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An assessment of the future health and social care needs of older people in Cardiff and the Vale of Glamorgan 2010-2030. Part 1: Trends in demography and the morbidities leading to health and social care needs.

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This Health Needs Assessment has been prepared for Cardiff and Vale University Health Board, and Cardiff and Vale Local Authorities to help inform the planning of future health and social care services for older people in both counties. It is the first in a series of 3 reports and focuses on future trends in demography and the morbidities leading to future health and social care needs.

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Acknowledgement:

The Daffodil care needs projection system for Wales has been used with permission of the Statistical Directorate of the Welsh Government.

Executive summary

The next 20 years will almost certainly bring a large increase in the proportion of older people in the populations of Cardiff and the Vale of Glamorgan. Current projections suggest that there will be an increase in the numbers in all older age groups from age 70 and over. Whilst increasing longevity is a cause for celebration, it is also a cause for concern in that health surveys show a marked increase in disabilities and limiting long-term illnesses from around age 75. Whilst there is some scope for prevention, the impact of ageing alone will bring increased dependency. Disability and disease combined with increasing frailty as people reach their 80s and beyond, means more older people will need support, either to stay in their own homes, or in a residential setting. Bearing in mind the concomitant increase in the numbers of older people living alone, this has clear implications for health and social care services in the future. Whilst there has been some research suggesting a possible 'compression of morbidity', towards the end of the lifespan, current expert opinion is that the reverse is more likely to be the case, with the additional years more likely to be spent in poor health.

Because of its initial larger population proportion of older people, the increase in proportion of those with various conditions increases more sharply in the Vale of Glamorgan, but Cardiff has larger numbers of older people overall.

Some key points to note from this report are listed below:

Population

- In Cardiff the population of older people aged 80-84 is predicted to increase by 6% from 6,870 in 2010 to 7,310 in 2020, and by nearly one half to 10,150 in 2030. The number of those aged 85 and over is predicted to increase by one fifth from 6,900 in 2010 to 8,260 in 2020, and by over half to 10,780 in 2030.
- In the Vale of Glamorgan the population of older people aged 80-84 is predicted to increase by a quarter from 3,340 in 2010 to 4,190 in 2020, and by 82% to 6,080 by 2030. The number of those aged 85 and over is predicted to increase by one third from 3,220 in 2010 to 4,300 in 2020 and by 111% to 6,800 in 2030.
- The total number of older people in Cardiff and the Vale of Glamorgan aged 80 and over is predicted to increase from around 20,330 in 2010 to 24,060 in 2020 and 33,810 in 2030.

Living alone

- In Cardiff the population of older people aged 65 and over living alone is predicted to increase from 20,400 in 2010 by one fifth to 23,750 in 2020 and by nearly one half to 29,150 in 2030.
- In the Vale of Glamorgan the population of older people aged 65 and over living alone is predicted to increase by a quarter from 10,520 in 2010 to 13,390 in 2020, and by over half to 16,400 in 2030.

Disability

- The number of people with **limiting long-term illnesses** increases in the mid 70s age group. In Cardiff the number of those aged 75 and over with limiting long-term illness is predicted to rise by around one tenth from 14,520 in 2010 to 15,940 in 2020 and by nearly one half to 20,750 in 2030.
- In the Vale the number of people aged 75 and over with limiting long-term illness is predicted to rise by one third from 6,930 in 2010 to 9,110 in 2020, and by over three quarters to 12,440 in 2030.
- Problems with **mobility** and the ability to self-care increase markedly in the age group 85 and over. In Cardiff the number of people with mobility problems in this group is predicted to increase by nearly one fifth from 3,110 in 2010 to 3,660 in 2020, and by over half to 4,726 in 2030. In the Vale of Glamorgan the number is predicted to rise by nearly one third from 1,440 in 2010 to 1,890 in 2020, and to more than double to 2,960 in 2030.

The number of people aged 85 and over unable to manage at least one **self-care** activity shows a similar picture. In Cardiff the number is predicted to increase by around one fifth from 4,590 in 2010 to 5,400 in 2020, and by just over a half to 6,960 in 2030. In the Vale the number is predicted to increase by nearly one third from 2,130 in 2010 to 2,790 in 2020, and to more than double to 4,360 in 2030.

- The number of older people with **visual impairment** also increases sharply from around 75, predicted to increase in Cardiff by around one tenth from 2,830 in 2010 to 3,120 in 2020, and by just under one half to 4,082 in 2030. In the Vale the number is predicted to rise by nearly one third from 1,350 in 2010 to 1,790 in 2020, and by over three quarters to 2,470 in 2030.
- The above conditions are all factors contributing to increased risk of **falls**. In Cardiff and the Vale of Glamorgan the number of older people aged 65 and over admitted to hospital because of a fall is predicted to

rise by around one fifth from 1,460 in 2010 to 1,780 in 2020, and by over half to 2,345 in 2030. However the data underpinning this prediction is unreliable, and an alternative estimate suggests the numbers could be much higher.

Health conditions

- **Urinary incontinence** appears to be a major factor in admission to a care home. The steepest rise in those predicted to have a bladder problem at least once a week is in those aged 75 and over. In Cardiff the number in this group is predicted to rise by around one tenth from 4,550 in 2010 to 5,000 in 2020, and by around half to 6,580 in 2030. In the Vale of Glamorgan the number is predicted to rise by around one quarter from 2,170 in 2010 to 2750 in 2020, and by over three quarters to 3,950 in 2030.
- The number of those aged 75 and over with **diabetes** is predicted to rise by around one half in Cardiff from 3,890 in 2010 to 5,660 in 2030. In the Vale the number is predicted to increase by over three-quarters from 1,870 in 2010 to 3,390 in 2030.
- The number of those predicted to have received treatment for **stroke** rises most sharply in those aged 75 and over. In Cardiff the number is predicted to rise by just under a half from 2,440 in 2010 to 3,560 in 2030. In the Vale the number is predicted to rise by nearly one third from 1,170 in 2010 to 1,560 in 2020, and by over three-quarters to 2,130 in 2030.
- The number of those with **mental health problems** in later life is predicted to rise in both the 65-74, and 75 and over age groups. Those aged 75 and over with a mental health problem are predicted to increase by over one third in Cardiff, from 2,640 in 2010 to 3,700 in 2030; and by three quarters in the Vale of Glamorgan from 1,253 in 2010 to 2,220 in 2030.
- The sharpest increase in numbers of people with **dementia** is in those aged 80 and over, where prevalence rates are estimated to be 1 in 6. The total number of people aged 65 and over with dementia in Cardiff and the Vale of Glamorgan is predicted to rise by nearly one half from 4,010 in 2010 to 5,990 in 2020, and to nearly double to 7,930 in 2030.

1 Introduction

This Health Needs Assessment has been prepared for Cardiff and Vale University Health Board, and Cardiff and Vale Local Authorities to help inform the planning of future health and social care services for older people in both counties. It is supplementary to the Joint Integrated Needs Assessment which supports the ten-year strategy for Cardiff *What Matters*¹ and the Vale of Glamorgan Health Needs Assessment which supports their Community Strategy 2011-21.² This document is the first in a series of 3 reports which will examine the following issues:

- 1. Trends in demography and morbidities leading to future health and social care needs**, focusing on older people from age 65, and especially those aged 75 and over when needs become more apparent. Trends will be projected in 5-year time bands to 2030.
- 2. Trends in care services** from those that enable older people to stay in their own homes, through the range of supported housing schemes, to residential and nursing homes. The health and social care services for older people currently provided in both counties and those that will be required in the future, including sensitive end of life care. Older people's preferences for their care, and National and Welsh Government policy direction in relation to care services in the future.
- 3. Identification of evidence-based, realistic opportunities for prevention.** This includes both primary prevention of morbidities leading to the need for care, and interventions such as self-care management and chronic conditions management, which may enable people to remain independent for longer and lessen the need for services even when chronic conditions have developed.

Overall the Health Needs Assessment aims to develop a vision of the future where much of the illness, disability and dependency in older age that can be prevented, is prevented. However alongside this there will also be a range of flexible and responsive services that are tailored to meet the needs of frail older people, enabling them to feel valued and to continue to enjoy life, to the end of their lives.

1.1 Methodology

This first report draws on some of the most recent publications and data available, including from the Welsh Government, the Office for National Statistics (ONS), Public Health Wales, the Cardiff Research Centre, the New Dynamics of Ageing MAP2030 (Modelling Ageing Populations to 2030), the ESRC Centre for Population Change, and the Joseph Rowntree Foundation.

In particular, estimates of the future prevalence of disease and disability are taken from the Oxford Brookes Institute of Public Care, Daffodil Care Needs Projection System for Wales. The Daffodil System was commissioned by the Welsh Government and has been designed for use by local authorities and health boards in Wales to support joint planning and the development of commissioning strategies. Information from research and population projections show the potential need for care over the next 20 years until 2030 for children, adults and older people.

2 Background

2.1 An ageing population

The population of the UK is becoming older. Over the last 25 years the percentage of the population aged 65 and over increased from 15% in 1984 to 16% in 2009, an increase of 1.7 million people. Over the same period, the percentage of the population aged under 16 decreased from 21% to 19%. This trend is projected to continue, so that by 2034, 23% of the population is projected to be aged 65 and over compared to 18% aged under 16.³

The fastest population increase has been in the number of those aged 85 and over. In 1984, there were around 660,000 people in the UK aged 85 and over. Since then the numbers have more than doubled reaching 1.4 million in 2009. By 2034 the number of people aged 85 and over is projected to be 2.5 times larger than in 2009, reaching 3.5 million and accounting for 5% of the total population. (Table 1) This is a significant development as it is this section of the population that have the highest dependency needs.

Table 1: Estimated and projected population and percentage of population by age group, UK, 1984, 2009 and 2034.

Age Group	1984		2009		2034	
	Population (millions)	Per cent	Population (millions)	Per cent	Population (millions)	Per cent
0-15	11.9	21	11.5	19	12.8	18
16-64	36.1	64	40.1	65	42.5	59
65-84	7.7	14	8.7	14	13.2	18
85+	0.7	1	1.4	2	3.5	5
All	56.4	100	61.8	100	72.0	100

Source: Mid-year estimates 1984 and 2009, ONS, GROS, NISRA; 2008-based National Population Projections for 2034, ONS

Of the 4 UK countries, Wales has the highest proportion of people of pensionable age, (defined as 60 for women, 65 for men) with 18.7% aged from pensionable age to 84, and 2.4% aged 85 and over. (Table 2)

Table 2: Total population and its age structure, UK and constituent countries, 2008.

	Total population mid 2008 (,000s)	0-15 (%)	16-60/65* (%)	60/65-84 (%)	85 and over (%)
UK	61,398	18.9	62.2	16.8	2.1
England	51,465	18.9	62.2	16.7	2.2
Wales	2,990	18.7	60.3	18.7	2.4
Scotland	5,169	17.8	62.7	17.5	1.9
Northern Ireland	1,775	21.6	61.9	14.9	1.6

*60 is for women and 65 for men.

Source: 2008 mid-year estimates ONS, GROS, NISRA

The growing number of people in late older ages reflects significant gains in life expectancy. Life expectancy has increased steadily across most of Europe since around 1800, and in the richer countries around the world is estimated to be growing at a rate of 2 years per decade, or 5 hours every day.⁴ This is no longer due to declining early mortality, but a decline in the death rate of those aged 75 and above, resulting in a much higher prevalence of age-associated conditions such as Alzheimer's disease, osteoporosis and macular degeneration.

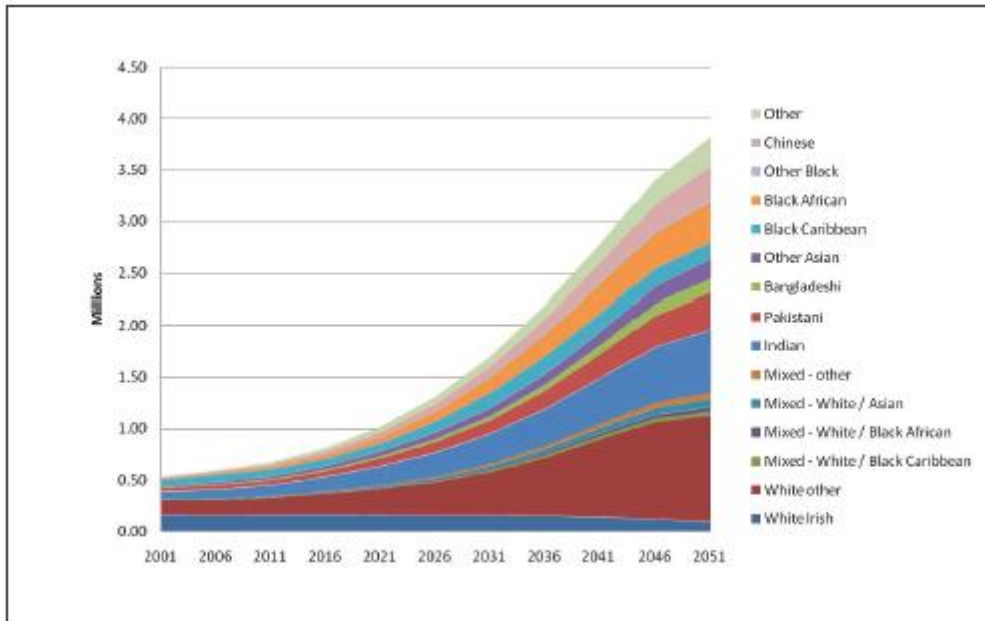
In Wales average life expectancy at birth in 2007 was 77 years for males and 81.4 years for females. However, it should be noted that this increase is not shared equally across all social groups, with those living in poorer circumstances having shorter lives, by an average difference of 5.8 years for males and 5.4 years for females, between the richest and poorest counties.⁵

2.1.1 Older minority groups

Older black and minority ethnic groups

Over the next two decades the older population is likely to become increasingly diverse as the cohorts of people who have migrated to the UK since the 1960s enter retirement. A report by the Centre for Policy on Ageing⁶ estimates that by 2051 the total BME population in England and Wales will have grown to 25 million, comprising 36% of the total population. The fastest growing ethnic population will be the 'other white', reflecting the recent in-migration from the countries of eastern and central Europe, followed by the Black African, Pakistani and Indian ethnic groups. It is estimated that 3.8 million of the BME population in 2051 will be aged 65 and over, compared with the current 675,000. (Figure 1)

Figure 1: The ethnic minority population in England and Wales aged 65 and over, 2001-2051. (Source: The Centre for Policy on Ageing 2010)



This increasing diversity will have implications for local authorities involved in the provision of services to older people, in relation to cultural needs.

In Wales currently 2.9% of the population are from black and ethnic minority groups.⁷ The majority of these live in the major cities of Cardiff, Swansea and Newport. Recent estimates place Cardiff's current non-white population at 10% of total persons usually resident in the city.¹

Older people with learning disabilities

Rising life expectancy amongst people with learning disabilities means that more are surviving into later life. There is some evidence that the onset of chronic physical conditions associated with age occurs earlier amongst this group than in the general population. The likelihood of dementia among people with Down's syndrome is particularly high. For those with a learning disability other than Down's syndrome, the risk of dementia is about four times higher than for a person without a learning disability. For those with Down's syndrome, the Alzheimer's Society suggest that over a third of people aged 50-59, and over half of those aged 60-69 will have dementia.⁸

For the year ending 31st March 2010 there were 14,800 people in Wales registered with learning disabilities, of whom 6.3% were aged 65 and over.⁹

Older lesbian, gay, bisexual and transgendered (LGBT) people

Changes in both social norms and the legal context mean that it is likely that in the future there will be more older people in civil partnerships and openly gay relationships. The 2007 Equalities Review by the Cabinet Office highlighted the lack of data on the number of LGBT people in the UK; however a report by the Older LGBT Network in Wales estimates that the number of LGBT people in Wales over the age of 50 is likely to be over 50,000. This will have implications for future care needs. A 1995 report on the housing and support needs of older lesbians and gay men¹⁰ highlighted the fact that care homes rarely make provision for the sexual expression of their residents, but even less so for their homosexual residents.

2.2 Disability in older age

A crucial question is whether the added years of life will be healthy or will bring additional years of disability and dependency, placing increased demands on health and social care services.

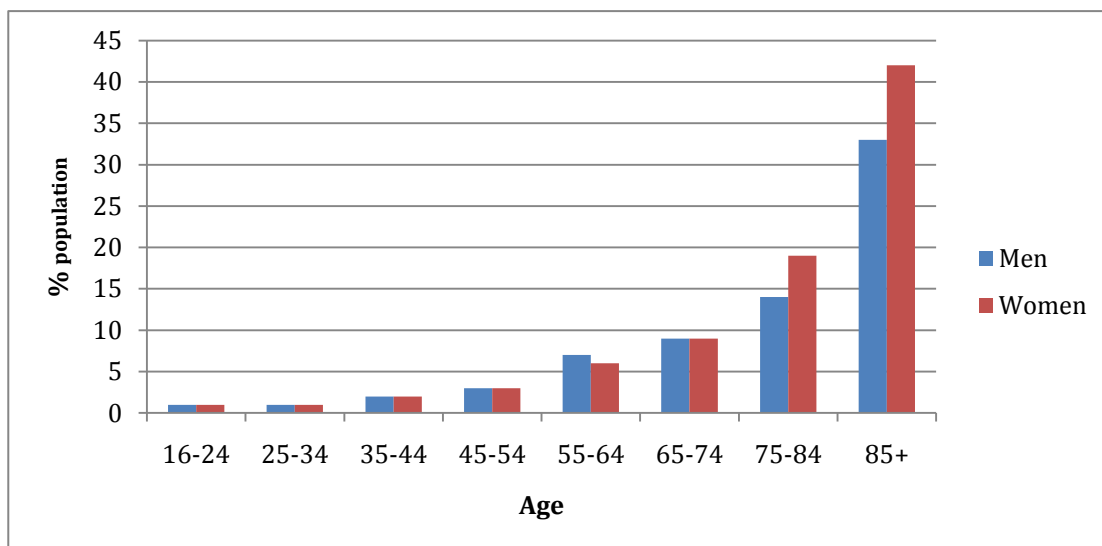
Physical capacity peaks in young adulthood and then declines progressively decade by decade. Even healthy ageing is associated with a striking loss of muscle mass and hence muscle strength; by the age of 80 about half of muscle mass has gone. The practical importance of this is that an older person is often precariously close to the threshold at which a small decline in physical capacity will render basic everyday activities, like rising from an armchair, impossible. The small added loss of fitness which occurs in association with illness may render even a previously healthy 80 year old immobile and dependent. There is, however, substantial evidence that lost fitness can be regained with regular physical activity, even in extreme old age.¹¹

A systematic literature review in 1999 identified various behavioural and health factors that contributed to the development of disability in old age.¹² The strongest factors were:

- Cognitive impairment
- Depression
- Disease burden
- Increased and decreased body mass index
- Lower extremity functional limitation
- Low frequency of social contacts
- Low level of physical activity
- No alcohol use compared to moderate use
- Poor self-perceived health
- Smoking
- Vision impairment.

Disability rises with age, with the increase being most pronounced at ages after 74. Data from the Health Survey for England 2001¹³ indicate that the prevalence of severe disability, as measured by the ability to perform various activities of daily living, (for e.g. walking upstairs, dressing, using the toilet) is less than 5% amongst those aged under 55, compared with around 40% in those aged 85 and over (figure 2). Thus age is a good indicator of probable disability and support needs.

Figure 2: Percentage of population with serious disability by age and sex, Health Survey for England 2001. (Source: Table 1, Health Survey for England 2001; Disability Module)



In all age groups, the most commonly reported type of disability was locomotor disability, followed by personal care disability. The most commonly reported causes of disability were diseases of the musculoskeletal system and connective tissue. Among those in the older age groups, there was a steady increase with age in the prevalence of multiple disabilities, suggesting that progressive severity in one domain leads to disabilities in other domains.

There were marked differences in prevalence of disability by socio-economic position, and odds of being disabled were highest for those economically inactive (permanently unable to work or retired), with no formal educational qualifications, in a manual social class, living in social housing and with earnings in the lowest income quintile.

However, other research has highlighted that these social inequalities in health tend to even out in the older age groups, so that at ages 75 and over, there is little difference between men and women in routine and manual occupations, and those in the professional and managerial groups in relation to limiting long-standing illness.¹⁴ (Table 3)

Table 3: Limiting long-standing illness*, by occupational class, age and sex.

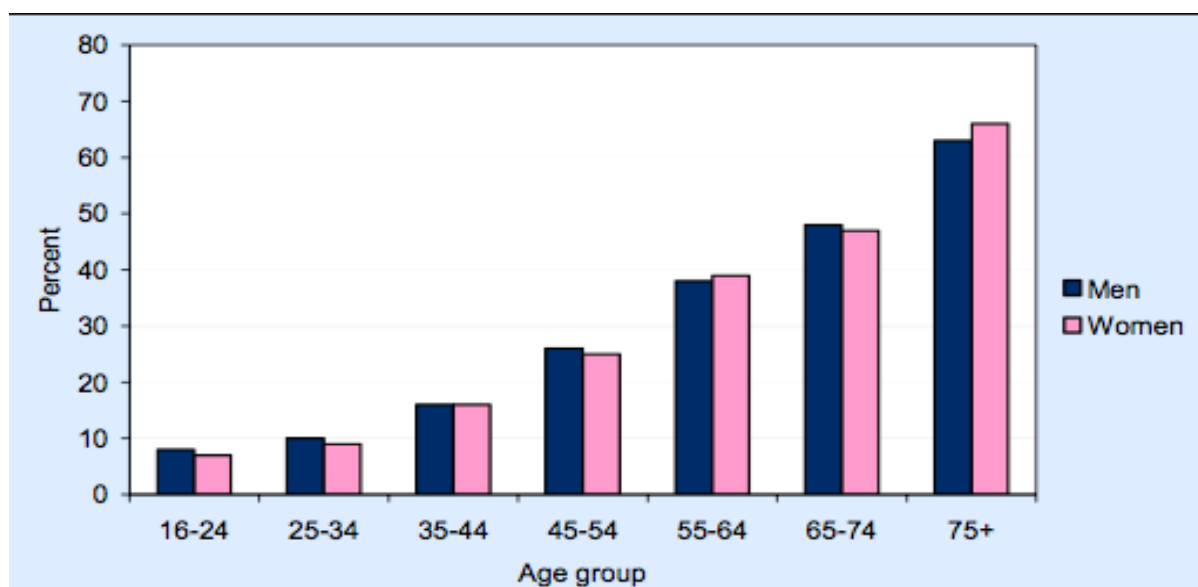
*Respondents were asked about any long-standing illness or disability.

(Source: The English Longitudinal Study of Ageing 2002)

<i>ELSA sample members</i>	<i>Age</i>			<i>Wave 1</i>
	<i>%</i>			<i>Total %</i>
	50-59	60-74	75+	
Men				
Professional and managerial	16.7	26.2	47.0	25.7
Intermediate	30.9	35.2	38.0	33.8
Routine and manual	33.6	42.1	40.3	40.3
Women				
Professional and managerial	22.9	26.0	44.0	27.7
Intermediate	24.7	29.7	46.1	31.9
Routine and manual	32.2	39.4	47.7	39.9

The term 'limiting long-standing (or long-term) illness' is a wide definition which includes self reported limitations at any level on activities of any kind; whereas 'disability' tends to refer to set ability thresholds for a specified set of activities, for example going up and down stairs. Thus limiting long-standing illness can also include disabilities.

In Wales data from the Welsh Health Survey 2009 shows that over half of all people aged 65 and over (55%) report a limiting long-term illness¹⁵ (figure 3). The most common group of illnesses mentioned was musculoskeletal problems (49%) followed by diseases of the heart and circulatory system (11%).

Figure 3: Percentage of the population in Wales reporting having a limiting long-term illness. (Source: Welsh Health Survey 2009)

2.3 Life expectancy and health expectancy

National population data are used to estimate life expectancy and health expectancy trends. The Office of National Statistics (ONS) publishes two alternative estimates of health expectancy in the UK: healthy life expectancy and disability free life expectancy. Based on data from the General Household Survey, healthy life expectancy (HLE) is defined as years spent in good or fairly good self-perceived general health; and disability-free life expectancy (DFLE) is defined as years spent free from limiting long-term illness.

Table 4 shows life expectancy, healthy life expectancy and disability free life expectancy at age 65 in the UK. In 2006-08, HLE for men aged 65 in Wales was 0.3 years less than for the UK overall, and DFLE was 0.9 years less. For women aged 65 HLE was 0.8 years less than the UK, but DFLE was 0.7 years more.

Table 4: Life expectancy, healthy life expectancy, and disability-free life expectancy at age 65; by country and gender 2006-08.

(Source: ONS Statistical Bulletin November 2010)

		Life expectancy	Healthy life expectancy	Disability-free life expectancy
Males	United Kingdom	17.4	10.1	10.1
	England	17.5	10.2	10.5
	Wales	17.1	10.1	9.2
	Scotland	16.2	9.6	9.3
	Northern Ireland	16.8	9.5	8.8
Females	United Kingdom	20.0	11.3	10.6
	England	20.2	11.4	10.9
	Wales	19.8	10.5	11.3
	Scotland	18.8	11.1	10.7
	Northern Ireland	19.8	10.9	9.3

The difference between estimates of LE and HLE/DFLE can be regarded as the number of years a person can expect to live in poor general health or with a persistent illness or disability. An increase in the proportion of life spent disability free results in a compression of morbidity, (see Fries 1980¹⁶) whilst an increase in years of life with disability would mean an expansion of morbidity. (see Kramer, 1980¹⁷)

The research evidence regarding which of these scenarios is being realised is inconclusive. Research in the Netherlands in 1998 concluded that elimination of fatal diseases such as coronary heart disease, cancer or chronic obstructive lung disease would increase health care costs because of the increased years of disability, and that major savings would only be achieved by elimination of non-fatal diseases such as musculo-skeletal disease and mental disorders.¹⁸ In the United States, despite suggestions

that disability rates in older Americans may have been declining,¹⁹ a systematic review suggests that the evidence is mixed.²⁰ More recent research in the United States indicates that the trend in disability reduction may have stopped, at least in those aged under 70,²¹ or even begun to decrease due to the growing problem of lifelong obesity, increases in hypertension and high cholesterol.²²

Reviewing life expectancy trends in the United Kingdom between 1981–2006, the ONS points out that the increase in LE largely exceeded increases in both DFLE and HLE, to the extent that years of life spent in poor general health rose from 6.4 to 8.7 years for males and from 10.1 to 11 years for females.²³

Background research to the Wanless Social Care Review of 2006 calculated that ageing of the population alone, with no alteration in the prevalence of diseases or the age-specific rates of becoming disabled or recovering, would result in a 67 per cent increase in the numbers with disability over the next 20 years. Numbers of those aged 85 years and over with disability would double. Moderate improvements in population health, from reductions in levels of obesity and other negative health behaviours, and control of vascular risk factors, together with new treatments or technologies focused on reducing the disabling consequences of disease, could considerably reduce the numbers with disability by 2025, with up to 80,000 fewer disabled older people. However, this would make only limited inroads into offsetting population ageing and the numbers of disabled older people would still increase by 57 per cent.²⁴

A more recent simulation model developed by the same author to explore how changing patterns of diseases will affect the burden of disability and disability free life expectancy, re-affirms this finding, suggesting that life expectancy will continue to rise, but that most of the extra years will be spent with a disability. Scenarios with improving population health result in higher numbers of older people overall, with reductions in the prevalence of diseases such as stroke, coronary heart disease and arthritis barely offsetting the effects of population ageing on disability.²⁵

2.4 Factors leading to the need for care services

Unsurprisingly, the main factors which have been identified as leading to the need for care services reflect the factors that contribute to the development of disability described in paragraph 2.2. Social circumstances also have an impact.

2.4.1 Social circumstances

A large study of 2,500 older people by the Personal Social Services Research Unit (PSSRU)²⁶ identified that the main reasons for admission as a long stay, local authority supported resident were due to physical or mental health problems, but carer related reasons were also common. Most people were admitted directly from hospital, and were typically:

- Aged in their 80s
- Female
- Unmarried
- Living alone or, where living with others, living in *their* home
- Living in a house rented from a local authority or housing association
- Receiving Income Support and Housing Benefit
- Receiving Attendance Allowance
- Living in poorer neighbourhoods
- Multiply disabled
- Experiencing a limiting long standing illness

One of the most striking changes in the living arrangements of older people living in private households in the second half of the 20th century has been the rise in the proportion living alone. The rise has been faster amongst those aged 85 and over than in the population aged 65 and over as a whole. In the early 2000s, just under half of men and two-thirds of women aged 85 and over living in private households were living alone⁵. This has implications for the availability of co-residential informal care amongst this age group.

2.4.2 Health factors: disability

The PSSRU study²⁶ also confirmed that whilst older people receiving community care were more disabled than those who were not, those admitted to care homes were more likely to be disabled in every respect. Table 5 shows the prevalence of disability among older people living in private households, with and without community care, and those living in residential care. The levels of disability among those admitted to residential care are very high, with 95% having a limiting longstanding illness.

Table 5: Age standardised disability and limiting longstanding illness of older people in private households, (with and without community care) and new admissions to a care home.(Source: Personal Social Services Research Unit: *Care Homes for Older People Vol.2.*)

Disability	General Household Survey 1994		Admissions survey %
	No community care %	Receiving community care %	
Unable to do without help:			
Get up/down stairs	11	30	77
Get around indoors	2	4	51
Get to the toilet	3	3	56
Get in/out of bed	2	5	52
Dress/undress	3	7	71
Feed self	1	1	23
Bath/shower/wash all over	10	30	91
Wash face and hands	0	2	49
Walk down the road	17	44	83
Limiting longstanding illness			
Yes	44	67	95
No	56	33	5
Number of individuals	2632	408	2573

2.4.3 Health factors: common conditions amongst older people admitted to care homes

In addition to general disability and limited mobility, there are a number of common conditions that appear to be predisposing factors for admittance to a care home.

A recent study of care pathways of older people moving into care homes in Oxfordshire²⁷ found the following conditions to be the most common:

- Urinary incontinence 45%
- Dementia 40%
- Bowel incontinence 34%
- Depression 25%
- Visual impairment 21%
- Stroke 19%
- Diabetes 17%
- COPD 6%
- Learning disability 2%

This was a small study of 115 older people. The larger PSSRU study found similar rates of dementia (38%) and stroke (21%), but lower levels of incontinence (29%), depression (13%) and visual impairment (10%), and a high level of arthritis. (32%) The differences in findings between the studies could be due to a number of reasons, for example methodology

and record keeping, but the similarities suggest that dementia, stroke, incontinence and depression are major factors in admittance to a care home. Visual impairment and diabetes are also important.

3 Projecting the need for care services into the future.

The preceding paragraphs have shown that there a number of health and social circumstances which make it more likely that an individual will need care services in their older age. To summarise, these are:

1. Social circumstances:

Aged 80 and over, living alone in rented accommodation in a poorer neighbourhood, in receipt of income support, housing benefit and attendance allowance.

2. Disability

Living with a locomotor and/or personal disability, visual impairment, having a learning disability; especially Down's syndrome.

3. Health

Having a limiting long-term illness, stroke, dementia, incontinence, depression or diabetes.

To this should be added the lifestyle factors which were identified as probable causes of disability (para. 2.2) and which may lead to some of the above conditions; i.e. smoking, lack of physical activity, obesity or malnutrition.

The Daffodil Care Needs Projection System for Wales²⁸ aims to help health boards and local authorities in Wales plan for the future through projecting the numbers of people in their area likely to fall into a range of demographic, social and health status categories, over 5 yearly bands to 2030. The projections are based on the most robust information currently available from research and population projections. Where the data is limited there are some gaps; for example there are no future projections in relation to ethnicity, housing tenure, or welfare benefits.

Sections 4-6 of this report describe the Daffodil projections to 2030 for Cardiff and the Vale of Glamorgan counties in the following categories:

Section 4: Social circumstances

1. Population of older people
2. Older people living alone (Age 65 and over only)
3. Current housing tenure (There are no Daffodil projections in relation to future housing tenure)

There are no Daffodil projections in relation to ethnicity, income support, housing benefit or attendance allowance.

Section 5: Disability

1. Limiting long term illness
2. Mobility
3. Ability to perform self-care
4. Visual impairment
5. Falls

Section 6: Health

1. Urinary incontinence
2. Diabetes
3. Stroke
4. Mental health problem (there are no separate projections for depression)
5. Dementia
6. Down's syndrome and dementia

The population figures used in the Daffodil projections are based on the Welsh Government (WG) Statistical Directorate's 2008 local authority principal projection for Cardiff, the population base used was a revised 2008 Mid Year Estimate published by ONS. This base year population was then projected using a short-term (five year) trend for the components of population change, namely, internal migration, international migration, fertility and mortality. Cardiff Research Centre (CRC) have produced a principal population projection using the same 2008 base Mid Year Estimate, but has applied a 15 year trend in net migration by age and gender to smooth-out some of the short term peaks that were particularly evident in Cardiff's migration figures between 2003 and 2008. Overall this resulted in a slightly smaller population of older people in Cardiff in future years. (See Appendix 1) This would mean smaller projected numbers of older people in all the categories above. However, the trajectories of the WG and CRC projections only start to differ noticeably after 2013, by which time data from the 2011 Census will be available. It is anticipated that the results of the 2011 Census will enable a re-adjustment of population estimates and subsequent projections to provide a more accurate estimate of future needs.

In all the following charts and tables (unless otherwise stated) numbers have been rounded.

3.1 Limitations to the needs assessment

Whilst this needs assessment has been carried out using the most up to date information available, it is important to stress the necessity of treating any population projections with caution, especially those that

extend a long way into the future. An ONS review in 2007²⁹ reinforced the point that demographic behaviour is inherently uncertain. Highlighting inaccuracies in projections over the previous 50 years, the review stresses that the largest differences between projected and actual populations are for the very young and the very old. An example of an unwelcome consequence of over-reliance on population projections is the experience of Scotland's Care Development Group, which used 1998 population projections of the 'oldest old' to estimate the costs of free personal care for older people in Scotland. These projections were based on data from the 1991 census and substantially underestimated future numbers of older persons in Scotland, resulting in a significant underestimate of the future costs of free personal care.³⁰

The Daffodil system applies current prevalence rates of diseases to future populations. However, as both of these factors are inherently uncertain in the future, the results must be regarded as estimates only.

4 Demography and social circumstances of the older populations in Cardiff and the Vale of Glamorgan

4.1 2009 Population profiles

The latest (2009) population profiles of Cardiff and the Vale of Glamorgan are notably different. The Vale profile is similar to the all Wales profile, whilst Cardiff has a younger population (figures 4 and 5).

Figure 4

Proportion of population by age band, Cardiff and Wales, 2009

Produced by Public Health Wales Observatory, using ONS MYE

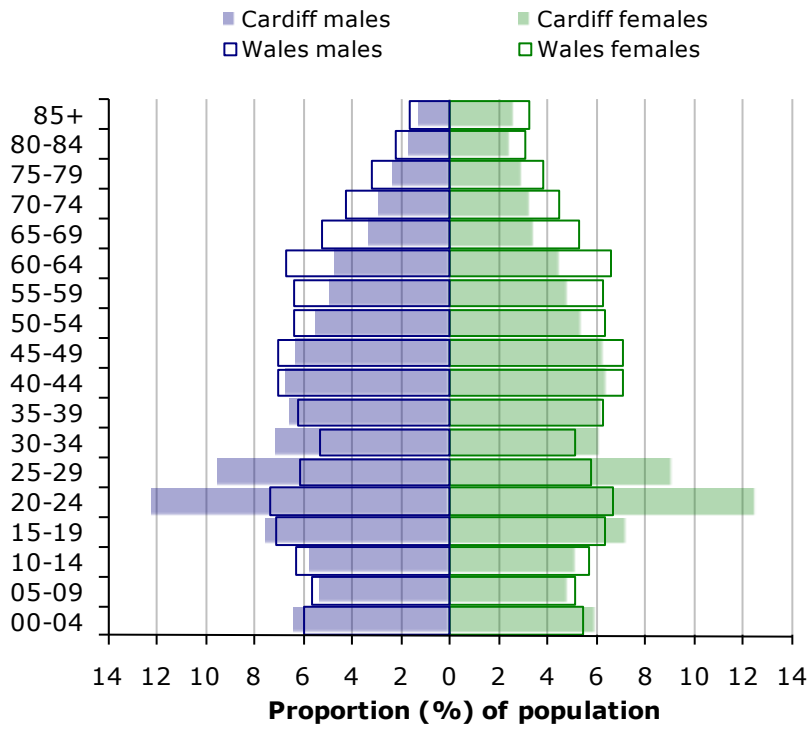
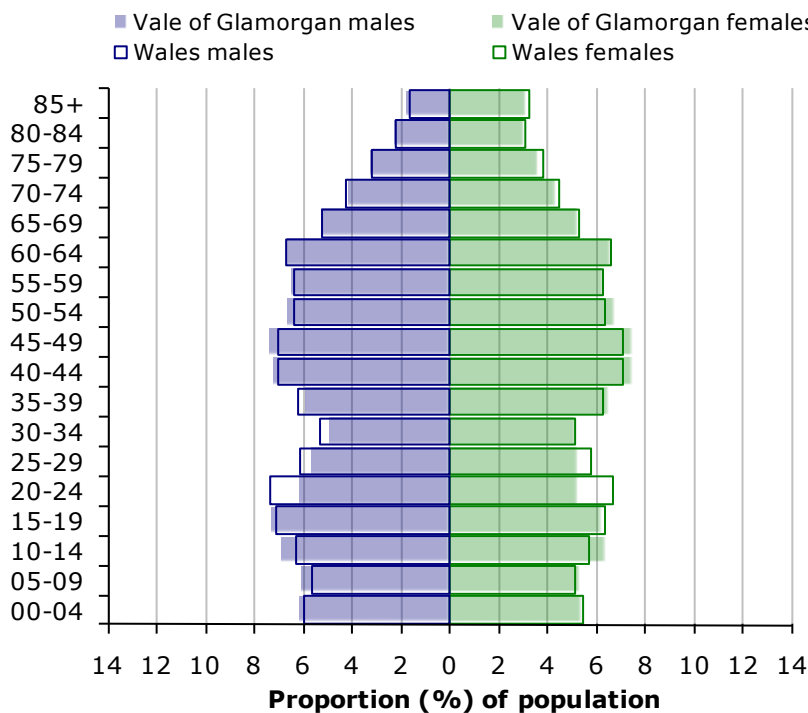


Figure 5

Proportion of population by age band, The Vale of Glamorgan and Wales, 2009

Produced by Public Health Wales Observatory, using ONS MYE



It can be seen that Cardiff has a higher proportion aged 20-34 but a lower proportion aged 45+. The increased 20-29 age group is likely to be partly caused by the growth in student populations in the city.

In contrast, the Vale of Glamorgan shows less people in the younger age groups than Cardiff and more aged 40 and above. The larger numbers of people in older age groups in the Vale has an impact on all the projections for the Vale of Glamorgan in sections 4, 5 and 6.

4.2 Projected populations to 2030

Figures 6 and 7 show the Daffodil projections for the populations of Cardiff and the Vale of Glamorgan in 5-year bands to 2030, reflecting clearly the rise in number of the older populations over time. The projections are based on the Welsh Assembly Government 2008 local authority population projections for Wales.

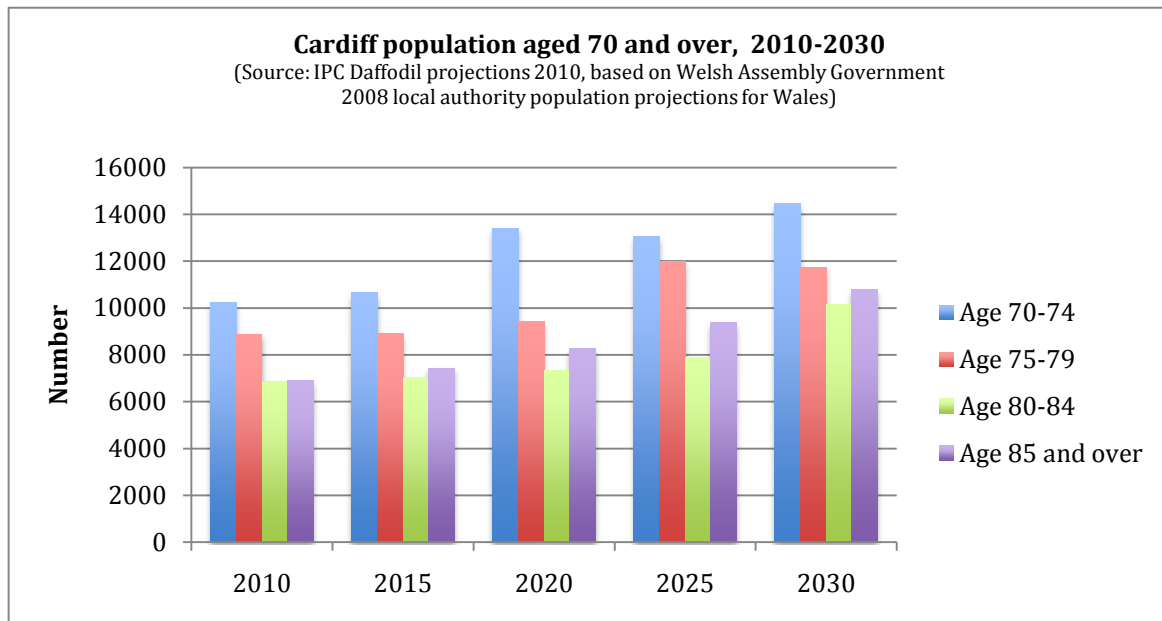
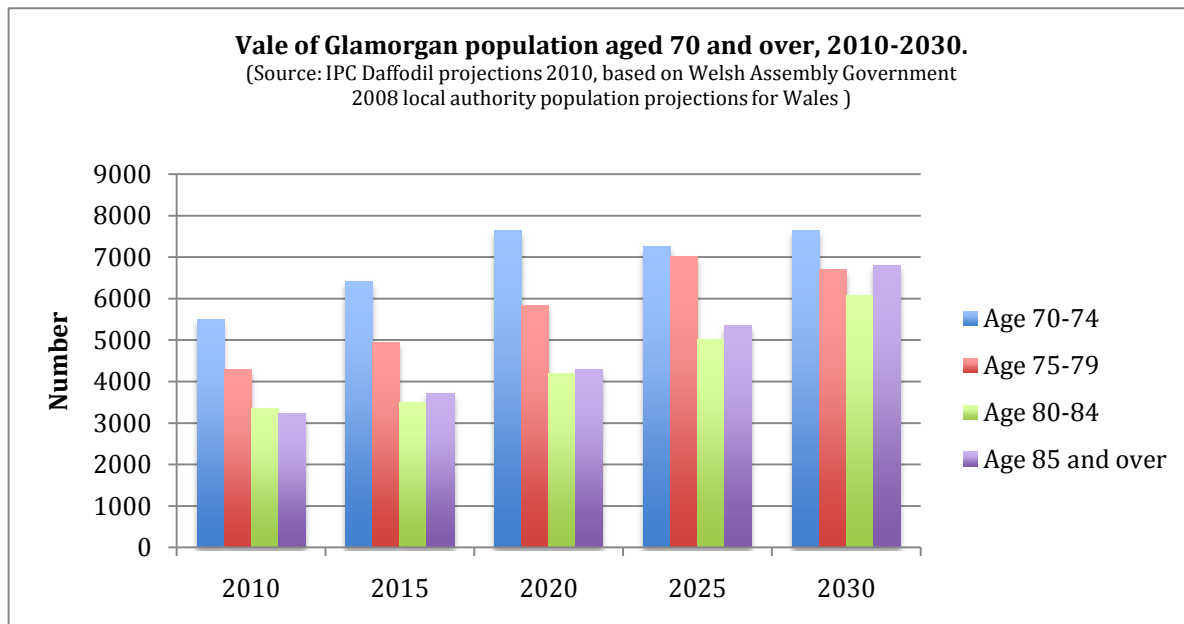
Figure 6: Cardiff population aged 70 and over, 2010-2030**Figure 7: Vale of Glamorgan population aged 70 and over, 2010-2030**

Table 6 shows the predicted increase in numbers of older population groups in both counties from age 70, and the percentage increase from the baseline number in 2010. All age groups increase significantly to 2030, particularly those aged 80-84, and aged 85 and over. Those aged 80-84 are predicted to increase by nearly half in Cardiff, and by more than three-quarters in the Vale. Those aged 85 and over are predicted to increase by over half in Cardiff, and to more than double in the Vale, reflecting the different compositions of their current populations.

Table 6: Cardiff and Vale populations aged 70 and over, showing the projected number and percentage increase from 2010 in 5 year bands from 2010-2030.

(Source: IPC Daffodil projections 2010, based on Welsh Assembly Government 2008 local authority population projections for Wales)

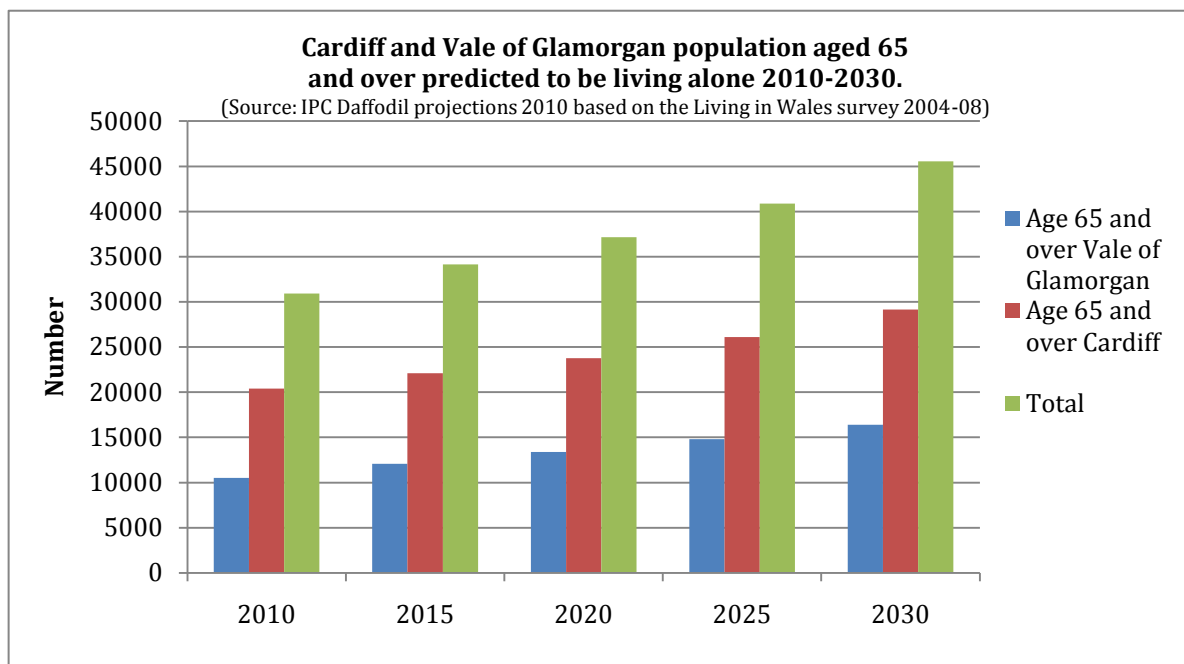
Cardiff	2010		2015		2020		2025		2030	
Number & % increase from 2010	No.	No.	%	No.	%	No.	%	No.	%	
Age 70-74	10,230	10,640	4	13,410	31	13,030	27	14,450	41	
Age 75-79	8,880	8,910	0	9,410	6	11,980	35	11,730	32	
Age 80-84	6,870	7,020	2	7,310	6	7,890	15	10,150	48	
Age 85 and over	6,900	7,430	8	8,260	20	9,370	36	10,780	56	
ALL AGED 70+	32,880	34,000	3	38,390	17	42,270	29	47110	43	
Vale of Glamorgan	2010 No.	2015 No.	%	2020 No.	%	2025 No.	%	2030 No.	%	
Age 70-74	5,490	6,410	17	7,650	39	7,260	32	7,630	39	
Age 75-79	4,280	4,940	15	5,830	36	7,010	64	6,690	56	
Age 80-84	3,340	3,500	5	4,190	25	5,020	50	6,080	82	
Age 85 & over	3,220	3,700	15	4,300	34	5,360	66	6,800	111	
ALL AGED 70+	16,330	18,550	14	21,970	35	24,650	51	27,200	67	

4.3 Older people living alone

Figure 8 shows that in the Vale of Glamorgan, with its larger proportion of older people, the numbers aged 65 and over living alone are predicted to increase by over a quarter from 10,520 in 2010 to 13,390 in 2020, and by over half to 16,400 in 2030.

In Cardiff the numbers of those aged 65 and over living alone are predicted to rise by just under one fifth from 20,400 in 2010 to 23,750 in 2020, and by just under one half to 29,150 in 2030.

The increase in numbers of older people living alone, with no co-residential informal carers clearly has implications for the provision of domicilliary and residential care services in the future.

Figure 8: Cardiff and Vale of Glamorgan population aged 65 and over predicted to be living alone 2010-2030:

4.4 Housing tenure of older people

Table 7 shows the proportions of the population of Cardiff and the Vale of Glamorgan, living in different categories of housing tenure, by age and gender. There are no future projections of housing tenure as the figures would not be reliable.

Table 7: Proportions of the Cardiff and the Vale of Glamorgan population living in different categories of housing tenure, by age and gender, 2008.

(Source: Living in Wales survey, 2008)

	Owner-occupied	Local Authority	Housing Association	Private rented
Cardiff and Vale of Glamorgan	% of whole population	% of whole population	% of whole population	% of whole population
Males aged 65 and over	13.48	1.64	0.84	0.63
Females aged 60 and over	11.64	2.50	1.09	0.91

5 Older people with disabilities

5.1 Limiting long-term illness

Limiting long-term illness is widely used as a measure of health status and has been shown to be an accurate predictor of early mortality, psychological health and hospital utilisation. The projections below are based on responses to the Welsh Health Survey question which asks respondents if they have 'any long-term illness, health problem or disability which limits their daily activities or the work they can do.'

Figure 9 shows the predicted increase in the numbers of people aged 65-74, and 75 and over with a limiting long-term illness in Cardiff. In the age group 65-74 the numbers are predicted to rise by a quarter from 10,820 in 2010 to 13,600 in 2020, and by nearly one half to 20,750 in 2030. In the age group 75 and over the numbers are predicted to rise by around one tenth from 14,520 in 2010 to 15,940 in 2020, and by nearly one half to 20,750 in 2030.

Figure 9: Cardiff population aged 65 and over predicted to have a limiting long-term illness, 2010-2030.

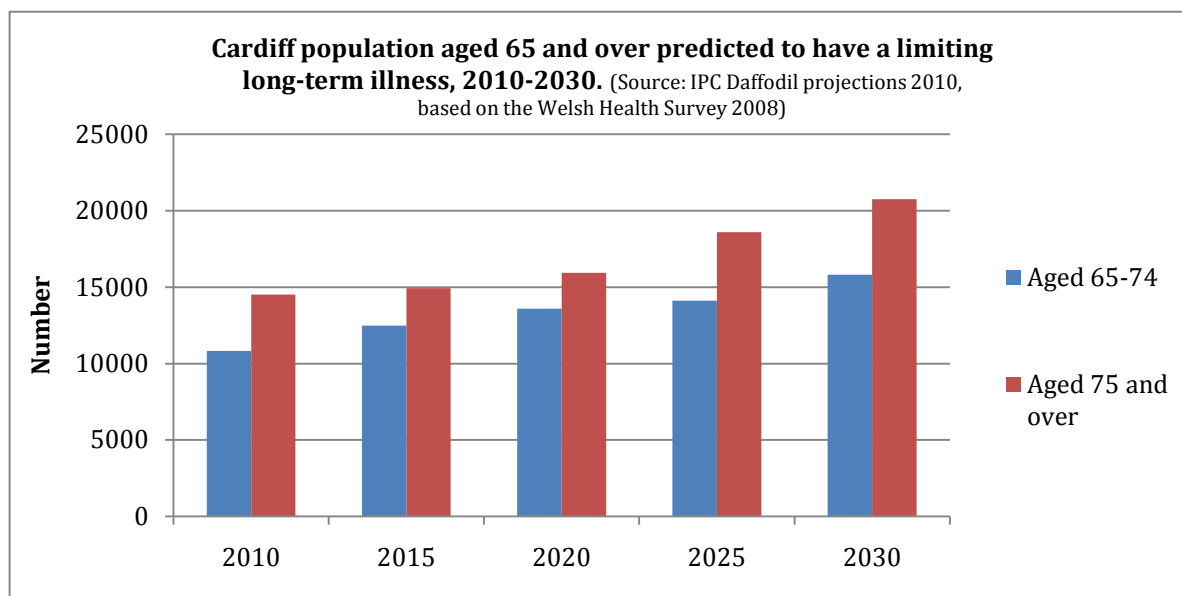
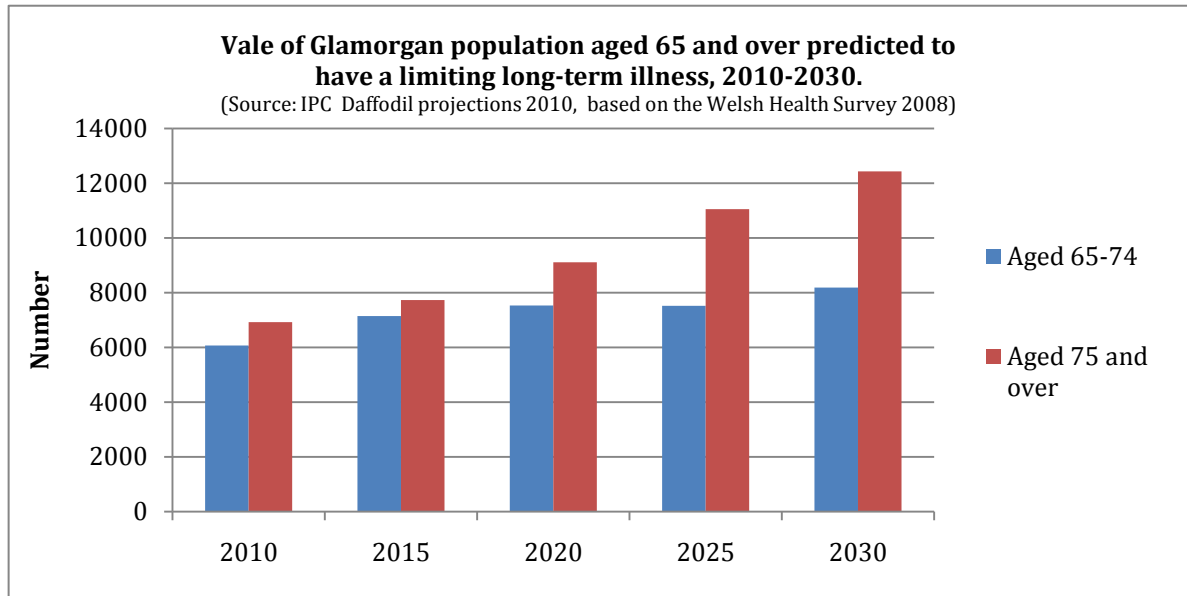


Figure 10 shows the predicted increase in the numbers of people aged 65-74, and 75 and over with a limiting long-term illness in the Vale of Glamorgan. In the age group 65-74 the numbers are predicted to rise by just under a quarter from 6,070 in 2010 to 7,540 in 2020, and by a third to 8170 in 2030. In the age group 75 and over there is a much sharper increase in numbers than in Cardiff, with a rise of a third from 6,930 in 2010 to 9,110 in 2020, and over three quarters to 12,440 in 2030.

Figure 10: Vale of Glamorgan population aged 65 and over predicted to have a limiting long-term illness, 2010-2030.



5.2 Mobility

The projections for mobility are taken from General Household Survey (GHS) data relating to:

- Going out of doors and walking down the road
- Getting up and down stairs
- Getting in and out of bed.

Figures 11 and 12 show clearly that the largest proportion of the population who are unable to manage at least one mobility activity on their own are in the age group 85 and over. As this is the fastest growing population group the numbers of people with a mobility problem aged 85 and over are predicted to increase significantly in both counties.

In Cardiff the numbers are predicted to rise by nearly one fifth from 3,110 in 2010 to 3,660 in 2020, and by over half to 4,726 in 2030.

In the Vale of Glamorgan the numbers are predicted to rise by nearly one third from 1,440 in 2010 to 1,890 in 2020, and to more than double to 2,960 in 2030.

Figure 11: Cardiff population aged 70 and over unable to manage at least one mobility activity on their own 2010-2030.

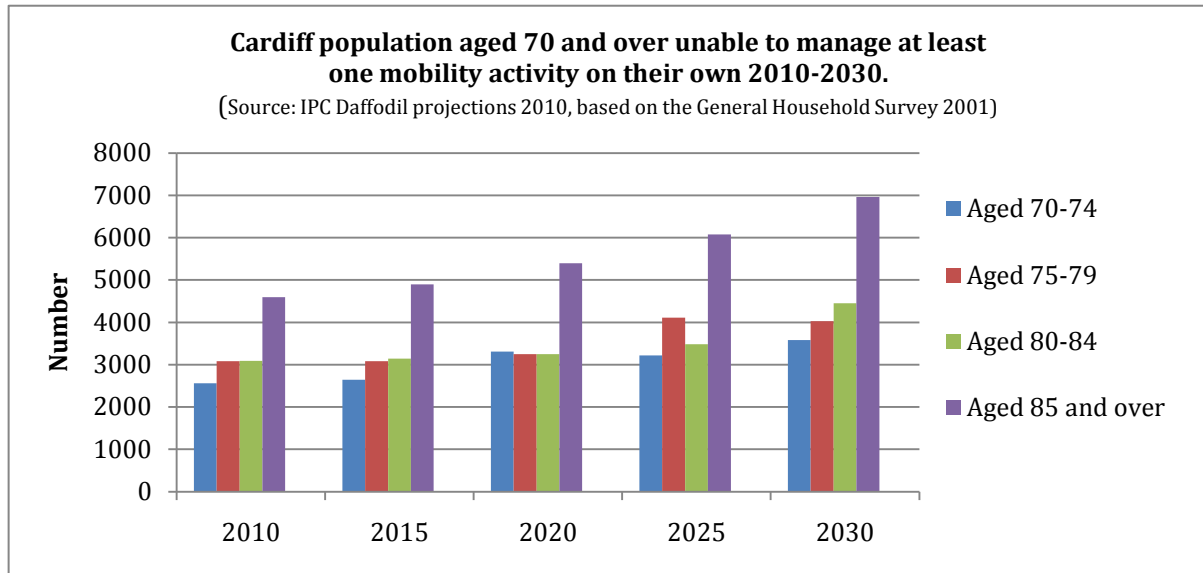
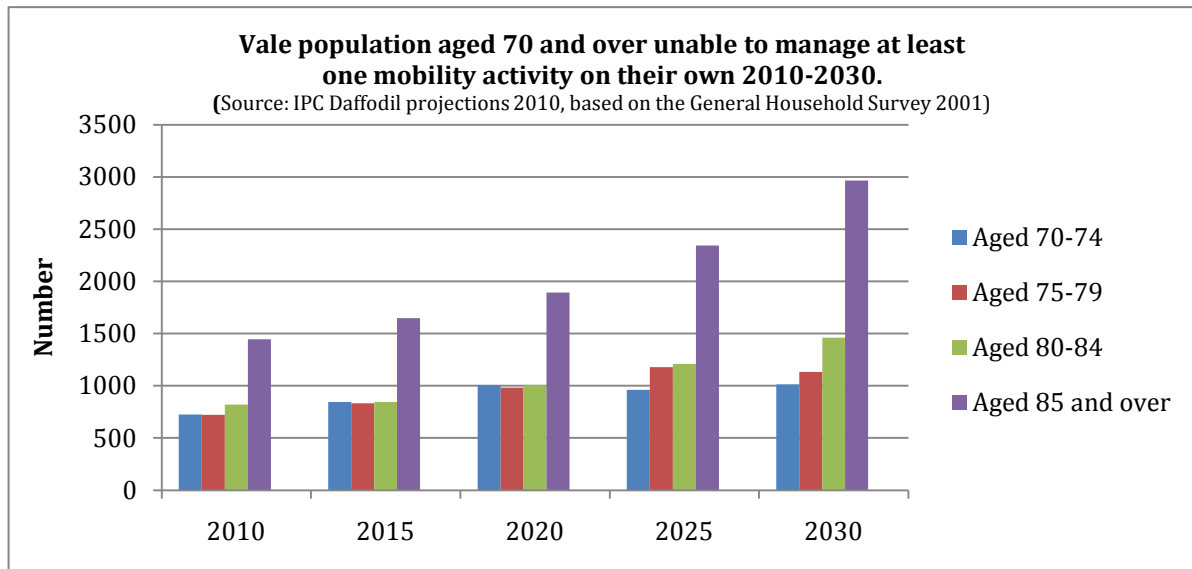


Figure 12: Vale of Glamorgan population aged 70 and over unable to manage at least one mobility activity on their own 2010-2030.



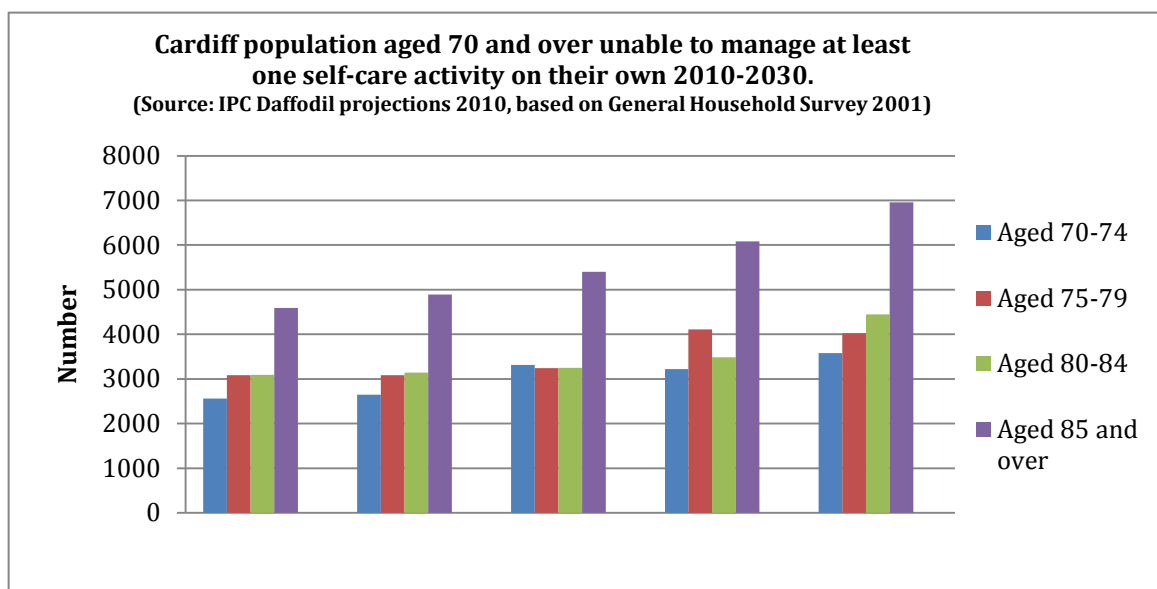
5.3 Self-care

Self-care projections are based on data from the General Household Survey (GHS) relating to respondents' ability to perform the following activities:

- Bathing, showering, washing all over
- Dressing and undressing
- Cutting toenails
- Taking medicines.

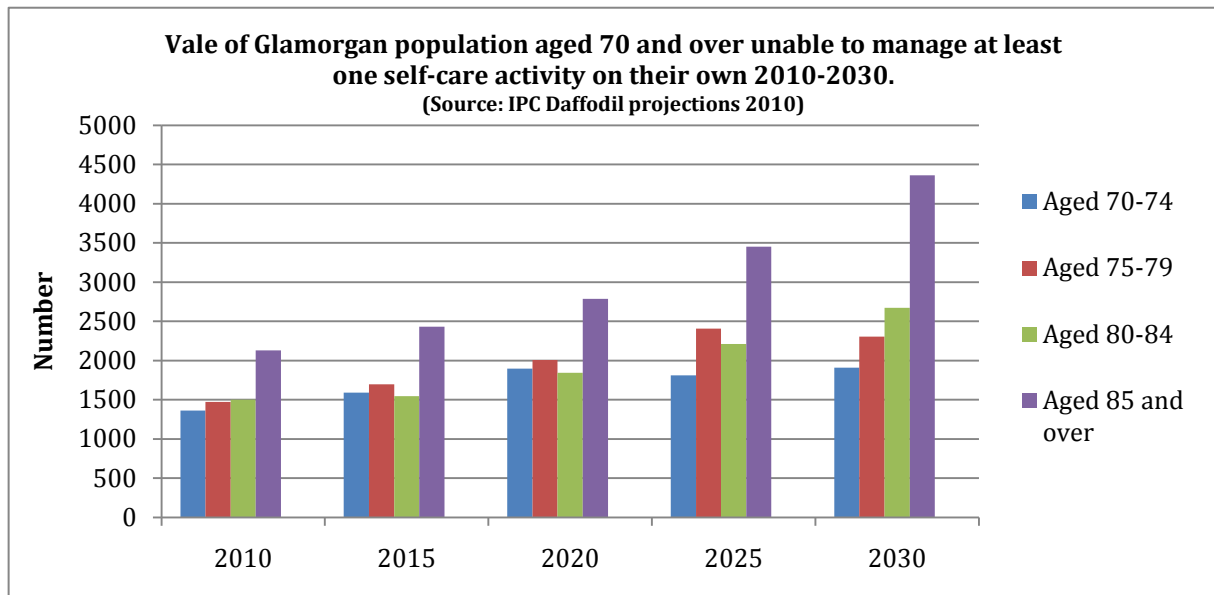
Figures 13 and 14 show that, as with mobility, it is people aged 85 and over who are least able to manage self care activities. In Cardiff the numbers in this age group unable to manage at least one self-care activity on their own are projected to increase by around one fifth from 4,590 in 2010 to 5,400 in 2020, and by just over half to 6960 in 2030.

Figure 13: Cardiff population aged 70 and over unable to manage at least one self-care activity on their own, 2010-2030.



In the Vale of Glamorgan (Figure 14) the number of people aged 85 and over unable to manage at least one self-care activity on their own is projected to increase by nearly one third from 2,130 in 2010 to 2,790 in 2020, and to more than double to 4,360 in 2030.

Figure 14: Vale of Glamorgan population aged 70 and over unable to manage at least one self-care activity on their own, 2010-2030.



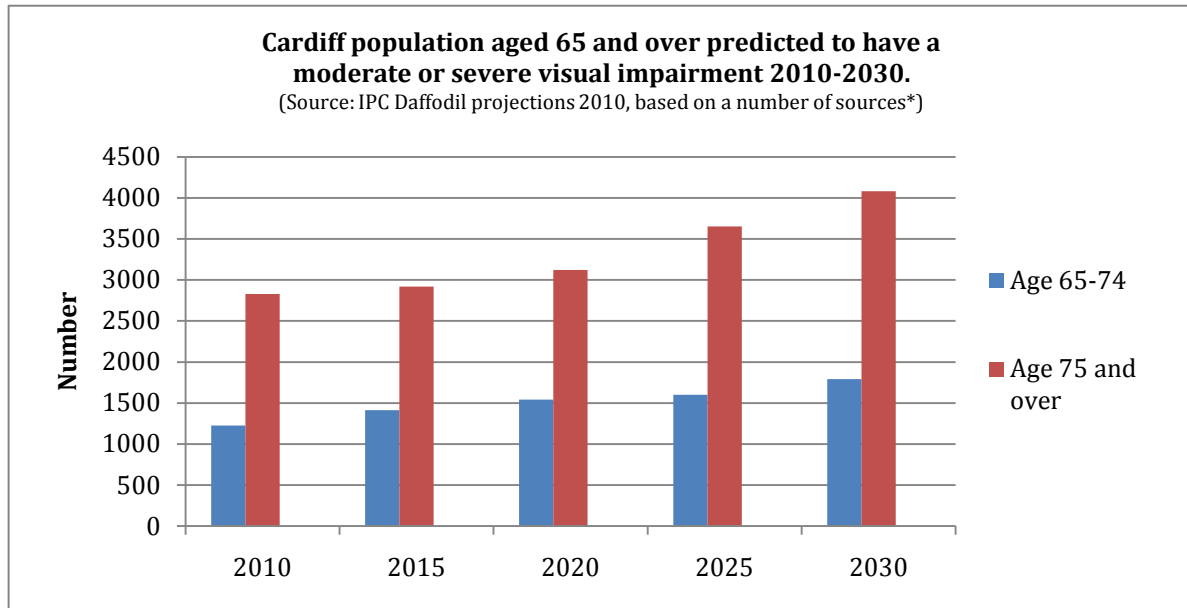
5.4 Visual impairment

Figures 15 and 16 show the predicted increase in the numbers of people age 65 and over with a moderate or severe visual impairment. The majority of people in the UK registered as blind or partially sighted are older people, the majority of whom are women. This is consistent with worldwide studies showing that females have a significantly higher risk of being visually impaired than males.³¹ Moderate and severe visual impairment has clear implications for falls, loss of confidence and loss of independence in older people. The Royal National Institute for the Blind (RNIB) estimates that 33% of people over the age of 70 fail to take regular eye tests, with concern over the high cost of glasses being a major deterrent.³² This may mean that some major sight threatening conditions which are treatable, such as cataracts, diabetic retinopathy, glaucoma and wet Age-related Macular Degeneration (AMD) are not detected.

In both counties the sharpest rise in the number of people with a visual impairment is amongst those aged 75 and over. In Cardiff the numbers are predicted to rise by a tenth from 2,830 in 2010 to 3,120 in 2020, and by just under one half to 4,082 in 2030.

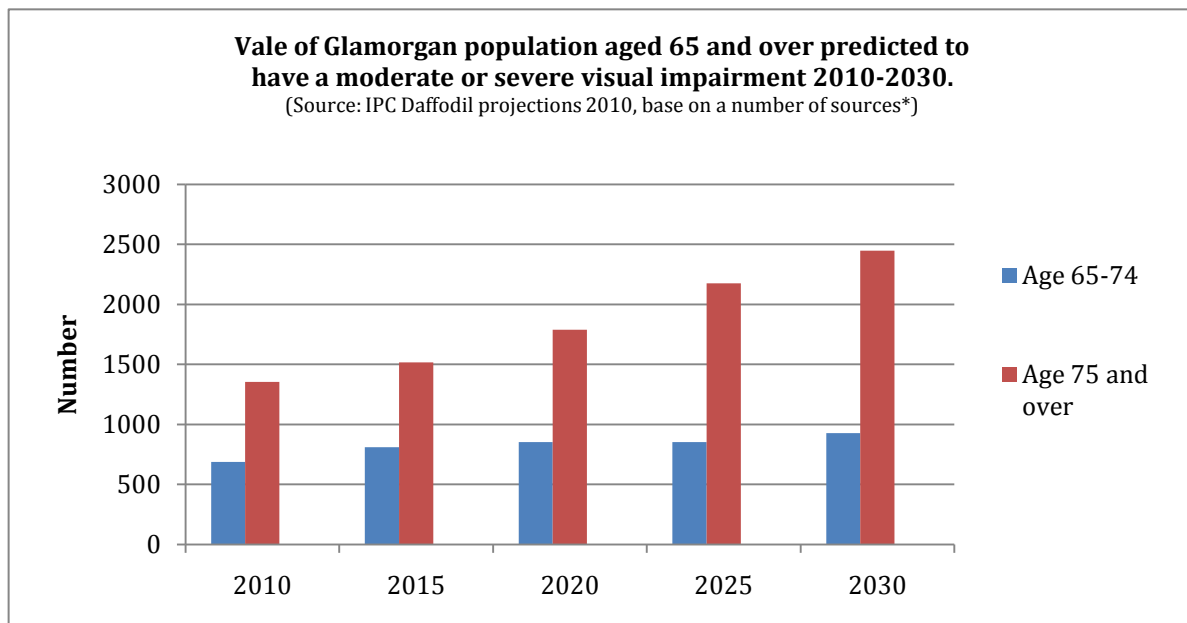
In the Vale of Glamorgan the numbers are predicted to rise by nearly one third from 1,350 in 2010, to 1,790 in 2020, and by over three quarters to 2,470 in 2030.

Figure 15: Cardiff population aged 65 and over predicted to have a moderate or severe visual impairment 2010-2030.



*The prevalence of visual impairment in the UK, A review of the literature, RNIB 2005. The number of people in the UK with a visual impairment; the use of research evidence and official statistics, RNIB 2006

Figure 16: Vale of Glamorgan population aged 65 and over predicted to have a moderate or severe visual impairment 2010-2030.



*The prevalence of visual impairment in the UK, A review of the literature, RNIB 2005. The number of people in the UK with a visual impairment; the use of research evidence and official statistics, RNIB 2006

5.5 Falls

Falls are a major cause of disability and the leading cause of mortality resulting from injury in people aged 75 and over in the UK. The Royal Society for the Prevention of Accidents (ROSPA) estimates that one in three people aged 65 years and over experience a fall at least once a year, rising to one in two among 80 year-olds and older. Although most falls result in no serious injury, approximately 5 per cent of older people in community-dwelling settings who fall in a given year experience a fracture or require hospitalisation.³³

Depression, fear of falling and social withdrawal are common effects of repeated falls. Approximately half of all fallers who fracture their hips are never functional walkers again. Falls are a major reason for admission to hospital or a residential care setting.³⁴ Falls also have implications for Emergency Units. A one-year study based in the emergency department of the University Hospital of Wales in Cardiff suggested a falls incidence in those aged 75 and over of 139/1000 women, and 99/1000 men³⁵.

PEDW (Patient Episode Database Wales) suggests that the number of hospital admissions in people aged 50 and over for fractured neck of femur has remained fairly stable in Cardiff and the Vale of Glamorgan between 1998-2006. In Cardiff the recorded number of these fractures in 1998, 2002 and 2006 were 179, 179, and 168 respectively, and in the Vale of Glamorgan 77, 83, and 81 respectively.³⁶ However, there may be many more hospital admissions for other injuries caused by a fall, which are not recorded as falls related.

It is important to stress that there are major issues in the data relating to both hospital admissions for falls, and falls related attendances at emergency units. PEDW hospital admission data is limited, and data from the Emergency Department Data Set (EDDS) is known to have quality issues. This means that estimates of both current and future incidence are unreliable and should be treated with caution. For the purposes of this report, two estimates of the future incidence of falls in Cardiff and the Vale of Glamorgan are presented.

Figures 17 and 18 show the Daffodil system predicted rise in the number of people aged 65 and over predicted to be admitted to hospital because of a fall, with or without hip fracture. In both counties there is a steady rise in numbers, particularly in the age groups 75-84 and 85 and over.

In Cardiff, admissions for falls in those aged 85 and over are predicted to rise by around one fifth from 410 in 2010 to 490 in 2020, and by over half to 640 in 2030. Sharper rises are predicted in the Vale of Glamorgan, where admissions in those aged 85 and over are predicted to rise by a third from 260 in 2010 to 340 in 2020, and to more than double to 540 in 2030.

In terms of the implications for Cardiff and Vale Health Board, the total number of falls admissions in those aged 65 and over in both counties is predicted to increase by around one fifth from 1,460 in 2010 to 1,780 in 2020, and by over half to 2,345 in 2030.

Figure 17: Cardiff population aged 65 and over predicted to be admitted to hospital because of a fall, 2010-2030.

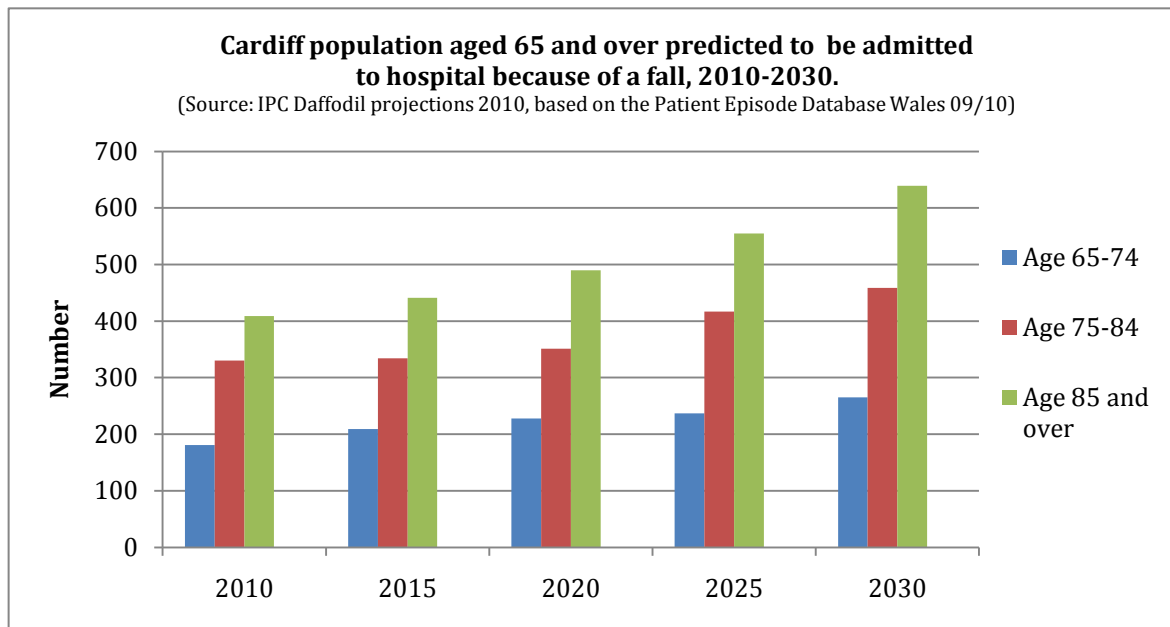
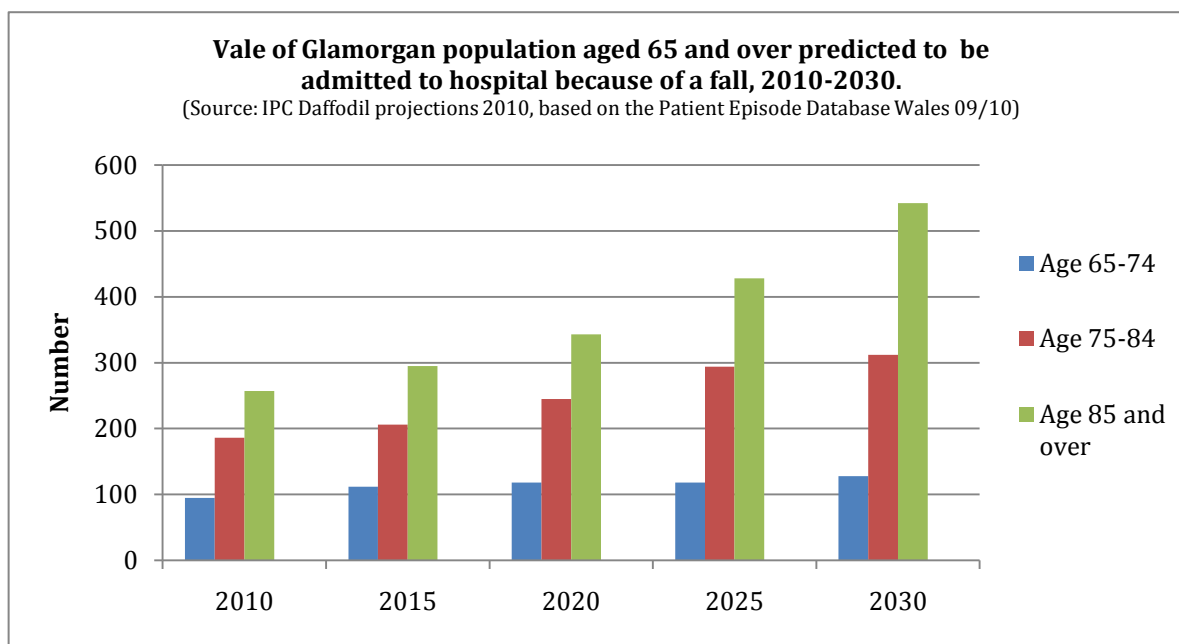


Figure 18: Vale of Glamorgan population aged 65 and over predicted to be admitted to hospital because of a fall, 2010-2030.



An alternative method for estimating the future number of falls is to use an extrapolation based on falls epidemiology. Using data from a number of key studies³⁷, Public Health Wales (PHW) has estimated the incidence of

falls by health board area to 2015³⁸. Figure 19 shows the estimate for Cardiff and Vale University Health Board.

Figure 19: Estimated incidence of falls in people aged 60 and over, Cardiff and the Vale of Glamorgan, 2010-2015. (Source: Public Health Wales 2011³⁸)

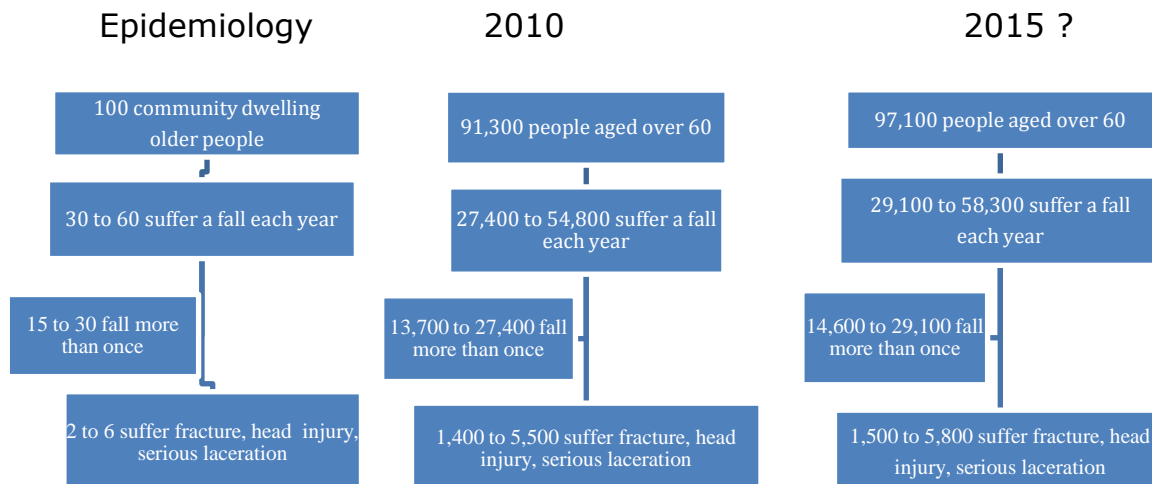


Figure 19 presents a range in the number of those aged 60 and over likely to suffer fracture, head injury or serious laceration from a fall. Precise comparisons cannot be drawn between the PHW and Daffodil projections, due to different methodologies. However, it is probable that there is some overlap between the PHW category of serious injuries and the Daffodil predictions of those who will be admitted to hospital following a fall. A comparison of the two estimates is shown in Table 8:

Table 8: Comparison of estimates of the numbers of older people in Cardiff and the Vale of Glamorgan predicted to suffer serious injury or to be admitted to hospital following a fall, 2010 and 2015.

	Daffodil estimate (relates to people aged 65+ admitted to hospital because of a fall)	Public Health Wales estimate (relates to those aged 60+ likely to suffer fracture, head injury and/or serious laceration due to a fall)
2010	1460	1,400-5,500
2015	1600	1,500-5,800

In conclusion, it is likely that the Daffodil projections underestimate the future number of falls, and the true number could be much higher.

6 Health conditions

6.1 Urinary incontinence

It is estimated that urinary incontinence affects around one quarter of older people, and between one to two-thirds of people in care settings. Continence problems amongst older people are often associated with other

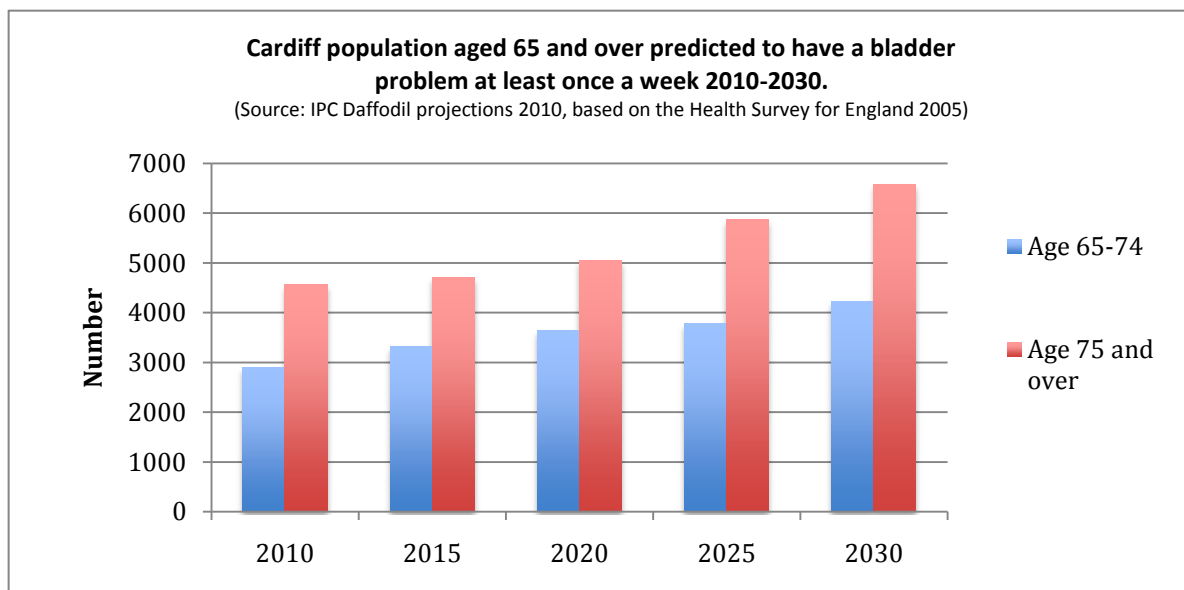
serious and chronic conditions, such as functional disability, impaired mobility, obesity, polypharmacy, cognitive impairment, urinary tract infections and cerebrovascular disease, and continence should be assessed and managed as an integral part of any chronic disease management programme.³⁹

In many cases, if thoroughly assessed and diagnosed at an early stage, incontinence can be effectively managed and treated. However, a National Audit of Continence Care in 2005 revealed inadequate assessment of the cause of people's incontinence, with management relying more on containment, using pads and catheters, than on treatment.⁴⁰

The Oxfordshire study of care pathways of older people moving into care homes²⁷ found that incontinence was an influential driver towards care. This could be in terms of the person themselves concluding they could not remain in their own home, but also through secondary factors such as the stress on carers and the link to urinary tract infections and falls.

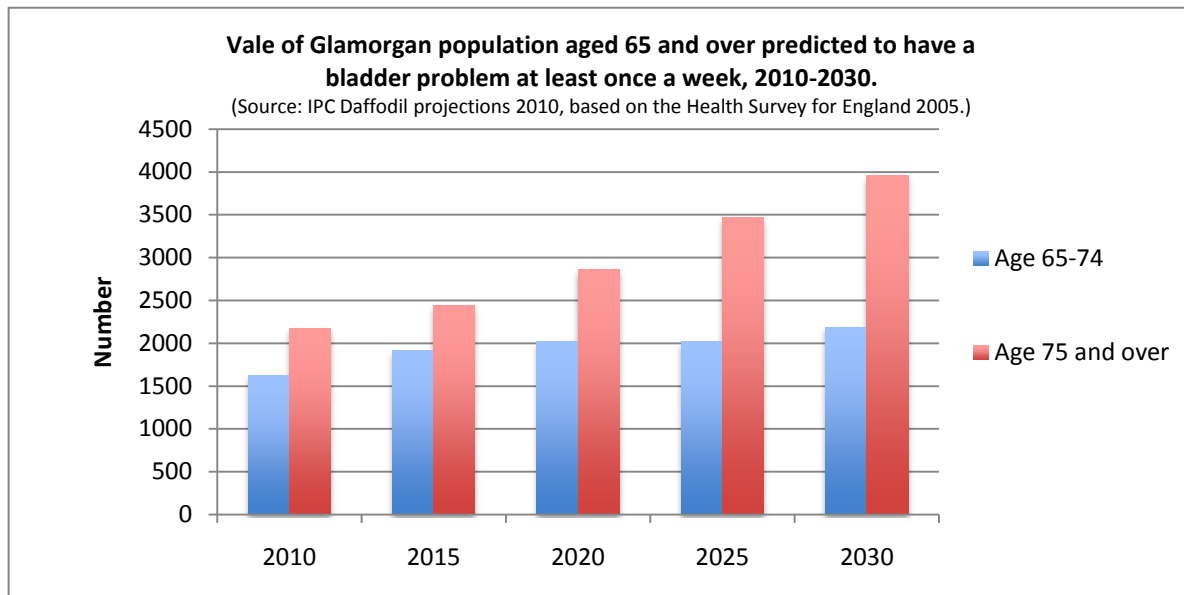
Figures 20 and 21 show the predicted rise in the numbers of people aged 65 and over in Cardiff and the Vale Glamorgan with a bladder problem at least once per week. In Cardiff the number of people in both the 65-74, and 75 and over age groups is predicted to rise by half as much again by 2030, from 2,890 in 2010 to 4,220 in 2030, (age 65-74) and from 4,550 in 2010 to 6,580 in 2030 (age 75 and over).

Figure 20: Cardiff population aged 65 and over predicted to have a bladder problem at least once a week, 2010-2030.



In the Vale of Glamorgan the steepest rise is in the age group 75 and over, where the numbers are predicted to rise by over three-quarters in 2030, from 2170 in 2010, to 3950 in 2030.

Figure 21: Vale of Glamorgan population aged 65 and over predicted to have a bladder problem at least once a week, 2010-2030.

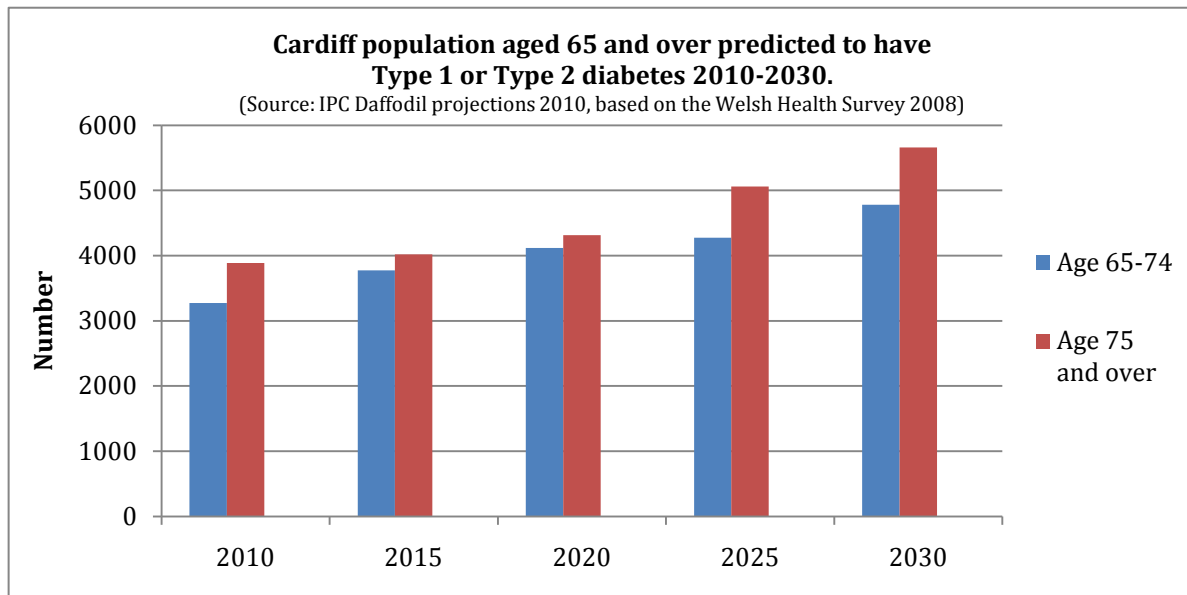
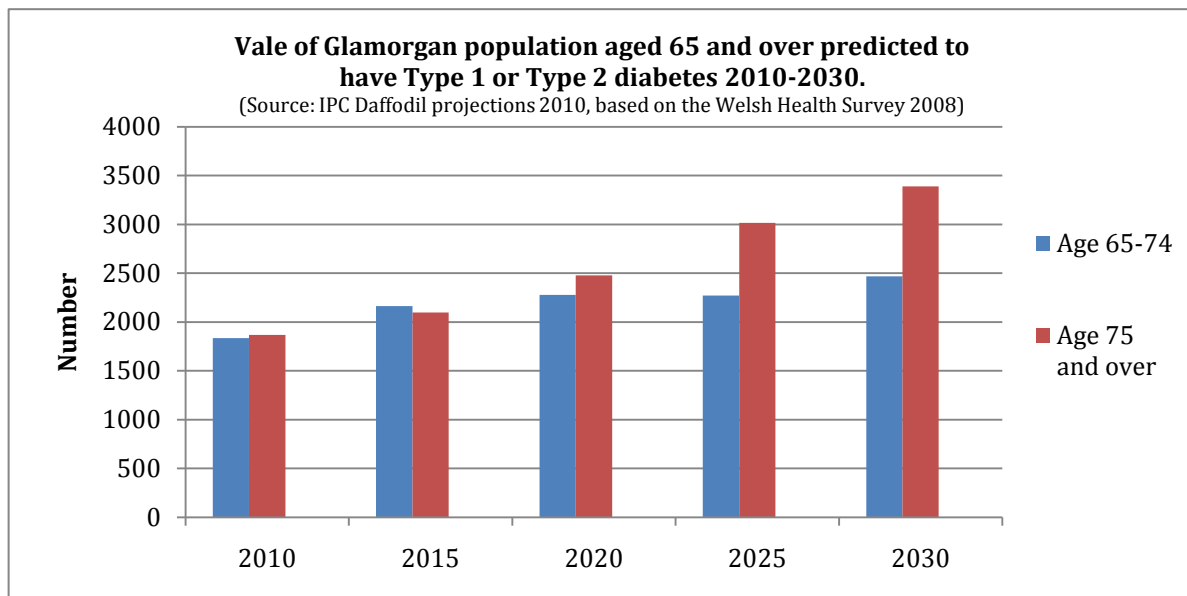


6.2 Diabetes

Since 1996 the number of people in the UK diagnosed with Type 1 or Type 2 diabetes has risen from 1.4 million to 2.6 million, and by 2025 it is estimated that over 4 million people will have diabetes. Most of these cases will be Type 2 diabetes, because of the ageing population and rapidly rising numbers of people who are overweight or obese.⁴¹ The Welsh Health Survey 2008 found that prevalence of diabetes in Wales was 6%, rising to 15% in those aged 65-74, and to 17% in those aged 75 and over. In Cardiff and the Vale of Glamorgan overall prevalence was 7% and 6% respectively.⁴² It has been estimated that around 27% of care home residents have diabetes.⁴³

Figures 22 and 23 show the predicted increase in people aged 65 and over with Type 1 and Type 2 diabetes in Cardiff and the Vale of Glamorgan. In both counties the numbers of people with diabetes in both the 65-74 and 75 and over age groups are predicted to rise steadily. In Cardiff the numbers rise by nearly a half by 2030; from 3,270 in 2010 to 4,780 in 2030 (aged 65-74) and from 3,890 in 2010 to 5,660 in 2030 (age 75 and over).

In the Vale of Glamorgan the steepest rise is in the numbers of those with diabetes aged 75 and over, which are predicted to rise by over three quarters from 1,870 in 2010 to 3,390 in 2030.

Figure 22: Cardiff population aged 65 and over predicted to have Type 1 or Type 2 diabetes 2010-2030.**Figure 23: Vale of Glamorgan population aged 65 and over predicted to have Type 1 or Type 2 diabetes 2010-2030.**

6.3 Stroke

Stroke can result in complex care needs, long-term disability, and can lead to admission to long-term care. It affects between 174 and 216 people per 100,000 population in the UK each year, and accounts for 11% of all deaths in England and Wales. The risk of recurrent stroke within five years of a first stroke is between 30% and 43%. Stroke can affect people of any age, but is predominantly a disease of older people. Around two thirds of all strokes occur after the age of 65 years. The incidence of stroke doubles with each decade after the age of 55 years. The overall incidence rate is

0.2/1000 in people aged 45-54 but rises to 10/1000 in those aged over 85 years. Almost one in four men and nearly one in five women aged 45 years can expect to have a stroke if they live to their 85th year.³⁶

Figures 24 and 25 show the predicted increase in numbers of people receiving treatment for stroke in Cardiff and the Vale of Glamorgan. It can be seen that the sharpest rise is in the age group 75 and over, especially in the Vale of Glamorgan where the numbers are predicted to rise by nearly one third from 1,170 in 2010 to 1,560 in 2020, and by over three-quarters to 2,130 in 2030.

In Cardiff the number of people aged 75 and over predicted to receive treatment for stroke rises by just under a half from 2,440 in 2010 to 3,560 in 2030.

Figure 24: Cardiff population aged 65 and over predicted to have received treatment for stroke 2010-2030

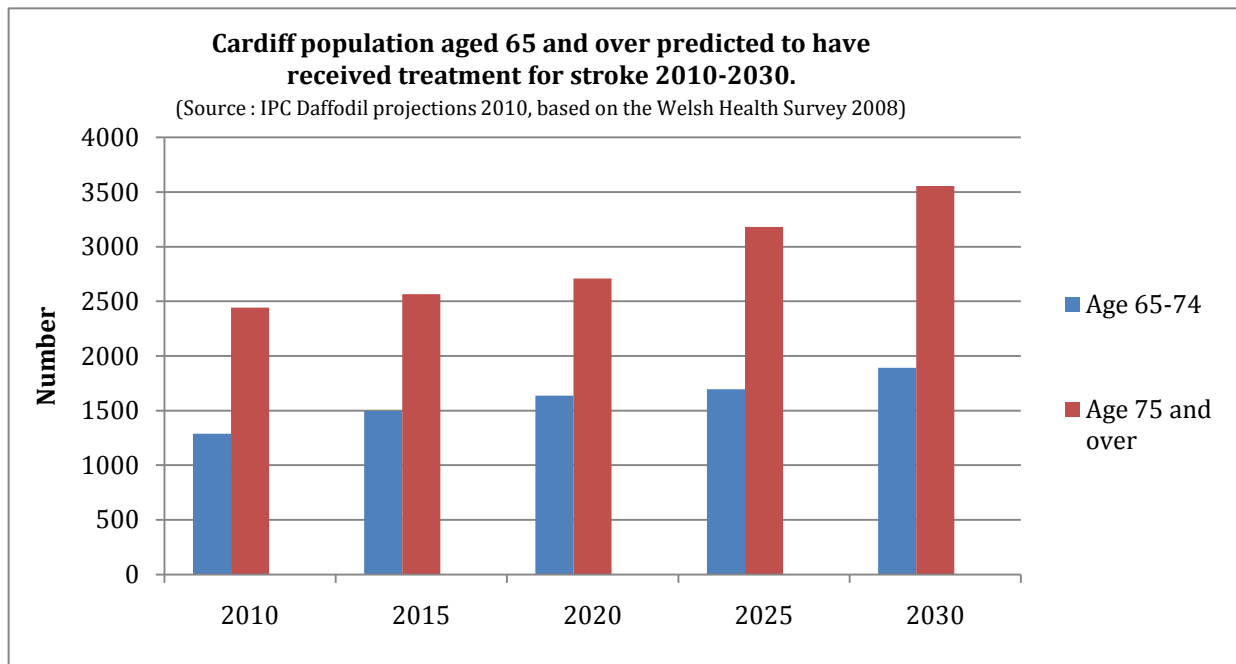
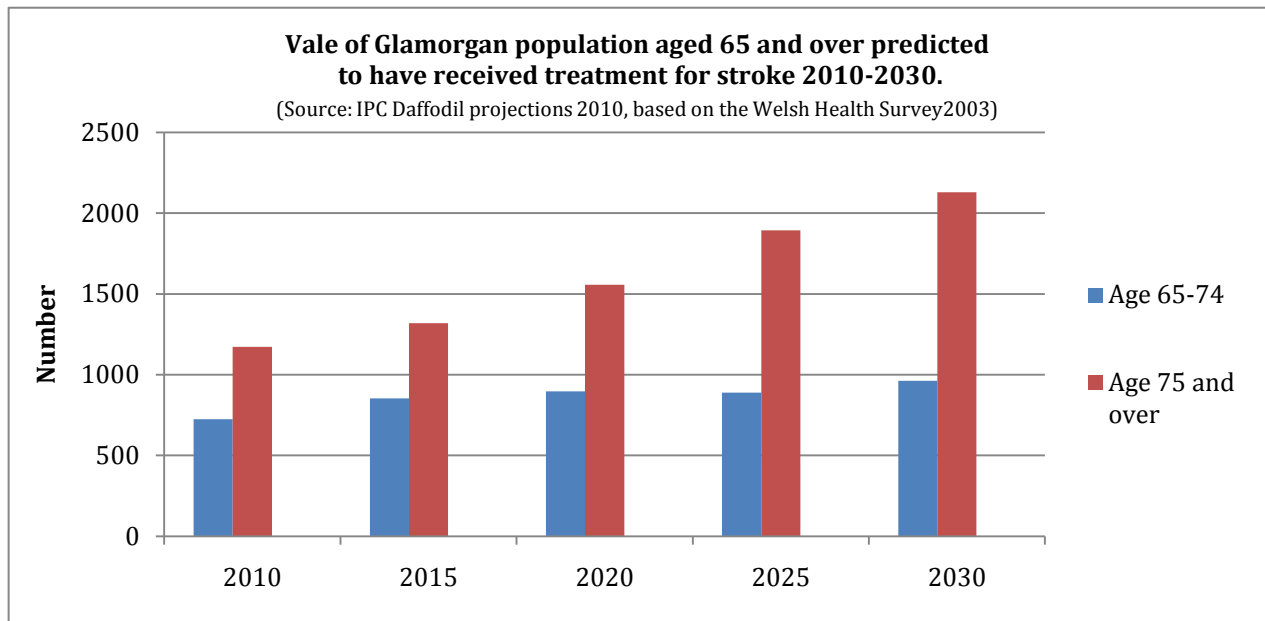


Figure 25: Vale of Glamorgan population aged 65 and over predicted to have received treatment for stroke 2010-2030.



6.4 Mental health problems: depression

Depression in later life is very common but it is not an inevitable part of ageing. The occurrence of depression increases with age from around 1 in 5 among the 65 - 69 age group to 2 in 5 among those aged 85 and above. A quarter of people over the age of 65 (22% of men and 28% of women) have symptoms of depression which are severe enough to warrant intervention. 40% of people in care homes have depression.⁴⁴

A study of attempted suicide among older people identified three broad themes:

- Struggle: experiencing life as a struggle before and after the attempt, and in relation to growing older
- Control: trying to maintain control over life
- Visibility: the experience of becoming less visible to others, often characterized by feelings of isolation, loneliness, a general sense of being distanced from the outside world, a loss of friends and loved ones, a diminishing social circle and detachment from the wider community.⁴⁵

There are no specific data for depression in the Daffodil projections; a broader category of 'mental health problems' is used, which includes those 'currently being treated for depression, anxiety or other mental illness' excluding dementia. Figures 26 and 27 show the predicted rise in those aged 65 and over with mental health problems in Cardiff and the Vale of Glamorgan.

In Cardiff the number of those aged 65-74 with a mental health problem is predicted to rise by nearly one half from 2,120 in 2010 to 3,070 in 2030. In the age group 75 and over numbers are predicted to rise by over one third from 2,640 in 2010 to 3,700 in 2030.

In the Vale of Glamorgan the number of those aged 65-74 with a mental health problem is predicted to rise by nearly a quarter from 1,180 in 2010 to 1,470 in 2020 and by over a third to 1,611 in 2030. The number of those aged 75 and over is predicted to rise by nearly a third from 1,253 in 2010 to 1,628 in 2020 and by three-quarters to 2,220 in 2030.

Figure 26: Cardiff population aged 65 and over predicted to have any mental health problem 2010-2030

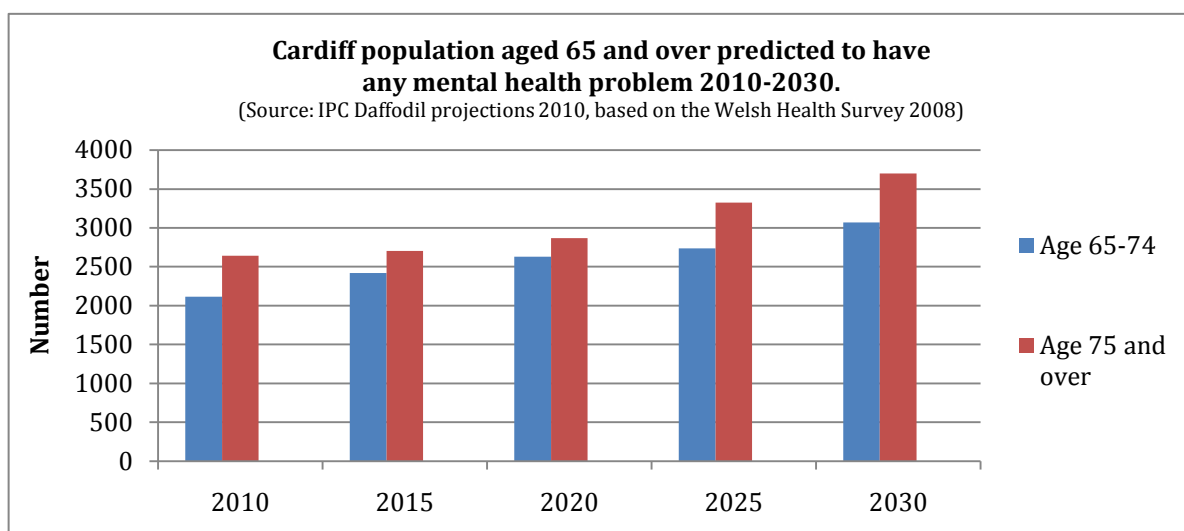
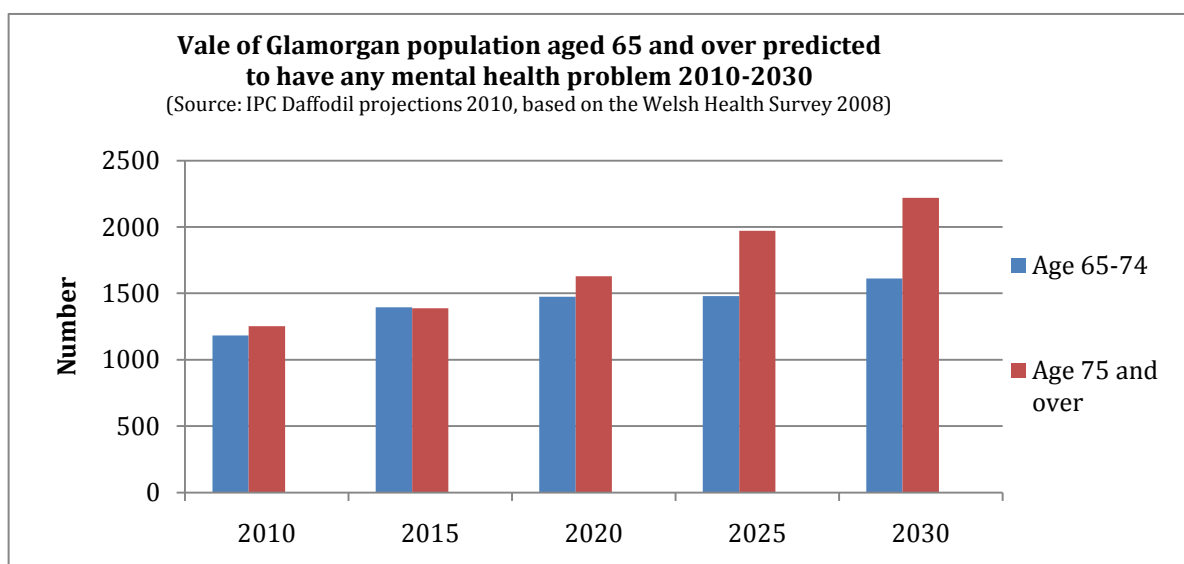


Figure 27: Vale of Glamorgan population aged 65 and over predicted to have any mental health problem 2010-2030.



6.5 Dementia

It is estimated that 64% of people living in care homes have some form of dementia. Dementia can affect people of any age but is most common in older people. Estimates of the prevalence of dementia in the population are⁴⁶:

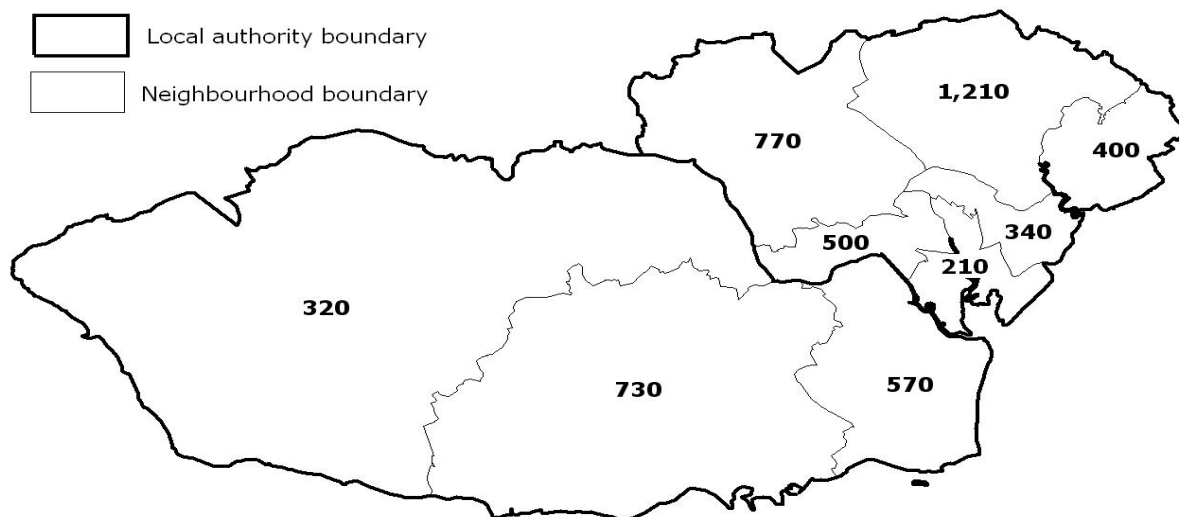
- 40 – 64 years 1 in 1400
- 65 – 69 years 1 in 100
- 70 – 79 years 1 in 25
- 80 - 84 years 1 in 8
- 85 – 89 years 1 in 5
- 90 – 94 years almost 1 in 3

Based on the current demography of Cardiff and the Vale, the map below (figure 28) shows that the highest number of people with dementia live in Cardiff North, followed by Cardiff West, central Vale, Eastern Vale and Cardiff South West respectively.

Figure 28

Estimated number of people with dementia, 2009

Neighbourhood management areas; source: ONS, WAG



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It is clear that the increasing numbers of the population living into their 80s and beyond will bring additional cases of dementia. Currently two-thirds of people with dementia live in the community; the remaining third live in a care home.

Figures 29 and 30 show the predicted rise in people with dementia in Cardiff and the Vale of Glamorgan. Consistent with the prevalence rates outlined above, the greatest rise is in age groups 80-84, and 85 and over.

In Cardiff the number of those aged 80-84 with dementia is predicted to rise by nearly one half from 828 in 2010 to 1,210 in 2030. The number of those aged 85 and over with dementia is predicted to rise from 1,600 in 2010 by over half to 2,450 in 2030.

In the Vale of Glamorgan the number of those aged 80-84 with dementia is predicted to rise by a quarter from 400 in 2010 to 500 in 2020, and by over three-quarters to 720 in 2030. The number of those aged 85 and over with dementia is predicted to rise by nearly a third from 750 in 2010 to 980 in 2020, and to more than double to 1,540 in 2030.

The total number of people with dementia in all age groups from 65 and over in both counties is predicted to increase by nearly half from 4,010 in 2010 to 5,990 in 2020, and to nearly double to 7,930 in 2030 (figure 31).

Figure 29: Cardiff population aged 65 and over predicted to have dementia, 2010-2030

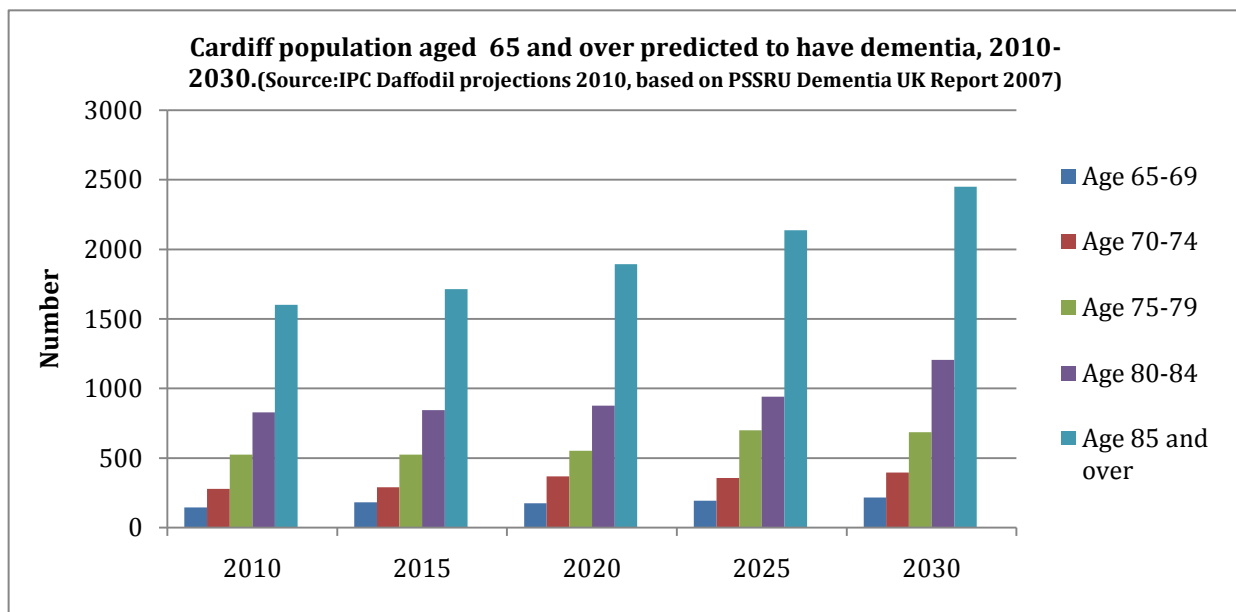
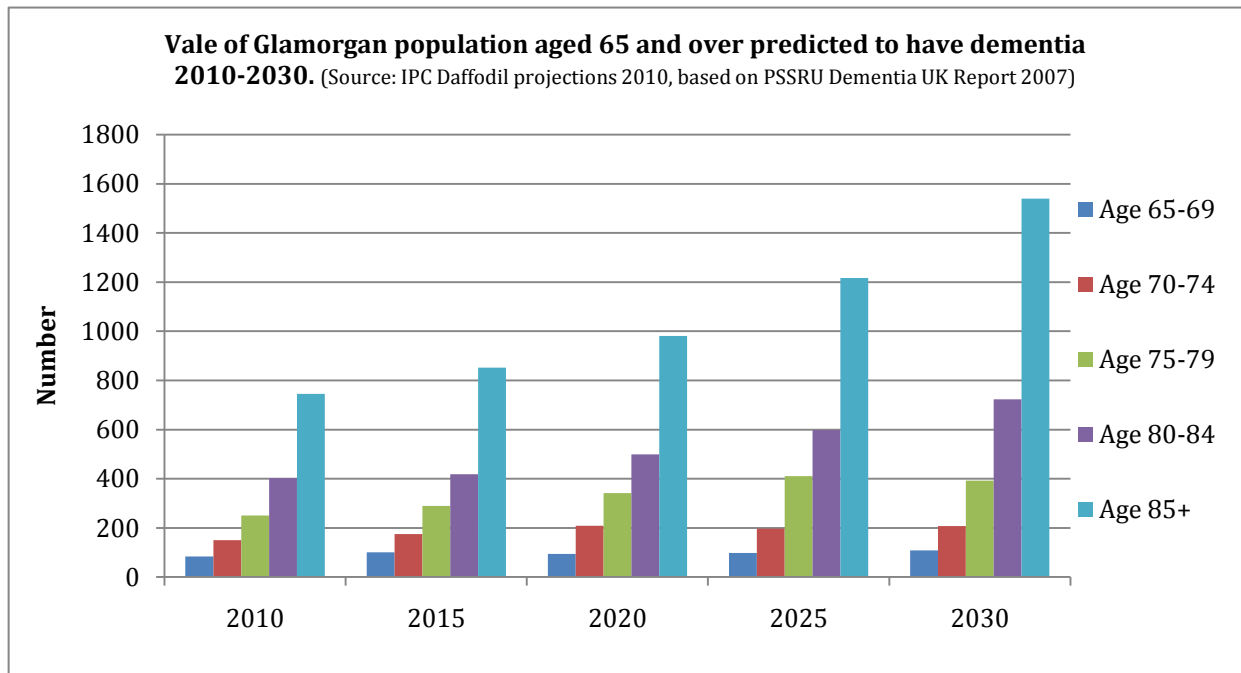
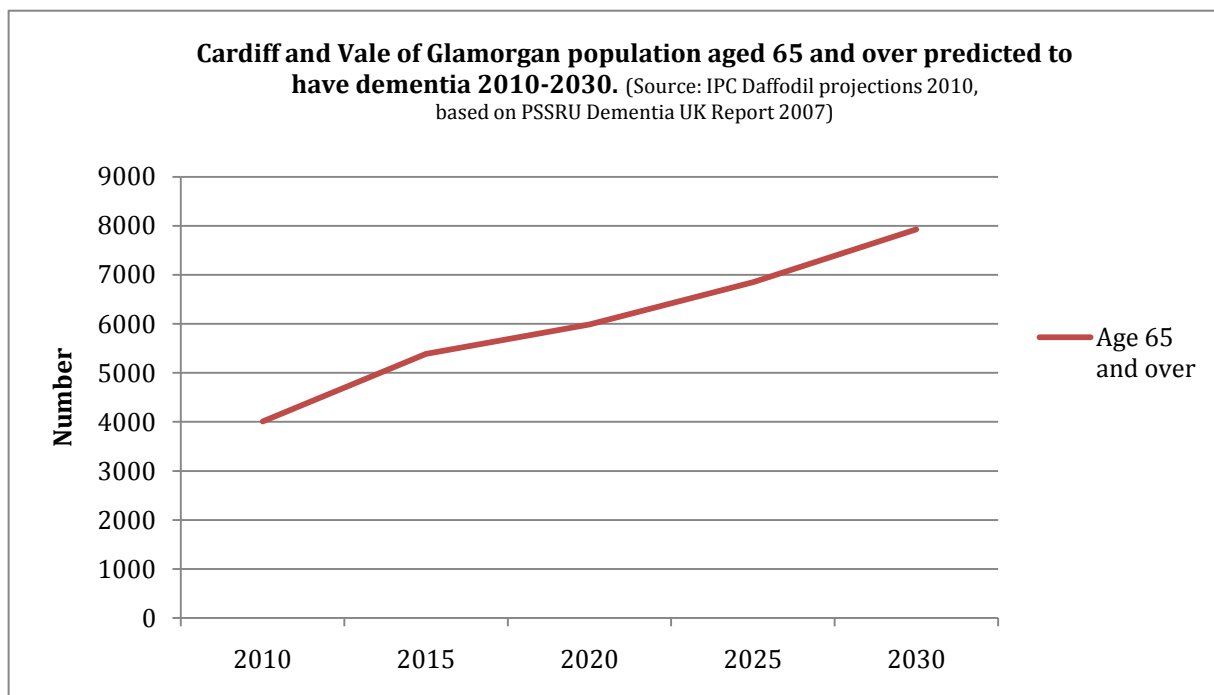


Figure 30: Vale of Glamorgan population aged 65 and over predicted to have dementia, 2010-2030**Figure 31: Cardiff and Vale of Glamorgan population aged 65 and over predicted to have dementia 2010-2030.**

6.6 Down's syndrome and dementia

Although the number of people with Down's syndrome predicted to survive into later life and develop dementia is increasing, the total number of people in Cardiff and the Vale of Glamorgan is predicted to remain less than 20 in 2030.

7 Older people: lifestyle behaviours

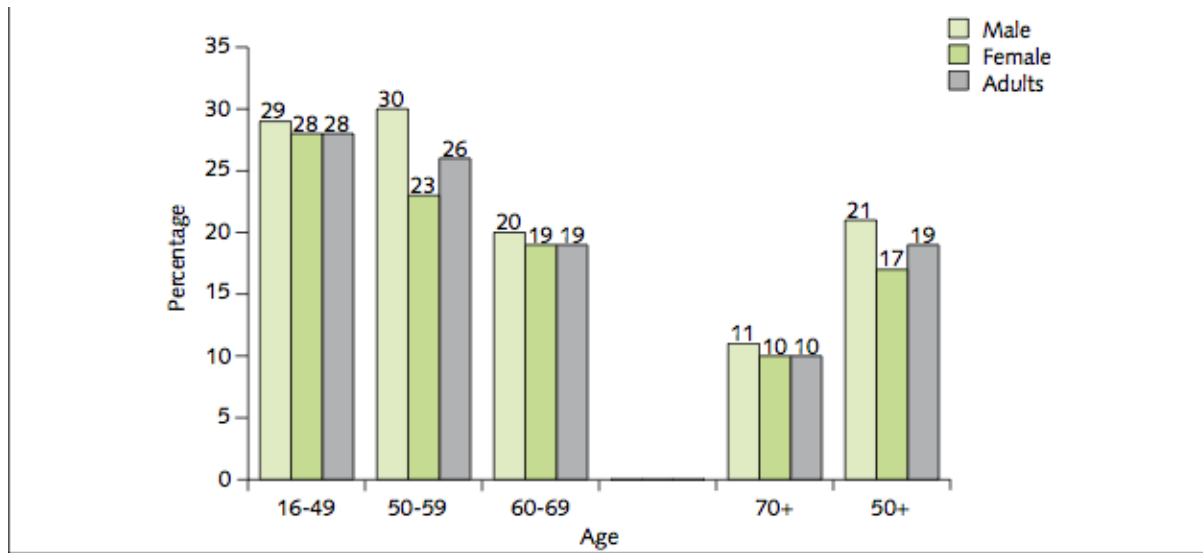
It is well established that an unhealthy lifestyle; smoking, being physically inactive, a poor diet and drinking alcohol over the recommended limits is damaging to health and increases the risks of many diseases and limiting conditions.⁵ Many of these become apparent with age, but it is important to remember that there are still benefits to be gained from improving lifestyle in older age groups.

There are no lifestyle data from the Welsh Health Survey (WHS) broken down by age group at local level, as the sample sizes are too small to be reliable. However, the Older People's Wellbeing Monitor for Wales brings together WHS data from 2007 to give an overview of the lifestyle behaviours of older people across Wales.⁴⁷

7.1 Smoking

The 2007 WHS found that, although smoking prevalence falls with age, 21% of men and 17% of women aged 50 and over, and 11% of men and 10% of women aged 70 and over in Wales still smoke. (figure 32) It should be noted that these figures conceal variation between socio-economic groups, with the highest proportion of smokers overall in disadvantaged groups.⁴⁸

Figure 32: Percentage of population aged 16 and over in Wales who reported being a current smoker, by age and sex. (Source: WAG 2009 Older People's Wellbeing Monitor for Wales, based on Welsh Health Survey 2007)

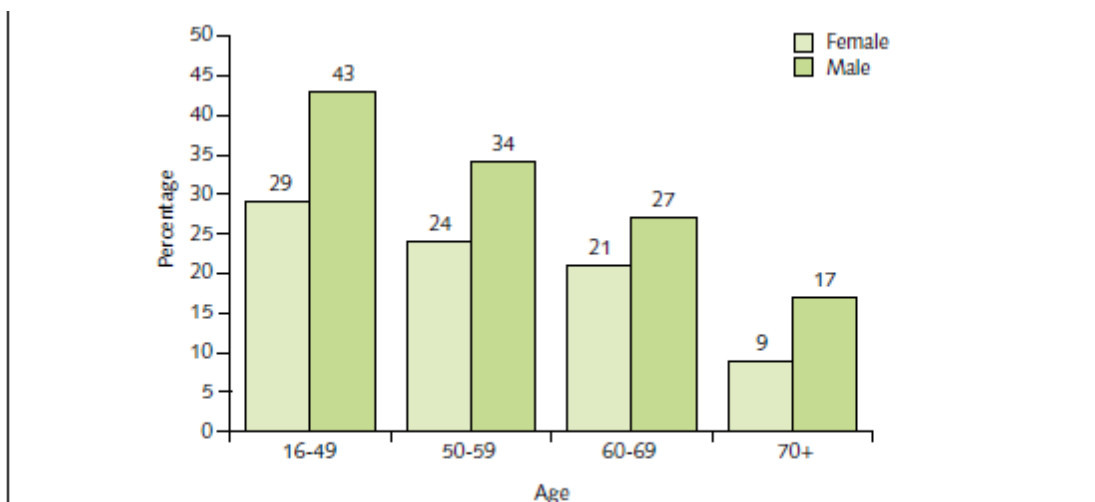


Source: Welsh Health Survey

7.2 Physical activity

Around one fifth of people aged 50 and over take the recommended amount of physical activity. (30 minutes of moderate activity 5 times a week) This ranges from 29% of those aged 50-59, 24% of those aged 60-69, and 13% of those aged 70 and over.⁴⁷ (figure 33)

Figure 33: Percentage of population aged 16 and over in Wales who report having had at least 30 minutes of moderate or vigorous exercise on 5 or more days. (Source: WAG 2009 Older People's Wellbeing Monitor for Wales, based on Welsh Health Survey 2007)



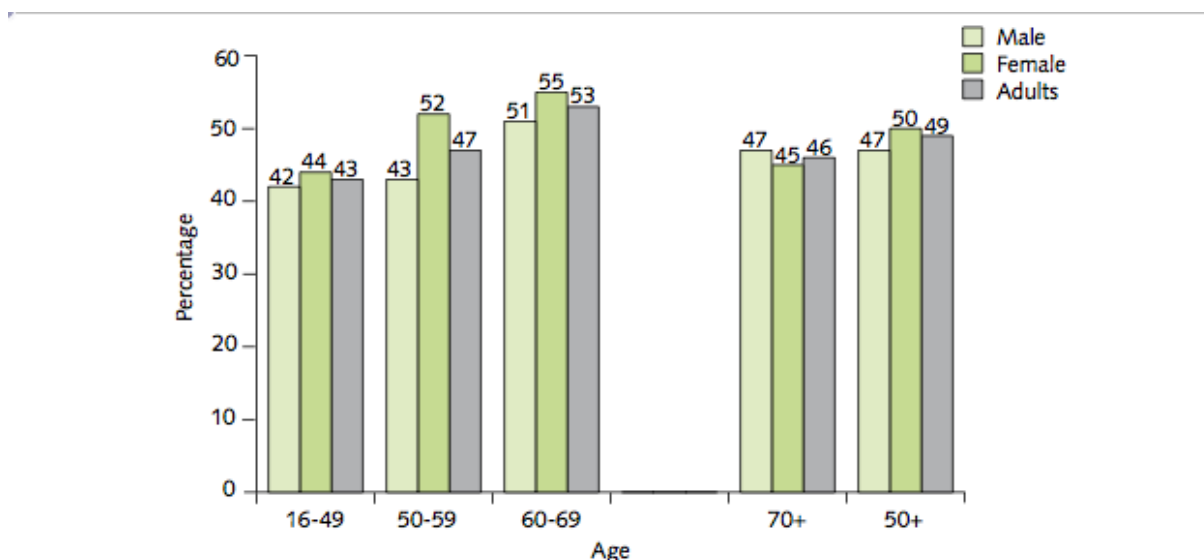
Source: Welsh Health Survey

The highest levels of inactivity among community dwelling older people is found in minority ethnic women, where UK data suggest that 78% of Indian women, 85% of Pakistani women, and 92% of Bangladeshi women over the age of 55 are sedentary.⁴⁹

7.3 Diet

Approximately half of those aged 50 and over living in private households report eating the recommended amount of 5 or more portions of fruit and vegetables a day. The proportions fluctuate with age, but are at their highest levels in those aged 60-69⁴⁷ (figure 34).

Figure 34: Percentage of the population of Wales age 16 and over who reported eating 5 or more portions of fruit and vegetables the previous day, by age and sex. (Source: WAG Older People's Wellbeing Monitor for Wales 2009, based on Welsh Health Survey 2007)

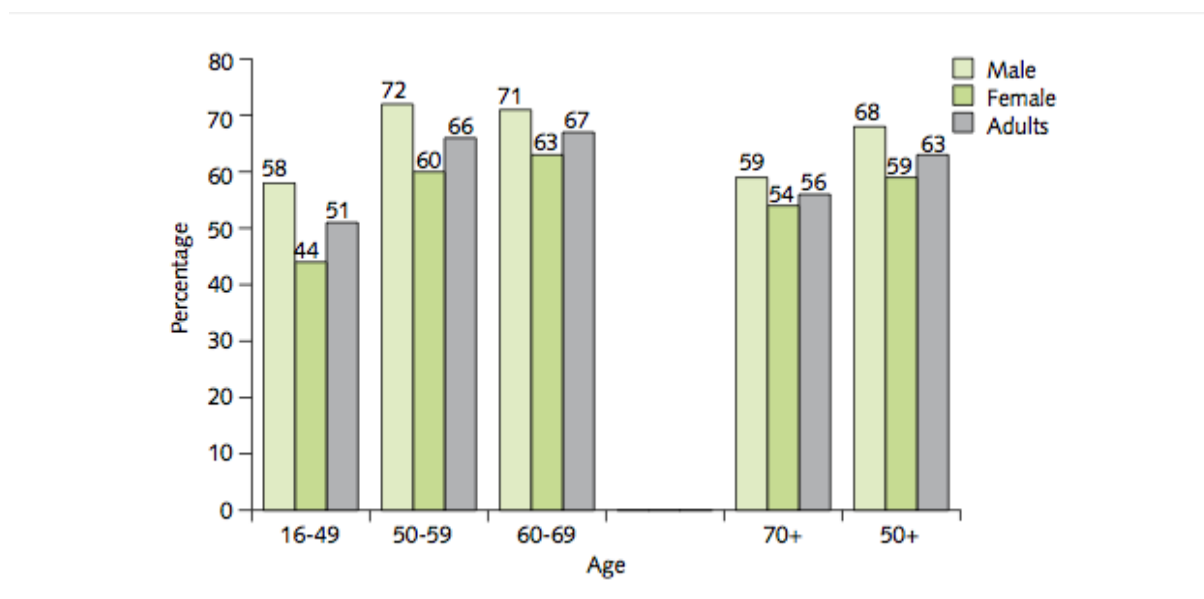


7.4 Overweight/obesity, and malnutrition

In Wales, the proportion of people who report being overweight or obese increases with age, peaking between 50-69, then decreasing for the 70 and over age groups. Around two thirds of people aged 50-69 are overweight or obese (figure 35).

Figure 35: Percentage of the population of Wales aged 16 and over who are overweight or obese*, by age and sex. (Source: WAG Older People's Wellbeing Monitor for Wales 2009, based on Welsh Health Survey 2007)

* Respondents were asked to report their height and weight, from which Body Mass Index (BMI) was calculated.



Whilst obesity remains an issue, in the older age groups it is important to ensure that bodyweight is maintained, as older people can find it difficult to put weight back on once they have lost it. The WHS 2007 found that 1%-2% of people aged 50 and over living in private households were underweight.⁴⁷

Being underweight among the oldest old can be a serious issue. The BAPEN Report of 2006 estimated that over 10% of people over the age of 65 living in community settings were malnourished, and that this could adversely affect physical and psycho-social well being, by predisposing to disease, adversely affecting its outcome, and reducing the likelihood of independence.⁵⁰

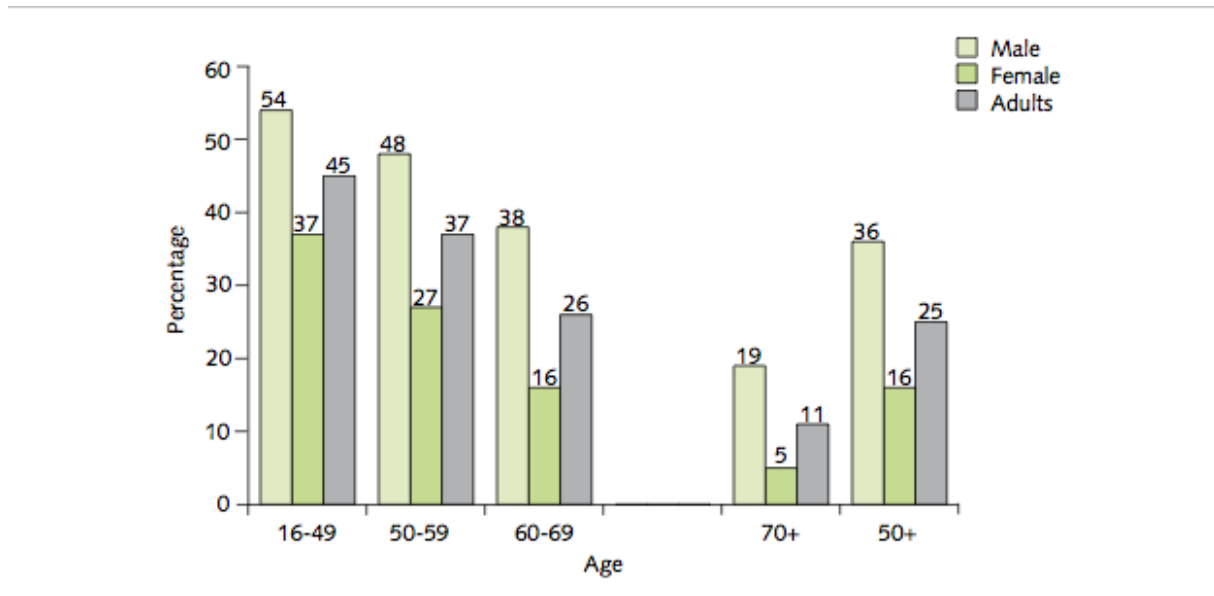
7.5 Alcohol

Whilst research shows that moderate levels of alcohol consumption can be beneficial,^{51,52} prolonged excessive alcohol use can contribute to a number of serious diseases. Between 1991-2009 the highest alcohol related death rate in the UK was in men aged 55-74. Whilst female death rates were lower than male, female death rates over the same period were also highest in those aged 55-74.⁵³

In Wales, while alcohol consumption decreases with age, 36% of men and 16% of women age 50 and over, and 19% of men and 5% of women age 70 and over, report drinking alcohol above the recommended guidelines⁴⁷ (figure 36).

Figure 36: Percentage of the population of Wales aged 16 and over who reported drinking above the guidelines* on at least one day in the past week, by age and sex. (Source: WAG Older People's Wellbeing Monitor for Wales 2009, based on Welsh Health survey 2007)

* The guidelines are no more than 3-4 units of alcohol per day for men, and no more than 2-3 units per day for women.



In 2009/10 there were 14,545 referrals for alcohol misuse in Wales. Of these, 14% were for people aged 50-59, and 7% were for those aged 60 and over.⁵⁴

As people age, they break down alcohol more slowly, which means that older people are likely to become more sensitive to the effects of alcohol, and the guidelines are no longer appropriate.⁵⁵ Other considerations relevant to older people are:

- Existing health problems can make people more susceptible to the effects of alcohol
- Alcohol interacts with certain medications, adding to the effect of some, for e.g. painkillers or sleeping tablets, and reducing the effects of others, such as medication to thin the blood.
- Balance becomes worse with age, so that even a small amount of alcohol may increase the likelihood of a fall.

8 Conclusions and key points

The next 20 years will almost certainly bring a large increase in the proportion of older people in the populations of Cardiff and the Vale of Glamorgan. Current projections suggest that there will be an increase in the numbers in all older age groups from age 70 and over. Whilst increasing longevity is a cause for celebration, it is also a cause for concern in that health surveys show a marked increase in disabilities and limiting long-term illnesses from around age 75. Whilst there is some scope for prevention, the impact of ageing alone will bring increased dependency. Disability and disease combined with increasing frailty as people reach their 80s and beyond, means more older people will need support, either to stay in their own homes, or in a residential setting. Bearing in mind the concomitant increase in the numbers of older people living alone, this has clear implications for health and social care services in the future. Whilst there has been some research suggesting a possible 'compression of morbidity', towards the end of the lifespan, current expert opinion is that the reverse is more likely to be the case, with the additional years more likely to be spent in poor health.

Because of its initial larger population proportion of older people, the increase in proportion of those with various conditions increases more sharply in the Vale of Glamorgan, but Cardiff has larger numbers of older people overall.

Some key points to note from this report are listed below:

Population

- In Cardiff the population of older people aged 80-84 is predicted to increase by 6% from 6,870 in 2010 to 7,310 in 2020, and by nearly one half to 10,150 in 2030. The number of those aged 85 and over is predicted to increase by one fifth from 6,900 in 2010 to 8,260 in 2020, and by over half to 10,780 in 2030.
- In the Vale of Glamorgan the population of older people aged 80-84 is predicted to increase by a quarter from 3,340 in 2010 to 4,190 in 2020, and by 82% to 6,080 by 2030. The number of those aged 85 and over is predicted to increase by one third from 3,220 in 2010 to 4,300 in 2020 and by 111% to 6,800 in 2030.
- The total number of older people in Cardiff and the Vale of Glamorgan aged 80 and over is predicted to increase from around 20,330 in 2010 to 24,060 in 2020 and 33,810 in 2030.

Living alone

- In Cardiff the population of older people aged 65 and over living alone is predicted to increase from 20,400 in 2010 by one fifth to 23,750 in 2020 and by nearly one half to 29,150 in 2030.
- In the Vale of Glamorgan the population of older people aged 65 and over living alone is predicted to increase by a quarter from 10,520 in 2010 to 13,390 in 2020, and by over half to 16,400 in 2030.

Disability

- The number of people with **limiting long-term illnesses** increases in the mid 70s age group. In Cardiff the number of those aged 75 and over with limiting long-term illness is predicted to rise by around one tenth from 14,520 in 2010 to 15,940 in 2020 and by nearly one half to 20,750 in 2030.
- In the Vale the number of people aged 75 and over with limiting long-term illness is predicted to rise by one third from 6,930 in 2010 to 9,110 in 2020, and by over three quarters to 12,440 in 2030.
- Problems with **mobility** and the ability to self-care increase markedly in the age group 85 and over. In Cardiff the number of people with mobility problems in this group is predicted to increase by nearly one fifth from 3,110 in 2010 to 3,660 in 2020, and by over half to 4,726 in 2030. In the Vale of Glamorgan the number is predicted to rise by nearly one third from 1,440 in 2010 to 1,890 in 2020, and to more than double to 2,960 in 2030.

The number of people aged 85 and over unable to manage at least one **self-care** activity shows a similar picture. In Cardiff the number is predicted to increase by around one fifth from 4,590 in 2010 to 5,400 in 2020, and by just over a half to 6,960 in 2030. In the Vale the number is predicted to increase by nearly one third from 2,130 in 2010 to 2,790 in 2020, and to more than double to 4,360 in 2030.

- The number of older people with **visual impairment** also increases sharply from around 75, predicted to increase in Cardiff by around one tenth from 2,830 in 2010 to 3,120 in 2020, and by just under one half to 4,082 in 2030. In the Vale the number is predicted to rise by nearly one third from 1,350 in 2010 to 1,790 in 2020, and by over three quarters to 2,470 in 2030.
- The above conditions are all factors contributing to increased risk of **falls**. In Cardiff and the Vale of Glamorgan the number of older people aged 65 and over admitted to hospital because of a fall is predicted to

rise by around one fifth from 1,460 in 2010 to 1,780 in 2020, and by over half to 2,345 in 2030. However the data underpinning this prediction is unreliable, and an alternative estimate suggests the numbers could be much higher.

Health conditions

- **Urinary incontinence** appears to be a major factor in admission to a care home. The steepest rise in those predicted to have a bladder problem at least once a week is in those aged 75 and over. In Cardiff the number in this group is predicted to rise by around one tenth from 4,550 in 2010 to 5,000 in 2020, and by around half to 6,580 in 2030. In the Vale of Glamorgan the number is predicted to rise by around one quarter from 2,170 in 2010 to 2750 in 2020, and by over three quarters to 3,950 in 2030.
- The number of those aged 75 and over with **diabetes** is predicted to rise by around one half in Cardiff from 3,890 in 2010 to 5,660 in 2030. In the Vale the number is predicted to increase by over three-quarters from 1,870 in 2010 to 3,390 in 2030.
- The number of those predicted to have received treatment for **stroke** rises most sharply in those aged 75 and over. In Cardiff the number is predicted to rise by just under a half from 2,440 in 2010 to 3,560 in 2030. In the Vale the number is predicted to rise by nearly one third from 1,170 in 2010 to 1,560 in 2020, and by over three-quarters to 2,130 in 2030.
- The number of those with **mental health problems** in later life is predicted to rise in both the 65-74, and 75 and over age groups. Those aged 75 and over with a mental health problem are predicted to increase by over one third in Cardiff, from 2,640 in 2010 to 3,700 in 2030; and by three quarters in the Vale of Glamorgan from 1,253 in 2010 to 2,220 in 2030.
- The sharpest increase in numbers of people with **dementia** is in those aged 80 and over, where prevalence rates are estimated to be 1 in 6. The total number of people aged 65 and over with dementia in Cardiff and the Vale of Glamorgan is predicted to rise by nearly one half from 4,010 in 2010 to 5,990 in 2020, and to nearly double to 7,930 in 2030.

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⁵⁵ The Royal College of Psychiatrists. *Factsheet on alcohol and older people*. 2008. See: <http://www.rcpsych.ac.uk/mentalhealthinfoforall/problems/alcoholanddrugs/alcoholandolderpeople.aspx> accessed 13th March 2011.

