth, by age



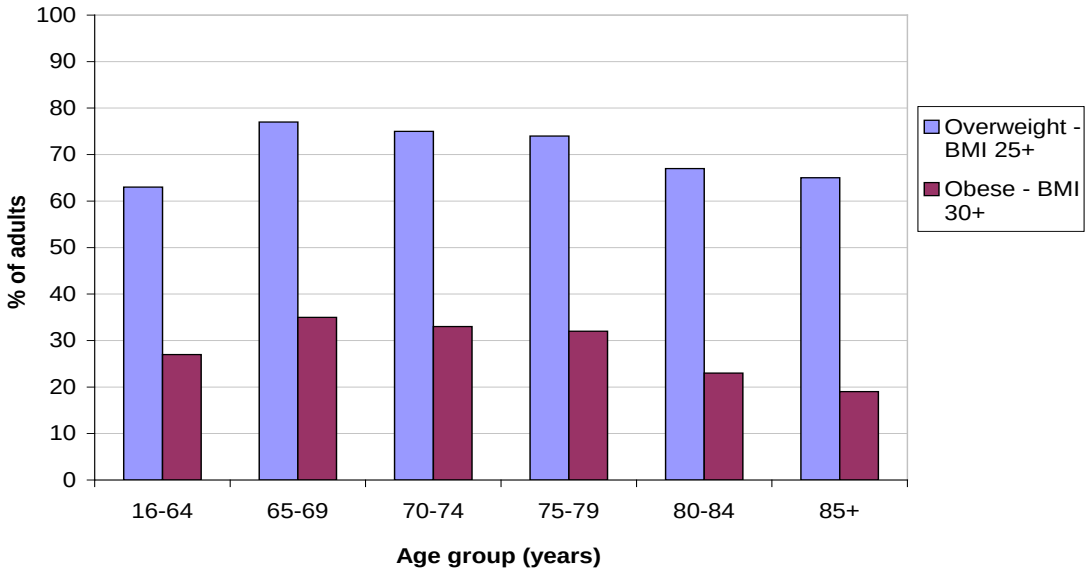
2008-2011 data combined.
Source: Scottish Health Survey (2012)

5.9 'Clinical risk factors'

5.9.1 Obesity

Mean Body Mass Index (BMI) increases with age from age 65, but then decreases from age 80 onwards. The prevalence of overweight and obesity both peak at age 65 to 69 (Figure 5.11, Table 5.18).

Figure 5.11: Variation in prevalence of overweight and obesity with age (males & females combined)



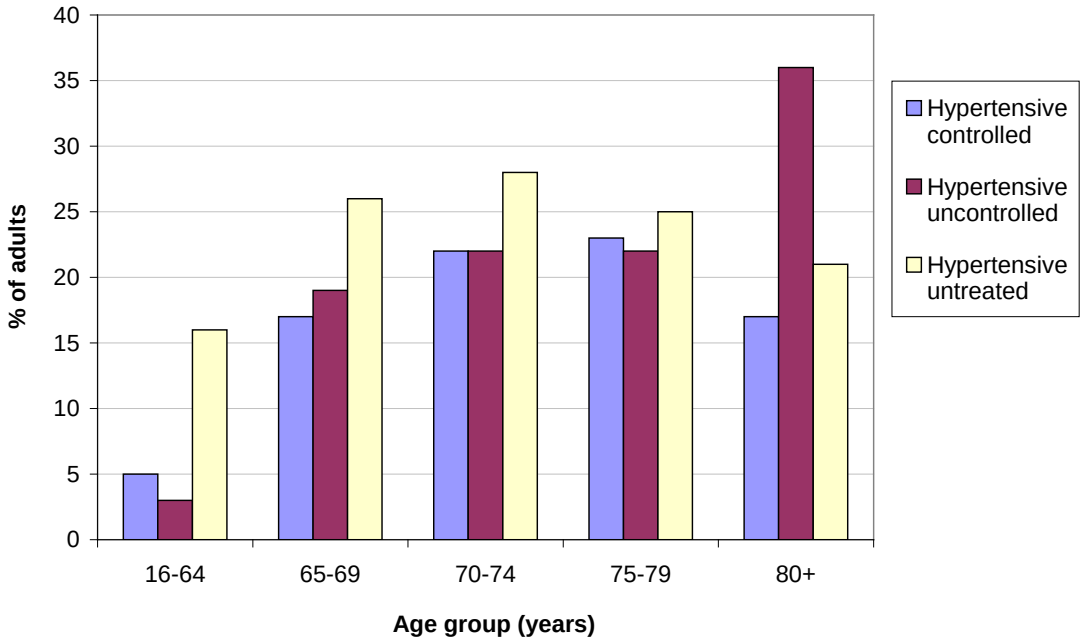
2008/2009/2010 data combined
Source: Scottish Health Survey (2011)

5.9.2 High Blood Pressure

The prevalence of high blood pressure (hypertension) is considerably greater in those aged 65 and over compared to adults under 65, with a further increase with age thereafter (Table 5.19). More than two thirds of those aged 65 and over have high blood pressure, which is controlled in only a third of cases.

Control seems to be a particular problem in those aged over 80, where more than half of the population is known to have high blood pressure, but in two thirds of these people blood pressure is uncontrolled (Table 5.19, Figure 5.12).

Figure 5.12: Blood pressure status, by age (males & females combined)



2008/2009/2010 data combined
Source: Scottish Health Survey (2011)

5.10 The occurrence of specific health problems common in older age

Data on the following specific conditions are presented below, where available.

- Heart Disease
- Stroke
- Diabetes & its complications
- Chronic Obstructive Pulmonary Disease (COPD)
- Arthritis
- Dementia
- Anxiety & Depression
- Cataracts
- Parkinsonism
- Motor Neurone Disease
- Falls & Injuries
- General Frailty/Vulnerability
- Cancer
- Multiple Morbidity

5.10.1 Heart Disease

16% of those over 75 and 12% of those aged 65-74 years have a diagnosis of Coronary Heart Disease (CHD) (Table 5.3).

Table 5.3: Coronary heart disease prevalence rates by age & sex

	Age Group				All Ages
	0-44	45-64	65-74	75+	
Males					
Prevalent Cases	2192	39339	37607	34310	113448
Crude prevalent rate per 100 population	0.14	5.29	16.85	22.47	4.16
Females					
Prevalent Cases	914	16833	21013	30539	69299
Crude prevalent rate per 100 population	0.06	2.28	8.26	12.46	2.50
Both Sexes					
Prevalent Cases	3106	56172	58620	64849	182747
Crude prevalent rate per 100 population	0.099	3.79	12.27	16.302	3.32

Source: ISD
http://www.isdscotland.org/Health-Topics/Heart-Disease/Topic-Areas/Prevalence/

5.10.2 Stroke

We can expect about 0.6% of those aged 65-74, and 1.7% of those aged 75 or more to experience a stroke each year (Table 5.4).

Table 5.4: Stroke - incidence rate

Cerebrovascular Disease (CVD) 2010	Age (years)	
	65-74	75+
Males		
Incidence	1451	2652
Crude rate per 100,000 population	667.38	1756.73
Standardised rate per 100,000 population	659.48	1786.82
Females		
Incidence	1257	4305
Crude rate per 100,000 population	497.68	1738.98
Standardised rate per 100,000 population	488.18	1615.41
Both Sexes		
Incidence	2708	6957
Crude rate per 100,000 population	576.18	1745.71
Standardised rate per 100,000 population	573.83	1701.12

Source: ISD
http://www.isdscotland.org/Health-Topics/Stroke/Topic-Areas/Incidence/

5.10.3 Diabetes

Diabetes prevalence increases with age (Table 5.5).

Table 5.5: Prevalence of total (diagnosed and undiagnosed) diabetes by age group, Scotland

Year	Sex	Age (years)						
		16-24	25-34	35-44	45-54	55-64	65-74	75+
2009	**Males**	1.16%	0.43%	0.72%	5.85%	15.81%	18.75%	22.77%
	Females	2.44%	2.13%	3.63%	3.74%	7.57%	11.51%	12.40%
2010	**Males**	1.17%	0.44%	0.72%	5.88%	15.89%	18.84%	22.89%
	Females	2.45%	2.14%	3.64%	3.76%	7.61%	11.58%	12.47%
2015	**Males**	1.20%	0.45%	0.74%	6.03%	16.29%	19.32%	23.46%
	Females	2.52%	2.21%	3.64%	3.88%	7.84%	11.92%	12.84%

Source: APHO Diabetes Prevalence Model (Holman, 2012)

At the beginning of 2012 there were 247,248 people with known diabetes in Scotland recorded on local diabetes registers, which represents a crude prevalence of 4.7% of the Scottish population (Scottish Diabetes Survey Monitoring Group, 2011). 88% of all people registered with diabetes had type 2 diabetes, while 11.4% had type 1 diabetes.

Table 5.6 shows the age of those registered with type 1 or type 2 diabetes, with the majority of the burden of type 2 disease lying within the middle/older age groups.

Table 5.6: Age group of people recorded with type 1 or type 2 diabetes, percentage in each age group and cumulative percentage in each age group, by diabetes type

	Type 1 diabetes			Type 2 diabetes		
Age	No.	%	cum. %	No.	%	cum. %
0-4	103	0.4%	0.4%	1	0.0%	0.0%
5-9	495	1.8%	2.1%	4	0.0%	0.0%
10-14	1,233	4.4%	6.5%	8	0.0%	0.0%
15-19	1,866	6.6%	13.1%	48	0.0%	0.0%
20-24	2,184	7.7%	20.8%	219	0.1%	0.1%
25-29	2,228	7.9%	28.7%	575	0.3%	0.4%
30-34	2,165	7.7%	36.3%	1,387	0.6%	1.0%
35-39	2,466	8.7%	45.1%	2,845	1.3%	2.3%
40-44	2,945	10.4%	55.5%	6,504	3.0%	5.3%
45-49	2,939	10.4%	65.9%	11,786	5.4%	10.7%
50-54	2,677	9.5%	75.3%	17,977	8.3%	19.0%
55-59	2,063	7.3%	82.6%	23,592	10.8%	29.9%
60-64	1,630	5.8%	88.4%	30,221	13.9%	43.8%
65-69	1,238	4.4%	92.8%	31,758	14.6%	58.4%
70-74	876	3.1%	95.9%	31,492	14.5%	72.8%
75-79	673	2.4%	98.3%	28,008	12.9%	85.7%
80-84	346	1.2%	99.5%	18,770	8.6%	94.3%
≥85	145	0.5%	100.0%	12,319	5.7%	100.0%
Scotland	**28,272**	**100.0%**	**100.0%**	**217,514**	**100.0%**	**100.0%**

Source: Scottish Diabetes Survey 2011 (Scottish Diabetes Survey Monitoring Group, 2011)

Table 5.7 shows the number of new cases of type 2 diabetes in Scotland by age, with a greater number of new cases occurring among older age groups. The possibility that type 2 diabetes is generally developing in people at a younger age in Scotland is currently under investigation (Scottish Diabetes Survey Monitoring Group, 2011).

Table 5.7: Number of new cases and incidence (per 100,000 population per year) of type 2 diabetes by age, Scotland 2008-2011

	2008		2009		2010		2011		
Age	Cases	Rate	Cases	Rate	Cases	Rate	Population	Cases	Rate
<10	0	0	2	0	0	0	563,578	0	0
10-19	21	3	22	4	18	3	611,694	10	2
20-29	163	24	164	24	166	24	711,906	163	23
30-39	865	127	797	120	755	116	646,100	730	113
40-49	2,451	310	2,667	335	2,555	321	791,643	2,552	322
50-59	4,235	628	4,411	653	4,287	629	690,198	4,106	595
60-69	4,998	917	5,286	944	4,870	851	582,260	4,741	814
≥70	5,255	874	5,278	867	4,925	799	624,721	4,667	747
Total	**17,988**	**350**	**18,627**	**360**	**17,576**	**338**	**5,222,100**	**16,969**	**325**

Notes: Please note that these are crude incidence figures that have been calculated retrospectively using SCI-DC data and therefore may be slightly affected by factors such as post-survey patient migration and on-going validation of diabetes classification. *Source: Scottish Diabetes Survey 2011 (Scottish Diabetes Survey Monitoring Group, 2011)*

5.10.4 Global Burden of Disease study estimates

The following table summarises the incidence and prevalence for common diseases in over 60 year olds as calculated for established market economies 1990 as part of the WHO's Global Burden of Disease study (Table 5.8) (Murray, 1996).

Table 5.8: Estimated prevalence of common conditions from the Global Burden of Disease Study 1990

1990 - Established Market Economies

Condition	Males age 60+ Incidence per 100,000	Males age 60+ Prevalence per 100,000	Females age 60+ Incidence per 100,000	Females age 60+ Prevalence per 100,000
Heart Disease:				
Ischaemic heart disease, acute myocardial infarction	1415	81.6	1089	62.9
IHD, angina pectoris	n/a	6887	n/a	2531
IHD, congestive heart failure	211.1	517.7	163	205
Inflammatory heart disease, myocarditis	0.5	1.7	0.5	1.9
Inflammatory heart disease, pericarditis	49	71.1	63	72.4
Inflammatory heart disease, endocarditis	30	87.6	30	74.3
Inflammatory heart disease, cardiomyopathy	68.9	234.7	60.7	205.5
Stroke:				
Cerebrovascular disease, first-ever stroke	767.4	5382	712.9	4551
Diabetes and its complications:				
Diabetes mellitus (cases)	936.4	17463	818	17490
Diabetic retinopathy blindness	69.9	928	70	928
COPD:				
COPD (symptomatic cases)	604.7	3511	227.7	1428
Arthritis:				
Rheumatoid arthritis (cases)	177.9	1226	395.5	2682
Osteoarthritis, hip	71.5	4621	9.7	2960
Osteoarthritis, knee	280	8427	686	18003

Dementia:				
Dementia (cases)	553.3	3893	665.2	5074
Anxiety and Depression:				
Post-traumatic stress disorder (cases)	20	69	30	98
Obsessive-compulsive disorders (cases)	318	600	427	696
Panic disorder (cases)	6.5	20	277.5	230
Unipolar major depression (depressive episodes)	983	579	1723	1004
Bipolar disorder (cases)	103	125	100	118
Cataracts:				
Cataracts, blindness	110	54.4	94	47.2
Parkinson's Disease:				
Parkinson disease (cases)	75	1068	75	1188
Falls and Injuries:				
Road traffic accidents (episodes)	340	n/a	160	n/a
RTA, fractured skull - long term	0.9	74.1	0.4	35.8
RTA, injured spinal cord	5.1	288.8	2.4	164.8
RTA, fractured femur - long term	3.5	137.5	1.7	66.4
RTA, intracranial injury - short term	85	5.7	40	2.7
RTA, intracranial injury - long term	4.2	465.6	2	188
Poisonings (episodes)	47	0.4	35	0.3
Falls (episodes)	847	n/a	1844	n/a
Falls, fractured skull - long term	0.3	47	0.7	37.2
Falls, injured spinal cord	5.1	156.1	11	211.6
Falls, fractured femur - short term	428	59.5	932	129.5
Falls, fractured femur - long term	30.9	516	67	947
Falls, intracranial injury - long term	3.3	218	7.1	311
Fires (episodes)	12.2	n/a	8.6	n/a

Fires, burns <20% - short term	9.6	0.8	6.8	0.6
Fires, burns <20% - long term	9.5	1535	6.7	1048
Fires, burns >20% and <60% - short term	0.5	0.1	0.3	0.1
Fires, burns >20% and <60% - long term	0.5	0.6	0.3	0.4
Drownings (episodes)	9.3	n/a	4.6	n/a
Drownings, quadriplegia	0.3	9.7	0.1	2.3
Other unintentional injuries (episodes)	1734	n/a	981	n/a
Other unintentional injuries, injured spinal cord	11.8	136	6.7	68.3
Other unintentional injuries, intracranial injury - long term	7.1	260.6	4	99.1
Other unintentional injuries, amputated finger	23.7	796	13.4	295
Other unintentional injuries, burns <20% - long term	81	7560	46	2381
Other unintentional injuries, injured nerves	16.3	1607.4	9.2	407.6
Self-inflicted injuries (episodes)	74.8	n/a	56.3	n/a
Violence (episodes)	26	n/a	13	n/a
Violence, fractured skull - long term	0.1	17.4	0	6.7
Violence, injured spinal cord	0.2	15.9	0.1	6.1
Violence, intracranial injury - short term	8.3	0.6	3.9	0.3
Violence, intracranial injury - long term	0.4	164.8	0.2	52.8
Violence, injured nerves	0.2	37.4	0.1	11.9
Cancer				
Mouth and oropharynx cancers (cases)	78.8	328.1	20.5	83
Stomach cancer (cases)	183.7	599.6	66.2	143.9
Colon and rectum cancers (cases)	343.8	1336.6	236	882.2
Liver cancer (cases)	33.1	51.8	10.5	7.6
Pancreas cancer (cases)	59.1	86.8	44	31.8
Trachea, bronchus and lung cancers (cases)	397.7	702.9	114.8	266.9
Melanoma and other skin cancer (cases)	46	194.7	26.6	112.3
Breast cancer (cases)	0	0	354	1488.3
Cervix uteri cancer (cases)	0	0	18.9	64.2

Corpus uteri cancer (cases)	0	0	101.8	446.2
Ovary cancer (cases)	0	0	47.2	126.5
Prostate cancer (cases)	696.7	3100.3	0	0
Bladder cancer (cases)	235.1	1129.6	47.7	199
Lymphomas and multiple myeloma (cases)	91.3	317.8	62.9	210.1
Leukaemia (cases)	49.5	243.2	27	132.5

IHD: Ischaemic heart disease. COPD: Chronic Obstructive Pulmonary Disease. RTA: Road traffic accident.

n/a: not available

Source: Murray, 1996.

5.10.5 Scottish Primary Care based prevalence estimates for selected conditions

A limitation of the Global Burden of Disease Prevalence estimates (provided in section 5.10.4 above) is that the upper age band considered is 60+. Table 5.9 shows disease prevalence estimates derived from a large cross-sectional study of primary care datasets in Scotland which give a detailed breakdown by older age (Barnett, 2012)[1]. Of note, the data in Table 5.9 is based on routine data collected in primary care and there is likely to be some degree of underreporting. The degree of any such underreporting will depend on the condition considered (e.g. CHD, diabetes and COPD are likely to be well recorded, but dementia less well recorded). Proxy measures have been used for certain conditions such as painful conditions and anxiety or depression. Data for men and women separately are provided in Table 5.20.

Table 5.9: Prevalence estimates for selected conditions by age, men & women combined

	Age (years)							
Condition	20-64	65-69	70-74	75-79	80-84	85-89	90+	All (20+ years)
CHD	2.0%	14.3%	19.5%	23.4%	25.8%	26.1%	25.6%	5.9%
Diabetes	3.3%	11.9%	14.6%	15.0%	13.6%	11.6%	9.4%	5.4%
COPD	2.1%	8.6%	10.4%	11.6%	11.7%	10.0%	7.5%	3.8%
Painful condition	6.5%	18.4%	20.2%	19.6%	18.7%	18.3%	14.8%	9.1%
Anxiety or depression	10.9%	14.1%	15.0%	17.0%	18.8%	22.5%	24.9%	12.2%
Hypertension	9.0%	38.4%	46.0%	51.8%	54.5%	54.4%	45.6%	17.0%
Stroke or TIA	0.8%	5.4%	7.8%	10.6%	13.5%	15.6%	17.1%	2.6%
Parkinson's Disease	0.0%	0.4%	0.6%	0.9%	1.3%	1.5%	1.3%	0.2%
Cancer diagnosis in last 5 years	1.8%	6.3%	7.7%	9.2%	10.2%	11.0%	10.2%	3.1%
Dementia	0.1%	0.7%	1.4%	3.1%	6.4%	10.5%	15.9%	0.8%
Multimorbidity (2+ conditions)	18.9%	54.4%	64.3%	71.8%	77.4%	81.5%	81.5%	29.0%
Multimorbidity (3+ conditions)	9.1%	34.1%	43.6%	52.0%	59.3%	64.5%	65.1%	17.2%

Prevalence estimates as at 31 March 2007, based on data accompanying the broader study by Barnett et al (2012). Condition definitions are provided in the notes accompanying Table 5.20. Multimorbidity is defined as the presence of two or more morbidities (from a list of 40 morbidities defined by the study's authors) in one patient.

[1] The morbidity data in Table 5.9 was provided by the Scottish School of Primary Care Living Well with Multimorbidity Programme funded by the Chief Scientist Office of the Scottish Government Health Directorates (Applied Research Programme Grant ARPG/07/1). Data for the analysis was provided by the Primary Care Clinical Informatics Unit at the University of Aberdeen. The views in this publication are not necessarily the views of the University of Aberdeen, its agents, or employees.

5.11 Multiple morbidity

While estimates of disease prevalence traditionally tend to focus on single conditions (and indeed much of the data presented in this report is presented for single conditions), in practice many patients have multiple, long-term conditions, requiring continuity and coordination of care. Indeed it could be argued that managing multiple, long-term conditions is one of the biggest challenges facing the health care system.

Table 5.10 shows the proportion of people with multimorbidity (defined as the presence of 2 or more morbidities) and the mean number of morbidities, by age. The data is taken from a large, cross-sectional study of primary care data from 314 general practices in Scotland (covering a third of the Scottish population and thought to be representative of the Scottish population as a whole) (Barnett, 2012). The prevalence of multimorbidity increases substantially with age. By age 50 years, half of the population have at least one morbidity, and by age 65 years most are multimorbid (Figure 5.13). Onset of multimorbidity occurs 10-15 years earlier in people living in the most deprived areas compared with the most affluent.

Table 5.10: Multimorbidity by age

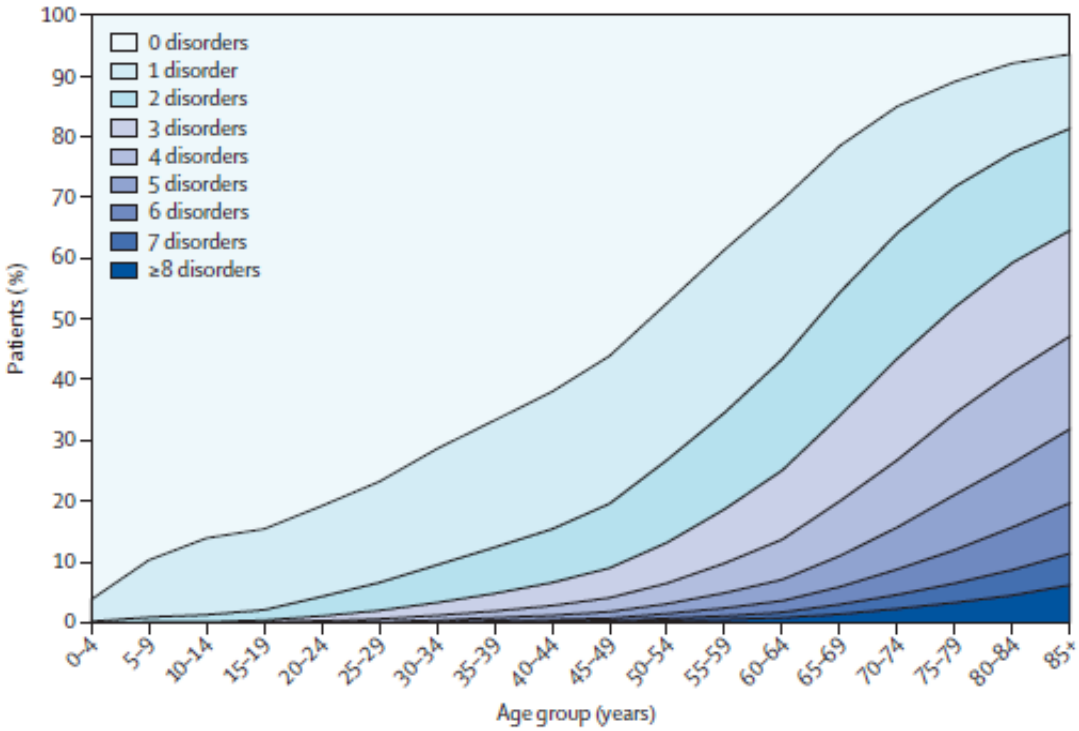
Age (years)	Number (%)	Mean number of morbidities	Percentage with multimorbidity (95%CI)	Percentage with physical-mental health co-morbidity (95%CI)
0-24	479 156 (27.4%)	0.16	1.9% (1.9-2.0)	0.5% (0.5-0.6)
25-44	508 389 (29.0%)	0.50	11.3% (11.2-11.4)	5.7% (5.6-5.7)
45-64	473 127 (27.0%)	1.18	30.4% (30.2-30.5)	12.4% (12.3-12.5)
65-84	254 600 (14.5%)	2.60	64·9% (64·7-65·1)	17·5% (17·4-17·7)
>=85	36 569 (2.1%)	3.62	81·5% (81·1-81·9)	30·8% (30·3-31·3)

CI = Confidence Interval

Multimorbidity was defined as the presence of two or more morbidities (from a list of 40 morbidities defined by the study's authors) in one patient.

Source: Barnett 2012

Figure 5.13: Number of chronic disorders by age-group



Source: Barnett 2012

Table List

Table 5.11: Expectation of life, by sex and selected age, Scotland, 1861 to 2011

Year[1]	Expectation of life at									
	Birth		Age 1		Age 15		Age 45		Age 65	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1861-70	40.3	43.9	45.6	47.5	42.3	44.5	22.7	24.5	10.8	11.6
1871-80	41.0	43.8	46.5	48.5	42.2	44.4	22.1	24.2	10.4	11.5
1881-90	43.9	46.3	49.7	51.2	43.9	45.6	22.6	24.6	10.8	11.9
1891-1900	44.7	47.4	51.1	52.7	44.3	46.2	22.2	24.2	10.5	11.5
1910-12	50.1	53.2	55.8	57.8	47.5	49.5	23.5	25.7	10.9	12.2
1920-22	53.1	56.4	58.4	60.4	49.1	51.1	24.5	26.7	10.9	12.5
1930-32	56.0	59.5	60.7	63.1	50.4	52.7	25.1	27.3	11.0	12.6
1942-44	59.8	64.6	63.6	67.6	51.6	55.4	25.7	29.0	11.7	13.6
1950-52	64.4	68.7	66.2	69.9	53.1	56.7	25.5	29.1	11.4	13.2
1960-62	66.2	72.0	67.3	72.7	53.9	59.1	25.8	30.5	11.5	14.2
1970-72	67.3	73.7	67.8	73.9	54.3	60.3	26.2	31.5	11.6	15.4
1980-82	69.1	75.3	69.0	75.1	55.4	61.3	27.2	32.4	12.3	16.0
1990-92	71.4	77.1	71.0	76.6	57.3	62.8	29.0	33.7	13.3	16.9
1991-93[2]	71.5	77.1	71.0	76.6	57.3	62.8	29.0	33.8	13.3	16.8
1992-94[2]	71.7	77.3	71.2	76.8	57.5	62.9	29.2	33.9	13.4	16.9
1993-95[2]	71.9	77.4	71.4	76.9	57.6	63.1	29.4	34.0	13.5	17.0
1994-96[2]	72.1	77.7	71.6	77.2	57.8	63.3	29.6	34.3	13.8	17.3
1995-97[2]	72.2	77.9	71.7	77.3	57.9	63.4	29.8	34.4	13.9	17.3
1996-98[2]	72.4	78.0	71.9	77.4	58.1	63.6	30.0	34.6	14.1	17.4
1997-99[2]	72.6	78.2	72.1	77.5	58.3	63.7	30.2	34.7	14.2	17.5
1998-2000[2]	72.8	78.4	72.3	77.7	58.5	63.9	30.5	34.9	14.4	17.6
1999-2001[2]	73.1	78.5	72.5	77.9	58.7	64.0	30.7	35.0	14.7	17.8
2000-2002[2]	73.3	78.8	72.8	78.2	59.0	64.3	31.0	35.3	14.9	18.0
2001-2003[2]	73.5	78.9	72.9	78.2	59.1	64.4	31.2	35.4	15.1	18.1
2002-2004[2]	73.8	79.1	73.2	78.4	59.4	64.6	31.4	35.5	15.2	18.2
2003-2005[2]	74.2	79.3	73.7	78.6	59.8	64.8	31.8	35.7	15.5	18.4
2004-2006[2]	74.6	79.6	74.0	78.9	60.2	65.1	32.1	36.0	15.8	18.6
2005-2007[2]	74.8	79.7	74.2	79.1	60.3	65.2	32.3	36.1	16.0	18.7
2006-2008[2]	75.0	79.9	74.3	79.2	60.5	65.3	32.6	36.3	16.2	18.8
2007-2009[2]	75.3	80.1	74.7	79.4	60.8	65.5	32.8	36.5	16.4	19.0
2008-2010[2]	75.8	80.3	75.1	79.6	61.2	65.7	33.2	36.7	16.6	19.2
2009-2011[3]	76.1	80.6	75.5	79.9	61.6	66.0	33.5	37.0	16.8	19.5

Footnotes

1) The figures for 1920-22 to 1990-92 are taken from graduated life tables prepared by the Government Actuary.

2) These figures have been extracted from complete ungraduated annual life tables prepared by the Government Actuary's Department up to 2002-2004 and by the Office for National Statistics thereafter.

3) These figures are provisional and have been extracted from complete ungraduated annual life tables prepared by the Office for National Statistics.

Source: National Records of Scotland http://www.gro-scotland.gov.uk/files2/stats/life-expectancy-at-scotland-level/table1-le-1861-2011.xls Accessed 251012

Table 5.12: Life Expectancy when at ages 65 and over in 2008-10

Age at 2008-10	Males		Females	
	Life Expectancy (years)	Estimated age at death	Life Expectancy (years)	Estimated age at death
65	16.62	81.62	19.21	84.21
66	15.92	81.92	18.42	84.42
67	15.22	82.22	17.64	84.64
68	14.53	82.53	16.87	84.87
69	13.86	82.86	16.12	85.12
70	13.22	83.22	15.38	85.38
71	12.58	83.58	14.65	85.65
72	11.95	83.95	13.94	85.94
73	11.34	84.34	13.26	86.26
74	10.74	84.74	12.57	86.57
75	10.17	85.17	11.89	86.89
76	9.61	85.61	11.25	87.25
77	9.07	86.07	10.61	87.61
78	8.55	86.55	9.99	87.99
79	8.05	87.05	9.4	88.4
80	7.57	87.57	8.85	88.85
81	7.13	88.13	8.31	89.31
82	6.71	88.71	7.79	89.79
83	6.31	89.31	7.3	90.3
84	5.93	89.93	6.83	90.83
85	5.57	90.57	6.38	91.38
86	5.23	91.23	5.95	91.95
87	4.93	91.93	5.55	92.55
88	4.63	92.63	5.18	93.18
89	4.35	93.35	4.8	93.8
90	4.07	94.07	4.46	94.46
91	3.73	94.73	4.11	95.11
92	3.47	95.47	3.8	95.8
93	3.2	96.2	3.53	96.53
94	3.03	97.03	3.29	97.29
95	2.82	97.82	3.06	98.06
96	2.63	98.63	2.83	98.83
97	2.4	99.4	2.66	99.66
98	2.31	100.31	2.45	100.45
99	2.21	101.21	2.34	101.34
100	2.01	102.01	2.18	102.18

Source: Life tables for 2008-10, Office for National Statistics
http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223324

Life expectancy at age 65 is also available by geographical area (for local authority, NHS Board & CHP areas) at http://www.gro-scotland.gov.uk/files2/stats/life-expectancy-areas-in-scotland/2008-2010/le-areas-scotland-2008-2010.pdf

Table 5.13: Self-assessed general health, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Self-assessed general health	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
							Men
Very good	40	25	22	20	15	17	21
Good	40	40	37	35	39	38	38
Fair	14	23	29	29	29	32	27
Bad	4	9	9	12	11	12	10
Very bad	1	3	2	5	6	0	3
Very good/good	*80*	*65*	*59*	*55*	*54*	*56*	*59*
Bad/very bad	*6*	*12*	*12*	*17*	*17*	*12*	*14*
							Women
Very good	39	28	25	18	18	16	22
Good	41	39	38	36	36	36	37
Fair	15	22	27	32	36	35	29
Bad	5	8	8	11	9	10	9
Very bad	1	2	2	3	1	3	2
Very good/good	*79*	*67*	*63*	*54*	*54*	*52*	*59*
Bad/very bad	*6*	*11*	*11*	*14*	*10*	*13*	*12*
							All adults
Very good	39	26	24	19	17	16	22
Good	40	40	38	36	37	37	38
Fair	14	23	28	31	33	34	28
Bad	5	9	9	11	10	10	10
Very bad	1	3	2	4	3	2	3
Very good/good	*80*	*66*	*61*	*54*	*54*	*53*	*59*
Bad/very bad	*6*	*11*	*11*	*15*	*13*	*13*	*12*

Source: Scottish Health Survey (2011)

Table 5.14: Prevalence of long-term conditions, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Long term conditions and limiting long-term conditions	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
Men							
No long-term conditions	67	38	36	33	28	31	35
Limiting long-term conditions	19	41	45	50	53	57	47
Non-limiting long-term conditions	14	21	20	16	19	12	19
Total with long-term conditions	*33*	*62*	*64*	*67*	*72*	*69*	*66*
Women							
No long-term conditions	63	38	34	31	31	25	33
Limiting long-term conditions	23	40	45	48	57	65	48
Non-limiting long-term conditions	14	22	21	21	12	10	19
Total with long-term conditions	*37*	*62*	*66*	*69*	*69*	*75*	*67*
All adults							
No long-term conditions	65	38	35	32	30	27	34
Limiting long-term conditions	21	41	45	49	56	62	48
Non-limiting long-term conditions	14	21	20	19	15	11	19
Total with long-term conditions	*35*	*62*	*65*	*68*	*70*	*73*	*66*

Source: Scottish Health Survey (2011)

Table 5.15: Rate of reported long term conditions per 1000 adults, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Condition Group (ICD 10 chapters) [a]	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	Rate per 1000						
							Men
XIII Musculoskeletal system	117	266	286	289	304	269	280
IX Heart & circulatory system	69	257	309	318	356	280	298
IV Endocrine & metabolic	47	134	132	125	107	72	124
X Respiratory system	66	113	114	79	123	98	107
XI Digestive system	32	43	60	68	93	56	60
VII Eye complaints	12	29	31	55	84	105	47
VIII Ear complaints	8	26	46	49	101	135	53
II Neoplasms & benign growths	8	39	50	64	66	56	52
VI Nervous System	36	53	39	36	52	27	44
V Mental disorders	53	35	12	23	5	19	21
XIV Genito-urinary system	11	50	38	54	47	92	50
III Blood & related organs	3	6	13	12	18	6	11
XII Skin complaints	13	8	7	3	17	17	8
I Infectious disease	2	-	7	1	-	-	2
Other complaints	2	1	4	4	1	8	3
							Women
XIII Musculoskeletal system	126	319	322	403	433	441	370
IX Heart & circulatory system	57	243	273	273	271	289	266
IV Endocrine & metabolic	64	155	125	161	111	100	137
X Respiratory system	70	103	99	105	65	40	90
XI Digestive system	42	78	77	63	59	82	72
VII Eye complaints	7	22	34	49	76	151	53
VIII Ear complaints	10	26	31	36	54	85	40
II Neoplasms & benign growths	13	39	41	46	23	31	38
VI Nervous System	48	57	37	36	45	23	42
V Mental disorders	78	47	36	37	18	28	36
XIV Genito-urinary system	15	18	24	18	38	23	20
III Blood & related organs	9	8	13	11	18	29	14
XII Skin complaints	14	3	9	13	23	4	10
I Infectious disease	2	6	3	2	9	-	4
Other complaints	2	3	2	6	8	8	5
							All adults
XIII Musculoskeletal system	122	295	305	356	382	388	330
IX Heart & circulatory system	63	249	289	292	305	286	280

IV Endocrine & metabolic	56	145	128	146	109	91	131
X Respiratory system	68	107	106	94	88	58	97
XI Digestive system	37	62	69	65	73	74	67
VII Eye complaints	10	25	33	51	79	137	50
VIII Ear complaints	9	26	38	42	73	101	46
II Neoplasms & benign growths	11	39	45	53	40	38	44
VI Nervous System	42	55	38	36	47	25	43
V Mental disorders	66	42	25	32	13	25	30
XIV Genito-urinary system	13	33	30	32	41	45	30
III Blood & related organs	6	7	13	11	18	22	12
XII Skin complaints	14	6	8	9	21	8	9
Other complaints	2	2	3	5	6	8	4
I Infectious disease	2	3	5	2	5	-	3

a Conditions are presented in descending order of the rate among all adults.

ICD = International Classification of Diseases (ICD)

Source: Scottish Health Survey (2011)

Table 5.16: WEMWBS scores, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
WEMWBS scores	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
							Men
Mean	50.0	51.4	51.2	50.4	48.2	47.8	50.5
SE of the mean	0.12	0.33	0.37	0.42	0.61	0.76	0.20
Standard deviation	8.24	8.62	8.65	8.04	8.67	7.96	8.56
% Good wellbeing [a]	13	20	21	16	11	10	18
% Average wellbeing	73	68	67	71	68	72	69
% Poor wellbeing	14	12	13	14	20	18	14
							Women
Mean	49.5	51.3	50.6	48.4	49.6	48.2	50.0
SE of the mean	0.11	0.32	0.37	0.36	0.54	0.63	0.18
Standard deviation	8.58	8.19	9.01	7.65	8.72	8.31	8.46
% Good wellbeing	12	20	20	11	17	13	17
% Average wellbeing	72	70	67	73	66	69	69
% Poor wellbeing	16	10	13	16	18	18	14
							All adults
Mean	49.8	51.4	50.8	49.3	49.0	48.1	50.2
SE of the mean	0.9	0.24	0.27	0.29	0.41	0.48	0.14
Standard deviation	8.42	8.39	8.85	7.87	8.72	8.18	8.50
% Good wellbeing	13	20	20	13	15	12	17
% Average wellbeing	72	69	67	72	67	70	69
% Poor wellbeing	15	11	13	15	19	18	14

a Good wellbeing: WEMWBS score more than one standard deviation (1 S.D.) above the mean for all adults; average well-being: WEMWBS score within 1 S.D. of the mean; poor wellbeing: WEMWBS score lower than 1 S.D. below the mean.

Notes: WEMWBS is designed to assess positive functioning, positive affect and satisfying interpersonal relationships. It contains fourteen statements to which the individual responds on a scale of 1 to 5, according to how often they occur. The lowest score possible is therefore 14 and the highest 70. Three categories can also be derived, dividing participants into those with average mental wellbeing (within one standard deviation (1 S.D.) of the mean of all participants aged 16 and over); good wellbeing (WEMWBS score greater than 1 S.D. above the mean); and poor wellbeing (WEMWBS score lower than 1 S.D. below the mean).

Source: Scottish Health Survey (2011)

Table 5.17: Adults with a disability or long-term illness by sex and age, 2001 and 2002

									Column percentages
	Men	**Women**	**16 to 24**	**25 to 34**	**35 to 44**	**45 to 59**	**60 to 74**	**75 plus**	**All**
Disability	7%	7%	2%	2%	4%	6%	11%	19%	7%
Long-term illness	8%	8%	2%	3%	4%	8%	14%	18%	8%
Both disability and long-term illness	4%	4%	0%	1%	2%	4%	7%	9%	4%
No disability or long-term illness	82%	81%	96%	94%	91%	81%	68%	55%	81%
All Adults aged 16 and over	**11,856**	**16,004**	**2,277**	**4,421**	**5,222**	**6,435**	**6,111**	**3,393**	**27,860**

Source: Scottish Household Survey, cited in Social Focus on Disability 2004 report (Scottish Executive, 2004b).

Table 5.18: Body mass index (BMI), by age and sex

Aged 16 and over with both valid height and weight measurements	*2008, 2009 and 2010 combined*						
BMI (kg/m ^{2})	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
Men							
Less than 18.5	2	-	1	1	1	1	1
18.5 to less than 25	32	21	20	22	27	34	22
25 to less than 30	40	44	46	47	53	51	47
30 to less than 40	25	33	32	29	19	14	29
40+	1	2	2	1	0	-	1
All 25 and over [a]	*66*	*79*	*79*	*77*	*72*	*65*	*77*
All 30 and over [b]	*26*	*35*	*33*	*30*	*19*	*14*	*30*
Mean	27.3	28.7	28.5	28.1	27.2	26.3	28.2
Women							
Less than 18.5	2	1	1	2	4	2	2
18.5 to less than 25	38	24	28	26	32	34	28
25 to less than 30	32	39	38	38	38	42	39
30 to less than 40	23	33	30	30	24	21	30
40+	4	3	2	4	2	1	2
All 25 and over [a]	*59*	*75*	*71*	*72*	*64*	*64*	*71*
All 30 and over [b]	*27*	*36*	*32*	*34*	*26*	*22*	*32*
Mean	27.3	28.6	28.2	28.4	27.1	26.8	28.1
All adults							
Less than 18.5	2	1	1	1	3	2	1
18.5 to less than 25	35	23	24	25	30	34	25
25 to less than 30	36	41	42	42	44	45	42
30 to less than 40	24	33	31	30	22	19	30
40+	3	2	2	2	1	0	2
All 25 and over [a]	*63*	*77*	*75*	*74*	*67*	*65*	*74*
All 30 and over [b]	*27*	*35*	*33*	*32*	*23*	*19*	*31*
Mean	27.3	28.6	28.3	28.2	27.1	26.6	28.1

a 25 and over = overweight (including obese).
b 30 and over = obese.

Source: Scottish Health Survey (2011)

Table 5.19: Blood pressure level, by age and sex

Aged 16 and over with a valid blood pressure reading and data on medication	*2008, 2009 and 2010 combined*					
Blood pressure category [a]	**Age**					**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80+**	
	%	**%**	**%**	**%**	**%**	**%**
						Men
Normotensive	72	37	27	29	29	31
Hypertensive controlled	6	18	21	23	21	20
Hypertensive uncontrolled	3	20	23	16	30	22
Hypertensive untreated	19	26	29	32	20	27
Total with hypertension	*28*	*63*	*73*	*71*	*71*	*69*
						Women
Normotensive	79	38	29	31	24	31
Hypertensive controlled	5	17	22	23	14	19
Hypertensive uncontrolled	3	19	21	25	40	26
Hypertensive untreated	13	26	28	21	22	24
Total with hypertension	*21*	*62*	*71*	*70*	*76*	*69*
						All adults
Normotensive	76	38	28	30	26	31
Hypertensive controlled	5	17	22	23	17	20
Hypertensive uncontrolled	3	19	22	22	36	25
Hypertensive untreated	16	26	28	25	21	25
Total with hypertension	*24*	*62*	*72*	*70*	*74*	*69*

a Normotensive: Systolic blood pressure (SBP) <140mmHg and diastolic blood pressure (DBP) <90mmHg and **not** taking medicine prescribed for high blood pressure;

Hypertensive controlled: SBP <140mmHg and DBP <90mmHg and taking medicine prescribed for high blood pressure;

Hypertensive uncontrolled: Systolic blood pressure (SBP) >=140mmHg or DBP >=90mmHg and taking medicine prescribed for high blood pressure; and

Hypertensive untreated: Systolic blood pressure (SBP) >=140mmHg or DBP >=90mmHg and **not** taking medicine prescribed for high blood pressure.

Source: Scottish Health Survey (2011)

Table 5.20: Prevalence estimates for selected conditions by age and sex

MEN	Age (years)							
Condition	20-64	65-69	70-74	75-79	80-84	85-89	90+	All (20+ years)
CHD	2.7%	18.6%	24.9%	29.7%	32.1%	32.4%	29.6%	6.9%
Diabetes	3.7%	13.5%	16.9%	17.2%	15.2%	12.9%	10.6%	5.8%
COPD	1.9%	8.7%	11.1%	12.8%	13.9%	13.2%	11.3%	3.6%
Painful condition	5.2%	16.1%	17.1%	16.1%	15.1%	13.5%	10.2%	7.1%
Anxiety or depression	7.1%	10.0%	10.1%	11.3%	13.4%	15.5%	15.6%	7.9%
Hypertension	8.9%	37.3%	44.0%	47.9%	49.5%	47.8%	37.6%	15.3%
Stroke or TIA	0.9%	6.6%	9.7%	12.6%	16.1%	17.9%	18.7%	2.7%
Parkinson's Disease	0.0%	0.5%	0.8%	1.2%	1.8%	2.1%	1.9%	0.2%
Cancer diagnosis in last 5 years	1.3%	6.4%	8.9%	11.5%	13.0%	14.0%	13.1%	2.8%
Dementia	0.1%	0.6%	1.3%	2.8%	5.2%	7.6%	10.2%	0.5%
Multimorbidity (2+ conditions)	16.3%	53.6%	64.2%	71.7%	77.0%	80.8%	77.6%	25.4%
Multimorbidity (3+ conditions)	7.6%	33.2%	43.2%	52.1%	59.2%	63.6%	60.0%	14.6%

WOMEN	Age (years)							
Condition	20-64	65-69	70-74	75-79	80-84	85-89	90+	All (20+ years)
CHD	1.3%	10.5%	15.0%	18.6%	21.7%	23.1%	24.2%	5.0%
Diabetes	2.9%	10.4%	12.7%	13.4%	12.6%	11.0%	8.9%	5.0%
COPD	2.3%	8.6%	9.7%	10.7%	10.3%	8.4%	6.3%	4.0%
Painful condition	7.8%	20.6%	22.8%	22.3%	21.0%	20.6%	16.4%	11.0%
Anxiety or depression	14.9%	17.9%	19.2%	21.4%	22.3%	25.9%	28.1%	16.3%
Hypertension	9.0%	39.3%	47.7%	54.6%	57.7%	57.6%	48.3%	18.6%
Stroke or TIA	0.7%	4.3%	6.2%	9.0%	11.8%	14.5%	16.6%	2.6%
Parkinson's Disease	0.0%	0.3%	0.4%	0.7%	1.0%	1.2%	1.1%	0.2%
Cancer diagnosis in last 5 years	2.3%	6.1%	6.7%	7.4%	8.4%	9.5%	9.2%	3.5%
Dementia	0.1%	0.8%	1.5%	3.4%	7.2%	11.9%	17.8%	1.2%
Multimorbidity (2+ conditions)	21.5%	55.1%	64.4%	71.9%	77.7%	81.8%	82.8%	32.6%
Multimorbidity (3+ conditions)	10.6%	34.9%	43.9%	52.0%	59.4%	64.9%	66.8%	19.7%

Condition	**Definition**
Coronary Heart Disease (CHD)	Read Code ever recorded
Diabetes	Read Code ever recorded
Chronic Obstructive Pulmonary Disease (COPD)	Read Code ever recorded
Painful condition	4 or more oral or parenteral analgesic prescriptions in the last year excluding paracetamol alone and ibuprofen alone (i.e. excluding the common over the counter drugs)
Anxiety or depression	An anxiety or depression Read Code recorded in the last year OR 4 or more antidepressant prescriptions in the last year (excluding low dose tricyclics) OR 4 or more anxiolytic or hypnotic drug prescriptions in the last year)
Hypertension	Read Code ever recorded
Stroke or Transient Ischaemic Attack (TIA)	Read Code ever recorded
Parkinson's disease	Read Code ever recorded
Cancer diagnosis in the last 5 years	Read Code recorded in the last 5 years

Dementia	Read Code ever recorded
Multimorbidity (2+ conditions)	2 or more conditions from a range of 40 conditions defined by the study's authors (see *Barnett et al 2012* for details)
Multimorbidity (3+ conditions)	3 or more conditions from a range of 40 conditions defined by the study's authors (see *Barnett et al 2012* for details)

Prevalence estimates as at 31st March 2007, based on data accompanying the broader study by Barnett et al (2012). The data is derived from primary care datasets from 314 general practices in Scotland (covering a third of the Scottish population and thought to be representative of the Scottish population as a whole).

Data Source & Acknowledgement: The morbidity data for this table was provided by the Scottish School of Primary Care Living Well with Multimorbidity Programme funded by the Chief Scientist Office of the Scottish Government Health Directorates (Applied Research Programme Grant ARPG/07/1). Data for the analysis was provided by the Primary Care Clinical Informatics Unit at the University of Aberdeen. The views in this publication are not necessarily the views of the University of Aberdeen, its agents, or employees.

6 Use of Health Services – Primary Care

This section covers the use of primary health care services.

A separate assessment of the prescribing and pharmaceutical care needs of older people is currently being prepared by ScotPHN and will be available in late 2013.

For ease of reading, large data tables are included at the end of the chapter.

Key points:

- Age and gender have a large effect on how often patients consult their GP or practice nurse.
- The overall primary care consultation rate (consultation with a GP or practice nurse for any reason) is highest amongst the oldest age group, aged 75 years & over (Figure 6.1). The highest contact rates are among men aged 75 years and over.
- The commonest condition seen by GPs and practice nurses for both men and women aged 75 plus is hypertension (Figure 6.5).
- Consultation rates for many specific conditions (e.g. coronary heart disease; dementia; hypertension; and stroke) show sharp increases with increasing age (Figure 6.6).
- Whilst the over 75s have the highest overall age-specific consultation rate in primary care, the actual number of consultations is higher amongst some of the younger age bands, reflecting the larger size of the younger population (Figure 6.2).
- In 2011/12, GPs and practice-employed nurses combined had an estimated 24 million face-to-face contacts with patients. Of these, approximately 3.7 million (15.5%) were for those aged 75 years & over.
- Almost all of those aged over 65 consult their GP or practice nurse at least once a year (Figure 6.3).
- On average, males (all ages) consult their GP 2.4 times per year and a practice nurse 1.2 times per year, and females consult their GP 3.6 times and a practice nurse 1.6 times a year (Table 6.3). Older age groups consult more frequently (Figure 6.4).

6.1 Practice Team Information (PTI)

The data presented in this chapter is based on Practice Team Information (PTI) data collected by the Information Services Division (ISD) of NHS National Services Scotland. PTI collects information on GP and practice nurse consultations from around 60 practices in Scotland, which are broadly representative of the Scottish population in terms of age, gender, deprivation and urban/rural mix. PTI data is only available for Scotland as a whole – data for smaller geographic areas (such as NHS Boards or local authority areas) is not available. Further information on PTI is given in the Glossary.

6.2 Overall contact rates

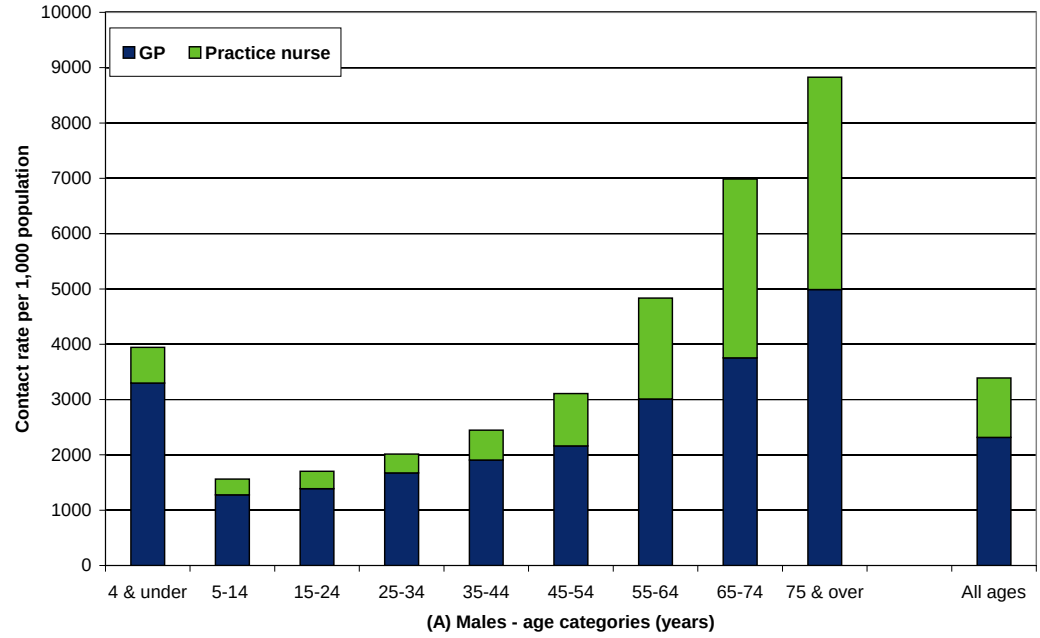
Age and gender have a large effect on how often patients consult their GP or practice nurse (Figure 6.1, Table 6.1):

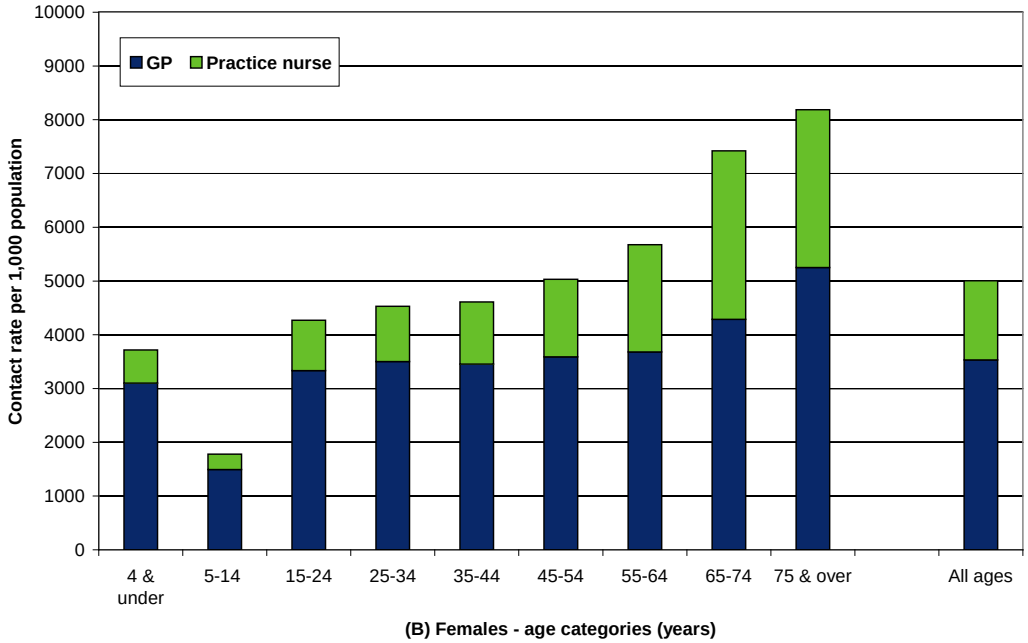
- Primary care consultation rates with GPs and practice nurses (combined) are highest amongst the oldest age group, aged 75 years & over.

- With the exception of the very youngest and oldest age groups (0-4 and 75 plus, respectively), contact rates are higher for females than males. The very highest contact rate (for GP and practice nurse consultations combined) is found among males aged 75 & over.

- Whereas in the younger age categories a large majority of patient contacts (particularly for males) are with GPs, in the older age categories the practice nurse share increases substantially, up to more than 46% of overall contacts. This may reflect the large contribution nurses make to chronic disease management, which is particularly relevant to older patients.

Figure 6.1: GP and practice nurse annual contact rates per 1,000 registered patients for 2010/11; by discipline and age group for (A) males and (B) females





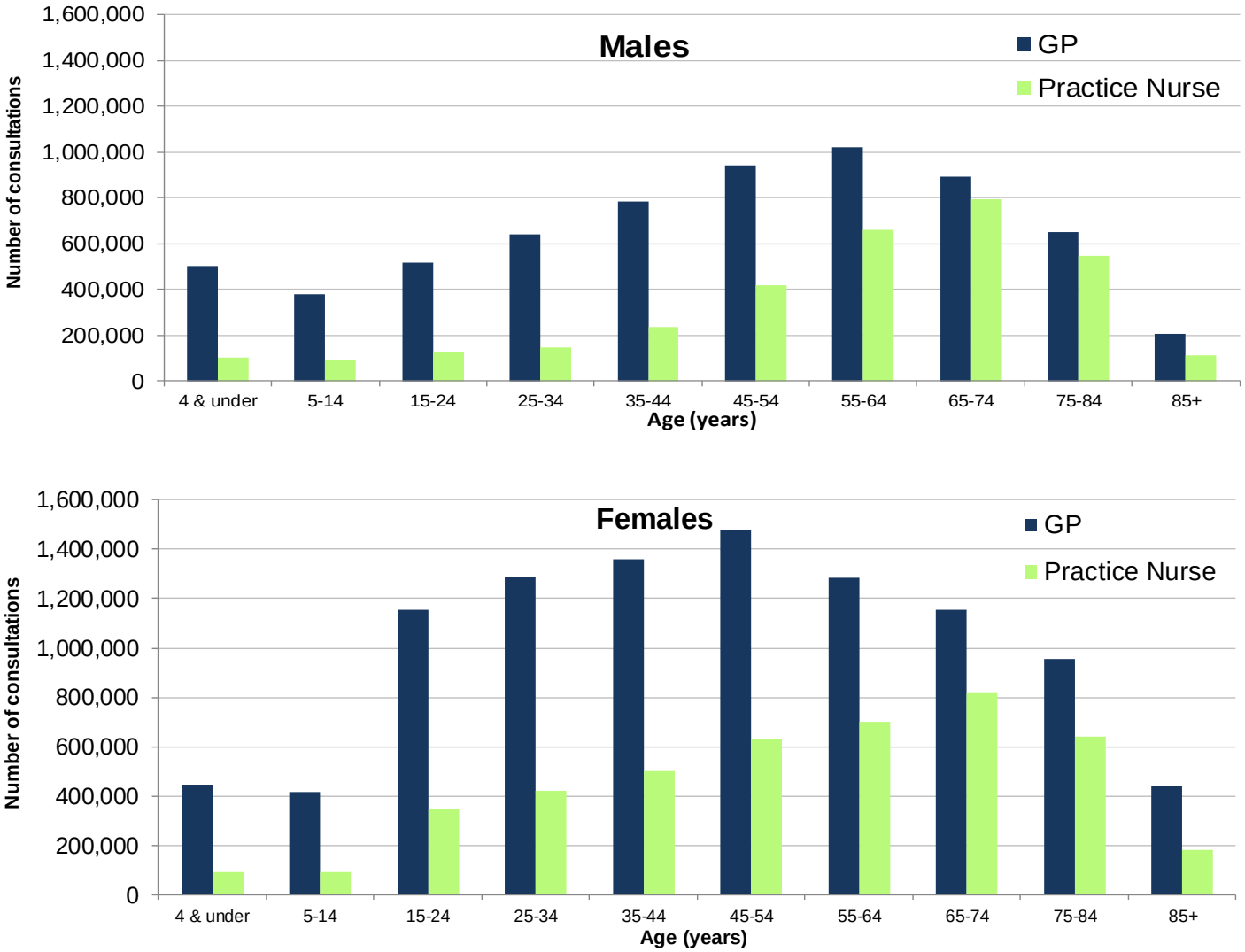
Source: Information Services Division (2011)

6.3 Number of consultations

When planning the provision of services for older people, it is useful to know not only the different consultation rates in the different age groups, but also the actual number of consultations (Figure 6.2, Table 6.2):

- Whilst the over 75s have the highest age-specific consultation rates, the actual number of consultations is higher amongst some of the younger age bands (reflecting the larger sized population of the younger age bands); and
- In 2011/12, GPs and practice-employed nurses combined had an estimated 24 million face-to-face contacts with patients. Of these, approximately 3.7 million (15.5%) were for those aged 75 years & over.

Figure 6.2: Estimated number[1] of GP and Practice Nurse Consultations in Scotland for financial year 2011/12, by gender and age group



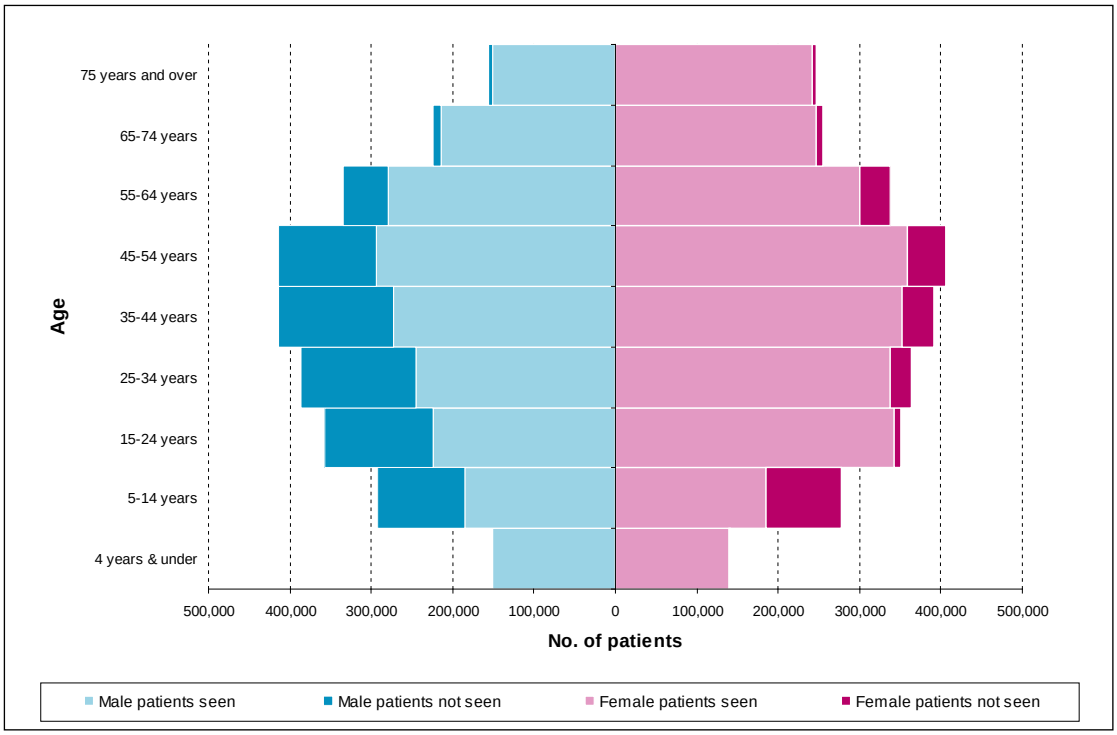
[1] Based on 59 PTI practices that submitted complete GP and practice nurse data for the year ending 31 March 2012. Figures are standardised by deprivation.

Source: Practice Team Information (PTI), ISD Scotland.

6.4 Number of patients with at least one consultation a year

The population pyramid below (Figure 6.3) shows the estimated number of patients in Scotland who had at least one consultation with a GP or practice-employed nurse, by age and gender, for the year ending 31 March 2011 (as a proportion of the total number of patients registered with a GP practice). This shows that almost all of the very youngest and oldest age categories consulted their GP or practice nurse at least once.

Figure 6.3: Estimated number of patients seen[1]/not seen[2] in Scotland by either a GP or practice nurse in 2010/11; by gender and age group



Practice Team Information (PTI), ISD Scotland. www.isdscotland.org/pti [1] Based on 59 PTI practices that submitted complete GP and practice nurse data for the year ending 31 March 2011. [2] Population source: Community Health Index (CHI) record, as at 30 September 2010

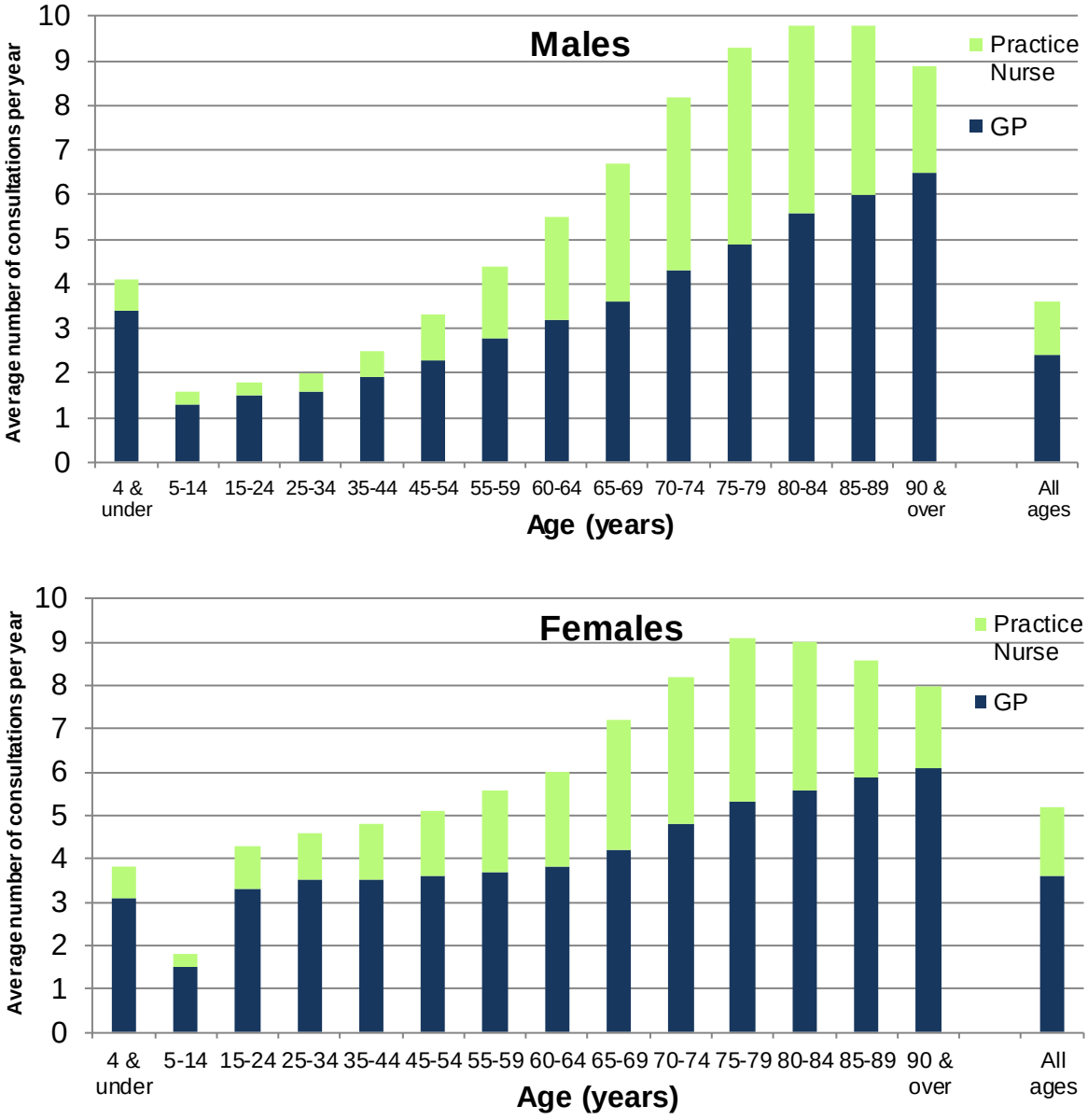
Source: Information Services Division (2011)

6.5 Average number of consultations per year

For all ages combined, the average (mean) number of GP contacts per registered patient in 2011/12 was 3.0 and the average number of practice nurse contacts was 1.4 (Table 6.3). Of note, these averages are based on all registered patients i.e. the calculations include patients who did not attend their practice at all during the year.

The average number of consultations by age is shown in Figure 6.4, with a general increase in older age before a slight reduction among the very oldest groups.

Figure 6.4: Average number of consultations per year with a GP or Practice Nurse by gender and age group, Scotland, 2011/12



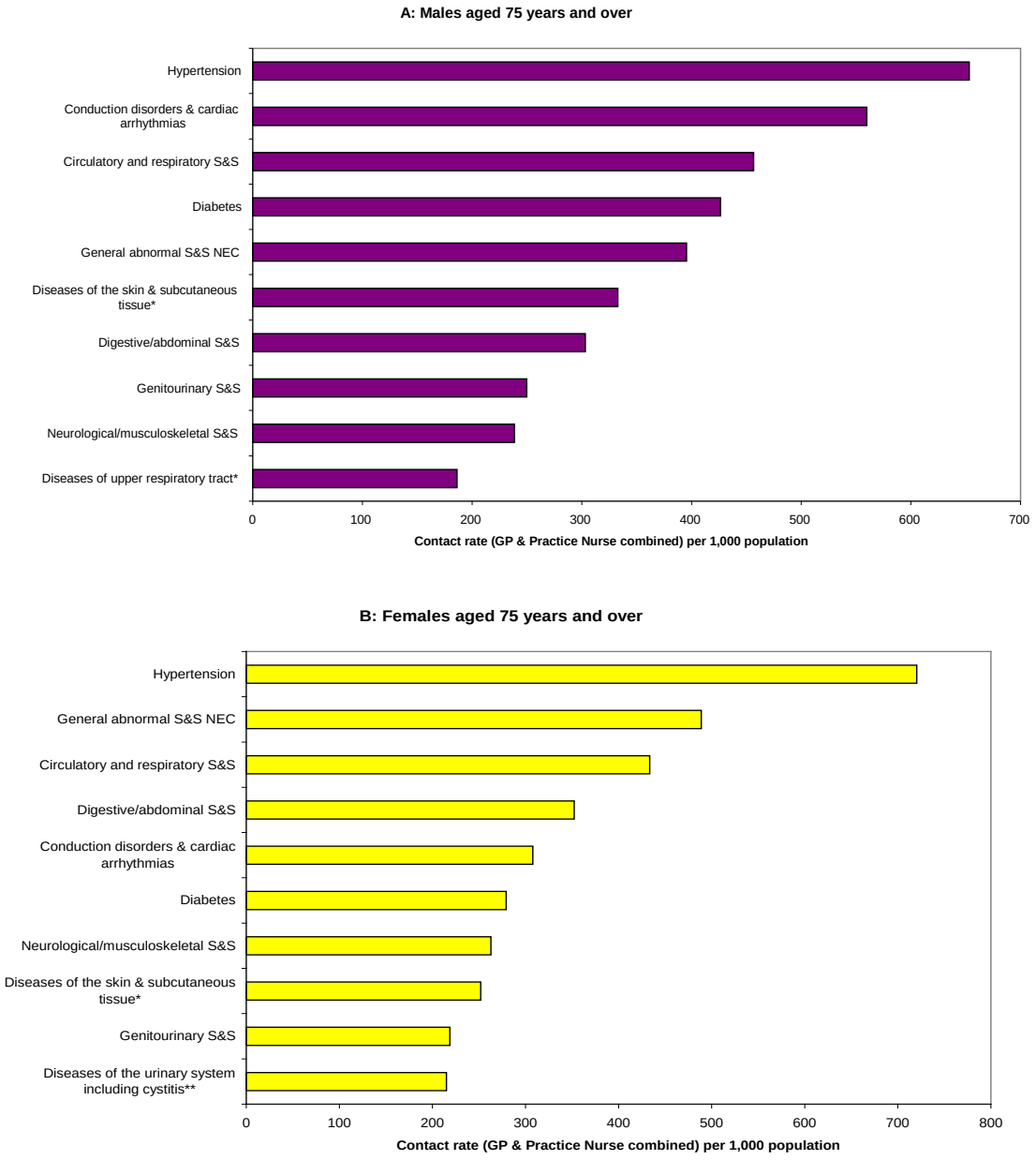
Source: Practice Team Information (PTI), ISD Scotland.

6.6 Top 10 most commonly seen conditions

The top 10 most commonly seen conditions in primary care differ, depending on the professional seen and the patient's age and gender:

- Overall, the most commonly seen condition among both men and women aged 75 & over is hypertension (Figure 6.5); and
- Conduction disorders & cardiac arrhythmias; circulatory and respiratory signs & symptoms; diabetes; and general, abnormal signs & symptoms are also common reasons for consulting (Table 6.4, Table 6.5).

Figure 6.5: Top 10 most seen conditions, ranked on GP and Practice Nurse combined contact rates per 1,000 population for 2010/11



S&S: Symptoms and signs NEC: not elsewhere classified * Information on the Read code groupings (RCGs) used is available at http://www.isdscotland.org/Health-Topics/General-Practice/PTI-Statistics/Grouping-clinical-codes.asp ** but excluding kidney and ureter disorders, glomerular & renal tubulo-interstitial disease, renal failure or urolithiasis. Data Source: Practice Team Information (PTI), ISD Scotland, as at 29th of November 2011 http://www.isdscotland.org/Health-Topics/General-Practice/Publications/2011-11-29/PTI_Nov11_Fig11_Top10ConditionsByDisSexAge.xls Accessed 210812

6.7 Consultations for specific conditions

The consultation rates (for GP and Practice Nurse consultations combined) for certain conditions, by age and gender, are shown in Figure 6.6. This shows a clear increase in consultation rate with increasing age for many specific health conditions including: coronary heart disease (CHD); COPD; dementia; diabetes; hypertension; osteoarthritis; and stroke. Other conditions (e.g. anxiety, depression, influenza and multiple sclerosis) show peaks among young and middle aged adults.

Of note:

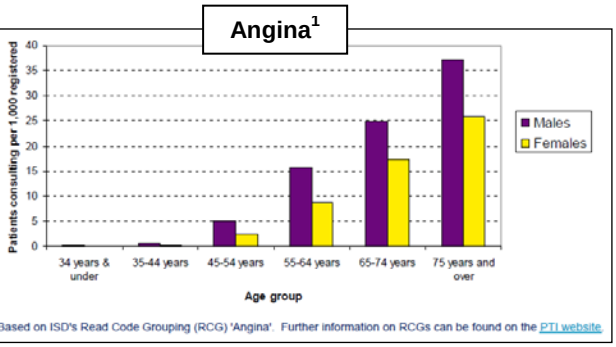
- The data shown in Figure 6.6 refer to the number of patients consulting at least once during the year for the condition shown. PTI consultation rates should not be taken as representing the population prevalence of the condition shown, however, as consultation rates will also reflect consulting behaviours. For example, Figure 6.6 shows a larger number of females consulting for back pain compared to males. However, surveys suggest that back pain is more common in men than women – the apparent gender differences seen may therefore only reflect the fact that women are more likely than men to consult. For the prevalence of specific health conditions, please see Chapter 5.

- Some of the confidence intervals for the data in Figure 6.6 are fairly wide, particularly for the less common conditions such as epilepsy or multiple sclerosis. This should be born in mind when interpreting the data. Confidence intervals are available at http://www.isdscotland.org/Health-Topics/General-Practice/PTI-Statistics/

Figure 6.6: Estimated number of patients in Scotland consulting a GP or practice nurse at least once in the financial year 2010/11 per 1,000 patients registered, by gender and age group

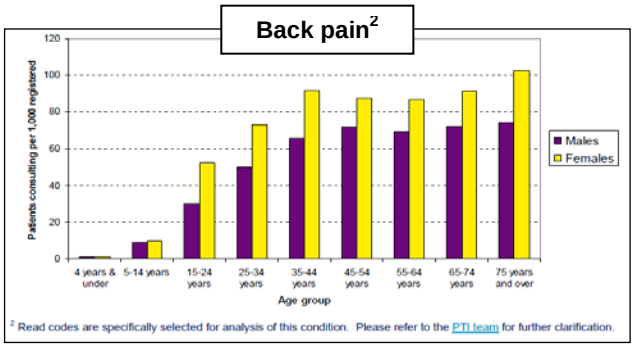
Please note that the y-axis scale is not consistent across these charts

Angina[1]



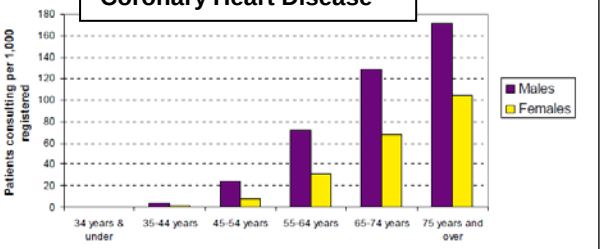
[1] Based on ISD's Read Code Grouping (RCG) 'Angina'. Further information on RCGs can be found on the PTI website.

Back pain[2]



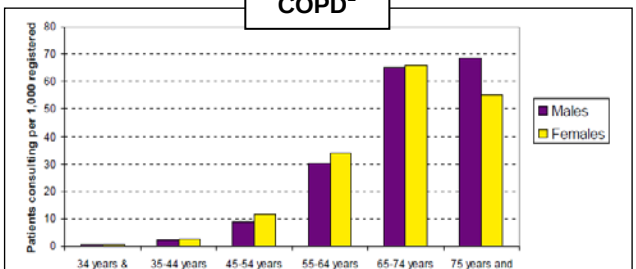
[2] Read codes are specifically selected for analysis of this condition. Please refer to the PTI team for further clarification.

Coronary Heart Disease[1]



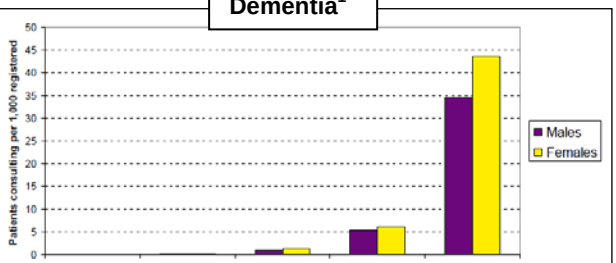
[1] Based on ISD's Read code groupings (RCGs) 'Angina', 'Acute myocardial infarction', 'Ischaemic heart diseases excluding angina & acute myocardial infarction' and 'CHD monitoring'. Further information on RCGs can be found on the PTI website.

COPD[1]



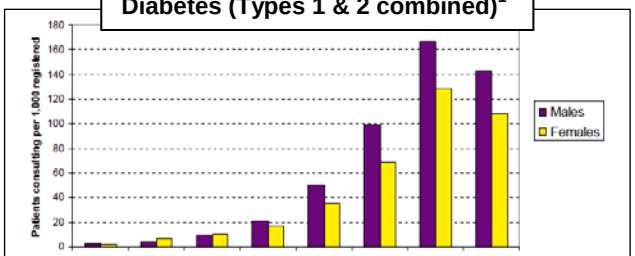
[1] Based on ISD's Read code groupings (RCGs) 'COPD'. Further information on RCGs can be found on the PTI website.

Dementia[1]



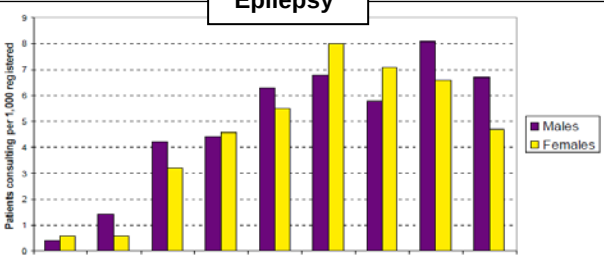
[1] Based on ISD's Read Code Grouping (RCG) 'Dementia'. Further information on RCGs can be found on the PTI website.

Diabetes (Types 1 & 2 combined)[1]



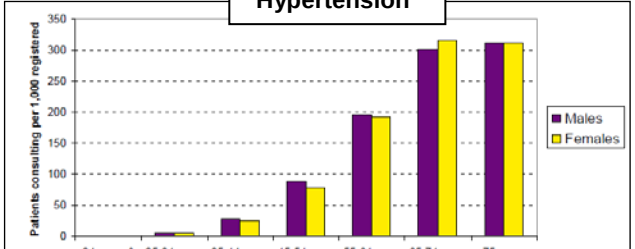
[1] Based on ISD's Read Code Grouping (RCG) 'Diabetes'. Further information on RCGs can be found on the PTI website.

Epilepsy[1]

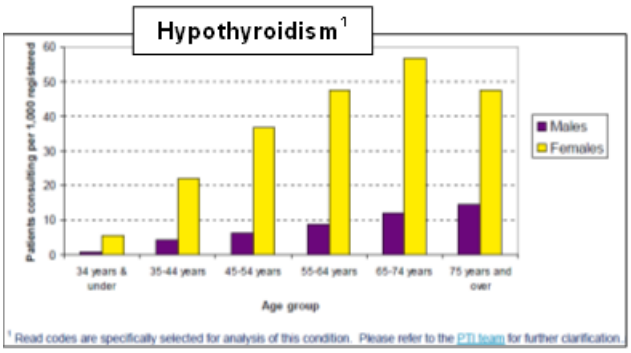


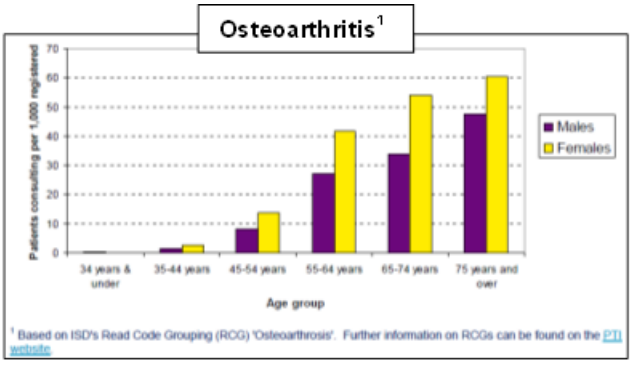
[1] Based on ISD's Read Code Grouping (RCG) 'Epilepsy'. Further information on RCGs can be found on the PTI website.

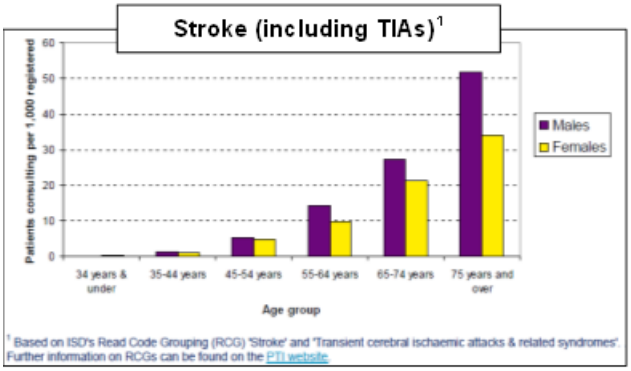
Hypertension[1]

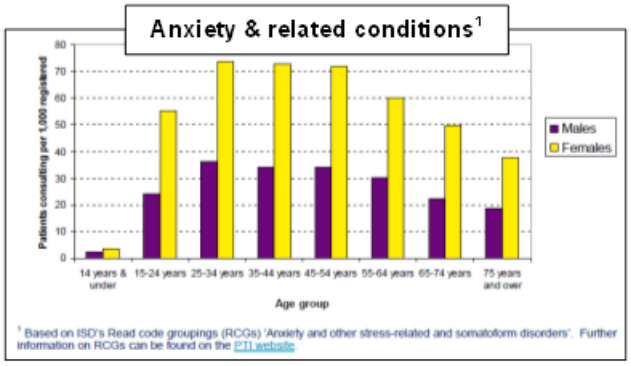


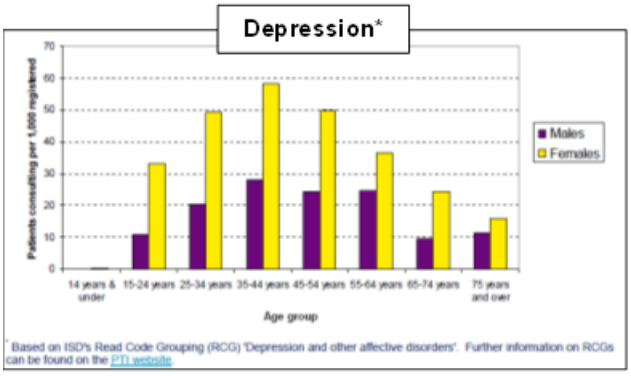
[1] Based on ISD's Read Code Grouping (RCG) 'Hypertension'. Further information on RCGs can be found on the PTI website.

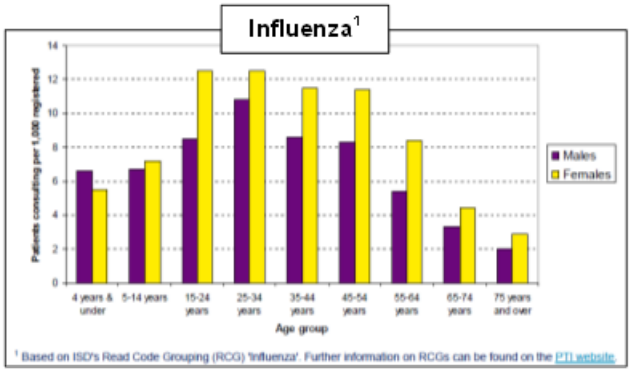


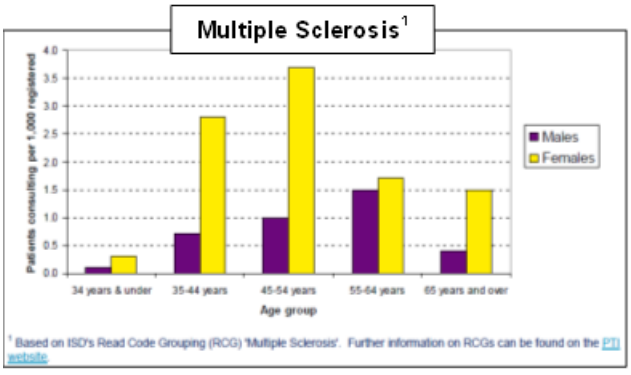


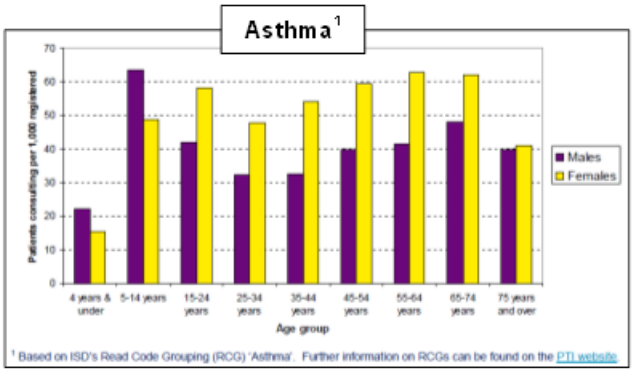












Source: Information Services Division (2011)

Table list

Table 6.1: Consultation rates per 1,000 population[1]; with 95% confidence intervals[2], with General Practitioners (GP) and Practice Nurses, for financial year 2010/11; by gender and age group[3]

Gender	Age group	Discipline			
		GP		Practice nurse	
		Rate	Confidence Interval	Rate	Confidence Interval
Males	4 years & under	3299.1	(3,092.8-3,505.4)	645.5	(457.0-834.0)
	5-14 years	1277.4	(1,185.0-1,369.7)	283.7	(231.2-336.3)
	15-24 years	1389.4	(1,294.0-1,484.7)	313.2	(265.7-360.7)
	25-34 years	1675.1	(1,576.9-1,773.3)	339.2	(292.2-386.3)
	35-44 years	1906.4	(1,811.6-2,001.2)	540.4	(471.3-609.6)
	45-54 years	2163.3	(2,031.3-2,295.3)	946.7	(846.2-1,047.1)
	55-64 years	3009.8	(2,871.5-3,148.0)	1823.9	(1,644.5-2,003.3)
	65-74 years	3754.1	(3,560.9-3,947.3)	3231.6	(2,923.9-3,539.3)
	75 years & over	4987.2	(4,680.0-5,294.4)	3839.9	(3,456.5-4,223.2)
	All ages	**2314.3**	**(2,214.5-2,414.2)**	**1077.3**	**(975.8-1,178.8)**
Females	4 years & under	3100.6	(2,922.3-3,278.9)	617.8	(425.3-810.3)
	5-14 years	1492.7	(1,411.9-1,573.4)	287.0	(230.8-343.2)
	15-24 years	3332.3	(3,125.9-3,538.7)	938.2	(823.3-1,053.1)
	25-34 years	3502.4	(3,306.2-3,698.5)	1026.5	(894.2-1,158.7)
	35-44 years	3453.0	(3,302.0-3,603.9)	1157.6	(1,030.1-1,285.1)
	45-54 years	3588.9	(3,453.3-3,724.5)	1442.1	(1,288.9-1,595.3)
	55-64 years	3680.7	(3,530.4-3,830.9)	1995.0	(1,806.7-2,183.3)
	65-74 years	4288.6	(4,086.0-4,491.1)	3132.5	(2,866.4-3,398.5)
	75 years & over	5250.7	(4,918.5-5,582.8)	2935.5	(2,651.1-3,219.9)
	All ages	**3532.8**	**(3,388.9-3,676.7)**	**1473.3**	**(1,335.7-1,610.9)**
Total		**2926.4**	**(2,807.7-3,045.1)**	**1276.8**	**(1,158.2-1,395.4)**

[1] Population source: Community Health Index (CHI) record, as at 30 September 2010.

[2] As the estimates are based on data from a sample of practices, 95% confidence intervals are included to indicate the accuracy of these estimates. For further information see http://www.isdscotland.org/Health-Topics/General-Practice/PTI-Statistics/Statistical-notes.asp

[3] Based on 59 PTI practices that submitted complete GP and practice nurse data for the year ending 31 March 2011.

Practice Team Information (PTI), ISD Scotland, as at 29th November 2011.

Source: http://www.isdscotland.org/Health-Topics/General-Practice/Publications/2011-11-29/PTI_Nov11_Fig3_ContactsBySexAge.xls Accessed 130812

Table 6.2: Estimated number[1] of GP and Practice Nurse Consultations in Scotland for financial year 2011/12, by gender and age group

		2011/12			
		General Practitioner (GP)		Practice Nurse	
		Number	Confidence Interval[2]	Number	Confidence Interval[2]
Males	4 years & under	499,220	(470,580-527,850)	99,370	(69,660-129,080)
	5-14 years	378,040	(354,580-401,500)	91,250	(74,020-108,470)
	15-24 years	515,530	(488,220-542,850)	124,170	(104,650-143,690)
	25-34 years	640,280	(599,680-680,890)	144,670	(122,920-166,420)
	35-44 years	783,440	(744,380-822,510)	237,000	(210,290-263,700)
	45-54 years	942,210	(892,890-991,540)	418,480	(382,470-454,490)
	55-59 years	483,270	(457,390-509,150)	278,190	(254,610-301,770)
	60-64 years	537,580	(510,070-565,090)	380,070	(348,570-411,570)
	65-69 years	462,090	(437,430-486,740)	402,580	(372,420-432,730)
	70-74 years	429,020	(399,890-458,150)	389,190	(352,740-425,640)
	75-79 years	376,190	(354,240-398,130)	337,370	(306,770-367,970)
	80-84 years	275,280	(257,120-293,450)	208,930	(187,200-230,660)
	85-89 years	145,700	(136,040-155,360)	92,010	(82,020-102,000)
	90 years & over	58,350	(52,610-64,090)	21,860	(17,430-26,290)
	All ages	**6,474,830**	**(6,185,170-6,764,490)**	**3,162,310**	**(2,887,210-3,437,400)**
Females	4 years & under	443,390	(415,920-470,870)	92,000	(64,290-119,710)
	5-14 years	415,200	(385,750-444,660)	89,010	(70,550-107,470)
	15-24 years	1,153,520	(1,075,060-1,231,980)	347,670	(303,780-391,570)
	25-34 years	1,290,450	(1,215,590-1,365,310)	419,740	(372,700-466,780)
	35-44 years	1,358,620	(1,289,720-1,427,520)	500,530	(449,400-551,660)
	45-54 years	1,479,820	(1,418,990-1,540,660)	629,580	(570,050-689,110)
	55-59 years	636,240	(604,240-668,240)	320,310	(291,460-349,160)
	60-64 years	650,440	(621,670-679,210)	379,030	(344,520-413,540)
	65-69 years	587,850	(561,260-614,450)	414,560	(382,070-447,050)
	70-74 years	569,220	(537,670-600,780)	405,690	(372,910-438,460)
	75-79 years	530,910	(498,080-563,740)	382,070	(349,350-414,790)
	80-84 years	424,560	(396,650-452,480)	258,130	(236,900-279,360)
	85-89 years	278,600	(257,420-299,770)	129,080	(112,510-145,660)
	90 years & over	159,820	(146,230-173,410)	49,760	(41,710-57,810)
	All ages	**9,995,090**	**(9,539,020-10,451,150)**	**4,379,880**	**(3,989,450-4,770,310)**
Total		**16,464,210**	**(15,730,750-17,197,660)**	**7,543,350**	**(6,883,340-8,203,360)**

[1] Based on 59 PTI practices that submitted complete GP and practice nurse data for the year ending 31 March 2012. Figures are standardised by deprivation.

[2] As the estimates are based on data from a sample of practices, 95% confidence intervals are included to indicate the accuracy of these estimates. For further information see http://www.isdscotland.org/Health-Topics/General-Practice/PTI-Statistics/Statistical-notes.asp

Source: Practice Team Information (PTI), ISD Scotland.

Table 6.3: Average number of consultations per year with a GP or Practice Nurse in Scotland for financial year 2011/12, by gender and age group

		2011/12	
		General Practitioner (GP)	Practice Nurse
Males	4 & under	3.4	0.7
	5-14	1.3	0.3
	15-24	1.5	0.3
	25-34	1.6	0.4
	35-44	1.9	0.6
	45-54	2.3	1.0
	55-59	2.8	1.6
	60-64	3.2	2.3
	65-69	3.6	3.1
	70-74	4.3	3.9
	75-79	4.9	4.4
	80-84	5.6	4.2
	85-89	6.0	3.8
	90 & over	6.5	2.4
	All ages	**2.4**	**1.2**
		GP	**Practice Nurse**
Females	4 & under	3.1	0.7
	5-14	1.5	0.3
	15-24	3.3	1.0
	25-34	3.5	1.1
	35-44	3.5	1.3
	45-54	3.6	1.5
	55-59	3.7	1.9
	60-64	3.8	2.2
	65-69	4.2	3.0
	70-74	4.8	3.4
	75-79	5.3	3.8
	80-84	5.6	3.4
	85-89	5.9	2.7
	90 & over	6.1	1.9
	All ages	**3.6**	**1.6**
Total		**3.0**	**1.4**

[1] Based on 59 PTI practices that submitted complete GP and practice nurse data for the year ending 31 March 2012. Figures are standardised by deprivation.

[2] Population source: Community Health Index (CHI) record, as at 30 September 2011.

Source: Practice Team Information (PTI), ISD Scotland.

Table 6.4: Top 10 conditions[1], ranked by annual contact rate[2] per 1,000 population[3]; 2010/11[4], with 95% confidence intervals[5] by staff discipline

Males aged 75 years and over

Condition [1]	Estimated contacts for Scotland	Confidence Interval[5]	Estimated contact rate for Scotland	Confidence Interval[5]
General Practitioner				
Circulatory and respiratory S&S	51,710	(43,900-59,530)	333.4	(283.0-383.8)
General abnormal S&S NEC	48,860	(42,660-55,060)	315	(275.0-354.9)
Digestive/abdominal S&S	44,650	(40,070-49,220)	287.8	(258.3-317.3)
Diseases of the skin & subcutaneous tissue*	34,850	(30,450-39,240)	224.6	(196.3-253.0)
Genitourinary S&S	33,680	(29,310-38,050)	217.1	(189.0-245.3)
Neurological/musculoskeletal S&S	32,950	(28,120-37,780)	212.4	(181.3-243.5)
Hypertension	32,740	(26,880-38,590)	211	(173.3-248.8)
Diseases of upper respiratory tract*	28,050	(23,880-32,220)	180.8	(154.0-207.7)
Soft tissue disorders	27,040	(22,750-31,340)	174.3	(146.6-202.0)
Skin S&S	18,000	(14,330-21,670)	116	(92.4-139.7)
Practice Nurse				
Conduction disorders & cardiac arrhythmias	76,990	(57,930-96,060)	496.4	(373.4-619.3)
Hypertension	66,790	(53,300-80,270)	430.6	(343.6-517.5)
Diabetes	47,290	(40,060-54,520)	304.9	(258.2-351.5)
Circulatory and respiratory S&S	17,660	(15,200-20,120)	113.8	(98.0-129.7)
Diseases of the skin & subcutaneous tissue*	16,350	(10,350-22,360)	105.4	(66.7-144.1)
Diseases of the urinary system including cystitis but**	15,820	(10,690-20,950)	102	(68.9-135.1)
Malnutrition & vitamin deficiencies	15,240	(11,810-18,660)	98.2	(76.2-120.3)
Ischaemic heart diseases*	14,560	(10,360-18,770)	93.9	(66.8-121.0)
General abnormal S&S NEC	11,840	(8,000-15,670)	76.3	(51.6-101.0)
Bronchitis, emphysema & other chronic obstructive pulmonary diseases	11,600	(9,560-13,640)	74.8	(61.6-87.9)
GP and Practice Nurse Combined				
Hypertension	101,320	(86,100-116,550)	653.2	(555.0-751.4)
Conduction disorders & cardiac arrhythmias	86,830	(66,120-107,550)	559.8	(426.2-693.3)
Circulatory and respiratory S&S	70,830	(61,780-79,890)	456.6	(398.3-515.0)
Diabetes	66,140	(57,290-75,000)	426.4	(369.3-483.5)
General abnormal S&S NEC	61,330	(53,490-69,170)	395.4	(344.8-445.9)
Diseases of the skin & subcutaneous tissue*	51,630	(43,620-59,640)	332.8	(281.2-384.5)
Digestive/abdominal S&S	47,040	(42,360-51,710)	303.2	(273.1-333.4)
Genitourinary S&S	38,730	(33,680-43,790)	249.7	(217.1-282.3)
Neurological/musculoskeletal S&S	36,990	(31,770-42,210)	238.5	(204.8-272.1)
Diseases of upper respiratory tract*	28,870	(24,670-33,070)	186.1	(159.1-213.2)

S&S: Symptoms and signs NEC: not elsewhere classified

[1] Includes signs and symptoms (S&S) that do not necessarily have a confirmed diagnosis, classified according to body system. Classified using ISD's Read Code Groupings (RCGs). [2] Based on 59 PTI practices that submitted complete PTI data for the year ending 31 March 2011. [3] Population source: Community Health Index (CHI) record, as at 30 September 2010. [4] District nurse and health visitor data is not available for the financial year 2010/11. [5] As the estimates are based on data from a sample of practices, 95% confidence intervals are included to indicate the accuracy of these estimates.

*A full list and description of the Read code groupings (RCGs) is available at: http://www.isdscotland.org/Health-Topics/General-Practice/Publications/2011-11-29/PTI_Nov11_RCG_description.xls ** but excluding kidney and ureter disorders, glomerular & renal tubulo-interstitial disease, renal failure or urolithiasis.

Source: Practice Team Information (PTI), ISD Scotland, as at 29 November 2011. http://www.isdscotland.org/PTI Accessed 210812

Table 6.5: Top 10 conditions[1], ranked by annual contact rate[2] per 1,000 population[3]; 2010/11[4], with 95% confidence intervals[5] by staff discipline

Females aged 75 years and over

Condition [1]	Estimated contacts for Scotland	Confidence Interval[5]	Estimated contact rate for Scotland	Confidence Interval[5]
General Practitioner				
General abnormal S&S NEC	101,640	(91,220-112,050)	411.2	(369.1-453.3)
Digestive/abdominal S&S	81,940	(72,000-91,880)	331.5	(291.3-371.7)
Circulatory and respiratory S&S	78,840	(68,870-88,820)	319	(278.6-359.4)
Hypertension	64,990	(53,570-76,410)	262.9	(216.8-309.1)
Neurological/musculoskeletal S&S	59,380	(49,390-69,370)	240.3	(199.8-280.7)
Soft tissue disorders	49,560	(43,330-55,780)	200.5	(175.3-225.7)
Genitourinary S&S	48,590	(41,520-55,670)	196.6	(168.0-225.2)
Diseases of the skin & subcutaneous tissue*	45,460	(39,940-50,980)	183.9	(161.6-206.3)
Diseases of upper respiratory tract*	45,330	(39,270-51,390)	183.4	(158.9-207.9)
Psychological S&S	40,590	(33,600-47,580)	164.2	(135.9-192.5)
Practice Nurse				
Hypertension	111,410	(91,840-130,980)	450.7	(371.6-529.9)
Conduction disorders & cardiac arrhythmias	63,500	(46,570-80,430)	256.9	(188.4-325.4)
Diabetes	47,420	(40,630-54,220)	191.9	(164.4-219.4)
Diseases of the urinary system including cystitis but**	26,590	(17,490-35,690)	107.6	(70.8-144.4)
Malnutrition & vitamin deficiencies	26,340	(19,360-33,310)	106.5	(78.3-134.8)
Circulatory and respiratory S&S	25,400	(21,000-29,790)	102.8	(85.0-120.5)
Injuries of specified, unspecified & multiple body regions*	17,750	(12,300-23,200)	71.8	(49.8-93.9)
General abnormal S&S NEC	17,170	(12,270-22,080)	69.5	(49.6-89.3)
Diseases of the skin & subcutaneous tissue*	16,690	(9,600-23,770)	67.5	(38.9-96.2)
Anaemias*	15,320	(11,420-19,220)	62.0	(46.2-77.8)
GP and Practice Nurse Combined				
Hypertension	178,040	(152,930-203,150)	720.3	(618.7-821.9)
General abnormal S&S NEC	120,820	(108,820-132,820)	488.8	(440.3-537.4)
Circulatory and respiratory S&S	107,150	(94,540-119,760)	433.5	(382.5-484.5)
Digestive/abdominal S&S	87,070	(76,670-97,470)	352.3	(310.2-394.3)
Conduction disorders & cardiac arrhythmias	76,090	(57,000-95,190)	307.9	(230.6-385.1)
Diabetes	69,010	(61,010-77,000)	279.2	(246.8-311.5)
Neurological/musculoskeletal S&S	64,990	(54,480-75,490)	262.9	(220.4-305.4)
Diseases of the skin & subcutaneous tissue*	62,270	(51,660-72,870)	251.9	(209.0-294.8)
Genitourinary S&S	54,060	(46,700-61,410)	218.7	(188.9-248.5)
Diseases of the urinary system including cystitis but**	53,180	(43,040-63,310)	215.1	(174.1-256.1)

S&S: Symptoms and signs NEC: not elsewhere classified

[1] Includes signs and symptoms (S&S) that do not necessarily have a confirmed diagnosis, classified according to body system. Classified using ISD's Read Code Groupings (RCGs). [2] Based on 59 PTI practices that submitted complete PTI data for the year ending 31 March 2011. [3] Population source: Community Health Index (CHI) record, as at 30 September 2010. [4] District nurse and health visitor data is not available for the financial year 2010/11. [5] As the estimates are based on data from a sample of practices, 95% confidence intervals are included to indicate the accuracy of these estimates.

*A full list and description of the Read code groupings (RCGs) is available at: http://www.isdscotland.org/Health-Topics/General-Practice/Publications/2011-11-29/PTI_Nov11_RCG_description.xls ** but excluding kidney and ureter disorders, glomerular & renal tubulo-interstitial disease, renal failure or urolithiasis.

Source: Practice Team Information (PTI), ISD Scotland, as at 29 of November 2011. http://www.isdscotland.org/PTI Accessed 210812

7 Use of Health Services – Secondary Care

This section covers the use of secondary health care services, including:

- Outpatient activity
- A&E attendances
- Emergency hospital admissions (including multiple emergency admissions & predicting the risk of emergency admission)
- Planned hospital admissions
- Bed days for selected Long Term Conditions
- Surgical procedures

For ease of reading, large data tables are included at the end of the chapter.

Key points:

Outpatient attendances:

- Total outpatient attendances have continued to rise throughout the period 1997/98 to 2010/11 (Figure 7.1).
- Rates are highest for the 65+ age group in each NHS Board area (Figure 7.2).

A&E attendances:

- For both males and females, the over 85s are more likely than any other age group to attend an Emergency Department (ED) or to be admitted following an attendance (Figure 7.4).
- For both males and females, 60-64 year olds are the least likely to attend an ED (Figure 7.4).
- Males aged 70 years and over, and females aged 75 years and over, have at least a 1 in 2 chance (greater than 50 %) of being admitted, following a new or unplanned return attendance at an ED (Figure 7.5).

Emergency hospital admissions:

- Emergency hospital admission rates are strongly related to patient age.
- The emergency admission rate and the emergency admission bed day rate for those aged 75+ are considerably higher than those of younger age groups (Figure 7.6, Figure 7.7).
- Emergency admission rates among those aged 75+ have increased during the ten year period from 2001/02 to 2010/11(Figure 7.6). However, emergency admission bed day rates among those aged 75+ have fallen during the same ten year period (Figure 7.7), presumably reflecting a shortening in the average length of stay.

- Generally, average length of stay following emergency admission increases with increasing age. There seems to be an effect of rurality, with the more rural and remote NHS Boards showing greater average length of stay for 75+ age groups (Figure 7.10).

- As the likelihood of emergency admission increases with age, so too does the likelihood of a patient having multiple emergency admissions (Figure 7.11).

- During the ten year period 2001/02 to 2010/11, the multiple emergency admission rate has increased among the oldest age groups (Figure 7.12).

- An individual's risk of being admitted to hospital as an emergency inpatient within the next year can be predicted using the SPARRA tool. SPARRA risk scores increase with increasing age (Figure 7.15).

Planned hospital admissions:

- Planned admission rates have declined over the period 1997/98 to 2010/11, with the greatest reductions observed for the 65-69 (75%) and 70-74 (78%) age groups (Figure 7.16).

- Average length of stay following planned admission does not seem to have a discernible overall pattern. For the mainland NHS Boards, there is a modest suggestion of a relationship between increasing age and an increase in average length of stay. However, this is not observed for more rural and remote areas (Figure 7.19).

Surgical procedures:

- Across surgical specialties, the number procedures rose by over 11% between 1997/98 and 2010/11 for people aged over 65 years (Figure 7.21).

- Trends by individual specialities present a complicated picture. Rates more than doubled for Orthopaedic and in Ear Nose and Throat surgery in the period following 2002/03 (Figure 7.21).

- Over the period 1997/98 to 2010/11, the number of cataract procedures carried out on a day case basis increased from 6,673 to 24,504 (Figure 7.25).

- In the same period, day case upper GI tract endoscopy rates increased whilst those for lower GUI tract endoscopies decreased. After an initial fall, urinary tract endoscopy rates have risen again (Figure 7.27a-c).

7.1 Outpatient Activity

7.1.1 Data definitions

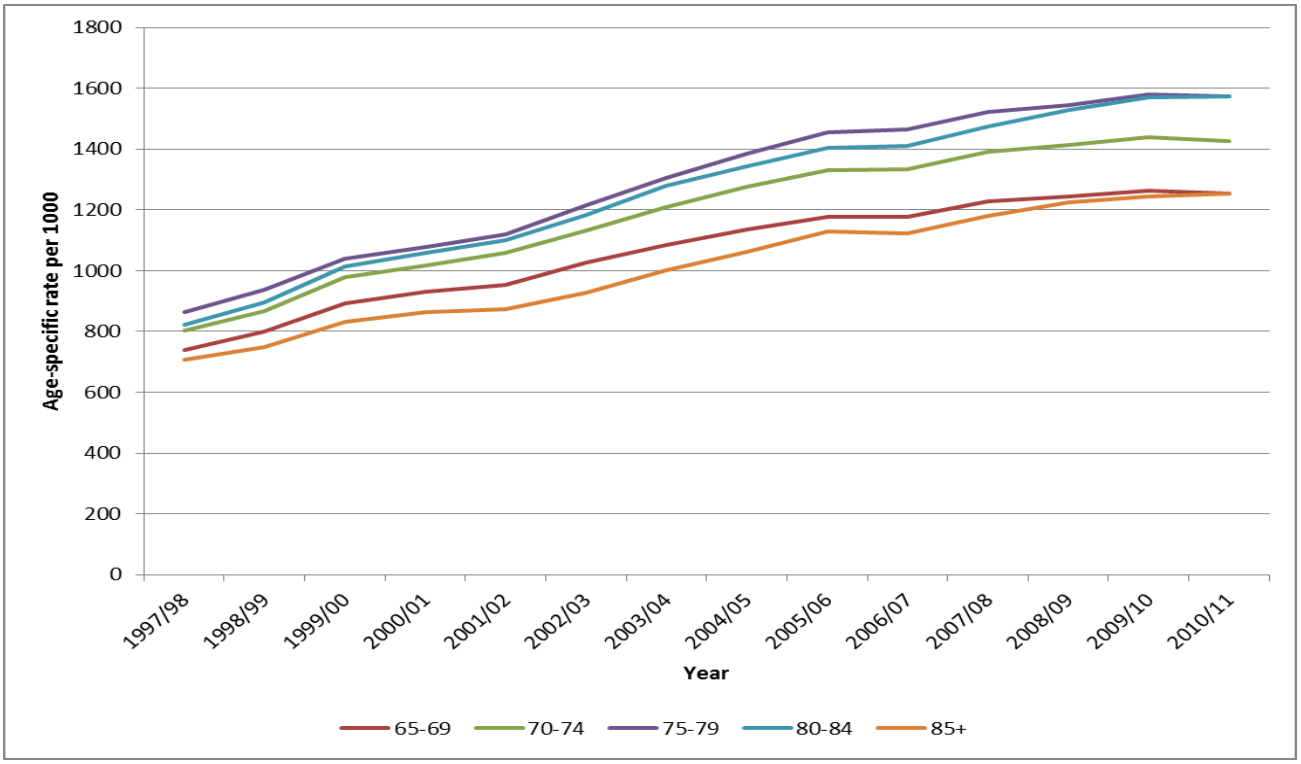
- An outpatient is a patient who attends a clinic for diagnosis or treatment. Outpatient clinics are generally consultant-led, however clinics led by nurse and allied health professionals are a growing feature within NHSScotland. An outpatient attendance can also involve a planned meeting with a consultant or a senior member of their team out-with a clinic session.

- Outpatient attendances can be categorised as new or follow-up (return) attendances. A clinic may be held in a hospital outpatient department, a health centre or another location. In these analyses, total outpatient activity (new and follow up appointments) are presented.

7.1.2 Total outpatient attendance rates by age

Across Scotland, for all age groups over the age of 65 years, there has been an increasing age-specific total outpatient attendance rate (Figure 7.1). Arguably, the slope of the rate increase has lessened in recent years, suggesting that this trend may plateau shortly.

Figure 7.1: Trends in total outpatient attendance, age-specific rates by age group: Scotland 1997/98 to 2010/11



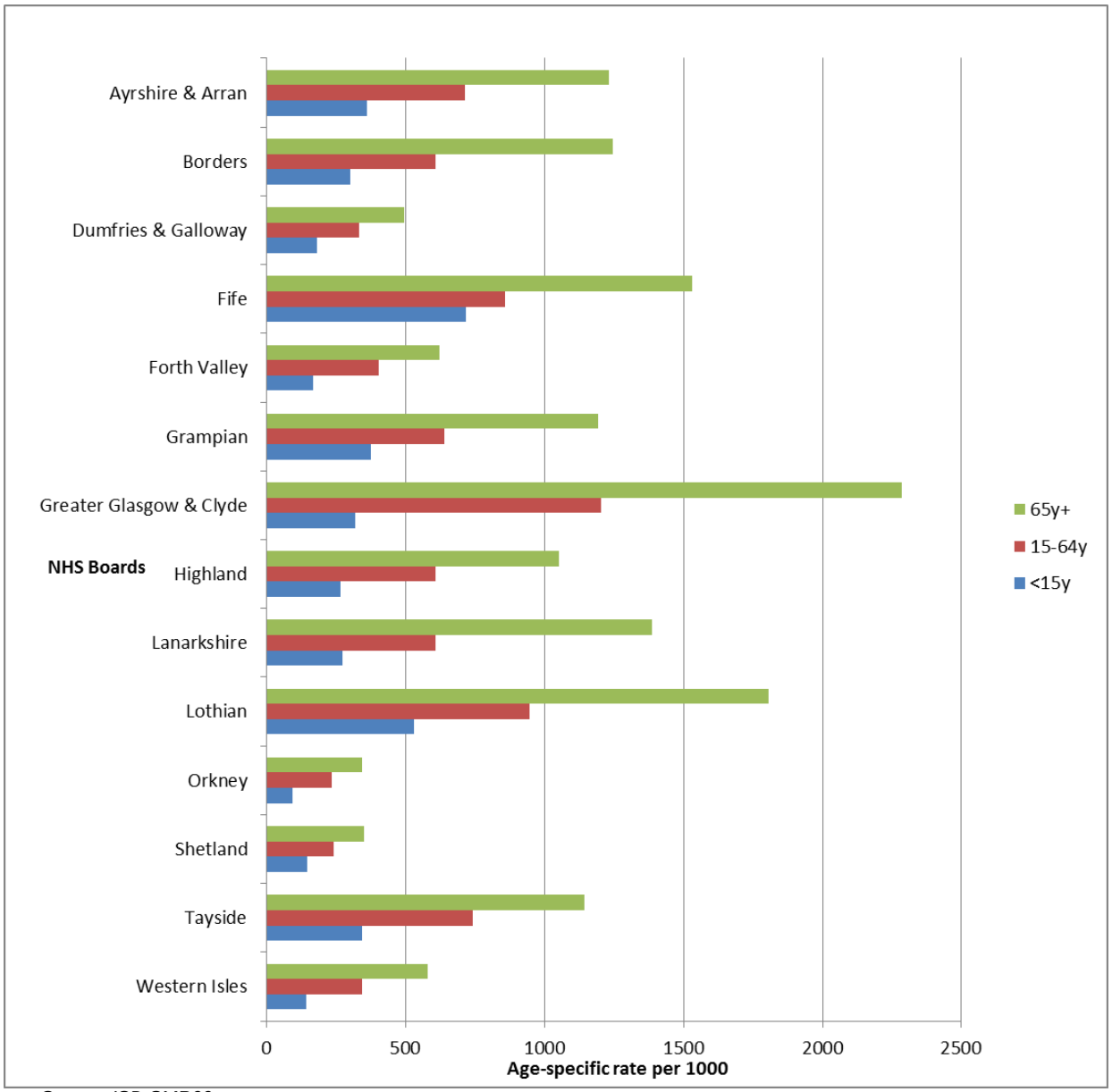
Source: ISD SMR00.

Over the total period, it is notable that the rates have increased by more than 50% for all the age groups, except the 80 to 84 age group (49.5%).

7.1.3 Total outpatient attendance by age for NHS Boards

Figure 7.2 shows for each of the 14 NHS Boards in Scotland the age-specific total outpatient attendance rates in people age over 65 years. As a comparator, rates for the under 15 and 15 to 64 years are also shown. As might be expected, the highest rates for each NHS Board occur in the 65 years and over age group. The rates also show the expected gradient across the age-groups.

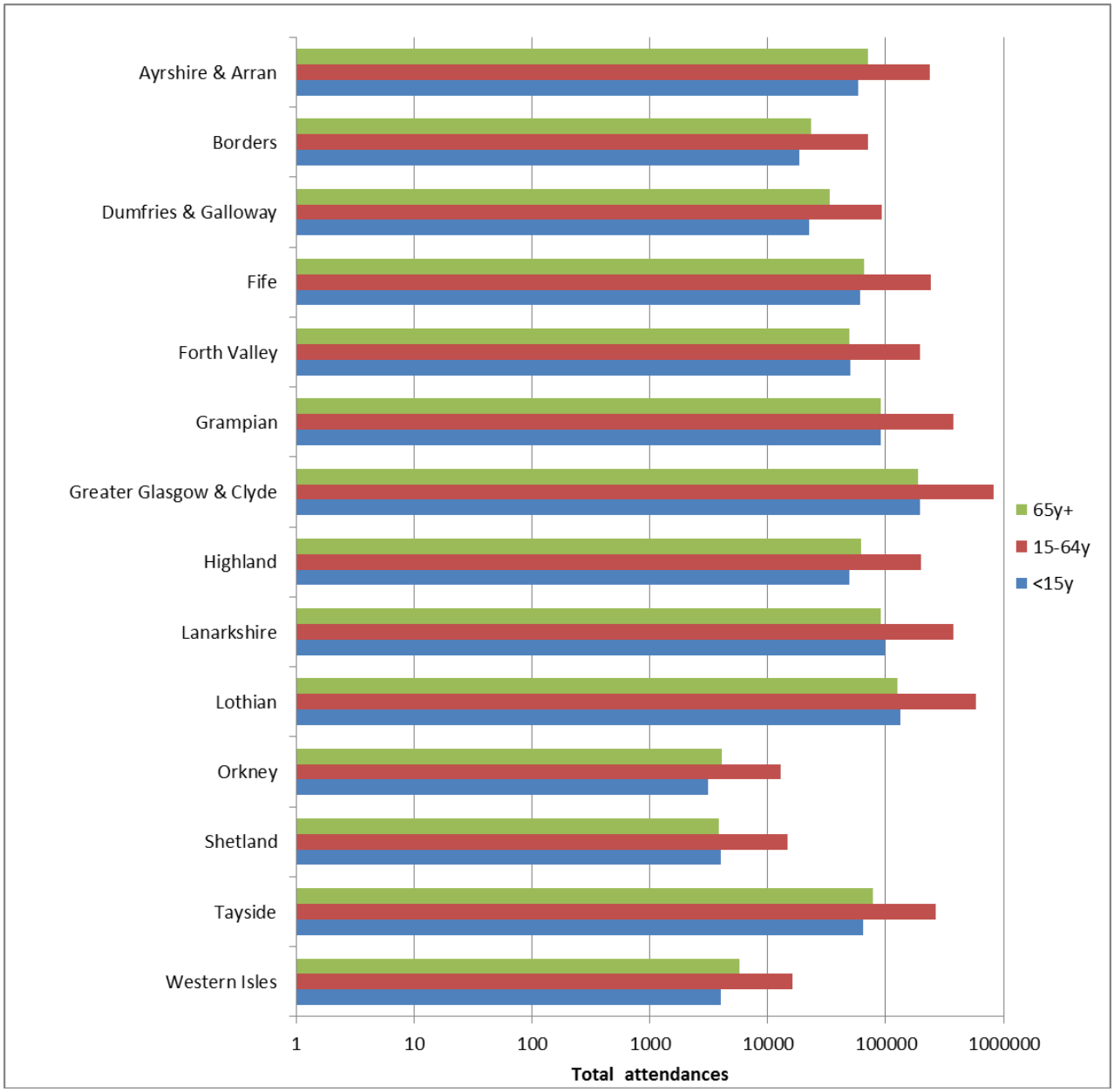
Figure 7.2: Total outpatient attendance rates by age group: NHS Boards 2010/11



Source: ISD SMR00.

For the purposes of facilitating Health Board planning, it is often more useful to know the numbers of patients rather than the rate. Figure 7.3 shows the total number of attendances in 2010/11 by Health Board. This figure uses a logarithmic scale for the numbers to allow the magnitude of the numbers to be seen more easily.

Figure 7.3: Total outpatient attendances by age group: Health Boards 2010/11



Notes: NB the use of a logarithmic scale.

Source: ISD SMR00.

7.2 Accident & Emergency (A&E) Attendances

A major part of the work of many acute hospitals involves the treatment of patients who have a health problem that requires urgent attention. Many of these patients will be treated within an Accident and Emergency (A&E) department and will not require a hospital admission. Typically a patient will be admitted as an emergency inpatient if their condition is considered by a doctor to be serious enough to warrant urgent hospital care and treatment.

7.2.1 Data definitions

The collective term Accident and Emergency Services includes the following site types:

1) Emergency Departments (EDs) – a consultant-led, 24 hour service with full resuscitation facilities and designated accommodation for the reception of emergency patients; and
2) MIU/Other – smaller sites such as Minor Injury Units (MIUs), community A&Es or community casualty departments that are GP or nurse led.

Four attendance categories are used for those presenting at Accident and Emergency services;

- New;
- Unplanned returns;
- Planned returns; and
- Recall attendances.

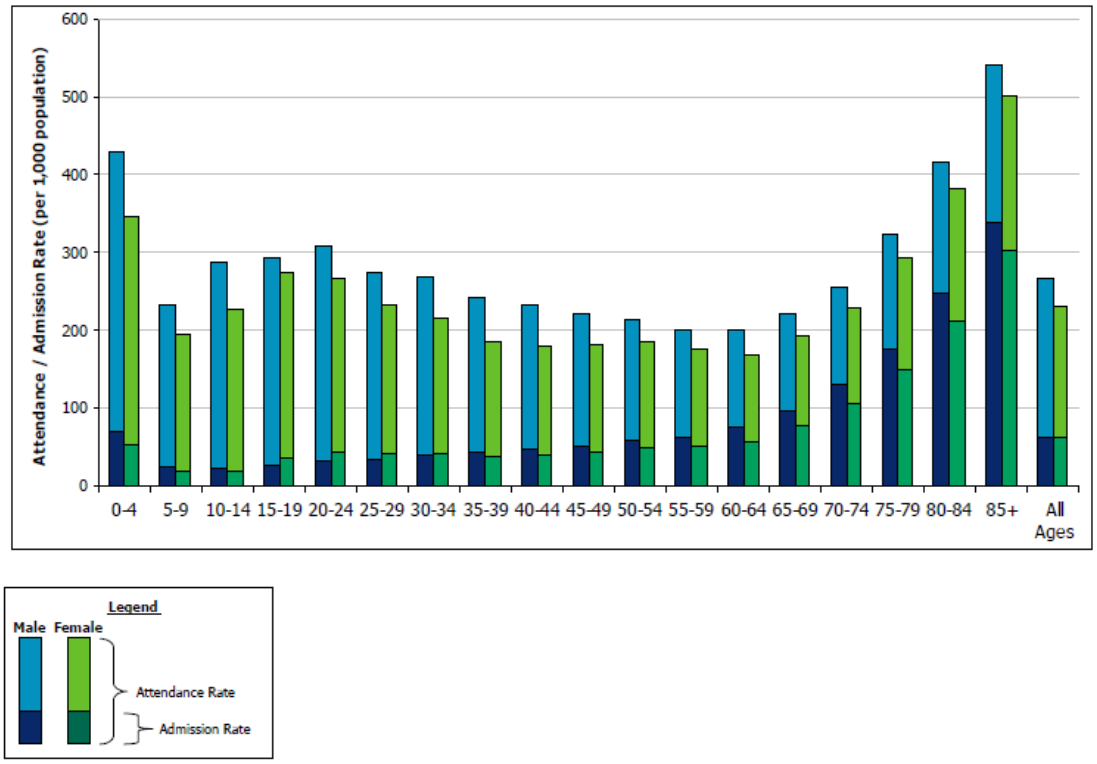
The first two of these categories are classed as new presentations while the latter two are classed as follow-up attendances, as they are connected with the original complaint.

7.2.2 A&E attendance rates by age

A&E attendance rates vary considerably by age. Figure 7.4 shows the attendance and admission rates for new and unplanned return attendances at EDs across Scotland during 2011/12:

- For both males and females, the over 85s are more likely than any other age group to attend an ED or to be admitted following an attendance;
- For both males and females, 60-64 year olds are the least likely to attend an ED; and
- Males are more likely than females to attend an ED at any age.

Figure 7.4: Attendance and admission rates for new and unplanned return attendances at Emergency Departments across Scotland, by age & gender, April 2011 to March 2012



Data for individual NHS Boards is available at http://www.isdscotland.org/Health-Topics/Emergency-Care/Publications/2012-05-29/ED-pub-demog-latest.xls

Source: Information Services Division (2012a)

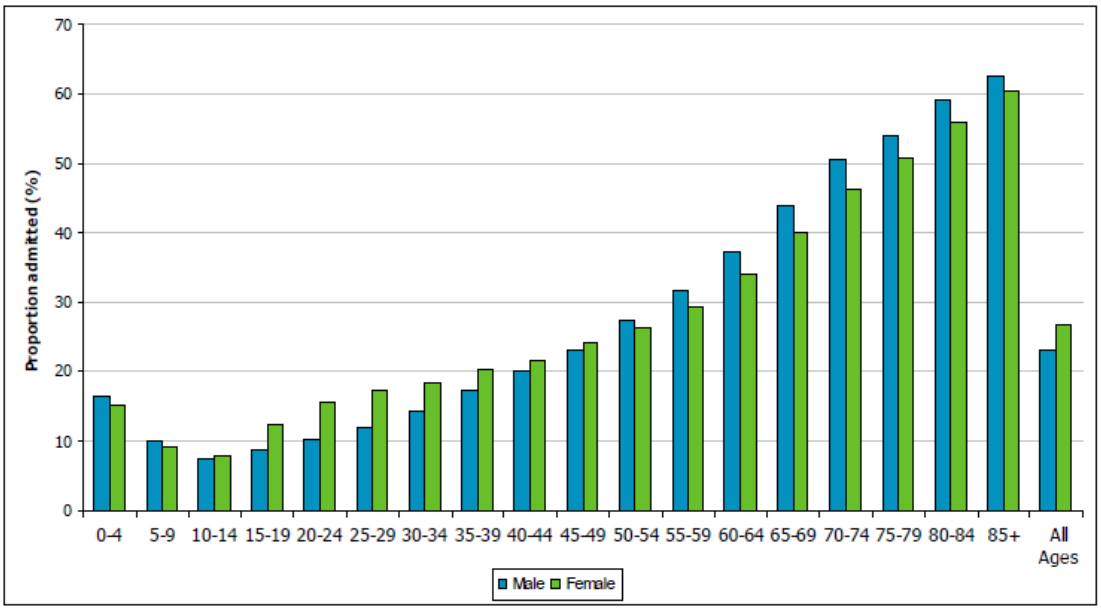
The number of first and total A&E attendances by age and sex is provided in Table 7.1 and Table 7.2.

7.2.3 Admission following attendance at an Emergency Department

A large proportion of older people attending an Emergency Department are subsequently admitted to hospital. Figure 7.5 shows the proportion of patients admitted following an attendance at EDs across Scotland by age band and gender. This is defined as the ratio of the admission rate and attendance rate for each group. It can be seen that:

- From the age of 10 years onwards, the older you are the more likely you are to be admitted; and
- Males aged 70 years and over, and females aged 75 years and over, who attend have at least a 1 in 2 chance (greater than 50%) of being admitted.

Figure 7.5: Proportion of patients admitted following a new or unplanned return attendance at Emergency Departments across Scotland, by age & gender, April 2011 to March 2012



Data for individual NHS Boards is available at http://www.isdscotland.org/Health-Topics/Emergency-Care/Publications/2012-05-29/ED-pub-demog-latest.xls

Source: Information Services Division (2012a)

7.3 Emergency Hospital Admissions

A steady rise in the number of emergency inpatient admissions has been a major source of pressure for the NHS over the past twenty years. Emergency admission rates are strongly related to patient age.

7.3.1 Data definitions

The following definitions are used:

- *Emergency admission:* a new continuous spell of care in hospital where the patient was admitted as an emergency.
- *Multiple emergency admission:* If a patient has more than one unplanned continuous spell of treatment in hospital in one year, this is defined as a multiple emergency admission for that patient.
- *Bed days*: Occupied bed days are used to quantify the availability and use of beds over time. These are calculated by counting the number of days between the date of admission associated with the beginning of a patient's continuous spell of treatment and the date of discharge associated with the end of the same spell of treatment. Only emergency admissions with a length of stay of 365 days or less are included in bed day analyses.

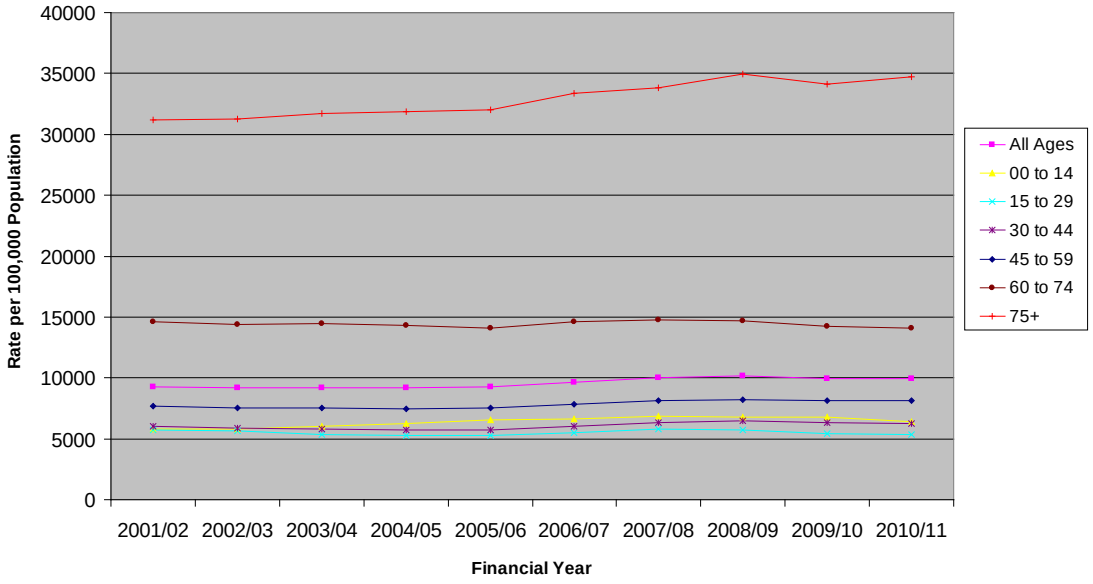
More detail on how emergency admissions, multiple emergency admissions and bed days are defined and calculated is provided in ISD's Multiple and All Emergency Admissions Interpretation document.

7.3.2 Emergency hospital admission rates by age

Emergency hospital admission rates vary considerably by age (Figure 7.6):

- The emergency admission rate among those aged 75 years and over is considerably higher than that of younger age groups; and
- The emergency admission rate for those aged 75 years and over has increased during the ten year period from 2001/02 to 2010/11.

Figure 7.6: Trends in emergency admission rates in Scotland by financial year and age group



Notes:
Data is based on SMR01 data and excludes obstetric and psychiatric services.
Data is based on the date of discharge rather than the date of admission.
Lengths of stay greater than 365 days have been excluded.

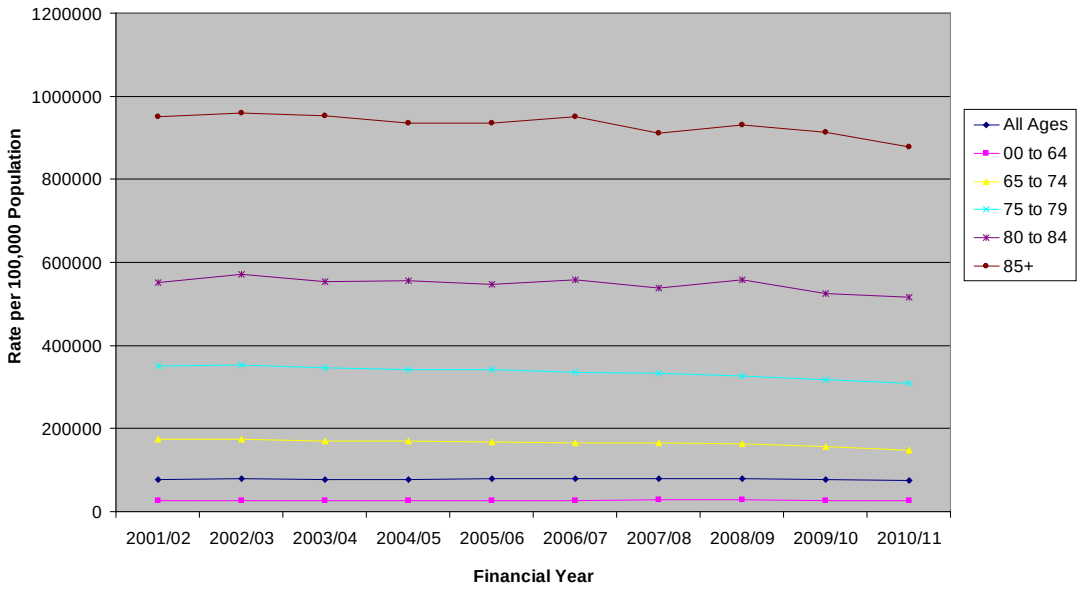
Data for NHS Boards, Community Health Partnerships and local authority areas is available at
http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls

Source: Information Services Division (2012b)

7.3.3 Emergency hospital admission bed day rates by age

The emergency admission bed day rate (which reflects length of stay) is also considerably higher among the older age groups (Figure 7.7). However, emergency admission bed day rates for those aged 75+ have fallen during the ten year period from 2001/02 to 2010/11, despite the increase in the emergency admission rate described in Figure 7.6 (presumably reflecting a shortening in the average length of stay).

Figure 7.7: Trends in emergency admission bed day rates in Scotland by financial year and age group



Notes:
Data is based on SMR01 data and excludes obstetric and psychiatric services.
Data is based on the date of discharge rather than the date of admission.
Lengths of stay greater than 365 days have been excluded.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls

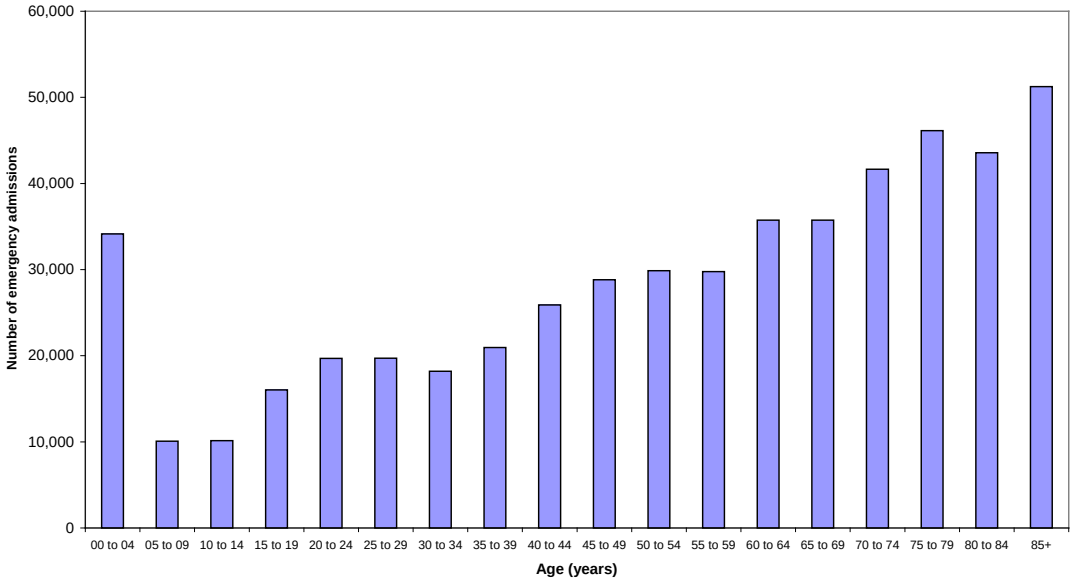
Source: Information Services Division (2012b)

7.3.4 The number of emergency hospital admissions by age

When planning the provision of services for older people, it is useful to know not only the different admission rates in the different age groups, but also the actual number of emergency admissions.

Figure 7.8 shows the number of emergency admissions for Scotland by age. Although the number of admissions generally increases with age, the increase is not smooth across all the age groups (reflecting the different admission rates and population sizes of the different age groups).

Figure 7.8: Number of emergency admissions by age, Scotland, 2010/11[p]



Notes:
p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).
The data is based on SMR01 data and excludes obstetric and psychiatric services.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls

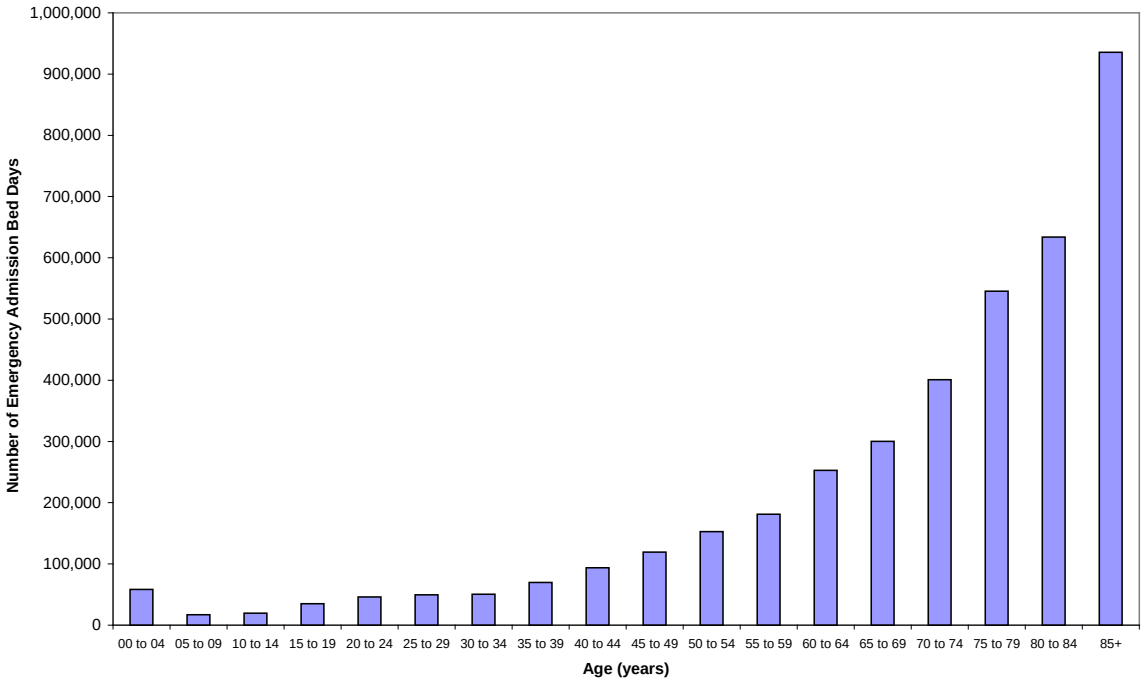
Data source: Information Services Division (2012b)

The number of emergency admissions by age over time (2001/02 to 2010/11) is provided in Table 7.3. The number of emergency admissions has fallen for some of the younger age groups but has risen among the older age groups. The number of emergency admissions among those aged 85 years plus, for example, has risen from 38,659 in 2001/02 to 51,255 in 2010/11 (representing an increase of 33% during the ten year period).

7.3.5 The number of emergency hospital admission bed days by age

The number of emergency admission bed days shows a sharp increase with increasing age (Figure 7.9).

Figure 7.9: Number of emergency admission bed days by age, Scotland, 2010/11 [p]



Notes:
p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).
Data is based on SMR01 data and excludes obstetric and psychiatric services.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls

Data source: Information Services Division (2012b)

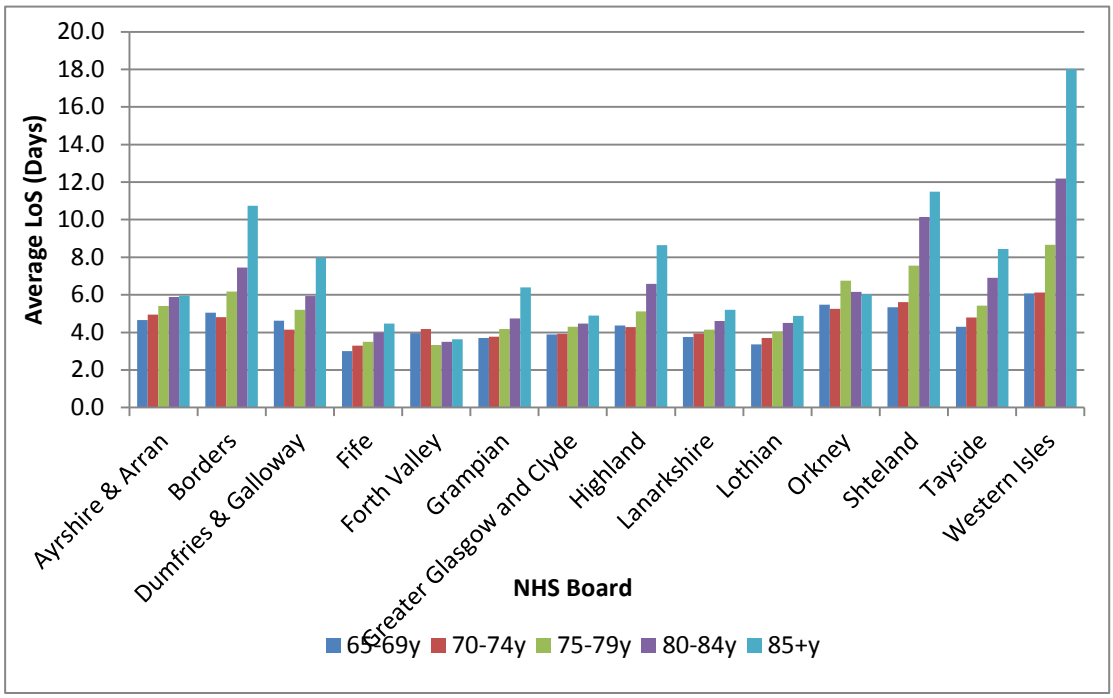
Over time, the overall number of emergency admission bed days (for all ages combined) has remained fairly stable during the ten year period 2001/02 to 2010/11 (Table 7.4) but has varied according to age, with the number of emergency admission bed days for those aged 85 years plus, for example, having increased from 844,149 to 935,519 over the ten year period (an increase of 11%).

7.3.6 Average length of stay following emergency admission

Figure 7.10 shows the average length of stay following emergency admissions by age-group for each of the NHS Boards in 2010/11. Generally, average length of stay increases with increasing age.

What is noticeable is that there seems to be an effect of rurality, with the more rural and remote Health Boards showing greater average length of stay for the oldest age groups. The exception to this is NHS Orkney.

Figure 7.10: Average length of stay (days) following emergency admission by age-groups for NHS Boards 2010/11



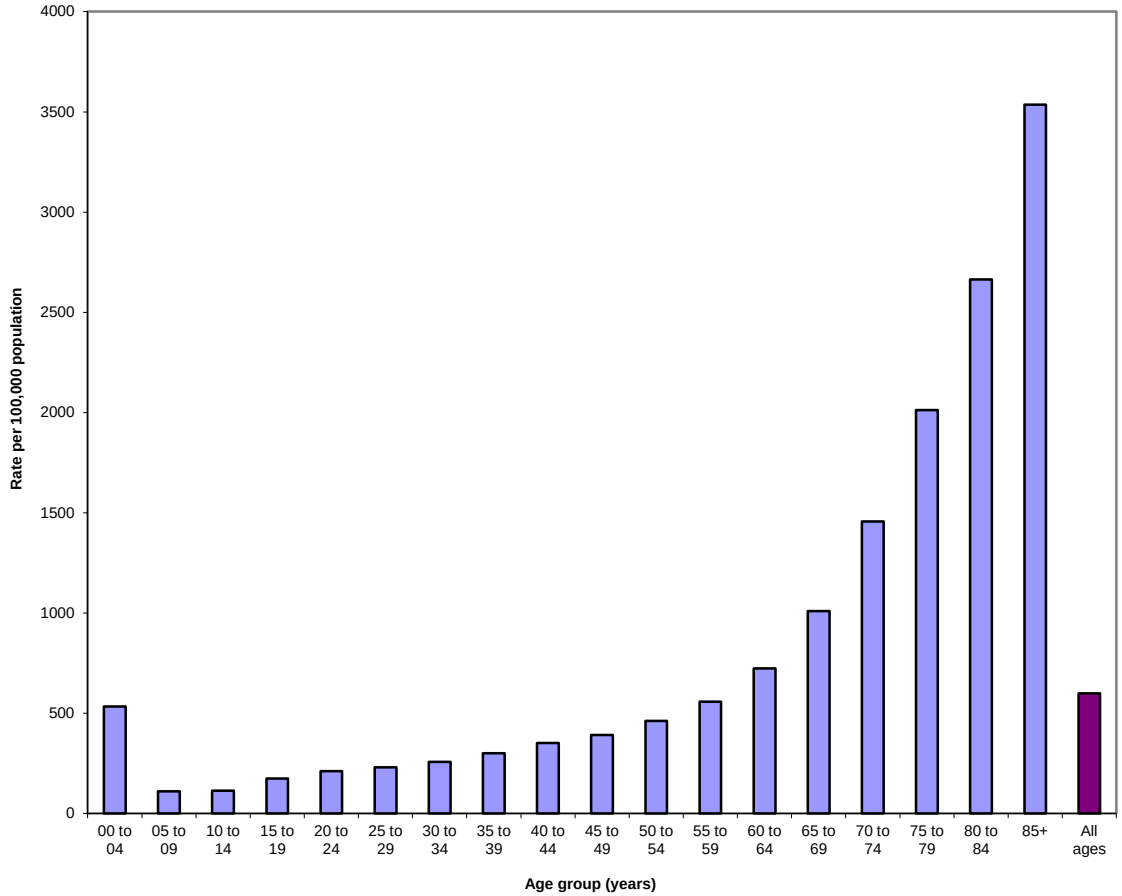
Notes
1. Inpatients have been analysed by Continuous Spell of Treatment (CIS) in hospital. 2. Probability matching methods have been used to link together for each patient, thereby creating "linked" patient histories whether or not this involves transfer between hospitals or even Health Boards.

Source: ISD SMR 01.

7.3.7 Multiple Emergency Admissions by Age

As the likelihood of emergency admission increases with age, so too does the likelihood of a patient having multiple emergency admissions (i.e. having more than one hospital admission in a particular year, either for the same condition or for different conditions). Figure 7.11 and Table 7.5 show how admission rates for those with 3 or more emergency admissions in a particular year increase sharply with increasing age. A similar age pattern is seen for those with two emergency admissions in a year (Table 7.6).

Figure 7.11: Patients with 3 or more emergency admissions (patient admission rates per 100,000 population), Scotland, 2010/11[p]



Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Only emergency admissions have been included.

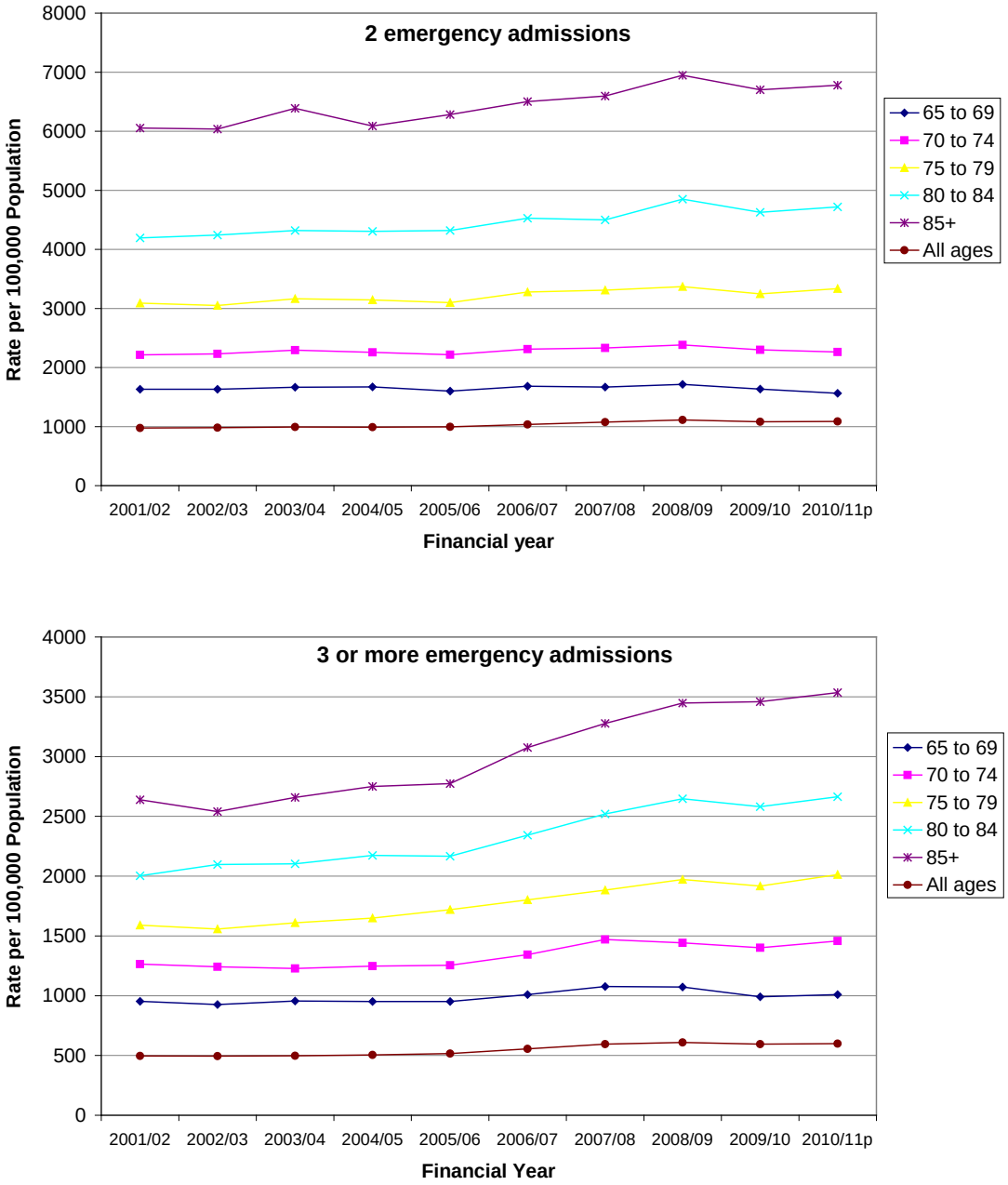
Data is based on year of discharge.

Lengths of stay greater than 365 days have been excluded.
Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data: http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 030912

Looking at trends over time, the multiple emergency admission rate has increased in recent years among the oldest age groups, particularly for 3 or more admissions (Figure 7. 12, Table 7.5, Table 7.6).

Figure 7.12: Trend of patient admission rates for patients with 2 or more emergency admissions (in the financial year shown), by age, Scotland, 2001/02 to 2010/11[p]



Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Only emergency admissions have been included.
Data is based on year of discharge. Data refers to either '2' or '3 or more' (as labelled) emergency admissions within the particular financial year shown.

Lengths of stay greater than 365 days have been excluded.

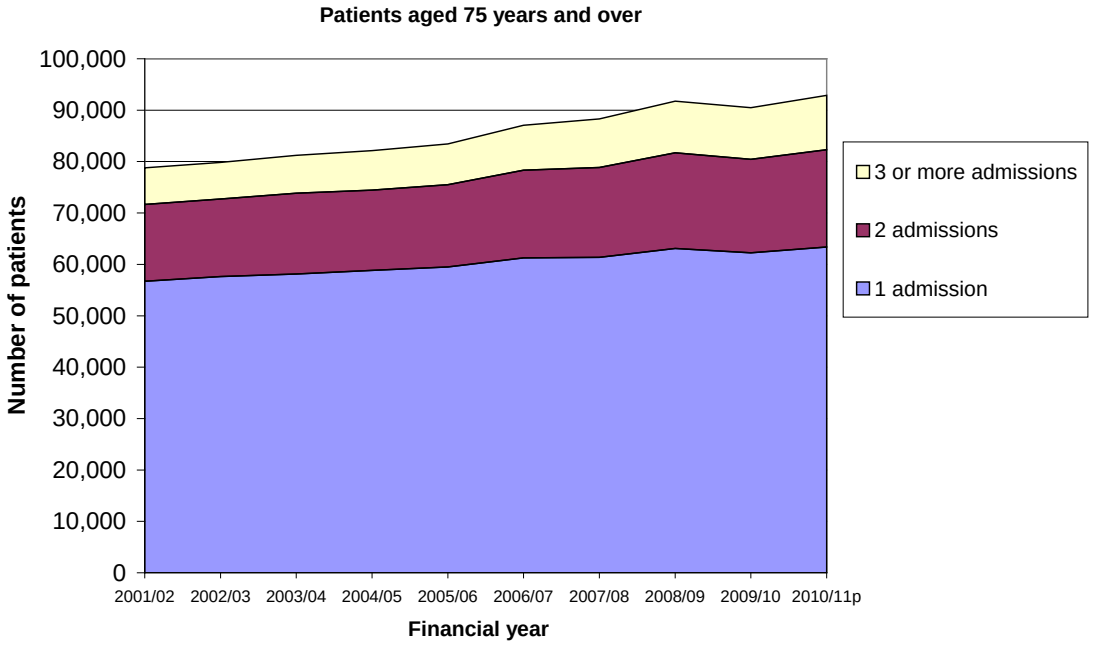
Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data used to create graph: http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 030912 & 231012

In terms of the number of patients aged 75 years and over admitted as an emergency:

- Both the number of single and multiple emergency admissions is increasing (Figure 7.13 & Table 7.7);
- While the number of bed days occupied by those with a single emergency admission has fallen during the ten year period from 2001/02 to 2010/11, the number of bed days occupied by those with 2 or more emergency admissions has risen during the same period (Figure 7.14 & Table 7.8).

Figure 7.13: Number of patients (aged 75+) with 1 or more emergency admissions, by financial year 2001/02 to 2010/11[p], Scotland



Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

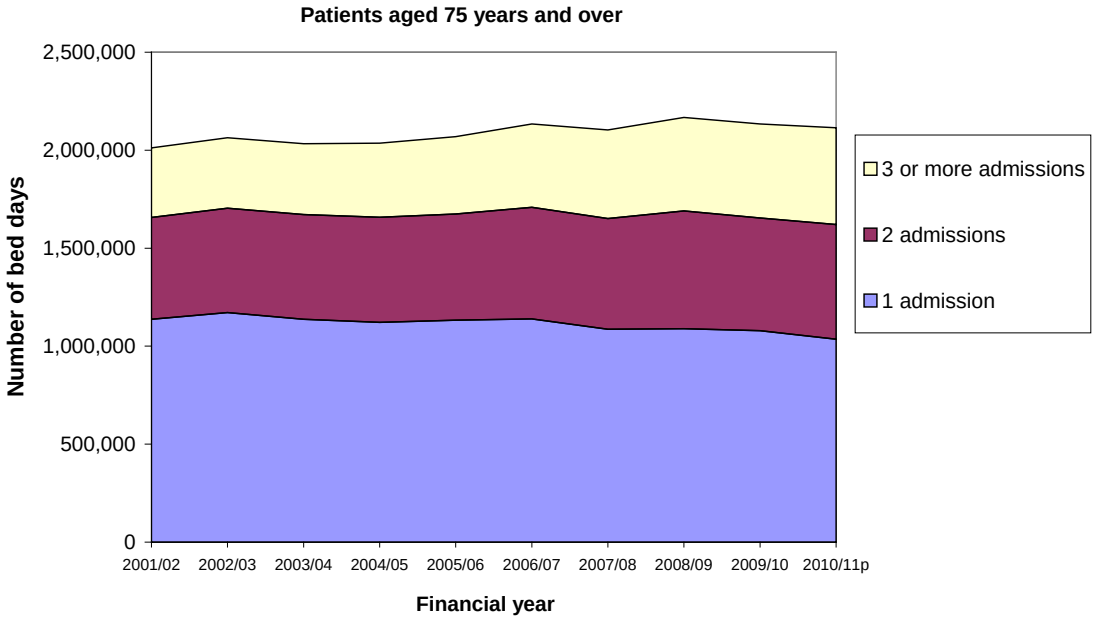
Only emergency admissions have been included. Data is based on year of discharge.

Lengths of stay greater than 365 days have been excluded.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data: taken from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 060912

Figure 7.14: Bed days occupied by patients (aged 75+) with one, two and three or more emergency admissions in a 1 year period, by financial year 2001/02 to 2010/11[p], Scotland



Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Only emergency admissions have been included. Data is based on year of discharge.

Lengths of stay greater than 365 days have been excluded.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data: taken from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 060912

7.3.8 Predicting the risk of emergency hospital admission in the next 12 months – SPARRA data

Scottish Patients at Risk of Readmission and Admission (SPARRA) is a risk prediction tool developed by ISD which predicts an individual's risk of being admitted to hospital as an emergency inpatient within the next year.

SPARRA data can help health care professionals to identify patients with complex care needs who are likely to benefit most from anticipatory health care. SPARRA data can also be used in a service planning capacity by locating groups of patients who would benefit from specific interventions or services. The development of SPARRA reflects the growing recognition of the need to shift from a healthcare system geared towards reactive, hospital-based treatment of acute conditions to one that is more community based with a preventative and anticipatory approach.

The current SPARRA algorithm, SPARRA Version 3 (which was implemented in January 2012), links data relating to hospital admissions, prescriptions (dispensed items), new outpatient attendances, Emergency Department attendances and psychiatric hospital admissions in order to predict an individual's risk of emergency hospital admission in the outcome year.

SPARRA scores are calculated for approximately 3.3 million individuals in Scotland (95% of patients experiencing an emergency hospital admission during a year appear in the SPARRA Version 3 cohort). SPARRA coverage by age is shown in Table 7.9.

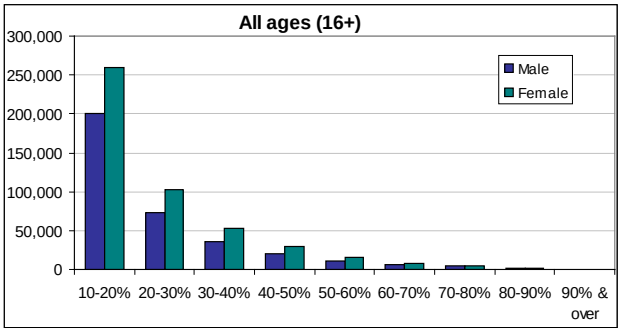
SPARRA scores can range from 1 to 99%. Patients with a score of 50%, for example, are generally said to have a 1 in 2 chance of being admitted to hospital in the prediction year.

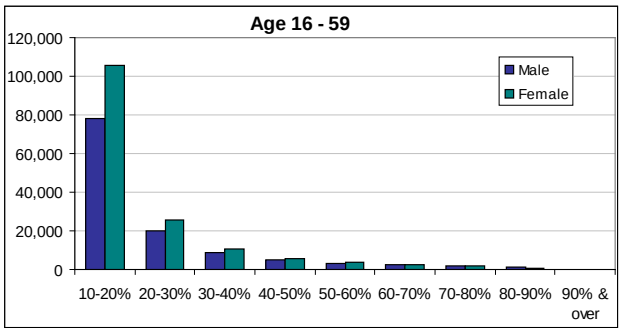
7.3.9 Risk of emergency admission, 1 July 2012 to 30 June 2013

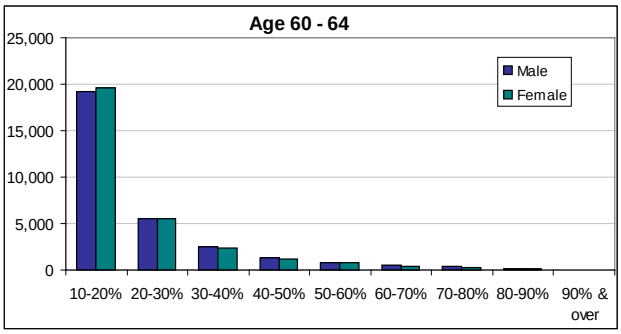
Figure 7.15 shows how the SPARRA risk score distribution varies by age and gender - as age increases, the distribution of scores 'shifts' towards higher risk scores. The data is based on the July 2012 SPARRA Version 3 cohort and shows the risk of emergency admission in the period 1st July 2012 to 30th June 2013. Figure 7.15 excludes individuals who have a risk score of less than 10% - of which there are approximately 2.45 million in the July 2012 cohort (Table 7.10).

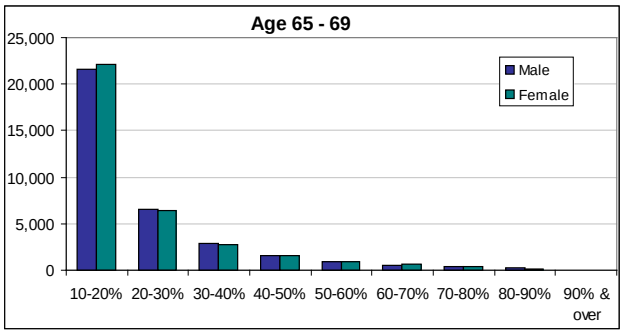
Figure 7.15: Risk score distribution of individuals in the July 2012 SPARRA Version 3 cohort [1,2] by age[3] and gender

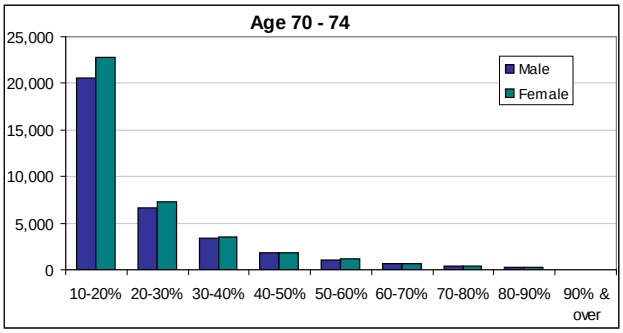
Please note that the y-axis scale is not consistent across these charts

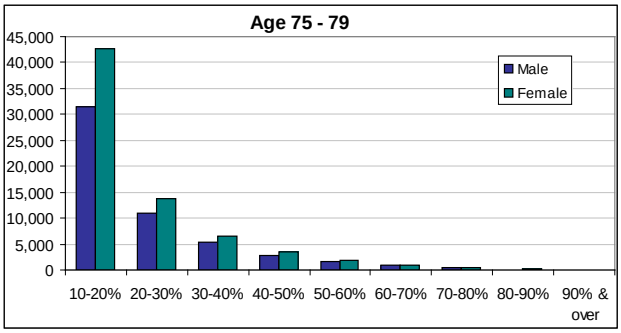


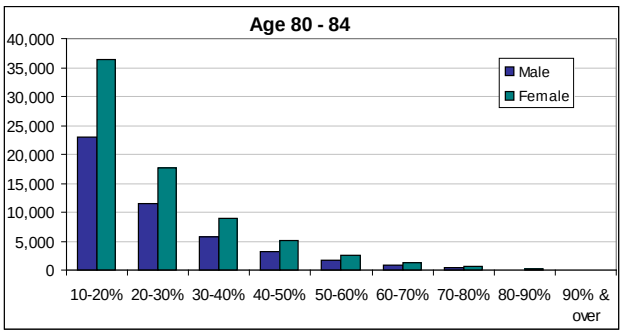


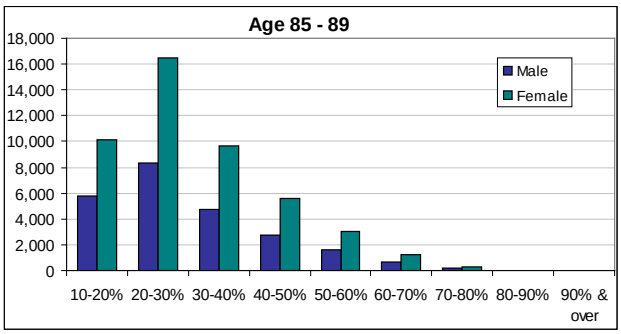


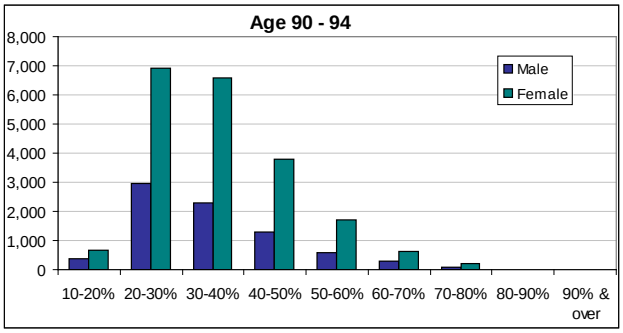


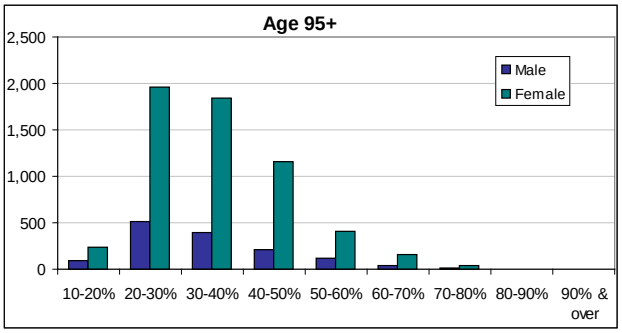












1. SPARRA Version 3 estimates the risk of emergency hospital admission in the next 12 months for approximately 3.3 million individuals. For the July 2012 release, this is the risk of emergency admission in the period 1st July 2012 to 30th June 2013. Risk scores are calculated based on each individual's history of hospital admission, prescriptions, A&E attendance, outpatient attendance and psychiatric inpatient admission.

2. These figures exclude individuals who have a risk score of less than 10% - of which there are 2.45 million in the July 2012 SPARRA V3 cohort.

3. Age at 1st July 2012.

Source: ISD Scotland, SPARRA V3 July 2012 release

7.4 Planned hospital admissions

Unlike emergency hospital admissions, the rate of planned admissions for hospital care for older people has fallen in recent years. There is a strong relationship to age though in the opposite direction to emergency inpatient admissions.

7.4.1 Data definitions

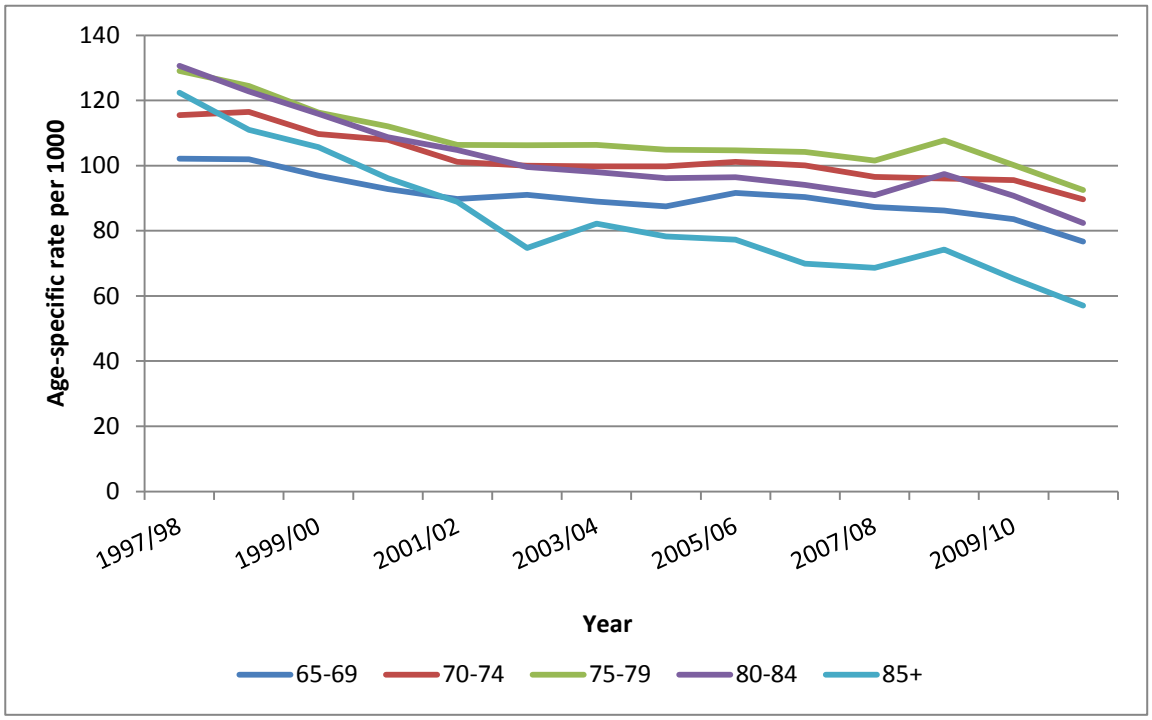
A planned admission is exactly that, an admission for routine treatment that has been planned. It includes inpatient admissions from waiting lists and planned transfers. To achieve this, the data have been analysed by Continuous Spell of Treatment (CIS).

7.4.2 Planned admissions to hospital

Age-specific rates per 1000 population have been calculated for all planned admissions to hospital in Scotland between 1997/98 and 2010/11. These data are shown in Figure 7.16. This shows that:

- the rates have declined over the period 1997/98 to 2010/11
- the reductions have been most pronounced for the 65-69 (75%) and 70 to 74 (78%) age groups.
- the reduction in the 85+ age group has been the least (47%).

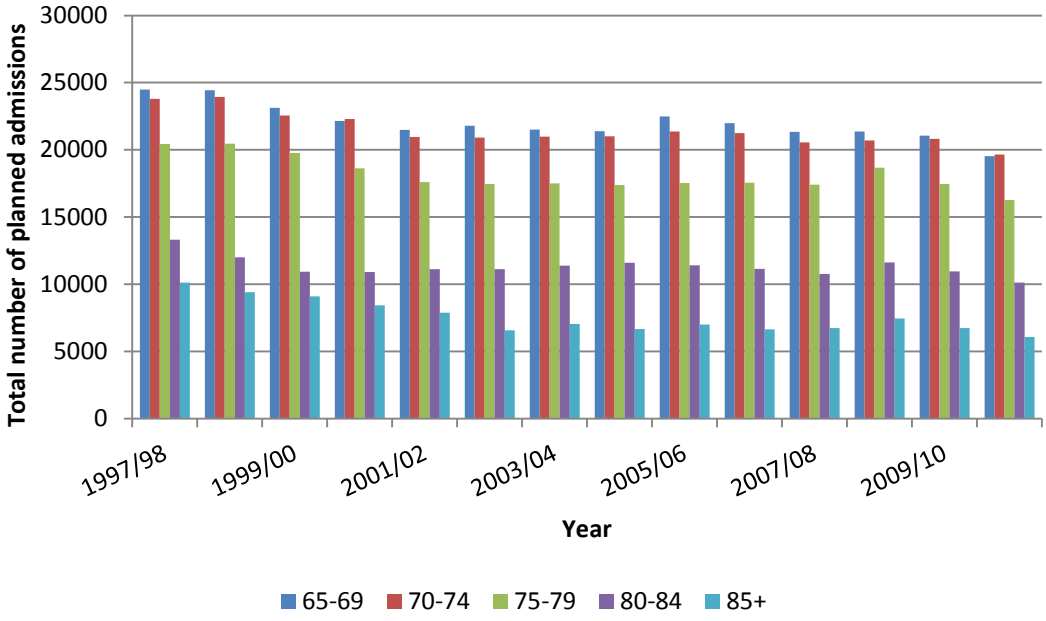
Figure 7.16: Age-specific planned admission rates by age-group: Scotland 1997/98 to 2010/11



Source: ISD, SMR01

Figure 7.17 shows the number of attendances which underlie the rates presented above (Figure 7.16). These are primarily provided for planning purposes. However, it is interesting to note that the overall fall in the number of total, planned inpatient admissions across Scotland is more than offset by the number of emergency inpatient admissions. For example between 2001/2002 the number of planned admissions in the oldest age group (85+) fell by 21% (from 7889 to 6082). In the same period the emergency admissions rose by 33% (from 38,659 to 51,255) (See Table 7.3).

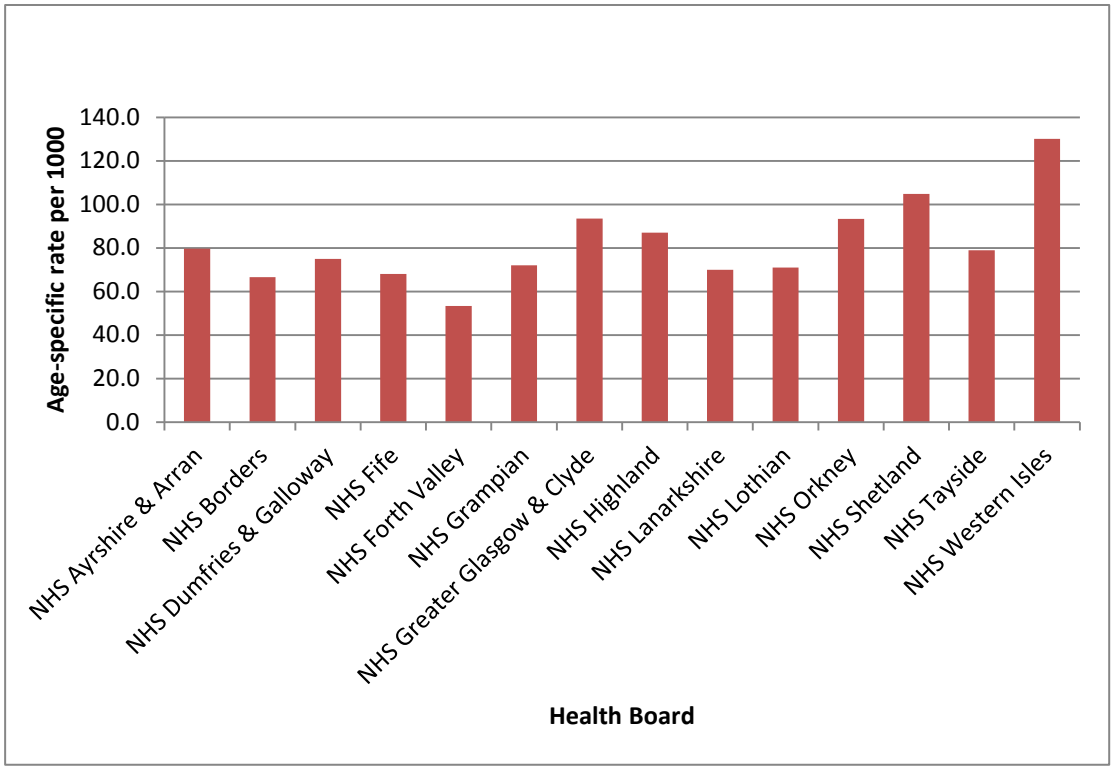
Figure 7.17: Total number of planned inpatient attendances by age group: Scotland 1997/98 to 2010/11



Source: ISD, SMR01

Data for individual Health Boards of residence in Scotland has also been analysed for 2010/2011. The age-specific rates per 1000 population have been calculated for all planned admissions to hospital are shown in Figure 7.18. This data suggests that the higher rates of planned admissions are for older people resident in Island and rural health boards.

Figure 7.18: Age-specific planned admission rates by age-group: Scotland 1997/98 to 2010/11



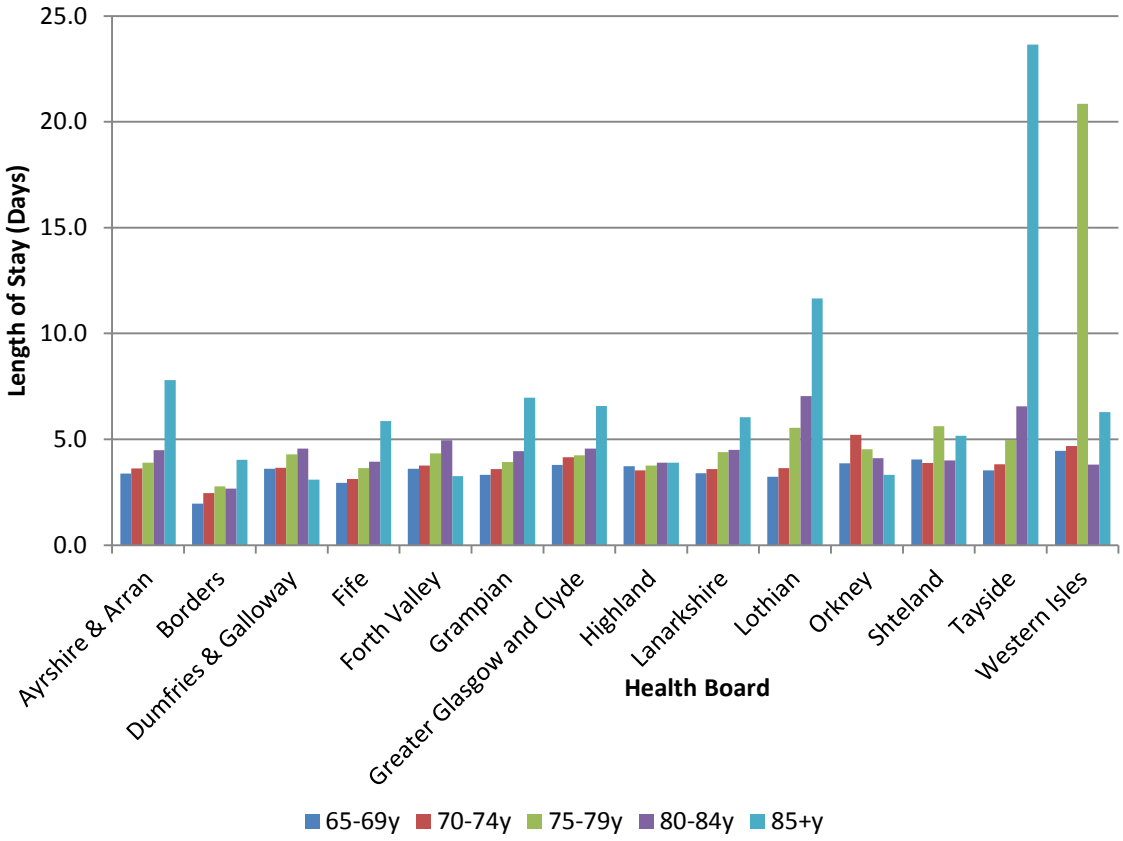
Source: ISD, SMR01

7.4.3 Average length of stay following planned admissions

As with emergency admissions, the average length of stay is an important consideration for planning purposes. Figure 7.19 shows the average length of stay (in days) for all planed admissions in 2010/11 for NHS Board of residence by age group.

Unlike the data from length of stay following emergency admissions, there does not seem to be a discernible overall pattern. For the mainland NHS Boards, there is a modest suggestion of a relationship between increasing age and an increase in average length of stay. However, for the rural and remote areas – the island NHS Boards and Dumfries & Galloway – there is a more u-shaped distribution.

Figure 7.19: Average length of stay (days) following planned inpatient admission by age-groups for NHS Boards 2010/11



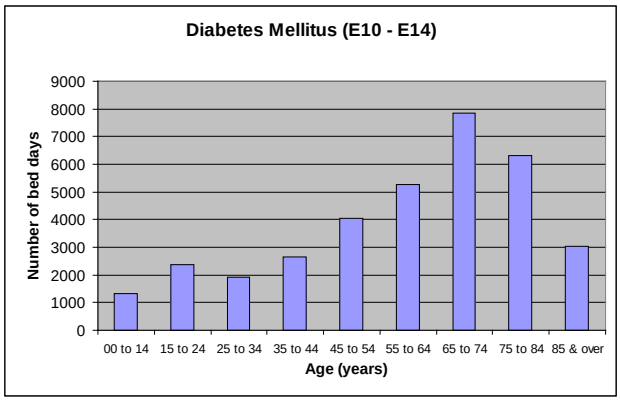
7.5 Bed Days for Selected Long Term Conditions

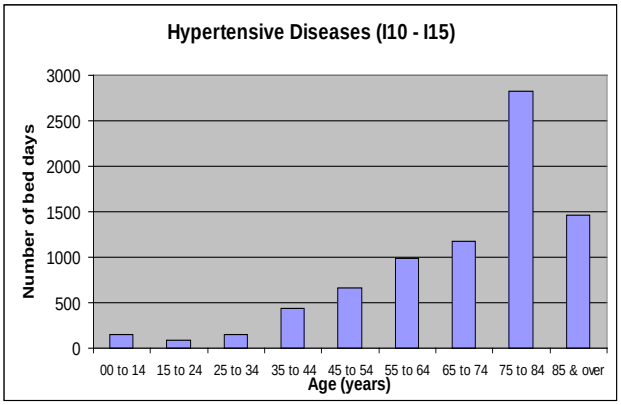
Figure 7.20 and Table 7.11 show the number of occupied bed days (for "acute specialty" inpatient and day case admissions) in Scotland in 2010/11 for patients with a main condition from the selected long term conditions (LTCs) of: diabetes mellitus; hypertensive diseases; angina; acute myocardial infarction; other ischaemic heart disease; heart failure; COPD; and asthma. These show:

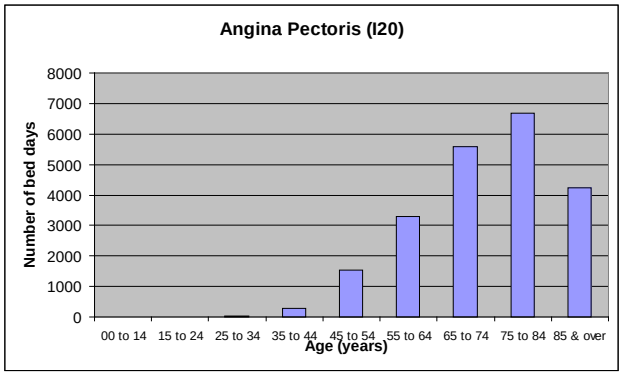
- A peak among those aged 75 to 84 years in the number of occupied bed days for several of the long term conditions shown (i.e. Hypertensive Diseases, Angina, Acute Myocardial Infarction, Other Ischaemic Heart Disease, Heart Failure and COPD); and
- Considerably more bed days were required for COPD than any other individual LTC listed.

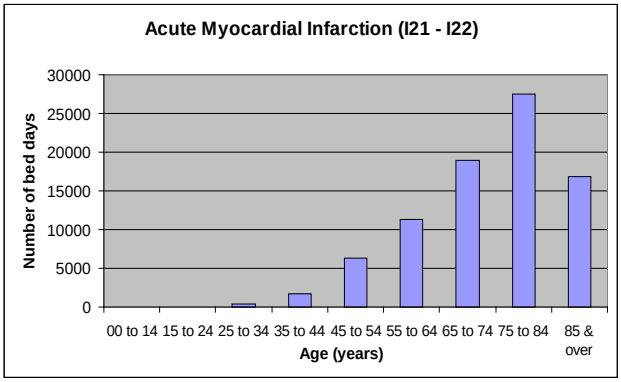
Figure 7.20: Number of bed days by main diagnosis for selected long term conditions, Scotland, 2010/11[p], males and females combined

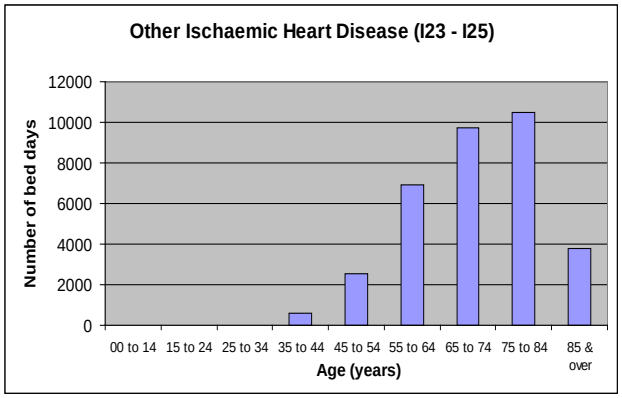
Please note that the y-axis scale is not consistent across these charts

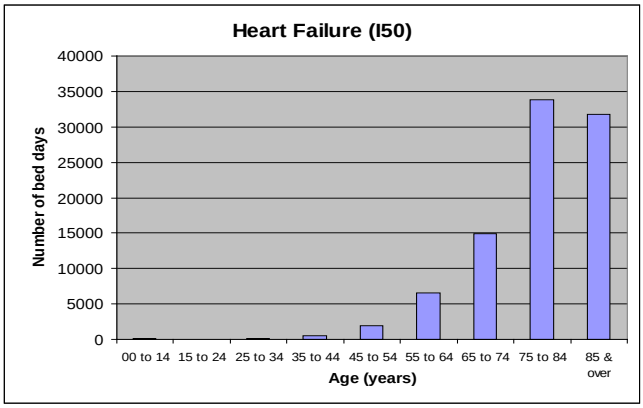


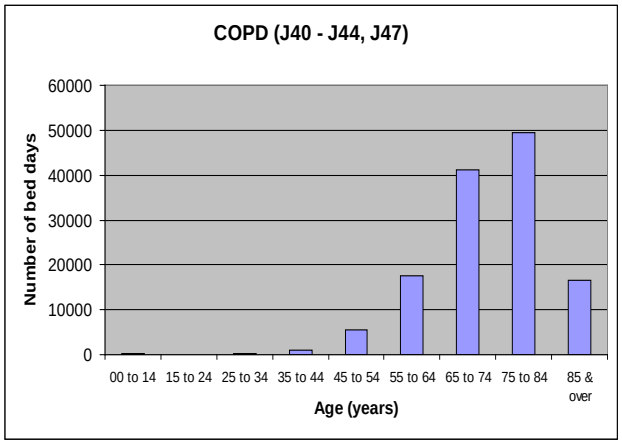


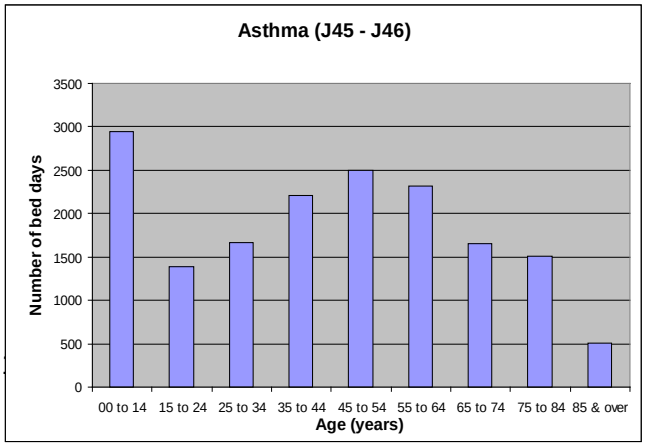












Notes:

[p] Data for NHS Scotland for 2010/11 are estimated to be only 97% complete and are therefore provisional.

Source is SMR01.Data is all Inpatient & Day Case discharges from "acute" specialties, i.e. excludes obstetric, psychiatric and geriatric long stay specialties.

Bed Days are calculated using the length of stay variable.

Data for individual NHS Boards is available from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/HEAT_Long_Term_Conditions_HB_Mar12.xls

Data for individual CHPs is available from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/HEAT_Long_Term_Conditions_CHP_Mar12.xls

Source of data used for figures: http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/HEAT_Long_Term_Conditions_HB_Mar12.xls Accessed 130912

7.6 Surgical Procedures

Data on surgical procedures for people aged over 65 years are not routinely published in Scotland. Specific analyses have therefore been undertaken for inclusion in the health and social care need assessment. These analyses have focussed on Scotland-wide data only by surgical specialty and most common inpatient and day case surgical procedures.

7.6.1 Data Definitions

All inpatient and day case surgical procedures are recorded as part of the SMR01 data set which records the surgical speciality under which the patient has been admitted and the surgical procedure undertaken.

- Specialty - a specialty is defined as a division of medicine or dentistry covering a specific area of clinical activity and identified within one of the Royal Colleges or Faculties. Surgical specialties are a sub-section of all specialties.
- Surgical procedure – an intervention performed by surgery. These are currently defined using the Office of Population Censuses and Survey classification (version 4) for procedures in acute hospitals in Scotland.
- Inpatient surgery – surgical procedures carried out whilst the patient is an inpatient within a hospital
- Day case surgery – surgical procedures carried out during a planned attendance, but does not require an overnight stay.

In extracting data for analysis, the most common surgical procedures among older people were selected. These are: arthroscopic procedures; cataract procedures; procedures on the retina; other eye procedures; fracture reduction/fixation; other bone/joint procedures; skin lesion excision/destruction; female genital tract examination; other procedures to the female genital tract; laryngoscopy; lower gastrointestinal endoscopy; upper gastrointestinal endoscopy; pharyngoscopy; urinary tract endoscopy; other urinary procedures; and other miscellaneous procedures.

7.6.2 Inpatient surgical procedures

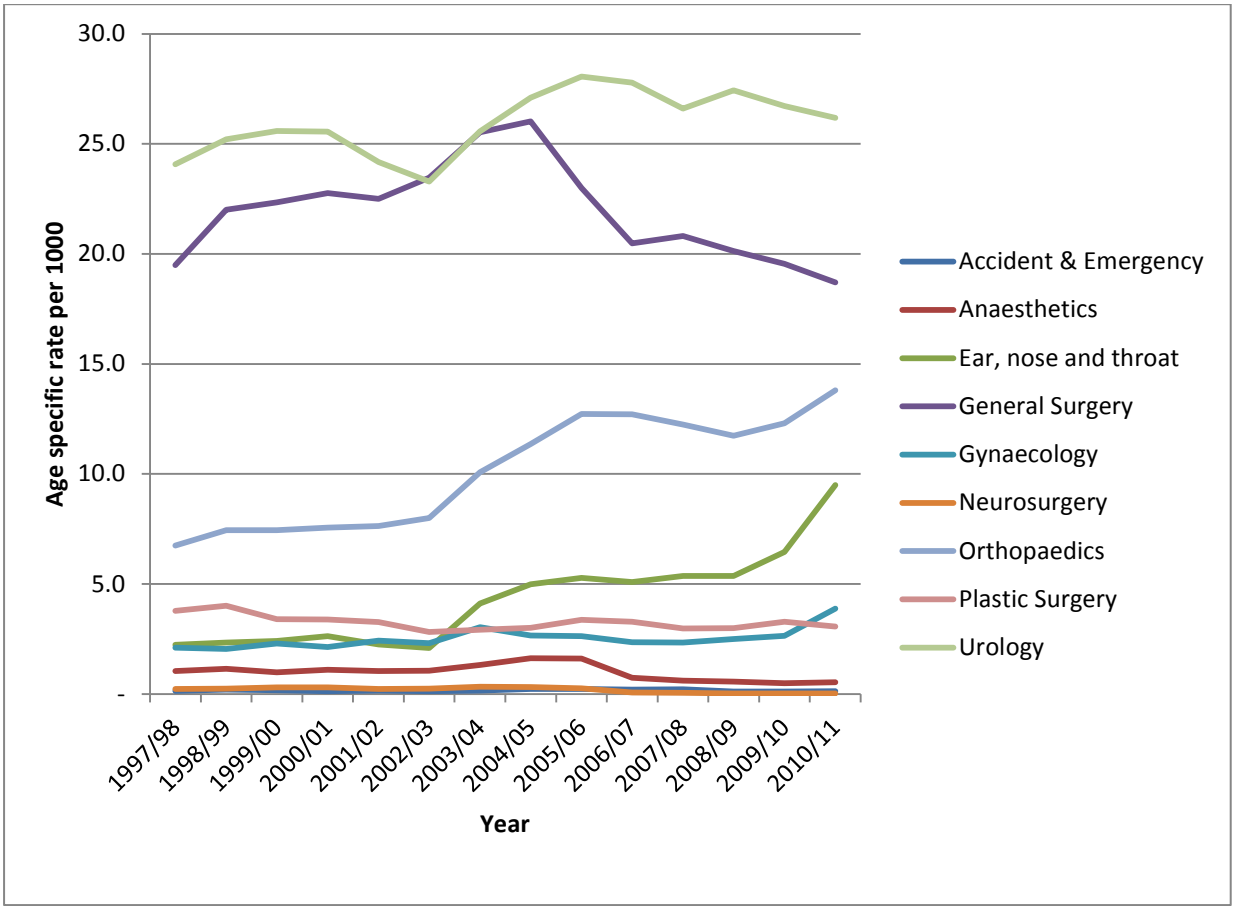
Figure 7.21 present age-specific rates for people aged over 65 years in Scotland between 1997/98 and 2010/11 by surgical specialty for the selected procedures.

Across all surgical specialties, the number of these surgical procedures has risen by just over 11% (n=90466), over this period. However, trends by individual specialities present something of a more complicated picture. Increases rates can be observed for in Orthopaedic and in Ear Nose and Throat Surgery. In both cases these have more than doubled in the period following 2002/03.

Rates for Urology and General Surgery have shown fluctuating rates, with General Surgery rates increasing by 25% to peak 2004/5, before falling back

by 39% to 2010/11. Urology rates have followed a broadly similar pattern, though peaking slightly later (in 2005/06) and falling less sharply. Further analysis is needed to understand these patterns more fully and whether the changes are discrete, or related as a consequence of changes in surgical establishments.

Figure 7.21: Age-specific rates by surgical specialty for people aged over 65 years for the ten most common surgical procedures: Scotland 1997/98 to 2010/11



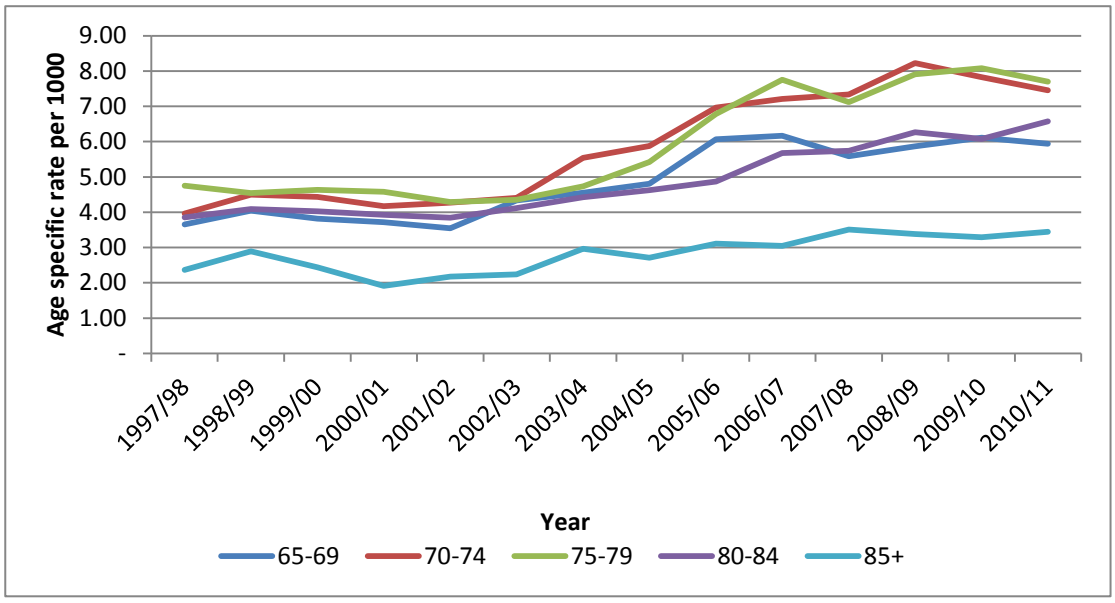
Notes: OPCS 4 Codes include arthroscopic procedures (O19, W82-W89); fracture reduction/fixation (O17, W19-W25); other bone/joint procedures (Remainder of chapter including O09 and O10); cataract procedures (C71-C75); procedures on the retina (C80-85, C87, C88); other eye procedures (Remainder of Chapter C); skin lesion excision/destruction (S05, S06, S08, S09, S10, S11); female genital tract examination (Q55, excluding Q55.4); other procedures to the female genital tract (Remainder of Chapters Q & R); laryngoscopy (E4-E37); lower gastrointestinal endoscopy (H20-H28, H68-H70); upper gastrointestinal endoscopy (G14-G19, G42-G46, G54-G55, G64-G65, G79-G80); pharyngoscopy (E24-E25); urinary tract endoscopy (M09-M11,M26, M27-M30, M32.1-M32.6, M42-M45, M76, M77); other urinary procedures (Remainder of Chapter M); and other miscellaneous procedures (remainder of Chapter X)

Source: SMR01

To explore the increase in orthopaedic surgery, a separate analysis of the age specific rates for primary total hip replacement (Figure 7.22) and primary total knee replacement (Figure 7.23) was undertaken. These show:

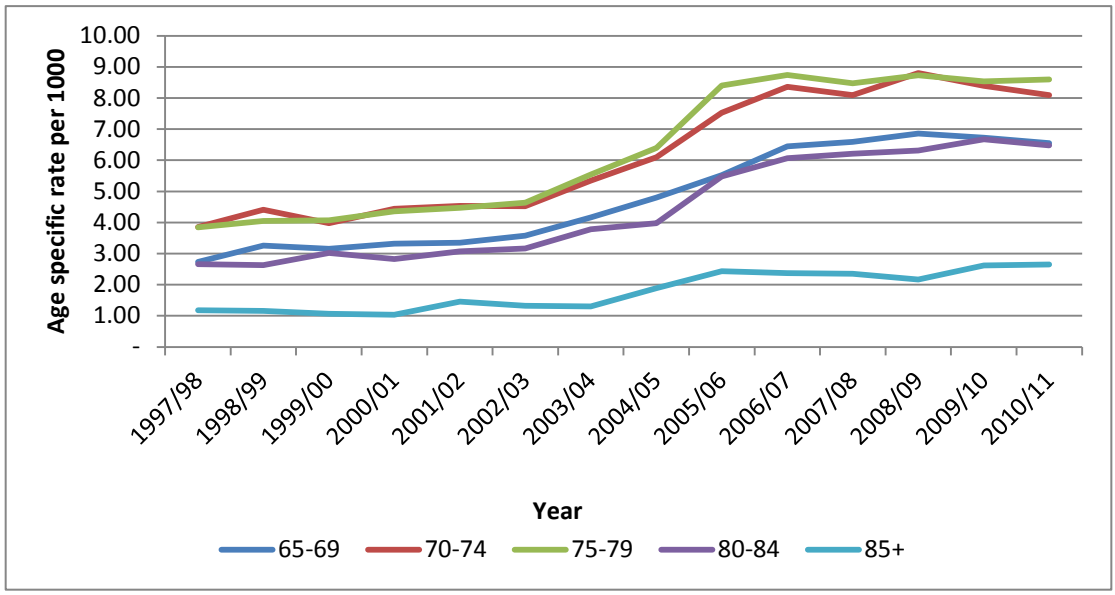
- the rates have increased across all age groups, with the sharpest increases between 2001/02 and 2005/06 (knees) and 2006/07 (hips).
- rates for total primary hip replacement continue to rise across all age groups, the rates for total primary knee replacement seems to have plateaued.
- generally, the rates have been consistently higher for the 70 to 74 and 75 to 79 years age groups across the whole period.

Figure 7.22: Age specific rates for total primary hip replacement by age group: Scotland 1997/1998 to 2010/2011



Notes: OPCS 4 Codes for primary total hip replacement: W37.1, W38.1, W39.1, W93.1, W94.1, W95.1.
Source: SMR01.

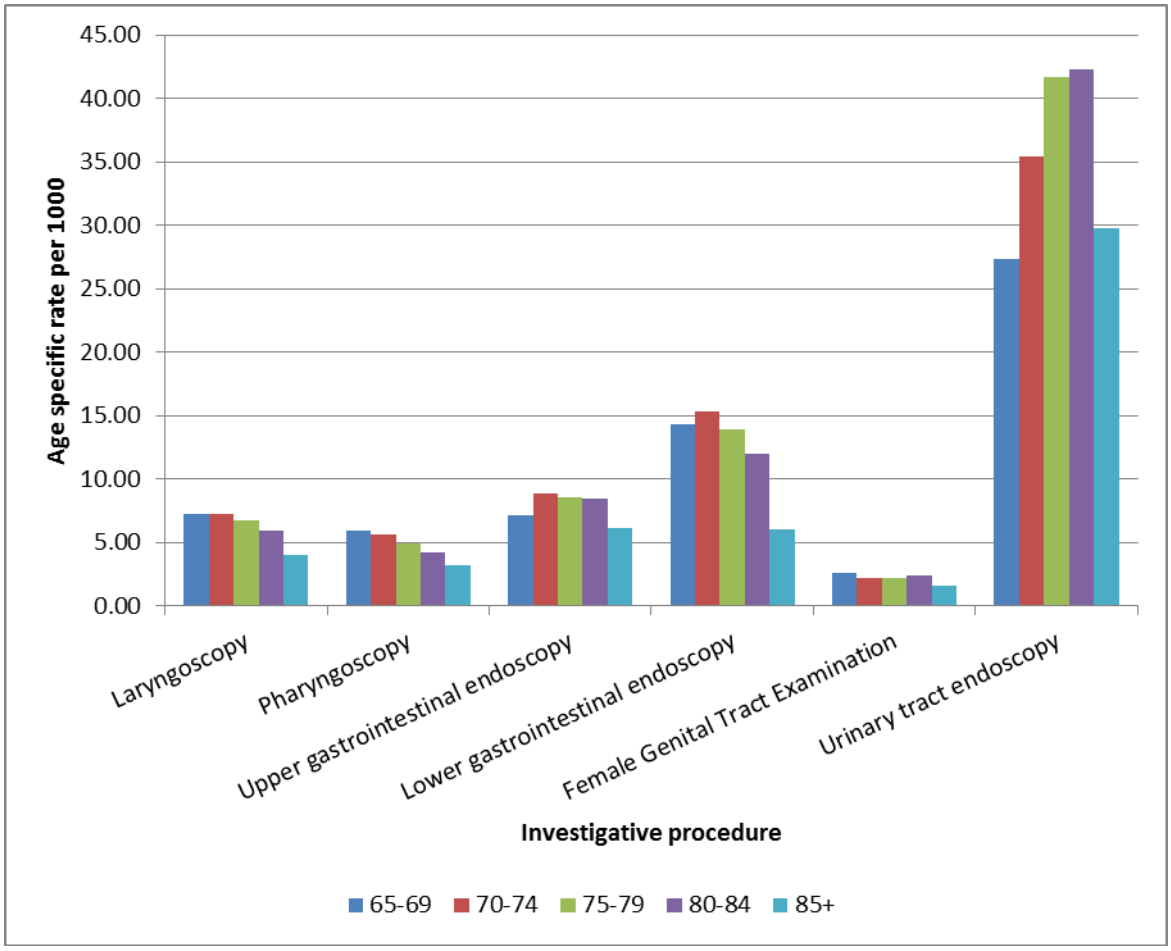
Figure 7.23: Age specific rates for total primary knee replacement by age group: Scotland 1997/1998 to 2010/2011



Notes: OPCS 4 Codes for primary total knee replacement: W40.1, W41.1, W42.1. Source: SMR01.

As noted investigative procedures are amongst the most common surgical interventions for older people. Figure 7.24 shows the age specific rates for five of the most common investigative procedures undertaken as a surgical inpatient. Rates for endoscopy of the urinary tract clearly predominate and increase with increasing age to the 80 to 84 age group. For the two ENT procedures (laryngoscopy and pharyngoscopy) the general pattern is of decreasing rates with increasing age. Both upper and lower GI tract endoscopies show a slight peak in rates in the 70 to 74 years age group before also declining with increasing age.

Figure 7.24: Age specific rates for selected investigative surgical procedures by age group: Scotland 2010/11



Notes: OPCS 4 Codes include female genital tract examination (Q55, excluding Q55.4); laryngoscopy (E4-E37); lower gastrointestinal endoscopy (H20-H28, H68-H70); upper gastrointestinal endoscopy (G14-G19, G42-G46, G54-G55, G64-G65, G79-G80); pharyngoscopy (E24-E25); urinary tract endoscopy (M09-M11,M26, M27-M30, M32.1-M32.6, M42-M45, M76, M77).

Source: SMR01

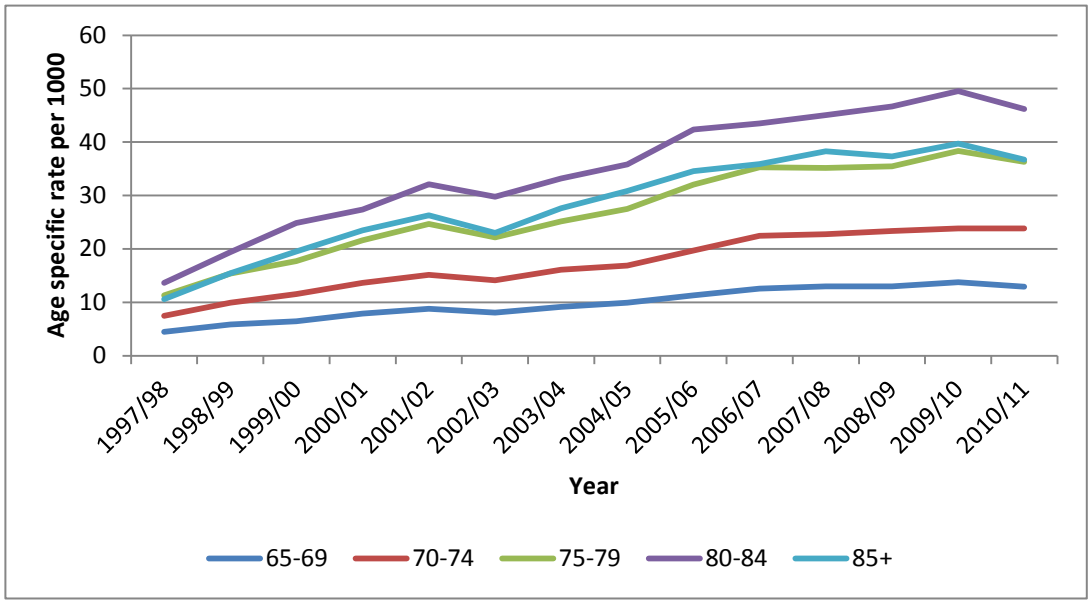
7.6.3 Day case surgical procedures

Day case surgery is now a routine part of NHS care. Specific analysis of day care surgery by age group has been undertaken, again for the most commonly procedures in the over 65 years age group. These are: cataract procedures; tooth extraction; upper gastrointestinal endoscopy lower gastrointestinal endoscopy; cardiac / coronary angiography; urinary tract endoscopy; other procedures to the female genital tract; skin lesions excision / destruction; chemotherapy for neoplasms; and other miscellaneous procedures.

Age specific rates by age group have been calculated for each of these, by age group between 1997/98 and 2010/2011. These are shown in Table 7.12 .

Over the period 1997/98 to 2010/2011, the number of cataract procedures carried out on a day case basis has increased 6673 to 24504. As can be seen in Figure 7.25 , these increases have been seen for all age groups, with rates more than doubling across the period. The greatest increases being seen for over 80+ years age groups.

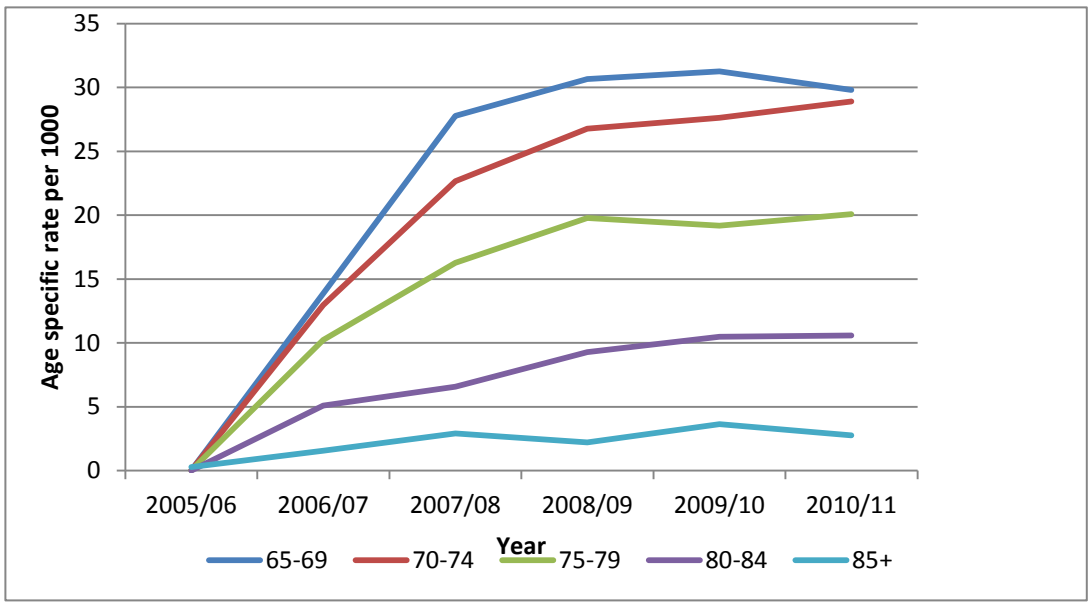
Figure 7.25: Age specific rates for day case cataract procedures by age group: Scotland 1997/1998 to 2010/2011



Notes: OPCS 4 Codes for cataract procedures C71-C75). Source: SMR01

Day case chemotherapy for cancer has been routinely recorded in Scotland since 2005/06. The age specific rates to 2010/2011 are shown in Figure 7.26 . As may be expected, the rates increased very rapidly from 2005/06, though do seem to have now plateaued. The figure does also highlight that there is a decreasing trend across the age groups from the youngest to older age group. In 2010/2011 the rates were 29.82 (per 1000) for the 65-69 age group and 2.76 for the 85+ age group.

Figure 7.26: Age specific rates for day case chemotherapy for cancer by age group: Scotland 2005/2006 to 2010/2011

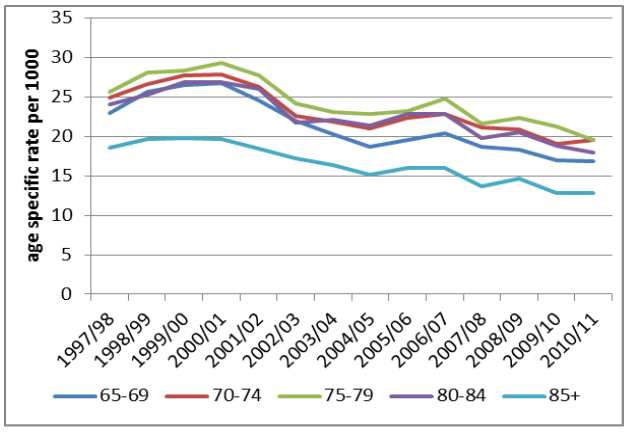


Notes: OPCS 4 Codes for cataract procedures C71-C75). Source: SMR01

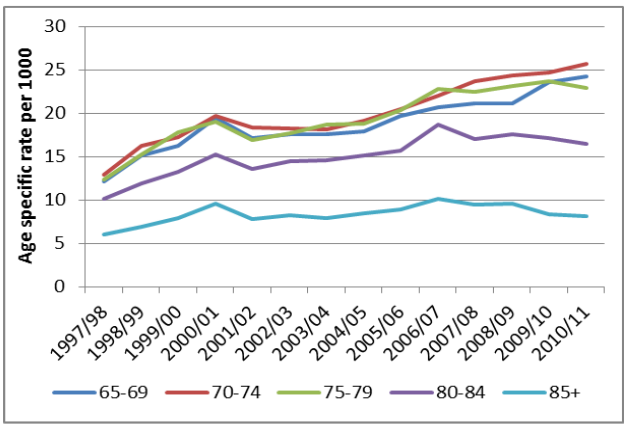
Endoscopies are also carried out on a day case basis. Rates for upper and lower GI tract and for urinary tract endoscopies are shown in Figure 7.27 a-c.

Figure 7.27: Age specific rates for selected day case endoscopies by age group: Scotland 2005/2006 to 2010/2011

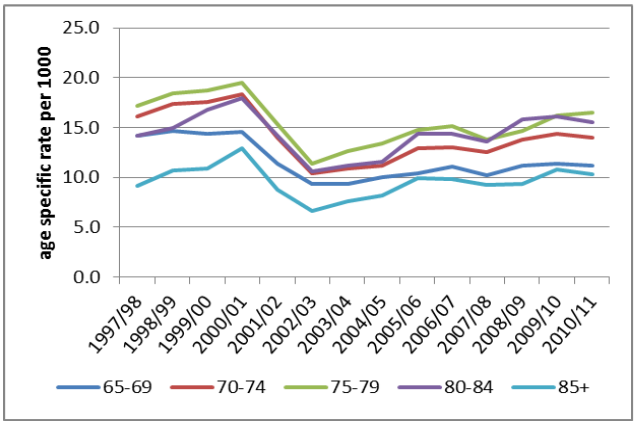
a: Upper GI tract



b: Lower GI tract



c: Urinary tract



Notes: OPCS 4 Codes lower gastrointestinal endoscopy (H20-H28, H68-H70); upper gastrointestinal endoscopy (G14-G19, G42-G46, G54-G55, G64-G65, G79-G80); urinary tract endoscopy (M09-M11,M26, M27-M30, M32.1-M32.6, M42-M45, M76, M77).

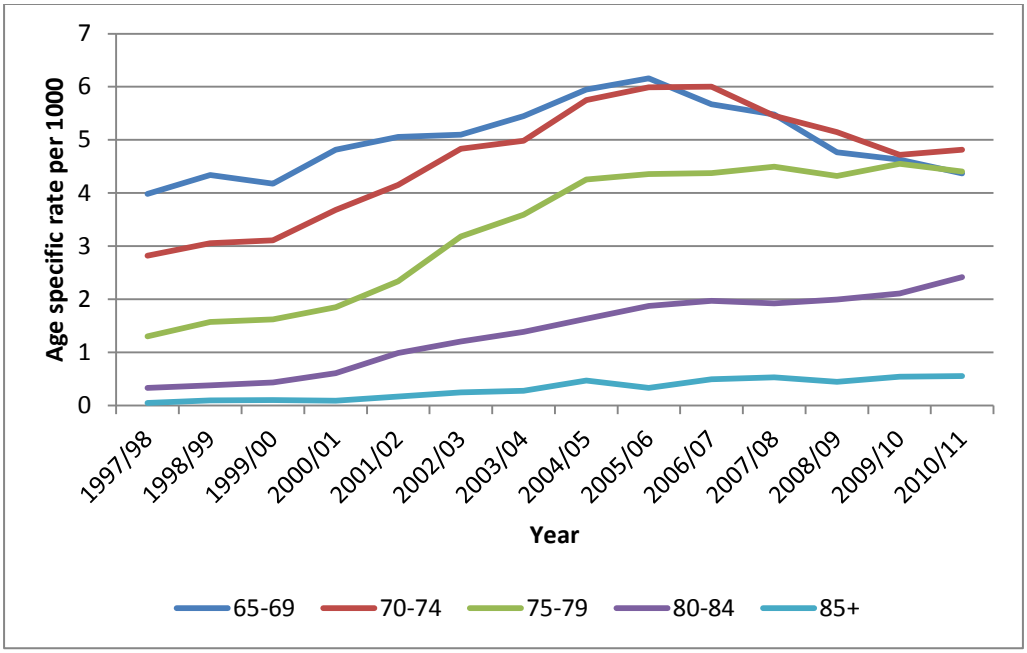
Source: SMR01

The rates indicate that over the period endoscopies for upper GI tract declined across all age groups whilst those for lower GI tract increased. The rate increase for lower GI tract endoscopy was less marked in the 80+ years age groups. For urinary tract endoscopies there is a clear fall in rates across all age groups from 2001/02 to 2003/04, suggestive of a change in clinical practice. This is then followed by gentle increases in the rates to 2010/11. Whilst these have not yet reached the rates observed for 1997/98, the trend would suggest this is likely within the next few years.

A much more detailed analysis however is needed to understand the nature of these changes and their relationship to inpatient endoscopic procedures for people aged 65 and over.

Figure 7.28 shows age specific rates for cardiac / coronary angiography by age groups from 1997/98 to 2010/11. This presents a complex picture. Between 1997/98 and 2005/06 there is an increase in the rates for the 65 to 79 age groups. In these groups a clear age gradient is visible. However, from then to the end of the period under analysis, the rates decline and converge so that by 2010/11 there is no age related gradiant. Rates for the 80+ years increase over the period, though the increase is more pronounced for the 80-84 years age group. A more detailed analysis is needed to explore this in the context of cardic and coronary care for older people.

Figure 7.28: Age specific rates for day case cardiac / coronary angiography by age group: Scotland 2005/2006 to 2010/2011



Notes: OPCS 4 Codes for cardiac / coronary angiographyK63. Source: SMR01

Table list

Table 7.1: Number of first attendances at A&E by age and sex, Scotland, 2009 to 2012

	2009			2010			2011			2012p		
	Female	Male	Missing	Female	Male	Missing	Female	Male	Missing	Female	Male	Missing
00-04	49,836	64,133	-	50,463	63,691	-	53,037	68,244	-	42,068	53,830	-
05-09	25,583	32,045	-	25,947	33,149	-	28,272	35,263	-	22,252	27,872	-
10-14	32,205	44,178	-	33,491	46,079	-	35,302	47,357	-	26,031	33,395	-
15-19	43,983	53,070	-	46,159	53,835	-	47,732	53,808	-	35,378	37,961	-
20-24	45,885	57,562	-	48,508	58,815	-	51,803	61,727	-	40,138	44,792	-
25-29	39,061	48,950	-	41,526	50,997	-	44,085	53,101	-	33,623	38,779	-
30-34	31,877	40,357	-	33,178	41,752	-	36,885	45,455	-	29,552	34,414	-
35-39	34,462	42,472	-	34,864	42,305	-	35,366	42,529	-	26,227	30,453	-
40-44	37,181	44,831	-	38,708	46,087	-	40,206	47,535	-	30,465	35,347	-
45-49	37,460	42,592	-	39,699	44,561	-	41,732	46,682	-	31,802	35,668	-
50-54	34,021	36,914	-	36,098	39,444	-	38,553	41,638	-	30,738	32,741	-
55-59	28,789	31,572	-	30,578	32,731	-	32,292	34,491	-	25,824	27,665	-
60-64	28,658	31,105	-	30,192	33,443	-	30,912	34,591	-	23,363	25,855	-
65-69	26,165	26,526	-	26,602	27,141	-	28,217	28,842	-	23,473	23,615	-
70-74	28,267	25,909	-	28,924	26,891	-	29,755	27,673	-	23,144	21,392	-
75-79	29,678	23,703	-	31,330	25,178	-	32,121	26,278	-	24,872	20,437	-
80-84	28,377	18,636	-	29,603	20,071	-	31,099	21,286	-	24,540	16,958	-
85-89	21,917	11,566	-	22,715	12,242	-	24,262	13,122	-	18,418	10,243	-
90+	12,619	4,338	-	14,353	5,071	-	15,397	5,859	-	12,467	4,980	-
Missing	-	-	166,433	-	2	114,797	-	-	90,986	-	-	61,337

Notes: based on episodic data.
Data for 2012 subject to final confirmation and may be subject to amendment.

Source: ISD (2012)

Table 7.2: Total number of A&E attendances by age and sex, Scotland, 2009 to 2012

	2009			2010			2011			2012p		
	Female	Male	Missing	Female	Male	Missing	Female	Male	Missing	Female	Male	Missing
00-04	51,412	66,158	-	52,103	65,900	-	54,480	70,101	-	43,223	55,306	-
05-09	26,633	33,264	-	27,033	34,316	-	29,237	36,409	-	22,990	28,754	-
10-14	33,712	46,240	-	35,152	48,272	-	36,795	49,322	-	27,167	34,749	-
15-19	45,532	55,681	-	47,984	56,463	-	49,479	55,982	-	36,631	39,467	-
20-24	47,559	60,161	-	50,213	61,503	-	53,440	64,300	-	41,365	46,566	-
25-29	40,523	51,246	-	43,118	53,329	-	45,558	55,150	-	34,703	40,313	-
30-34	33,232	42,289	-	34,467	43,723	-	38,197	47,284	-	30,547	35,735	-
35-39	35,992	44,570	-	36,460	44,384	-	36,655	44,227	-	27,152	31,698	-
40-44	38,735	47,157	-	40,355	48,376	-	41,645	49,449	-	31,556	36,692	-
45-49	39,138	44,690	-	41,492	46,713	-	43,222	48,594	-	33,015	37,113	-
50-54	35,632	38,590	-	37,777	41,310	-	40,032	43,287	-	31,985	33,958	-
55-59	30,170	33,069	-	31,871	34,319	-	33,689	36,032	-	26,748	28,748	-
60-64	30,027	32,606	-	31,636	34,978	-	32,174	36,110	-	24,320	26,925	-
65-69	27,500	27,734	-	27,746	28,315	-	29,398	29,968	-	24,430	24,628	-
70-74	29,437	26,873	-	30,106	27,834	-	30,949	28,761	-	23,967	22,112	-
75-79	30,760	24,470	-	32,514	25,988	-	33,127	27,149	-	25,674	21,039	-
80-84	29,289	19,128	-	30,552	20,583	-	32,020	21,940	-	25,218	17,442	-
85-89	22,416	11,811	-	23,320	12,578	-	24,757	13,443	-	18,830	10,488	-
90+	12,834	4,404	-	14,578	5,132	-	15,642	5,962	-	12,679	5,068	-
Missing	-	1	175,535	-	2	120,278	-	-	94,847	-	-	63,857

Notes: based on episodic data.
Data for 2012 subject to final confirmation and may be subject to amendment.

Source: ISD (2012)

Table 7.3: Number of emergency admissions by age, Scotland, for financial years 2001/02 to 2010/11

	Financial Year									
Age	**2001/02**	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11[p]**
00 to 04	29,032	28,117	29,681	30,628	32,623	33,454	35,097	36,350	36,639	34,143
05 to 09	10,987	11,040	10,954	11,636	11,802	11,288	11,083	10,330	10,488	10,079
10 to 14	12,342	12,186	12,008	12,092	12,310	12,127	11,997	11,189	10,308	10,138
15 to 19	17,243	17,062	16,465	16,240	16,580	17,214	18,272	17,407	16,350	16,032
20 to 24	18,823	18,627	17,959	17,519	17,970	19,029	20,205	20,646	19,792	19,697
25 to 29	18,551	17,225	15,956	15,700	15,713	17,184	19,528	20,127	19,492	19,704
30 to 34	22,494	21,153	19,908	18,828	17,962	17,994	18,442	18,244	18,170	18,204
35 to 39	24,083	23,522	22,709	22,096	22,237	23,062	23,439	23,373	21,791	20,946
40 to 44	23,635	23,598	23,691	24,167	24,327	25,430	26,656	27,324	26,115	25,900
45 to 49	23,232	23,443	23,616	23,908	24,766	26,013	28,245	29,144	28,978	28,827
50 to 54	25,637	24,572	24,310	24,668	24,937	26,611	28,227	29,144	29,462	29,878
55 to 59	26,290	27,099	27,622	27,890	29,113	29,978	29,942	29,745	29,138	29,764
60 to 64	30,472	30,107	30,097	30,160	29,805	31,552	34,035	35,045	35,004	35,738
65 to 69	34,263	33,691	34,516	34,709	34,427	35,426	36,268	36,818	35,874	35,742
70 to 74	38,684	38,607	39,076	38,939	38,507	40,376	41,600	42,251	41,485	41,650
75 to 79	40,198	39,783	40,292	40,810	41,484	43,208	44,439	45,484	44,597	46,140
80 to 84	33,604	35,960	37,621	39,662	38,399	40,090	40,820	42,767	41,905	43,565
85+	38,659	38,020	38,423	37,763	40,747	44,374	46,116	49,192	49,495	51,255
All ages	468229	463812	464904	467415	473709	494410	514411	524580	515083	517402

Notes:
p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls

Source of data: ISD Publication Report. Acute Hospital Activity and NHS Beds information; Year ending 31 March 2011; Quarter ending December 2011. Publication date 27 March 2012
www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls
Accessed 30/08/12

Table 7.4: Number of emergency admission bed days by age, Scotland, for financial years 2001/02 to 2010/11

	Financial Year									
Age	**2001/02**	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11[p]**
00 to 04	63,300	58,882	59,483	57,619	58,128	58,118	59,515	61,491	62,135	58,333
05 to 09	22,706	22,531	21,758	22,464	22,829	21,319	19,768	19,616	18,500	17,095
10 to 14	29,769	28,045	26,993	27,292	25,600	25,149	24,008	21,591	21,035	19,527
15 to 19	36,430	36,773	37,590	38,107	39,618	39,115	40,930	38,794	37,587	35,098
20 to 24	42,709	42,087	42,421	41,762	43,957	46,770	46,713	47,030	47,712	45,956
25 to 29	46,256	44,259	43,940	42,538	43,210	45,229	49,580	51,236	48,806	49,531
30 to 34	65,557	63,222	60,482	59,134	54,563	53,704	54,401	54,082	54,172	50,591
35 to 39	80,415	78,802	80,470	77,009	77,573	79,232	79,479	80,030	72,929	69,618
40 to 44	92,878	94,145	94,546	97,729	96,274	102,940	103,501	103,580	99,335	93,732
45 to 49	106,725	111,431	108,829	109,258	121,475	120,736	125,382	126,467	125,137	119,242
50 to 54	144,473	144,377	138,291	136,569	139,609	147,960	145,513	153,738	155,433	152,638
55 to 59	179,486	185,209	186,416	188,637	197,934	195,444	190,187	189,546	186,194	181,196
60 to 64	250,079	244,590	243,670	247,005	243,074	243,228	254,582	258,740	258,991	252,928
65 to 69	326,867	326,158	327,025	332,510	329,960	322,961	323,309	322,820	322,040	300,053
70 to 74	455,430	455,286	445,127	442,565	431,250	430,803	434,129	433,017	418,683	400,983
75 to 79	581,108	579,536	570,242	566,797	573,031	565,512	570,229	565,982	553,374	545,300
80 to 84	586,372	638,965	643,832	671,157	647,771	662,382	638,066	665,993	634,304	633,888
85+	844,149	845,358	818,904	798,181	848,569	905,913	894,758	935,499	946,466	935,519
All ages	3,954,709	3,999,656	3,950,019	3,956,333	3,994,425	4,066,515	4,054,050	4,129,252	4,062,833	3,961,228

Notes:
p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at
http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls

Source of data: ISD Publication Report. Acute Hospital Activity and NHS Beds information; Year ending 31 March 2011; Quarter ending December 2011. Publication date 27 March 2012
www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Emergency_Admissions_Mar12.xls
Accessed 30/08/12

Table 7.5: Rate of patients per 100,000 population with 3 or more emergency admissions by financial year, Scotland, 2001/02 to 2010/11[p]

	Financial Year									
Age	**2001/02**	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11[p]**
00 to 04	371	372	450	490	525	553	574	604	565	534
05 to 09	88	93	106	119	125	118	114	117	128	110
10 to 14	108	117	118	121	126	134	131	128	115	114
15 to 19	168	167	168	150	157	175	201	173	175	174
20 to 24	227	202	195	173	196	225	224	227	216	211
25 to 29	229	237	213	209	195	212	260	253	239	230
30 to 34	256	258	233	220	212	242	257	268	278	257
35 to 39	290	277	264	257	278	293	322	339	316	301
40 to 44	318	329	311	308	299	332	349	365	344	351
45 to 49	378	373	361	348	373	363	419	424	419	392
50 to 54	394	402	396	430	429	473	502	501	504	463
55 to 59	534	515	490	488	509	522	549	547	560	557
60 to 64	740	729	729	726	691	767	747	747	707	724
65 to 69	953	925	956	951	952	1009	1076	1073	991	1010
70 to 74	1264	1242	1228	1247	1254	1343	1470	1442	1401	1457
75 to 79	1589	1557	1610	1649	1720	1801	1884	1972	1916	2013
80 to 84	2003	2097	2102	2174	2166	2342	2520	2647	2581	2664
85+	2639	2540	2659	2750	2773	3076	3277	3447	3458	3536
All ages	496	494	497	504	515	555	594	609	595	599

Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Only emergency admissions have been included.

Data is based on year of discharge. Data refers to 3 or more emergency admissions within the particular financial year shown.

Lengths of stay greater than 365 days have been excluded.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data: http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 030912

Table 7.6: Rate of patients per 100,000 population with 2 emergency admissions by financial year, Scotland, 2001/02 to 2010/11[p]

Age	Financial Year									
	2001/02	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11[p]**
00 to 04	958	979	1092	1137	1256	1238	1311	1344	1290	1163
05 to 09	221	256	243	269	291	295	297	281	277	284
10 to 14	278	276	271	279	294	281	308	283	279	293
15 to 19	442	437	406	403	401	415	459	443	420	433
20 to 24	482	501	451	472	449	473	503	512	494	487
25 to 29	508	526	483	457	459	496	529	541	517	516
30 to 34	530	532	505	523	482	521	554	568	558	541
35 to 39	536	532	532	516	504	548	564	575	571	601
40 to 44	594	567	551	577	558	576	622	637	618	640
45 to 49	635	648	640	618	650	662	711	699	698	705
50 to 54	736	706	751	735	718	773	788	825	817	814
55 to 59	963	920	892	889	880	859	921	992	911	970
60 to 64	1280	1276	1249	1189	1205	1171	1223	1216	1208	1160
65 to 69	1633	1631	1665	1671	1601	1684	1670	1716	1635	1564
70 to 74	2213	2232	2293	2256	2216	2311	2332	2382	2299	2261
75 to 79	3090	3049	3163	3143	3099	3278	3309	3368	3247	3336
80 to 84	4194	4243	4319	4305	4318	4527	4499	4851	4627	4720
85+	6053	6037	6389	6089	6283	6502	6595	6946	6702	6778
All ages	977	981	993	990	996	1036	1076	1112	1081	1087

Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Only emergency admissions have been included.

Data is based on year of discharge. Data refers to 2 emergency admissions within the particular financial year shown.

Lengths of stay greater than 365 days have been excluded.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data: http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 231012

Table 7.7: Number of patients aged 75 years and over with 1 or more emergency admissions, by financial year 2001/02 to 2010/11[p], Scotland

	Financial year									
	2001/02	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11[p]**
1 admission	56,732	57,630	58,119	58,842	59,496	61,248	61,359	63,087	62,257	63,393
2 admissions	14,943	15,073	15,717	15,588	15,993	17,080	17,487	18,609	18,183	18,902
3 or more admissions	7,101	7,141	7,378	7,697	7,957	8,739	9,436	10,041	10,036	10,588

Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Only emergency admissions have been included. Data is based on year of discharge.

Lengths of stay greater than 365 days have been excluded.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data: taken from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 060912

Table 7.8: Bed days occupied by patients (aged 75 years and over) with one, two and three or more emergency admissions in a 1 year period, by financial year 2001/02 to 2010/11[p], Scotland

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11[p]
1 admission	1,137,098	1,171,072	1,137,328	1,121,804	1,132,453	1,139,499	1,086,733	1,088,839	1,078,520	1,035,573
2 admissions	519,730	532,823	534,413	535,583	542,097	569,425	564,554	600,944	575,766	584,985
3 or more admissions	354,779	360,083	361,181	378,709	394,789	424,872	451,775	477,634	479,926	494,118

Notes:

p = provisional (data for NHS Scotland for 2010/11 are estimated to be only 97% complete).

The data is based on SMR01 data and excludes obstetric and psychiatric services.

Only emergency admissions have been included. Data is based on year of discharge.

Lengths of stay greater than 365 days have been excluded.

Data for NHS Boards, Community Health Partnerships and local authority areas is available at http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls

Source of data: taken from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/Multiple_Emergency_Admissions_Mar12.xls Accessed 060912

Table 7.9: Percentage of Scottish population in the July 2012 SPARRA Version 3 cohort

Age/Gender	Population estimate[1]	Individuals with a SPARRA score[2]	Approx % with a SPARRA score
All ages (16+)			
Total	**4,341,483**	**3,280,640**	**75.6**
Male	2,080,874	1,461,729	70.2
Female	2,260,609	1,818,911	80.5
16-59			
Total	**3,117,109**	**2,146,031**	**68.8**
Male	1,536,405	958,187	62.4
Female	1,580,704	1,187,844	75.1
60-64			
Total	**331,987**	**272,268**	**82.0**
Male	161,473	131,281	81.3
Female	170,514	140,987	82.7
65-69			
Total	**261,533**	**254,083**	**97.2**
Male	124,444	121,339	97.5
Female	137,089	132,744	96.8
70-74			
Total	**217,780**	**205,205**	**94.2**
Male	99,208	93,778	94.5
Female	118,572	111,427	94.0
75-79			
Total	**177,999**	**172,503**	**96.9**
Male	76,231	74,771	98.1
Female	101,768	97,732	96.0
80-84			
Total	**124,845**	**124,557**	**99.8**
Male	48,539	49,100	101.2
Female	76,306	75,457	98.9
85-89			
Total	**72,432**	**70,369**	**97.2**
Male	24,332	23,969	98.5
Female	48,100	46,400	96.5
90+			
Total	**37,798**	**35,624**	**94.2**
Male	10,242	9,304	90.8
Female	27,556	26,320	95.5

1. National Records of Scotland (NRS) mid-2011 population estimate

2. Number of individuals with a risk score in the July 2012 SPARRA Version 3 release. SPARRA V3 estimates the risk of emergency hospital admission in the next 12 months for approximately 3.3 million individuals. For the July 2012 release, this is the risk of emergency admission in the period 1st July 2012 to 30th June 2013. Risk scores are calculated based on each individual's history of hospital admission, prescriptions, A&E attendance, outpatient attendance and psychiatric inpatient admission.

Source: ISD Scotland, SPARRA V3 July 2012 release and National Records of Scotland

Table 7.10: Risk score distribution of individuals in the July 2012 SPARRA Version 3 cohort[1] by age[2] and gender

	SPARRA Risk Score										
Age/Gender	**0-10%**	**10-20%**	**20-30%**	**30-40%**	**40-50%**	**50-60%**	**60-70%**	**70-80%**	**80-90%**	**90% & over**	**Total**
All ages (16+)											
Total	**2,453,577**	**459,850**	**174,906**	**88,695**	**49,172**	**27,107**	**14,921**	**8,484**	**3,571**	**357**	**3,280,640**
Male	1,109,093	200,211	73,042	35,931	19,610	11,218	6,589	4,050	1,809	176	1,461,729
Female	1,344,484	259,639	101,864	52,764	29,562	15,889	8,332	4,434	1,762	181	1,818,911
16-59											
Total	**1,870,473**	**183,488**	**45,675**	**19,421**	**10,512**	**6,434**	**4,552**	**3,322**	**1,929**	**225**	**2,146,031**
Male	838,738	78,169	19,916	8,695	4,765	2,960	2,197	1,650	997	100	958,187
Female	1,031,735	105,319	25,759	10,726	5,747	3,474	2,355	1,672	932	125	1,187,844
60-64											
Total	**211,665**	**38,778**	**11,007**	**4,778**	**2,557**	**1,531**	**941**	**642**	**324**	**45**	**272,268**
Male	100,932	19,208	5,545	2,471	1,317	786	483	343	173	23	131,281
Female	110,733	19,570	5,462	2,307	1,240	745	458	299	151	22	140,987
65-69											
Total	**184,432**	**43,649**	**12,954**	**5,703**	**3,153**	**1,841**	**1,187**	**746**	**379**	**39**	**254,083**
Male	86,685	21,568	6,489	2,905	1,570	926	584	383	203	26	121,339
Female	97,747	22,081	6,465	2,798	1,583	915	603	363	176	13	132,744
70-74											
Total	**132,411**	**43,314**	**14,051**	**6,806**	**3,704**	**2,207**	**1,383**	**879**	**414**	**36**	**205,205**
Male	59,004	20,535	6,699	3,326	1,823	1,028	681	454	208	20	93,778
Female	73,407	22,779	7,352	3,480	1,881	1,179	702	425	206	16	111,427
75-79											
Total	**48,988**	**74,068**	**24,802**	**11,801**	**6,301**	**3,379**	**1,879**	**1,020**	**255**	**10**	**172,503**
Male	21,197	31,510	11,031	5,290	2,766	1,528	868	468	108	5	74,771
Female	27,791	42,558	13,771	6,511	3,535	1,851	1,011	552	147	5	97,732
80-84											
Total	**5,608**	**59,306**	**29,293**	**14,654**	**8,140**	**4,236**	**2,004**	**1,096**	**218**	**2**	**124,557**
Male	2,537	22,998	11,567	5,775	3,125	1,697	813	486	100	2	49,100
Female	3,071	36,308	17,726	8,879	5,015	2,539	1,191	610	118	-	75,457
85-89											
Total	**-**	**15,852**	**24,796**	**14,399**	**8,356**	**4,650**	**1,854**	**433**	**29**	**-**	**70,369**
Male	-	5,745	8,346	4,767	2,733	1,574	634	157	13	-	23,969
Female	-	10,107	16,450	9,632	5,623	3,076	1,220	276	16	-	46,400
90-94											
Total	**-**	**1,063**	**9,862**	**8,894**	**5,072**	**2,305**	**927**	**303**	**17**	**-**	**28,443**
Male	-	383	2,942	2,305	1,294	602	289	101	3	-	7,919
Female	-	680	6,920	6,589	3,778	1,703	638	202	14	-	20,524
95+											
Total	**-**	**332**	**2,466**	**2,239**	**1,377**	**524**	**194**	**43**	**6**	**-**	**7,181**
Male	-	95	507	397	217	117	40	8	4	-	1,385
Female	-	237	1,959	1,842	1,160	407	154	35	2	-	5,796

1. SPARRA Version 3 estimates the risk of emergency hospital admission in the next 12 months for approximately 3.3 million individuals. For the July 2012 release, this is the risk of emergency admission in the period 1st July 2012 to 30th June 2013. Risk scores are calculated based on each individual's history of hospital admission, prescriptions, A&E attendance, outpatient attendance and psychiatric inpatient admission.

2. Age at 1st July 2012.

- No cases

Source: ISD Scotland, SPARRA V3 July 2012 release

Table 7.11: Number of bed days by main diagnosis for selected Long Term Conditions, Scotland, 2010/11[p], males & females combined

AGE (years)	Total	Diabetes Mellitus (E10 - E14)	Hypertensive Diseases (I10 - I15)	Angina Pectoris (I20)	Acute Myocardial Infarction (I21 - I22)	Other Ischaemic Heart Disease (I23 - I25)	Heart Failure (I50)	COPD (J40-J44, J47)	Asthma (J45 - J46)
00 to 14	4799	1335	145	0	0	0	181	194	2944
15 to 24	4024	2383	90	4	0	0	48	115	1384
25 to 34	4538	1913	151	25	369	25	163	229	1663
35 to 44	9481	2662	439	294	1679	604	492	1102	2209
45 to 54	25003	4055	658	1547	6259	2515	1970	5502	2497
55 to 64	54244	5276	985	3296	11356	6938	6585	17487	2321
65 to 74	101049	7839	1179	5590	18886	9704	14931	41261	1659
75 to 84	138580	6327	2820	6692	27443	10505	33829	49452	1512
85 & over	78189	3052	1464	4247	16897	3810	31745	16473	501
All Ages	419907	34842	7931	21695	82889	34101	89944	131815	16690

Notes:

[p] Data for NHS Scotland for 2010/11 are estimated to be only 97% complete and are therefore provisional.

Source is SMR01.

Data is all Inpatient & Day Case discharges from "acute" specialties, i.e. excludes obstetric, psychiatric and geriatric long stay specialties.

Bed Days are calculated using the length of stay variable.

Data for individual NHS Boards is available from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/HEAT_Long_Term_Conditions_HB_Mar12.xls

Data for individual CHPs is available from http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/HEAT_Long_Term_Conditions_CHP_Mar12.xls

Source of data: http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/HEAT_Long_Term_Conditions_HB_Mar12.xls Accessed 130912

Table 7.12: Age specific rate per 1000 population for selected day case surgical procedures: Scotland 1997/98 to 2010/11

Year	Age group	Chemotherapy for neoplasm[1]	Lower GI endoscopy	Upper GI endoscopy	Cataract procedures	Urinary tract endoscopy	Other procedures of female genital tract	Tooth extraction	Skin lesion excision / destruction	Cardiac / coronary angiography	Other miscellaneous
1997/98	65-69		12.10	22.94	4.50	14.15	0.39	0.40	5.92	3.98	23.51
	70-74		12.85	24.96	7.45	16.13	0.14	0.34	5.62	2.82	19.81
	75-79		12.30	25.67	11.28	17.15	0.08	0.31	6.34	1.30	16.21
	80-84		10.09	24.08	13.67	14.14	0.08	0.27	6.91	0.33	11.27
	85+		5.99	18.60	10.61	9.18	0.02	0.27	6.98	0.05	6.34
1998/99	65-69		15.17	25.72	5.85	14.64	0.36	0.47	5.60	4.34	26.46
	70-74		16.28	26.61	9.95	17.33	0.17	0.48	6.12	3.06	25.63
	75-79		15.24	28.18	15.41	18.44	0.15	0.46	6.88	1.57	22.08
	80-84		11.86	25.30	19.38	15.00	0.03	0.42	7.34	0.38	13.51
	85+		6.88	19.66	15.44	10.71	0.02	0.31	7.07	0.09	6.79
1999/00	65-69		16.24	26.48	6.43	14.42	0.42	0.40	5.56	4.18	32.63
	70-74		17.25	27.73	11.56	17.59	0.16	0.38	5.38	3.11	28.92
	75-79		17.83	28.36	17.75	18.75	0.09	0.32	6.06	1.62	23.05
	80-84		13.18	26.87	24.86	16.80	0.02	0.18	6.26	0.43	15.21
	85+		7.94	19.81	19.52	10.88	0.02	0.30	6.52	0.10	9.15
2000/01	65-69		19.51	26.83	7.89	14.57	0.46	0.38	5.37	4.81	34.87
	70-74		19.63	27.92	13.65	18.37	0.22	0.41	5.82	3.68	33.47
	75-79		19.01	29.33	21.63	19.46	0.11	0.28	6.47	1.85	25.88
	80-84		15.19	26.85	27.38	17.93	0.14	0.31	6.89	0.61	17.33
	85+		9.59	19.69	23.45	12.90	0.03	0.19	6.42	0.09	11.38
2001/02	65-69		17.11	24.60	8.81	11.38	0.52	0.39	4.68	5.06	36.15
	70-74		18.31	26.28	15.15	14.01	0.24	0.26	4.80	4.15	34.55
	75-79		16.89	27.80	24.70	15.30	0.14	0.31	5.07	2.34	26.91
	80-84		13.54	25.99	32.12	14.21	0.11	0.29	5.64	0.99	19.53
	85+		7.83	18.41	26.31	8.78	0.00	0.16	5.53	0.17	11.64
2002/03	65-69		17.61	22.03	8.10	9.33	0.49	0.14	3.48	5.10	38.10
	70-74		18.19	22.56	14.15	10.37	0.26	0.14	3.57	4.83	37.39
	75-79		17.66	24.18	22.13	11.34	0.12	0.11	3.41	3.18	30.36
	80-84		14.49	21.75	29.74	10.57	0.08	0.04	3.92	1.21	21.79
	85+		8.26	17.19	22.98	6.62	0.03	0.06	3.91	0.25	12.47
2003/04	65-69		17.57	20.28	9.18	9.36	0.40	0.20	3.19	5.45	39.54
	70-74		18.08	21.92	16.08	10.91	0.29	0.18	3.47	4.98	37.79
	75-79		18.73	23.05	25.13	12.68	0.14	0.11	3.33	3.59	31.20
	80-84		14.59	22.09	33.21	11.20	0.09	0.12	3.86	1.39	19.14
	85+		7.94	16.32	27.62	7.60	0.03	0.07	3.62	0.28	13.50
2004/05	65-69		17.92	18.74	9.94	9.99	0.48	0.14	3.08	5.95	43.12
	70-74		19.09	20.98	16.88	11.18	0.33	0.15	3.19	5.75	42.14
	75-79		18.75	22.81	27.49	13.40	0.20	0.07	3.61	4.25	32.50
	80-84		15.11	21.35	35.84	11.57	0.09	0.08	3.97	1.63	20.96
	85+		8.46	15.13	30.85	8.20	0.02	0.04	4.09	0.47	13.40

[1] Chemotherapy for neoplasm data not collected prior to 2005/06

2005/06	65-69	0.04	19.73	19.61	11.30	10.44	0.45	0.19	2.92	6.16	44.54
	70-74	0.05	20.51	22.37	19.72	12.93	0.36	0.26	3.12	5.99	41.28
	75-79	0.03	20.33	23.17	32.05	14.79	0.14	0.18	3.74	4.36	34.62
	80-84	0.00	15.70	22.85	42.36	14.35	0.19	0.12	3.62	1.88	23.26
	85+	0.28	8.92	15.97	34.55	9.88	0.07	0.07	4.17	0.33	13.73
2006/07	65-69	13.88	20.63	20.38	12.56	11.12	0.49	0.24	2.92	5.67	29.30
	70-74	12.98	22.04	22.81	22.46	13.07	0.52	0.25	3.17	6.00	30.76
	75-79	10.24	22.82	24.77	35.28	15.18	0.30	0.23	3.32	4.37	26.70
	80-84	5.10	18.73	22.90	43.47	14.38	0.24	0.14	4.13	1.97	17.58
	85+	1.57	10.16	16.00	35.88	9.82	0.05	0.16	3.83	0.49	14.08
2007/08	65-69	27.77	21.17	18.68	13.00	10.19	0.74	0.36	3.12	5.48	18.34
	70-74	22.66	23.70	21.17	22.73	12.54	0.63	0.29	3.22	5.45	21.44
	75-79	16.28	22.43	21.64	35.13	13.78	0.34	0.32	3.95	4.50	20.72
	80-84	6.59	17.03	19.76	45.02	13.56	0.23	0.37	4.14	1.92	16.97
	85+	2.92	9.51	13.73	38.28	9.23	0.07	0.18	4.47	0.53	14.51
2008/09	65-69	30.65	21.18	18.29	12.99	11.15	0.85	0.36	3.07	4.77	18.19
	70-74	26.77	24.32	20.94	23.33	13.77	0.60	0.39	3.55	5.14	19.02
	75-79	19.79	23.17	22.41	35.44	14.64	0.44	0.32	3.92	4.32	20.76
	80-84	9.28	17.61	20.56	46.64	15.85	0.25	0.26	4.18	1.99	16.94
	85+	2.22	9.60	14.69	37.30	9.32	0.08	0.15	4.54	0.45	14.37
2009/10	65-69	31.25	23.52	16.97	13.80	11.37	0.88	0.33	3.14	4.63	17.97
	70-74	27.63	24.73	19.04	23.83	14.35	0.72	0.28	3.82	4.72	20.33
	75-79	19.19	23.63	21.27	38.34	16.20	0.49	0.28	4.26	4.55	20.95
	80-84	10.48	17.09	18.78	49.52	16.12	0.27	0.29	4.75	2.11	19.65
	85+	3.65	8.39	12.86	39.74	10.80	0.19	0.19	5.35	0.54	13.10
2010/11	65-69	29.82	24.26	16.84	12.92	11.19	0.88	0.32	3.11	4.37	19.05
	70-74	28.90	25.73	19.54	23.86	13.99	0.63	0.21	3.77	4.82	20.86
	75-79	20.09	22.95	19.60	36.29	16.54	0.56	0.25	4.33	4.41	21.12
	80-84	10.59	16.46	18.01	46.20	15.52	0.23	0.20	4.54	2.42	19.27
	85+	2.76	8.08	12.80	36.72	10.32	0.16	0.21	5.45	0.55	13.86

Notes: OPCS 4 Codes: chemotherapy of neoplasm (X72 X73); cataract procedures (C71-C75); skin lesion excision/destruction (S05, S06, S08, S09, S10, S11); other procedures to the female genital tract (Remainder of Chapters Q & R); laryngoscopy (E4-E37); lower gastrointestinal endoscopy (H20-H28, H68-H70); upper gastrointestinal endoscopy (G14-G19, G42-G46, G54-G55, G64-G65, G79-G80); pharyngoscopy (E24-E25); urinary tract endoscopy (M09-M11,M26, M27-M30, M32.1-M32.6, M42-M45, M76, M77); tooth extraction (F09, F10);cardiac / coronary angiography (K63); and other miscellaneous procedures (remainder of Chapter X)

Source: SMR01

8 Use of social care and NHS continuing health care services

This section covers:

- Referrals for community care assessment;
- Care provided at home;
- Telecare;
- Care provided in Care Homes;
- Levels of dependency – the Index of Relative Need;
- NHS continuing health care provision.

For ease of reading, large data tables are included at the end of the chapter.

Key points:

- Across Scotland the rates for both new clients and for new, free personal care services have remained constant across Scotland over the seven quarters to the third quarter of 2012 (Figure 8.1).
- The age-specific rates of home care clients aged over 65 years reduced between 2005 and 2011. The interpretation of what this means in practice is unclear (Figure 8.4).
- The use of telecare has grown in response to The National Telehealth and Telecare Delivery Plan for Scotland. In 2011, the majority of clients using telecare packages were aged over 75 years (Figure 8.6).
- There is a wide variation between local authorities in the proportion of care home residents requiring nursing care (Figure 8.7).
- Whilst not all local authorities are collecting data which can be used to create the Indicator of Relative Need, the data that is available suggests the gradient of increasing hours of home care does increase with level of measured dependency (Figure 8.9).
- There is a decline in the number of NHS Continuing Health Care patients from medicine of old age and from psychiatry old age specialities (Figure 8.12). There is variation in the use of NHS Continuing Health Care within local authority areas.

8.1 Referrals for community care assessments

Access to social support and care is based on the Community Care Assessment (CCA). This assessment, usually undertaken by all the relevant agencies, provides a formal assessment of the extent and type of individual needs someone has and the key outcomes that they would want to achieve. Sometimes these assessments can simply result in someone getting the advice or simple help that they need, in other cases, a more formal care plan is created and specific services to help meet the needs identified are put in place.

Data on aspects of the CCA process is collected by the Scottish Government through a survey taken every three months from the local authorities in Scotland who are responsible for the CCA.

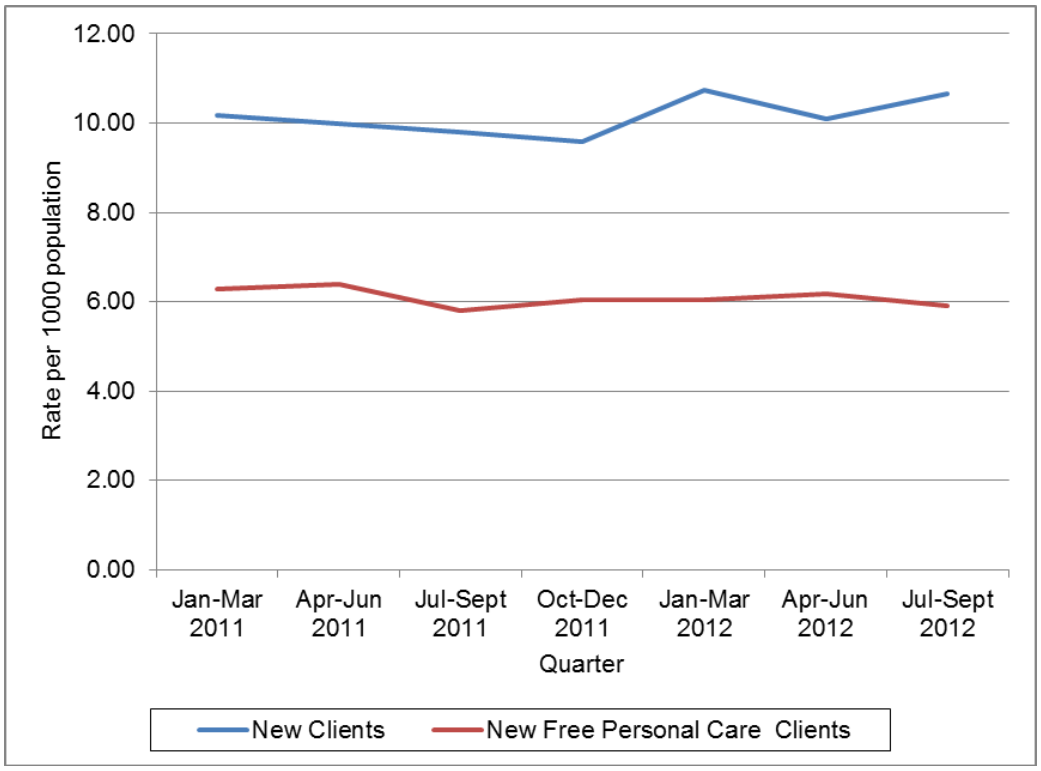
Figure 8.1 shows for Scotland as a whole the rate per 1000 population of new clients and new free personal care clients aged 65 and over between January 2011 to September 2012. For the purposes of this figure, a new client is someone who was not receiving services provided or arranged by local authority adult social care services at the time of that the referral was requested. A new free personal care client is one who is offered a new service following CCA. For the purposes of this survey, this group of clients includes those receiving a new service offering either:

- personal care at home (this includes intermediate care – e.g. rapid response, crisis care – but excludes: telecare; home equipment and adaptations; and nursing services provided by the NHS);
- personal and nursing care in a care home, or
- Direct Payment/Self Directed Support provided for personal care needs.

It should be noted that the groups of new client and new free personal care client are not from the same cohort. Those who are classed as “new clients” it is the person who is “new” to the receipt of service, whilst for the new free personal care clients; it is the provision of a “new service” which is important. So this group will contain both new clients who are getting a new service as well as clients who are already receiving a service, but who have been assessed for, and had provided, a new service in addition to existing services or replacing them. Whilst the data for Scotland is presented, there are a number of caveats about the completeness of the data collection which need to be considered when looking at Figure 8.1 . These are set out in the footnote[1].

[1] NB The data supplied by East Renfrewshire Council is for clients with personal care needs only. This means that the same cohort is used for both client groups in calculating the figure. This is a different methodology from all other local authorities. This approach has been adopted across all quarterly data, so the net effect of the difference is reduced. Not all local authorities have been able to return data for the most recent survey. In the latest quarter 28 authorities provided data for data relating to new clients and 24 for data relating to new free personal care clients Rates are based on the populations of contributing local authorities. .

Figure 8.1: New and Free Personal Care Clients aged 65+ in Scotland by Quarter Jan 2011 to Sept 2012



Source: Scottish Government Health and Social Care Directorates Quarterly Returns.

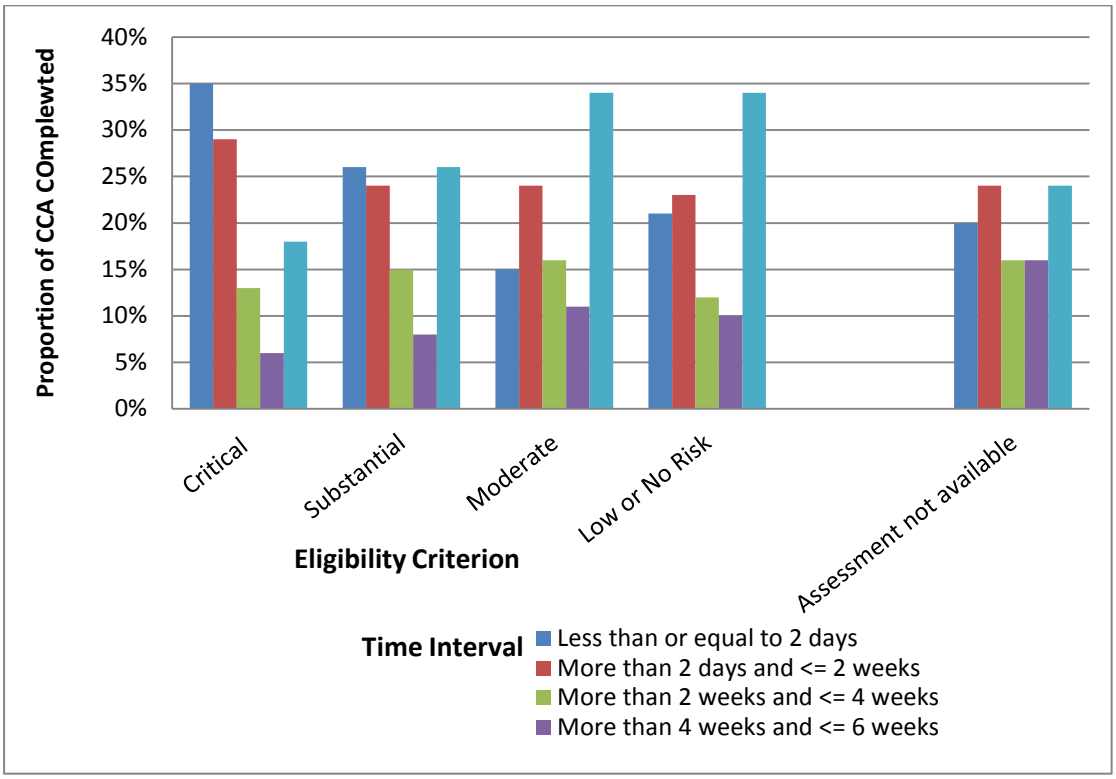
As can be seen, the rate of both new clients and new, free personal care service has remained constant across Scotland over the seven quarters to the third quarter of 2012.

A more sensitive measure is that of the time spent waiting, either for a CCA to be completed or for a new free personal care service to be arranged. This data is also collected by the quarterly survey. Figure 8.2 shows the proportion of CCA completed within a set series of time intervals from the "First Contact" data: the date when the local authority was made aware a CCA was required. The figure shows the proportions by the four, nationally agreed categories of eligibility for care. These run from "no or low risk" through to "critical"[1].

Figure 8.3 is similar, but shows for the same eligibility categories, the proportion of new services delivered by specific time intervals after the completion of the CCA.

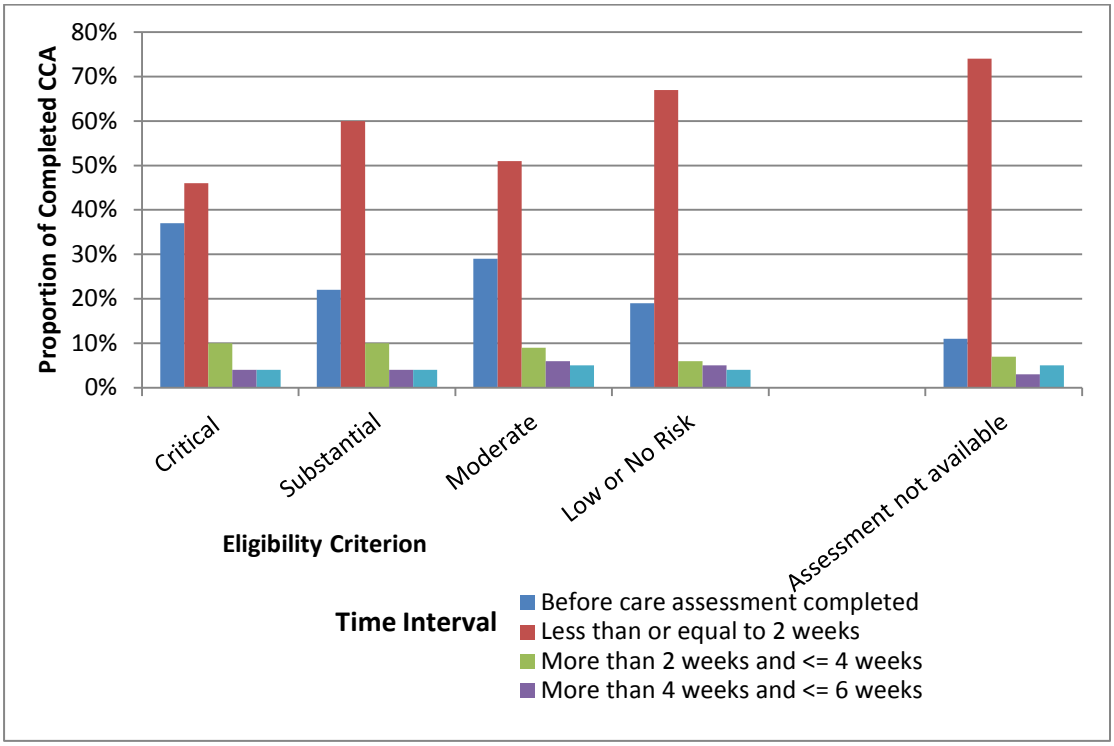
[1] The Eligibility categories – Critical, Substantial, Moderate, and Low Risk – are defined in the guidance on National Eligibility Criteria and Waiting Times for the Personal and Nursing Care of Older People issued jointly by the Scottish Government and COSLA on 28 September 2009. "No Risk" is used for people who are assessed as not coming under the definitions for any of the four eligibility categories. In the figure, "No Risk" and "Low Risk" have been combined. "Not available" is used when the eligibility category is not known.

Figure 8.2 Proportion of Completed CCA by Eligibility Criterion and Time Interval from First Contact to Completion



Source: Scottish Government Health and Social Care Directorates Quarterly Returns.

Figure 8.3 Proportion of Completed CCA by Eligibility Criterion and Time Interval from Completion to Service Delivery



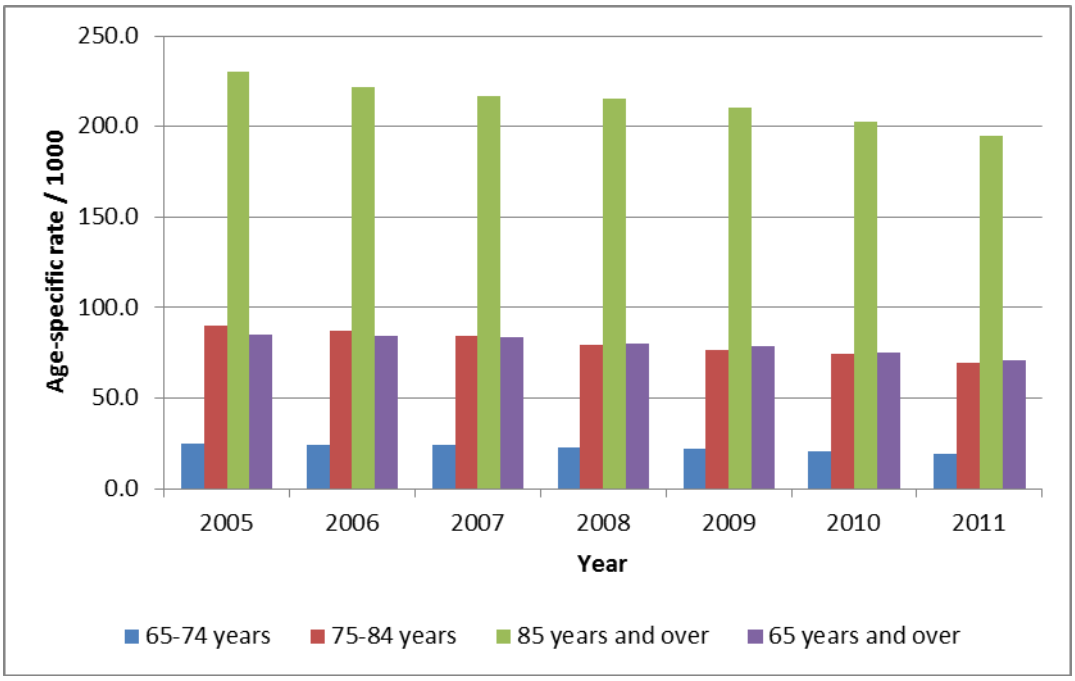
Source: Scottish Government Health and Social Care Directorates Quarterly Returns.

8.2 Care at Home

Care covering a broad range of home assistance services can be provided in an individual's own home. In recent years, the provision of free personal care to people in their own homes has moved away from providing tasks such as cleaning or shopping and moved more towards a preventative model of home care, characterised by short term targeted interventions based on rehabilitative models. This has led to a reduction in the use of home care. Access to care at home is controlled by specific eligibility criteria which are designed to ensure that care is provided to those in need.

Figure 8.4 shows the age specific rate per 1000 population for people in Scotland aged over 65 years by age group for the years 2005 to 2011. This shows, over the last seven years, an overall decline in the use of care at home.

Figure 8.4: **Age specific rates per 1000 home care clients over 65 years, 2005-2011, Scotland**



Source: Community Care Quarterly Key Monitoring Return.

Figure 8.5 shows that over the same period of time, the intensity of home care – as measured by the number of house of care provided on a weekly basis to clients – has also changed. A decline in the lower intensity of provision (under 4 hours per week) has occurred, whilst at the same time there has been a slight increase in both the 4 to 10 hours and over 10 hours intensities of provision.

Table 8.1 and Table 8.2 provide data for individual Local Authorities in Scotland for 2005 to 2010.

Figure 8.5: **Percentage of home care clients in over 65 years by the intensity of care at home provided, 2005-2011, Scotland**

Source: Community Care Quarterly Key Monitoring Return

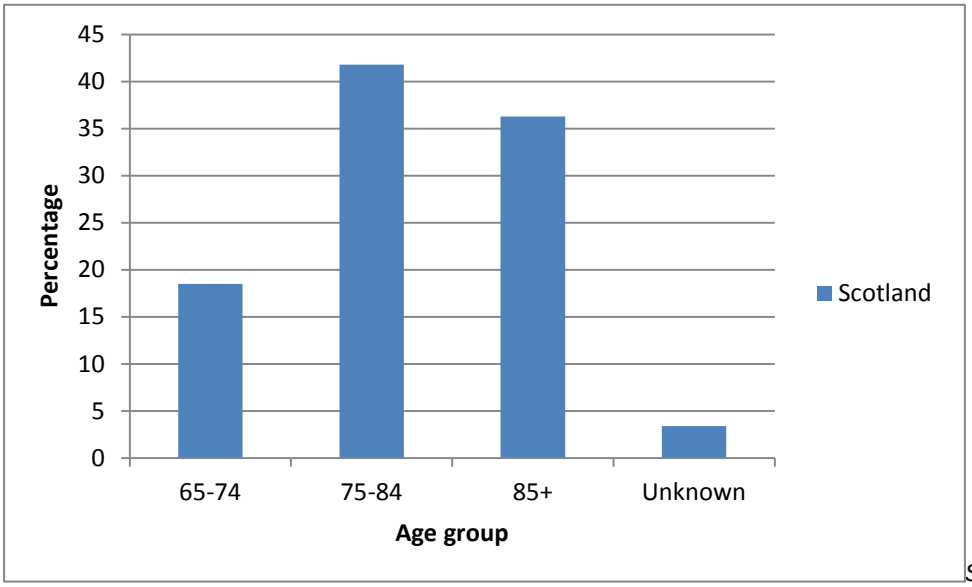
There has been considerable debate about the preferred direction of travel in relation to the provision of care at home. For example, from the data alone it is not possible to determine if more people receiving fewer than 4 hours is a consequence of the move towards more preventative work or as a consequence of reduction in a low level service previously directed towards those people who did not really need them? The requirement on local authorities to put in place eligibility criteria, which emphasises those most in need in order to prevent admission to care or hospital, also hinders interpretation.

8.3 Telecare

Telecare is a term applied to the use of home based technology that helps people, particularly older people, to live more safe and independent lives in their own homes. The technologies build on existing community monitoring systems that are linked to a call out / response service and includes such devices such as remote falls detectors, or motion and light sensors. In home devices can alert the older person to specific possible sources of risk, such as bath water level monitors and heat monitors. Responses may range from a phone call to the person, to calling nominated carers or neighbours, to mobile warden systems of the emergency services.

The Scottish Government launched a five year strategy for 2006 to 2011 to promote the implementation of telecare in local authority areas across Scotland. In 2011, local authorities in Scotland reported that some 96,273 older people were using telecare devices. Figure 8.6 shows the proportion of these devices by age group.

Figure 8.6: **Percentage of telecare clients in Scottish local authorities by age group 2011**



Source:

Source: Community Care Quarterly Key Monitoring Return.

Data for individual local authorities in Scotland is shown in Table 8.4 .

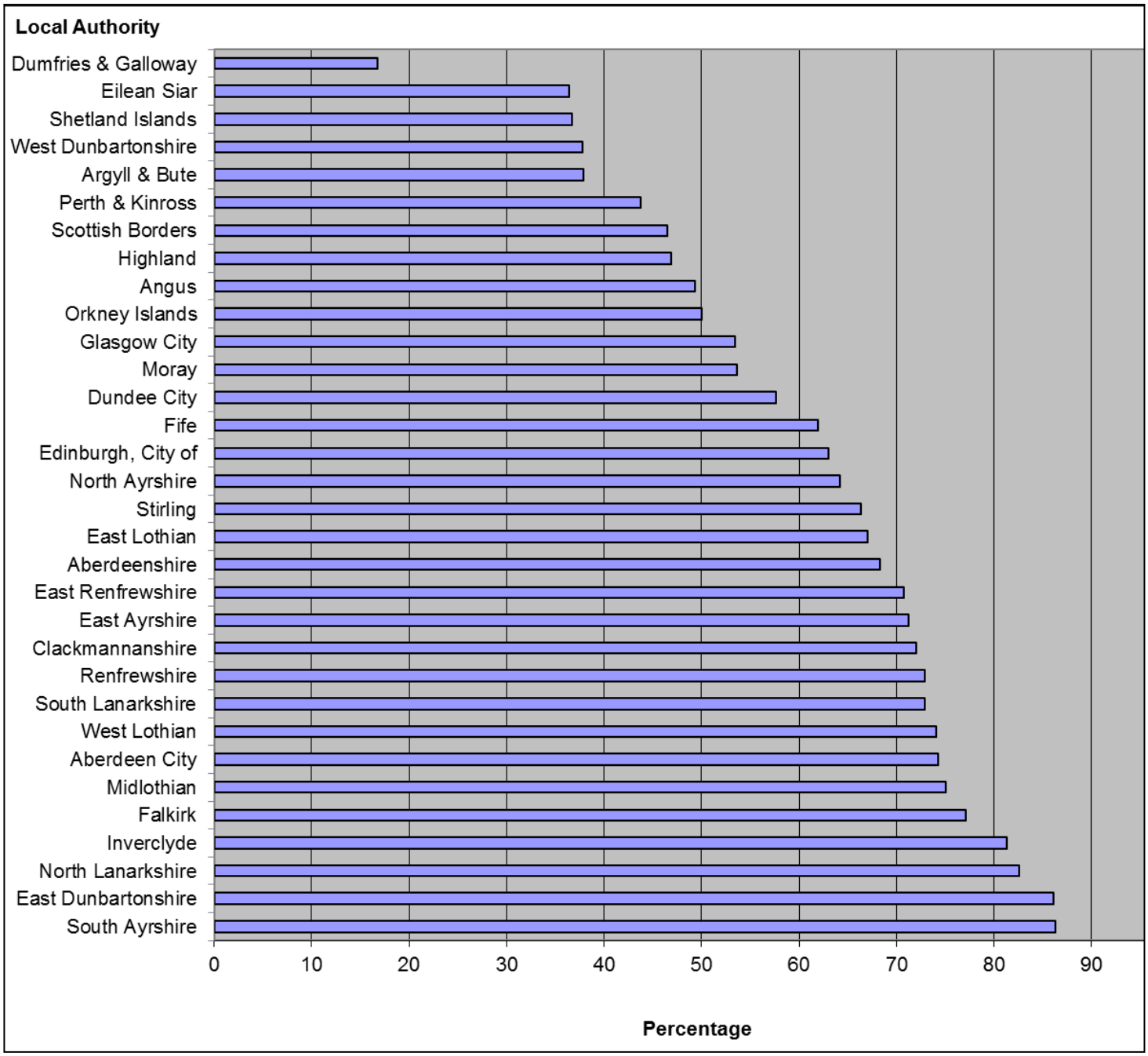
It should be noted that it is still very early days for the implementation of this technology. As the technology develops, so the scope of the technology solutions and the potential applications will develop. However, the key challenge will remain how the use such devices can support older people with health and social care needs to remain independent in their own homes with acceptable quality of life.

8.4 Care homes

Key statistical data from the Scottish Care Home Census for Local Authorities in Scotland in 2011 is presented in Table 8.3 . Of particular interest in the context of a health and social care need assessment are the data relating to long term conditions amongst all residents in care homes registered for older people, irrespective of funding status.

Figure 8.7 shows the wide variation there is between Local Authorities in the proportion of all care home residents requiring nursing care. The observed range is from 86% (South Ayrshire) to 17% (Dumfries & Galloway). These differences clearly reflect differences in the pattern or model of nursing care for older people being provided in each local authority area. They will also reflect to some degree the simple availability of placements in care homes where nursing cover is available.

Figure 8.7: **Proportion of Clients in Care Homes needing Nursing Care by Local Authority 2011**



8.5 Assessing Dependency

A wealth of information on the individual characteristics of older people who have had contact with community services is gathered through the formal assessment processes of local authorities (in some cases, jointly with NHS community services). Only limited aggregated data that shows the characteristics of people in contact with community care services is available however. One aspect of person-specific summary information, collected by nearly half of Scotland's local authorities, is the Indicator of Relative Need (IoRN). The figures presented below are from the first output of the nationally available data and accordingly care should be taken in using the information presented.[1]

The IoRN was originally developed in Scotland in 2003 and is currently supported nationally by the JIT. The IoRN is a validated instrument for use with older people who have support needs. It has also been used with other care groups. It uses a specific set of carefully selected questions covering four main domains: Activities of Daily Living & Mobility, Personal Care, Food/Drink Preparation and Mental Well-being and Behaviour. A question on bowel management is also used to determine the choice of group at the higher dependency end of the scale. An algorithm assigns the person into one of nine groups (A to I, where I is the most functionally dependent on average). A design feature of the IoRN is its ease of completion.

Nationally, IoRN data is collected optionally as a part of the annual care at home census. National information is currently limited to the person's IoRN Group. In 2011 (the latest available), only five local authorities returned data (Inverclyde, South Ayrshire, South Lanarkshire, North Ayrshire, and Clackmannanshire).

Figure 8.8 shows the percentage of people within each of the IoRN groups (Groups G & H are combined due to small numbers in Group G).The categories in the chart are ordered from top to bottom according to an increasing level of dependency. Note that in the description of each group in the charts the terms 'Low', Medium', 'High' are shorthand for 'low needs', 'medium needs' etc. For example, Low ADL means independent on the ADL questions.

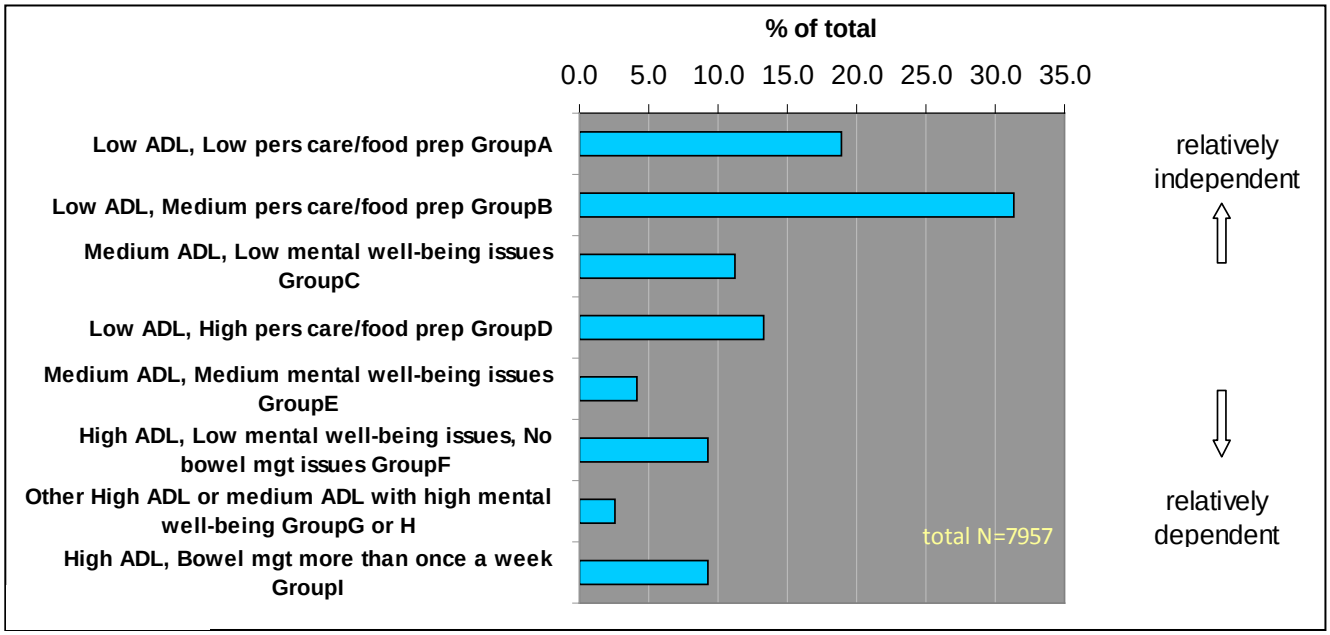
Of the 7,957 people with an IoRN group recorded on the 2011 file, four out of five people were in a higher (i.e. more dependent) group than Group A; Group B was the largest single category with nearly one third of the total.

For around one in five, the Activities of Daily Living (ADL) needs were 'High', meaning that the persons had difficulties with eating a meal, and/or transferring from bed to chair or wheelchair and/or when using the toilet.

[1] We are grateful to Peter Knight of the Joint Improvement Team (JIT) who prepared these analyses for this health and social care need assessment. Any enquiries should be directed to him at peter.knight@scotland.gsi.gov.uk .

Whilst this is clearly a minority of the clients the associated cost of supporting people with such complex needs is relatively high.

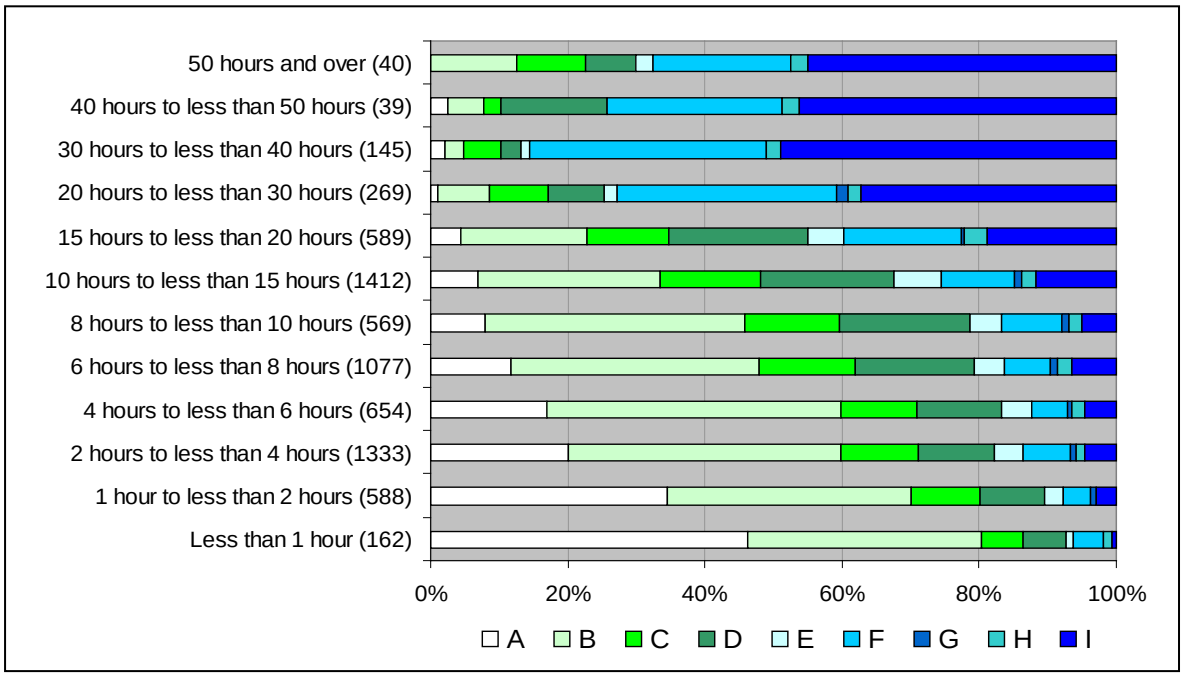
Figure 8.8: **Dependency Group (IoRN) for people receiving home care; data from five local authorities in Scotland 2011**



Source: Care at Home Census 2011

The pattern of hours of home care distributed across people within different IoRN groups for clients aged 65 and over is shown in Figure 8.9.

Figure 8.9: **Home care hours provided, by IoRN Group, 65+ years, data from five local authorities in Scotland 2011**



Source: Care at Home Census 2011

This shows the gradient of increasing hours of home care with increasing dependency (i.e. higher IoRN group). The very large packages of home care, above 20 hours say, are mostly, but not exclusively, provided to people with an IoRN group of F or higher which contains mainly individuals with high ADL needs. At the other end of the spectrum the chart also shows that many people in the IoRN group A are also receiving home care, though with much lower packages.

Figure 8.10 and Figure 8.11 below show the numbers within each IoRN group, split by age band. The first chart shows the percentage of the total with an IoRN group according to group and 10-year age band. The second chart expresses the numbers as a rate per 1000 population in the age band.

Together the charts show that while the percentage of the total people who are in the age band 75-84 is similar to the percentages who are aged 85 and older – hence workload – the rate per 1000 people in the population is markedly different.

Figure 8.10: **Number within Indicator of Relative Need groups expressed as a percentage of all clients aged 65+**

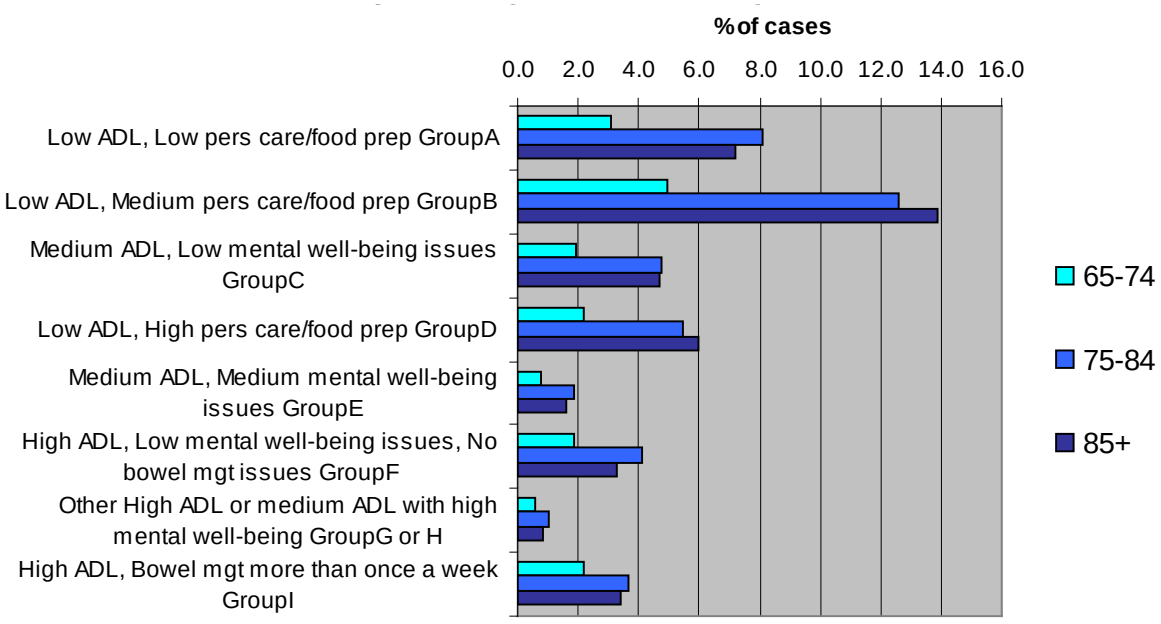
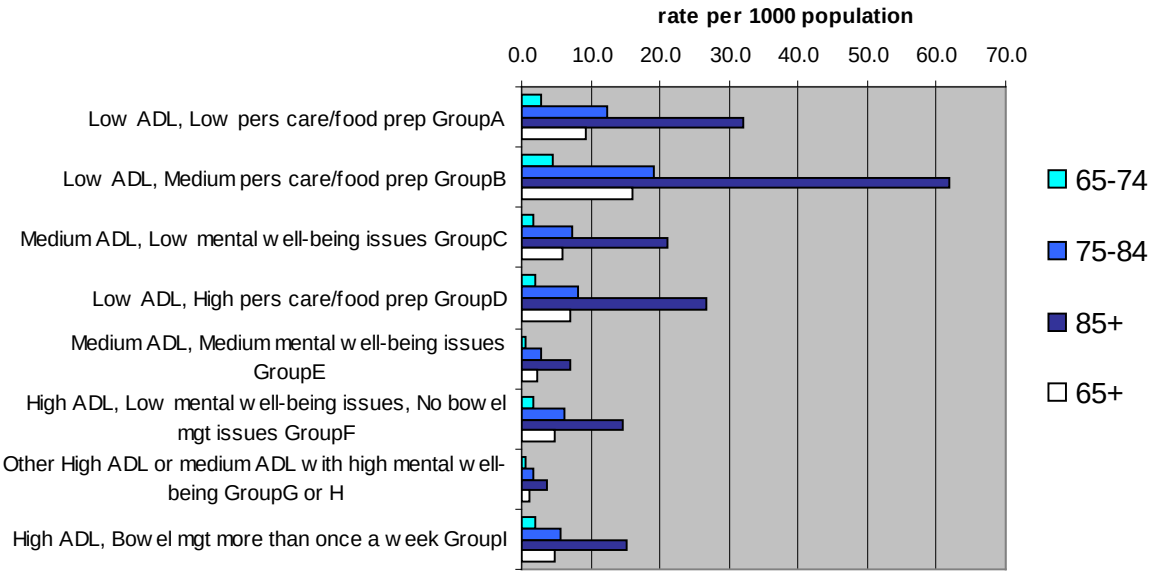


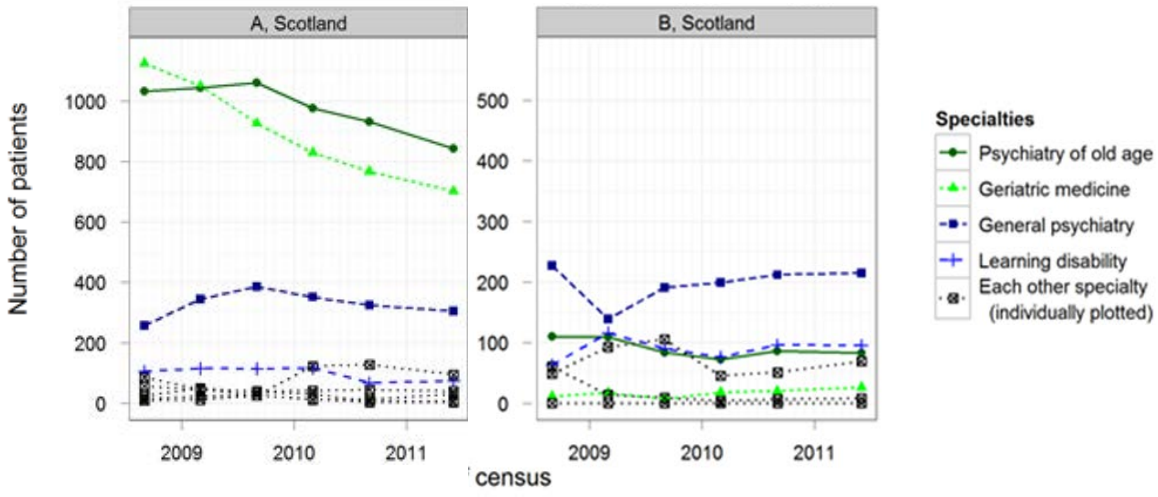
Figure 8.11: Numbers within Indicator of Relative Need groups expressed as a rate per 1,000 population



8.6 NHS Continuing Health Care

Data on NHS Continuing Health Care cases is collected as part of an annual census. Trends in NHS Continuing Health Care from 2008 to 2011 are shown in Figure 8.12 . These data show numbers of patients in Scotland by clinical speciality. These show that for patients who are receiving NHS Continuing Health Care as a result of a decision made under the terms of the Scottish Government guidance (Category A), the general trend for the psychiatry of old age and for medicine of old age cases is generally down. For all other specialities, and for patients who do not specifically meet the criteria for NHS Continuing Health Care but who have been in hospital for over one year without a discharge date on the date of the census (Category B) do not show any major changes.

Figure 8.12: Number of patients in NHS Continuing Health Care (Category A) and other long stay patients (Category B) for Scotland by specialty



Source: ISD Scotland (Balance of Care /Continuing Care census

Table 8.5 shows for each Local Authority the number and age-specific rate of patients in any sort of NHS Continuing Health Care placement at March 2012. As can be expected, the number of cases is generally low, though there is also a wide variation between local authority areas in both formally assessed patients and those in long-stay hospital placements. The reasons for this variation are – as for care homes – likely to be a consequence of local service arrangements.

Table List

Table 8.1: Number of clients aged 65+ receiving free personal care services for free at home by Local Authority 2003/04 to 2010/11

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11p
Aberdeen City	1470	1510	1590	1760	1810	1620	1620	1600
Aberdeenshire	1210	1320	1570	1810	1920	2000	2010	1910
Angus	770	800	800	790	810	820	880	860
Argyll & Bute	480	430	340	440	560	640	670	730
Clackmannanshire	360	370	440	480	500	510	490	510
Dumfries & Galloway	1380	1380	1380	1380	1500	1730	1450	1610
Dundee City	780	800	760	800	830	890	960	1010
East Ayrshire	870	1030	1100	1250	1400	1500	1460	1500
East Dunbartonshire	600	710	780	830	860	900	940	900
East Lothian	710	740	860	880	900	910	880	940
East Renfrewshire	540	610	710	750	670	690	770	850
Edinburgh, City of	1970	2310	2450	2650	2950	2930	3370	3440
Eilean Siar	420	410	450	450	430	450	460	450
Falkirk	1040	1190	1190	1200	1250	1340	1550	1600
Fife	3200	3290	3290	3420	3180	3430	3420	3190
Glasgow City	4020	5260	6340	4810	5270	5150	5800	5890
Highland	1400	1600	1840	1780	1480	1710	1680	1620
Inverclyde	840	920	930	1050	1070	1170	1160	1100
Midlothian	290	320	520	520	550	640	660	630
Moray	680	590	660	760	760	780	780	840
North Ayrshire	830	960	980	1000	1230	1410	1350	1310
North Lanarkshire	1670	2010	2900	2270	2320	2400	2690	2610
Orkney Islands	180	190	190	180	170	210	240	270
Perth & Kinross	700	950	1030	1010	1000	1050	1140	1230
Renfrewshire	770	820	960	1010	1110	1190	1300	1270
Scottish Borders	880	1040	1110	1040	1040	1050	1110	1120
Shetland Islands	190	190	170	180	210	220	240	230
South Ayrshire	1130	1190	1230	1330	1440	1540	1650	1730
South Lanarkshire	1100	1310	1790	2160	2600	2700	2740	2790
Stirling	420	430	460	450	450	470	520	640
West Dunbartonshire	680	590	980	1010	1010	1020	1050	1070
West Lothian	1310	1070	960	970	1000	1130	1240	1300

Notes:
All figures are yearly averages rounded to the nearest 10
P = Data provisional at time of extract, more recent data may be available

Source: Community Care Quarterly Key Monitoring Return.
http://www.scotland.gov.uk/Publications/2011/08/30153211/0

Table 8.2: Intensity of home care provision for clients aged 65 and over as at March 2012, number & age-specific rates per 1000 population by Local Authority

Local Authority	Total clients	Population 65 years +	2 hours or less		Between 2 and 4 hours		Between 4 and 10 hours		Greater than 10 hours	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate
Aberdeen City	1740	32105	221	6.88	349	10.87	633	19.72	537	16.73
Aberdeenshire	1861	40022	531	13.27	418	10.44	639	15.97	273	6.82
Angus	1457	22294	743	33.33	279	12.51	326	14.62	109	4.89
Argyll & Bute	767	19352	48	2.48	109	5.63	246	12.71	364	18.81
Clackmannanshire	561	8091	83	10.26	120	14.83	218	26.94	140	17.30
Dumfries & Galloway	1880	32849	185	5.63	257	7.82	570	17.35	868	26.42
Dundee City	1878	25651	745	29.04	299	11.66	384	14.97	450	17.54
East Ayrshire	1484	21157	239	11.30	352	16.64	591	27.93	302	14.27
East Dunbartonshire	1059	19822	280	14.13	237	11.96	373	18.82	169	8.53
East Lothian	1137	17532	169	9.64	220	12.55	390	22.25	358	20.42
East Renfrewshire	861	16099	41	2.55	211	13.11	242	15.03	367	22.80
Edinburgh, City of	3618	69393	396	5.71	754	10.87	1226	17.67	1242	17.90
Eilean Siar	448	5667	41	7.23	90	15.88	174	30.70	143	25.23
Falkirk	1773	25157	297	11.81	382	15.18	677	26.91	417	16.58
Fife	3201	64215	564	8.78	870	13.55	1188	18.50	579	9.02
Glasgow City	6360	80863	446	5.52	1326	16.40	1944	24.04	2644	32.70
Highland	1739	41678	359	8.61	423	10.15	587	14.08	370	8.88
Inverclyde	1112	14445	158	10.94	220	15.23	338	23.40	396	27.41
Midlothian	761	13637	98	7.19	135	9.90	286	20.97	242	17.75
Moray	1032	16595	172	10.36	244	14.70	298	17.96	318	19.16
North Ayrshire	1326	25314	137	5.41	318	12.56	459	18.13	412	16.28
North Lanarkshire	2836	49603	386	7.78	566	11.41	892	17.98	992	20.00
Orkney Islands	233	3984	61	15.31	48	12.05	79	19.83	45	11.30
Perth & Kinross	1385	29107	294	10.10	259	8.90	498	17.11	334	11.47
Renfrewshire	1294	28417	270	9.50	313	11.01	431	15.17	280	9.85

Scottish Borders	1208	22880	248	10.84	250	10.93	413	18.05	297	12.98
Shetland Islands	449	3794	122	32.16	109	28.73	85	22.40	133	35.06
South Ayrshire	1772	23787	144	6.05	424	17.82	582	24.47	622	26.15
South Lanarkshire	3057	52225	379	7.26	525	10.05	1025	19.63	1128	21.60
Stirling	797	15395	177	11.50	127	8.25	231	15.00	262	17.02
West Dunbartonshire	1351	14910	231	15.49	301	20.19	439	29.44	380	25.49
West Lothian	1301	23452	190	8.10	203	8.66	523	22.30	385	16.42

Source: SEHD Community Care Statistics, H1 Return & ProcXed Home Care collection
http://www.scotland.gov.uk/Resource/0039/00395184.xls

Table 8.3: Key statistics for residents in Older Persons Care Homes Placements at March 2011, by Local Authority

	Aberdeen City	Aberdeenshire	Angus	Argyll & Bute	Clackmannanshire	Dumfries & Galloway	Dundee City	East Ayrshire	East Dunbartonshire	East Lothian	East Renfrewshire	Edinburgh, City of	Eilean Siar	Falkirk	Fife	Glasgow City
All Residents (n)																
Total Number of Residents	1471	1648	983	580	194	1015	914	833	421	589	506	2751	197	849	2453	3749
Total Number of Long Stay Residents	1399	1597	946	562	186	995	875	807	397	577	495	2717	177	831	2347	3676
Total Number of Short Stay/Respite Residents	72	51	37	18	8	20	39	26	24	12	11	34	20	18	106	73
Characteristics of Long Stay Residents (%)																
Requiring Nursing Care	74	68	49	38	72	17	58	71	86	67	71	63	36	77	62	53
Visual Impairment	20	18	19	18	38	17	24	18	17	10	22	20	16	26	11	22
Hearing Impairment	16	12	10	14	15	15	12	9	7	9	12	14	11	14	9	11
Acquired Brain Injury	2	5	2	3	4	2	5	3	3	2	2	2	7	3	2	2
Other Phys.Dis. Or Chronic Illness	37	47	34	41	27	39	30	40	35	37	45	39	48	34	35	34
Dementia (Medically Diagnosed)	52	46	41	55	49	50	53	49	38	64	56	51	47	62	53	48
Dementia (Not Medically Diagnosed)	9	10	9	9	9	10	12	9	10	11	10	10	15	5	7	7
Mental Health Problems	10	7	9	10	8	7	9	13	4	9	6	11	10	8	7	10
Learning Disability	4	3	4	1	12	1	3	4	*	2	3	2	3	2	3	4
Average Age of Long Stay Residents (n)																
Mean Age	83.2	83.1	84.4	85.1	80.3	82.8	82.9	81.6	82.9	84.4	84.3	85.1	84.4	83.0	83.2	82.3
Median Age	84.0	85.0	85.0	86.0	84.0	85.0	84.0	84.0	85.0	85.0	86.0	86.0	86.0	85.0	85.0	83.0

Age Group of Long Stay Residents (%)																
Under 65	4	6	5	1	9	3	4	8	8	2	4	2	3	2	5	4
65-74	10	9	9	9	15	9	12	11	8	8	9	8	9	12	10	14
75-84	36	32	33	35	30	34	35	32	30	33	31	31	28	33	34	37
84- 94	42	46	45	44	39	46	42	43	47	47	47	48	50	44	44	38
95 plus	7	8	8	12	7	8	7	5	7	9	9	10	9	8	7	7
Gender of Residents (%)																
Percentage Male	27	29	26	23	29	25	25	28	24	26	24	28	23	25	27	31
Percentage Female	73	71	74	77	71	75	75	72	76	74	76	72	77	75	73	69
Average Age on Admission of Long Stay Residents (n)																
Mean Age on Admission	80.5	80.1	81.6	82.8	75.4	82.2	80.7	78.8	82.8	81.4	80.5	81.9	81.7	81.1	81.0	79.7
Median Age on Admission	82.0	82.0	82.0	83.0	81.0	83.0	82.0	82.0	83.0	82.0	83.0	83.0	83.0	82.0	83.0	81.0
Average Age on Discharge of Long Stay Residents (n)																
Mean Age on Discharge	84.4	86.3	85.9	87.9	80.8	86.1	85.5	82.5	90.6	86.8	89.5	85.3	84.8	85.0	84.9	85.2
Median Age on Discharge	85.0	87.0	87.0	87.0	82.0	87.0	86.5	84.0	91.0	87.0	89.0	86.0	87.0	86.0	86.0	86.0
Average Complete Length of Stay for Long Stay Residents (in years) (n)																
Mean Complete Length of Stay	2.4	2.5	1.9	2.7	2.8	2.4	2.5	2.6	3.5	1.8	2.5	2.4	3.0	2.6	2.3	2.0
Median Complete Length of Stay	1.5	1.5	1.3	1.5	1.5	1.5	1.8	1.5	3.0	1.1	2.2	1.6	2.3	1.7	1.6	1.0
Complete Length of Stay Groupings of Long Stay Residents (%)																
Less than one month	8	6	10	5	4	8	5	7	3	12	5	6	0	5	6	15
1 - < three months	15	9	14	11	0	9	9	7	6	12	5	11	4	6	8	17
3 - < 6 months	7	11	9	11	17	9	10	10	0	13	4	8	4	7	12	8
6 months - < 1 year	11	15	13	10	4	16	12	14	0	10	12	14	20	18	11	9
1 year < 3 years	33	28	33	30	43	29	34	31	41	26	35	32	36	35	36	24
3 - < 5 years	14	16	16	17	13	15	17	16	29	20	32	17	16	13	14	15
5 years and above	13	14	8	16	17	15	13	16	21	6	7	12	20	16	13	11

Average Incomplete Length of Stay for Long Stay Residents (in years) (n)																
Mean Incomplete Length of Stay	2.8	2.8	2.5	2.8	3.8	2.5	2.6	3.1	3.3	2.7	2.7	2.9	2.8	2.6	2.8	3.1
Median Incomplete Length of Stay	2.0	2.0	1.9	2.0	3.3	1.6	1.8	2.1	2.5	1.8	2.0	2.1	2.1	1.8	2.0	2.3
Incomplete Length of Stay Groupings of Long Stay Residents (%)																
Less than one month 1	2	3	2	3	2	3	3	3	2	2	2	2	*	2	3	3
1 - < three months 1	5	5	5	7	3	5	6	3	2	5	4	4	7	5	6	4
3 - < 6 months 1	5	7	6	11	2	8	8	4	5	5	7	6	*	9	5	6
6 months - < 1 year 1	10	13	12	11	8	16	12	11	10	15	9	12	12	13	12	11
1 year < 3 years 1	50	37	45	33	29	39	39	41	42	40	47	41	43	41	40	37
3 - < 5 years 1	13	18	15	17	29	17	18	18	22	17	18	19	16	17	18	21
5 years and above 1	15	16	13	18	27	13	14	20	18	15	14	17	15	13	16	19

	Highland	Inverclyde	Midlothian	Moray	North Ayrshire	North Lanarkshire	Orkney Islands	Perth & Kinross	Renfrewshire	Scottish Borders	Shetland Islands	South Ayrshire	South Lanarkshire	Stirling	West Dunbartonshire	West Lothian
All Residents (n)																
Total Number of Residents	1713	650	542	503	1006	1634	111	1257	1303	655	158	846	2244	524	547	799
Total Number of Long Stay Residents	1665	641	534	490	972	1566	101	1195	1271	622	130	829	2159	497	535	754
Total Number of Short Stay/Respite Residents	48	9	8	13	34	68	10	62	32	33	28	17	85	27	12	45
Characteristics of Long Stay Residents (%)																
Requiring Nursing Care	47	81	75	54	64	83	50	44	73	47	37	86	73	66	38	74
Visual Impairment	20	18	9	34	12	19	5	17	21	16	12	23	19	35	11	15
Hearing Impairment	13	10	5	21	8	15	*	10	11	16	15	15	9	20	13	9
Acquired Brain Injury	4	2	5	4	2	4	*	3	4	5	9	3	5	3	5	4
Other Phys.Dis. Or Chronic Illness[2]	41	35	31	38	20	30	45	37	29	37	48	38	39	27	39	37
Dementia (Medically Diagnosed)	47	55	57	47	49	49	42	45	58	48	39	51	43	50	56	53
Dementia (Not Medically Diagnosed)	9	7	3	9	17	12	13	6	8	11	15	12	11	9	3	5
Mental Health Problems	10	9	3	7	7	6	8	8	9	10	9	11	8	7	12	10
Learning Disability	5	1	3	3	1	2	*	4	2	1	*	1	2	4	3	3
Average Age of Long Stay Residents (n)																
Mean Age	82.3	84.1	80.8	84.0	83.3	82.8	85.6	83.9	82.0	84.5	82.5	84.8	82.3	88.8	82.1	85.9
Median Age	84.5	85.0	84.0	85.0	85.0	84.0	86.0	86.0	84.0	86.0	85.0	86.0	84.0	86.0	84.0	84.0

Age Group of Long Stay Residents (%)																
Under 65	7	3	12	3	4	3	*	6	6	4	5	2	7	3	6	3
65-74	11	10	8	11	12	14	*	8	11	9	18	8	11	10	14	13
75-84	32	33	34	32	31	37	31	29	36	31	25	31	32	32	33	40
84- 94	43	46	39	44	44	41	50	46	41	47	40	50	42	47	40	39
95 plus	7	8	6	9	9	6	10	11	5	10	12	8	8	8	7	5
Gender of Residents (%)																
Percentage Male	28	18	29	24	27	25	20	26	37	26	26	22	27	24	29	25
Percentage Female	72	82	71	76	73	75	80	74	63	74	74	78	73	76	71	75
Average Age on Admission of Long Stay Residents (n)																
Mean Age on Admission	79.4	78.7	76.3	81.8	80.2	80.1	83.7	82.1	80.0	81.5	80.4	83.2	78.7	81.4	80.1	79.2
Median Age on Admission	82.5	82.0	81.0	83.0	82.0	81.0	85.0	84.0	81.0	83.0	82.0	84.0	81.0	83.0	82.0	80.0
Average Age on Discharge of Long Stay Residents (n)																
Mean Age on Discharge	86.4	85.6	85.6	85.3	85.4	81.1	86.7	87.2	84.6	87.8	88.3	85.9	85.1	89.0	85.5	84.6
Median Age on Discharge	87.0	87.0	88.0	87.0	86.0	82.0	89.0	89.0	85.0	89.0	90.0	87.0	87.0	90.0	85.0	86.0
Average Complete Length of Stay for Long Stay Residents (in years) (n)																
Mean Complete Length of Stay	2.6	3.3	2.6	2.0	2.0	3.1	2.2	2.4	2.4	2.4	2.4	2.7	2.6	2.6	1.8	2.3
Median Complete Length of Stay	1.5	2.5	2.0	0.8	1.1	2.4	1.4	1.6	1.7	1.7	1.7	1.7	1.4	1.5	1.2	1.7
Complete Length of Stay Groupings of Long Stay Residents (%)																
Less than one month	8	3	6	13	13	3	17	6	3	3	0	8	9	2	8	9
1 - < three months	15	7	5	12	11	4	12	9	9	7	16	14	9	7	22	5
3 - < 6 months	10	9	7	9	7	10	5	9	10	7	9	11	12	8	12	17
6 months - < 1 year	9	12	12	18	16	16	14	15	14	12	9	9	14	23	8	11
1 year < 3 years	29	25	40	24	28	27	21	32	37	40	41	28	23	25	29	26
3 - < 5 years	14	20	16	12	16	18	17	16	15	18	9	15	17	23	12	21
5 years and above	15	24	13	11	10	23	14	13	12	13	16	16	17	13	9	12

Average Incomplete Length of Stay for Long Stay Residents (in years) (n)																
Mean Incomplete Length of Stay	3.5	3.4	2.9	1.6	2.8	3.2	2.6	3.1	2.9	2.9	2.7	2.9	3.3	3.2	3.1	3.2
Median Incomplete Length of Stay	2.3	2.9	1.9	0.0	2.0	2.2	1.7	2.1	2.0	2.0	1.9	2.0	2.5	2.3	2.0	2.3
Incomplete Length of Stay Groupings of Long Stay Residents (%)																
Less than one month 1	3	1	4	4	3	3	*	4	3	4	7	5	3	2	3	2
1 - < three months 1	5	4	6	5	6	4	10	4	4	4	9	5	3	4	4	6
3 - < 6 months 1	8	5	9	9	8	6	*	6	8	6	4	8	6	6	6	5
6 months - < 1 year 1	10	7	12	15	13	7	7	12	13	12	12	14	11	9	14	7
1 year < 3 years 1	35	35	37	38	35	41	45	37	38	39	38	33	35	40	37	39
3 - < 5 years 1	18	26	17	14	18	20	14	19	20	18	15	16	20	20	15	20
5 years and above 1	21	22	16	15	17	19	16	18	16	18	16	19	22	19	20	21

Notes:
This table refers to the main client group of the care homes, and not the client group of the residents.
n/a - indicates data was not available for that year
* - Indicates values that have been suppressed due to the potential risk of disclosure and to help maintain resident confidentiality

Source: Scottish Care Home Census
http://www.isdscotland.org/Health-Topics/Health-and-Social-Community-Care/Publications/2012-02-28/SCHC_mar11partb_tables.xls?80789745

Table 8.4; **Age breakdown of all telecare (including, community alarm) clients by Local Authority 2011**

	Total clients	Age unknown	65-74 years		75-84 years		85 + years	
			Number	%	Number	%	Number	%
Aberdeen City	1,700	0	197	11.59	763	44.88	740	43.53
Aberdeenshire	2,304	1	301	13.06	919	39.89	1,083	47.01
Angus	3,266	0	608	18.62	1,447	44.30	1,211	37.08
Argyll & Bute	1,365	4	206	15.09	513	37.58	642	47.03
Clackmannanshire	1,128	0	235	20.83	489	43.35	404	35.82
Dumfries & Galloway	2,107	0	270	12.81	894	42.43	943	44.76
Dundee City	3,850	117	855	22.21	1,595	41.43	1,283	33.32
East Ayrshire	2,808	3	542	19.30	1,272	45.30	991	35.29
East Dunbartonshire	1,772	0	246	13.88	742	41.87	784	44.24
East Lothian	1,501	0	235	15.66	593	39.51	673	44.84
East Renfrewshire	1,432	0	200	13.97	602	42.04	630	43.99
Edinburgh, City of	6,028	200	1,075	17.83	2,303	38.21	2,450	40.64
Eilean Siar	794	20	100	12.59	334	42.07	340	42.82
Falkirk	3,446	0	748	21.71	1,551	45.01	1,147	33.28
Fife	5,192	0	775	14.93	2,125	40.93	2,292	44.14
Glasgow City	13,696	553	2,970	21.69	5,801	42.36	4,372	31.92
Highland	3,092	2,344	94	3.04	271	8.76	383	12.39
Inverclyde	1,627	0	280	17.21	707	43.45	640	39.34
Midlothian	1,313	7	229	17.44	518	39.45	559	42.57
Moray	1,343	0	201	14.97	580	43.19	562	41.85
North Ayrshire	2,450	0	441	18.00	1,039	42.41	970	39.59
North Lanarkshire	10,247	0	2,391	23.33	4,928	48.09	2,928	28.57
Orkney Islands	486	0	75	15.43	210	43.21	201	41.36
Perth & Kinross	1,901	1	254	13.36	730	38.40	916	48.19
Renfrewshire	2,542	0	448	17.62	1,043	41.03	1,051	41.35
Scottish Borders	3,072	0	498	16.21	1,231	40.07	1,343	43.72
Shetland Islands	634	2	114	17.98	262	41.32	256	40.38
South Ayrshire	1,789	0	244	13.64	746	41.70	799	44.66
South Lanarkshire	6,915	0	1,515	21.91	3,189	46.12	2,211	31.97
Stirling	1,625	25	245	15.08	695	42.77	660	40.62
West Dunbartonshire	1,794	0	357	19.90	785	43.76	652	36.34
West Lothian	3,054	0	869	28.45	1,367	44.76	818	26.78

Source: SEHD Community Care Statistics, H1 Return & ProcXed Home Care collection
http://www.scotland.gov.uk/Resource/0039/00395184.xls

Table 8.5: People aged 65 years and over in receipt of NHS continuing health care as at March 2012; number and age-specific rate per 1000 by Local Authority of residence

	Category A[1]		Category B[2]	
	Number	Rate	Number	Rate
Aberdeen	14	0.44	0	0.00
Aberdeenshire	6	0.15	4	0.10
Angus	9	0.40	8	0.36
Argyll & Clyde	23	1.19	1	0.05
Borders	17	2.10	1	0.12
Clackmannanshire	0	0.00	4	0.12
Eilean Siar	19	0.74	0	0.00
Dumfries & Galloway	3	0.14	12	0.57
Dundee City	45	2.27	9	0.45
East Ayrshire	38	2.17	1	0.06
East Dunbartonshire	38	2.36	1	0.06
East Lothian	43	0.62	0	0.00
East Renfrewshire	37	6.53	0	0.00
Edinburgh City	287	11.41	18	0.72
Falkirk	19	0.30	10	0.16
Fife	74	0.92	13	0.16
Glasgow	277	6.65	8	0.19
Highland	5	0.35	5	0.35
Inverclyde	39	2.86	2	0.15
Midlothian	28	1.69	1	0.06
Moray	2	0.08	0	0.00
North Ayrshire	50	1.01	0	0.00
North Lanarkshire	120	30.12	4	1.00
Orkney	1	0.03	0	0.00
Perth & Kinross	2	0.07	1	0.04
Renfrewshire	48	2.10	1	0.04
Shetland	0	0.00	3	0.79
South Ayrshire	60	2.52	0	0.00
South Lanarkshire	152	2.91	0	0.00
Stirling	0	0.00	9	0.58
West Dunbartonshire	27	1.81	3	0.20
West Lothian	72	3.07	2	0.09

Notes:
1 Category A - Patients who are receiving NHS Continuing Health Care as a result of a decision made under the terms of the guidance referred to on page 1 of this report. Note that although NHS Continuing Health Care may be provided in a hospital ward it may also be provided on a contractual basis in a hospice, care home, supported housing and domiciliary care.
2 Category B - Patients who do not specifically meet the criteria for NHS Continuing Health Care but who have been in hospital for over one year and for whom no estimated date of discharge has been set.
NB For a small number of cases where the original city/town or postcode of residence is not known, the location of treatment has been used to derive Local Authority.

Source: ISD Scotland (Balance of Care/Continuing Care census March 2012)
http://www.isdscotland.org/Health-Topics/Health-and-Social-Community-Care/Publications/2012-06-26/CC_mar12_tables.xls#'Table1'!A1

9 Self-care, carers and caring

This section covers:

- Self-care
- Carers and caring

For ease of reading, large data tables are included at the end of the chapter.

Key points:

Self-care:

- ❖ Routine data on self-care is lacking.

Carers and caring:

- ❖ 1 in 8 (12%) of men and women aged 65 years and over provide unpaid care to someone inside or outside the home (Table 9.1, Figure 9.2).
- ❖ As carers get older, they appear to take on more caring responsibility (Figure 9.3).
- ❖ While 13% of all households contain at least one person who requires regular help or care, almost one in four single pensioners (23%) and older smaller households (22%) have care needs (Figure 9.4).
- ❖ The size of households in Scotland is changing, with a trend towards smaller households and solo living. This has implications for the future provision of care.
- ❖ Around 12% of carers undertaking an unpaid caring role and 18% of those undertaking more than 20 hours of unpaid care a week report that they are in poor health, highlighting how carers may themselves suffer from the effects of illness and disability (Figure 9.5).
- ❖ The older age group (65+) accounts for the largest proportion of the respite care weeks provided in Scotland (Table 9.2).
- ❖ An increasing number of people aged 65 or over now receive Self-directed Support (Direct Payment) packages (Table 9.3).

9.1 Self-care

Although important, there is currently little routinely collected data available on self- care.

9.2 Carers and caring

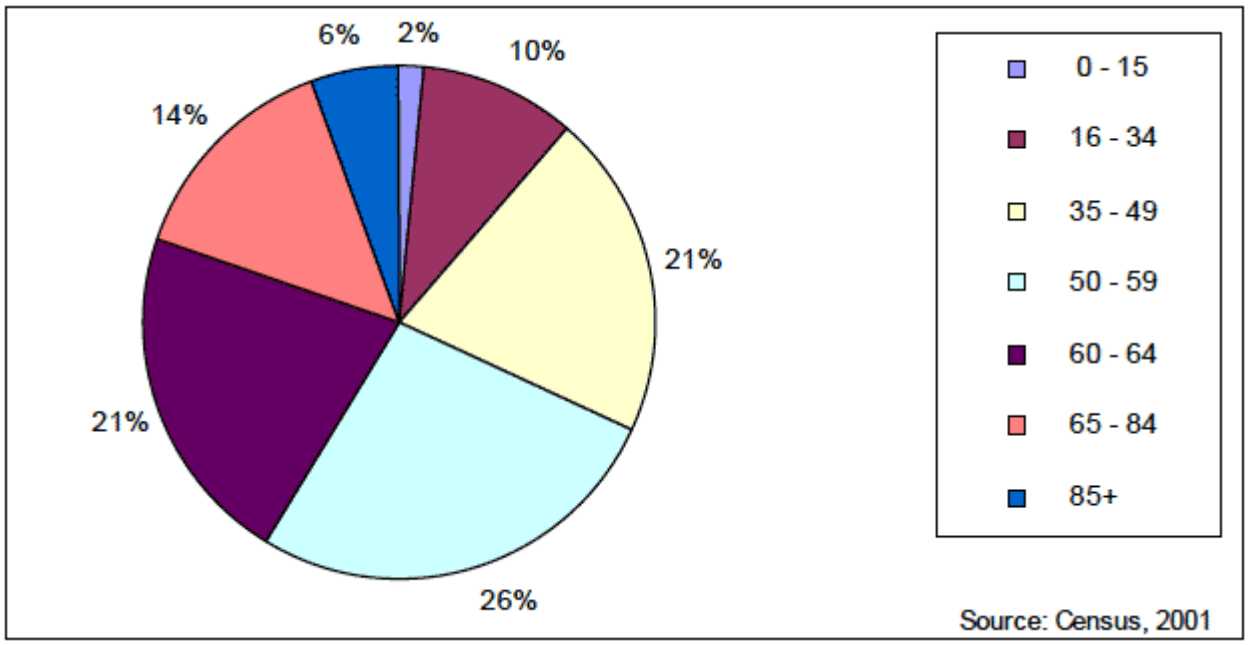
9.2.1 Age of Scotland's carers

Data on unpaid carers in Scotland is available from the Census, Scottish Household Survey and Scottish Health Survey (Stewart, 2010). In summary:

- 11%-12% of adults aged 16 and over in Scotland provide regular unpaid care to someone inside or outside their home (Scottish Health Survey, 2011).

- Most unpaid carers in Scotland are from the middle and older age groups in society (Figure 9.1)

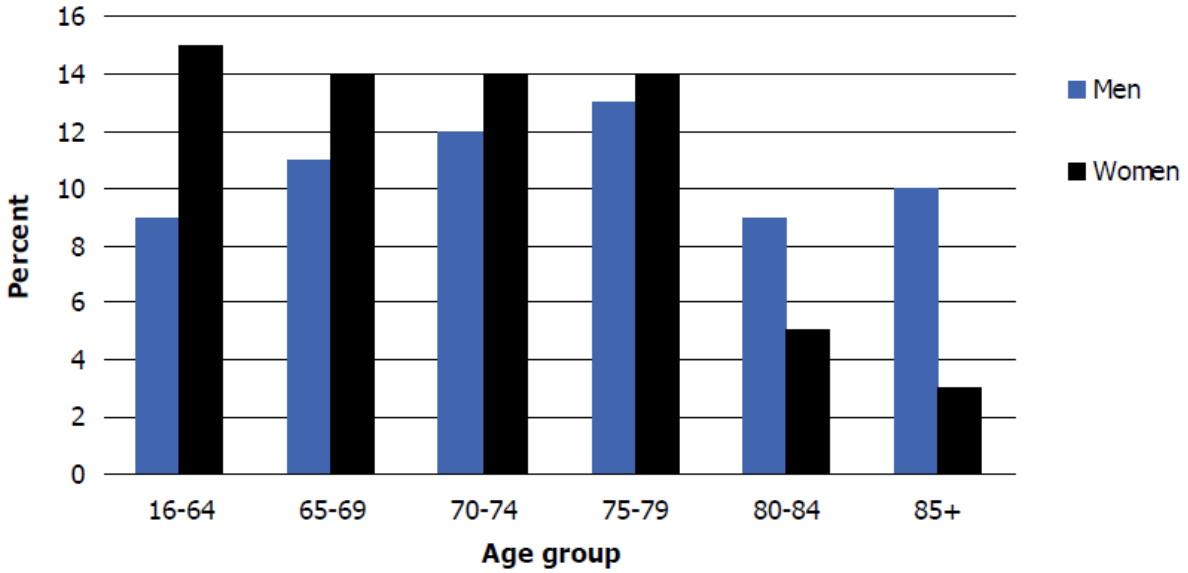
Figure 9.1: Age of carers in Scotland



http://www.scotland.gov.uk/Publications/2010/07/23163626/5

- Younger women are more likely to provide care than younger men (15% vs 9% aged 16-64). However, older men and women are equally likely to be carers (12% of those aged 65 and over) (Table 9.1). The proportion of men providing care varies little with age, though it declines sharply among women from 14% of those aged 65-79, to 5% of those aged 80-84 and 3% of those aged 85 and over (Figure 9.2).

Figure 9.2: Provision of care to anyone inside or outside home by age and sex, Scotland



2008/2009/2010 data combined
Source: Scottish Health Survey (2011)

9.2.2 Intensity of care provided

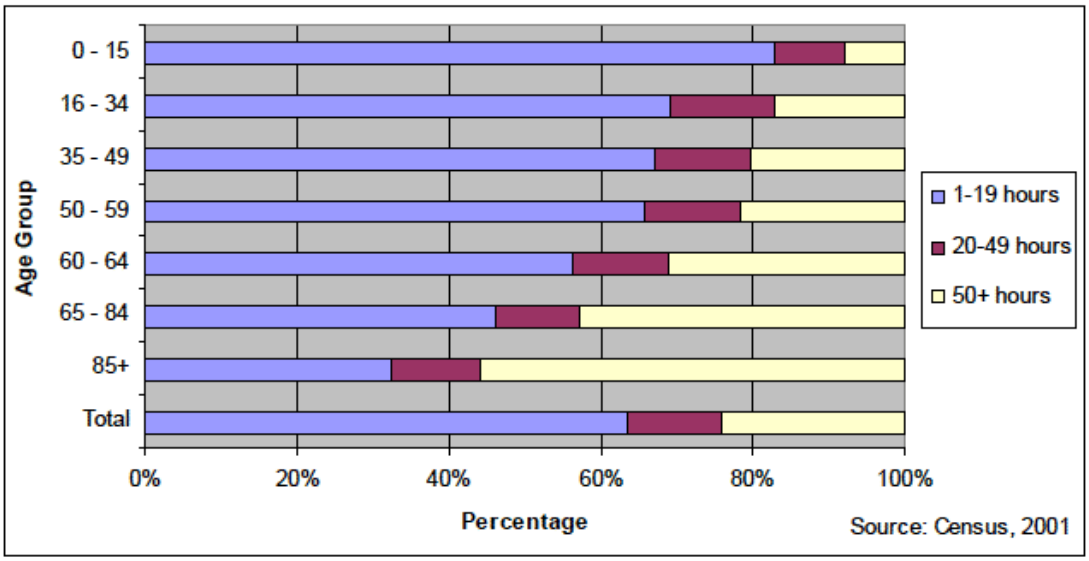
- Caring can be time consuming, with around 20% of carers spending more than 50 hours a week on caring activities. If those being cared for – usually first degree relatives – live with the carer, then there is often a greater time commitment (Scottish Health Survey, 2011).

- Most carers have been providing informal care for a significant length of time, with 70% of carers doing so for more than five years (Scottish Health Survey, 2011).

- As carers get older, they appear to take on more caring responsibility (Figure 9.3).

- Data from the 2011 Census on the provision of unpaid care is due to be published in 2013.

Figure 9.3: Provision of any unpaid care in Scotland by age group of carer



http://www.scotland.gov.uk/Publications/2010/07/23163626/5

9.2.3 Care needs by type of household

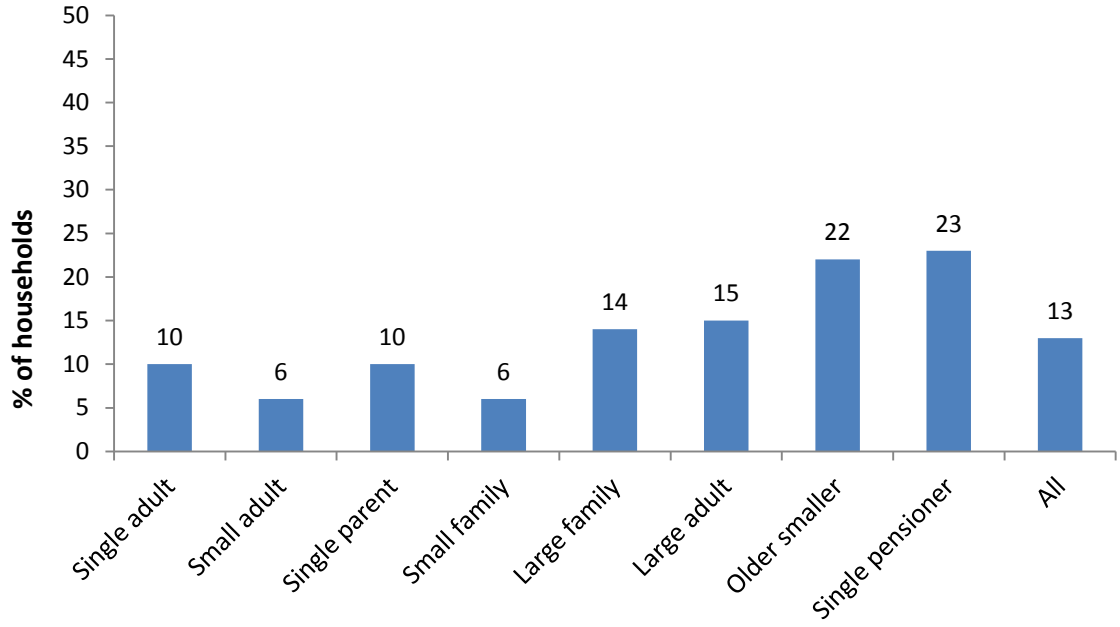
Results from the 2011 Scottish Household Survey show that:

- Around 13% of households contain someone requiring care. This compares to 34% of households reporting that they contain at least one person with a long-standing illness, health problem or disability.

- While 13% of all households contain at least one person who requires regular help or care, close to one in four single pensioners (23%) and older smaller households (22%) have care needs (Figure 9.4).

- Households with care needs containing only one adult are more likely to need care from outside the household. The size of households in Scotland is changing, with a trend towards smaller households and solo living (as discussed in section 3.3). This has implications for the future provision of care.

Figure 9.4: Households containing someone who needs regular help or care by household type (2011 data, households)

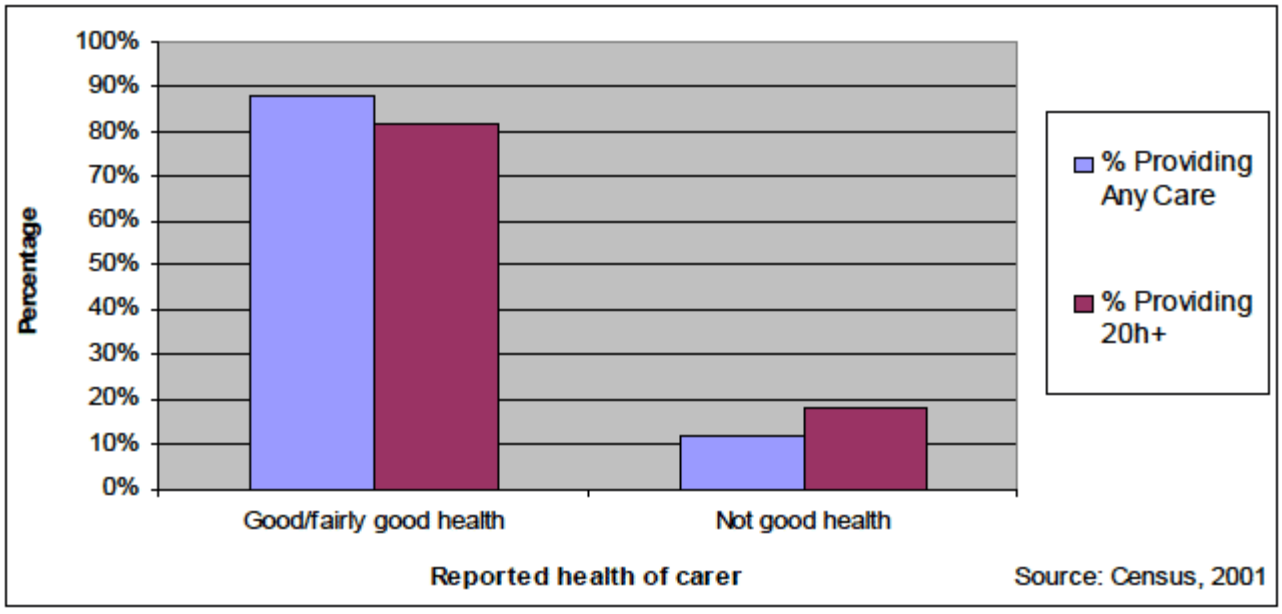


Source: Scottish Household Survey (2012)

9.2.4 Health of carers

Around 12% of carers undertaking an unpaid caring role and 18% of those undertaking more than 20 hours of unpaid care a week report that they are in poor health, highlighting how carers may themselves suffer from the effects of illness and disability (Figure 9.5).

Figure 9.5: Self-reported health of carers in Scotland and provision of unpaid care



http://www.scotland.gov.uk/Publications/2010/07/23163626/5

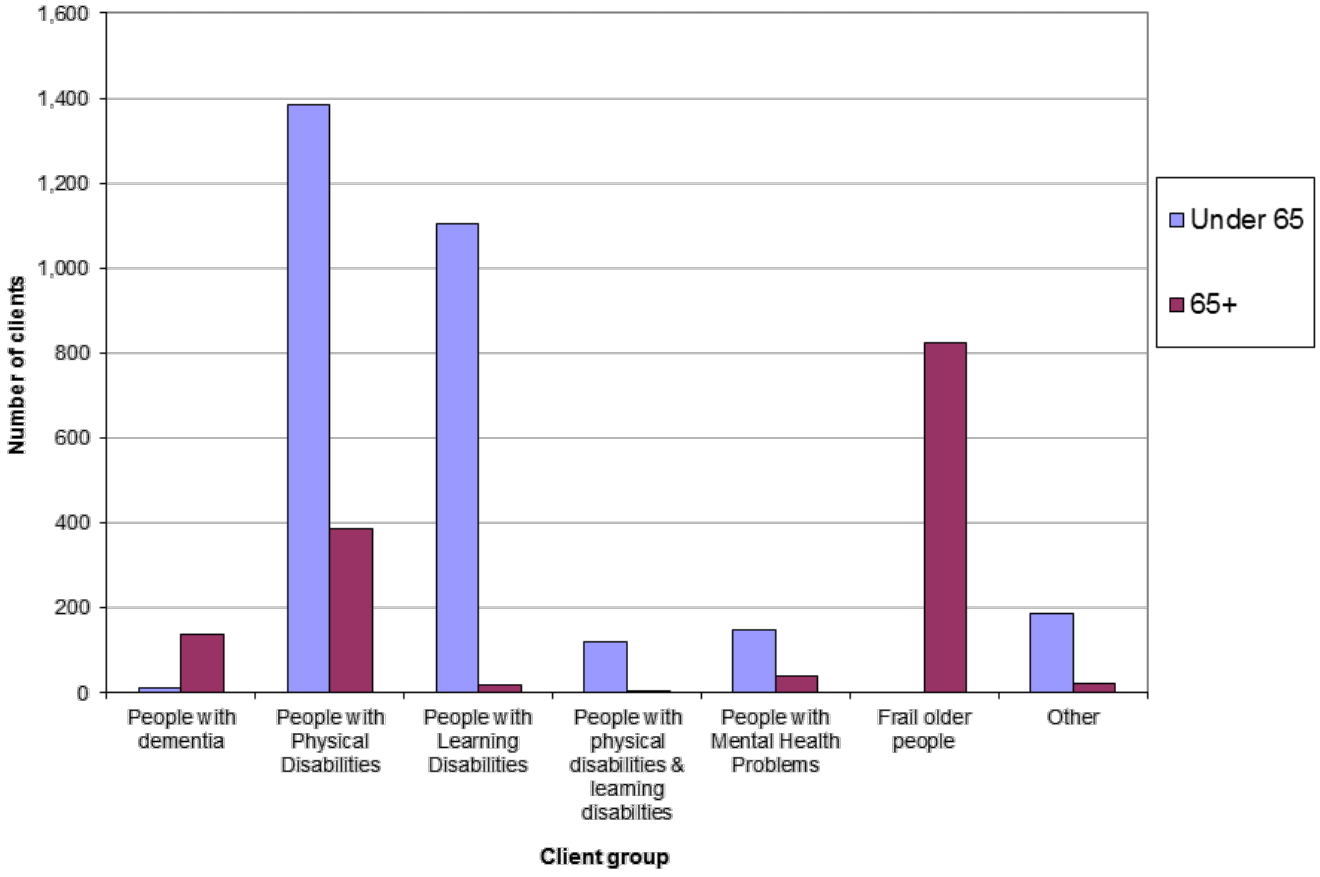
9.2.5 Respite care

Table 9.2 shows the total respite weeks provided in Scotland and the relevant percentage changes for different financial years. The pattern revealed is that nationally it appears in recent years there has been a tendency for overnight respite to be decreasing and day time hours to be increasing. The older people age group (65+) accounts for the largest proportion of the respite weeks provided and shows the largest percentage increase (Stewart, 2010).

9.2.6 Self-directed Support (Direct Payments)

The age profile of Self-directed Support (Direct Payment) clients[1] has changed since 2001, with a greater proportion of recipients now aged 65 or over. In 2001 only 7 per cent of recipients were in this age group, compared to 33 per cent of clients in 2011 (Table 9.3). The number of people receiving Direct Payments by client group and age is shown in Figure 9.6.

Figure 9.6: Number of people receiving Self-directed Support (Direct payments) packages by client group and age, Scotland, 2011



Source: Scottish Government (2011a)
http://www.scotland.gov.uk/Resource/Doc/359028/0121314.pdf

[1] People who receive Self-directed Support (Direct Payments) are able to purchase and manage for themselves some or all of the care they have been assessed as needing.

Table list

Table 9.1: Provision of care to anyone inside or outside home, by age and sex

Aged 16 and over	*2008, 2009 and 2010 combined*						
Regular carer	**Age**						**Total 65+**
	16-64	**65-69**	**70-74**	**75-79**	**80-84**	**85+**	
	%	**%**	**%**	**%**	**%**	**%**	**%**
Men							
Provides regular care	9	11	12	13	9	10	12
Does not provide regular care	91	89	88	87	91	90	88
Women							
Provides regular care	15	14	14	14	5	3	12
Does not provide regular care	85	86	86	86	95	97	88
All adults							
Provides regular care	12	13	13	13	7	5	12
Does not provide regular care	88	87	87	87	93	95	88

Source: Scottish Health Survey (2011)

Table 9.2: Total number of respite nights, daytime hours & weeks provided in Scotland with percentage changes by financial year

Older people (65+)				
	2006/2007	**2007/2008**	**2008/2009[C]**	**2008/2009[N]**
Total overnights	260,760	259,110	252,270	254,180
% change		-0.6%	-2.6%	-
Overnight weeks conversion	37,250	37,020	36,040	36,310
Total daytime hours	2,520,950	2,775,220	2,976,680	3,444,350
% change		10.1%	7.3%	-
Daytime weeks conversion	48,020	52,860	56,700	65,610
Total weeks	85,270	89,880	92,740	101,920
% change		5.4%	3.2%	-

Adults (18-64)				
	2006/2007	**2007/2008**	**2008/2009[C]**	**2008/2009[N]**
Total overnights	123,570	126,210	131,350	131,350
% change		2.2%	4.0%	-
Overnight weeks conversion	17,650	18,030	18,760	18,760
Total daytime hours	2,001,120	2,153,620	2,084,460	2,634,160
% change		7.6%	-3.2%	-
Daytime weeks conversion	38,120	41,020	39,700	50,170
Total weeks	55,770	59,050	58,470	68,940
% change		5.9%	-1.0%	-

Young people (0-17)				
	2006/2007	**2007/2008**	**2008/2009[C]**	**2008/2009[N]**
Total overnights	60,820	54,950	56,030	56,030
% change		-9.7%	1.9%	-
Overnight weeks conversion	8,690	7,850	8,000	8,000
Total daytime hours	730,650	845,060	778,370	776,430
% change		15.7%	-7.9%	-
Daytime weeks conversion	13,920	16,100	14,830	14,790
Total weeks	22,610	23,950	22,830	22,790
% change		5.9%	-4.7%	-

Totals				
	2006/2007	**2007/2008**	**2008/2009[C]**	**2008/2009[N]**
Total overnights	445,150	440,270	439,640	441,560
% change		-1.1%	-0.1%	-
Total daytime hours	5,252,730	5,773,900	5,839,510	6,854,940
% change		9.9%	1.1%	-
Total respite weeks	163,640	172,880	174,030	193,650
Difference in weeks		9,240	1,150	20,770
% change		5.6%	0.7%	-

[C] - Same methodology used as in 2007/08 making the figure comparable to 2007/08
[N] - New methodology used making the figure incomparable to 2007/08
% change is not shown for 2008/09[n] as these figures are not comparable with previous years

Source: Scottish Government (Chapter 4 in Stewart, 2010)
http://www.scotland.gov.uk/Publications/2010/07/23163626/0

Further data on respite care (including Local Authority level data) is available from:
http://www.scotland.gov.uk/Topics/Statistics/Browse/Health/Data/Carers

Table 9.3: Age profile of clients who receive Self-directed Support (Direct Payment) packages, Scotland, 2001-2011

	Number of clients										
Age Group	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
aged under 65	192	240	393	606	1,010	1,345	1,669	1,937	2,145	2,488	2,957
aged 65+	15	52	141	306	428	484	550	653	859	1,190	1,435
Unknown age	0	0	0	0	0	0	14	15	13	0	0
Total	**207**	**292**	**534**	**912**	**1,438**	**1,829**	**2,233**	**2,605**	**3,017**	**3,678**	**4,392**
Source: Self-directed Support (Direct Payments) Survey, Scottish Government											
Note: 2007 and 2010 figures have been revised from previous publications.											

Source: Scottish Government (2011a)
http://www.scotland.gov.uk/Resource/Doc/359028/0121314.pdf

10 Healthy Life Expectancy

This section covers:

- Healthy life expectancy
- Healthy cohorts

Key points:

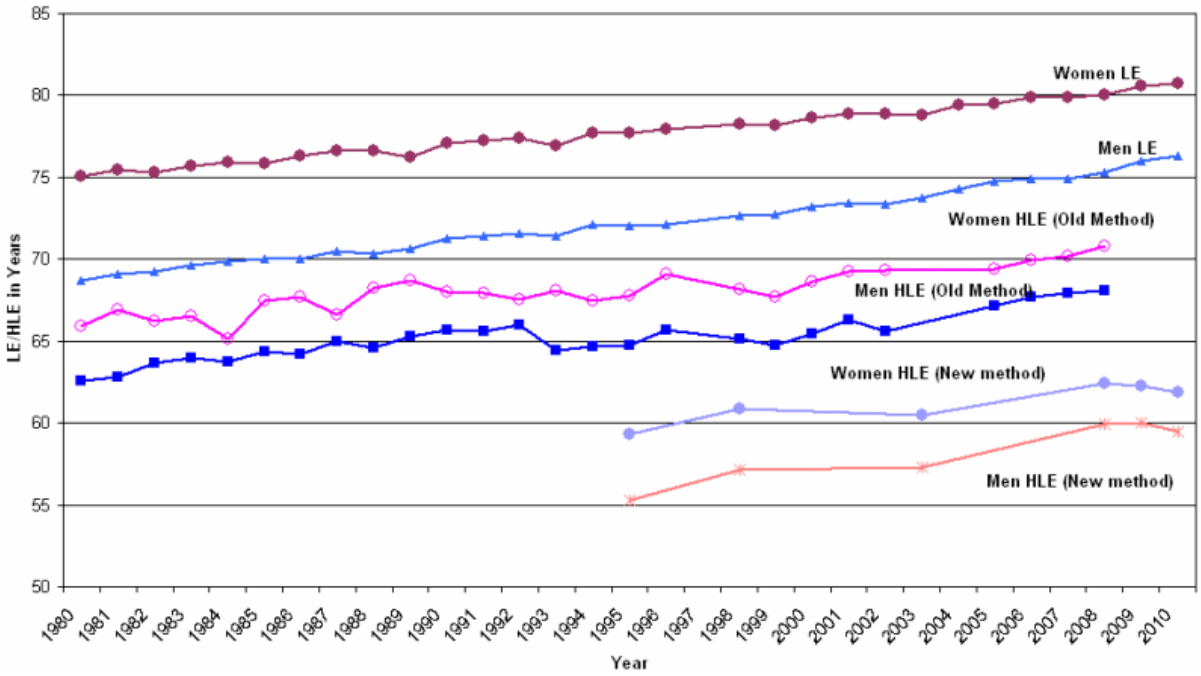
- ❖ Both Life Expectancy (LE) and Healthy Life Expectancy (HLE) in Scotland are improving (Figure 10.1).
- ❖ The gap between LE and HLE (i.e. the years expected to be spent in a 'not healthy' state during the average lifetime) has been fairly constant for females between 1980 and 2008, but has tended to increase for males.
- ❖ Substantial inequalities in HLE exist, with poorer HLE for those living in the most deprived areas compared with more affluent areas (Figure 10.2 & Figure 10.3).

10.1 Healthy life expectancy

Whereas life expectancy (LE) is an estimate of how many years a person might be expected to live, healthy life expectancy (HLE) is an estimate of how many years they might live in a 'healthy' state. In summary:

- The most recent annual estimates for Scotland are for boys born in 2010 to live 76.3 years on average, 59.5 of these in a 'healthy' state. Girls born in 2010 would be expected to live 80.7 years on average, 61.9 of these years being 'healthy'.
- Underlying trends in both LE and HLE at birth show a general improvement in Scotland in recent years (Figure 10.1).
- There is a major discontinuity in the HLE series between 2008 and 2009 due to a change in methodology to align with the European Union. Clearly the method used has an impact, in that the new method gives a healthy life expectancy that is significantly lower. The new estimates form the start of a new time trend for future years.
- The gap between LE and HLE (i.e. the years expected to be spent in a 'not healthy' state during the average lifetime) has been fairly constant for females between 1980 and 2008, but has tended to increase for males.

Figure 10.1: Life Expectancy and Healthy Life Expectancy at Birth, 1980 to 2010, Scotland



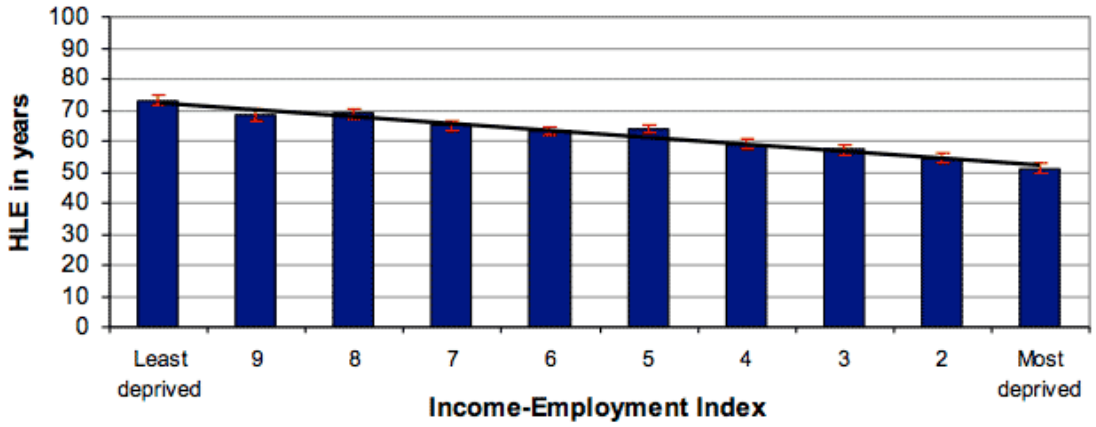
Source: Information Services Division (Scottish Government, 2012)

There are considerable variations in LE (see Figure 5.1) and HLE at birth in Scotland between males and females and among different geographical and socio-economic groupings. Figure 10.2 & Figure 10.3 show the difference in HLE by Income-Employment Index for males and females in Scotland. Both show poorer HLE for those living in the most deprived decile compared with more affluent deciles.

Figure 10.2: Healthy Life Expectancy for males by Income-Employment Index, Scotland 2009/2010

Source: Scottish Government (2011b)

Figure 10.3: Healthy Life Expectancy for females by Income-Employment Index, Scotland 2009/2010



Source: Scottish Government (2011b)

2011 HLE estimates for Scotland are due to be published by ScotPHO in August 2013, using population estimates based on the 2011 Census.

10.2 Healthy cohorts

The influence of health related behaviours such as smoking, alcohol, diet and physical activity on the health of future cohorts of older people is discussed in section 4.5. For some conditions our estimates of future incidence and prevalence will depend on the method used, and importantly the extent to which prevalence of known risk factors change with time (as well as age) e.g. predicting increases in cirrhosis and certain cancers in relation to cohort effects of alcohol consumption. More work on this could be included in the modelling work described in the next section.

11 Conclusions

11.1 Summary of the information presented

This report has presented a large amount of information from various sources. As mentioned in the report and discussed in the following sections there are gaps, and work will continue to fill these gaps where appropriate and possible.

11.2 Defining older age

We have used a definition of older age with a relatively arbitrary cut off of 65 years. Within the over 65 years age group there is huge variation in need, which seems to be increasing. Although we have aimed to look at 10 year age bands this has rarely been possible. Future work may involve defining other 'sub'-categories.

11.3 Ageing population, life circumstances and service use

All the evidence suggests that the size of Scotland's population will increase, and age, into the foreseeable future. People are living longer, and to some extent healthier longer. More older people are living alone, so social isolation and its impact are likely to increase.

There is a correlation between chronological age and health problems, and service use. One estimate is that we will need to increase activity by at least 60% over the next 20 years just to stay still and provide in the same way as we are at present (Dodd, 2010).

11.4 Behaviour (and beliefs, values and attitudes)

There is fairly good information on behavioural risk factors, which seems to indicate that tobacco and alcohol use are less of a problem in older people (Ideally, though, these would be zero, so there is still work to be done). However, such information as there is suggests that there is huge room for improvement in physical activity levels and diet and nutrition. If we are to engage effectively with older people we need to better understand their beliefs, values and attitudes.

11.5 Health status and conditions

The general level of morbidity in the population increases with age – disability and long term conditions are increasingly prevalent with age. The fact that general self-reported health and mental wellbeing do not seem to worsen to the same extent suggest that often people can live well with health problems, which might relate to resilience and adaptability. Again though there is always room for improvement and the self-care agenda is one that is particularly important.

In terms of specific conditions, high blood pressure and diabetes seem to be particular problems, due to their prevalence and the extent to which they lead to service use. Their main importance is in the associated risk for other disease.

12 Discussion

This section covers:

- Concepts of health, wellbeing and healthy ageing
- Activity as a key concept
- Contributors and stakeholders
- The future of public services in context – scenarios

12.1 Concepts of health, wellbeing and healthy ageing

12.1.1 Models of wellbeing

According to the WHO, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946) and wellbeing has been defined as 9 dimensions within 3 domains (Table 12.1).

Table 12.1: Dimensions of Wellbeing

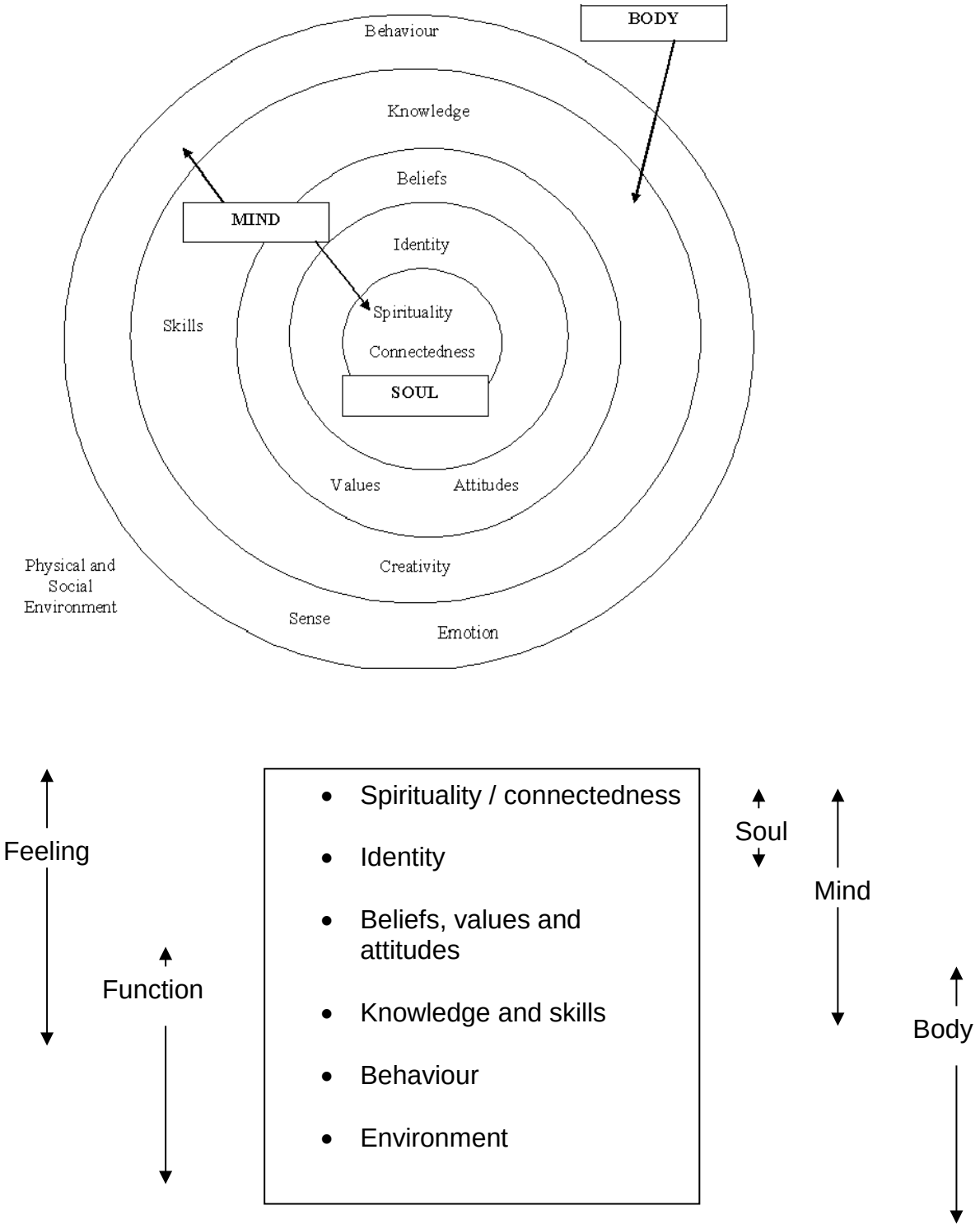
Being	
• physical	Physical functioning and feeling
• psychological	Mental functioning and feeling and general mental wellbeing
• spiritual	Sense of connection to the universe
Becoming	
• personal growth	Development of skills, knowledge, attitudes, belief, value, sense of identity
• leisure	Development of experiences related to enjoyable activities, usually not formal work
• practical	Development of practical skills etc., which may relate to work of various kinds and employability
Belonging	
• social	Immediate close relationships with family, friends and other peers
• community	Wider relationships with a geographical or other community (which might also relate to sense of identity or spiritual aspects)
• ecological	Wider relationship the natural environment, globally and individual and societal relations with it

Source: Raeburn & Rootman, 1998

An alternative approach is the 'personal', in which an individual can be defined as comprising elements of emotional intelligence which relate to behaviour, within a given social and physical environment. Modifying a model based on 'levels' of emotional intelligence (Merlevede, 2001) gives:

- a *spiritual* core which consists of the fundamental connectedness of the individual;
- the sense of *identity* of the individual;
- the fundamental *beliefs, values and attitudes* of the individual;
- the *knowledge and skills* of the individual;
- the *behaviour* of the individual; and
- the *social and physical environment* (Figure 12.1).

Figure 12.1: Holistic Model of Wellbeing



To develop this idea further, it may be useful to add the 'processes' of feeling (spanning spirituality to behaviour) and function (spanning attitudes to environment). So, for example, physical activity in an individual with arthritis requires a consideration of the whole person – mind, body and soul, where sense of identity, values and attitudes may impact on behaviour, and constraints of pain – through feeling, and stiffness through function, also have an impact.

The model of wellbeing presented above can be related back to the information contained within this report (Table 12.2). And where there are gaps, this may indicate areas where additional work is required.

Table 12.2: Linking the information provided in this report to a holistic model of wellbeing

	Description	**Where it fits/could fit**
Spirituality / connectedness	Attribute of older people themselves	(Would fit into chapter 2 – demography and basic attributes of the older people population)
Identity	Attribute of older people themselves	(Would fit into chapter 2 – demography and basic attributes of the older people population)
Beliefs, values and attitudes	Attribute of older people themselves	(Would fit into chapter 2 – demography and basic attributes of the older people population)
Knowledge and skills	Attribute of older people themselves	Educational attainment might be broad indicator – Chapter 3 – life circumstances. (Need information on more specific aspects of knowledge and skills etc.)
Behaviour	Attribute of older people themselves	Chapter 4 – health behaviour (all other behaviour possibly relevant too)
Environment	Physical and social environment older people find themselves in	Chapter 3 – life circumstances

What are the needs of older people? In many ways these are likely to be similar to those for people in general, stated simply:

- Somewhere to be;
- Somewhere to go;
- Something to do (ideally not alcohol, drugs or other behaviour harmful to health);
- Someone to talk to;
- Someone to trust and be trusted by; and
- Someone to respect and be respected by.

These needs are largely confirmed by the 'Talking Points' work (Petch, 2012) on personal outcomes which asked service users and carers what was important to them.

If we are to develop a whole person approach, it might be useful to define a 'person', and the 'holistic model of wellbeing' described above may be a good start. It also begins to blur the traditional boundaries between mind, body, soul and environment.

12.1.2 Ageing and Healthy Ageing

Ageing has been defined as "the gradual irreversible changes in structure and function of an organism that occur as a result of the passage of time" (NCBI, 2012). Such change might be physical, psychological or social (or any combination), mediated through the aspects of the whole person described above, but ultimately a product of genetics and environment. The differences between individuals in genes and environment mean that ageing varies between individuals.

"Healthy ageing" has been described as being about "optimising opportunities for good health, so that older people can take an active part in society and enjoy an independent and high quality of life" (Swedish National Institute of Public Health, 2006). It could be argued that this is more about living well into older age, rather than ageing itself as defined above.

Approaches to ageing might include:

- Prevention – i.e. reducing the rate of decline in function etc. which might equate to resilience (to time-related decline); and
- Adaptation/ mitigation – i.e. to reduce the effects of reduction in function or maintain function by other means, e.g. a hearing aid for hearing loss.

Resilience and adaptability (Harding, 2009) are key to improving health and longevity in older age, (and probably at all ages). Resilience being related to excess capacity and capability such that decrease in this, e.g. as a result of an illness, have less impact on feeling and function than they would otherwise. And adaptability relating to the capability to minimise the effects of a new deficit by alternative means, which might be a physical or technological addition.

Using the whole-person approach – starting from where the individual is in relation to some basic attributes, so that these can be built upon, is inherently ‘asset-based’.

The definition of ageing used above emphasises that the change is irreversible. But it may be difficult to ascertain when a change is irreversible, and when it is reversible. The concepts of ‘recovery’ and ‘re-enablement’ may not be ageing-related therefore. However they still fall, potentially, within an overall approach of applied contribution from a range of sources to bring about improvements in the person. When collaborative interventions make a positive difference, and involve the active participation of the individual themselves, this can be termed ‘co-production’.

The approaches described above can be described as ‘asset-based’. Other approaches may be more ‘deficit-based’, and most of the information provided in the previous sections tend to describe such deficits, or need – the gap between the actual and the ideal.

12.1.3 Frailty

The idea of ‘frailty’ is inherently deficit-based, and considers combinations of health problems. Currently there is no standard definition of frailty but it is likely to include disability, co-morbidity and self-rated health (Rockwood, 2005). More specifically, one definition of frailty is “a clinical syndrome (the ‘frailty phenotype’), in which three or more of the following criteria were present:

- unintentional weight loss (10 lbs in past year);
- self-reported exhaustion;
- weakness (grip strength);
- slow walking speed; and
- low physical activity”. (Fried, 2001)

In addition, Frailty Indices have been developed, which aim to quantify, as a single measure, deficits in a range of aspects such as cognition, mood, social resources, chronic diseases. An example is the Frailty Index (Mitnitski, 2001).

Based on the above definitions it seems that although there is likely to be a correlation between frailty and older age, it can be reversible, so is not always related to ageing.

In addition an Index of Relative Need is being developed by the Scottish Government and utilised, which will provide a measure of deficit in individuals.

It might be that the difference between the deficit-based approach and the asset-based approach is only one of perspective. An approach to frailty can be based on resilience and adaptability and be person-centred with a range of contributors.

12.2 Activity as a key concept

If resilience is defined as functional capacity, and functional capacity can be increased by activity then this could be a crucial area to consider. As described in section 4.4 levels of physical activity are well below those recommended. Physical activity can improve functional capacity and therefore resilience. This may be through walking, or more indoor programmes such as Otago. Likewise mental capacity might be addressed in a similar way. And in terms of engagement – motivation to becoming an 'activist in one's own health' might be a useful concept.

12.3 Contributors and stakeholders

Clearly the main stakeholder group for this work is older people themselves. And equally clearly this group is not static, as most people outwith this category will eventually reach older age themselves.

Other stakeholders include the contributors to health and social care – public sector services, third sector and independent sector services, elected members etc.

Engagement with older people themselves will be very important. Likewise engagement with other stakeholders and contributors is important.

A process of engagement requires not only communication of messages, but also genuine involvement in the development of decision-making processes.

Engagement relates back to the 'personal' model (Section 12.1). Key messages from this work might appear in the physical and social environment of an individual, but unless they increase awareness (i.e. knowledge about the facts and issues) there will never be any impact on beliefs attitudes, or changes in behaviour.

12.4 The future of public services in context – scenarios

This report contributes to a growing body of knowledge which indicates that public services as they exist currently are no longer sustainable. Wanless has described several possible scenarios – largely based on the level of engagement of the population themselves. There is now a need to not only communicate some hard messages for stakeholders, but look in more detail at possible future scenarios.

The role of epidemiologists in this may be not only to describe needs etc., but also consider how to develop scenarios. One approach is to consider what are the most important factors and what are the most uncertain factors.

In terms of applied futures work, there are perhaps times when less is more. The International Futures Forum (IFF) has produced the following 10 things to do in a conceptual emergency:

- Design for transition to a new world;
- Try other worldviews on for size;

- Give up on the myth of control;
- Re-perceive the present;
- Trust subjective experience;
- Take the long view;
- Take insightful action;
- Form and support new organisational integrities;
- Practise social acupuncture; and
- Sustain networks of hope (Leicester, 2009).

This paper has aimed to take a fairly objective view in terms of the information available, but it is worth remembering that the experience of each individual in older age is entirely subjective, and that much of this experience is therefore intangible. So, creativity, hope and emotion are also important.

In order to help bring the world into this new reality requires a change in culture – and there are several things which, evidence suggests, may be useful in this. These relate to giving up on the myth of control, and taking a systems perspective, implied in the IFFs '10 things to do':

- Increase connectivity;
- Encourage diversity;
- Increase the rate of information flow;
- Develop a positive intentionality in all those involved;
- Reduce inhibitors and enhance catalysts; and
- Don't try to force things – watchful anticipation can be very helpful.

This will require leadership – that is a devolved and 'holographic' (based on intent, integrity and integration) encouraging and facilitating change in culture, and democracy itself from a representational approach to true deliberative participative democracy (Byars, 2008).

13 Next steps

This section covers:

- Gathering of information at local level – profiling
- Using information for local needs assessment, planning, monitoring and evaluation
- Potential for application of modelling

13.1 Gathering of information at local level – profiling

The information presented in this report refers to the population of Scotland as a whole. Clearly to be useful to local areas, more detailed information specific to smaller geographical areas – NHS Board area, local authority area, intermediate zone and datazone – are likely to be required. To this end we have recommended that local community profiles focusing on older people are produced. ScotPHO will produce these profiles in 2013-14 in line with the profiles produced for communities as a whole, and children and young people.

As mentioned in section 12.1, if we are to take a whole person approach we may need to consider information on some of the less tangible aspects of the existence of older people – e.g. attitudes, beliefs, values and sense for identity, which might require something more qualitative in terms of generating information.

A programme of person-centred engagement of older people themselves is required to inform planning.

13.2 Using information for local needs assessment, planning, monitoring & evaluation

Information can have a range of uses, which might relate to various parts of planning processes and implementation of plans; described variously as an assessment of need, feasibility studies, impact assessment of proposed plans, monitoring and evaluation etc.

13.3 Potential for application of modelling

This report has presented much of the available data in a fairly straightforward and static way. Modelling can be used to develop this to a more dynamic approach, which might help to answer some of the ‘what if?’ questions. At a fairly simple level we can combine pieces of information to give rough indications of future need – for example assessing the best available evidence on age specific prevalence of conditions or risk factors, or need for intervention, and then applying this to the population projections presented above can give a rough indication of need.

Other approaches that can be considered might include the following:

- Data envelopment analysis;
- Discrete event simulation; and
- Systems dynamic modelling.

In addition more general approaches such as process mapping, can lead on to economic and other methods, like Programme Budgeting/ Marginal Analysis.

However, the first step may be to apply some systems-based methods known as ‘problem structuring methods’. Although demographic change may be seen as an opportunity for improvement, it may best be described as a problem, in order to begin to explore how we can meet some of the needs described above.

The following may constitute a problem statement, which can form the beginning of some problem structuring work:

> “Demographic change means health and social care needs cannot be met in the way same way as at present. Change in the provision of health and social care services is inevitable. The choice for stakeholders amounts to either watching the change happen, or facilitating change to make the most of opportunities and assets, to optimise health and wellbeing of older people and others.”

Some problem structuring methods that may help in exploring the problem include:

- Ulrich’s critical systems heuristics, which helps in defining the boundaries of the problem, the stakeholders and their potential or actual influence on decision-making (Ulrich, 2005);
- Checkland’s soft system methodology, involving the consideration of human activity systems and developing ‘rich pictures’ (Checkland, 2006); and
- Postmodern approaches such as PANDA (Participatory Appraisal of Needs and Development of Action), with use of metaphor and creativity (White, 1997).

ABBREVIATIONS

A&E	Accident & Emergency
ADL	Activities of Daily Living
APHO	Association of Public Health Observatories
BMI	Body Mass Index
CCA	Community Care Assessment
CHD	Coronary Heart Disease
CHP	Community Health (& Care) Partnership
COPD	Chronic Obstructive Pulmonary Disease
CoSLA	Convention of Scottish Local Authorities
ED	Emergency Department
GP	General Practitioner
GROS	General Register Office for Scotland (now part of National Records of Scotland)
HEAT targets	Health Improvement, Efficiency, Access and Treatment Targets
HLE	Healthy Life Expectancy
ICD	International Classification of Diseases
IFF	International Futures Forum
IHD	Ischaemic heart disease
IoRN	Indicator of Relative Need
ISD	Information Services Division
JIT	Joint Improvement Team
LE	Life Expectancy
LTC	Long Term Condition
MIU	Minor Injury Unit
NHS	National Health Scotland
NRS	National Records of Scotland
ONS	Office for National Statistics
PANDA	Participatory Appraisal of Needs and Development of Action
PTI	Practice Team Information
RTA	Road traffic accident
ScotPHN	Scottish Public Health Network
ScotPHO	Scottish Public Health Observatory
SEHD	Scottish Executive Health Department
SHeS	Scottish Health Survey
SIMD	Scottish Index of Multiple Deprivation
SMR	Scottish Morbidity Record
SOLACE	Society of Local Authority Chief Executives
SPARRA	Scottish Patients At Risk of Readmission and Admission
WHO	World Health Organisation

GLOSSARY

Primary Care Data Sources: What is Practice Team Information (PTI)?

- Practice Team Information (PTI) collects information from a sample of Scottish general practices about face-to-face consultations (in a surgery or the patient's home) between patients and a member of the practice team.

- The practice team is currently defined for PTI purposes as:
    - all GPs including locums and registrars (GPs in training); and
    - practice-employed nurses (for PTI purposes, “Practice Nurse” is defined as practice-employed nurses and their clinical assistants (for example, phlebotomists and health care assistants). Some of the nurses employed by NHS Boards to work in specific practices may also record data for PTI.
    - PTI data for district nurses and health visitors is available for the three years between 2003/04 and 2005/06 (but not from 2005/06 onwards).

- Currently there are around 60 practices participating in PTI in Scotland and these are broadly representative of the Scottish population in terms of age, gender, deprivation and urban/rural mix.

- **PTI data is only available for Scotland as a whole**. Data for smaller geographic areas (such as NHS Boards) is not available. This is because the number of practices participating in PTI is relatively small (around 60, compared with over 1,000 practices in Scotland). Although the PTI practices are spread across Scotland, there are not enough of them for the sample to be regarded as representative of the population mix for any area smaller than the whole of Scotland. As a result, ISD do not provide estimates for regions within Scotland, such as individual NHS Board areas.

- **PTI consultation rates for a particular condition should not be taken as being the same as the total population prevalence of the condition**. PTI measures active problems; a lifelong or previous condition will not be recorded unless the patient had a contact with the practice that was directly related to that condition. PTI can only provide estimates of 'prevalence' of patients consulting practice staff at least once during the year rather than actual population prevalence. For conditions requiring regular intervention by primary care clinicians (e.g. diabetes) it may be close, but for stable and well-managed conditions requiring little or irregular intervention (e.g. well controlled epilepsy), or for conditions managed mainly outwith primary care, PTI figures are likely to be (substantially) lower than the Scottish prevalence.

- Further information on PTI is available from http://www.isdscotland.org/Health-Topics/General-Practice/PTI-Statistics/

Scottish Health Survey

Background: The Scottish Health Survey (SHeS) was introduced in 1995 to provide a detailed picture of the health of the Scottish population in private households. Its purpose includes monitoring trends in the population's health over time.

Organisation responsible: The SHeS is commissioned by the Scottish Government Health Department and is carried out by the Scottish Centre for Social Research (ScotCen), in collaboration with the Department of Epidemiology and Public Health at University College London (UCL) and the MRC Social and Public Health Sciences Unit at the University of Glasgow.

Survey years / frequency: One-off surveys were carried out in 1995, 1998 and 2003. Following redesign in 2007, the survey moved to a continuous format with annual reporting. The first continuous survey cycle ran from 2008-2011. The next will run from 2012-2015.

Survey content: Until 2012, the survey used a two-stage interview process: a personal interview carried out by a trained interviewer followed by a nurse visit involving a series of anthropometric and biomedical measurements, including waist and hip circumference, blood pressure, lung function, blood, urine and saliva samples. Prior to 2008, the follow-up nurse visit was offered to all respondents, in 2008-11 it was offered to around one sixth of the adult sample. There will be no nurse visit in 2012-15; most of the biological measurements have been moved to the main interview, but this is not possible for venous blood samples. No blood samples will be collected in 2012 but there are plans to introduce dry blood spot measurements via finger prick tests from 2013 onwards

The survey moved to a core and modular structure from 2008. Core questions are asked every year and go to the whole sample. A rotating (biennial) module goes to a proportion of the sample - most of these questions are asked every second year although some are asked annually.

Target population: The target population is people living in private households in Scotland. The age range has extended over the survey series: 16-64 years in 1995, 2-74 years in 1998, individuals of all ages from 2003.

Sample size: In 2008-2011, annual target achieved sample sizes for the core were 6,311 adults and 1,971 children. The 2012-15 sample will be reduced by one third with an annual target sample size of 4,006 adults and 1,789 children.

Response rate: In 2008-2010, household response ranged from 61-64% and individual response from 54-56%.

Method of data collection: Most of the questions are asked by an interviewer using Computer-Assisted Personal Interviewing (CAPI). Questions which are more sensitive in nature are asked via a self-completion booklet.

Smallest geographical unit reported: The one-off surveys were designed to provide data at national and regional levels, with regional results reported for seven 'health regions' based on amalgamations of the 15 health boards which existed at the time. Since 2008, the survey has been designed to provide national results annually and Health Board level data every four years.

Further information about the survey is available from the Scottish Health Survey website.

REFERENCES

Action on Hearing Loss. (2011) *Facts and figures on hearing loss and tinnitus.* Action on Hearing Loss Information, July 2011. Available from http://www.actiononhearingloss.org.uk/your-hearing/about-deafness-and-hearing-loss/statistics.aspx Accessed 301212

Aiton, A. (2012). *Annual Monitoring Data.* From Alison Aiton, Information Manager, The Mental Welfare Commission for Scotland. [email] (Personal Communication, 17th August 2012).

Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. (2012). Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *Lancet* 2012;380:37-43.

Byars, JL. (2008) *Holographic Leadership: Leading as a Way of Being: Holographic Leadership Integrates Values-based Leadership into a Practical Understanding of an Energetic Holographic World.*
Ph.D. Dissertation, Leadership & Change Program; Antioch University, October, 2008. Available from http://etd.ohiolink.edu/send-pdf.cgi/Byars%20Janet%20L.pdf?antioch1241536033

Checkland, P and Poulter, J. (2006) *Learning for Action: A Short Definitive Account of Soft Systems Methodology and its use for Practitioners, Teachers and Students.* Chichester, England: John Wiley & Sons.

Christie, C. et al. (2011) *Commission on the Future Delivery of Public Services.* Edinburgh: Scottish Government. Available from http://www.scotland.gov.uk/Publications/2011/06/27154527/0

Dodd, T. (2010) *Joint Capacity Planning for Health and Social Care Needs in Stirling, Report to the Health and Social Care Executive Group.* http://www.stirling.gov.uk/__documents/temporary-uploads/social-services/joint_capacity_planning.pdf Accessed 5/11/12

Fried LP, Tangen CM, Walston J, et al. (2001). Frailty in older adults: evidence for a phenotype. *J Gerontol A Biol Sci Med Sci.* 2001 Mar;56(3):M146-56. http://www.ncbi.nlm.nih.gov/pubmed/11253156

Harding O, for the Healthy Sterling Partnership. (2009). *Ageing Well.* NHS Forth Valley. Available at http://www.nhsforthvalley.com/__documents/health-services/audiology/services/public-helath/ageing_well.pdf

Holman, N (2012). *Age specific diabetes prevalence data, Scotland, 2009-2015 (from the APHO Diabetes Prevalence Model).* From Naomi Holman, Head of Health Intelligence, Diabetes Health Intelligence, Yorkshire & Humber Public Health Observatory. [email] (Personal Communication, 5th July 2012).

Information Services Division. (2011) *Practice Team Information (PTI) Annual Update (2010/11).* Edinburgh: ISD, NHS National Services Scotland. http://www.isdscotland.scot.nhs.uk/Health-Topics/General-Practice/Publications/2011-11-29/2011-11-29-PTI-report.pdf Accessed 130812 & 230812

Information Services Division. (2012a) *Emergency Department Activity and Waiting Times.* Edinburgh: ISD, NHS National Services Scotland. http://www.isdscotland.org/Health-Topics/Emergency-Care/Publications/2012-05-29/2012-05-29-ED-Report.pdf?91885012389 Accessed 27/08/12

Information Services Division. (2012b) *Acute Hospital Activity and NHS Beds information; Year ending 31 March 2011; Quarter ending December 2011.* Edinburgh: ISD, NHS National Services Scotland. http://www.isdscotland.org/Health-Topics/Hospital-Care/Publications/2012-03-27/2012-03-27-AcuteActivity-Report.pdf?21078127623 Accessed 30/08/12

Information Services Division (2011) *Care Home Census 2011.* Edinburgh: ISD, NHS National Services Scotland http://www.isdscotland.org/Health-Topics/Health-and-Social-Community-Care/Publications/2012-02-28/2012-2-28-CHCensus-Report.pdf

Leicester G, O'Hara, M. (2009). *Ten Things To Do In A Conceptual Emergency*. International Futures Forum (IFF): Triarchy Press Ltd.

Merlevede PE, Bridoux D & Vandamme R. (2001). *7 Steps to Emotional Intelligence.* Wales: Crown House Publishing.

Mitnitski AB, Mogilner AJ, and Rockwood K. (2001). Accumulation of Deficits as a Proxy Measure of Aging. *TheScientificWorld* (2001) 1, 323–336.

Murray CJL, Lopez AD. (1996) *Global health statistics: a compendium of incidence, prevalence and mortality estimates for over 200 conditions.* Cambridge, Harvard University Press on behalf of the World Health Organization and the World Bank.

National Center for Biotechnology Information (NCBI). 2012. *Aging*. [ONLINE] Available at: http://www.ncbi.nlm.nih.gov/mesh/68000375. [Accessed 01 November 12].

National Records of Scotland. (2011a) *Projected Populations of Scotland (2010-based). National population projections by sex and age, with UK and European comparisons*. National Records of Scotland, 26 October 2011. http://www.gro-scotland.gov.uk/statistics/theme/population/projections/scotland/2010-based/index.html Accessed 240912

National Records of Scotland. (2011b) *Life Expectancy for areas in Scotland, 2008-2010.* National Records of Scotland, 19 October 2011. http://www.gro-scotland.gov.uk/files2/stats/life-expectancy-areas-in-scotland/2008-2010/le-areas-scotland-2008-2010.pdf Accessed 251012

National Records of Scotland. (2012a) *Scotland's Population 2011. The Registrar General's Annual Review of Demographic Trends.* Edinburgh: GROS. Available at: http://www.gro-scotland.gov.uk/statistics/at-a-glance/annrev/2011/index.html Accessed 250912

National Records of Scotland. (2012b) *Population Projections for Scottish Areas (2010-based). Principal and variant population projections by sex, age and administrative area*. http://www.gro-scotland.gov.uk/files2/stats/population-projections/scottish-areas-2010-based/population-projections-scottish-areas-2010-based.pdf Accessed 270912

National Records of Scotland. (2012c) *Household Projections for Scotland: 2010-based*. Edinburgh: National Records of Scotland. http://www.gro-scotland.gov.uk/statistics/theme/households/projections/2010-based/index.html Accessed 1/10/12

National Records of Scotland. (2012d) *Population Estimates for 6-fold Urban Rural classification, 2001-2011*. Edinburgh: National Records of Scotland http://www.gro-scotland.gov.uk/files2/stats/population-estimates/special-area/urban-rural-6f-single-yr-01-11.xls

National Records of Scotland. (2012e) *Population Estimates by Scottish Index of Multiple Deprivation (SIMD) 2009 decile.* Edinburgh: National Records of Scotland. http://www.gro-scotland.gov.uk/files2/stats/population-estimates/special-area/simd09-single-yr-01-11.xls#'2011'!A1

Office for National Statistics (ONS). (2012) *What are the Chances of Surviving to Age100?* Office for National Statistics. Available from http://www.ons.gov.uk/ons/rel/lifetables/historic-and-projected-mortality-data-from-the-uk-life-tables/2010-based/rpt-surviving-to-100.html#tab-conclusions

Petch, A. (2012) *'We've got to talk about outcomes…': A review of the Talking Points Personal Outcomes Approach.* Glasgow: IRISS (Institute for Research and Innovation in Social Services).

Public Health Institute of Scotland (PHIS). 2003 *Needs Assessment Report on NHS Audiology Services in Scotland.* Glasgow: Public Health Institute of Scotland. http://www.scotphn.net/pdf/Audiology.pdf Accessed 301012

Raeburn J, Rootman I. (1998) *People-centred Health Promotion*. Chichester: John Wiley & Sons.

Rees, P. (2011) *Ethnic Population Projections for Scotland, 2001 to 2051.* [PowerPoint slides]. School of Geography, University of Leeds. Available at: http://www.gro-scotland.gov.uk/files2/stats/seminars/10-pams-seminar-oct2011-phil-rees.pdf Accessed 8/10/12

Rockwood, K. (2005). What would make a definition of frailty successful? *Age and Ageing* 2005; 34: 432–434. http://ageing.oxfordjournals.org/content/34/5/432.abstract

Scottish Diabetes Survey Monitoring Group (2011). *Scottish Diabetes Survey 2011*. Available at: http://www.diabetesinscotland.org.uk/Publications/SDS%202011.pdf Accessed 210313

Scottish Executive. (2004a) *Analysis of Ethnicity in the 2001 Census. Summary Report*. Edinburgh: Office of the Chief Statistician. http://www.scotland.gov.uk/Resource/Doc/47210/0025543.pdf Accessed 270912

Scottish Executive. (2004b) *Social Focus on Disability 2004*. Edinburgh: Scottish Executive. http://www.scotland.gov.uk/Publications/2004/08/19818/41699 Accessed 011112

Scottish Executive. (2005) *Social Focus on Deprived Areas 2005*. Edinburgh: Scottish Executive. http://www.scotland.gov.uk/Publications/2005/09/2792129/21311 Accessed 011012

Scottish Government. (2009) *Quality Standards for Adult Hearing Rehabilitation Services.* Audiology Services Advisory Group. Edinburgh: Scottish Government. http://www.scotland.gov.uk/Resource/Doc/270517/0080557.pdf Accessed 301012

Scottish Government. (2010) *Registered Blind and Partially Sighted Persons, Scotland 2010.* Edinburgh: Scottish Government. http://www.scotland.gov.uk/Publications/2010/10/26094945/0 Accessed 291012

Scottish Government. (2011a). *Self-directed Support (Direct Payments), Scotland, 2011.* Edinburgh: Scottish Government: September 2011. http://www.scotland.gov.uk/Resource/Doc/359028/0121314.pdf Accessed 6/11/12

Scottish Government (2011b). *Long-Term Monitoring of Health Inequalities.* Edinburgh: Scottish Government: October 2011. Available at: http://www.scotland.gov.uk/Publications/2011/10/21133633/0 Accessed 26/3/13

Scottish Government. (2011) *Community Care Statistics: Quarterly Monitoring Returns for Scotland.* Available at: http://data.gov.uk/dataset/community_care_statistics-quarterly_monitoring_returns_for_scotland

Scottish Government. (2012) *High Level Summary of Statistics: Population and Migration.* Scottish Government Statistics. August 2012. http://www.gro-scotland.gov.uk/files2/stats/high-level-summary/j11198/hlss-population-migration.pdf Accessed 251012 & 19/11/12

Scottish Health Survey. (2011) *The Scottish Health Survey: Older People's Health Topic Report.* Edinburgh: Scottish Government. http://www.scotland.gov.uk/Publications/2011/11/24083430/0 Accessed 2/10/12

Scottish Health Survey. (2012) *The Scottish Health Survey: Equality Groups Topic Report.* Edinburgh: Scottish Government. http://www.scotland.gov.uk/Publications/2012/10/8988/0 Accessed 22/11/12

Scottish Household Survey. (2012) *Scotland's People Annual Report: Results from 2011 Scottish Household Survey.* Edinburgh: Scottish Government. http://www.scotland.gov.uk/Publications/2012/08/5277 Accessed 291012

Scottish Parliament Information Centre (SPICe). (2012) *Financial Scrutiny Unit Briefing: Demographic Change.* Edinburgh: Scottish Parliament Information Centre. http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/S4/SB_12-57.pdf Accessed 1/10/12

Stewart, F and Paterson, E. (2010) *Caring in Scotland: Analysis of Existing Data Sources on Unpaid Carers in Scotland.* Edinburgh: Scottish Government Social Research. http://www.scotland.gov.uk/Publications/2010/07/23163626/0 Accessed 5/11/12.

Swedish National Institute of Public Health. (2006) *Healthy Ageing - A Challenge for Europe.* Stockholm: The Swedish National Institute of Public Health. http://ec.europa.eu/health/archive/ph_projects/2003/action1/docs/2003_1_26_frep_en.pdf

Ulrich, W. (2005) *A Brief Introduction to Critical Systems Heuristics (CSH)*. ECOSENSUS project, Open University, Milton Keynes, UK, 14 October 2005. http://www.google.co.uk/url?sa=t&rct=j&q=ulrich+critical+systems+heuristics&source=web&cd=1&cad=rja&ved=0CCQQFjAA&url=http%3A%2F%2Fprojects.kmi.open.ac.uk%2Fecosensus%2Fpublications%2Fulrich_csh_intro.pdf&ei=8c6TUK-rGfHB0gWKyIGAAQ&usg=AFQjCNEwcSksuF-MpexqngW1RbAFtfsVJA Accessed 051112

Wanless, D. (2002). *Securing our Future Health: Taking a Long-Term View. Final Report.* London: HM Treasury. Available at http://webarchive.nationalarchives.gov.uk/+/http:/www.hm-treasury.gov.uk/consult_wanless_final.htm

WHO. (1946) Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948. http://www.who.int/about/definition/en/print.html

White, L & Tacket, A. (1997) *Beyond Appraisal: Participatory Appraisal of Needs and the Development of Action (PANDA). lnt. J. Mgmt Sci*. 1997;Vol. 25,No.5:p523-534. http://www.geog.leeds.ac.uk/projects/autonomousgeographies/white&taket.pdf

Wood R, Bain MRS. (2001) *The Health and Well-being of Older People in Scotland: Insights from national data.* Edinburgh: Information and Statistics Division. Available at http://isd.scot.nhs.uk/isd/files/older.pdf

ScotPHN report

For further information contact:

ScotPHN
c/o NHS Health Scotland
Meridian Court
5 Cadogan Street
Glasgow
G2 6QE

Email: nhs.healthscotland-scotphn@nhs.net
Web: www.scotphn.net