



DEPARTMENT OF HEALTH AND SOCIAL SECURITY

*Rheynn Slaynt as Shickyrys Y Theay*

# Isle of Man Health and Lifestyle Survey, 2009

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## 1. Introduction

The Isle of Man Health and Lifestyle Survey 2009 was commissioned by the Public Health Directorate in the Department of Health and Social Security (DHSS). It is one of the Directorate's ongoing programme of population health surveys. These surveys provide valuable sources of intelligence for planning measures to improve population health, for assessing the impact of health interventions already in place and as a baseline measure of prevalence against which the effectiveness of initiatives implemented over the coming years can be monitored.

This survey provides health professionals with detailed intelligence to help support the improvement of the health of the Isle of Man population. Results of this survey can therefore be used as a tool to help with the effective targeting of resources, priority setting and the development and implementation of strategies and policies on the Island.

### 1.1 Isle of Man Strategy

The Isle of Man Strategy for Health<sup>1</sup> sets out six strategic objectives for improving health on the Island:

1. To achieve a reduction in premature mortality.
2. To provide the best possible life chances for the children and young people of the Island.
3. To promote independence and increase disability-free years for adults.
4. To ensure that access to services is based on need and equity.
5. To improve the mental health of the population of the Island.
6. To protect the health of the population and minimise the impact of adverse factors on health.

Improving lifestyle factors are a key element of each of these objectives. For example, in Strategic Objective One to: "*achieve a reduction in premature mortality*"<sup>(p.19)</sup> there is direct reference to a number of lifestyle factors that could be addressed to reduce death and disability from coronary heart disease and stroke:

- reducing smoking levels by implementation of the Chief Minister's Tobacco Strategy;
- encouraging and enabling uptake of exercise in all age groups;
- improving nutrition in all age groups;
- tackling obesity in the population;
- reducing heavy alcohol consumption.

This survey meets part of Strategic Objective Six to: "*protect the health of the population and minimise the impact of adverse factors on health: 1.1 assess and monitor the population's health and well-being*"<sup>(p.29)</sup>

The results of this survey will help inform health professionals about health and lifestyles of the Isle of Man population. Such information will assist them in the identification of groups who would benefit from support to make healthier lifestyle choices.

Further reference to these strategic objectives can be found in the relevant 'Background' sections of this report.

### 1.2 Lifestyle

The term 'lifestyle' was originally used as a specific term by Alfred Adler in the 1930s to denote a person's basic character as established in early childhood, which governs his

reactions and behaviour.<sup>i</sup> From the early 1960s, this became a broader term, which encompassed the way in which individuals actively adapt to their social environment – including aspects such as diet, exercise and substance use, for example.<sup>ii</sup>

The lifestyle that a person or group of people adopt reflects or is dependent upon their experiences; personality, which incorporates their attitudes (to health and wellbeing); values and beliefs (desire to change behaviours, motivations for change); as well as factors such as age (including life stage), gender, ethnicity, deprivation and social exclusion.

Lifestyle is one of the wider determinants of individual health that can affect the likelihood of a person developing a disease or dying prematurely. The World Health Organization (WHO) has also cited lifestyle as one of the biggest burdens upon health worldwide.<sup>2</sup>

### 1.3 Lifestyle surveys

Lifestyle surveys are a popular, appropriate and cost-effective way of measuring behaviours at a local level and addressing risk factors associated with lifestyle that may link to health. On the whole, they provide high quality intelligence on population behaviour to support decision-making within public health and other areas of local and regional government and are an effective way of targeting service provision or intervention. When lifestyle information is aggregated to provide detailed sub-analyses and time series trends it becomes an even more powerful tool to help with prioritisation of key topics and localised targeting.

Until 2005 the Isle of Man survey programme had focussed mainly on children and young people, via for example, the schools Health and Lifestyle Study in Children (HLSC), the Secondary School Survey and the European School Survey Project for Alcohol and other Drugs (ESPAD). The first adult Health and Lifestyle Survey was conducted in 2005<sup>3</sup> and revealed that the health and lifestyles of respondents (aged 18 years and over) were generally poor. There was evidence of:

- high levels of smoking among young people;
- heavy drinking;
- three-quarters of adults were overweight or obese;
- low levels of physical activity; and
- few consuming the recommended five portions of fruit and vegetables per day.

It should be noted, however, that the survey response rate was poor and therefore the results lacked robustness. In addition, the results are not directly comparable with the Isle of Man Health and Lifestyle Survey 2009 due to differing questions used. The results do, however, provide some insight into the health and lifestyle of the Isle of Man population and are discussed within the 'Existing Information' sections where appropriate.

Results from the Isle of Man Health and Lifestyle Survey 2009 are based on a much larger sample weighted by gender and age and are therefore deemed a more reliable reflection of the health of the Islands population. Results are directly comparable with those from the 2009 Health and Lifestyles in the North West report,<sup>4</sup> which used the same survey questionnaire<sup>iii</sup>. This allows us to examine whether the Isle of Man has similar patterns of health and lifestyle behaviours to the population in the North West of England. Relevant comparative data for England is also included within the 'Background' sections.

<sup>i</sup> [http://dictionary.oed.com/cgi/entry/50133001?single=1&query\\_type=word&queryword=lifestyle&first=1&max\\_to\\_show=10](http://dictionary.oed.com/cgi/entry/50133001?single=1&query_type=word&queryword=lifestyle&first=1&max_to_show=10)

<sup>ii</sup> [www.etymonline.com/index.php?search=lifestyle](http://www.etymonline.com/index.php?search=lifestyle)

<sup>iii</sup> The Health and Lifestyles in the North West report is based on a survey of the North West population conducted in 2007.

## 1.4 The Survey

The North West Public Health Observatory (NWPHO) led the Isle of Man Health and Lifestyle survey in 2009, collecting essential information on health, wellbeing and lifestyles using a set of core recommended questions.<sup>5</sup>

This was the largest survey of its kind to take place on the Isle of Man, designed to collect information on the lifestyles of a representative sample of the Isle of Man population. Surveys were conducted during July and August 2009, with a total of 2,073 people completing the questionnaire. Respondents were asked about their general health; height and weight; smoking and drinking habits; what they eat; the physical activity they do; and about their caring responsibilities. The survey results highlight how people on the Isle of Man rate their own general health and wellbeing and describe aspects of their lifestyles that affect health. It provides an indication of the scale of lifestyle changes that are needed to address health inequalities – by gender and age group, thus pinpointing particular groups that may be in need of greater support to address lifestyle-related ill health.

The survey was conducted over the telephone by specialist social research consultants<sup>iv</sup> to a specified sample framework that was representative of the Isle of Man. The results are aimed at health professionals and policy makers on the Island.

Each section in the main report details the policy and background to the topic area, existing available comparators at Isle of Man, North West and England levels, and the findings of the survey broken down by gender and age group.

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<sup>iv</sup> Vision Twentyone: [www.visiontwentyone.co.uk](http://www.visiontwentyone.co.uk)

## 2. Methodology

### 2.1 Survey and data collection

The survey was administered and managed by NWPHO on behalf of the Public Health Directorate at the Department of Health and Social Services. Responses were collected through a telephone questionnaire delivered by an independent market research company.<sup>v</sup> Each survey lasted approximately fifteen minutes.

The survey questions were mainly based upon existing, standard and well tested measures used in other health and lifestyle surveys nationally and internationally. For example, a number of questions were taken from the Health Survey for England (HSE).

The North West Public Health Observatory produced the publication *Lifestyle Surveys Core Questions and Methods*,<sup>5</sup> which contained a common set of questions and methods that could be used as the starting point for lifestyle surveys being conducted in the North West. This built on the recommendations of the *Lifestyle Surveys*<sup>6</sup> synthesis report and addressed the need for consistency and comparability within lifestyle data. Topics were derived from *Choosing Health*,<sup>7</sup> as well as from the Director of Public Health annual reports and local area agreements (LAAs) from the North West region.

The questions centred around seven key themes: general health, obesity, diet and nutrition, physical activity, alcohol, smoking and caring responsibilities. Such issues are strongly linked to the current Isle of Man government health strategy.

Survey questions and details of analysis for each theme are covered within each section of the main report.

### 2.2 Analysis process

Responses were entered into SPSS by the survey company and anonymised data were returned to NWPHO for analysis.

A number of different calculations and transformations were then performed on the data. For example, all height and weight measurements given were converted into metric measures which are required to calculate body mass index (BMI). BMI was subsequently grouped into categories to identify overweight and obese. Responses to questions relating to alcohol consumption went through a more complex process to derive measures for hazardous, harmful and binge drinking, details of which can be found in Section 7.

### 2.3 Sample size and weighting

The initial survey sample was assessed to see if it was representative of the Isle of Man population following which appropriate adjustments were made through 'weighting' the data. Although the sampling frame had been specified and agreed by NWPHO and the social research consultants, for various reasons certain subgroups of the population were more difficult to survey than others. Therefore, a two dimensional (gender and age group) cross-tabulation of the survey sample was compared with 2006 Census Population Estimates<sup>8</sup> of the whole population aged 16 years and over. Where a subset (e.g. females, aged 16-24 years) of the population was under-represented in the survey compared with the actual proportion of this subset in the total adult population, the particular cohort in question was given a weighting variable of over 1 (how far above the value of 1 was dependent on the degree of under-representation). Conversely, if a subset (e.g. males, aged 65-74 years) was

<sup>v</sup> Ethical approval was gained for the North West Regional Lifestyle Survey in 2007. In April 2009 an amendment to this was submitted and approved allowing the survey to take place on the Isle of Man.

over-represented in the survey compared with the actual proportion of the subset in the adult population, they were given a weighting variable of below 1.

The weighting was then applied to the dataset as analysis was undertaken. Put simply, this means that responses from groups that are under-represented count more than groups that are over-represented, thus ensuring that the overall response represents the Isle of Man population. In order to weight the survey in this way, both variables (gender and age group) must be present in the dataset. Due to missing variables, 11 survey responses (0.5%) had to be excluded from the dataset. The final dataset contained 2,062 respondents.

After results were produced from the dataset, 95% confidence intervals were applied to the data. In this case, the confidence intervals indicate the reliability of the survey results. Sample surveys are always subject to some error, but it is possible to be 95% confident that the true result for the particular population segment in question is within the confidence limits calculated. Confidence intervals also allow comparison to be made within a measure, such as by gender and age group. In other words, where one measure is 'significantly' better or worse than another, we are 95% confident that this is not due to random error or chance.

Some confidence intervals presented within this report are wide due to the small numbers of respondents in particular categories. In these instances data should be interpreted with caution as our ability to reliably apply the survey results to the total population is significantly reduced.

## 2.4 Presentation of results

Each of the seven chapters within the report includes background information and policy about the core themes in the survey to explain their relevance and importance. Existing information from sources such as the HSE and the General Household Survey (GHS) is also referred to for context. The content of the survey questions is then explained.

The analyses focus upon those responses or behaviours that most closely reflect recommendations, guidance or policies for change on both the Isle of Man and in England. For example, in terms of fruit and vegetables, the report explores the proportion of adults who say that they consume the recommended five or more portions a day or consume no portions.

A series of bar charts are then included for each indicator across the themes, with a descriptive analysis of the results. All themes include charts by gender and age group. Survey results are compared with those from the North West Regional Lifestyle Survey as presented in the *Health and Lifestyles in the North West report*.<sup>4</sup>

Table 1 provides an overview of the results from the Isle of Man 2009 Lifestyle Survey, and compares these results with findings from the North West 2007 Lifestyle Survey.<sup>vi</sup> Due to differing methodologies and survey contents, it is not possible at this time to directly compare the results from the Isle of Man survey to England averages. The North West of England has poorer health outcomes than England for a range of measures, and therefore it is important to take this into account when comparing the Isle of Man with the North West (i.e. even if Isle of Man results are significantly better than the North West, they may still be similar to, or even worse than, the England averages). For example, evidence from other sources shows that:

<sup>vi</sup> It is possible to directly compare the two sources as the same research methodology was used in both surveys.

- The North West has a higher proportion of people on GP practice lists with a diagnosis of depression than the England average (North West: 9.2%; England: 8.1%<sup>vii</sup>).
- The prevalence of diabetes in the North West is significantly higher than across England (North West: 4.3%; England: 4.1%<sup>viii</sup>).
- Adults in the North West are significantly less likely to eat healthily compared with adults in England (North West: 23.6%; England: 26.3%<sup>ix</sup>).
- The proportion of adults who drink at harmful levels is significantly higher in the North West than England (NW: 6.3%; England: 5.0%<sup>x</sup>).
- The proportion of adults who binge drink is significantly higher in the North West than across England (North West: 23.0%; England: 18.0%<sup>xi</sup>).
- The percentage of adults in the North West who smoke is slightly higher than the England average (North West: 26.0%; England: 24.1%<sup>xii</sup>).

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<sup>vii</sup> Numbers on depression registers (who are aged 18 and over) as a percentage of the total practice lists. Source: National Quality Outcomes Framework 2008/09 ([www.ic.nhs.uk/statistics-and-data-collections/audits-and-performance/the-quality-and-outcomes-framework](http://www.ic.nhs.uk/statistics-and-data-collections/audits-and-performance/the-quality-and-outcomes-framework))

<sup>viii</sup> Recorded cases of diabetes in adults aged 17+ registered with GP practices 2007/08. Source: APHO and the Department of Health ([www.healthprofiles.info](http://www.healthprofiles.info))

<sup>ix</sup> Percentage of adults who consume five or more portions of fruit and vegetables a day. Direct estimate from Health Survey for England 2003–2005. Source: APHO and the Department of Health ([www.healthprofiles.info](http://www.healthprofiles.info))

<sup>x</sup> Mid-2005 synthetic estimate. Source: Local Alcohol Profiles for England, North West Public Health Observatory ([www.nwph.net/alcohol/lape](http://www.nwph.net/alcohol/lape))

<sup>xi</sup> 2003–2005 synthetic estimate. Source: Local Alcohol Profiles for England, North West Public Health Observatory ([www.nwph.net/alcohol/lape](http://www.nwph.net/alcohol/lape))

<sup>xii</sup> Direct estimate from Health Survey for England 2003–2005. Source: APHO and the Department of Health ([www.healthprofiles.info](http://www.healthprofiles.info))



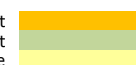
**Table 1: Overview of results from the Isle of Man Health and Lifestyle 2009 survey and North West 2007 survey.**

Domain	Group	Measure	Isle of Man value	North West value
General Health	Self-assessed 'not good' health	Adults with self-assessed 'not good' health	5.1%	8.2%
	Heart attack and stroke	Adults who had been told by a health professional that they had suffered a heart attack	3.8%	3.7%
		Adults who had been told by a health professional that they had suffered a stroke	2.5%	2.7%
	Chronic conditions	Adults who had suffered from at least one chronic condition in the last 12 months	43.9%	48.7%
		Adults who had suffered from asthma in the last 12 months	8.5%	9.1%
		Adults who had suffered from angina in the last 12 months	2.5%	3.5%
		Adults who had suffered from arthritis in the last 12 months	12.5%	17.8%
		Adults who had suffered from back problems in the last 12 months	15.3%	16.7%
		Adults who had suffered from depression in the last 12 months	5.4%	9.8%
Adults who had suffered from diabetes in the last 12 months		4.2%	5.0%	
Obesity	Obese and overweight	Adults who are obese	15.9%	15.0%
		Adults who are obese or overweight	50.4%	49.1%
Diet and Nutrition	Bread consumption	Adults who eat white bread	35.3%	35.7%
		Adults who eat brown bread	20.7%	21.1%
		Adults who eat wholemeal bread	32.9%	28.0%
	Use of milk for drinks in tea or coffee or on cereals	Adults who use whole milk	16.1%	14.9%
		Adults who use semi-skimmed milk	61.7%	65.7%
		Adults who use skimmed milk	19.8%	17.3%
	Type of oil or fat usually used for cooking or frying food	Adults who have no usual type	2.4%	2.2%
		Adults who use butter, ghee, lard, suet, solid cooking fat, coconut oil or palm oil	2.4%	4.0%
		Adults who use hard or soft margarine, half fat butter or ghee	0.5%	0.8%
	Type of butter, margarine or spread usually used	Adults who use vegetable oil	97.0%	95.2%
		Adults who use butter, full fat ghee or hard margarine	65.9%	57.6%
		Adults who use low fat spread or half fat ghee	22.4%	31.0%
	Salt consumption	Adults who use cholesterol lowering spread	7.8%	7.7%
		Adults who use another spread	4.0%	3.7%
	Fruit and vegetable consumption	Adults that generally DO NOT have salt added to food during cooking	51.8%	51.5%
Adults that rarely or never add salt at the table		62.8%	59.8%	
Adults who eat five portions of fruit and vegetables a day		48.2%	41.9%	
Physical Activity	Level of physical activity	Adults who eat no portions of fruit and vegetables a day	3.9%	4.8%
		Adults undertaking high levels of physical activity	38.8%	39.0%
		Adults undertaking moderate levels of physical activity	28.8%	26.3%
	Sedentary behaviour	Adults undertaking low levels of physical activity	32.4%	34.8%
		Adults who are sedentary for 8 hours or more a day	17.1%	11.7%
		Adults who are sedentary for >4 hours ≤ 8 hours a day	35.7%	31.6%
Alcohol	Levels of alcohol consumption	Adults who are sedentary for >2 hours ≤ 4 hours a day	29.8%	34.7%
		Adults who are sedentary for less than 2 hours a day	17.3%	22.0%
		Adults who consume hazardous levels of alcohol	10.6%	13.0%
Smoking	Smoking behaviour	Adults who consume harmful levels of alcohol	3.4%	3.4%
		Adults who binge drink	15.3%	18.3%
Caring	Carers	Adults who currently smoke	19.1%	22.5%
	Hours spent caring for someone with long-term ill health or problems related to old age	Adults caring for someone with long-term ill health or problems related to old age	8.0%	9.6%
		Adults who care for someone 1-19 hours per week	56.4%	52.7%
		Adults who care for someone 20-49 hours per week	18.2%	15.1%
		Adults who care for someone 50+ hours per week	25.5%	32.2%

Significantly higher than the North West

Significantly lower than the North West

No significant difference





### 3. General Health

#### 3.1 Self-assessed 'not good' health

##### 3.1.1 Background

General health measures are used within health surveys for a number of reasons, such as to measure the impact of disease and the outcomes of intervention and to evaluate health care policy. Importantly, at a population level, they provide a method by which an indicator of population general health can be measured and need for health care and services assessed.<sup>9</sup> The use of a single question to assess an individual's general health can be a simple and cost-effective way to estimate the burden of ill health<sup>10</sup> and compare different social and health status groups, while covering several dimensions of health. For example, self-assessed health questions are considered to be a good predictor of mortality in adults as well as health care utilisation: a pattern that can be observed across all socio-economic groups.<sup>11</sup>

As with any measure of health and wellbeing, there are acknowledged issues with the use of self-assessed general health questions. The measure is subjective and so the way in which an individual responds may be influenced by cultural and historical contexts. For example, older people may have lower expectations of personal health as they associate poor health with ageing and therefore are more likely to make a positive assessment of their health than someone of a younger age with similar illness(es) and/or symptoms. This may also be true of someone with a disability.

At this time, however, self-assessed health is the best available measure to assess the general health of the population and it is the only harmonised survey question relating to health across the European Union.<sup>xiii</sup>

##### 3.1.2 Existing information

The Health Survey for England 2007<sup>12</sup> asked respondents how their health was in general, with a five point response scale (very good, good, fair, bad, very bad). Nationally, 6.6% of adults aged 16+ said they were in very bad or bad health. There was a trend for a slight increase, from 6.3% in 2003 (from 6.5% to 6.6% for men and 6.1% to 6.5% for women).

The General Household Survey 2007<sup>xiv</sup> asked respondents how their health had, on the whole, been over the last 12 months (good, fairly good, or not good). Across Great Britain, 12% of adults aged 16+ stated that their health had been 'not good'. This was a decrease from 14% in 1998.

The 2001 Census of England and Wales<sup>xv</sup> also included a single question on general health over the previous 12 months, identical to that used in the General Household Survey. Results showed that 8.0% of adults aged 16+ living in England said their health was 'not good'. Responses differed depending upon a number of factors including age (the proportion of respondents stating that they were in good health decreased with age), and occupation (rates of 'not good' health were higher for those in routine occupations than those in higher managerial and professional occupations and higher still in those who had never worked or were long-term unemployed).

The 2006 report *Where Wealth Means Health*<sup>13</sup> examined the geographical differences in 'not good' health (based on standardised data from the 2001 Census) across the North West and found higher levels in urban conurbations, while lower levels were seen in some rural and

<sup>xiii</sup> [www.statistics.gov.uk/about/data/harmonisation/downloads/S8.pdf](http://www.statistics.gov.uk/about/data/harmonisation/downloads/S8.pdf)

<sup>xiv</sup> [www.statistics.gov.uk/downloads/theme\\_compedia/GHS07/GeneralHouseholdSurvey2007.pdf](http://www.statistics.gov.uk/downloads/theme_compedia/GHS07/GeneralHouseholdSurvey2007.pdf)

<sup>xv</sup> [www.statistics.gov.uk/census2001/topics.asp](http://www.statistics.gov.uk/census2001/topics.asp)

rural fringe localities. The report also identified higher levels of 'not good' health in the most deprived areas.

### 3.1.3 Survey and analysis methodology

Survey participants were asked a single self-assessed health question:

How is your health in general? Would you say it was:

1. very good
2. good
3. fair
4. bad
5. very bad.

The latter two categories (bad and very bad) were combined to give 'not good' health.

The question appears in the ONS *Harmonised Concepts and Questions for Government Social Surveys*.<sup>14</sup> It is identical to that used in the Health Survey for England and is recommended by the WHO Regional Office for Europe so that internationally comparable data may be collected.<sup>9</sup>

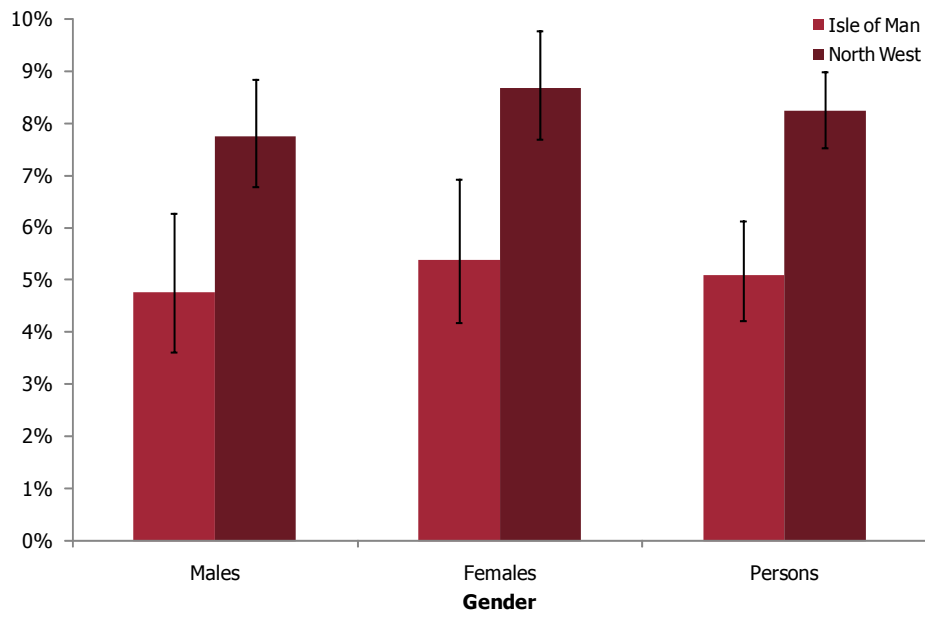
### 3.1.4 Isle of Man survey results: 'Not good' health

Overall, 5.1% of adults considered themselves to be in 'not good' health (Figure 1, Table 2). Slightly more women (5.4%) than men (4.9%) were in 'not good' health. This could be due to the fact that the female population has an older age structure than the male population. However, the difference between genders is not significant. A significantly lower proportion of both males and females are in 'not good' health compared with the North West of England.

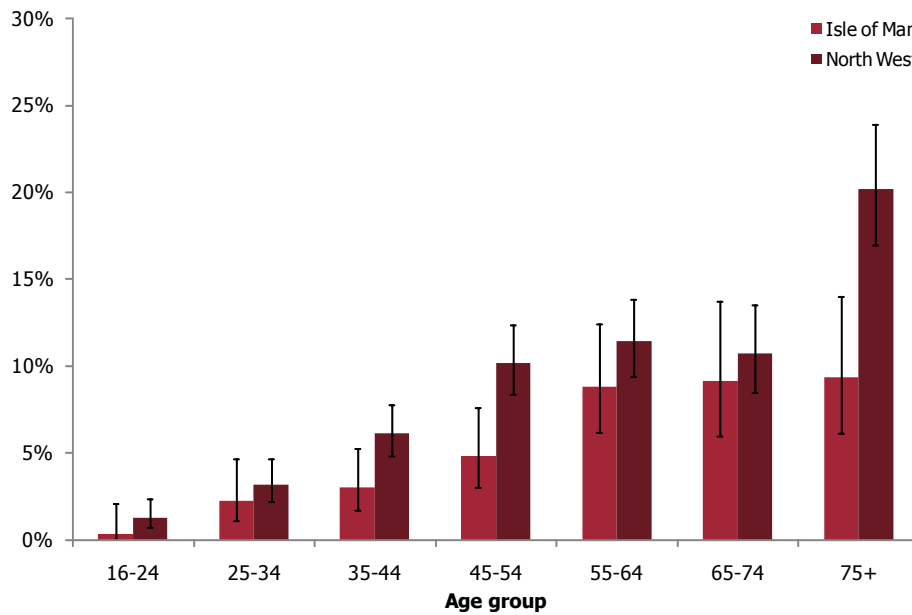
The percentage of adults describing themselves as in 'not good' health generally increased with age, rising to around one in ten (9.4%) adults aged 75+ (Figure 2). Compared with the North West, the Isle of Man had lower proportions of adults in 'not good health' across all age groups, significantly so for those aged 45-54 and 75+ years.

Across both the Isle of Man and the North West there were some significant differences between age groups. The proportion of all age groups over 35 years in 'not good' health is significantly higher than the proportions aged under 35; similarly, the proportion of all age groups over 45 years in 'not good' health is significantly higher than all age groups under 45 years, and the proportion of adults aged 75+ in 'not good' health is significantly higher than all younger age groups.

**Figure 1: Percentage of adults in 'not good' health, by gender. Isle of Man and North West of England.**



**Figure 2: Percentage of adults in 'not good' health, by age group. Isle of Man and North West of England.**



**Table 2: Percentage of adults in 'not good' health, by gender and age group. Isle of Man and North West of England.**

<b>Age group</b>	<b>Isle of Man</b>			<b>North West</b>		
	<b>Males</b>	<b>Females</b>	<b>Persons</b>	<b>Males</b>	<b>Females</b>	<b>Persons</b>
All ages	4.9%	5.4%	5.1%	7.8%	8.6%	8.2%
16-24	0.8%	0.0%	0.4%	0.7%	2.0%	1.3%
25-34	1.4%	3.2%	2.3%	2.9%	3.6%	3.2%
35-44	3.6%	2.6%	3.1%	5.1%	7.2%	6.2%
45-54	4.0%	5.8%	4.9%	10.2%	10.2%	10.2%
55-64	9.1%	8.6%	8.9%	12.6%	10.3%	11.5%
65-74	11.3%	7.2%	9.2%	13.1%	8.4%	10.8%
75+	6.1%	11.5%	9.4%	17.3%	21.9%	20.2%

## 3.2 Heart attack and stroke

### 3.2.1 Background

A heart attack is a clinical condition caused by the formation of a clot in the coronary artery. This results in a loss of blood supply to parts of the heart muscle and consequently the death of the muscle. Approximately 275,000 to 300,000 people have a heart attack each year<sup>xvi</sup> and they most commonly occur due to coronary heart disease (CHD). Coronary heart disease, including heart attacks, is the biggest killer in England, claiming around 113,000 lives per year and accounting for one in five male and one in seven female deaths in England and Wales.<sup>15</sup>

A stroke occurs when the blood supply to part of the brain is cut off. Without this supply, brain cells can be damaged or destroyed and the way in which the body functions can be affected. Stroke is the third biggest killer in England and a leading cause of severe disability. One person in England has a stroke every five minutes<sup>16</sup> and in 2008/09 there were 98,358 hospital admissions<sup>xvii</sup> for stroke. At any one time, 20% of acute and 25% of long term hospital beds are occupied by stroke patients.<sup>16</sup> Approximately 25% of people who recover from their first stroke will have another stroke within five years.<sup>xviii</sup> During 2006, there were 98 deaths from ischaemic heart disease<sup>xx</sup> and 69 deaths as a result of stroke<sup>xx</sup> on the Isle of Man.<sup>17</sup>

There are similar risk factors that can impact upon the likelihood of an individual having a heart attack or stroke.

- Age: stroke mainly affects individuals over the age of 65 years, although it can occur at any point in an individual's life, including childhood.
- Gender: more men suffer from stroke and heart attack than women.<sup>18</sup>
- Diet: a diet high in fat can lead to the build up of cholesterol, which in turn results in the narrowing of arteries; while a diet that is rich in salt can lead to increased blood pressure.
- Lack of exercise.
- Smoking: which damages the lining of the arteries and leads to the build up of fatty material. The carbon monoxide produced by cigarettes reduces the amount of oxygen that the blood can carry to the heart and around the body, while nicotine encourages the body to produce adrenaline, making the heart beat faster and raising blood pressure, which in turn makes the heart work harder.<sup>xxi</sup>
- Heavy drinking: which may lead to heart attack or stroke as it is associated with high blood pressure and a fast, irregular heart beat.
- Obesity: having a body mass index of between 30 and 40.
- Medical conditions such as high blood pressure and high cholesterol.
- Ethnic background: for example, British South Asians and British African Caribbeans have increased risk of stroke compared with the White British population.<sup>xxii</sup>
- Genetic inheritance: for example, individuals may be hereditarily susceptible to factors such as high blood pressure and high cholesterol that impact upon the risk of stroke and heart attack as well the cumulative effect of a number of genes that predispose families to coronary heart disease.<sup>xxiii</sup>

These risk factors are not distributed evenly across society, with a divide between social classes being present.<sup>19</sup>

<sup>xvi</sup> [www.bhf.org.uk](http://www.bhf.org.uk)

<sup>xvii</sup> Ungrossed data: [www.hesonline.org.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=202](http://www.hesonline.org.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=202)

<sup>xviii</sup> [www.dwp.gov.uk/publications/specialist-guides/medical-conditions/a-z-of-medical-conditions/stroke/prevalence-stroke.shtml](http://www.dwp.gov.uk/publications/specialist-guides/medical-conditions/a-z-of-medical-conditions/stroke/prevalence-stroke.shtml)

<sup>xix</sup> Deaths recorded as ICD-10 Code I20-I25 'Ischaemic Heart Disease'.

<sup>xx</sup> Deaths recorded as ICD-10 Code I60-I69 'Cerebrovascular Disease'.

<sup>xxi</sup> [www.bhf.org.uk/keeping\\_your\\_heart\\_healthy/preventing\\_heart\\_disease/smoking.aspx](http://www.bhf.org.uk/keeping_your_heart_healthy/preventing_heart_disease/smoking.aspx)

<sup>xxii</sup> [www.wellcome.ac.uk/News/2005/Features/WTX023815.htm](http://www.wellcome.ac.uk/News/2005/Features/WTX023815.htm)

<sup>xxiii</sup> [www.bhf.org.uk/research\\_health\\_professionals/research\\_successes/family\\_heart\\_study.aspx](http://www.bhf.org.uk/research_health_professionals/research_successes/family_heart_study.aspx)

Reducing death and disability from coronary heart disease and stroke is a key element of Strategic Objective One to: "achieve a reduction in premature mortality"<sup>(p.19)</sup> as detailed in the Isle of Man Strategy for Health.<sup>1</sup>

The *National Service Framework (NSF) for Coronary Heart Disease (CHD)*<sup>20</sup> sets out 12 standards to modernise and improve treatment, diagnosis and prevention of coronary heart disease and to improve access and quality of services. The *Coronary Heart Disease National Service Framework: Building for the future - Progress report for 2007*<sup>21</sup> stated that the target to reduce mortality had been met five years earlier than anticipated, resulting in 22,000 fewer premature deaths from cardiovascular disease. This has in part been attributed to decreased waiting times for heart surgery, increased prescriptions for cholesterol-reducing statins, and the reduction in adult smoking prevalence.

The *National Service Framework for Older People*<sup>22</sup> sets out a ten year programme to link health and social care services. Standard 5 of this framework, Stroke, aims to "reduce the incidence of stroke in the population and ensure that those who have had a stroke have prompt access to integrated stroke care services"<sup>22(p.15)</sup>. This was in response to evidence that those who have a stroke are "more likely to survive and to recover more function if admitted promptly to a hospital based stroke unit and care provided by a specialist coordinated stroke team within an integrated stroke service"<sup>22(p.15)</sup>.

Strategic Objective One also highlights the need to adapt these NSFs (for CHD, older people as well as diabetes) to the Isle of Man.

### 3.2.2 Existing information

The Health Survey for England 2006 showed that nationally 4.1% of men and 1.7% of women aged 16+ had 'ever had a heart attack' (doctor diagnosed). The survey also showed that 0.3% of men and 0.2% of women had suffered a heart attack within the previous 12 months. The same survey revealed that 2.4% of men and 2.2% of women aged 16+ had suffered a stroke.<sup>xxiv; 18</sup> The prevalence for stroke in the North West was 4% for both men and women.<sup>xxv; 18</sup>

The national Quality and Outcomes Framework (QOF) data from 2008/09 showed the unadjusted prevalence<sup>xxvi</sup> of stroke and transient ischaemic attack was 1.7% in England and 0.1% higher in the North West.<sup>xxvii</sup>

The directly standardised mortality rate for stroke (all ages) in 2005-07 was 50.02 per 100,000 population across England and significantly higher, 56.97 per 100,000, in the North West.

### 3.2.3 Survey and analysis methodology

In order to determine the prevalence of heart attack and stroke, participants were asked if a health professional had ever told them that they have had a

- a) heart attack; and/or
- b) stroke.

This question is identical to that in the Health Survey for England.

<sup>xxiv</sup> These figures are based on weighted data.

<sup>xxv</sup> These figures are based on unweighted data.

<sup>xxvi</sup> Unadjusted prevalence rates show these registers as a percentage of the total practice list size (all ages).

<sup>xxvii</sup> [www.ic.nhs.uk/statistics-and-data-collections/supporting-information/audits-and-performance/the-quality-and-outcomes-framework/qof-2008/09/data-tables/prevalence-data-tables](http://www.ic.nhs.uk/statistics-and-data-collections/supporting-information/audits-and-performance/the-quality-and-outcomes-framework/qof-2008/09/data-tables/prevalence-data-tables)

### 3.2.4 Isle of Man survey results: Heart attack and stroke

In total, 3.8% of adults said that they had been told by a health professional that they had suffered a heart attack and 2.5% had been told they had suffered a stroke (Figure 3, Figure 5, Table 3). More men had suffered a heart attack than women and more women had suffered a stroke than men, but these differences were not significant.

Compared with the North West, there were slightly lower proportions of male heart attack and stroke and slightly higher proportions of female heart attack and stroke on the Isle of Man, but again these differences were not significant.

Both heart attack and stroke are generally more common as age increases, particularly after the age of 55 (Figure 4, Figure 6). Overall, 9.4% of adults aged 75+ had suffered either a heart attack or a stroke.

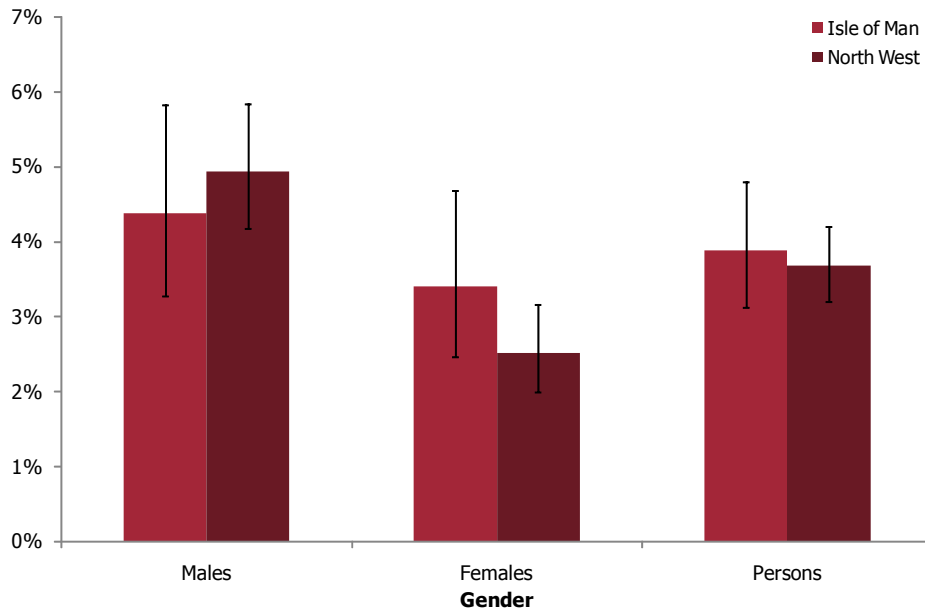
The proportion of adults aged 55+ that had suffered a heart attack or stroke was significantly higher than those aged 16-54; the proportion aged 65+ who had suffered a heart attack or stroke was higher than in all age groups under 55; and the proportion aged 75+ is significantly higher than in all age groups under 65.

Men aged 16-24, 35-54 and 65+ were more likely to have suffered a heart attack than women of the same age. There were particularly marked differences between genders in the older age groups with males aged 55-64 years almost twice as likely, and males aged 65-74 years 1.3 times as likely to have suffered a heart attack as females of the same ages.

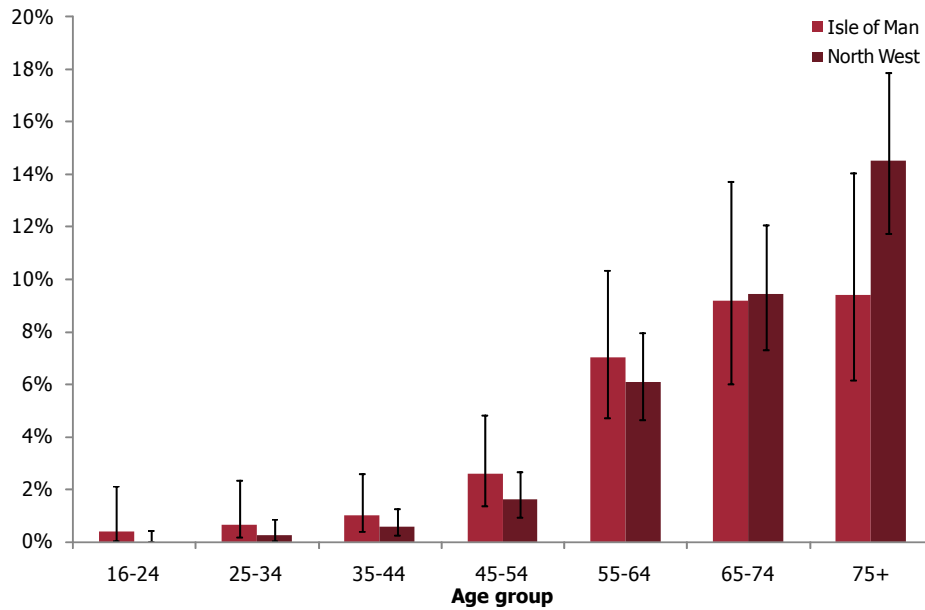
Across the majority of the age groups, men were more (or at least equally) likely than women to have suffered a stroke (with the exception of the 25-34 and 75+ age groups). There were particularly marked differences among those aged 55-64 years with men being more than twice as likely to have suffered a stroke compared with women. However, among the over 75s, women were almost twice as likely to have suffered a stroke compared with their male counterparts.

Patterns of heart attack and stroke by age on the Isle of Man are not significantly different to those seen in the North West of England.

**Figure 3: Percentage of adults that had ever had a heart attack, by gender. Isle of Man and North West of England.**

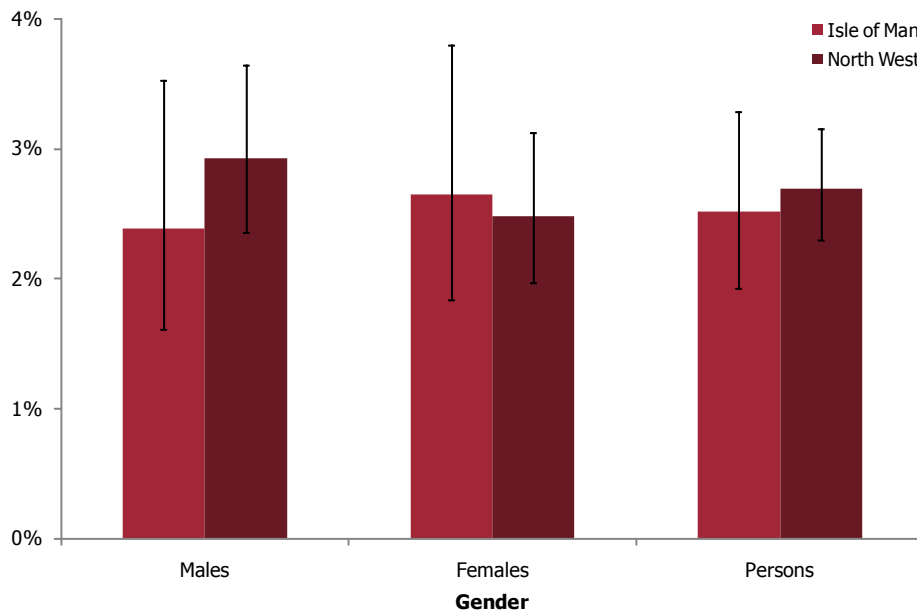


**Figure 4: Percentage of adults that had ever had a heart attack, by age group. Isle of Man and North West of England.**

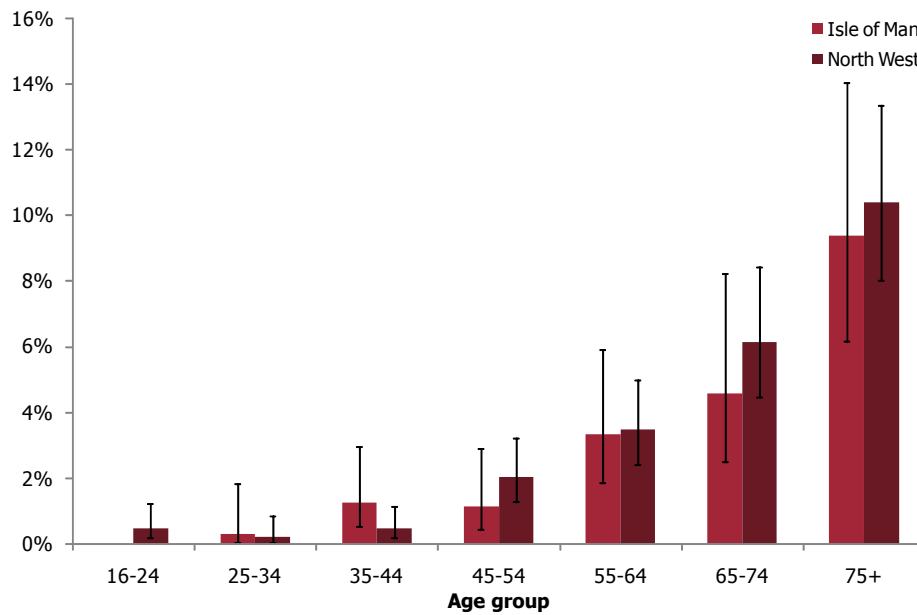




**Figure 5: Percentage of adults that had ever had a stroke, by gender. Isle of Man and North West of England.**



**Figure 6: Percentage of adults that had ever had a stroke, by age group. Isle of Man and North West of England.**



**Table 3: Percentage of adults that had ever had a heart attack or stroke, by gender and age group. Isle of Man and North West of England.**

		Isle of Man		North West	
	Age group	Heart Attack	Stroke	Heart Attack	Stroke
<b>Males</b>	All ages	4.3%	2.3%	4.9%	2.9%
	16-24	0.8%	0.0%	0.0%	0.7%
	25-34	0.0%	0.0%	0.5%	0.5%
	35-44	2.0%	2.0%	0.6%	0.0%
	45-54	2.9%	1.1%	2.1%	2.3%
	55-64	6.7%	3.0%	9.1%	4.0%
	65-74	12.3%	6.6%	14.9%	7.3%
	75+	11.0%	6.1%	20.1%	13.7%
<b>Females</b>	All ages	3.4%	2.6%	2.5%	2.5%
	16-24	0.0%	0.0%	0.0%	0.2%
	25-34	1.3%	0.6%	0.0%	0.0%
	35-44	0.0%	0.5%	0.6%	1.0%
	45-54	2.3%	1.2%	1.1%	1.8%
	55-64	7.4%	3.1%	3.0%	3.0%
	65-74	6.3%	2.7%	4.5%	5.2%
	75+	8.4%	11.5%	11.0%	8.5%
<b>Persons</b>	All ages	3.8%	2.5%	3.7%	2.7%
	16-24	0.4%	0.0%	0.0%	0.5%
	25-34	0.7%	0.3%	0.2%	0.2%
	35-44	1.0%	1.3%	0.6%	0.5%
	45-54	2.6%	1.1%	1.6%	2.1%
	55-64	7.0%	3.4%	6.1%	3.5%
	65-74	9.2%	4.6%	9.4%	6.2%
	75+	9.4%	9.4%	14.5%	10.4%

### 3.3 Chronic conditions

#### 3.3.1 Background

A chronic condition<sup>xxviii</sup> is a longstanding or recurrent condition, which cannot be cured but can be managed or controlled with effective lifestyle changes and/or medication.<sup>23; 24</sup> It is anticipated that approximately 15.4 million people in England suffer from a long-term condition, and 85% of mortality may be attributed to chronic diseases.<sup>xxix</sup> Chronic illness impacts not only upon quality of life of the individual with the chronic disease(s), but also relatives and carers<sup>24</sup> and is the leading cause of disability in England.

The likelihood of having a chronic condition increases with age, as does the likelihood of having more than one chronic condition.<sup>24</sup> The rising age of the population in recent years has brought with it an increase in the number of people who are suffering from one or more chronic conditions<sup>25</sup> and this is predicted to cause a further rise of 25% over the next 25 years. An estimated three out of every five people over the age of 60 years suffer from at least one long-term condition.

This overall increase in chronic conditions poses both medical and social challenges to the individual as well as to the NHS and the UK economy. Approximately 80% of GP consultations relate to chronic disease and increased prevalence of inpatient admissions as well as increased lengths of hospital stay in this population are apparent.<sup>24</sup> The cost of lost working days also impacts on the economy. The World Health Organization projected that by 2020, chronic conditions will be the main cause of disability in the world, placing new, long-term demands on health care systems.<sup>26</sup> They also have the potential to become the most expensive problem faced by health care systems in the future if they are not prevented or managed adequately.

The National Institute for Health and Clinical Excellence (NICE) Collaborating Centre for Chronic Conditions provide guidance on a number of conditions: osteoarthritis, Type 2 diabetes, stroke, chronic kidney disease and rheumatoid arthritis in adults. It has also been identified that there are gaps in service provision and management and/or advice given to individuals who have more than one chronic condition. "Good chronic disease management can make a real difference, helping to prevent crises and deterioration, and enabling people living with chronic conditions to attain the best possible quality of life."<sup>24 (p.2)</sup>

In England, the *National Service Framework for Long-term Conditions*<sup>27</sup> is a ten-year strategy, considered to be a key tool for delivering government strategy to support people with long-term conditions as outlined in *NHS Improvement Plan: Putting people at the heart of public services*.<sup>28</sup> It looks to provide a "structured and systematic" way of delivering health and social care services, treatment and care for people with long-term conditions. This also includes the involvement of transport, housing, employment, education, benefits and pensions providers.

Public Service Agreement (PSA) targets set out in the framework aimed to:

- improve health outcomes for people with long-term conditions by offering a personalised care plan for vulnerable people most at risk;
- reduce emergency bed days by 5% by 2008 through improved care in primary care and community settings for people with long-term conditions; and
- improve access to services, ensuring that by 2008 no one waits more than 18 weeks from GP referral to hospital treatment, including all diagnostic procedures and tests.

<sup>xxviii</sup> The terms chronic disease, chronic condition, lifelong disease/condition, long-term disease/condition are commonly used interchangeably in literature.

<sup>xxix</sup> [www.dh.gov.uk/en/Healthcare/Longtermconditions/DH\\_084294](http://www.dh.gov.uk/en/Healthcare/Longtermconditions/DH_084294)

It is suggested that the NSF is used in conjunction with *National Standards, Local Action: Health and Social Care Standards and Planning Framework 2005/06 – 2007/08*<sup>29</sup> and *Supporting People with Long-term Conditions – An NHS and Social Care Model*,<sup>30</sup> which look at providing consistent standards in health and social care across the country as well as focussing upon and supporting local modernisation and/or improvements.

### 3.3.2 Existing information

A 2009 survey of households on the Isle of Man found that 8.5% reported having a member of the household affected by a limiting long-term illness (LLTI) or disability.<sup>31</sup>

The 2001 Census highlighted that almost 11% of the Isle of Man population<sup>32</sup> and approximately 16%<sup>xxx</sup> of individuals in the UK had a LLTI. Of those aged 60 years and over, 31.6% on the Isle of Man and 48.1% in the UK had a LLTI.

The Health Survey for England 2007 showed that nationally 43% of adults over the age of 16 years reported having at least one longstanding illness, a decrease from 45% in 2003.<sup>12</sup> More women (43.8%) than men (42.1%) reported having at least one longstanding illness, but there had been a decrease from 2003 for both genders (from 45.7% for women and from 44.3% for men).

The General Household Survey 2007 highlighted that 32% of respondents across England (32% for both men and women) stated they had a longstanding illness, over half of which (18%) said that it limited their activities.<sup>xxxi</sup> Figures for the North West were similar to England, with 32% of all respondents stating they had a longstanding illness (31% of men and 34% of women), of whom over half (19%) said that it limited their activities.

In the UK, more women (5.5 million) than men (4.8 million) in private households had a LLTI. This difference may be due to women having longer life expectancy than men. Differences between age groups were also highlighted for both men and women, with a trend that increased with age. For example, just over half a million individuals aged 0-15 years reported having a LLTI, which equated to 4.4% of all people living in private households. Of those aged 60 and over, 46.4% of those living in private households reported having an LLTI.

Those with a LLTI did not necessarily correlate their situation with self-perceptions of poor health. Forty-one per cent of those in private households reporting to have a LLTI stated that they were in 'fairly good' health. Sixteen per cent stated they were in 'good' health, while 43% stated that they were in 'not good' health.

The 2001 Census also highlighted that there were a number of factors that lead individuals to be more likely to have a LLTI: having no or low levels of educational qualifications; being economically inactive; being a lone parent; and living in social housing.

### 3.3.3 Asthma

#### Background

Asthma is the most common chronic disease in the UK,<sup>24</sup> caused by inflammation of the airways resulting in swelling and constriction. Although there is no cure for asthma, the condition is manageable with effective treatment and by maintaining a healthy lifestyle, including healthy weight, a good diet, exercise and avoiding smoking.

An estimated 5.4 million people in the UK are currently receiving treatment for asthma, of whom 1.1 million are children. There is a person with asthma in one in five households in the

<sup>xxx</sup> The figure of 16% is after age standardisation. Prior to age standardisation, the figure is 18%.

<sup>xxxi</sup> [www.statistics.gov.uk/downloads/theme\\_compedia/GHS07/GeneralHouseholdSurvey2007.pdf](http://www.statistics.gov.uk/downloads/theme_compedia/GHS07/GeneralHouseholdSurvey2007.pdf)

UK.<sup>xxxii</sup> Hospital data for England showed that approximately 65,300 individuals of all ages were admitted to hospital suffering from an asthma attack (29,852 males and 35,448 females).<sup>xxxiii</sup> The rate of emergency admissions in 2006 was higher for women (14 per 10,000) than men (12 per 10,000).

### Existing information

The national Quality and Outcomes Framework (QOF) data from 2008-09 showed the unadjusted prevalence<sup>xxxiv</sup> for asthma to be 5.9% in England and 6.2% in the North West Strategic Health Authority area.

Within the North West from 1998-2002, the prevalence rate for hospitalised asthma in the most deprived areas was double that in the least deprived areas.<sup>13</sup>

In 2005-07, the directly standardised mortality rate from asthma was 1.38 per 100,000 across England and 1.42 in the North West.<sup>xxxv</sup>

## 3.3.4 Angina

### Background

Angina is chest pain or discomfort that occurs when the heart is not getting enough oxygen because of reduced blood flow. It is usually a symptom of coronary heart disease. Angina affects about 1 in 50 people, an estimated 1.4 million people in the UK.<sup>xxxvi</sup>

There are a number of factors that make angina more likely, including being male, being middle-aged or older, smoking, having a high cholesterol level, having high blood pressure, being overweight or obese, doing little or no physical activity, having a family history of heart attacks and having diabetes. It has also been found to be more common among those in the manual social classes.<sup>20</sup> Angina may be prevented by adopting a healthy lifestyle and removing as many risk factors for CHD as possible (see Section 3.2 for further details).

The *National Service Framework for Coronary Heart Disease*<sup>20</sup> includes angina in two standards: Standard 8 – Stable Angina: People with symptoms of angina or suspected angina should receive appropriate investigation and treatment to relieve their pain and reduce their risk of coronary events; and Standard 9 – Revascularisation: People with angina that is increasing in frequency or severity should be referred to a cardiologist urgently or, for those at greatest risk, as an emergency. For further details of the *National Service Framework for Coronary Heart Disease*<sup>20</sup> see Section 3.2.

### Existing information

The Health Survey for England 2006<sup>18</sup> showed that overall prevalence of self-reported doctor diagnosed angina was higher in men than women: 4.8% of men and 3.3% of women said they 'ever had angina' and 2.3% of men and 1.7% of women said they had angina in the last 12 months.

<sup>xxxii</sup> [www.asthma.org.uk/all\\_about\\_asthma/asthma\\_basics/index.html](http://www.asthma.org.uk/all_about_asthma/asthma_basics/index.html)

<sup>xxxiii</sup> [www.laia.ac.uk/kf\\_asthma\\_03.htm#1](http://www.laia.ac.uk/kf_asthma_03.htm#1)

<sup>xxxiv</sup> Unadjusted prevalence rates show these registers as a percentage of the total practice list size (all ages).

<sup>xxxv</sup> [www.nchod.nhs.uk](http://www.nchod.nhs.uk)

<sup>xxxvi</sup> [www.dh.gov.uk/en/Healthcare/Coronaryheartdisease/index.htm](http://www.dh.gov.uk/en/Healthcare/Coronaryheartdisease/index.htm)

### 3.3.5 Arthritis

#### Background

The word 'arthritis' means inflammation of a joint; any and all joints in the body can be affected. There are different types of arthritis, including rheumatoid arthritis, osteoarthritis and psoriatic arthritis.

Arthritis is the single main cause of physical disability in the UK and is suffered by approximately eight to ten million people, of whom one million are under 45 years and 15,000 are children. The estimated cost of medical care for arthritis in the UK is between £240 and £600 million, with an additional £650 million cost due to time lost from work.<sup>24</sup>

Risk factors associated with, for example, rheumatoid arthritis, are an increased risk of mortality due to an increased risk of cardiovascular disease if the condition is not treated correctly.<sup>xxxvii</sup>

#### Existing information

Arthritis increases as age increases for both men and women, but the rate of arthritis and rheumatism is higher among women than men.<sup>33</sup> For example, The General Household Survey 2007 showed that the rate of arthritis (and rheumatism) among women in Great Britain was 1.6 times that of men (87 per 1,000 population compared with 53 per 1,000 population).<sup>xxxviii</sup>

### 3.3.6 Back problems

#### Background

Lower back pain is said to affect approximately 70% of people at some time in their lives.<sup>xxxix</sup> It can be triggered by everyday activities at home or work and poor posture. Back pain problems include torn discs, a pinched sciatic nerve, osteoporosis and inflammatory diseases.

Back pain is the largest single cause of sickness absence in the UK and has an economic impact both upon back pain sufferers (as they have to take time off work/are unable to work) and the economy (due to days lost per year due to sickness).

The National Institute for Health and Clinical Excellence has published guidance relating to interventional procedures for spinal disorders.<sup>xi</sup> Guidance on the acute management of patients with chronic (longer than six weeks) non-specific low back pain was released in May 2009.<sup>xli</sup>

#### Existing information

An Omnibus Survey conducted in 1998 investigated the prevalence of back pain (in the previous 12 months) in Great Britain.<sup>34</sup> This revealed that the rate of back pain was rising, with 40% of adults stating that they had suffered back pain lasting for more than one day in the previous 12 months, and 15% of these people experiencing pain throughout the year.<sup>xlii</sup> It also showed a gender split with men having consistently higher rates than women, and an increase with age. Of the working age adults surveyed, 5% said they had taken time off during the previous month citing backache as the cause.<sup>34</sup>

The General Household Survey 2007 found the prevalence of long standing back problems were similar in both males and females (37 per 1,000 population and 34 per 1,000

<sup>xxxvii</sup> [www.rheumatoid.org.uk/article.php?article\\_id=224](http://www.rheumatoid.org.uk/article.php?article_id=224)

<sup>xxxviii</sup> [www.statistics.gov.uk/downloads/theme\\_compendia/GHS07/GeneralHouseholdSurvey2007.pdf](http://www.statistics.gov.uk/downloads/theme_compendia/GHS07/GeneralHouseholdSurvey2007.pdf)

<sup>xxxix</sup> [www.nhsdirect.nhs.uk/articles/article.aspx?articleId=234](http://www.nhsdirect.nhs.uk/articles/article.aspx?articleId=234)

<sup>xi</sup> [www.nice.org.uk/guidance/index.jsp?action=byTopic&o=7305](http://www.nice.org.uk/guidance/index.jsp?action=byTopic&o=7305)

<sup>xli</sup> <http://guidance.nice.org.uk/CG88>

<sup>xlii</sup> Pain lasting longer than three months may be considered chronic.

population respectively) and increased with age up to 45-64 years for both men and women (for example, 56 per 1,000 population for males aged 45-64 compared with 25 per 1,000 population for males aged 16-44), but then subsequently decreasing.<sup>xliii</sup>

In the North West region, a linear relationship between deprivation and back pain has been identified, with those living in the most deprived areas being more likely to be recorded with back pain problems.<sup>13</sup>

### 3.3.7 Nervous trouble or depression

#### Background

Approximately one in six people suffer from mental health problems at some point in their lives, with as many as nine million people being affected nationally in any one year.<sup>35; 36; 37</sup> These problems can vary in both severity and level of incapacity<sup>38</sup> and pose a significant cost to the economy in terms of the impact upon health care and services and economic inactivity (specifically, inability to work). Health inequalities among people with severe or enduring mental illness are complex.<sup>35; 37</sup> People with severe or enduring mental illness are 1.5 times more likely to die prematurely than those without.<sup>35</sup> Factors that are likely to impact upon this include poverty, lifestyle (smoking, diet, and exercise), access to health assessments and treatments and side effects of anti-psychotic and mood stabiliser medication.<sup>35; 39</sup>

There appears to be a gender split with more females than males suffering from some form of mental illness, including those under the age of 16 years.<sup>35; 40</sup> Mental and behavioural health problems (such as anxiety and depression) are the main cause for people in England to claim Incapacity Benefit: nationally a third of new claimants cite mental health conditions as the primary cause of their incapacity compared with one fifth in the mid 1990s.<sup>41</sup>

People with depression are also at a greater risk of committing suicide.<sup>xliv</sup> In 2007, there were 5,377 suicides in adults aged 15 and over in the UK, three-quarters of which were among men.<sup>xlv</sup>

The *National Service Framework for Mental Health: Modern Standards and Service Models*<sup>36</sup> addresses the mental health needs of working age adults up to 65 years. It looks at national standards for mental health, what they aim to achieve, how they should be developed and delivered and how to measure performance in every part of the country. The NSF contains six standards: mental health promotion (Standard 1); primary care and access to services (Standards 2 and 3); preventing suicide (Standards 4 and 5); and caring about carers (Standard 6). This was followed by *The National Service Framework for Mental Health - Five Years On*.<sup>37</sup>

A Public Sector Agreement (PSA) target also exists to: "substantially reduce mortality rates by 2010 from suicide and undetermined injury by at least 20%".<sup>xlvi</sup>

In *Choosing Health: Making healthy choices easier*,<sup>7</sup> Chapter 6: a Health-promoting NHS identified mental health as a priority area for health improvement in England. It aims to promote healthy choices early in life and to provide a supportive environment for children and young people themselves, as well as their parents, families and carers (including maternity services). It also identifies gaps in service provision particularly for those aged 16 to 17 years. Chapter 7: Health and Work identified the importance of good mental health in the workplace and the impact of stress upon creating a healthy workplace environment.

<sup>xliii</sup> [www.statistics.gov.uk/downloads/theme\\_compendia/GHS07/GeneralHouseholdSurvey2007.pdf](http://www.statistics.gov.uk/downloads/theme_compendia/GHS07/GeneralHouseholdSurvey2007.pdf)

<sup>xliv</sup> [www.mentalhealth.org.uk/information/mental-health-a-z/depression-and-suicide-in-later-life](http://www.mentalhealth.org.uk/information/mental-health-a-z/depression-and-suicide-in-later-life)

<sup>xlv</sup> [www.statistics.gov.uk/ci/nugget.asp?id=1092](http://www.statistics.gov.uk/ci/nugget.asp?id=1092)

<sup>xlvi</sup> [www.hm-treasury.gov.uk/d/sr04\\_psa\\_ch3.pdf](http://www.hm-treasury.gov.uk/d/sr04_psa_ch3.pdf)



Following on from this, *Choosing Health: Supporting the physical health needs of people with severe mental illness: Commissioning framework*<sup>42</sup> provided a best practice document to help primary care trusts plan, design, commission and monitor services that will deliver improved physical health and wellbeing for people living with severe or enduring mental illness. The *National Service Framework for Coronary Heart Disease*<sup>20</sup> also singles out mentally ill people as part of a vulnerable group that requires special attention.

### Existing information

The Psychiatric Morbidity Survey carried out in 2000 highlighted that one in six adults in Britain had a neurotic disorder, such as anxiety and depression. The survey found that overall 9.2% of adults suffered from mixed anxiety and depressive disorder and that the prevalence was higher in women (11.2%) compared with men (7.2%). The prevalence of depressive episodes was lower for both men (2.6%) and women (3.0%).<sup>43</sup>

The Health Profiles 2009<sup>xlvii</sup> show that across England during 2007, 27.7 per 1,000 working age population claim Incapacity Benefit or Severe Disablement Allowance because of mental or behavioural disorders, while the rate in the North West was 40.5, significantly worse than the England average.

### 3.3.8 Diabetes

#### Background

The number of individuals with diabetes is increasing year on year. Currently 2.3 million people in the UK have diabetes, a figure which is predicted to grow to more than 2.5 million by 2010 (9% of which will be due to an increase in obesity).<sup>44</sup> There are also an estimated 750,000 people who do not know that they have the condition. More recently, there has also been an increase in the number of children being diagnosed with the condition.<sup>45</sup>

Diabetes is the biggest cause of kidney failure and limb amputation, and the leading cause of blindness (in adults of working age). Diabetes also increases the risk of CHD and stroke.<sup>21</sup> There are two types of diabetes: Type 1 (insulin dependent diabetes) and Type 2 (non-insulin dependent diabetes), both of which can significantly reduce life expectancy by 15 and 10 years respectively. It is estimated that 90% of diabetics have Type 2 diabetes, which is preventable in two-thirds of the people who have it.

Risk factors for diabetes include:

- deprivation;
- being overweight;
- being over the age of 40;
- ethnicity (people from minority ethnic communities have up to a six times higher than average risk of developing diabetes);
- having a close family member who has Type 2 diabetes;
- having high blood pressure; and
- having recently suffered from a heart attack or stroke.

In treating Type 1 and Type 2 diabetes the aim is to reduce blood glucose and blood pressure levels to as near normal as possible. When combined with a healthy lifestyle, treatment helps improve wellbeing and protects against progressive damage to the eyes, kidneys, nerves, heart and major arteries. It is suggested that around 5% of total NHS spend<sup>46</sup> is used for the care of people with diabetes.

The *National Service Framework for Diabetes*<sup>44</sup> was the first document to produce a set of national standards for the treatment of diabetes and covers all aspects of care and

<sup>xlvii</sup> [www.apho.org.uk/default.aspx?QN=P\\_HEALTH\\_PROFILES](http://www.apho.org.uk/default.aspx?QN=P_HEALTH_PROFILES)



prevention as well as the associated *National Service Framework for Diabetes Delivery Strategy*<sup>A7</sup> that aims to tackle, over ten years, change and improvement of the quality of services and standardise across the country.

The document *Improving Diabetes Services - The NSF Two Years On*<sup>48</sup> looks at the 12 standards that are to be reached by 2013 including: the NHS will develop, implement and monitor strategies to identify people who do not know they have diabetes (Standard 2); all young people and adults with diabetes will receive regular surveillance for the long-term complications of diabetes (Standard 10); and all people with diabetes requiring multi-agency support will receive integrated health and social care (Standard 12).

### Existing information

The Health Survey for England 2006<sup>18</sup> showed the prevalence of doctor diagnosed diabetes was slightly higher in men (5.6%) than women (4.2%). Trend data from 1994 to 2003 showed the prevalence of diabetes to have almost doubled for both sexes. More recent trend data from 2003 to 2006 showed a further increase from 4.3% to 5.6% in men and 3.4% to 4.2% in women.

National QOF data provides information on the unadjusted prevalence<sup>xlviii</sup> of diabetes in England. The unadjusted prevalence was 3.4% on the Isle of Man,<sup>xlix</sup> 3.7% across England and 3.8% in the North West Strategic Health Authority.

## 3.3.9 Hypertension

### Background

Hypertension, or high blood pressure, affects over 16 million people in the UK<sup>1</sup> and is a major cause of stroke, CHD and other illnesses including kidney disease, aortic aneurysm and heart failure.<sup>29</sup> There are a number of lifestyle factors that can help to reduce high blood pressure: increasing intake of fresh fruit and vegetables; drinking alcohol in moderation; stopping smoking; increasing levels of activity; weight loss if overweight; and reducing salt intake, as this is a major contributor to high blood pressure.

Hypertension is included in one of the key targets within the *NHS National Standards, Local Action: Health and Social Care Standards and Planning Framework*<sup>29</sup> and NICE has published the guidelines *Hypertension: Management of hypertension in primary care*.<sup>49</sup>

Effective management of hypertension may contribute towards the target to reduce the number of deaths from heart disease and stroke by 2010 as detailed in the *National Service Framework for Coronary Heart Disease*<sup>21</sup> and briefly outlined in Section 3.2.

### Existing information

The Health Survey for England 2007<sup>ii</sup> defined hypertension as "at least 140mmHg systolic and/or at least 90mmHg diastolic blood pressure or anyone receiving treatment for hypertension". The survey found the prevalence for hypertension was higher in men than women (31.1% and 29.0% respectively).<sup>12</sup>

The 2008-09 national QOF data for hypertension showed the unadjusted prevalence<sup>xlviii</sup> to be 13.1% in England and slightly higher in the North West at 13.5%.

<sup>xlviii</sup> Unadjusted prevalence rates show these registers as a percentage of the total practice list size (all ages).

<sup>xlix</sup> Data taken from Isle of Man QOF Register Report 01/04/08.

<sup>i</sup> [www.bpassoc.org.uk](http://www.bpassoc.org.uk)

<sup>ii</sup> In order to determine the prevalence of hypertension in the population the Health Survey for England record participants' blood pressure using the Omron hem-907 blood pressure monitor. Individuals who were not eligible for blood pressure measurement were children under the age of five and participants who were pregnant. As blood pressure can be higher after smoking, eating, drinking alcohol or partaking in vigorous physical activity participants were asked to refrain from these activities 30 minutes before they arrived.<sup>132</sup>

### 3.3.10 Survey and analysis methodology

Participants were asked, through separate questions, if they had suffered from any of the following illnesses over the last 12 months:

- asthma;
- angina;
- arthritis;
- nervous trouble or depression;
- sciatica, lumbago or recurring backache;
- diabetes; and/or
- high blood pressure.

These questions appear in the Health Survey for England questionnaire and are commonly used in other health and lifestyle surveys.

Responses for each individual question were analysed. Individual responses were also aggregated to derive an additional variable in the dataset which indicated whether the respondent had stated that they suffered from any (but at least one) of the listed conditions within the last twelve months.

### 3.3.11 Isle of Man survey results: Chronic conditions

Nearly half (43.9%) of all adults had suffered from at least of the one chronic conditions listed (asthma, angina, arthritis, back problems, nervous trouble or depression, diabetes, hypertension) in the last twelve months (Figure 7, Table 4). Hypertension (suffered by 15.6% of adults), back problems (15.3%) and arthritis (12.5%) were the most commonly reported chronic conditions.

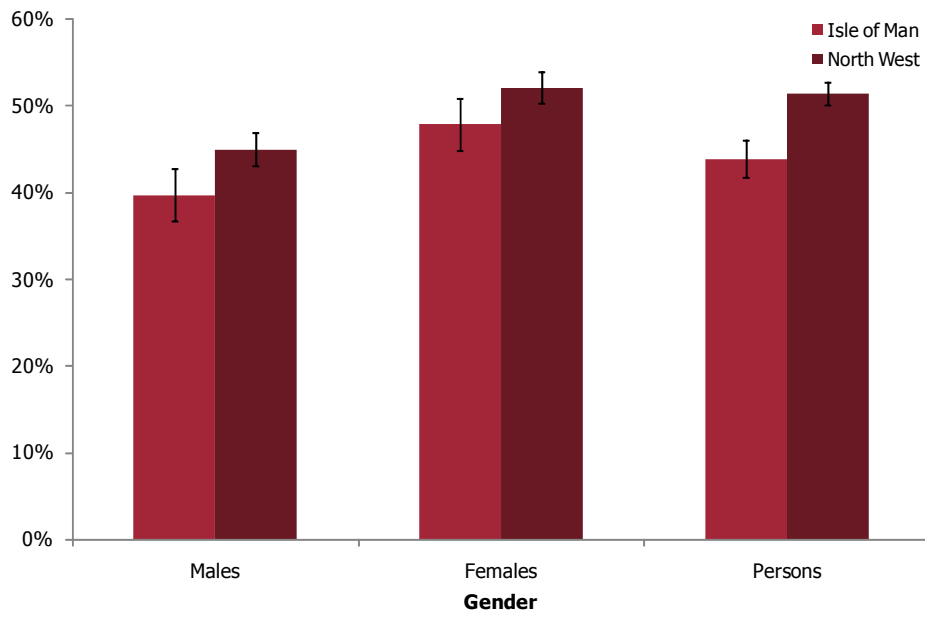
Significantly more women (47.9%) than men (39.7%) had suffered from at least one chronic condition. The largest differences between genders were seen for arthritis (women were 1.7 times more likely to suffer with this than men) and back problems (women were 1.4 times more likely to suffer than men) and these differences were significant.

The proportion of the population suffering from at least one chronic condition was slightly lower for both sexes when compared with the North West. For males this difference was significant, but for females it was not.

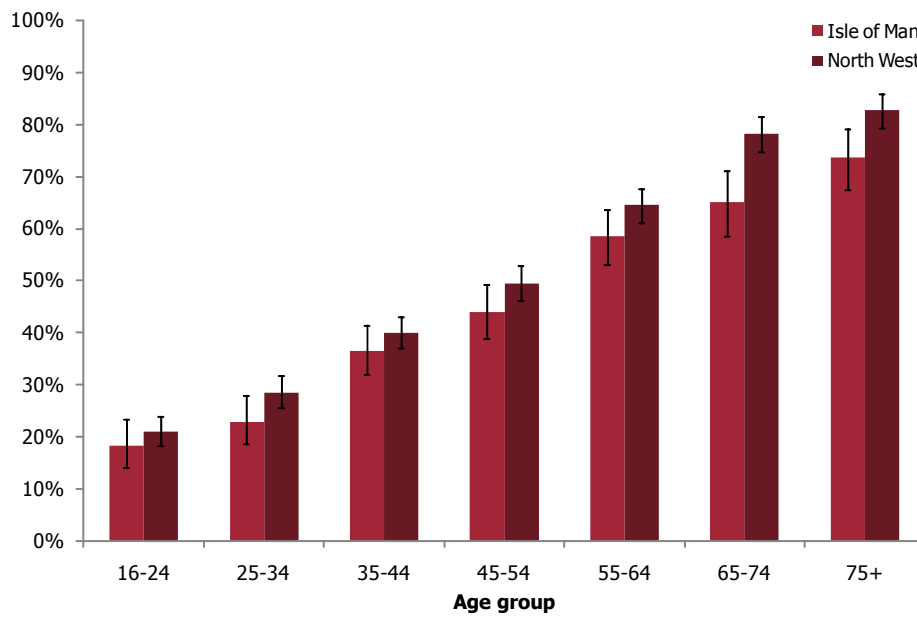
The percentage of adults suffering from at least one chronic condition increased with age: around one in five (18.4%) people aged 16-24 years had suffered from at least one chronic condition compared with almost four in five (73.8%) people aged 75+ years (Figure 8). In general there was a similar pattern seen in the North West of England, with the exception of those aged 65-75 years and 75+ years where there was a significantly higher prevalence compared with the Isle of Man.

However, there were variations by condition and age group. The prevalence of some conditions – such as angina, arthritis and hypertension – grows rapidly after the age of 45, while nervous trouble or depression is more common among the middle age groups than the youngest and oldest age groups. Asthma is more prevalent among people aged 25-34 and 35-44 years than other age groups.

**Figure 7: Percentage of adults suffering from at least one chronic condition in the last twelve months, by gender. Isle of Man and North West of England.**



**Figure 8: Percentage of adults suffering from at least one chronic condition in the last twelve months, by age group. Isle of Man and North West of England.**



**Table 4: Percentage of adults suffering from chronic conditions in the last twelve months, by gender and age group. Isle of Man and North West of England.**

		Isle of Man								North West
	Age group	Asthma	Angina	Arthritis	Back Problems	Nervous trouble or depression	Diabetes	Hyper-tension	At least one of previous	At least one of previous
<b>Males</b>	All ages	7.4%	2.6%	9.1%	13.0%	5.1%	4.0%	14.8%	39.7%	45.4%
	16-24	6.0%	0.0%	0.8%	0.8%	3.0%	1.5%	0.8%	11.3%	17.0%
	25-34	8.8%	0.0%	1.4%	7.4%	7.4%	0.0%	0.0%	21.1%	26.4%
	35-44	10.7%	0.0%	3.0%	17.8%	3.6%	1.5%	6.6%	37.6%	38.7%
	45-54	8.0%	1.7%	7.4%	16.5%	6.3%	4.0%	15.4%	43.2%	46.4%
	55-64	6.1%	4.3%	15.9%	17.1%	6.7%	4.3%	26.8%	54.5%	65.0%
	65-74	3.8%	11.3%	20.8%	12.3%	2.8%	8.5%	34.6%	58.9%	78.9%
	75+	4.9%	4.9%	26.8%	17.1%	4.9%	14.6%	32.9%	62.2%	76.2%
<b>Females</b>	All ages	9.8%	2.5%	15.6%	17.4%	5.6%	4.5%	16.2%	47.9%	51.7%
	16-24	12.5%	0.0%	1.6%	5.5%	3.9%	0.8%	3.9%	25.2%	25.2%
	25-34	10.3%	1.3%	0.0%	9.6%	3.2%	1.3%	3.2%	25.0%	30.8%
	35-44	10.3%	0.0%	4.6%	15.5%	5.7%	2.1%	8.8%	35.6%	41.5%
	45-54	8.7%	1.2%	10.4%	20.8%	8.1%	4.0%	13.3%	45.1%	52.7%
	55-64	8.0%	4.3%	23.3%	25.9%	8.6%	8.6%	25.9%	62.6%	64.3%
	65-74	7.2%	2.7%	32.4%	20.7%	5.4%	8.1%	30.6%	71.2%	77.9%
	75+	11.5%	9.2%	47.0%	23.5%	3.1%	7.6%	34.4%	81.1%	86.9%
<b>Persons</b>	All ages	8.5%	2.5%	12.5%	15.3%	5.4%	4.2%	15.6%	43.9%	48.7%
	16-24	8.8%	0.0%	1.2%	3.1%	3.8%	1.2%	2.3%	18.4%	21.1%
	25-34	9.5%	0.7%	0.7%	8.6%	5.6%	0.7%	1.6%	23.0%	28.7%
	35-44	10.7%	0.0%	3.8%	16.6%	4.6%	1.8%	7.9%	36.6%	40.1%
	45-54	8.3%	1.4%	8.9%	18.6%	7.4%	4.0%	14.6%	44.1%	49.6%
	55-64	6.7%	4.3%	19.6%	21.4%	7.4%	6.4%	26.3%	58.6%	64.6%
	65-74	5.5%	6.9%	26.7%	16.6%	4.1%	8.3%	32.6%	65.1%	78.4%
	75+	8.9%	7.5%	39.3%	21.1%	3.8%	10.3%	33.8%	73.8%	82.9%

## 4. Obesity

### 4.1 Background

Obesity is defined as “a condition in which weight gain has reached the point of seriously endangering health”.<sup>50(p.7)</sup> Currently, obesity has breached the 15% critical threshold set by the World Health Organization for epidemics needing intervention,<sup>51</sup> with an estimated one billion people in the world now overweight, including 300 million obese individuals.<sup>52</sup> In England, the level of obesity has almost trebled over the last 20 years.

In 2008, NWPHE produced the *Healthy Weight in the North West Population*<sup>53</sup> synthesis report, which aimed to bring together policy, evidence and intelligence on the topic of ‘unhealthy weight’ (overweight or obese) among the North West region’s adults and children, and summarise a set of actions that are needed to tackle this problem. The report highlights that obesity results from a complex interaction between genes, behaviour and the environment, with diet, physical activity and family history being three major factors which contribute to obesity. It also highlights a number of other risk factors associated with excess weight, including ethnicity and socioeconomic status/deprivation.

Being overweight or obese increases the risk of a range of physical, reproductive and physiological illnesses and diseases that can have a significant health impact on individuals including asthma<sup>54</sup> (as obesity has the capacity to impact upon lung function); cancer (approximately 10% of all cancer deaths among non-smokers are related to obesity);<sup>55</sup> coronary heart disease (the risk of coronary artery disease increases 3.6 times for each unit increase in BMI);<sup>55</sup> Type 2 diabetes (the risk of this is estimated to be 20 times greater with people who have a BMI over 35, compared with those with a BMI between 18 and 25);<sup>56</sup> high blood pressure (hypertension) (85% of people with high blood pressure have a BMI greater than 25);<sup>55</sup> complications in pregnancy; impaired fertility and other conditions.

Obese adults who were overweight as adolescents have greater levels of weight-related ill health and are at a higher risk of early mortality than adults who become obese in adulthood.<sup>54</sup>

Obesity places a significant burden on the NHS with direct costs estimated at approximately £4.2 billion and the *Foresight* report<sup>57</sup> forecasts this will more than double by 2050. It also has an impact on society and the wider economy through sickness absence and reduced productivity, and these indirect costs are estimated to be around £16 billion. The wider costs of overweight and obesity to society and business are expected to reach approximately £50 billion per year by 2050 if the current trend continues.<sup>57</sup>

The Government’s stated ambition is to be the first major nation to reverse the rising tide of obesity and overweight in the population.<sup>58</sup> In January 2008, *Healthy Weight, Healthy Lives: a Cross-Government Strategy for England*<sup>58</sup> was published to set out how this may be achieved. It also responds to the findings of the *Foresight* report<sup>57</sup> and builds on previous public health policy to tackle obesity, as outlined in *Saving Lives: Our Healthier Nation*<sup>19</sup> and *Choosing Health: Making healthy choices easier*.<sup>7</sup>

The importance of tackling obesity has also been given a high profile in the *Comprehensive Spending Review 2007*<sup>59</sup> with the PSA target to: “reduce the proportion of overweight and obese children to 2000 levels by 2020 in the context of tackling obesity across the population”.<sup>59</sup> This target links to various other government work such as *Every Child Matters* and *Opportunity for All* Indicator 14.<sup>60</sup>

A number of National Service Frameworks have also outlined future plans by the Government to implement policies to reduce overweight and obesity in the population.<sup>20; 22; 61</sup>

A number of guidance documents have been produced by NICE, surrounding the management of weight issues,<sup>62</sup> maternal and child nutrition,<sup>63</sup> and physical activity.<sup>63</sup>

For further policy, literature and intelligence relating to weight issues in England and the North West, please refer to the NPHO *Synthesis Report: Healthy Weight in the North West Population*.<sup>53</sup>

## 4.2 Existing information

Overweight and obesity is a serious problem among the adult population of the Isle of Man. In 2005, seven out of ten males were overweight or obese (49% overweight, 22% obese). Similar levels were seen among females, with over two-thirds being overweight or obese (43% overweight, 25% obese).<sup>iii</sup>

The Health Survey for England 2007<sup>liii</sup> showed that nationally 23.6% of men and 24.4% of women were obese,<sup>12</sup> while in the North West (in 2006) 23% of men and 22% of women were obese.<sup>18</sup>

These national results also show that obesity increases with age up to 55-64 years (33%) and 65-74 years (31%) for men, but then sharply decreases among men aged 75+ years (18%). The prevalence of obesity in women increases with age up to 65-74 years (35%) and then decreases to 27% among women aged 75+ years. The survey also showed obesity to be linked to income. Men in the second lowest income quintile had the highest prevalence of obesity (27%), while the lowest prevalence was found in the highest income quintile (21%). Women in the lowest income quintile had highest prevalence of obesity (32%), while the lowest prevalence was also seen in the highest income quintile (19%).

National QOF data for 2008-09 shows that the unadjusted prevalence<sup>liv</sup> of obesity was 9.9% in England. However, no prevalence was recorded for the North West. In 2007-08 the prevalence was 7.6% in England and 8.2% in the North West Strategic Health Authority area.

Future estimations suggest that in the UK, 60% of adult men, 50% of women and 25% of children will be obese by the year 2050.<sup>57</sup>

## 4.3 Survey and analysis methodology

Respondents were asked for both their height and weight, in either an imperial or metric format. If the respondent gave their height or weight in an imperial measure, it was subsequently converted to a metric measure in the dataset. These measures were then used to calculate body mass index (BMI). BMI is a simple measurement of body weight in relation to height and is currently the most effective and reliable methodology available to determine obesity. It is calculated by taking the individual's weight in kilograms and dividing it by the square of their height in metres.

$$\text{BMI} = \text{weight (kg)} / \text{height (m)}^2$$

<sup>iii</sup> The Adult Health and Lifestyle survey used different definitions of overweight and obese in females than that used in this study. Overweight was classified as a BMI of 23.8 – 28.5, while obese was classified as those women with a BMI greater than 28.5.

<sup>liii</sup> In order to determine an individual's BMI the Health Survey for England measured participants' height and weight. Height measurements were taken using a portable stadiometer and recorded in centimetres and millimetres and weight measurements were taken in metric units using calibrated electronic bathroom scales.

<sup>liv</sup> Unadjusted prevalence rates show these registers as a percentage of the total practice list size (aged 16+ with BMI  $\geq 30$  in previous 15 months). Particular care may be taken when looking at the QOF obesity data. This indicator is based upon BMI measurement, yet many people registered with a GP may not have had their BMI measured within the last 15 months. Therefore it may not provide an accurate picture of their actual obesity status, possibly underestimating the prevalence of obesity.

Once respondents' BMIs were calculated, they were grouped into the following categories, using the most widely used definitions<sup>58; 64</sup>:

<b>BMI</b>	<b>Category</b>
Less than 18.5	Underweight
18.5-24.9	Normal weight
25-29.9	Overweight
30+	Obese

This method is routinely used in surveys such as the Health Survey for England (HSE) and the General Household Survey (GHS).

#### **4.4 Isle of Man survey results: Obesity**

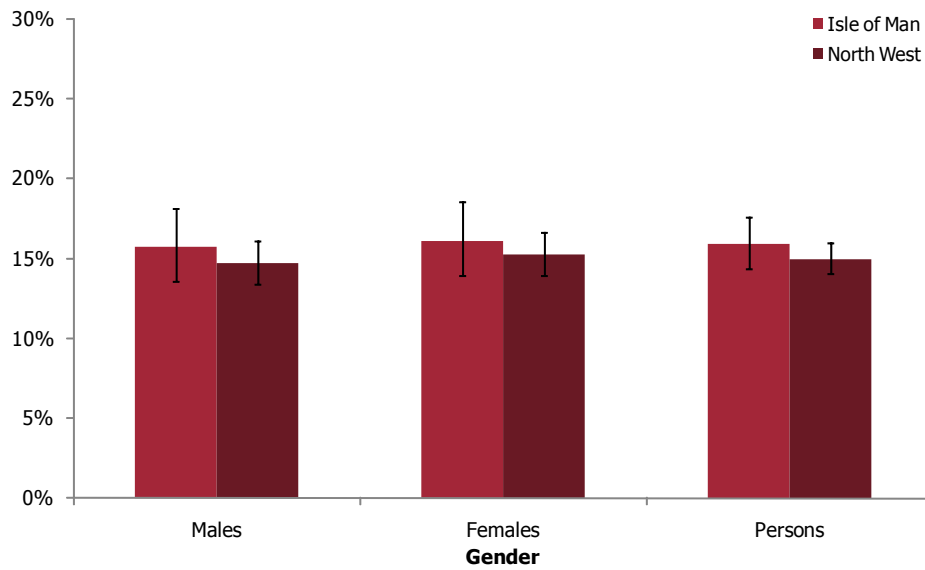
Overall, 15.9% of adults were categorised as obese (Figure 9, Table 5). The response rates were lower for these questions than other questions in the survey and it is possible that heavier people declined to answer. In addition, with self-report it is also possible that respondents either unintentionally or intentionally misrepresented their height and weight. Self-report surveys have the potential to underestimate weight and also to inaccurately record height and this may mean that levels of obesity are greater than suggested here, since studies have shown that individuals have a tendency to over-report body height and under-report body weight.<sup>65; 66</sup> However, this survey can still identify the similarities and differences in obesity levels between various subgroups of the Isle of Man population.

The survey showed that there was no significant difference between the percentage of men (15.7%) and women (16.0%) who were obese.

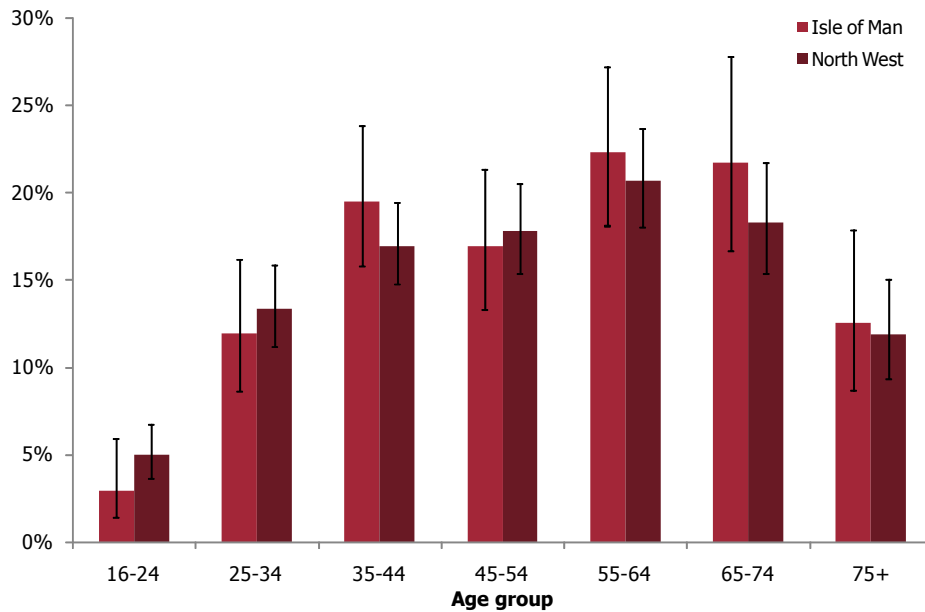
Obesity generally increased as age increased up to and including 55-64 years age group, where it reached a peak of 22.3% (Figure 10). Levels of obesity among 16-24 year olds (2.9%) were significantly lower than all other age groups. After 65 years, obesity decreased and the percentage of adults aged 75+ years who were obese was lower than the percentage aged 25-34 years.

Patterns of obesity on the Isle of Man were similar to those seen in the North West of England. There were no significant differences by gender or by age group between the two geographical areas.

**Figure 9: Percentage of adults who are obese, by gender. Isle of Man and North West of England.**



**Figure 10: Percentage of adults who are obese, by age group. Isle of Man and North West of England.**





**Table 5: Percentage of adults who are obese, by gender and age group. Isle of Man and North West of England.**

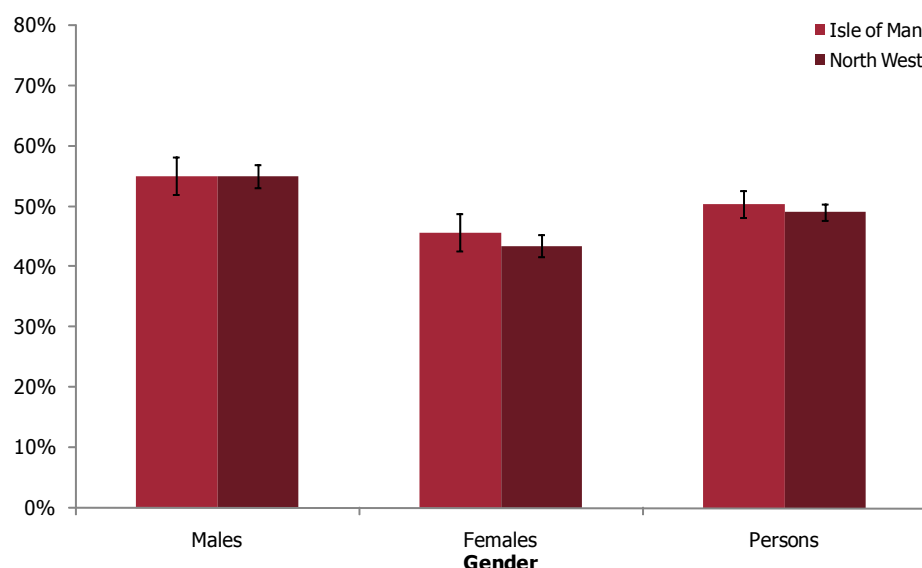
Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	15.7%	16.0%	15.9%	14.7%	15.3%	15.0%
16-24	3.1%	2.7%	2.9%	4.4%	5.3%	5.0%
25-34	12.9%	10.5%	11.9%	14.6%	12.1%	13.4%
35-44	19.3%	19.9%	19.5%	16.3%	17.5%	17.0%
45-54	19.2%	14.6%	17.0%	18.3%	17.3%	17.8%
55-64	19.6%	25.0%	22.3%	19.9%	21.3%	20.7%
65-74	22.3%	21.0%	21.7%	17.5%	19.1%	18.3%
75+	8.9%	14.9%	12.6%	9.0%	13.7%	11.9%

#### 4.5 Isle of Man survey results: Obese or overweight

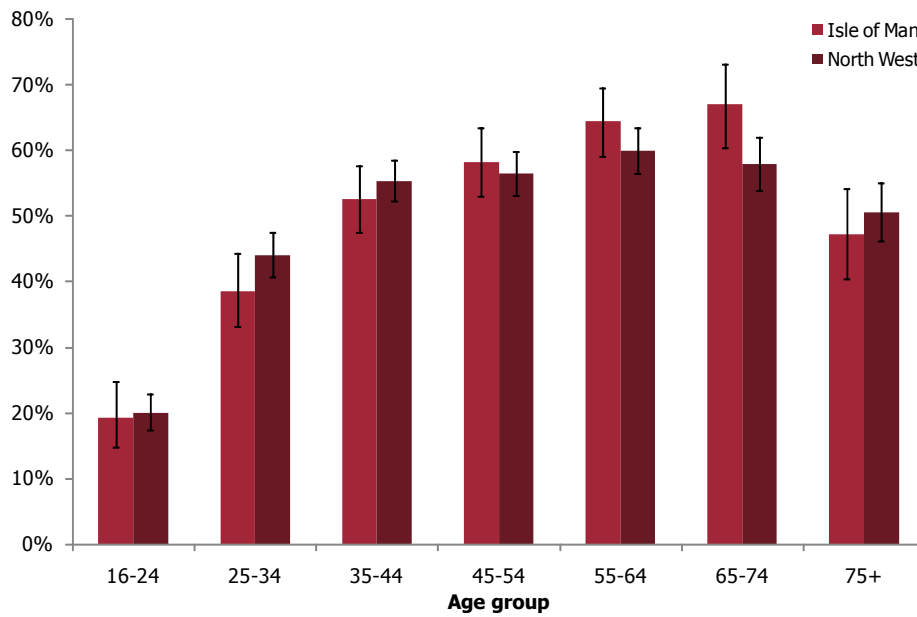
Over half of adults (50.4%) were obese or overweight, significantly more men (55.0%) than women (45.8%) (Figure 11, Table 6).

Obesity and overweight increased with age up to and including 65-74 years. Nearly seven out of ten 65-74 year olds (67.1%) were obese or overweight: more than three times higher than the proportion of people aged 16-24 years (19.2%) (Figure 12). Significantly fewer people aged 16-24 years and 25-34 years were obese or overweight compared with all other age groups.

Patterns of obese or overweight on the Isle of Man closely reflect those seen in the North West. There were no significant differences across gender or age groups between the geographical areas.

**Figure 11: Percentage of adults who are obese or overweight, by gender. Isle of Man and North West of England.**

**Figure 12: Percentage of adults who are obese or overweight, by age group. Isle of Man and North West of England.**



**Table 6: Percentage of adults who are obese or overweight, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	55.0%	45.8%	50.4%	55.0%	43.5%	49.1%
16-24	20.8%	18.2%	19.2%	23.6%	16.1%	20.0%
25-34	44.3%	32.2%	38.6%	51.7%	36.4%	44.1%
35-44	58.3%	46.6%	52.6%	66.6%	44.4%	55.4%
45-54	65.7%	50.6%	58.3%	63.1%	49.9%	56.5%
55-64	67.7%	61.3%	64.5%	64.2%	55.9%	60.1%
65-74	73.8%	61.0%	67.1%	59.9%	56.2%	58.0%
75+	49.4%	45.5%	47.2%	55.3%	47.7%	50.6%

## 5. Diet and Nutrition

### 5.1 Background

A healthy and balanced diet is vital to maintaining a healthy lifestyle and a healthy weight<sup>67</sup> and involves getting the right amount of vitamins and nutrients. It not only impacts upon present health conditions, but can have positive effects in the long term. For example, it can reduce the prevalence of mortality and morbidity in the population<sup>67; 68</sup> from such conditions as coronary heart disease, stroke, some cancers (approximately one-third of cancers can be attributed to poor diet and nutrition), Type 2 diabetes, obesity and high blood pressure.<sup>lv; 7; 19; 67</sup> It is currently estimated that treating ill health related to diet costs the NHS in England £2 billion each year.<sup>7</sup> Poor diet and nutritional imbalance account for over a hundred times more preventable deaths than food borne infections.<sup>69</sup>

A recent report highlighted a number of influencing factors that may be addressed when encouraging individuals to adopt more healthy eating behaviour, which include a lack of knowledge of what makes up a healthy diet; a lack of time to shop and read food labels adequately as to their content; and perceived higher costs of healthy options.<sup>70</sup>

In England, inequalities in diet are present across the country and between socio-economic groups,<sup>18; 67</sup> with poor dietary behaviours seen to cluster in areas of deprivation.<sup>7; 71</sup> In turn, nutrition may contribute to inequalities in health.<sup>7; 71</sup>

The Government highlighted diet and nutrition as a key action area in *The NHS Cancer Plan*<sup>61</sup> and the *National Service Frameworks for Coronary Heart Disease*,<sup>20</sup> *Diabetes*<sup>44</sup> and *Older People*.<sup>22</sup>

*Choosing a Better Diet: a food and health action plan*<sup>67</sup> brings together the commitments to food and nutrition that were highlighted in *Choosing Health: Making healthy choices easier*.<sup>7</sup> It highlights the coordinated action of a range of organisations at national, regional and local levels necessary to improve the health of the population. The commitment to this food and health action plan was made in the *Government Strategy for Sustainable Farming and Food (SSFF)*.<sup>72</sup>

There are a number of objectives to improve diet included in *Choosing a Better Diet: a food and health action plan*,<sup>67</sup> which include aims to increase the average consumption of a variety of fruit and vegetables to at least five portions per day and also the intake of dietary fibre to 18 grams per day as well as reducing the average intake of salt to 6 grams per day. These objectives are to be met in various ways, such as through the 5 A DAY campaign; social marketing strategies; personal health guidance; simplified food labelling; school food; encouraged uptake of breastfeeding; workplace healthy eating; and policies on advertising and promotion of food to children (from 1 January 2009, all foods high in fat, salt or sugar advertisements to children have been removed).<sup>lvi</sup>

The WHO Europe *First Action Plan for Food and Nutrition Policy: 2000-2005*<sup>73</sup> stated that "By the year 2015, people across society should have adopted healthier patterns of living". This policy has recently been updated to cover the period 2007 to 2012.<sup>74</sup>

Further information may also be found in the *Healthy Weight in the North West* synthesis report.<sup>53</sup>

<sup>lv</sup> It is also important to take into account other factors affecting the risk of these diseases/illnesses, such as smoking, alcohol and exercise.<sup>71</sup>

<sup>lvi</sup> [www.ofcom.org.uk/research/tv/reports/update](http://www.ofcom.org.uk/research/tv/reports/update)

## 5.2 Bread

### 5.2.1 Background

Approximately £56 million is spent on bread per week in the UK.<sup>75</sup> The current average consumption of bread is less than four medium slices a day and medical experts recommend that consumption should be increased by 50%. It has been suggested that "*if everyone reduced fat and sugar intake as recommended and compensated by eating an additional two large slices of bread a day, it would have a dramatic impact on the nation's health*".<sup>76</sup>

A report by the Federation of Bakers highlighted the positive contribution that bread makes to the UK diet<sup>77</sup> in that bread provides 20% of the UK adult total dietary fibre intake, half of which (10%) is contributed to by white bread. Bread is an important source of carbohydrates, dietary fibre,<sup>lvii</sup> calcium, thiamine<sup>77</sup> and folate.<sup>lviii</sup>

Wholegrain, wholemeal or brown bread may be considered a healthy choice as it contains a number of vitamins: B vitamins, vitamin E, fibre and a wide range of minerals. White bread has less fibre and higher levels of sodium, but still contains a range of vitamins and minerals.<sup>lix</sup> Wholegrain, wholemeal, brown and white bread also have varying amounts of calories, fat and carbohydrate per slice.

The Department of Health and Food Standards Agency recommend that one-third of total calories consumed should come from starch food such as bread and pasta. Foods rich in fibre can reduce the risk of bowel cancer. Foods which fall into this group include wholemeal and wholegrain bread.

### 5.2.2 Existing information

The Federation of Bakers and Flour Advisory Bureau commissioned research to assess bread consumption in Britain. The survey found the majority of adults (74%) ate bread at least once a day. More men (44%) than women (25%) eat bread on two occasions per day. White sliced bread was most frequently eaten by respondents and was also eaten on more occasions.<sup>77</sup>

The Expenditure and Food Survey highlighted an overall decrease of 5.0% in the consumption of bread from 728g to 692g per person per week from 2003-04 to 2006.<sup>lx</sup> This includes a decrease in the consumption of white bread (from 410g to 310g per person per week, a fall of 24.3%); and increases in the consumption of brown and wholemeal bread (from 139g to 188g per person per week, a rise of 34.4%) and other bread (from 179g to 194g per person per week, an increase of 8.5%).<sup>78</sup>

### 5.2.3 Survey and analysis methodology

Participants were asked if they ever eat bread, rolls or hard dough bread. If they answered "yes", they were asked what type they usually ate:

1. white
2. brown
3. wholemeal
4. (spontaneous) other.

This question has been used in various local lifestyle surveys.

<sup>lvii</sup> Six slices of wholemeal bread would provide more than 70% of the average fibre requirement for adults; brown bread would provide around 50% and white bread 20%.

<sup>lviii</sup> Folate is essential for the formation of red and white blood cells in bone marrow. On average, a slice of granary bread will provide 35 micrograms of folic acid, wholemeal bread 15 micrograms and white bread about 11 micrograms of folic acid per slice. [www.bakersfederation.org.uk/folic\\_acid.aspx](http://www.bakersfederation.org.uk/folic_acid.aspx)

<sup>lix</sup> [www.eatwell.gov.uk/asksam/healthydiet/sfq/?lang=en](http://www.eatwell.gov.uk/asksam/healthydiet/sfq/?lang=en)

<sup>lx</sup> The numbers given are approximate and therefore may not add up to the percentage given if calculated manually.

Overall, 95.3% of adults said that they ate bread, rolls or hard dough bread. The analyses below of the type adults ate were based on the responses from these people that do eat bread, rolls or hard dough bread.

#### **5.2.4 Isle of Man survey results: Bread consumption**

The most common type of bread usually eaten on the Isle of Man was white (usually eaten by 35.3% of adults), followed by wholemeal (32.9%) and then brown (20.7%) (Figure 13, Table 7).

However, the type of bread usually consumed varied by gender (Figure 14, Figure 15, Figure 16). White bread was the most common choice among men (usually eaten by 42.1% of men, significantly higher than the 28.7% of women who ate it), while wholemeal was the most popular choice among women (36.7%, significantly higher than the 29.0% of men who ate it). These patterns of bread consumption by gender closely reflect those seen in the North West, with the only significant difference being for male wholemeal bread consumption, where the Isle of Man was significantly higher than in the North West (23.2%).

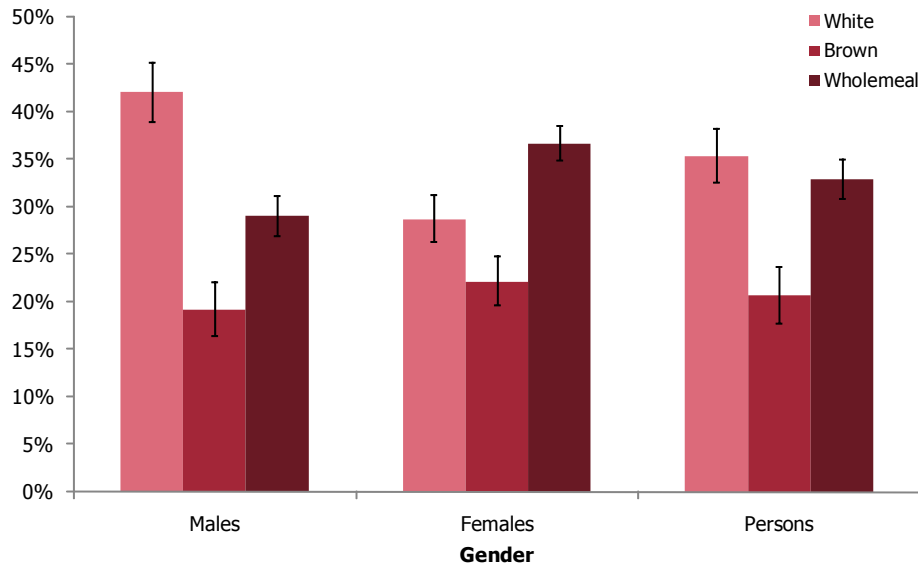
On the Isle of Man, white bread was usually eaten by more people aged 16-24 years (48.6%) than any other age group, significantly higher than all other age groups over 35 years (Figure 17). Significantly fewer people aged 45-54 years usually consumed white bread (27.8%) than those aged 16-24 and 35-44.

Brown bread was usually eaten by more people aged 65-74 years (23.8%) than any other age group (Figure 18), while the lowest level of consumption was among those aged 35-44 years (17.9%). There were no significant differences in brown bread consumption by age.

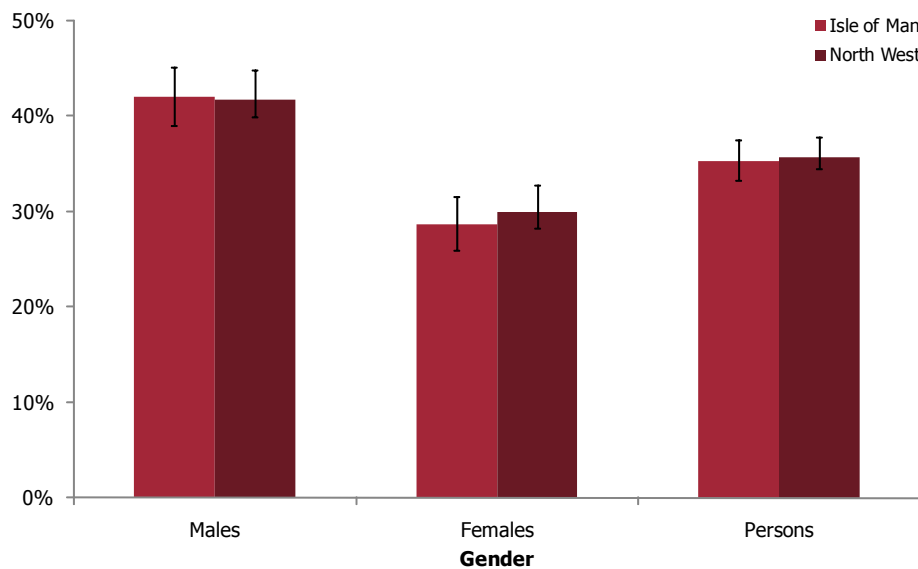
On the Isle of Man, the proportion of people usually eating wholemeal bread was highest in the 75+ age group (40.1%). Wholemeal bread was consumed by significantly fewer people aged 16-24 years (23.3%) than all other age groups apart from those aged 35-44 (29.6%) and 65-74 years (29.1%) (Figure 19).

For both the Isle of Man and the North West of England there was similar variation by age in the type of bread usually eaten with no significant differences between age groups across both geographical areas.

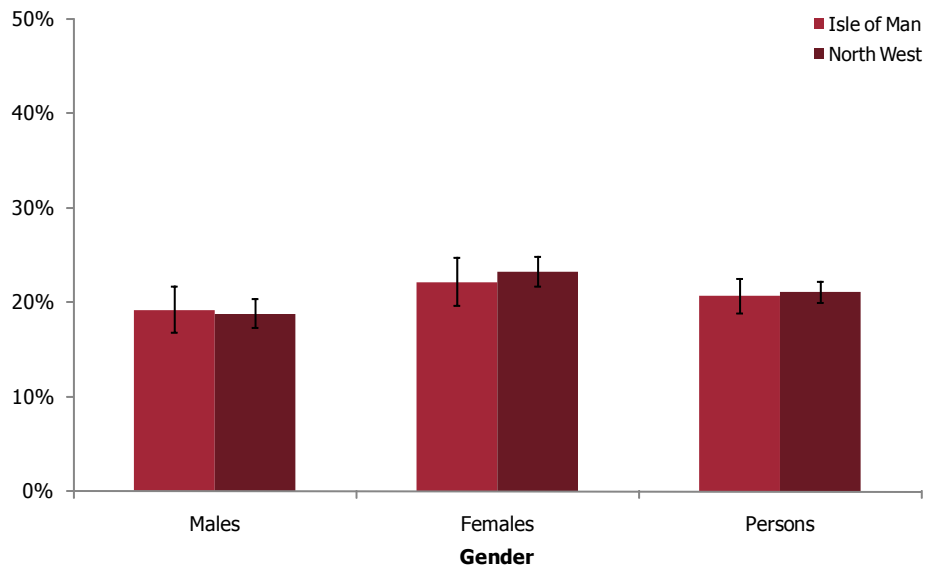
**Figure 13: Type of bread usually eaten, by gender. Isle of Man.**



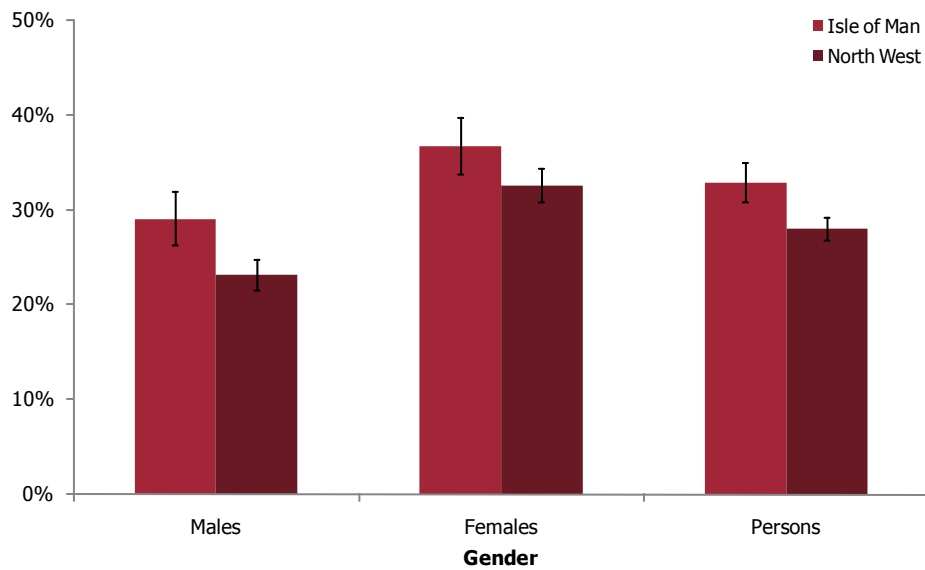
**Figure 14: Percentage of adults who usually eat white bread, by gender. Isle of Man and North West of England.**



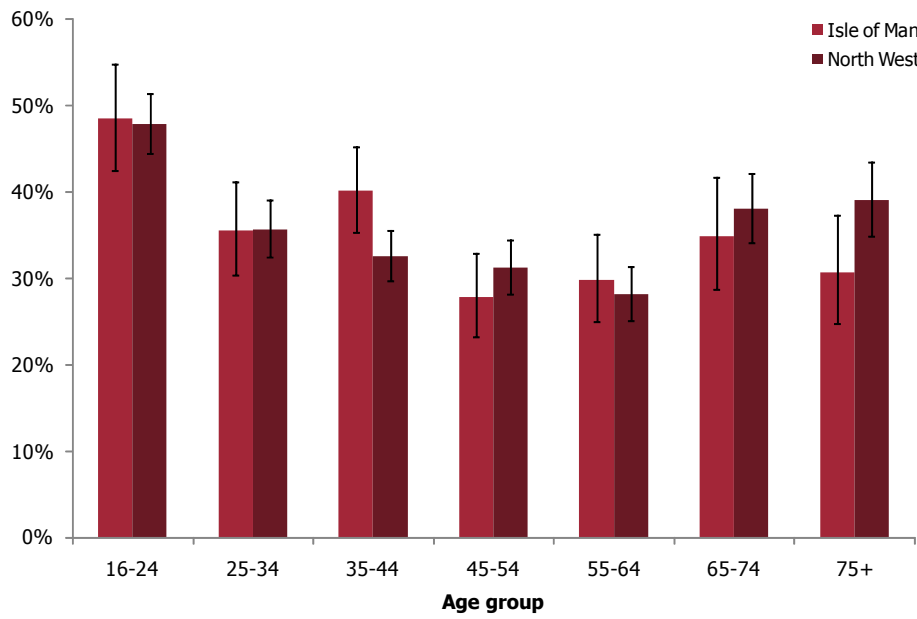
**Figure 15: Percentage of adults who usually eat brown bread, by gender. Isle of Man and North West of England.**



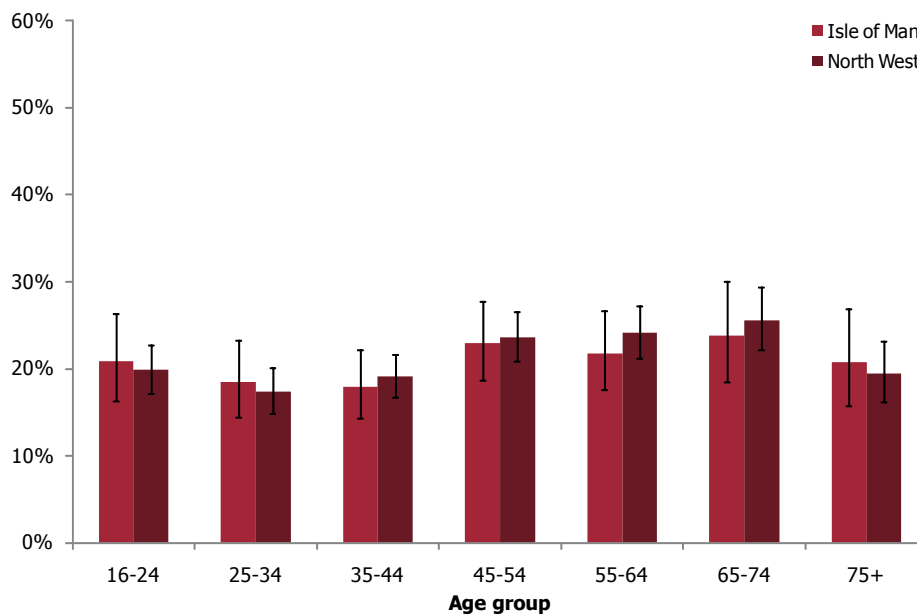
**Figure 16: Percentage of adults who usually eat wholemeal bread, by gender. Isle of Man and North West of England.**



**Figure 17: Percentage of adults who usually eat white bread, by age group. Isle of Man and North West of England.**

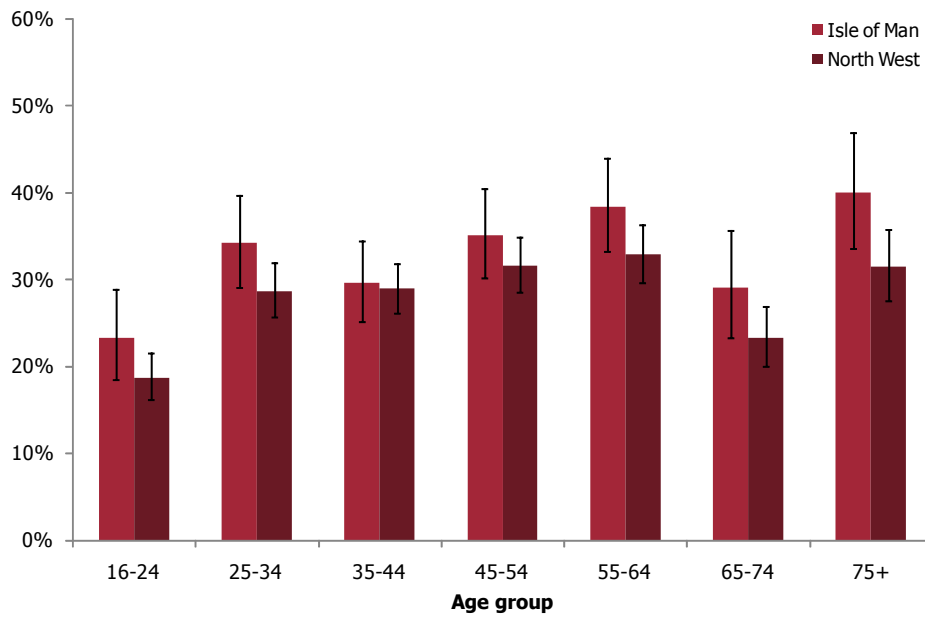


**Figure 18: Percentage of adults who usually eat brown bread, by age group. Isle of Man and North West of England.**





**Figure 19: Percentage of adults who usually eat wholemeal bread, by age group. Isle of Man and North West of England.**



**Table 7: Type of bread, rolls or hard dough bread usually eaten, by gender and age group. Isle of Man and North West of England.**

		Isle of Man				North West			
		White	Brown	Wholemeal	Other	White	Brown	Wholemeal	Other
Males	Age group								
	All ages	42.1%	19.3%	29.0%	9.6%	41.8%	18.8%	23.2%	16.2%
	16-24	60.2%	17.3%	16.5%	6.0%	53.2%	16.1%	15.9%	14.9%
	25-34	43.2%	17.8%	30.1%	8.9%	45.3%	17.2%	21.4%	16.2%
	35-44	47.1%	16.9%	23.8%	12.2%	38.2%	18.0%	21.6%	22.2%
	45-54	31.4%	23.1%	33.1%	12.4%	35.9%	22.6%	26.6%	15.0%
	55-64	34.6%	21.2%	35.9%	8.3%	33.2%	21.0%	30.6%	15.1%
	65-74	44.7%	18.4%	27.2%	9.7%	44.9%	21.1%	20.4%	13.6%
75+	32.5%	20.0%	40.0%	7.5%	45.9%	14.2%	27.9%	12.0%	
Females	All ages	28.7%	22.2%	36.7%	12.3%	30.0%	23.3%	32.6%	14.1%
	16-24	35.0%	24.8%	31.6%	8.5%	42.7%	23.9%	21.6%	11.8%
	25-34	28.3%	19.1%	38.2%	14.5%	26.3%	17.3%	36.0%	20.5%
	35-44	33.3%	18.6%	36.2%	11.9%	27.0%	20.2%	36.3%	16.5%
	45-54	24.5%	22.6%	37.1%	15.7%	26.6%	24.7%	36.8%	11.9%
	55-64	25.3%	22.8%	40.5%	11.4%	23.2%	27.1%	35.1%	14.7%
	65-74	25.2%	29.1%	31.1%	14.6%	32.0%	29.6%	25.9%	12.5%
	75+	29.5%	21.3%	40.2%	9.0%	35.0%	22.5%	33.8%	8.7%
Persons	All ages	35.3%	20.7%	32.9%	11.1%	35.7%	21.1%	28.0%	15.1%
	16-24	48.6%	20.9%	23.3%	7.2%	47.9%	19.9%	18.7%	13.5%
	25-34	35.6%	18.5%	34.2%	11.7%	35.7%	17.4%	28.7%	18.2%
	35-44	40.2%	17.9%	29.6%	12.2%	32.6%	19.1%	29.0%	19.4%
	45-54	27.8%	22.9%	35.2%	14.1%	31.3%	23.6%	31.7%	13.4%
	55-64	29.8%	21.8%	38.5%	9.9%	28.1%	24.1%	32.9%	14.8%
	65-74	35.0%	23.8%	29.1%	12.1%	38.1%	25.6%	23.3%	13.0%
	75+	30.7%	20.8%	40.1%	8.4%	39.1%	19.4%	31.6%	9.9%

## 5.3 Milk

### 5.3.1 Background

Milk is an important component of a healthy diet. It has many nutritional properties including calcium, magnesium, zinc and vitamin C. The healthy properties in milk help prevent certain health conditions and strengthen bone density and teeth strength.<sup>lxi</sup>

Milk is not a high fat product. Whole milk contains 4% fat, semi-skimmed milk contains 1.7% fat and skimmed milk contains 0.3% fat.

Approximately £56 million is spent on milk per week in the UK, including £15 million on whole milk and £37 million on low fat milk.<sup>lxi</sup> From April 2007 to April 2008, 1,006.0 million litres of whole milk (24.6% of milk sales), 2,640.3 million litres of semi-skimmed milk (64.6%), and 473.7 million litres of skimmed milk (10.7%) were sold, with an annual cost of £2,515.2 million.<sup>lxii</sup>

The amount of semi-skimmed and skimmed milk consumed has increased from 56.7 to 60.7 litres per head, an increase of 7.1%, from 2001/02 to 2005/06, while consumption of whole milk has decreased from 31.1 to 23.9 litres per head, a decrease of 23.2%.<sup>lxiii</sup> Overall milk consumption has decreased 3.6% from 87.8 (2001/02) to 84.6 (2005/06) litres per head.

### 5.3.2 Existing information

The *National Diet and Nutrition Survey 2002*<sup>79</sup> surveyed a sample of adults aged 19-64 years to look at their dietary habits and nutritional status. A number of questions were asked which related to milk consumption, some details of which are provided below.

Semi-skimmed cow's milk was the most popular type of milk drunk, with consumption higher among men (35%) than women (27%). For men and women, the percentage that did not have milk as a drink increased with age. For example, 25% of men aged 19-24 years did not have milk as a drink compared with 59% of men aged 50-64 years; and 34% of women aged 19-24 years did not have milk as a drink compared with 66% of women aged 50-64 years.

Semi-skimmed cow's milk was also the most commonly used milk on breakfast cereal and in puddings, with similar percentages of men and women using this (55% and 53% respectively). In men, those aged 35-49 years were more likely to use semi-skimmed cow's milk than other age groups and more women aged 19-24 years used semi-skimmed than other age groups. The percentage of respondents who did not have any milk on their breakfast cereal or in puddings decreased with age in both men and women, but with a larger decrease for men – from 23% of men aged 19-24 years to 16% of men aged 50-64 years; and from 16% of women aged 19-24 years to 12% of women aged 50-64 years.

An increase with age in both men and women was also apparent for usage of skimmed cow's milk: from 2% of men aged 19-24 years to 10% of men aged 50-64 years; and from 7% of women aged 19-24 years to 19% of women aged 50-64 years.

Over the last seven days, nearly three-quarters of men (74%) and women (73%) consumed semi-skimmed milk, compared with just over a third who consumed whole milk (36% of men and 35% of women). More women (22%) than men (15%), however, consumed skimmed milk.

<sup>lxi</sup> [www.milk.co.uk/page.aspx?intPageID=73](http://www.milk.co.uk/page.aspx?intPageID=73)

<sup>lxii</sup> [www.mdcdatum.org.uk/RetailerDataPrices/tnsliquidmilkpasteurised.html](http://www.mdcdatum.org.uk/RetailerDataPrices/tnsliquidmilkpasteurised.html)

<sup>lxiii</sup> [www.mdcdatum.org.uk/backdata/DF2005/estimatedconsumptionofproducts.xls](http://www.mdcdatum.org.uk/backdata/DF2005/estimatedconsumptionofproducts.xls)

For whole milk, there was also a difference by age, with those aged 25-34 years more likely to have consumed whole milk in the last seven days than other age groups. For both men and women, skimmed milk was also least likely to have been consumed among those aged 19-24 years.

Women who were living in benefit households were more likely to consume whole milk (49%) than those who were not (32%). In addition, a lower proportion of women in households in receipt of benefits consumed skimmed milk than those in non-benefit households.

Overall, 5% of individuals interviewed who said they were vegetarian or vegan also said that they avoided milk.

### 5.3.3 Survey and analysis methodology

Survey participants were asked if they use milk for drinks, in tea or coffee, or on cereals. If they did, they were asked what type of milk they usually used:

1. whole milk
2. semi-skimmed milk including dried semi-skimmed
3. skimmed milk including dried skimmed-milk
4. no usual type.

This question was taken from the Health Survey for England.

Overall, 92.4% of adults said that they used milk for drinks, in tea or coffee, or on cereals. The analyses below of the type of milk used were based on the responses from these people that do use milk for drinks, in tea or coffee, or on cereals.

### 5.3.4 Isle of Man survey results: Milk consumption

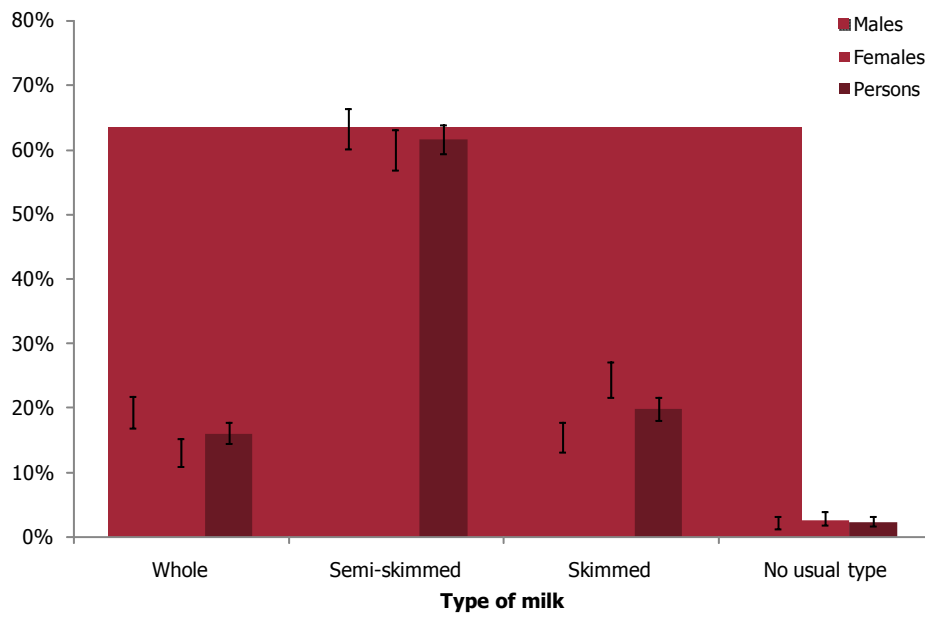
Semi-skimmed milk was the most common type of milk usually consumed by 61.7% of residents on the Isle of Man, followed by skimmed milk (19.8%), whole milk (16.1%) and then no usual type of milk (2.4%) (Figure 20, Table 8).

Slightly more men consumed semi-skimmed milk than women (63.3% compared with 60.0%), but this difference was not significant (Figure 22). Significantly more men consumed whole milk (19.2%) than women (13.1%) (Figure 21). Conversely, significantly more women than men consumed skimmed milk (24.3% and 15.3% respectively) (Figure 23). Patterns of consumption by gender are similar across the Isle of Man and North West, with only one significant difference: significantly fewer women on the Isle of Man usually consumed semi-skimmed milk (60.0%) than women in the North West (65.1%) (Figure 22).

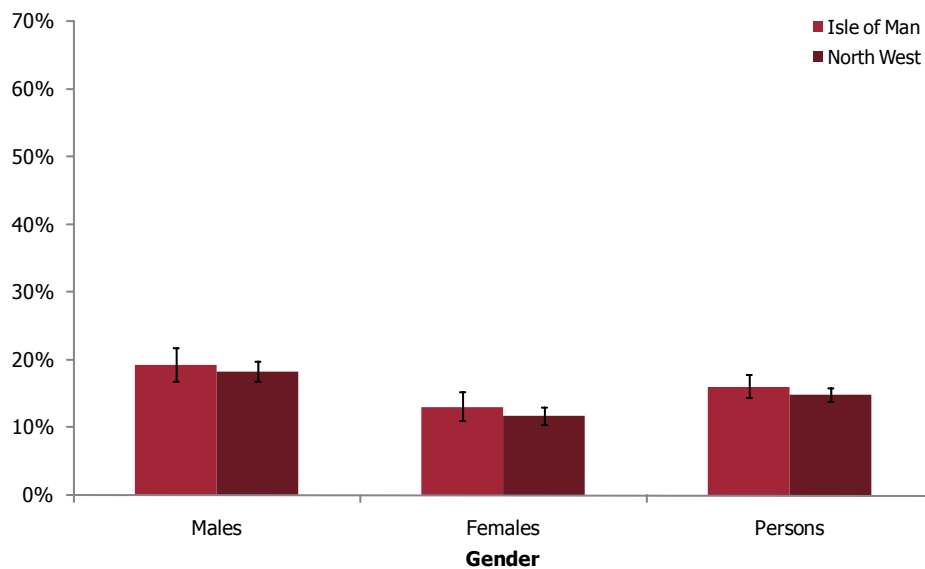
Whole milk was used by significantly more residents over the age of 75 years (27.3%) than any other age group between the ages of 25 and 64 years (Figure 24). Usage of semi-skimmed milk generally declined as age increased (Figure 25), with the proportion of people consuming semi-skimmed milk being lowest among those aged 75+ (53.5%). The highest proportion of people who usually consumed semi-skimmed milk were aged 25-34 years (66.7%). Skimmed milk was used by 1.9 times more people aged 65-74 years (24.3%) than 16-24 years (13.1%). The proportion of people aged 16-24 years using skimmed milk (13.1%) was significantly lower than all other age groups combined (Figure 26).

Patterns of milk use by age on the Isle of Man were similar to those seen in the North West of England with no significant differences between the two geographical areas.

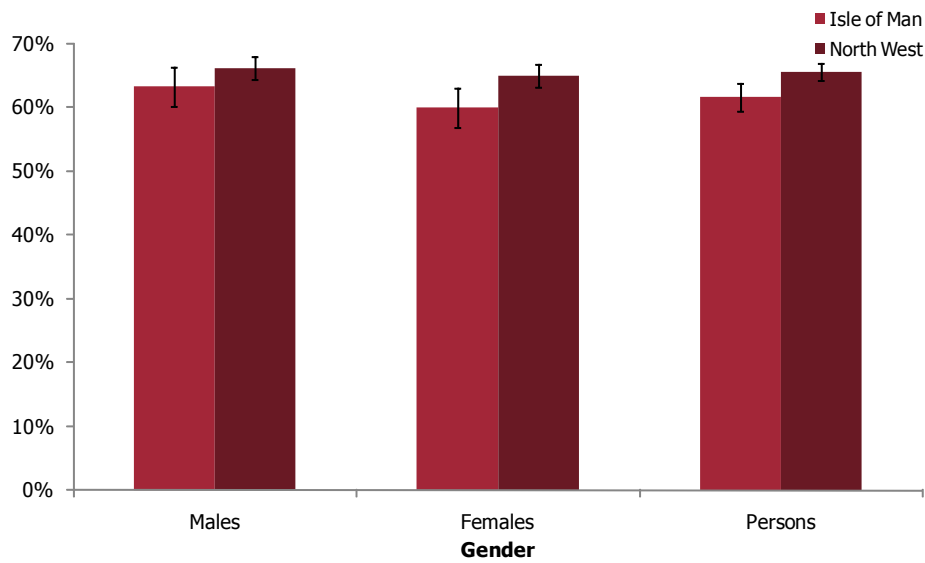
**Figure 20: Type of milk usually used for drinks in tea or coffee or on cereal, by gender. Isle of Man.**



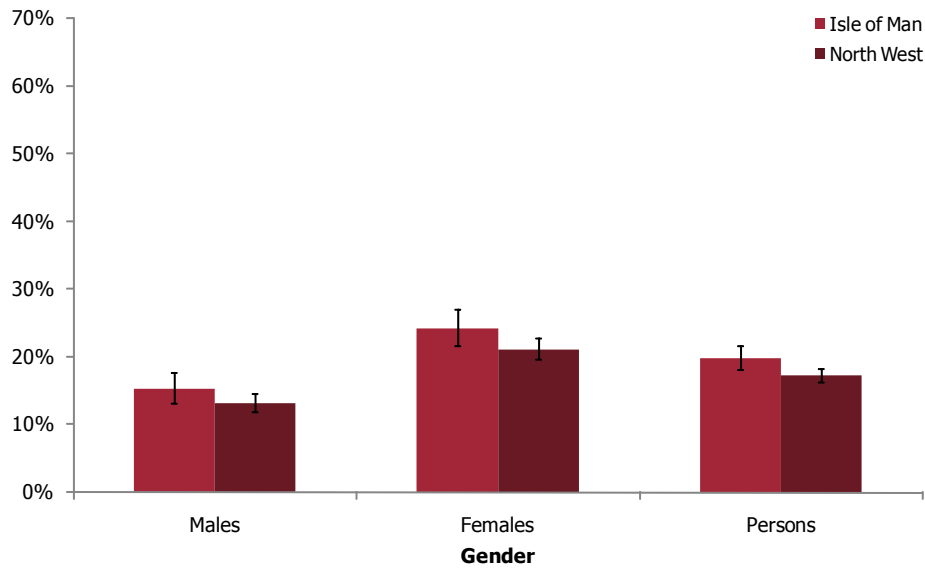
**Figure 21: Percentage of adults who usually use whole milk, by gender. Isle of Man and North West of England.**



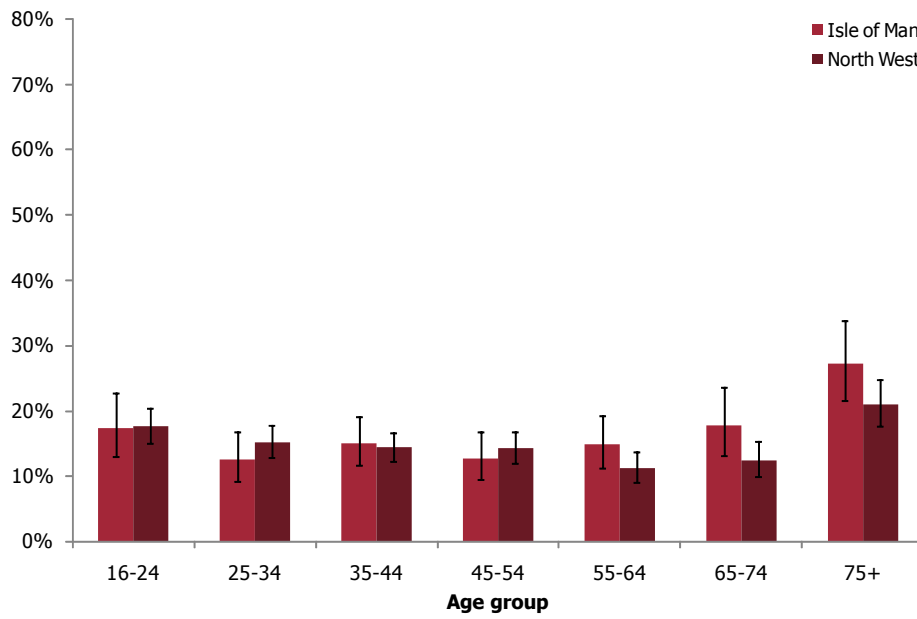
**Figure 22: Percentage of adults who usually use semi-skimmed milk, by gender. Isle of Man and North West of England.**



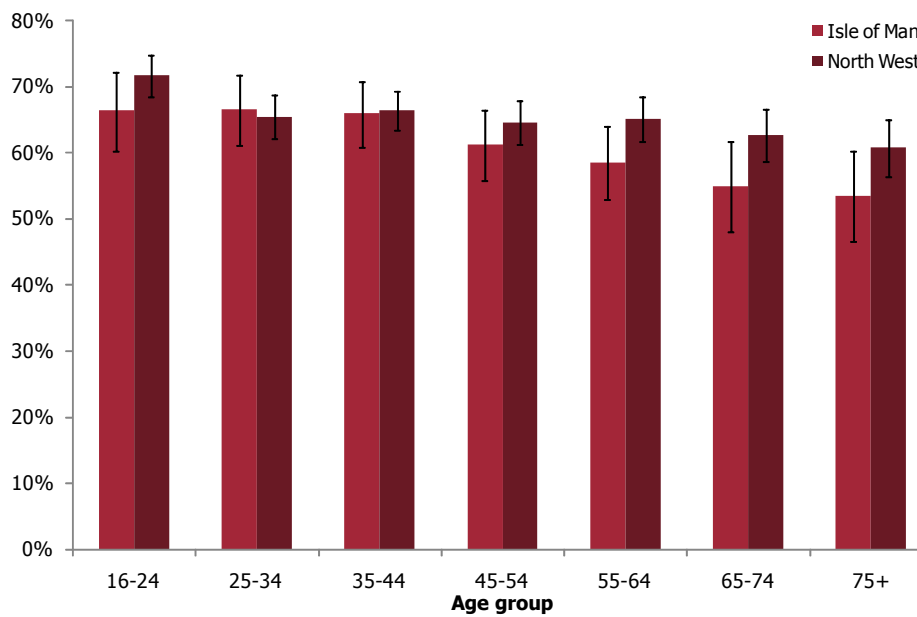
**Figure 23: Percentage of adults who usually use skimmed milk, by gender. Isle of Man and North West of England.**



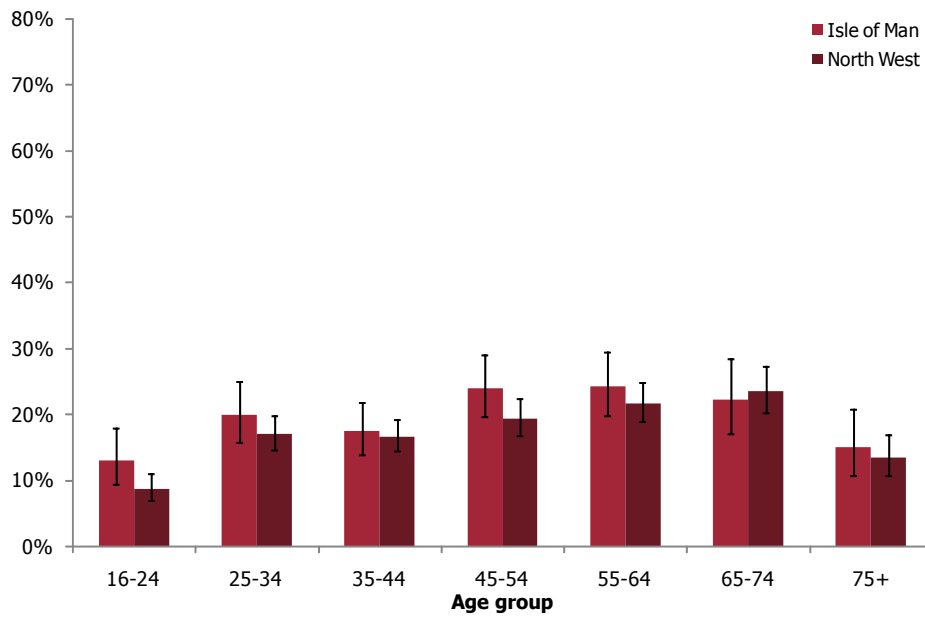
**Figure 24: Percentage of adults who usually use whole milk, by age group. Isle of Man and North West of England.**



**Figure 25: Percentage of adults who usually use semi-skimmed milk, by age group. Isle of Man and North West of England.**



**Figure 26: Percentage of adults who usually use skimmed milk, by age group. Isle of Man and North West of England.**



**Table 8: Type of milk usually used for drinks in tea or coffee or on cereals, by gender and age group. Isle of Man and North West of England.**

	Isle of Man				North West				
	Age group	Whole	Semi-skimmed	Skimmed	No usual type	Whole	Semi-skimmed	Skimmed	No usual type
<b>Males</b>	All ages	19.2%	63.3%	15.3%	2.1%	18.3%	66.2%	13.2%	2.3%
	16-24	22.3%	65.3%	9.1%	3.3%	19.0%	73.6%	4.8%	2.5%
	25-34	16.4%	67.1%	16.4%	0.0%	19.5%	65.5%	12.5%	2.5%
	35-44	21.2%	65.9%	12.3%	0.6%	18.4%	67.3%	11.8%	2.5%
	45-54	12.4%	67.1%	19.9%	0.6%	18.0%	65.8%	14.5%	1.8%
	55-64	17.4%	64.5%	15.5%	2.6%	14.6%	66.6%	17.5%	1.3%
	65-74	19.2%	54.8%	20.2%	5.8%	16.2%	60.0%	22.6%	1.1%
	75+	33.3%	48.0%	13.3%	5.3%	24.5%	58.7%	10.9%	6.0%
<b>Females</b>	All ages	13.1%	60.0%	24.3%	2.6%	11.7%	65.1%	21.2%	2.0%
	16-24	12.2%	67.8%	17.4%	2.6%	15.9%	69.5%	13.2%	1.4%
	25-34	8.8%	66.2%	23.6%	1.4%	10.9%	65.6%	21.7%	1.8%
	35-44	9.1%	65.7%	22.9%	2.3%	10.6%	65.7%	21.5%	2.2%
	45-54	13.0%	55.2%	28.6%	3.2%	10.5%	63.5%	24.5%	1.5%
	55-64	12.2%	52.0%	33.8%	2.0%	7.8%	63.7%	26.1%	2.4%
	65-74	16.2%	55.6%	24.2%	4.0%	8.8%	65.0%	24.8%	1.4%
	75+	23.4%	56.5%	16.9%	3.2%	19.1%	62.0%	15.2%	3.6%
<b>Persons</b>	All ages	16.1%	61.7%	19.8%	2.4%	14.9%	65.7%	17.3%	2.2%
	16-24	17.4%	66.5%	13.1%	3.0%	17.6%	71.7%	8.9%	1.8%
	25-34	12.6%	66.7%	20.1%	0.7%	15.2%	65.5%	17.1%	2.2%
	35-44	15.0%	66.0%	17.6%	1.4%	14.4%	66.5%	16.8%	2.4%
	45-54	12.7%	61.3%	24.1%	1.9%	14.3%	64.6%	19.5%	1.6%
	55-64	14.8%	58.6%	24.3%	2.3%	11.2%	65.2%	21.8%	1.9%
	65-74	17.8%	55.0%	22.3%	5.0%	12.4%	62.7%	23.7%	1.3%
	75+	27.3%	53.5%	15.2%	4.0%	21.0%	60.8%	13.6%	4.5%

## 5.4 Oil or fat used for cooking

### 5.4.1 Background

Fat in the diet helps the body absorb some vitamins and it is a good source of energy and essential fatty acids that the body cannot make itself. However, too much can cause weight gain and leave individuals more susceptible to certain illnesses and diseases such as high levels of total and bad cholesterol, high blood pressure, heart disease, stroke, obesity and Type 2 diabetes. It is important to try to replace the saturated fat eaten (such as that from meat products, hard cheese, pastry, butter/lard, cakes and biscuits, cream) with unsaturated fat (from, for example, oily fish, nuts and seeds, olive oil and spreads and avocados).

Within food products, a total fat content of more than 20g of fat per 100g is considered high, while a total fat content of 3g or less per 100g is considered low. A saturated fat content of more than 5g per 100g is considered high, while a saturated fat content of 1.5g or less is low.<sup>lxiv</sup>

### 5.4.2 Existing information

The Expenditure and Food Survey 2006 provides information on UK household purchased quantities of food and drink averages per person. It showed that approximately three grams of lard and cooking fat were consumed per person per week. Trend information shows data from adjusted National Food Survey figures for 1974 to 2000 and the Expenditure and Food Survey from 2001-02 onwards.<sup>lxv; lxvi</sup>

The National Diet and Nutrition Survey 2002<sup>79</sup> assessed the consumption of butter, block margarine, soft margarine (not polyunsaturated), polyunsaturated margarine, polyunsaturated oils, polyunsaturated low fat spread, other low fat spread, polyunsaturated reduced fat spread, other reduced fat spread and then other oils and cooking fats not polyunsaturated.

Overall, 15% of men aged 19 to 64 years stated that they had consumed other oils and cooking fats (not polyunsaturated) in the previous seven days. Across the male age range, the highest consumption was among those aged 50-64 years (19%) and the lowest among those aged 25-34 years (11%).

A similar percentage of women aged 19-64 years (14%) stated that they had consumed other oils and cooking fats (not polyunsaturated). However, the highest percentage of consumption was among women aged 25-34 years (18%) and the lowest in women aged 19-24 years (8%). It was also highlighted that women living in households where someone was receiving benefits were less likely to consume other oils and cooking fats (not polyunsaturated) (7%) than those who were not (15%).

### 5.4.3 Survey and analysis methodology

Survey participants were asked if they use oil or fat for cooking or frying food. If they did, they were asked what type of oil or fat they usually used for doing so:

1. butter, ghee, lard, suet, solid cooking fat, coconut oil or palm oil
2. hard or soft margarine, half fat butter or ghee
3. vegetable oil (for example, sunflower, olive, rapeseed, mustard, peanut or corn).

This question was taken from the Health Survey for England.

<sup>lxiv</sup> [www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/fats/](http://www.eatwell.gov.uk/healthydiet/nutritionessentials/fatssugarssalt/fats/)

<sup>lxv</sup> This only shows percentage changes from 2003-04 to date due to changes in, and different methods of, data collection/coding.

<sup>lxvi</sup> <https://statistics.defra.gov.uk/esg/publications/efs/datasets/UKHHcons.xls>



Overall, 83.7% of adults said that they used oil or fat for cooking or frying food. The analyses below of the type of oil or fat used for cooking or frying were based on the responses from those people that do use oil or fat.

#### 5.4.4 Isle of Man survey results: Oil and fat consumption

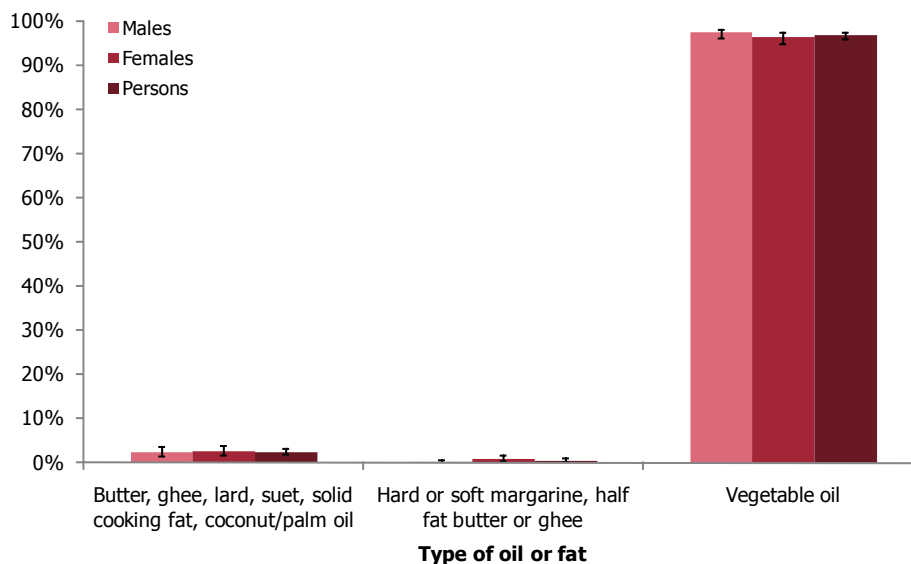
The majority of adults (97.0%) on the Isle of Man said that they usually used vegetable oil when cooking or frying food (Figure 27, Table 9). Butter, ghee, lard, suet, solid cooking fat, coconut or palm oil was used by 2.4% and hard or soft margarine, half fat butter or ghee was used by 0.5%. There were no significant differences by gender in the usage of any type of oil or fat (Figure 28).

A significantly higher proportion of men on the Isle of Man used vegetable oil when cooking or frying food (97.5%) compared with men in the North West (94.9%). For women, there was no significant difference. No significant differences were seen by gender across the other oil and fat types.

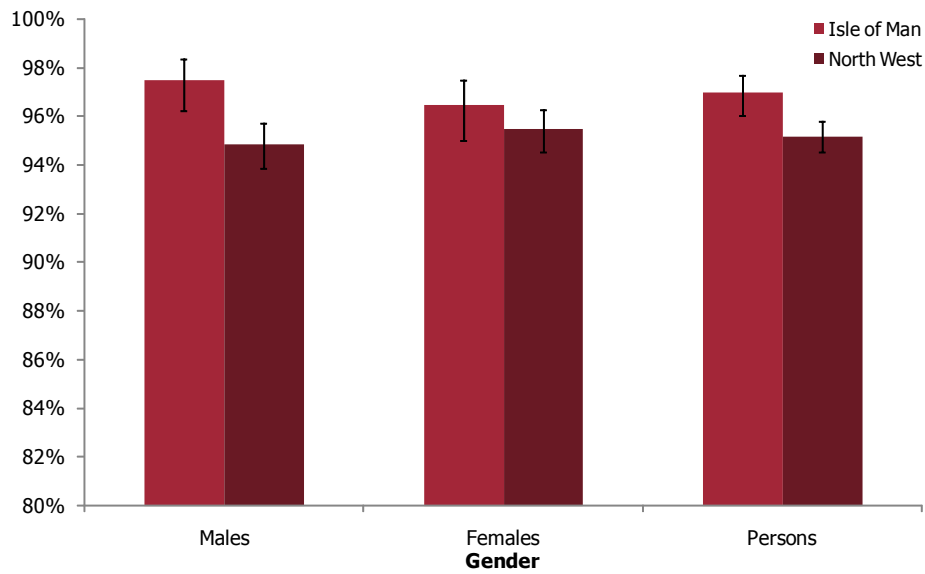
There were some differences in oil and fat consumption by age (Figure 29). Vegetable oil was used by significantly less people aged 75+ years (93.1%) than those aged 16-54 combined, and significantly more people aged 25-34 years (99.2%) than those aged 65+ years. The use of butter, ghee, lard, suet, solid cooking fat, coconut or palm oil generally increased with age, particularly after the age of 55. Over ten times more people aged 75+ years (6.3%) used butter or other similar fats for cooking than people aged 35-44 years (0.6%) and hard or soft margarine, half fat butter or ghee was used by almost four times as many people aged 55-64 years (1.1%) than those aged 35-44 (0.3%).

Patterns of usage of oil and fat by age group on the Isle of Man were similar to those seen in the North West. However, significantly more people aged 75+ years on the Island used vegetable oil (93.1%) compared with the North West (85.0%).

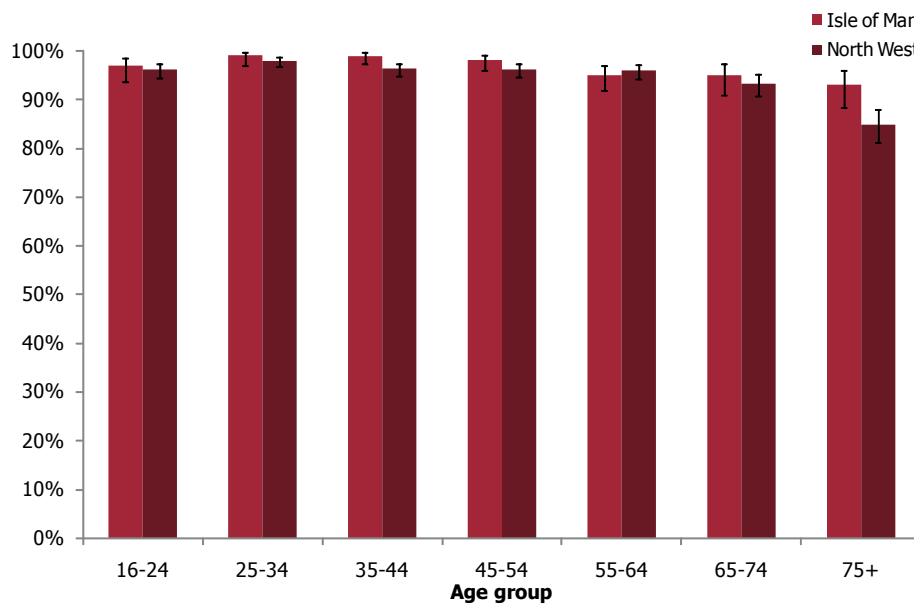
**Figure 27: Type of oil or fat usually used for cooking or frying food, by gender. Isle of Man.**



**Figure 28: Percentage of adults who usually use vegetable oil for cooking or frying food, by gender. Isle of Man and North West of England.**



**Figure 29: Percentage of adults who usually use vegetable oil for cooking or frying food, by age group. Isle of Man and North West of England.**



**Table 9: Type of oil or fat usually used for cooking or frying food, by gender and age group. Isle of Man and North West of England.**

		Isle of Man			North West		
	Age group	Butter, ghee, lard, suet, solid cooking fat, coconut oil or palm oil	Hard or soft margarine, half fat butter or ghee	Vegetable oil	Butter, ghee, lard, suet, solid cooking fat, coconut oil or palm oil	Hard or soft margarine, half fat butter or ghee	Vegetable oil
<b>Males</b>	All ages	2.4%	0.1%	97.5%	4.4%	0.8%	94.9%
	16-24	5.1%	0.0%	94.9%	2.8%	1.3%	95.9%
	25-34	1.6%	0.0%	98.4%	3.2%	0.0%	96.8%
	35-44	1.2%	0.0%	98.8%	2.7%	1.7%	95.6%
	45-54	0.7%	0.0%	99.3%	4.4%	0.3%	95.3%
	55-64	2.8%	0.7%	96.5%	4.0%	0.3%	95.7%
	65-74	1.1%	0.0%	98.9%	5.2%	0.4%	94.3%
	75+	7.7%	0.0%	92.3%	14.5%	1.3%	84.2%
<b>Females</b>	All ages	2.5%	0.9%	96.6%	3.6%	0.8%	95.5%
	16-24	0.0%	1.0%	99.0%	2.4%	0.7%	97.0%
	25-34	0.0%	0.0%	100.0%	0.6%	0.0%	99.4%
	35-44	0.0%	0.6%	99.4%	2.4%	0.2%	97.3%
	45-54	0.7%	2.1%	97.2%	2.2%	0.5%	97.3%
	55-64	5.0%	1.4%	93.6%	3.1%	0.6%	96.3%
	65-74	8.3%	0.0%	91.7%	6.8%	0.8%	92.5%
	75+	5.4%	0.9%	93.7%	10.6%	3.9%	85.4%
<b>Persons</b>	All ages	2.4%	0.5%	97.0%	4.0%	0.8%	95.2%
	16-24	2.5%	0.5%	97.0%	2.8%	1.0%	96.3%
	25-34	0.8%	0.0%	99.2%	1.9%	0.0%	98.1%
	35-44	0.6%	0.3%	99.1%	2.6%	1.0%	96.5%
	45-54	0.7%	1.0%	98.3%	3.2%	0.4%	96.4%
	55-64	3.9%	1.1%	95.1%	3.5%	0.4%	96.0%
	65-74	4.8%	0.0%	95.2%	6.1%	0.6%	93.3%
	75+	6.3%	0.6%	93.1%	12.1%	3.0%	85.0%

## 5.5 Spreading fats

### 5.5.1 Background

Spreading fats such as margarine, butter and low fat spreads make up approximately 20% of the fats that are eaten each day.

Butter contains both saturated fats and cholesterol, which can raise levels of bad cholesterol in the blood as well as total cholesterol levels. Butter has higher levels of total fats, saturated fats and cholesterol than soft tub margarine.<sup>lxvii</sup>

Originally, margarine contained high levels of trans-fats which turn liquid oil into spread. As trans-fats increase the levels of bad cholesterol in the blood, while lowering the levels of good cholesterol, on the whole they have been replaced by non-hydrogenated margarine.

Cholesterol lowering spreads contain plant sterols or plant stanol ester, which are naturally occurring substances found in many grains such as wheat, rye and maize. They work to lower cholesterol as they have the ability to inhibit the absorption of cholesterol in the gut. However, cholesterol lowering foods should not be considered an alternative to a healthy balanced diet or a healthy lifestyle.<sup>lxviii</sup> High cholesterol levels may be attributed to genetics and metabolism (as some inherited conditions give cause for high cholesterol); lack of physical activity (as physical activity tends to increase levels of 'good' cholesterol); age (cholesterol levels increase with age); and drinking alcohol to excess (relating to the metabolism of alcohol and how this may impact upon the metabolism of fat in the body).<sup>lxix</sup> People who are affected by high cholesterol are at a high risk of coronary heart disease including heart attack and stroke (see Section 3.2).

In the UK, average sales of butter and margarine, other vegetable fats and peanut butter are approximately £7 million per week and £10 million per week respectively.<sup>75</sup>

### 5.5.2 Existing information

The *Family Food Survey 2007*<sup>78</sup> shows that in the UK, from 2004-05 to 2007 there was an overall 0.3% decrease in the consumption of fats. It also highlighted that purchases of butter and margarine had increased by 17.1% (from 35g to 41g per person per week) and 72.3% (11g to 19g per person per week) respectively. However, sales of reduced and low fat spreads have decreased by 22.1% (68g to 53g per person per week).

The *National Diet and Nutrition Survey 2002*<sup>79</sup> showed the most common type of fat usually used for spreading was butter, used by 40% of men and 42% of women. This was followed by 'other type', which consisted of non-polyunsaturated reduced fat spreads, used by 37% of men and 33% of women, and non-polyunsaturated soft margarine which was used by 32% of men and 23% of women.

### 5.5.3 Survey and analysis methodology

Participants were asked if they ever use butter, margarine or spread. If they did, they were asked what kind of butter, margarine or spread they usually used:

1. butter, full fat ghee or hard margarine
2. low fat spread or half fat ghee
3. cholesterol lowering spread (for example, Benecol or Pro-active)
4. another spread.

<sup>lxvii</sup> [www.bbc.co.uk/dna/h2g2/A617393](http://www.bbc.co.uk/dna/h2g2/A617393)

<sup>lxviii</sup> [www.nutrition.org.uk/upload/Cholesterol%20lowering%20spreads.pdf](http://www.nutrition.org.uk/upload/Cholesterol%20lowering%20spreads.pdf)

<sup>lxix</sup> [www.scotpho.org.uk/home/Clinicalriskfactors/HighCholesterol/highcholesterol\\_riskfactors.asp](http://www.scotpho.org.uk/home/Clinicalriskfactors/HighCholesterol/highcholesterol_riskfactors.asp)

This question was taken from the Health Survey for England.

Overall, 92.3% of adults said that they use butter, margarine or spread. The analyses below of the type adults use were based on the responses from these people that do use butter, margarine or spread.

#### **5.5.4 Isle of Man survey results: Spreading fat consumption**

The most common type of spreading fat used by people on the Isle of Man was butter, full fat ghee or hard margarine (65.9%) (Figure 30, Table 10). Compared with the North West, significantly more men (Isle of Man: 67.8%; North West 59.3%) and women (Isle of Man: 64.3%; North West 56.1%) on the Isle of Man use butter, full fat ghee or hard margarine (Figure 31).

The use of butter, full fat ghee or hard margarine generally decreased with age with the highest proportion of people using these spreading fats seen among 16-24 year olds (73.2%) and the lowest proportion among 65-74 year olds (59.2%). Across the age groups the Isle of Man generally shows a similar, although slightly higher, pattern of use of butter, full fat ghee or hard margarine than the North West population. Significantly higher proportions of adults aged 25-34, 35-44 and 55-64 years on the Isle of Man used butter, full fat ghee or hard margarine compared with adults in the North West.

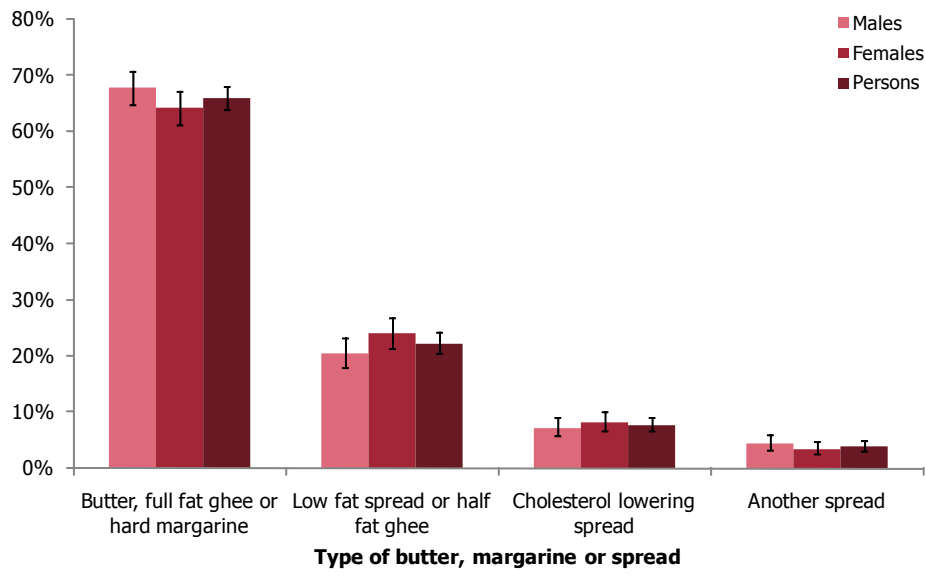
Low fat spread or half fat ghee had the second highest proportion of people using these spreads on the Isle of Man (22.4%), with slightly more women (24.0%) consuming it than men (20.5%), although this difference was not significant (Figure 32). A significantly lower proportion of people on the Isle of Man consumed low fat spread (22.4%) compared with the North West (31.0%).

The use of low fat spread or half fat ghee was fairly consistent across the age groups with the lowest proportion of people using these spreads among 25-34 year olds (17.4%) and the highest among 45-54 year olds (25.3%). Use of low fat spread or half fat ghee, although lower on the Isle of Man, generally follows a similar pattern by age group to that in the North West. However, significantly fewer adults aged 25-34, 35-44 and 75+ on the Isle of Man used low fat spread or half fat ghee compared with the North West.

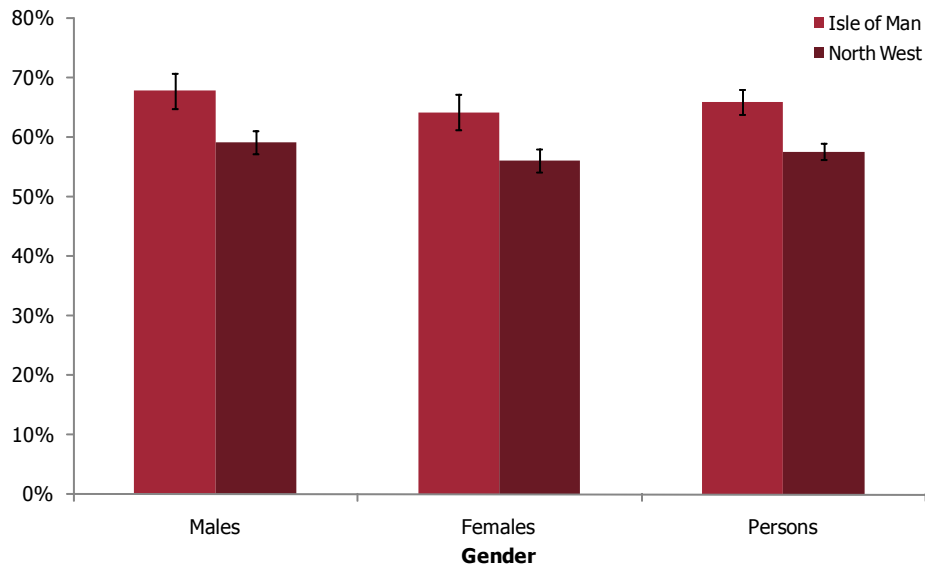
Cholesterol lowering spread was usually used by 7.8% of adults on the Isle of Man. There were no significant differences by gender on the Isle of Man or compared with the North West (Figure 33).

Consumption of cholesterol lowering spread on the Isle of Man showed a slight increase with age. The lowest level of use was among 16-24 year olds (4.0%) and the highest among 65-74 year olds (11.7%). Patterns were similar to those seen in the North West with no significant differences by age group.

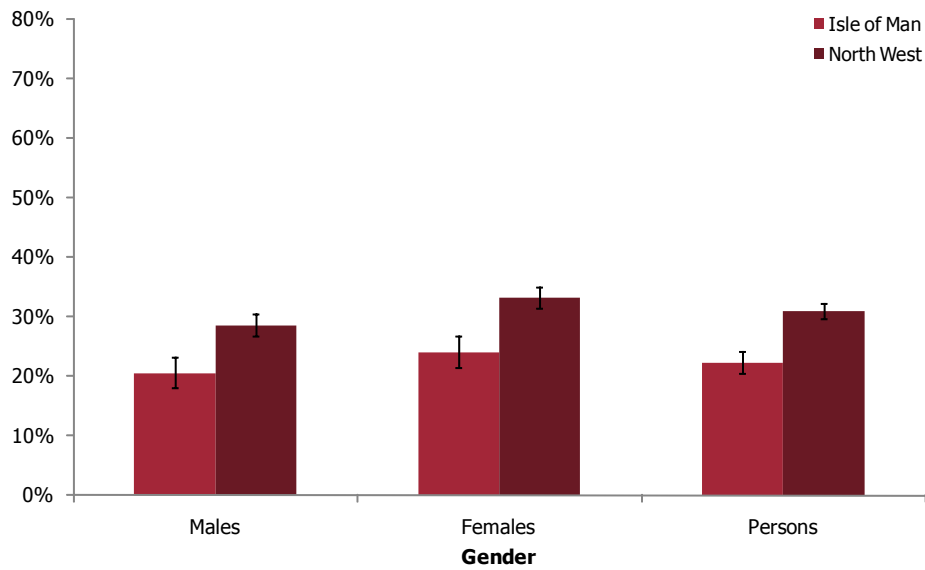
**Figure 30: Type of butter, margarine or spread usually used, by gender. Isle of Man.**



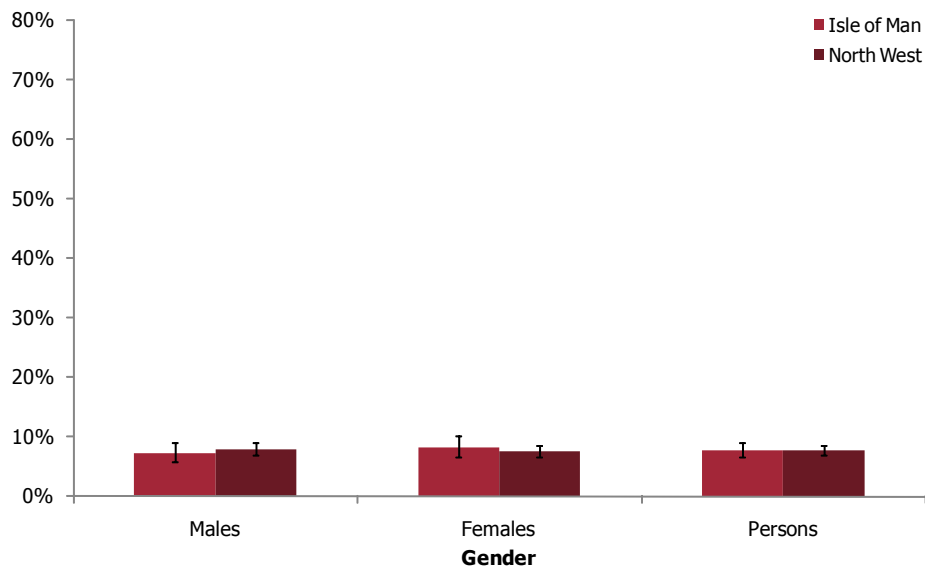
**Figure 31: Percentage of adults who usually use butter, full fat ghee or hard margarine, by gender. Isle of Man and North West of England.**



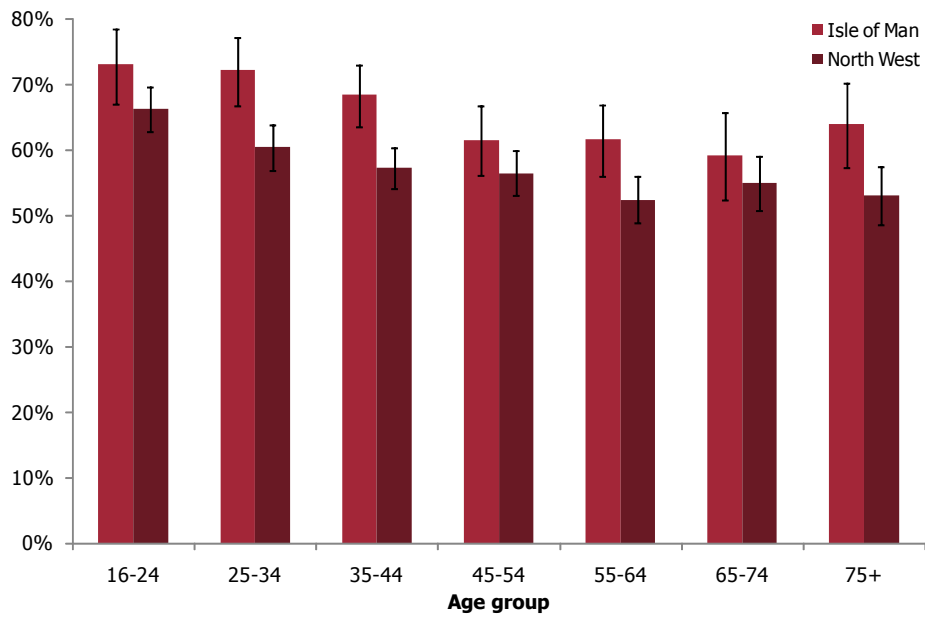
**Figure 32: Percentage of adults who usually use low fat spread or half fat ghee, by gender. Isle of Man and North West of England.**



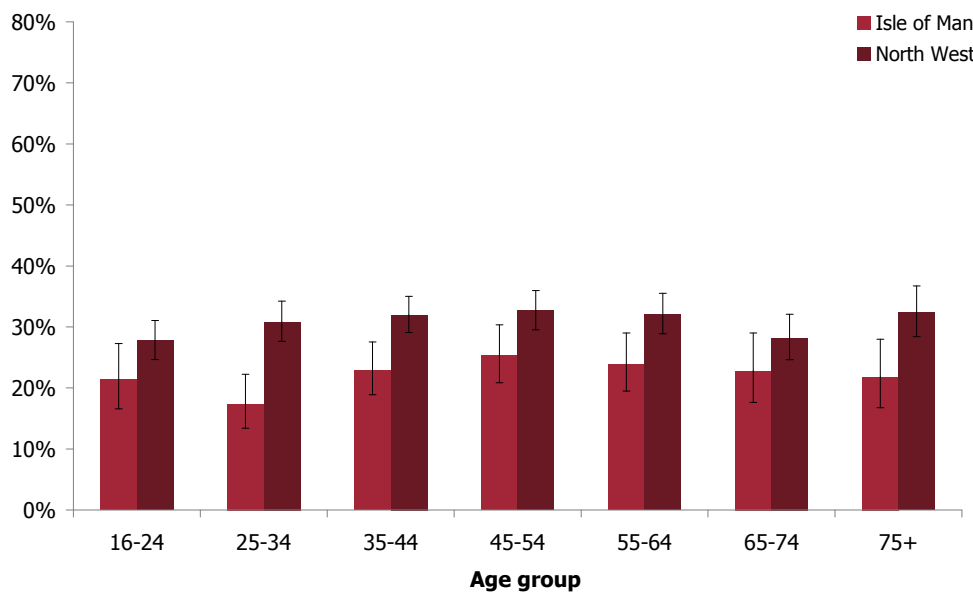
**Figure 33: Percentage of adults who usually use cholesterol lowering spread, by gender. Isle of Man and North West of England.**



**Figure 34: Percentage of adults who usually use butter, full fat ghee or hard margarine, by age group. Isle of Man and North West of England.**

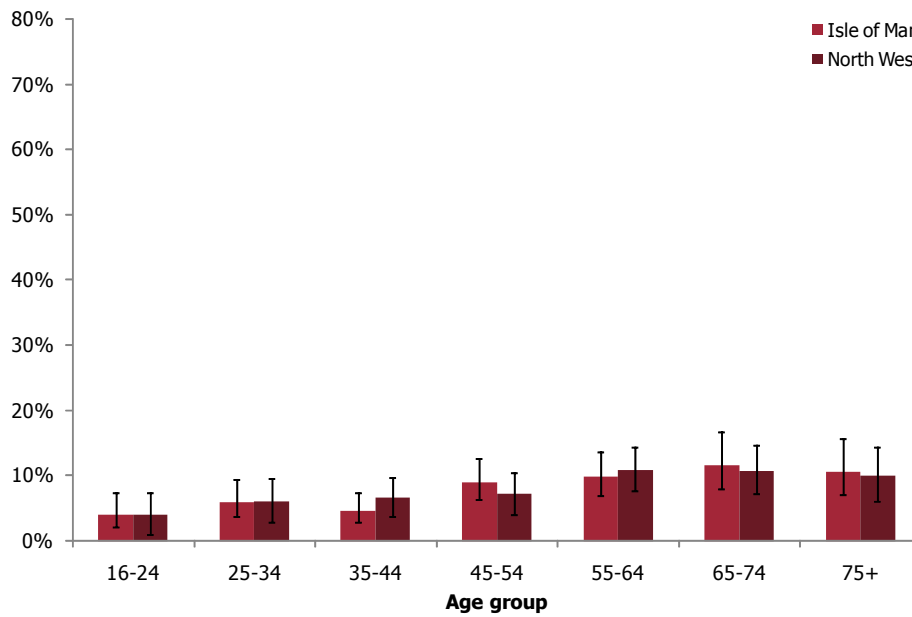


**Figure 35: Percentage of adults who usually use low fat spread or half fat ghee, by age group. Isle of Man and North West of England.**





**Figure 36: Percentage of adults who usually use cholesterol lowering spread, by age group. Isle of Man and North West of England.**



**Table 10: Type of butter, margarine or spread usually used, by gender and age group. Isle of Man and North West of England.**

	Isle of Man				North West				
	Age group	Butter, full fat ghee or hard margarine	Low fat spread or half fat ghee	Cholesterol lowering spread	Another spread	Butter, full fat ghee or hard margarine	Low fat spread or half fat ghee	Cholesterol lowering spread	Another spread
<b>Males</b>	All ages	67.8%	20.5%	7.2%	4.5%	59.3%	28.6%	7.9%	4.2%
	16-24	72.6%	20.4%	4.4%	2.7%	72.4%	23.2%	3.2%	1.3%
	25-34	74.1%	13.3%	8.1%	4.4%	61.5%	29.1%	6.5%	3.0%
	35-44	71.0%	20.4%	4.3%	4.3%	56.0%	31.8%	7.2%	5.1%
	45-54	65.0%	21.5%	9.2%	4.3%	60.0%	28.1%	7.4%	4.4%
	55-64	64.1%	22.2%	7.8%	5.9%	53.7%	27.9%	13.0%	5.4%
	65-74	63.0%	22.0%	9.0%	6.0%	55.8%	26.0%	12.0%	6.2%
	75+	62.0%	25.3%	8.9%	3.8%	50.3%	36.5%	8.3%	5.0%
<b>Females</b>	All ages	64.3%	24.0%	8.1%	3.6%	56.1%	33.2%	7.5%	3.2%
	16-24	74.5%	22.7%	2.7%	0.0%	60.3%	32.6%	4.7%	2.5%
	25-34	71.2%	20.5%	3.4%	4.8%	59.4%	32.4%	5.8%	2.4%
	35-44	66.1%	25.4%	5.1%	3.4%	58.6%	32.2%	6.2%	3.1%
	45-54	58.3%	28.8%	9.0%	3.8%	53.3%	37.2%	7.1%	2.4%
	55-64	59.2%	25.7%	11.8%	3.3%	51.2%	36.0%	9.3%	3.6%
	65-74	56.1%	23.4%	14.0%	6.5%	54.2%	30.2%	9.8%	5.8%
	75+	65.4%	19.7%	11.8%	3.1%	54.8%	30.0%	11.2%	4.0%
<b>Persons</b>	All ages	65.9%	22.4%	7.8%	4.0%	57.6%	31.0%	7.7%	3.7%
	16-24	73.2%	21.4%	4.0%	1.3%	66.4%	27.7%	4.0%	1.9%
	25-34	72.3%	17.4%	6.0%	4.3%	60.5%	30.8%	6.1%	2.5%
	35-44	68.5%	22.9%	4.7%	3.9%	57.3%	32.0%	6.7%	4.1%
	45-54	61.6%	25.3%	9.1%	4.1%	56.5%	32.7%	7.2%	3.5%
	55-64	61.6%	23.9%	9.8%	4.6%	52.4%	32.1%	11.0%	4.5%
	65-74	59.2%	22.8%	11.7%	6.3%	55.0%	28.2%	10.8%	6.0%
	75+	64.1%	21.8%	10.7%	3.4%	53.1%	32.4%	10.1%	4.3%

## 5.6 Salt

### 5.6.1 Background

Sodium is one of a number of nutrients essential to the preservation of a healthy body. However, a high salt or sodium intake<sup>lxx</sup> is a major contributor to hypertension (high blood pressure) which can lead to a number of chronic diseases including chronic heart disease, stroke, kidney disease and aortic aneurysm.

It is estimated that 26 million people in the UK consume too much salt.<sup>80</sup> At present, the average consumption of salt in the UK is 8.6 grams per day,<sup>lxxi</sup> far higher than the maximum of 6 grams per day recommended in *Salt and Health*.<sup>76</sup> As a result, the Food Standards Agency and the Department of Health set a target to bring down salt intake to six grams per day by 2010. A large proportion of salt intake comes from processed foods, so this target can only be achieved by reducing the content of salt in processed food and appropriate labelling of foodstuffs through a multi agency approach. Therefore, the Department of Health and the Food Standards Agency are working together with the food industry to lower the levels of salt in food. To help guide the food industry as to the type of foods in which reductions would be most beneficial and the level of reductions that are needed to help reduce consumers' intakes, the FSA developed voluntary targets for reducing salt levels in a wide range of processed foods.<sup>lxxii</sup> A consultation on proposals to revise these targets took place during 2008.<sup>lxxiii</sup>

A survey carried out in 2000 showed that salt sprinkled on food and added during cooking has drastically declined since the 1960s.<sup>81</sup> In contrast, however, the *National Diet and Nutrition Survey 2002*<sup>79</sup> showed that salt consumption has increased in the UK over the past 15 years. This is largely due to the increase in consumption of processed foodstuffs which generally contain high levels of salt (75% of salt intake comes from processed food).<sup>80</sup>

### 5.6.2 Existing information

The Health Survey for England 2007<sup>82</sup> showed that 18% of men and 13% of women said they added salt to their food, without tasting it first, while at the table. The survey also showed that more women (63%) than men (58%) rarely or never added salt to their food.

Individuals in the higher age groups were more likely to add salt to their food while cooking than younger age groups, as were individuals in the more deprived areas compared with the less deprived.<sup>83</sup>

### 5.6.3 Survey and analysis methodology

Survey participants were asked if salt, including sea salt, had been generally added to their food during cooking, with a choice of three responses:

1. yes
2. no, you do not use salt in cooking
3. you use a 'lo salt' or light alternative.

Respondents were also asked at the table did they:

1. generally add salt without tasting it first
2. taste the food, but then generally add salt
3. taste the food, but then occasionally add salt; or
4. rarely, or never add salt at the table.

<sup>lxx</sup> The approximate amount of salt per 100 grams is calculated by multiplying the sodium content by 2.5 ([www.saltsense.co.uk/salt-nutrition02.htm](http://www.saltsense.co.uk/salt-nutrition02.htm))

<sup>lxxi</sup> [www.bbc.co.uk/food/food\\_matters/salt.shtml](http://www.bbc.co.uk/food/food_matters/salt.shtml)

<sup>lxxii</sup> [www.food.gov.uk/multimedia/pdfs/salttargetsapril06.pdf](http://www.food.gov.uk/multimedia/pdfs/salttargetsapril06.pdf)

<sup>lxxiii</sup> [www.food.gov.uk/consultations/ukwideconsults/2008/saltreductiontargets](http://www.food.gov.uk/consultations/ukwideconsults/2008/saltreductiontargets)

These questions were taken from the Health Survey for England.

Within the survey it is only possible to ascertain whether people add salt to food while cooking or at the table rather than to measure or quantify overall salt consumption.

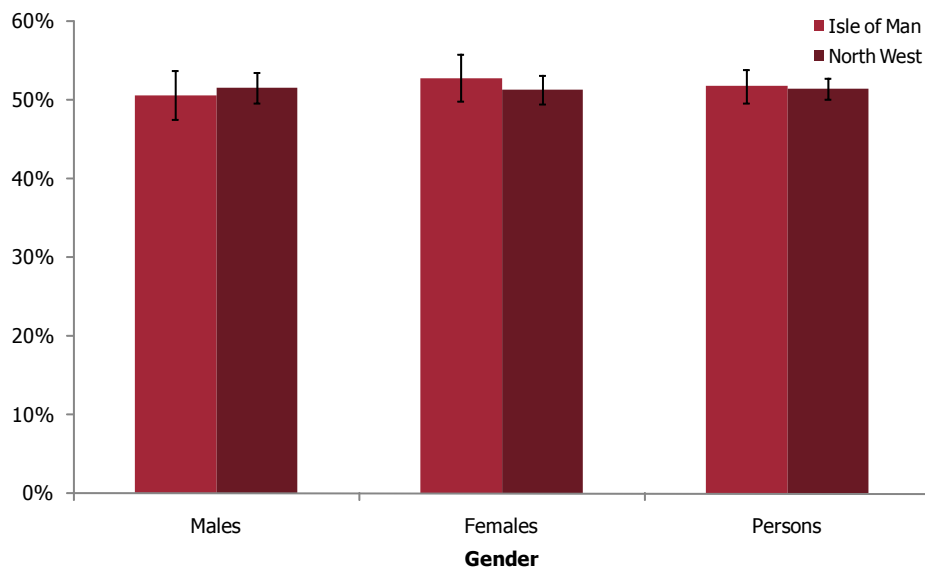
#### 5.6.4 Isle of Man survey results: Salt consumption

Just over half (51.8%) of all adults on the Isle of Man generally did not add salt to food during cooking (Figure 37, Table 11). There was no significant difference between genders on the Isle of Man, nor in comparison to the North West.

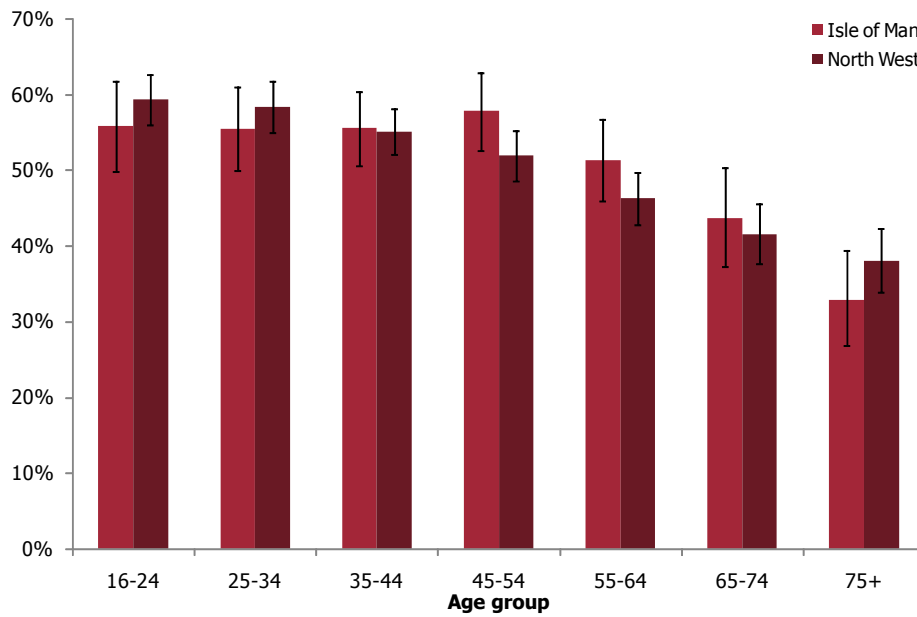
The percentage of adults that generally did not add salt to food during cooking decreases with age, from 55.9% of 16-24 year olds to 32.9% of people aged 75+ years (Figure 38). Adults on the Isle of Man under the age of 45 years were significantly less likely to add salt to food during cooking than people aged over 45. Compared with the North West there were no significant differences in the addition of salt to food across the age groups.

Around six out of ten adults rarely or never add salt at the table (62.8%), significantly more women (67.9%) than men (57.3%) (Figure 39, Table 12). Significantly more women on the Isle of Man rarely or never add salt at the table compared to women in the North West (61.8%) There was little variation by age across the Isle of Man or in comparison to the North West (Figure 40).

**Figure 37: Percentage of adults that generally do not have salt added to food during cooking, by gender. Isle of Man and North West of England.**



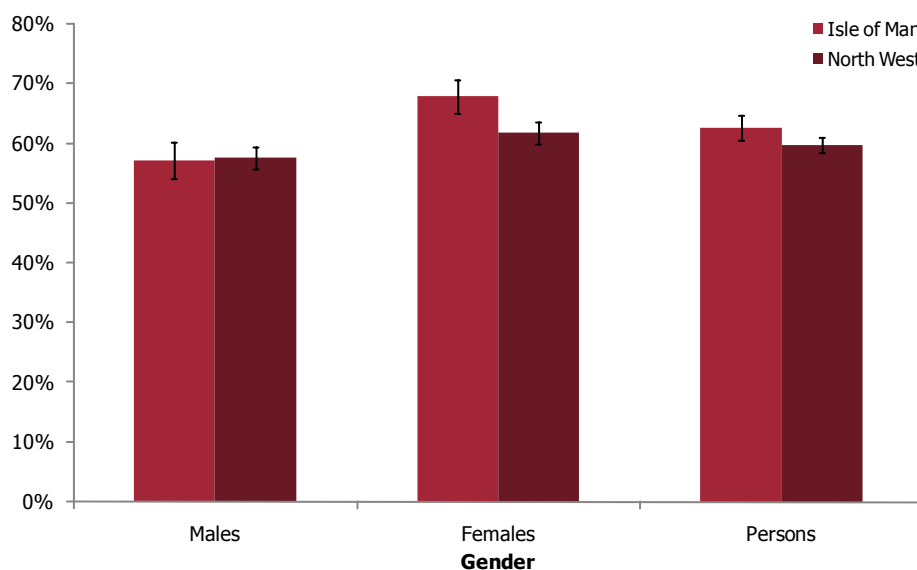
**Figure 38: Percentage of adults that generally do not have salt added to food during cooking, by age group. Isle of Man and North West of England.**



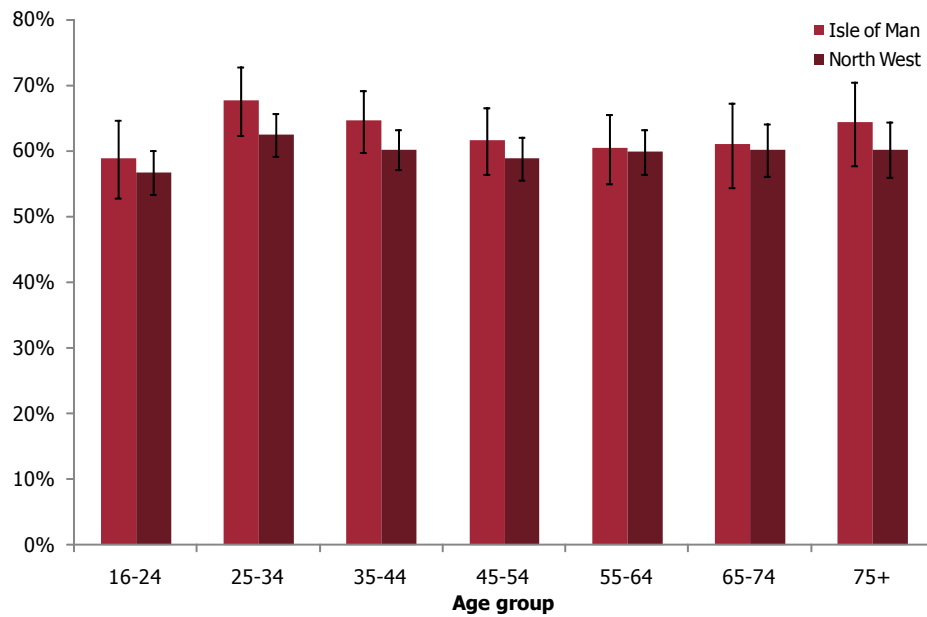
**Table 11: Percentage of adults that generally do not have salt added to food during cooking, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	50.7%	52.9%	51.8%	51.6%	51.3%	51.5%
16-24	53.8%	58.3%	55.9%	59.8%	58.8%	59.4%
25-34	45.9%	64.7%	55.6%	53.4%	63.4%	58.5%
35-44	53.1%	58.2%	55.6%	53.7%	56.7%	55.2%
45-54	54.3%	61.3%	57.9%	52.5%	51.5%	52.0%
55-64	53.7%	50.0%	51.4%	50.4%	42.4%	46.3%
65-74	45.8%	42.0%	43.8%	43.1%	40.1%	41.6%
75+	41.5%	27.5%	32.9%	36.5%	38.8%	38.0%

**Figure 39: Percentage of adults that rarely or never add salt at the table, by gender. Isle of Man and North West of England.**



**Figure 40: Percentage of adults that rarely or never add salt at the table, by age group. Isle of Man and North West of England.**



**Table 12: Percentage of adults that rarely or never add salt at the table, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	57.3%	67.9%	62.8%	57.6%	61.8%	59.8%
16-24	49.6%	68.0%	58.8%	53.8%	60.0%	56.7%
25-34	60.1%	74.5%	67.8%	62.2%	62.9%	62.5%
35-44	61.2%	68.2%	64.6%	59.1%	61.4%	60.2%
45-54	57.4%	65.9%	61.6%	58.8%	59.1%	58.8%
55-64	58.8%	62.1%	60.4%	57.4%	62.1%	59.9%
65-74	55.1%	76.7%	61.0%	56.7%	63.1%	60.2%
75+	54.9%	70.2%	64.3%	50.8%	65.8%	60.2%

## 5.7 Fruit and vegetables

### 5.7.1 Background

There are many acknowledged protective benefits of consuming fruit and vegetables. Individuals who have a good daily intake of fruit and vegetables have lower rates of mortality and morbidity for coronary heart disease, stroke and some cancers (including lung and stomach).<sup>7; 69; 84</sup> It has been suggested that by increasing fruit and vegetable consumption by one portion a day, the risk of coronary heart disease is reduced by 4%.<sup>85</sup>

The daily recommended intake of fruit and vegetables is more than 400g per day, which is the equivalent of five or more portions (80g) of fruit and vegetables.<sup>67; 69</sup> One portion of fruit could be one medium apple, one medium banana, one heaped tablespoon of sultanas or one heaped tablespoon of dried cherries. One portion of vegetables includes: two spears of broccoli, three heaped tablespoons of canned or sliced fresh carrots or three sticks of celery.<sup>58</sup>

The 2004 Isle of Man Director of Public Health report<sup>86</sup> set out an aim to “*increase the daily vegetable and fruit consumption of the Isle of Man population in order to help prevent heart disease, cancer, obesity and dental caries on the Isle of Man*” (p.27) with the objectives of:

- increasing the proportion of the population that consumes fruit and vegetables on a daily basis; and
- increasing the average daily amount and variety of fruit and vegetables consumed, particularly among lower-income groups.

As part of this, the report recommended that the Government should seriously consider the benefits of supplying free fruit to schools. This would establish good eating practices among young children and assist in improving their oral health status. It also recommended the introduction of a ‘Healthy Schools Programme’ to encourage the Island’s young people to lead healthier lifestyles and suggested a review of the milk voucher scheme to additionally encourage the purchase of fruit and vegetables.

### 5.7.2 Existing information

The Isle of Man population eats, on average, less than the recommended five portions of fruit and vegetables per day. This was confirmed by results from the *Health and Lifestyle Survey of Children 2003*<sup>87</sup> which found that 47% of those aged 12 years and over ate less than the recommended minimum intake of fruit and the majority ate less than the minimum recommended intake of vegetables. In addition, the *Adult Health and Lifestyle Survey*<sup>3</sup> found that just half (52%) of respondents ate fruit and vegetable on a daily basis.

This problem is not unique to the Isle of Man. Despite £72 million being spent on fresh fruit and £88 million on fresh vegetables per week<sup>75</sup> across Great Britain, most individuals are consuming less than the recommended five portions of fruit and vegetables per day.<sup>88</sup> The Health Survey for England 2007 highlighted that only 27.5% of men and 30.7% of women were consuming five or more portions of fruit and vegetables a day.<sup>12</sup>

Individuals in the least deprived areas were more likely to eat five portions of fruit and vegetables per day (36% of men and 38% of women) than in the most deprived areas (20% of men in the second lowest income quintile and 23% of women in the lowest income quintile). Consumption also differed by socio-economic status: 27% of men and 33% of women in managerial and professional groups consume the recommended five or more portions of fruit and vegetables per day, compared with 16% and 17% of men and women respectively in routine and semi-routine occupations.

The survey showed that the average fruit consumption was the lowest among people aged 16-24 years for both sexes; and across all ages, 7% of men and 5% of women consumed no fruit or vegetables per day.

### 5.7.3 Survey and analysis methodology

Survey participants were asked two questions about their fruit and vegetable intake:

1. How many portions of fruit did they eat a day (examples of a portion include a handful of grapes, an orange, a glass of fruit juice, a handful of dried fruits).
2. How many portions of vegetables did they eat a day (examples of a portion include three heaped tablespoons of carrots, a side salad, two spears of broccoli).

These questions were taken from the short form (SF) diet questionnaire. The questions were open response and examples of what constituted a portion were given as above.

For the purpose of analysis the portions of fruit and vegetables consumed per day were added together and subsequently grouped into the following categories:

- no portions of fruit and vegetables per day;
- one to two portions of fruit and vegetables per day;
- three to four portions of fruit and vegetables per day; or
- five or more portions of fruit and vegetables per day.

The analyses in this section focus on those adults who ate the recommended five or more portions of fruit and vegetables per day and those who ate no portions.

The Health Survey for England asks a longer series of questions about fruit and vegetable consumption, including greater details on the type and quantity of the fruit and vegetables (salad, pulses, fresh, frozen, tinned and fruit juice). Because of questioning time available, the number of questions within this survey was limited to two. It is possible that a longer and more detailed series of questions, with more detailed examples of portion sizes may elicit a more considered and accurate response.

Nevertheless, the Isle of Man Health and Lifestyle survey can provide a useful self-reported indication of any differences in fruit and vegetable consumption between sub groups of the Islands population.

### 5.7.4 Isle of Man survey results: Fruit and vegetable consumption

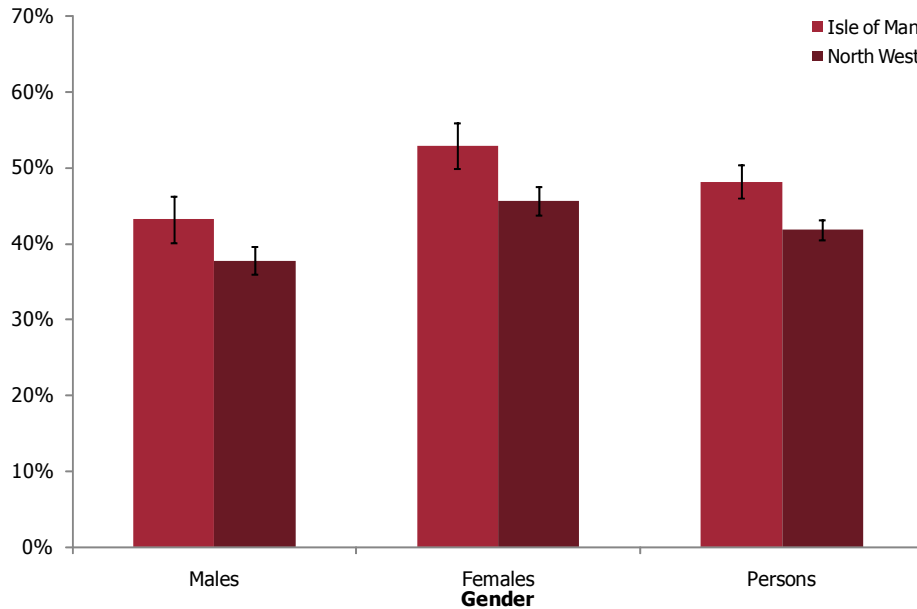
Nearly half of all adults (48.2%) reported that they eat five or more portions of fruit and vegetables a day, significantly more females (53.0%) than males (43.3%) (Figure 41, Table 13). This pattern is also evident in the North West. However, significantly more males and females on the Island eat five or more portions of fruit and vegetables a day compared with the North West (males: 37.8%, females: 45.6%).

There were no obvious patterns by age for adults who eat five or more portions of fruit and vegetables a day. However, adults aged 25-34 years on the Isle of Man (45.2%) and 75+ years in the North West (36.8%) were less likely than any other age group to eat five or more portions of fruit and vegetables a day (Figure 42). Overall, across all age groups, the Isle of Man had a higher proportion of individuals who consume five or more portions of fruit and vegetables a day than the North West, although it is only among 65-74 year olds where this difference is significant.

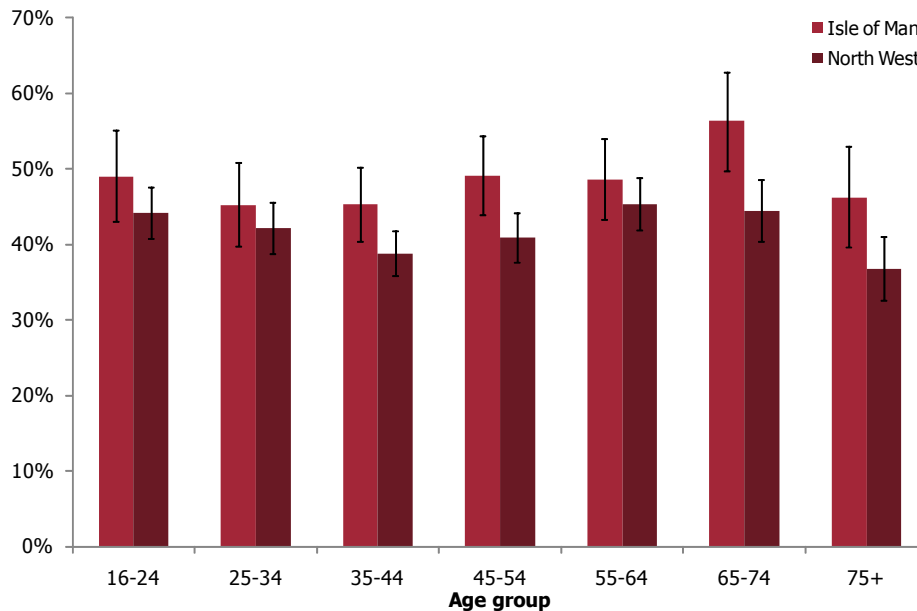
Just 3.9% of people on the Isle of Man said that they do not eat any portions of fruit and vegetables each day with no significant difference evident by gender (Figure 43, Table 14). There was no obvious pattern by age group or in comparison to the North West (Figure 44).

On the Isle of Man, those aged 35-44 years were the most likely to eat no portions of fruit and vegetables each day (6.1%), while in the North West it was those aged 45-54 years in the North West (6.4%). There were no significant differences by age between the Isle of Man and the North West.

**Figure 41: Percentage of adults who eat five portions of fruit and vegetables a day, by gender. Isle of Man and North West of England.**



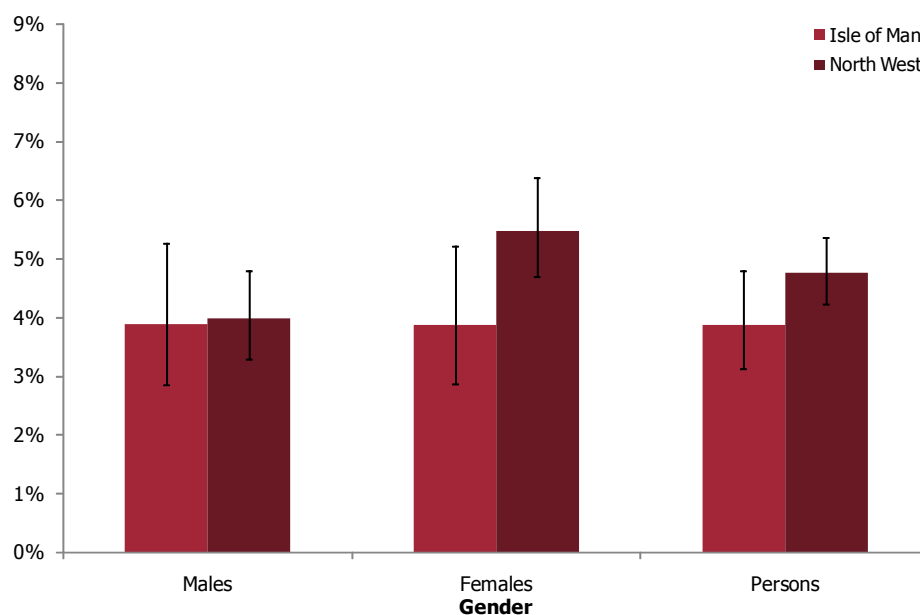
**Figure 42: Percentage of adults who eat five portions of fruit and vegetables a day, by age group. Isle of Man and North West of England.**



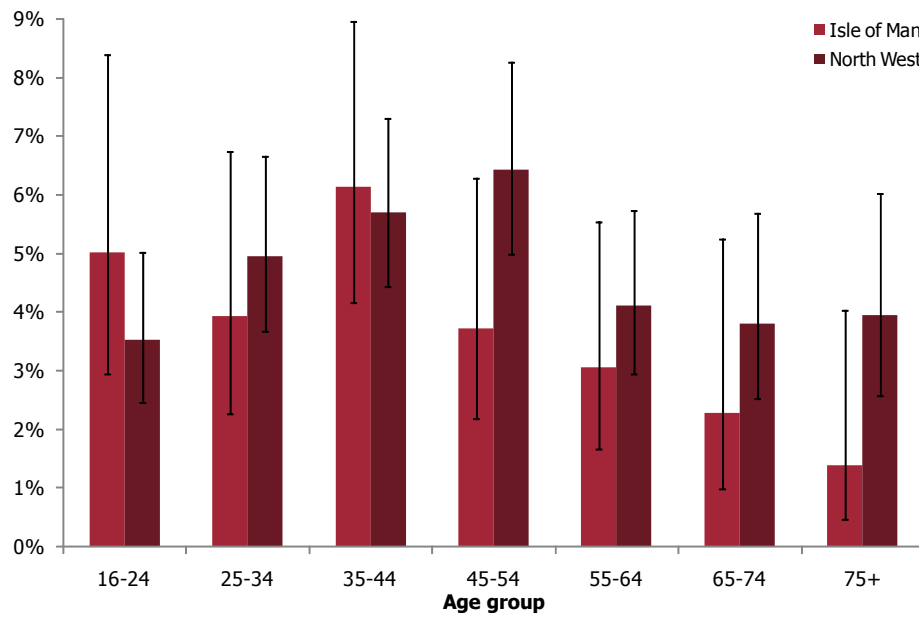


**Table 13: Percentage of adults who eat five portions of fruit and vegetables a day, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	43.3%	53.0%	48.2%	37.8%	45.6%	41.9%
16-24	47.7%	50.8%	49.0%	42.2%	46.3%	44.2%
25-34	42.3%	47.8%	45.2%	39.3%	45.0%	42.1%
35-44	38.6%	52.1%	45.3%	33.7%	43.6%	38.8%
45-54	44.0%	54.3%	49.1%	33.8%	48.1%	40.9%
55-64	44.2%	53.7%	48.6%	39.6%	51.0%	45.4%
65-74	46.7%	65.8%	56.4%	42.9%	45.9%	44.5%
75+	41.5%	49.2%	46.3%	33.5%	38.6%	36.8%

**Figure 43: Percentage of adults who eat no portions of fruit and vegetables a day, by gender. Isle of Man and North West of England.**

**Figure 44: Percentage of adults who eat no portions of fruit and vegetables a day, by age group. Isle of Man and North West of England.**



**Table 14: Percentage of adults who eat no portions of fruit and vegetables a day, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	3.9%	3.9%	3.9%	4.0%	5.5%	4.8%
16-24	2.3%	7.0%	5.0%	3.6%	3.4%	3.5%
25-34	4.0%	4.5%	3.9%	2.9%	6.9%	5.0%
35-44	7.6%	5.2%	6.1%	5.8%	5.6%	5.7%
45-54	4.6%	2.9%	3.7%	5.8%	7.1%	6.4%
55-64	2.5%	3.1%	3.1%	2.3%	5.9%	4.1%
65-74	2.8%	1.8%	2.3%	2.9%	4.3%	3.8%
75+	0.0%	2.3%	1.4%	3.7%	4.4%	4.0%

## 6. Physical Activity

### 6.1 Level of physical activity

#### 6.1.1 Background

It is widely recognised that taking part in some level of physical activity regularly can help prevent many major illnesses. Currently, a lack of physical activity is estimated to contribute to 22-33% of coronary heart disease, 15% of diabetes, 12-13% of stroke, 16-17% of colon cancer and 11% of breast cancer in developed countries.<sup>89</sup>

In England, physical inactivity costs an estimated £8.2 billion annually through costs to the NHS and economy, such as through absence from work. It has been suggested that a 10% rise in physical activity in adults would save an estimated 6,000 lives and have an economic benefit of £2 billion.<sup>90</sup> Adults who are physically active reduce the risk of premature death by 20% to 30% and reduce the risk of developing major chronic diseases (such as those highlighted above) by up to 50%.<sup>91</sup> Regular physical activity can also help relieve stress and mild forms of depression and has a major impact on the prevalence of obesity.

In England, the Chief Medical Officer's recommended level of physical activity for adults is 30 minutes of moderate<sup>lxxiv</sup> activity on at least five days a week,<sup>lxxv</sup> and for children and young people it is one hour of moderate activity every day<sup>92</sup> in order to gain general health benefits. The Government has also set a target for 70% of the population to be 'reasonably active' by 2020, with an interim target of 50% by 2011.<sup>90</sup>

In January 2004, a multi-departmental, multi-agency group was set up on the Isle of Man to consider ways to encourage people to increase their levels of physical activity for better health and wellbeing.<sup>86</sup> The group has a number of functions, including to benchmark what is already happening, considering how to expand initiatives that are already popular, and examining ways to encourage uptake among target groups.

A significant proportion of the UK population are not meeting these recommended levels. Results from the 2006 Health Survey for England (HSE) revealed that only 39.8% of men and 28.2% of women met the recommended weekly physical activity target.<sup>18</sup> The level of physical activity also varies by socio-economic classification. For example, rates of walking are two-thirds higher in professional classes than in unskilled manual groups.<sup>91</sup>

In England, *Choosing Activity: a physical activity action plan*<sup>92</sup> looks to deliver the physical activity commitments outlined in *Choosing Health: Making healthy choices easier*<sup>7</sup> as well as other cross-government action. This includes assessing school PE and sport; local action to encourage activity through sport; transport plans; and the use of green spaces.

*Healthy Weight, Healthy Lives: a Cross-Government Strategy for England*<sup>58</sup> included: investing in a 'Walking into Health' campaign, which aims to get a third of England walking at least 1,000 more steps daily (an extra 15 billion steps a day) by 2012; investing £30 million in 'Healthy Towns', working with selected towns and cities to build on the successful EPODE<sup>lxxvi</sup> model used in Europe; setting up a working group with the entertainment technology industry to ensure that they continue to develop tools to allow parents to manage the time that their children spend playing sedentary games online; reviewing the overall approach to physical activity, including the role of Sport England, to develop a fresh

<sup>lxxiv</sup> Moderate level physical activity is defined as any form of aerobic activity which causes an individual's heart rate to increase slightly. This level of physical activity should not cause any discomfort or harm. Examples of moderate level physical activity include brisk walking, swimming, dancing and cycling.

<sup>lxxv</sup> 'High' activity: 30 minutes of moderate activity on at least five days a week; 'medium' activity: 30 minutes of moderate intensity activity on one to four days a week; 'low' activity: levels of activity below that classed as 'medium' activity.

<sup>lxxvi</sup> Ensemble Prevenons L'obésité Des Enfants (together let's prevent childhood obesity).

set of programmes ensuring that there is a clear legacy of increased physical activity leading up to and after the 2012 Olympics.

### 6.1.2 Existing information

The Isle of Man Adult Health and Lifestyle Survey reported that 49% of respondents felt that they did not exercise enough, whilst 10% felt they do 'more than enough' exercise.<sup>3</sup>

Currently, the UK has no national surveillance system for monitoring trends on overall physical activity. Questions in large scale surveys such as the Health Survey for England (HSE) have altered over time thus limiting the opportunity to monitor trends. Sources of physical activity data are limited to the HSE, the Annual Survey of Participation in Sport and Culture and the National Travel Survey.

The HSE 2006<sup>18</sup> asked individuals questions relating to overall participation, frequency and type of activity lasting at least 30 minutes four weeks prior to the interview. Trend data from the survey showed that the proportion of both men and women achieving the Government's recommended levels of physical activity increased from 32% for men and 21% for women in 1997 to 40% for men and 28% for women in 2006. Overall, the percentage of adults meeting the recommended levels decreased with increasing age. The survey showed that the level of activity that individuals partake in was related to income. In the three highest income quintiles between 42% and 45% of men met the recommended level of physical activity. Of women in the second highest and third income quintile only 31% were likely to meet the recommended target compared with 26% in the lowest income quintile.<sup>18</sup>

### 6.1.3 Survey and analysis methodology

Individuals were asked a series of questions about their activity at work, travel to and from places and recreational activities in order to derive an overall category of their physical activity. The questions were taken from the Global Physical Activity Questionnaire version 2<sup>lxxvii</sup> (GPAQ) which assesses the frequency, duration and intensity of physical activity. The GPAQ questionnaire allows data to be aggregated into three categorical indicators: high, moderate and low. The 15 individual physical activity questions were aggregated into a single variable based on the GPAQ definition of these categories. These may vary from how other physical activity information is presented in other reports or has been presented in the past. They are defined as follows:

#### High

A person reaching any of the following criteria is classified as having a high level of physical activity:

- vigorous intensity activity on at least 3 days achieving a minimum of at least 1,500 MET<sup>lxxviii</sup> minutes per week; OR
- 7 or more days of any combination of walking, moderate or vigorous intensity activities achieving at least 3,000 MET minutes per week.

#### Moderate

A person is classified as having a moderate level of physical activity if they do not meet the criteria for 'high', but do meet any of the following:

- 3 or more days of vigorous intensity activity for at least 20 minutes per day; OR

<sup>lxxvii</sup> [www.who.int/chp/steps/GPAQ/en/](http://www.who.int/chp/steps/GPAQ/en/)

<sup>lxxviii</sup> Metabolic Equivalent (METs) are commonly used to express the intensity of physical activities, and are also used for the analysis of GPAQ data. When calculating a person's overall energy expenditure using GPAQ data, 4 METs get assigned to the time spent in moderate activities and 8 METs to the time spent in vigorous activities.

- 5 or more days of moderate intensity activity or walking for at least 30 minutes per day; OR
- 5 or more days of any combination of walking, moderate intensity, or vigorous intensity activities achieving a minimum of at least 600 MET minutes per week.

#### Low

A person is classified as having a low physical activity level if they do not meet the criteria for moderate or high.

#### 6.1.4 Isle of Man survey results: Physical activity

Overall 38.8% of adults on the Isle of Man had a high level of physical activity, 28.8% had a moderate level and 32.4% had a low level (Figure 45, Table 15). Similar levels were seen in the North West (Figures 46-49), apart from the proportion of women who had a moderate level of physical activity, which was significantly higher on the Isle of Man compared with the North West (Figure 47).

Men on the Isle of Man were 1.5 times more likely to partake in a high level of physical activity than women (46.5% compared with 31.5%), and this difference was significant (Figure 48). Conversely, significantly more women than men had moderate levels of physical activity (35.0% of women compared with 22.2% of men) (Figure 46, Figure 47, Figure 48).

There were clear variations in physical activity level by age (Figure 49). The percentage of adults who had a high level of physical activity consistently decreased as age increased, while the percentage of adults who had a low level of physical activity consistently increased with age.

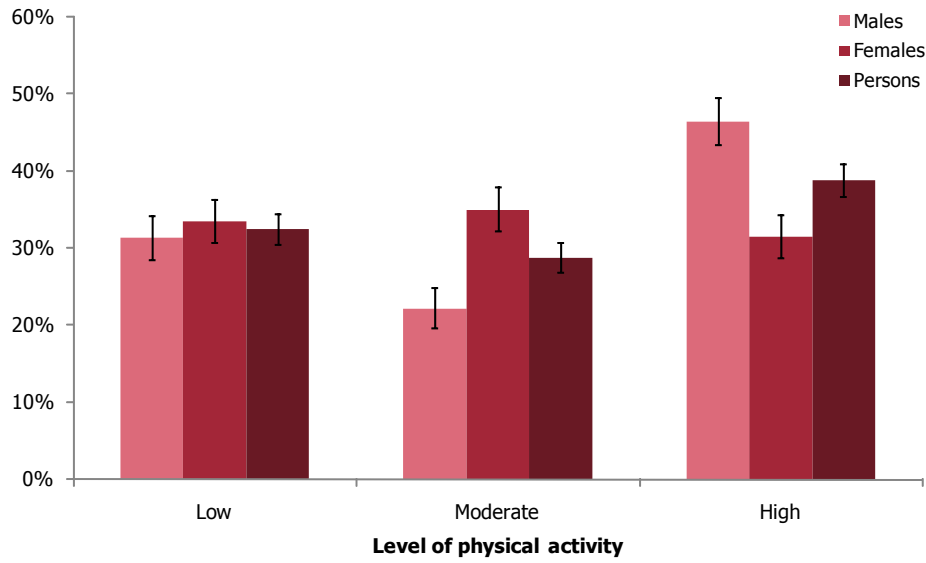
The proportion of adults aged 16-24 years who had a low level of physical activity was, in the main, lower than all other age groups, significantly so compared with those aged 55-64 years, 65-74 years and 75+ years (Figure 50). The proportion of adults with a low level of physical activity was significantly lower among 65-74 year olds on the Isle of Man (36.9%) compared with the North West (48.8%).

Moderate levels of physical activity remained relatively consistent across age groups (Figure 51). However, those aged 65-74 years were significantly more likely to undertake moderate levels of activity compared with those aged 16-24 years. There were no significant differences between the Isle of Man and the North West.

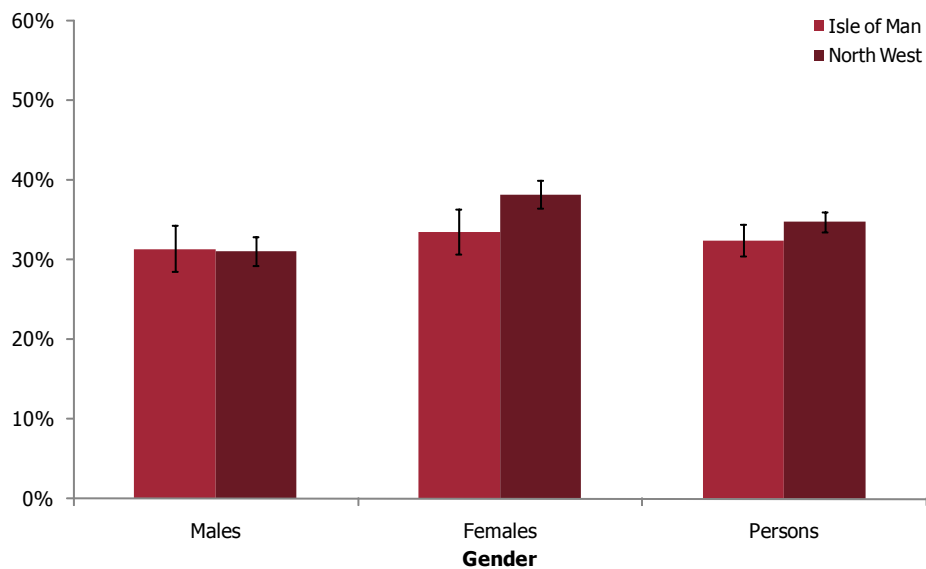
On the Isle of Man the proportion of adults aged 16-24 years who undertook a high level of physical activity (55.4%) was 5.4 times higher than those aged 75+ years (10.3%) (Figure 52). There was also a significant difference in the proportion of adults aged 16-24 years (55.4%) who undertook a high level of physical activity compared with all other age groups (with the exception of those aged 25-34 years). The oldest residents (75+ years) had a significantly lower proportion (10.3%) engaging in a high level of physical activity than all younger age groups. There were no significant differences in high levels of physical activity by age group between the Isle of Man and the North West.

Overall, young men were far more likely than any other age and gender group to have a high level of physical activity (Table 15). Fewer men aged 16-24 years in the Isle of Man have a high level of physical activity (64.7%) compared with the North West (69.1%). Fewer women aged 75+ years had a high level of physical activity (8.4% on the Isle of Man and 11.9% in the North West) than men or any other age group.

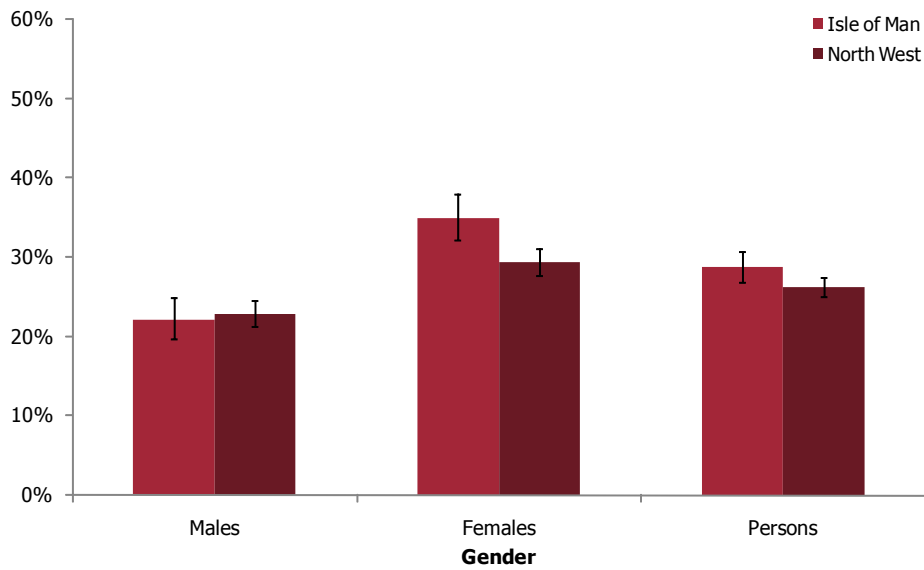
**Figure 45: Level of physical activity, by gender. Isle of Man.**



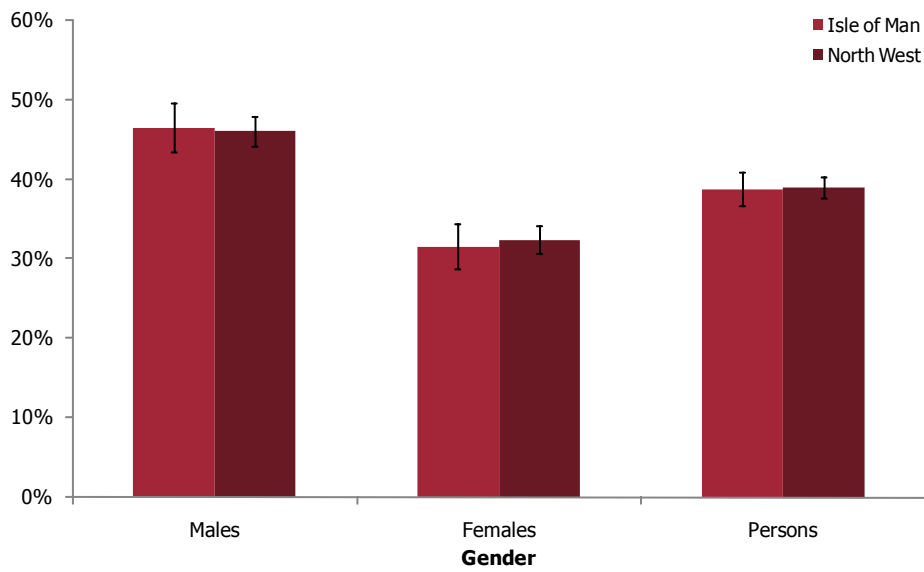
**Figure 46: Percentage of adults with a low level of physical activity, by gender. Isle of Man and North West of England.**



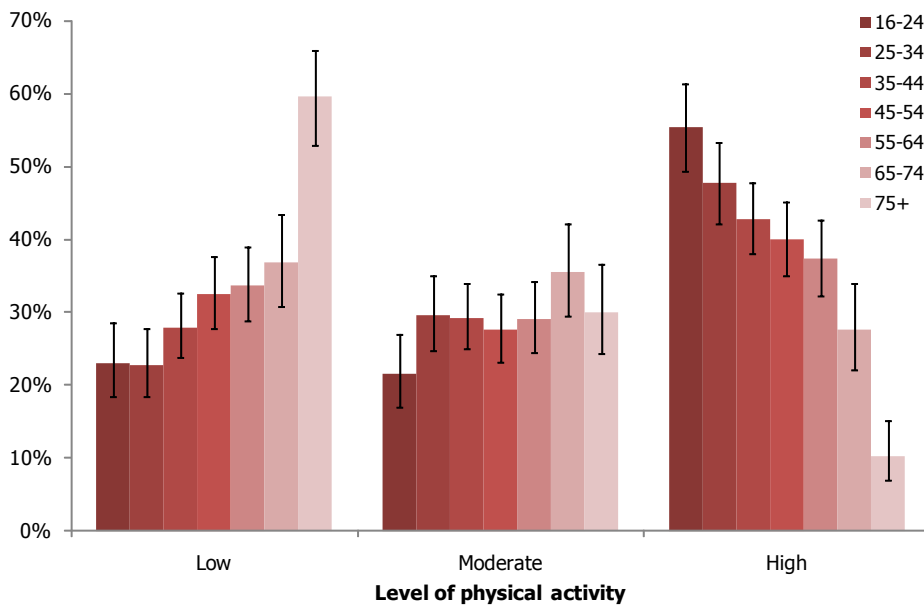
**Figure 47: Percentage of adults with a moderate level of physical activity, by gender. Isle of Man and North West of England.**



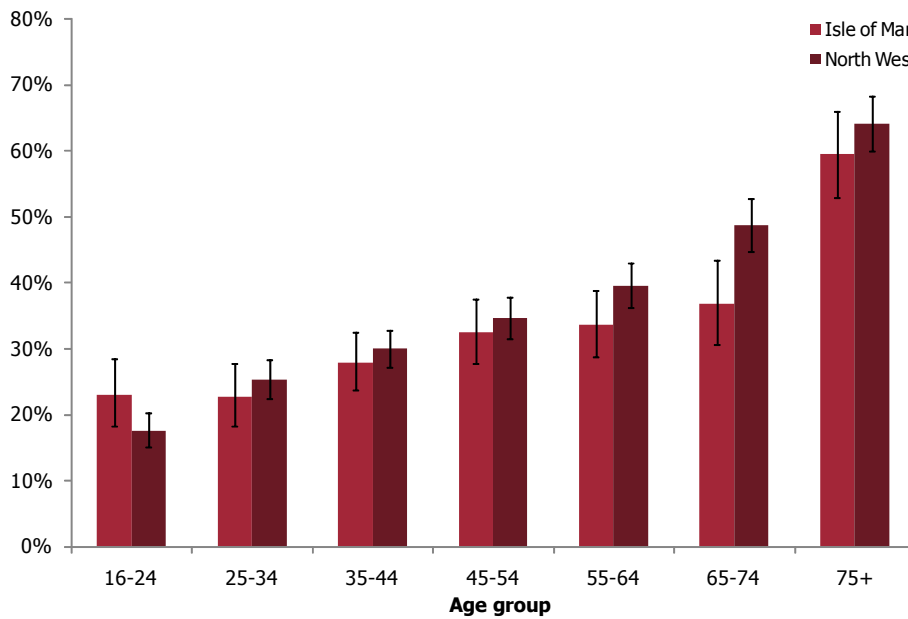
**Figure 48: Percentage of adults with a high level of physical activity, by gender. Isle of Man and North West of England.**



**Figure 49: Level of physical activity, by age group. Isle of Man.**

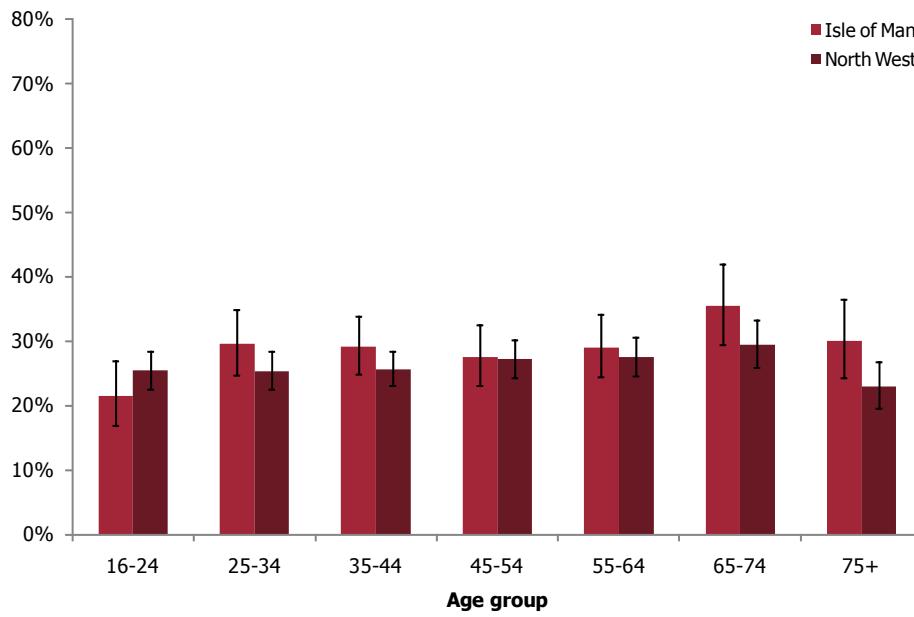


**Figure 50: Percentage of adults with a low level of physical activity, by age group. Isle of Man and North West of England.**

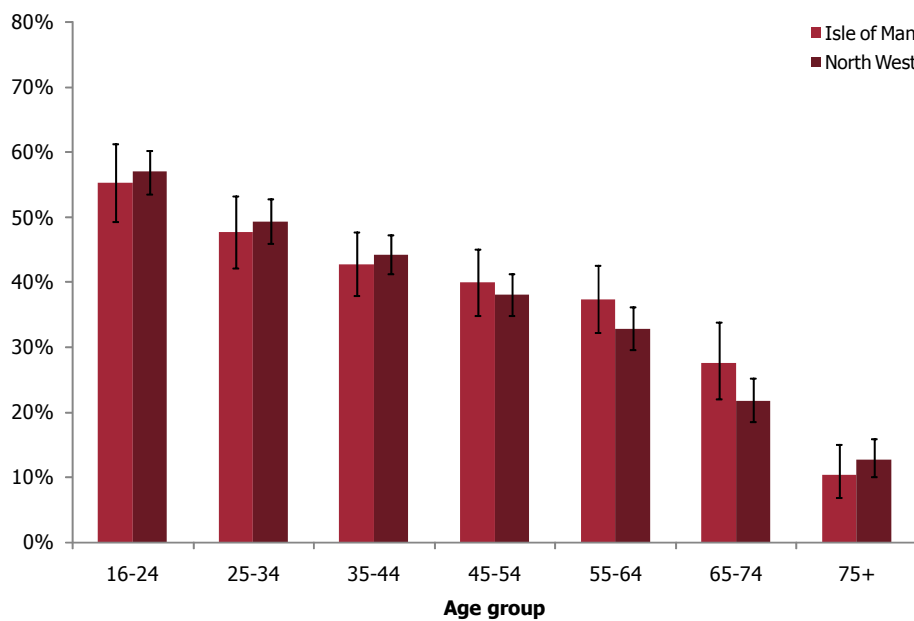




**Figure 51: Percentage of adults with a moderate level of physical activity, by age group. Isle of Man and North West of England.**



**Figure 52: Percentage of adults with a high level of physical activity, age group. Isle of Man and North West of England.**



**Table 15: Level of physical activity, by gender and age group. Isle of Man and North West of England.**

		Isle of Man			North West		
Age group		Low	Moderate	High	Low	Moderate	High
<b>Males</b>	All ages	31.3%	22.2%	46.5%	31.1%	22.9%	46.1%
	16-24	17.3%	18.0%	64.7%	11.3%	19.7%	69.1%
	25-34	18.9%	17.6%	63.5%	19.8%	19.6%	60.6%
	35-44	30.1%	20.4%	49.5%	29.3%	20.4%	50.3%
	45-54	34.3%	21.1%	44.6%	32.4%	25.7%	41.9%
	55-64	34.1%	24.4%	41.5%	37.4%	25.3%	37.4%
	65-74	42.1%	27.1%	30.8%	52.2%	25.5%	22.3%
	75+	53.7%	32.9%	13.4%	56.8%	28.9%	14.2%
<b>Females</b>	All ages	33.5%	35.0%	31.5%	38.2%	29.4%	32.4%
	16-24	29.7%	25.0%	45.3%	23.8%	31.4%	44.9%
	25-34	26.3%	41.0%	32.7%	30.7%	31.0%	38.3%
	35-44	25.8%	38.1%	36.1%	30.7%	30.9%	38.4%
	45-54	30.6%	34.1%	35.3%	36.9%	28.7%	34.4%
	55-64	32.9%	33.5%	33.5%	41.6%	29.8%	28.6%
	65-74	31.5%	44.1%	24.3%	46.1%	32.8%	21.1%
	75+	63.4%	28.2%	8.4%	68.7%	19.4%	11.9%
<b>Persons</b>	All ages	32.4%	28.8%	38.8%	34.8%	26.3%	39.0%
	16-24	23.1%	21.5%	55.4%	17.6%	25.4%	57.0%
	25-34	22.7%	29.6%	47.7%	25.3%	25.3%	49.4%
	35-44	27.9%	29.2%	42.8%	30.0%	25.7%	44.3%
	45-54	32.5%	27.6%	39.9%	34.7%	27.2%	38.1%
	55-64	33.6%	29.1%	37.3%	39.6%	27.5%	32.9%
	65-74	36.9%	35.5%	27.6%	48.8%	29.5%	21.7%
	75+	59.6%	30.0%	10.3%	64.2%	23.0%	12.8%

## 6.2 Sedentary behaviour

### 6.2.1 Background

Sedentary behaviour has become an increasing problem in the developed world and has been named as one of the ten leading causes of death and disability.<sup>51</sup> Physical inactivity has been linked to all-cause mortality and poorer quality of life and puts individuals at increased risk of a number of conditions such as obesity, coronary heart disease, certain cancers, osteoporosis, Type 2 diabetes and some psychiatric conditions.<sup>93</sup> Research has also suggested that a sedentary lifestyle is more prevalent in those who are obese, less educated and current smokers.<sup>93</sup> It has been highlighted, however, that while the impact of physical activity upon health and health outcomes are very apparent, the influence of sedentary behaviour upon health is less clear.<sup>93; 94</sup> This may be attributed to a shortage of research on sedentary lifestyles<sup>93</sup> and also a lack of a standard definition of what is classed as sedentary behaviour.<sup>94</sup>

A recent report by the Royal Commission on Environmental Pollution<sup>95</sup> highlighted the impact of new technology upon lifestyles and that modern urban systems do not encourage individuals to take up physical activity. Methods of travel are changing, with an increasing focus upon using cars and decreasing use of public transport, bicycles and walking.<sup>58; 94</sup> There is a high value placed on labour saving gadgets, with people leading busier lives and having less time and energy to spend on exercise/activity.<sup>94</sup> Children also do not spend as much time playing outside as they once did,<sup>94; 96</sup> instead choosing more sedentary indoor activities such as watching TV, playing computer games, using the internet and mobile phones. In addition, there is less physical education and sport at school.<sup>94; 50</sup> Being sedentary in itself can also lead to individuals making poor dietary choices.<sup>94</sup> Sedentary behaviour may be seen as a "...*proxy for both inactivity and low levels of energy expenditure*"<sup>94(p.1)</sup> and not meeting the recommended levels of moderate activity each week.

For policy and targets relating to physical activity, please see Section 6.1.

### 6.2.2 Existing information

Please see Section 6.1.

### 6.2.3 Survey and analysis methodology

As well as the series of questions relating to physical activity, one question on sedentary behaviour was asked: how much time do you usually spend sitting or reclining on a typical day? This was an open response question. For analysis purposes, responses were grouped into four categories: two hours or less; more than two hours and up to four hours; more than four hours and up to eight hours; and more than eight hours.

### 6.2.4 Isle of Man survey results: Sedentary behaviour

Overall, 17.1% of adults were sedentary for more than eight hours a day, 52.8% were sedentary for more than four hours and up to eight hours, and 82.6% were sedentary for more than two hours and less than four hours (Figure 53, Table 16).

Significantly more men (19.5%) than women (14.9%) were sedentary for more than eight hours a day. There were no significant differences by gender across the two hours or less, more than two hours and up to four hours, and more than four hours and up to eight hours categories.

These patterns were somewhat different to those seen in the North West. Compared with females in the North West, females on the Isle of Man were significantly less likely to be sedentary for less than two hours (Figure 54) and more than two hours and up to four hours

(Figure 55). They were also significantly more likely to be sedentary for more than four hours but less than eight hours (Figure 56) and more than eight hours (Figure 57). For males, the only significant difference between the Isle of Man and the North West was in the more than eight hours category – with men on the Isle of Man being significantly more likely to be sedentary for this period of time each day.

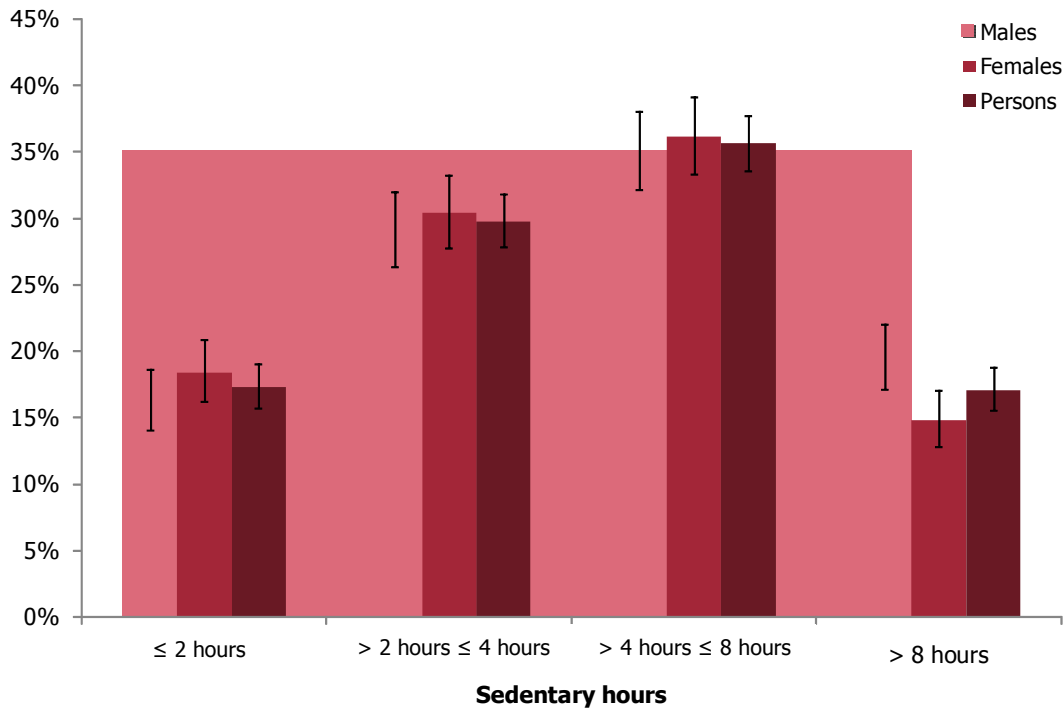
There were some interesting results by age group (Figure 58). Significantly more people aged 25 to 34 years were sedentary for more than eight hours a day than people aged 16-24 years. In addition, significantly more people aged 25-54 years are sedentary for more than eight hours a day than people aged 65-74 years. This may reflect higher employment rates in these middle age groups, particularly employment in sedentary jobs. The proportion of adults who were sedentary for at least eight hours a day then increases among those aged 75+ years. Compared with the North West, significantly more people on the Isle of Man aged 16-24 and 25-34 were sedentary for more than eight hours a day (Figure 62).

The proportion of adults who are sedentary for more than four hours and up to eight hours decreased between the 16-24 years and 35-54 years age groups, but then steadily increased with age (Figure 61). Significantly fewer people aged 35-44 years (33.2%) were sedentary for this amount of time per day than those aged 55+ years and significantly more people aged 75+ years (47.7%) were sedentary for this time than all age groups between 16 and 64 years. Significantly more people aged 35-44 on the Isle of Man were sedentary for more than four hours and up to eight hours than in the North West.

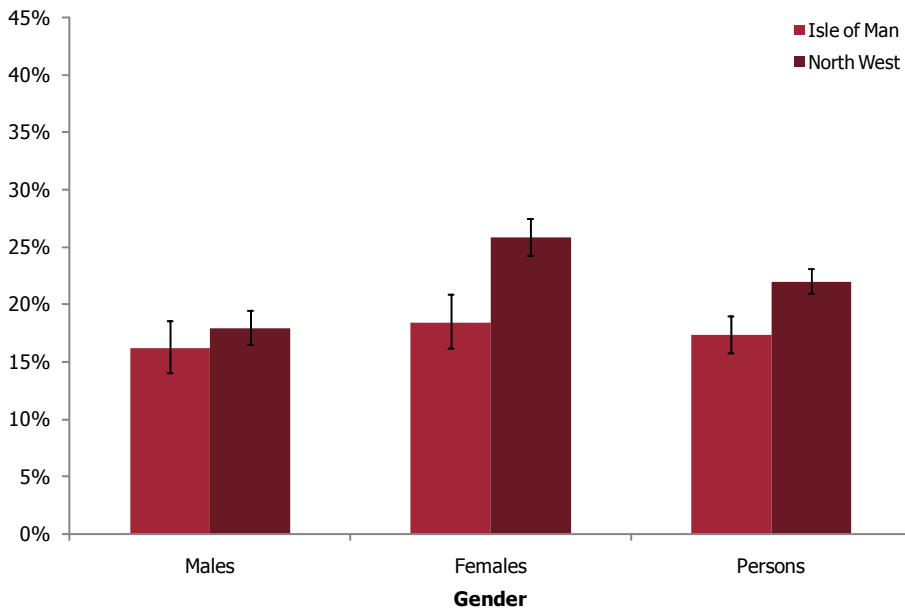
The proportion of adults who were sedentary for more than two hours and up to four hours a day also decreased between the 16-24 years and 25-34 years age groups, but subsequently rises up to those aged 65-74 years before decreasing in the over 75s (Figure 60). There were no significant differences between the Isle of Man and the North West by age group for the more than two hours and up to four sedentary hours category.

The proportion of adults who were sedentary for up to two hours a day increased up to the ages of 35-44 years, but then decreases (Figure 59). Those aged 65-74 and 75+ were significantly less likely to be sedentary for two hours or less compared with all other age groups. Compared with the North West, just one group (35-44 year olds) were significantly less likely to be sedentary for less than two hours a day.

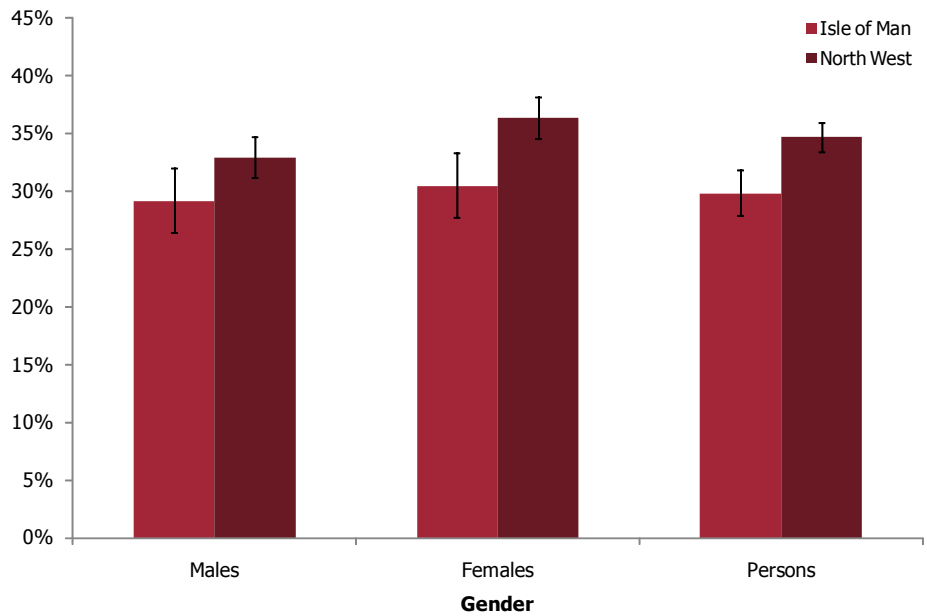
**Figure 53: Sedentary hours in a typical day, by gender. Isle of Man and North West of England.**



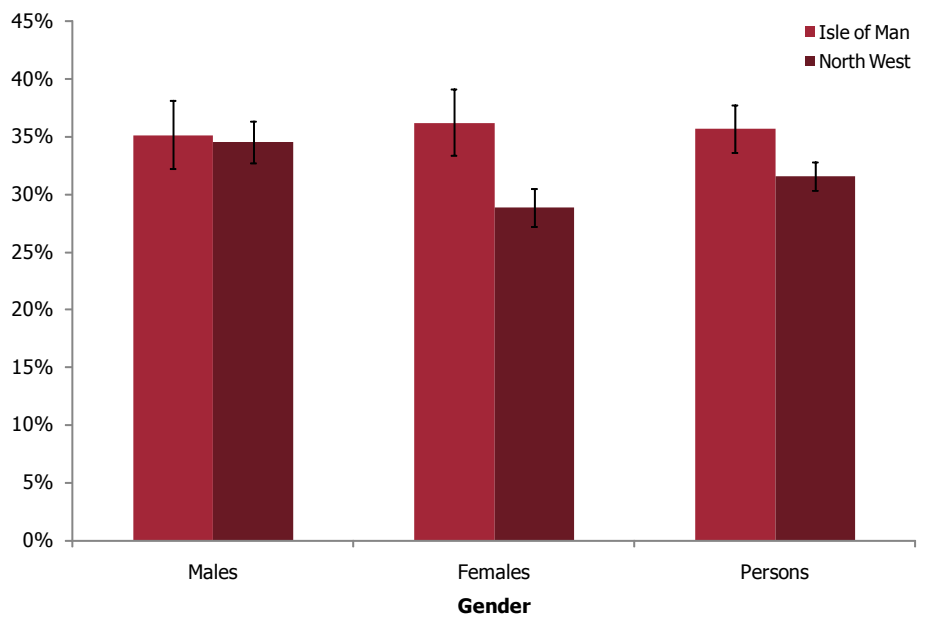
**Figure 54: Percentage of adults who had two or less ( $\leq 2$ ) sedentary hours in a typical day, by gender. Isle of Man and North West of England.**



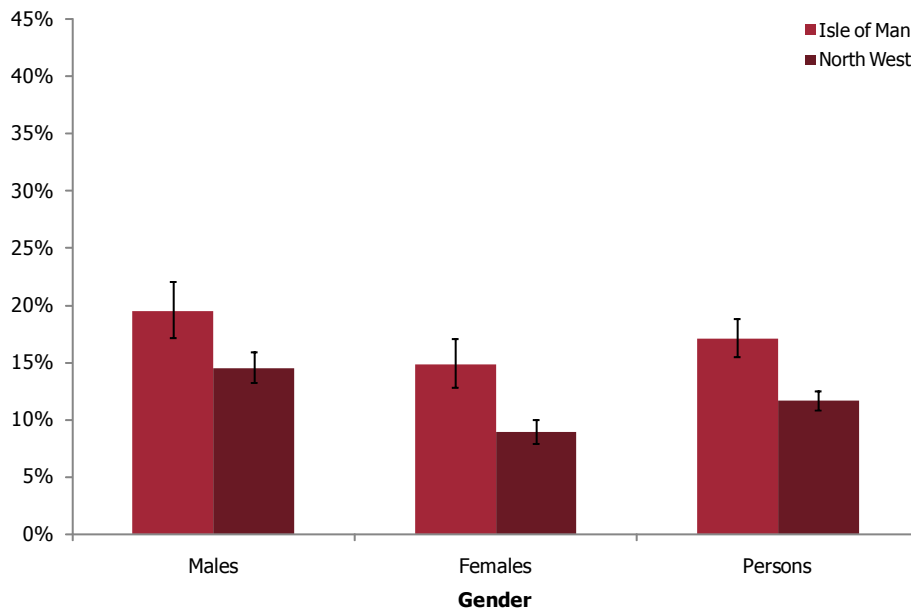
**Figure 55: Percentage of adults who had more than two and up to four (> 2 ≤ 4) sedentary hours in a typical day, by gender. Isle of Man and North West of England.**



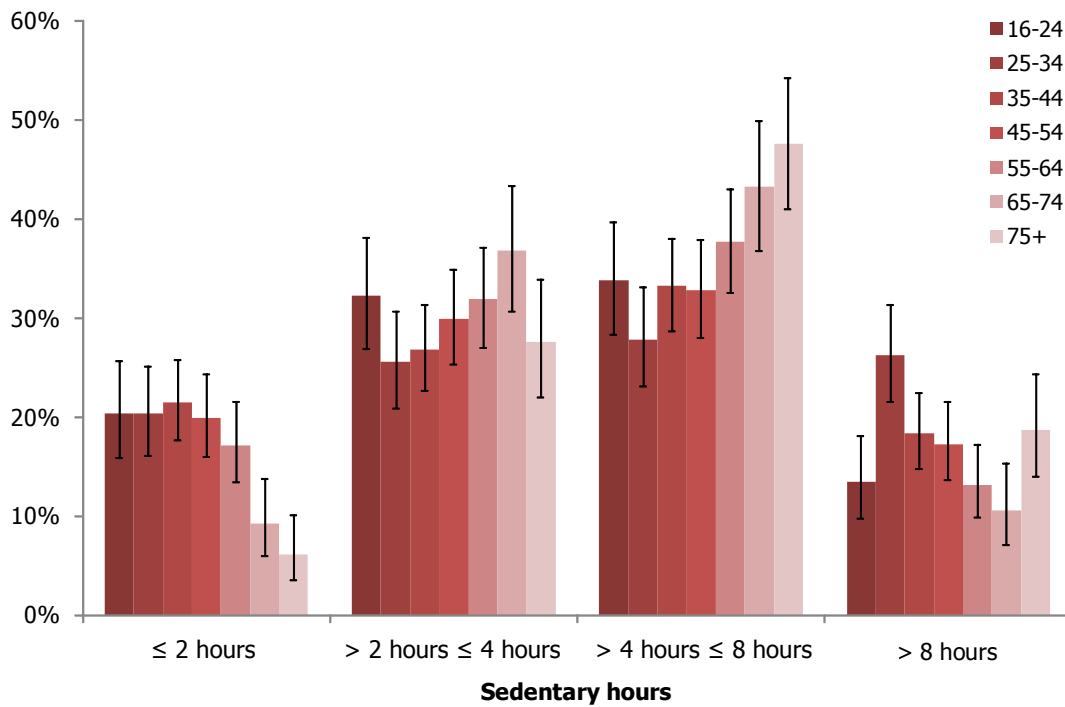
**Figure 56: Percentage of adults who had more than four and up to eight (>4 ≤ 8) sedentary hours in a typical day, by gender. Isle of Man and North West of England.**



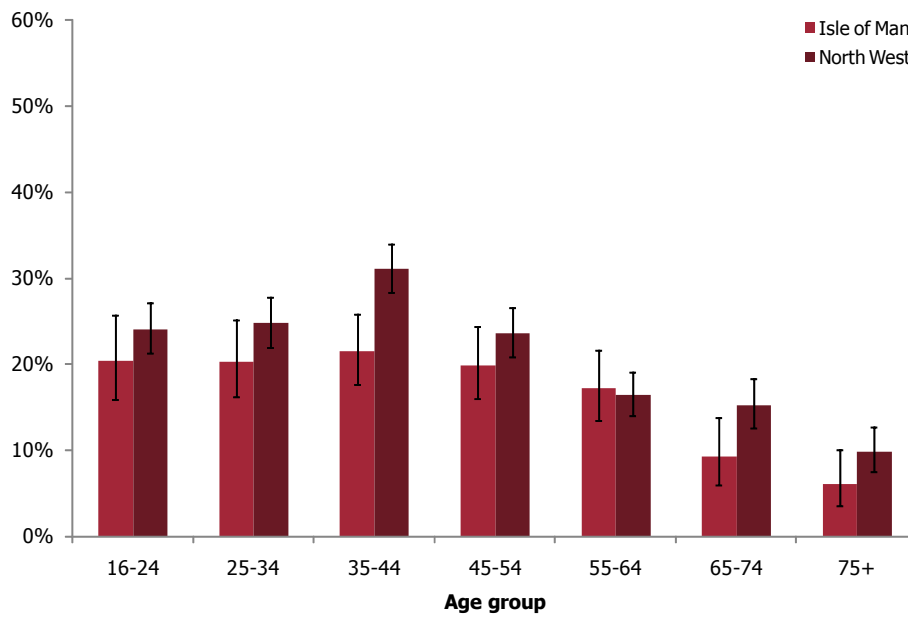
**Figure 57: Percentage of adults who had more than eight (>8) sedentary hours in a typical day, by gender. Isle of Man and North West of England.**



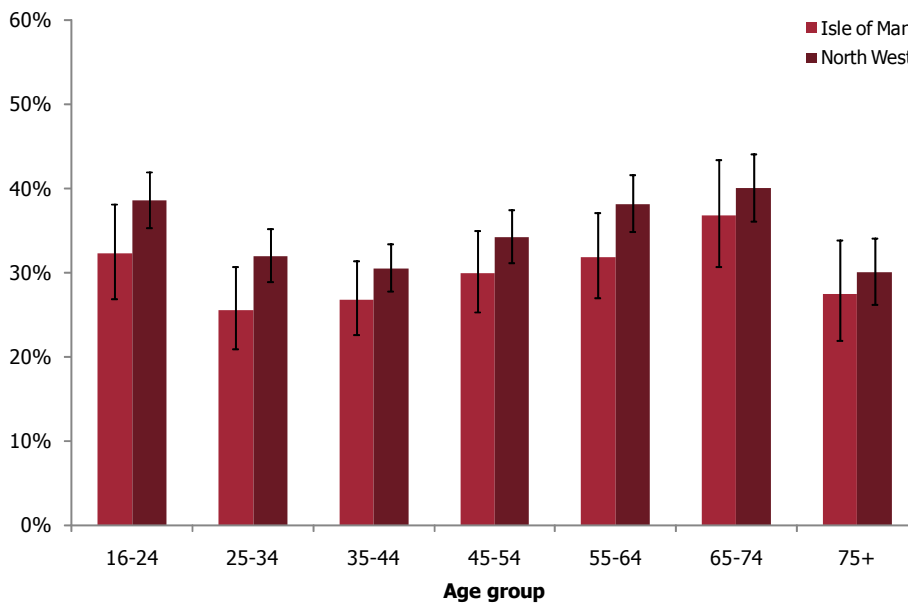
**Figure 58: Average number of sedentary hours in a typical day, by age group. Isle of Man.**



**Figure 59: Percentage of adults who had two or less ( $\leq 2$ ) sedentary hours in a typical day, by age group. Isle of Man and North West of England.**

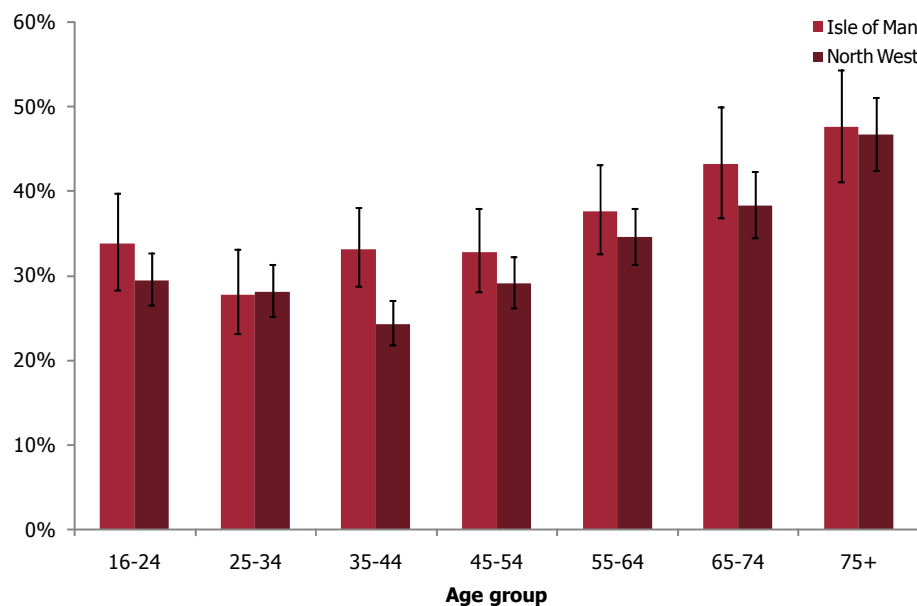


**Figure 60: Percentage of adults who had more than two and up to four ( $> 2 \leq 4$ ) sedentary hours in a typical day, by age group. Isle of Man and North West of England.**

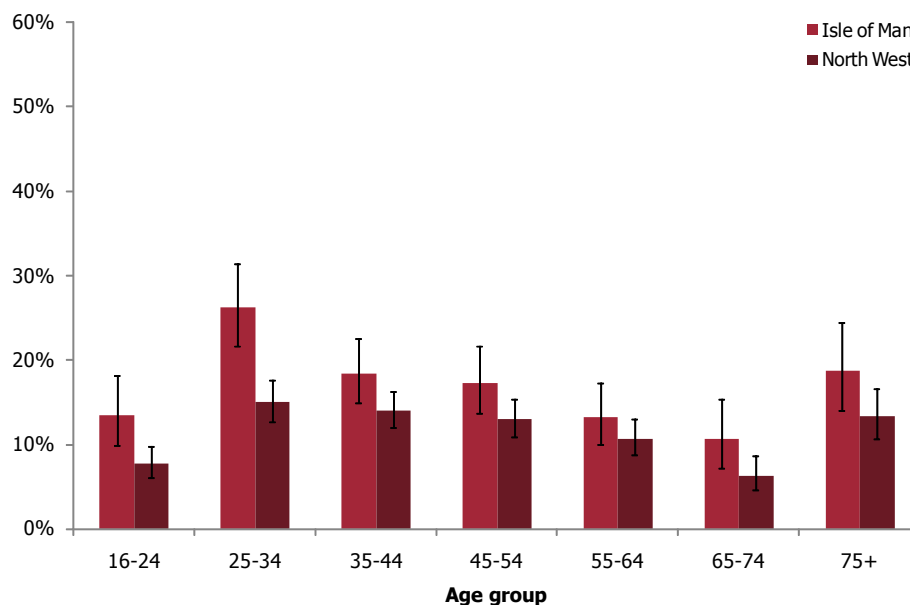




**Figure 61: Percentage of adults who had more than four and up to eight (>4 ≤ 8) sedentary hours in a typical day, by age group. Isle of Man and North West of England.**



**Figure 62: Percentage of adults who had more than eight (>8) sedentary hours in a typical day, by age group. Isle of Man and North West of England.**



**Table 16: Average number of sedentary hours in a typical day, by gender and age group. Isle of Man and North West of England.**

		Isle of Man				North West			
Age group		≤ 2	>2	>4	> 8	≤ 2	>2	>4	> 8
		hours	hours	hours		hours	hours	hours	
<b>Males</b>	All ages	16.3%	29.1%	35.1%	19.5%	18.0%	33.0%	34.6%	14.5%
	16-24	21.2%	31.8%	33.3%	13.6%	24.0%	40.3%	29.3%	6.5%
	25-34	17.6%	26.4%	23.6%	32.4%	18.1%	32.1%	31.6%	18.1%
	35-44	23.5%	25.5%	31.1%	19.9%	22.6%	29.0%	28.0%	20.4%
	45-54	15.4%	28.6%	34.3%	21.7%	18.8%	29.2%	35.0%	17.1%
	55-64	14.5%	29.1%	41.2%	15.2%	12.6%	34.8%	38.0%	14.6%
	65-74	5.6%	37.4%	45.8%	11.2%	12.7%	33.8%	45.5%	8.0%
	75+	8.5%	28.0%	43.9%	19.5%	9.5%	32.6%	45.3%	12.6%
<b>Females</b>	All ages	18.3%	30.5%	36.4%	14.9%	25.9%	36.4%	28.8%	8.9%
	16-24	19.5%	32.8%	34.4%	13.3%	24.3%	37.0%	29.7%	9.1%
	25-34	23.1%	25.0%	32.1%	19.9%	31.4%	31.9%	24.8%	11.9%
	35-44	19.5%	28.2%	35.4%	16.9%	39.4%	32.2%	20.7%	7.7%
	45-54	24.4%	31.4%	31.4%	12.8%	28.5%	39.4%	23.2%	8.9%
	55-64	19.9%	34.2%	34.2%	11.8%	20.2%	41.7%	31.4%	6.7%
	65-74	12.5%	36.6%	41.1%	9.8%	17.5%	45.6%	32.0%	4.9%
	75+	4.5%	27.3%	50.0%	18.2%	10.0%	28.5%	47.6%	13.8%
<b>Persons</b>	All ages	17.3%	29.8%	35.7%	17.1%	22.0%	34.7%	31.6%	11.7%
	16-24	20.4%	32.3%	33.8%	13.5%	24.1%	38.6%	29.5%	7.7%
	25-34	20.3%	25.6%	27.9%	26.2%	24.8%	32.0%	28.2%	15.0%
	35-44	21.5%	26.9%	33.2%	18.4%	31.1%	30.6%	24.3%	14.0%
	45-54	19.9%	30.0%	32.9%	17.3%	23.6%	34.3%	29.1%	13.0%
	55-64	17.2%	31.9%	37.7%	13.2%	16.4%	38.2%	34.6%	10.7%
	65-74	9.2%	36.9%	43.3%	10.6%	15.2%	40.1%	38.4%	6.3%
	75+	6.1%	27.6%	47.7%	18.7%	9.8%	30.1%	46.8%	13.4%

## 7. Alcohol

### 7.1 Background

While moderate alcohol consumption can have health benefits, such as reducing the risk of heart disease and ischemic stroke and promoting stress relief,<sup>97</sup> these benefits do not supersede the detrimental role alcohol misuse can play on an individual's health. Alcohol misuse is related to a wide range of negative health conditions, both physical and mental, and affects every part of the body. Alcohol impacts upon life expectancy and morbidity such as hypertension, stroke and alcoholic cardiomyopathy,<sup>lxxxix; 98</sup> alcohol-induced pancreatitis, chronic liver disease, stomach cancer, sexually transmitted infections, teenage pregnancy and foetal alcohol syndrome, to name but a few.<sup>99</sup> Alcohol also has a major role in violence and crime as well as accidents.<sup>99</sup>

Alcohol misuse places a massive burden on health services in terms of hospital admissions and treatment and also on the whole economy from, for example, claimants of incapacity benefits due to alcoholism and sickness absence from work.

In England, the Government recommends that adult women should not regularly drink more than 2-3 units of alcohol per day, while adult men should not regularly drink more than 3-4 units of alcohol per day. Pregnant women or women trying to conceive should avoid drinking alcohol. If they do choose to drink, they should not drink more than 1-2 units of alcohol once or twice a week and should not get drunk.<sup>lxxx</sup> It appears that many people are not actually aware of how many units they are drinking,<sup>lxxxix</sup> and conversely, that those who know they are drinking potentially detrimental amounts choose to keep drinking.

Across England, around one in five adults are drinking enough to put their health at significant risk and one in twenty enough to make disease related to alcohol consumption practically inevitable. There is also a massive difference in healthy consequences of alcohol use between richer and poorer communities and also between genders. For example, the poorest local authorities in England have the highest recorded levels of health and social outcomes related to alcohol use such as crime, anti-social behaviour, unauthorised absence from school and Incapacity Benefit claimant rates. The risk of alcohol dependency is also greatly increased in less advantaged social groups.<sup>100</sup>

The first alcohol strategy for the Isle of Man was introduced in 2000, in 2005 this strategy was updated and combined with the drugs strategy to form the *Updated Drug and Alcohol Strategy*.<sup>101</sup> Its focus is to reduce the harms resulting from drug and alcohol misuse. Within the Lifestyle section of the strategy, there are two aims that relate directly to alcohol misuse: to "*reduce harmful patterns of drinking and promote sensible drinking*" and to "*promote behavioural and cultural changes in patterns of drinking.*"<sup>(p.4)</sup>

In England, there have been a number of policy drivers that encourage and support sensible drinking such as:

- *Sensible Drinking: The Report of an Inter-Departmental Working Group*<sup>102</sup>: saw the introduction of a change in guidelines for sensible drinking from a weekly to a daily measure, as weekly measures masked issues surrounding short-term drinking episodes and the harm (both medical and social) that this can do.
- *National Service Framework for Mental Health*<sup>36</sup>: details the acknowledged link between mental health and alcohol consumption and dependency/misuse. For example, those with anxiety symptoms are systematically seen (among other factors) to be drinking alcohol to excess.

<sup>lxxxix</sup> Cardiomyopathy refers to an enlarged and weakened heart.

<sup>lxxx</sup> <http://units.nhs.uk/index.php>

<sup>lxxxi</sup> [www.thesite.org/drinkanddrugs/drinking/problems/bingedrinking](http://www.thesite.org/drinkanddrugs/drinking/problems/bingedrinking)

- *NHS Cancer Plan*<sup>61</sup>: linking cancer to alcohol misuse.
- *National Service Framework for Coronary Heart Disease*<sup>20</sup>: interventions for those at high risk of CHD or those already diagnosed with CHD, including information about modifiable risk factors such as alcohol and personalised advice about how consumption may be reduced.
- *National Service Framework for Diabetes*<sup>44</sup>: highlights the risk of alcohol consumption related to hypoglycaemia.
- *National Service Framework for Older People*<sup>22</sup>: addresses behaviours that may dispose an individual to stroke including lifestyle issues such as reducing alcohol consumption. It also highlights the impact of alcohol upon mental health and conditions such as osteoporosis.
- *Every Child Matters*<sup>103</sup>: discusses children facing earlier exposure to alcohol as well as sexual activity and drugs.
- *Choosing Health: Making healthy choices easier*<sup>7</sup>: includes actions to reduce alcohol-related harm.

The *Alcohol Harm Reduction Strategy*<sup>104</sup> published in 2004 focussed on improving education, health and treatment services, tackling alcohol-related crime and improving links with the alcohol industry, through a multi-agency approach. The report provided information on targeting groups who are most at risk of drinking at a level that is likely to cause harm and promotes sensible drinking. This report was followed in 2007 by *Safe. Sensible. Social: The next steps in the National Alcohol Strategy*.<sup>105</sup> Both highlight the detrimental effect alcohol misuse has on the health of the British public.

It has been suggested that looking at the harm and risk arising from the volume of alcohol consumption alone is not sufficient and that it should be measured alongside other factors, such as personality, mood, sex, tolerance of alcohol, and the physical, social and cultural context in which alcohol is consumed.<sup>106</sup> Recent publications on alcohol reflect these concerns and look to cover the wider determinants surrounding alcohol consumption and the misuse of alcohol.

Alcohol Concern acknowledges that there are difficulties faced by the Department of Health, researchers and others in the broader alcohol field with lack of consensus on what 'binge drinking' actually is.<sup>107</sup> Differing definitions can make analysis of trends across countries problematic. For example, based on government guidelines, in recent years binge drinking has been defined as drinking over half the recommended number of units for one week in one session,<sup>106</sup> which was ten units for men and seven for women. The Office for National Statistics has also classified this level as eight or more units for men and six or more units for women on at least one day in the week, while the *Binge drinking and public health*<sup>108</sup> report defined binge drinking as "the consumption of excessive amounts of alcohol within a limited time period". This report also highlighted the impact of binge drinking in terms of physical and mental health and influences of binge drinking, such as drinking cultures, personal and social factors, availability, and so on.

From an international perspective there are also a number of definitions of binge drinking. For example, in the United States alone there are three definitions:

- 1) five or more drinks for men and four or more for women on one occasion
- 2) five or more drinks per occasion on at least one in the last 30 days
- 3) blood alcohol concentration raised to 0.08g/ml or above.

Finland defines binge drinking as six or more bottles of beer per session, while Canada states it is eight drinks within the same day.<sup>lxxxii</sup> These varying definitions raise issues surrounding the size and strength of drinks, what is classed as an occasion, and so on.

## 7.2 Existing information

The Isle of Man General Population Health and Lifestyle Survey<sup>3</sup> reported on alcohol consumption, however definitions of different levels of drinking are inconsistent with those used within this survey and are therefore not directly comparable. The survey found that 60% of respondents were 'regular drinkers'<sup>lxxxiii</sup> (55% of males, 45% of females); 19% of males and 11% of females drank 'outside safe and sensible limits';<sup>lxxxiv</sup> 26% of males and 9% of females were 'moderate or heavy' drinkers; and 9% of males were 'heavy drinkers'.<sup>lxxxv</sup>

The level of alcohol consumed in the UK has steadily increased over time. The 2007 Health Survey for England showed that 73% of men and 57% of women had consumed an alcoholic drink over the past seven days.<sup>12</sup> An increasing number of individuals were shown to be drinking more than the recommended levels: 42% of men and 31% of women drank more than the Government's recommended levels on at least one day in the past week.<sup>lxxxvi</sup>

Previously published information on hazardous, harmful and binge drinking is not strictly comparable to the survey results here as different methods have been used to generate intelligence. However, they can provide the context for where the Isle of Man sits alongside the North West and National averages for these measures.

### Hazardous drinking

Analysis of the General Household Survey 2005 revealed that 21.9% of men and 15.6% of women in the North West were drinking at hazardous levels, higher than the England averages of 18.9% and 12.3%.<sup>109</sup>

Mid 2005 synthetic estimates based on the Health Survey for England, Hospital Episode Statistics, Office for National Statistics mid-year population estimates, mortality data and the 2001 Census show that an estimated 22.1% of North West adults were drinking at hazardous levels, higher than the England average of 20.1%.

### Harmful drinking

Analysis of the General Household Survey 2005 revealed that 6.0% of men and 2.5% of women in the North West were drinking at harmful levels, slightly higher than the England averages of 5.6% and 2.2%.<sup>109</sup>

Mid 2005 synthetic estimates<sup>lxxxvii</sup> show that an estimated 6.3% of North West adults were drinking at harmful levels, significantly higher than the England average of 5.0%.<sup>109</sup>

### Binge drinking

Analysis of the General Household Survey 2007 revealed that more men (33%) than women (21%) across the North West drank *more than 8 (men)/6 (women) units* on at least one day in the last week. This compared with 25% of men and 11.4% of women across England.<sup>lxxxviii</sup>

<sup>lxxxii</sup> Further details can be found at: [www.icap.org/PolicyIssues/BingeDrinking/KeyFactsandIssues/tabid/196/Default.aspx](http://www.icap.org/PolicyIssues/BingeDrinking/KeyFactsandIssues/tabid/196/Default.aspx)

<sup>lxxxiii</sup> Regular drinkers defined as consumers of alcohol on a weekly basis of at least 1-4 days.

<sup>lxxxiv</sup> Outside safe and sensible limits defined as consuming more than 14 units per week for females and more than 21 units per week for males.

<sup>lxxxv</sup> Moderate drinkers drank 5-8 units on five or more days of the week and heavy drinkers drank nine or more units on five or more days of the week.

<sup>lxxxvi</sup> [www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england-2007-latest-trends-\[ns\]](http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england-2007-latest-trends-[ns])

<sup>lxxxvii</sup> Based on the Health Survey for England, Hospital Episode Statistics, Office for National Statistics mid-year population estimates, mortality data and the Census of Population 2001.

Similar analysis of the Health Survey for England 2005 showed that 25.9% of men in the North West were binge drinkers (*eight or more units*), significantly worse than the England average of 19.3%. The proportion of women in the North West who were binge drinkers (11.4%) (*six or more units*) was less than half that of men. This was also higher than the England average (8.1%), but not significantly so.<sup>109</sup>

The 2003-05 synthetic estimates of binge drinking (in this case, defined as *eight or more* units for men and *six or more* units for women) show that 23.0% of adults in the North West binge drink, significantly worse than the England average of 18.0%.<sup>lxxxix</sup>

### 7.3 Survey and analysis methodology

In order to determine the frequency and pattern of alcohol consumption on the Isle of Man, individuals were asked a series of questions relating to the type and quantity of alcohol they consumed in the last seven days.

First, respondents were asked if they drink alcoholic drinks at present and if they did, they were asked if they had an alcoholic drink in the seven days ending yesterday. If the answer was no to either question, the interviewer moved on to the next section of the questionnaire. Next, respondents were asked on which days in the previous week they had an alcoholic drink. Taking each day that they had drunk alcohol on in turn, questions were asked about the type of drink/s that had been consumed and the quantity of that type of drink.

Thinking about last <day of week>, what types of drink did you have that day...?

Non-alcoholic beer or lager	⇒	How many pints of non-alcoholic beer/lager did you drink last <day of week>?
Low alcohol beer or lager	⇒	How many pints of low alcohol beer/lager did you drink last <day of week>?
Normal strength beer, lager, shandy, stout	⇒	How many pints of normal strength beer/lager/shandy/stout did you drink last <day of week>?
Strong beer, lager, shandy, stout	⇒	How many pints of strong beer/lager did you drink last <day of week>?
Alcopops such as Smirnoff Ice, WKD, Bacardi Breezer, etc.	⇒	How many bottles of alcopops did you drink last <day of week>?
Spirits such as gin, vodka, whisky, rum, etc.	⇒	How many single glasses of spirits did you drink last <day of week>?
Wine	⇒	How many standard glasses of wine did you drink last <day of week>?
Fortified wines such as sherry, port, martini, etc.	⇒	How many single glasses of fortified wine did you drink last <day of week>?

In total, 56 individual variables were created in the dataset containing information on the quantity drunk (i.e. one variable for each day of the week, for each type of drink listed). Next, eight more variables (one for each day of the week and one for a weekly total) were derived containing information on the number of units consumed. To do this, the quantity of each type of drink consumed was multiplied by the number of alcohol units in the drink. The total units drunk in each day were then calculated, and subsequently the seven (daily unit) variables were summed to arrive at a weekly total. A respondent was categorised as a binge drinker if any of their daily unit totals exceeded the appropriate threshold,<sup>xc</sup> while both

<sup>lxxxviii</sup> [www.statistics.gov.uk/downloads/theme\\_compendia/GHS07/GeneralHouseholdSurvey2007.pdf](http://www.statistics.gov.uk/downloads/theme_compendia/GHS07/GeneralHouseholdSurvey2007.pdf)

<sup>lxxxix</sup> NWPHO for Department of Health: [www.nwph.net/alcohol/lape](http://www.nwph.net/alcohol/lape)

<sup>xc</sup> Over eight units for men and over six units for women.

hazardous and harmful drinking categories were derived from the total units consumed in a week.

The units in each alcoholic drink were taken from *Estimating alcohol consumption from survey data: updated method of converting volumes to units*<sup>110</sup> and were the new conversion factors (see Units of Alcohol Conversion Table). This document takes into account uplifted measures for beer and wine. The information contained within the following survey results sections is the first time that hazardous, harmful and binge drinking have been estimated this way for the Isle of Man. Therefore, other previously published measures are not strictly comparable.

### Units of Alcohol Conversion Table

Type of drink and volume	Number of units
Pints of non-alcoholic beer, lager, etc.	0
Pints of low alcohol beer, lager, etc.	0.75
Pints of normal strength beer, lager, shandy, stout, etc.	2
Pints of strong beer, lager, shandy, stout, cider, etc.	4
Bottles of alcopops such as Smirnoff Ice, WKD, Bacardi Breezer, VK, Reef	1.5
Single glasses of spirits, such as whisky, vodka, rum, etc.	1
Standard glasses of wine	2
Single glasses of fortified wines such as sherry, port, martini, etc.	1

Respondents were also asked if the information they had given was 'typical' of their drinking behaviour and to provide details if it was not.

The questions were taken from the British Regional Heart Study.<sup>xcii</sup>

### Hazardous drinking

The total number of units consumed in a week (see Section 7.3) was used to identify whether or not an individual was a hazardous drinker. Hazardous drinking is drinking above the recommended levels but not yet experiencing any harm.<sup>99</sup> Hazardous drinking is defined as the consumption of between 22 and 50 units of alcohol per week for men and between 15 and 35 units per week for women.<sup>111</sup>

### Harmful drinking

The total number of units consumed in a week (see Section 7.3) was used to identify whether or not an individual was a harmful drinker. Harmful drinking is drinking over the recognised sensible levels and experiencing harm, such as an alcohol-related accident, acute alcohol poisoning, hypertension or cirrhosis.<sup>99</sup> Harmful drinking is defined as the consumption of over 50 units of alcohol per week for men and over 35 units per week for women.<sup>111</sup>

### Binge drinking

The seven units per day variables (see Section 7.3) were used to identify whether or not an individual was a binge drinker. Binge drinking is drinking over double the recognised sensible levels, in one day. This is measured by the consumption of over eight units a day for men and over six units a day for women<sup>99</sup> on the heaviest drinking day during the last week. If an individual had consumed more than eight or six units on any one day out of the last seven, they were classified as a binge drinker.

<sup>xcii</sup> [www.ucl.ac.uk/pcph/research/brhs/index.htm](http://www.ucl.ac.uk/pcph/research/brhs/index.htm)



## 7.4 Isle of Man survey results: Alcohol consumption

On the Isle of Man 80.2% of men and 68.1% of women said they consume alcoholic drinks at present and 81.6% of men and 72.2% of women said they had consumed an alcoholic drink in the last seven days.

Results for hazardous, harmful and binge drinking are presented in the following sections.

### 7.4.1 Hazardous drinking

Overall, approximately one in ten adults drank at hazardous levels (10.6%). The proportion was lower than for the North West (13.0%), but the difference was not significant (Figure 63, Table 17). Men on the Isle of Man were significantly more likely to be hazardous drinkers than women (males: 14.5%; females: 7.1%), similar to the North West (males: 15.6%; females: 10.3%). Females on the Isle of Man were significantly less likely to drink at hazardous levels than females from the North West.

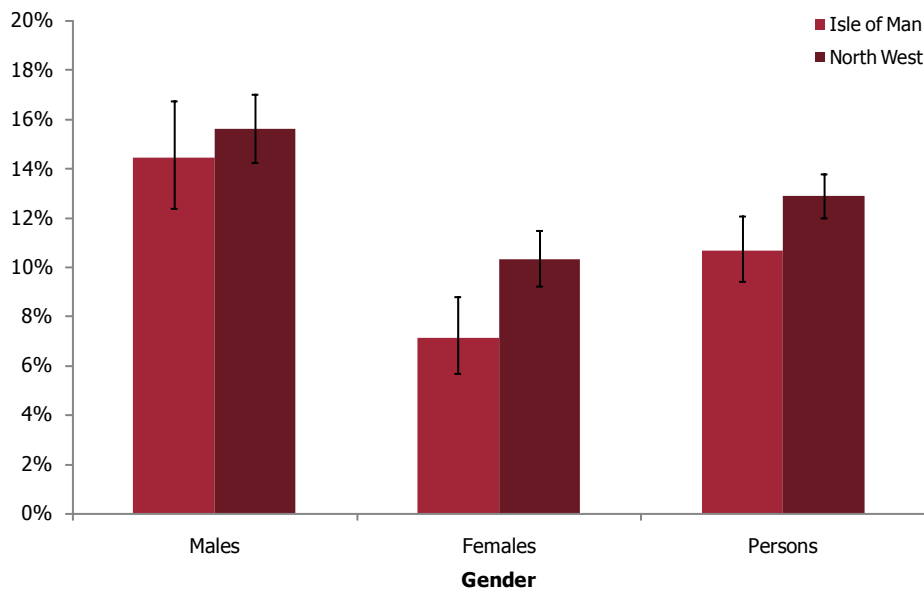
Across the age groups, there was a general decrease in the levels of hazardous alcohol consumption with increasing age (Figure 64). Isle of Man adults aged 16-24 were most likely to drink at hazardous levels (13.8%), while the level of hazardous drinking in those aged 75+ years (3.8%) was significantly lower than all other age groups (with the exception of those aged 65-74 years). In the North West, however, the highest prevalence of hazardous drinking was seen among those aged 25-34 years (15.9%), significantly higher than levels in those aged 55-64 years and 65-74 years, while prevalence in those aged 75+ years was significantly lower than all other age groups.

There were no significant differences in the levels of hazardous drinking between the Isle of Man and the North West for each of the age groups.

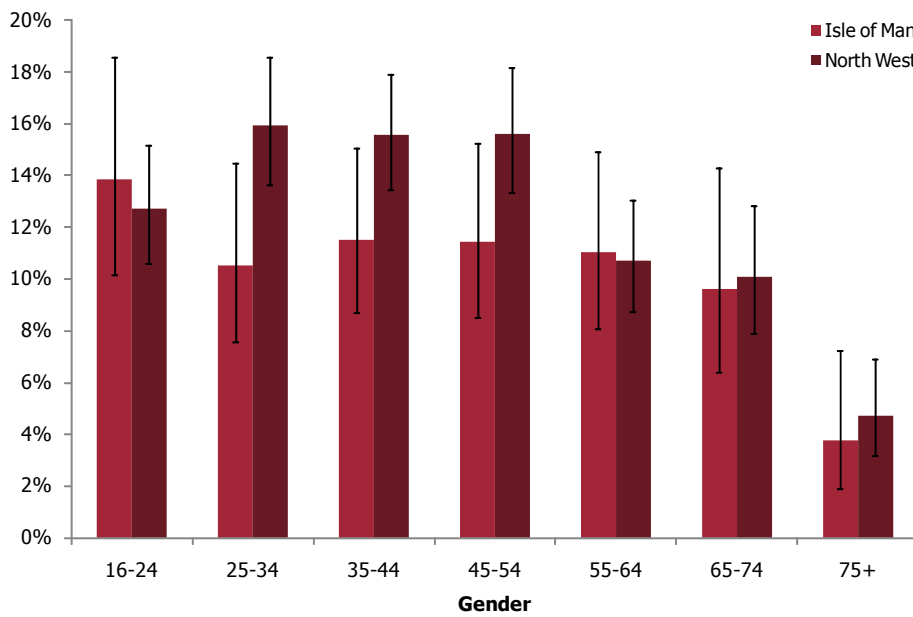
On the Isle of Man more men aged 16-24 years drank hazardous levels of alcohol than any other age group (18.0%) (and when compared with women), while in the North West this was true of males aged 25-34 years (20.1%) (Table 17). The greatest difference in prevalence between men and women on the Isle of Man was seen in those aged 25-34 years, where men (17.6%) were nearly four times more likely than women (4.5%) to drink at hazardous levels.



**Figure 63: Percentage of adults consuming hazardous levels of alcohol, by gender. Isle of Man and North West of England.**



**Figure 64: Percentage of adults consuming hazardous levels of alcohol, by age group. Isle of Man and North West of England.**



**Table 17: Percentage of adults consuming hazardous levels of alcohol, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	14.5%	7.1%	10.6%	15.6%	10.3%	13.0%
16-24	18.0%	10.2%	13.8%	14.6%	10.8%	12.7%
25-34	17.6%	4.5%	10.5%	20.1%	11.9%	15.9%
35-44	14.8%	8.2%	11.5%	19.4%	11.8%	15.6%
45-54	13.6%	9.2%	11.5%	16.4%	14.8%	15.6%
55-64	13.9%	8.6%	11.0%	12.1%	9.3%	10.7%
65-74	14.2%	5.4%	9.6%	12.0%	8.4%	10.1%
75+	6.1%	2.3%	3.8%	8.4%	2.5%	4.7%

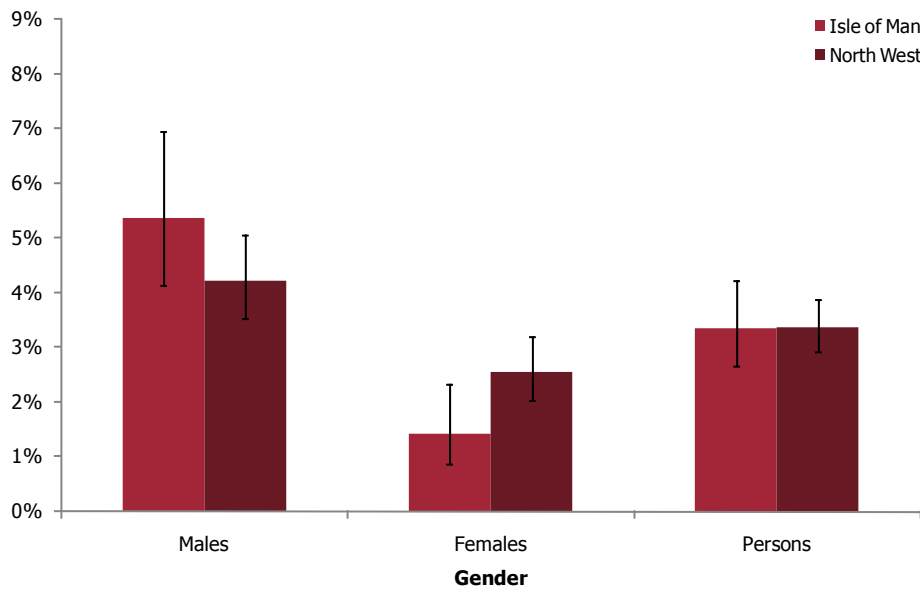
### 7.4.2 Harmful drinking

Just over 3% of adults on the Isle of Man were drinking harmful levels of alcohol, with men being significantly more likely to drink at harmful levels than women (5.4% and 1.4% respectively). There was no significant difference by gender between the Isle of Man and the North West (Figure 65).

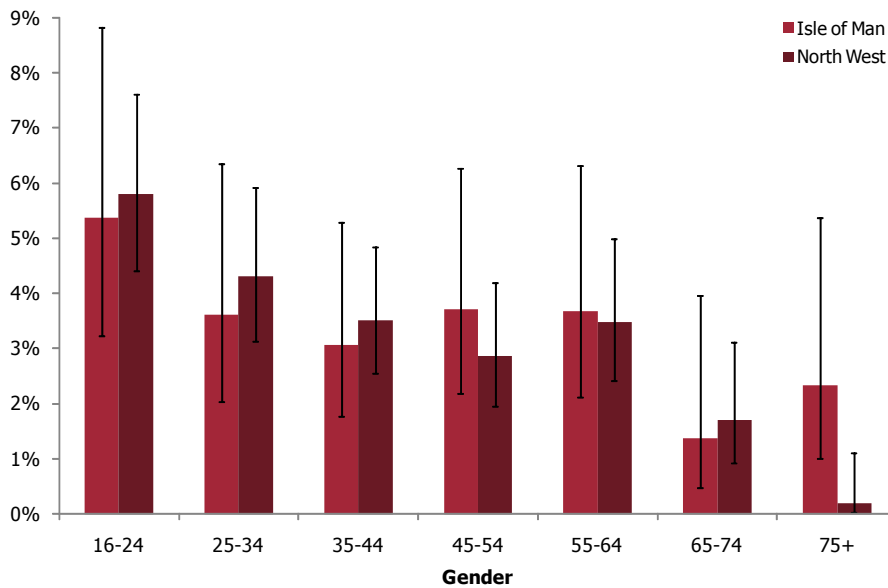
There was generally a decrease in the percentage of adults who drank at harmful levels as age increased: adults aged 16-24 years had the highest prevalence (5.4%), and those aged 65-74 years the lowest (1.4%) (Figure 66, Table 18). There were no significant differences apparent between the different age groups on the Isle of Man or in comparison to the North West.

Across both the Isle of Man and the North West, more men aged 16-24 years drank harmful levels of alcohol than women or any other age group (Isle of Man: 8.3%; North West: 7.2%). The greatest difference between men and women on the Isle of Man was in the 75+ years age group, where men were six times more likely to drink alcohol at harmful levels (males: 4.9%; females: 0.8%); while in the North West the greatest difference between the genders was among those aged 55-64 years.

**Figure 65: Percentage of adults consuming harmful levels of alcohol, by gender. Isle of Man and North West of England.**



**Figure 66: Percentage of adults consuming harmful levels of alcohol, by age group. Isle of Man and North West of England.**



**Table 18: Percentage of adults consuming harmful levels of alcohol, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	5.4%	1.4%	3.4%	4.2%	2.6%	3.4%
16-24	8.3%	2.3%	5.4%	7.2%	4.4%	5.8%
25-34	4.7%	1.9%	3.6%	4.4%	4.0%	4.3%
35-44	5.1%	1.0%	3.1%	4.6%	2.5%	3.5%
45-54	5.7%	1.7%	3.7%	3.0%	2.5%	2.9%
55-64	5.5%	1.9%	3.7%	5.1%	2.0%	3.5%
65-74	2.8%	0.0%	1.4%	2.5%	1.3%	1.7%
75+	4.9%	0.8%	2.3%	0.0%	0.3%	0.2%

### 7.4.3 Binge drinking

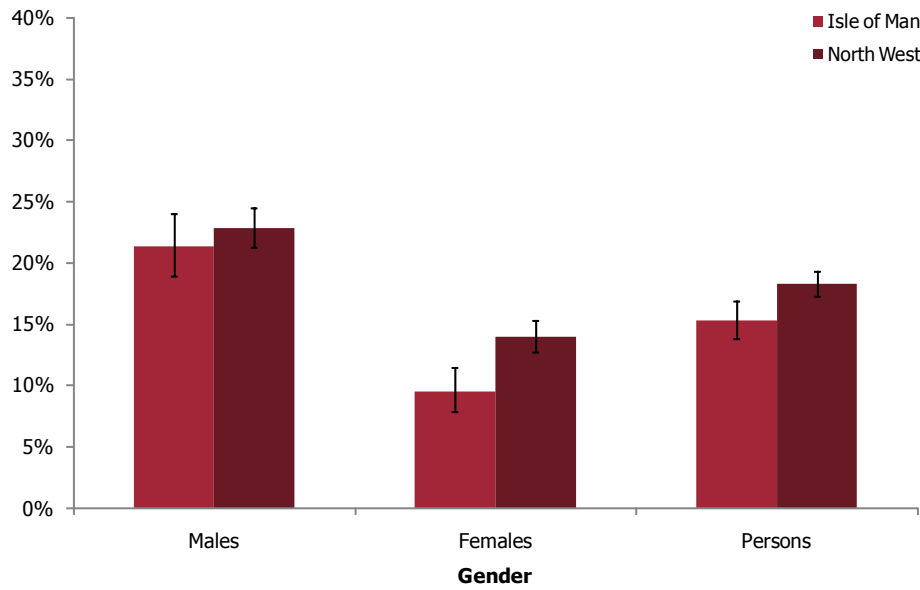
On the Isle of Man 15.3% of adults binge drink, significantly fewer than in the North West (18.3%) (Figure 67, Table 19). Across the genders, significantly more men on the Isle of Man binge drink (21.4%) compared with women (9.5%). In comparison with the North West (14%), women on the Island were significantly less likely to binge drink.

Binge drinking decreased with increasing age, with those aged 16-24 years most likely to binge drink compared with all other age groups (33.8%) (Figure 68). Conversely, those aged 75+ years were least likely to binge drink. In both the Isle of Man and the North West significantly fewer people aged 75+ years binge drink than all other age groups apart from those aged 65-74 years.

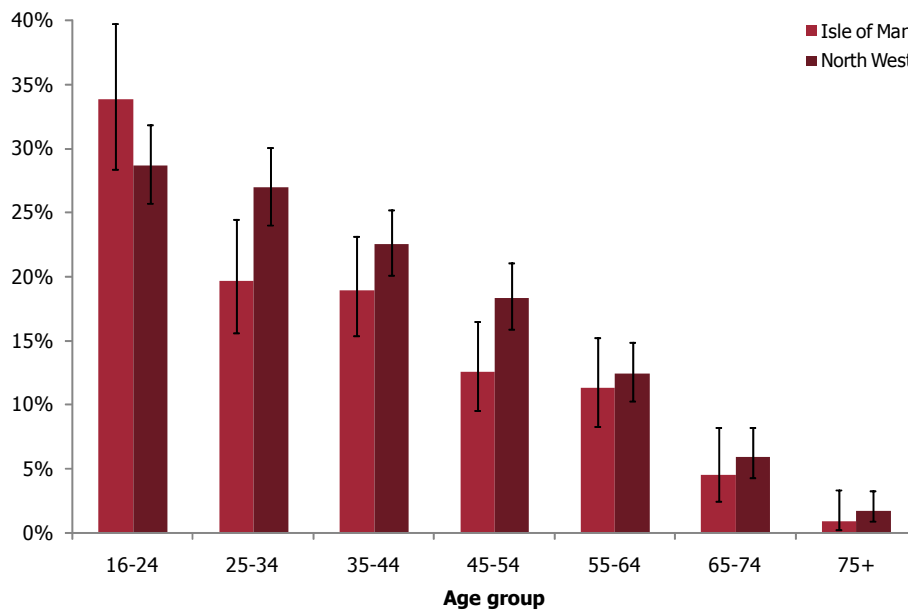
There were no significant differences in the levels of binge drinking between the Isle of Man and the North West for each of the age groups.

Of all gender and age groups, men aged 16-24 years on the Isle of Man were most likely to binge drink (40.6%). Men aged 55-64 years (18.3%) were approximately four times more likely to binge drink than women (4.3%) of the same age. In the North West, the highest prevalence of binge drinking was also among men aged 16-24 years (34.9%). Men aged 65-74 years (8.8%) were more than twice as likely to binge drink as women (3.6%) of the same age.

**Figure 67: Percentage of adults binge drinking, by gender. Isle of Man and North West of England.**



**Figure 68: Percentage of adults binge drinking, by age group. Isle of Man and North West of England.**



**Table 19: Percentage of adults binge drinking, by gender and age group. Isle of Man.**

<b>Age group</b>	<b>Isle of Man</b>			<b>North West</b>		
	<b>Males</b>	<b>Females</b>	<b>Persons</b>	<b>Males</b>	<b>Females</b>	<b>Persons</b>
All ages	21.4%	9.5%	15.3%	22.8%	14.0%	18.3%
16-24	40.6%	27.3%	33.8%	34.9%	22.3%	28.7%
25-34	29.9%	9.6%	19.7%	31.4%	22.6%	27.0%
35-44	25.0%	12.9%	19.0%	27.4%	17.8%	22.6%
45-54	16.5%	8.7%	12.6%	21.8%	15.0%	18.4%
55-64	18.3%	4.3%	11.3%	16.1%	8.6%	12.5%
65-74	6.6%	2.7%	4.6%	8.8%	3.6%	6.0%
75+	2.4%	0.0%	0.9%	2.1%	1.6%	1.8%

## 8. Smoking

### 8.1 Background

Evidence relating to the ill-effects of tobacco (albeit anecdotal) emerged as early as the 17th century, with the first scientific evidence of the impact of smoking upon life expectancy appearing in the 1930s.<sup>112</sup>

On the Isle of Man, smoking is the number one preventable cause of death and disease, claiming an estimated 200 adult lives each year and resulting in around 20 childhood admissions to hospital.<sup>113</sup> For every tobacco related premature death on the Island, there are around 20 smokers living with a serious smoking-related disease (for example, emphysema). Annually, the estimated cost to the Isle of Man NHS from smoking-related diseases is in the region of £2.4 million (based on 1997 prices), whilst the economic cost of smoking related deaths is in excess of £190 million.<sup>113</sup>

In 2005, the Isle of Man Tobacco Strategy<sup>113</sup> was introduced with the aims of:

1. Preventing non-smokers taking up the tobacco habit (particularly young people).
2. Reducing the number of people who use tobacco products.
3. Reducing the exposure of non-smokers to tobacco smoke.

If fully implemented, by 2010 the strategy has the potential to halve smoking prevalence, save 39-45 lives per year, reduce economic loss through premature death by around £40m per year, and reduce hospital costs by £500,000 per year.

Smoking is also the single most preventable cause of premature mortality and morbidity in England and a major contributing factor to health inequalities as well as higher death rates in manual compared with non-manual groups.<sup>114</sup> Over ten million people in Great Britain smoke, around one-sixth of the population.<sup>7</sup> Approximately one out of every five deaths in the UK may be attributed to smoking with an estimated 86,500 deaths from smoking-related illnesses in England between 1998 and 2002.<sup>115; 116</sup> Smoking is also related to a number of long-term conditions including respiratory disease (bronchitis, emphysema), asthma, hypertension, heart and circulatory disease, cancer of the bladder, throat and mouth,<sup>112</sup> with a cost to the NHS of approximately £1.5 billion per year.<sup>117</sup> It is estimated that 34 million days are lost in England and Wales through sickness absence resulting from smoking-related illnesses.<sup>117</sup>

There are longstanding issues surrounding second hand smoke, which has been found to exacerbate asthma and increase the risk of lung cancer, heart disease and stroke.<sup>118</sup> It is also estimated that 49 hospitality workers are killed by lung cancer caused by passive smoking in the UK every year.<sup>xcii</sup> Ireland was the first country in the northern hemisphere to ban smoking in all enclosed places in March 2004 and England followed in July 2007. It has been suggested that while the introduction of smoke free places has the potential to decrease the value and volumes of alcohol sales,<sup>119</sup> it may also directly result in decreased cigarette consumption and a reduction in certain types of cancers and acute myocardial infarctions.<sup>xciii</sup>

It is estimated that second hand smoke is responsible for ten deaths each year on the Isle of Man. In response to this situation the Isle of Man Government has introduced a new law to make virtually all enclosed public places and workplaces smoke free.<sup>120</sup> The 'Smoke Free Mann' initiative was introduced in 2004 and initially this was a voluntary initiative (rather than being introduced in the legislature) with the aim of encouraging proprietors to provide

<sup>xcii</sup> [www.tuc.org.uk/h\\_and\\_s/tuc-11361-f0.cfm](http://www.tuc.org.uk/h_and_s/tuc-11361-f0.cfm)

<sup>xciii</sup> [www.opsi.gov.uk/acts/acts2006/ukpga\\_20060028\\_en\\_1](http://www.opsi.gov.uk/acts/acts2006/ukpga_20060028_en_1)

smoke free environments. In 2007 over 75 establishments were totally or at least partially smoke free.<sup>120</sup> The Isle of Man legally went Smokefree on 30<sup>th</sup> March 2008, from which date proprietors were required by law to provide smoke free environments.

In England there are a number of policies related to smoking:

- The *Smoking Kills: A White Paper on Tobacco*,<sup>121</sup> which aimed to tackle tobacco use in Britain. It looked at measures to reduce smoking prevalence including tobacco advertising and sponsorship, cigarette sales, providing support for those who want to quit, smoke free policies, smoking and health in pregnancy, passive smoking and inequalities.
- The *Independent Inquiry into Inequalities in Health Report*,<sup>122</sup> which adopted a socio-economic model of health and highlighted the impact of lifestyle behaviours such as smoking upon health and looked at ways in which these could be changed.
- The *NHS Cancer Plan: a plan for investment, a plan for reform*,<sup>61</sup> that recognised smoking as a major contributor to the prevalence of cancer and that people who wish to stop smoking need to be supported. It also acknowledged that smoking prevalence can only be tackled by looking at the underlying causes of ill health or poverty, unemployment and the broader causes of ill health.
- The *National Service Framework for Coronary Heart Disease*,<sup>20</sup> which provided a framework for tackling heart disease through prevention, diagnosis and treatment. It highlighted support for those who want to give up smoking through the provision of specialist smoking cessation clinics.
- The *Tobacco Advertising and Promotion Act (2002)*, that set out controls for the advertising and promotion of tobacco products.
- *Choosing Health: Making healthy choices easier*,<sup>7</sup> which highlighted local government as key in supporting action for smoke free workplaces.
- The *Health Act (2006)*, which provided legislation regarding smoke free places, premises and vehicles in England. This was passed in July 2006 and came into force in July 2007.

Government targets in England aim to reduce overall prevalence of smoking,<sup>121</sup> but also the proportions of people smoking who are in households that are headed by someone in manual employment. The *Smoking Kills: A White Paper on Tobacco*<sup>121</sup> set a target to reduce the overall prevalence of smoking to 24% by 2010. This target was reviewed by the Department of Health in their PSA targets related to smoking, which aim to tackle the underlying determinants of ill health and health inequalities by "*reducing adult smoking rates to 21% or less by 2010*" and an additional part of this target introduced in the *NHS Cancer Plan*<sup>61</sup> to "*reduce smoking prevalence among routine and manual groups to 26% or less by 2010 (from 32% in 1998)*". There is evidence of progress towards this target: in 2005 in England, 29% of people in manual occupations were smokers, compared with 33% in 1998, a 12.1% decrease.

A second PSA target also relating to smoking and tackling ill health and health inequalities aimed to: "*deliver a one percentage point reduction per year in the proportion of women continuing to smoke throughout pregnancy, focussing especially on smokers from disadvantaged groups as a contribution to the national target to reduce by at least 10% the gap in mortality between 'routine and manual' groups and then the population as a whole by 2010, starting with children under 1 year*".<sup>123; 124</sup>

If these targets were achieved, it is estimated that there would be a cost benefit/saving of £524 million due to the reduction in the number of heart attacks and strokes.<sup>125</sup>

The National Institute for Health and Clinical Excellence Public Health programme guidance and interventions have also been published on smoking cessation services, including the use of pharmacotherapies in primary care pharmacies, local authorities and workplaces,



particularly focussing upon manual working groups, pregnant women and hard to reach communities.<sup>xciv</sup>

The above policies and targets relate to England. However, there are a number of similar policies which apply in the Isle of Man. Some of the policies such as the National Service Framework and the NHS Cancer Plan are not 'statutory' in the Isle of Man but are instead applied at a local level where resources allow.

## 8.2 Existing information

A 2007/08 survey of households on the Isle of Man found that 24.7% of households contained at least one member who smokes.<sup>31</sup> Rates of household smoking generally decreased with age; where the head of household is under 25 years of age, 25% smoke, while among households where head of household is over 65 years, 14.5% smoke. Passive smoking was also highlighted in this report as a particular concern, with 64.3% of households who smoke reporting that they did so within the home.

A similar pattern was seen in the 2005 Isle of Man General Population Health and Lifestyle Survey<sup>3</sup> which found that 19% of adults aged over 18 were current smokers (23% of males and 16% of females). In general, smoking decreased with age. However, the younger age groups were under-represented so results are not robust.

The General Household Survey 2007 showed the prevalence of smoking in England to be 21%, a fall of one percentage point in a year. It also showed the prevalence of smokers in the routine and manual groups to be higher than in managerial and professional groups (26% and 15% respectively).<sup>xcv</sup>

The Health Survey for England 2007 showed that nationally 22.3% of adults aged 16+ (23.8% of men and 20.8% of women) were current smokers.<sup>12</sup> Figures from 2006 show that the prevalence of smoking was higher in younger adults than older adults: 34.2% of men aged 25-34 and 27.7% of women aged 16-24 were current smokers. Individuals in the lowest income quintile had the highest prevalence of smoking (36% of men and 30% of women). The prevalence of smoking in the North West region was shown to be 3% higher for men and 1% higher for women than the national figure.<sup>18</sup>

## 8.3 Survey and analysis methodology

Individuals were asked a number of questions about their smoking habits to determine whether they were current smokers, ex-smokers or non-smokers. All participants in the survey were asked the following:

- 1) May I just check, have you ever smoked? (Yes / No).  
If the answer was no, the respondent was categorised as a non-smoker, and the survey proceeded to the next section. If the answer was "yes", the following three questions were asked:
- 2) Have you ever smoked at least 100 cigarettes in your lifetime? (Yes / No).
- 3) Have you ever smoked daily? (Yes / No).
- 4) Do you now smoke...? (Daily / Occasionally / Not at all).

Current smokers were defined as adults who smoke either daily or occasionally. Respondents who had smoked daily but who now did not smoke were categorised as ex-smokers. Non-smokers included adults who had never smoked at all and those who had previously smoked occasionally (but never daily) but did not now smoke.

<sup>xciv</sup> [www.nice.org.uk/search/guidancesearchresults.jsp?keywords=smoking+cessation&searchType=guidance](http://www.nice.org.uk/search/guidancesearchresults.jsp?keywords=smoking+cessation&searchType=guidance)

<sup>xcv</sup> [www.statistics.gov.uk/downloads/theme\\_compendia/GHS07/GeneralHouseholdSurvey2007.pdf](http://www.statistics.gov.uk/downloads/theme_compendia/GHS07/GeneralHouseholdSurvey2007.pdf)

These questions were taken from the 2004 Tobacco Control Research Bulletin.<sup>126</sup>

#### 8.4 Isle of Man survey results: Smoking

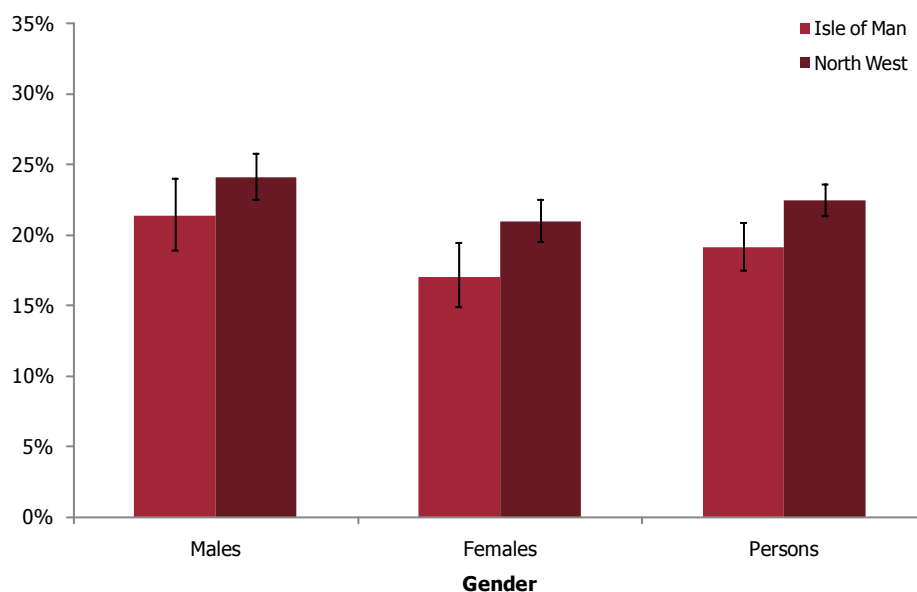
Nearly one in five (19.1%) adults on the Isle of Man smoked, significantly fewer than compared in the North West (22.5%) (Figure 69, Table 20). More men (21.4%) than women (17.0%) on the Isle of Man smoked, but this difference was not significant. Compared with the North West (20.9%), women on the Isle of Man were significantly less likely to smoke, but there was no significant difference for men.

On the Isle of Man there was a general decrease in the prevalence of smoking with age from 35 years onwards (Figure 70), with adults aged 25-34 years (23.7%) more likely to smoke than all other age groups. Adults aged 75+ years had the lowest prevalence of smoking (6.1%) and this difference was significant compared with all other age groups (with the exception of 65-74 years); while adults aged 65-74 years (12.9%) were significantly less likely to smoke than those aged 25-34 years (23.7%), 35-44 years (22.0%) and 55-64 years (23.5%). The decreasing prevalence of smoking with age was also evident in the North West, with adults age 75+ years significantly less likely to smoke than adults in all other age groups.

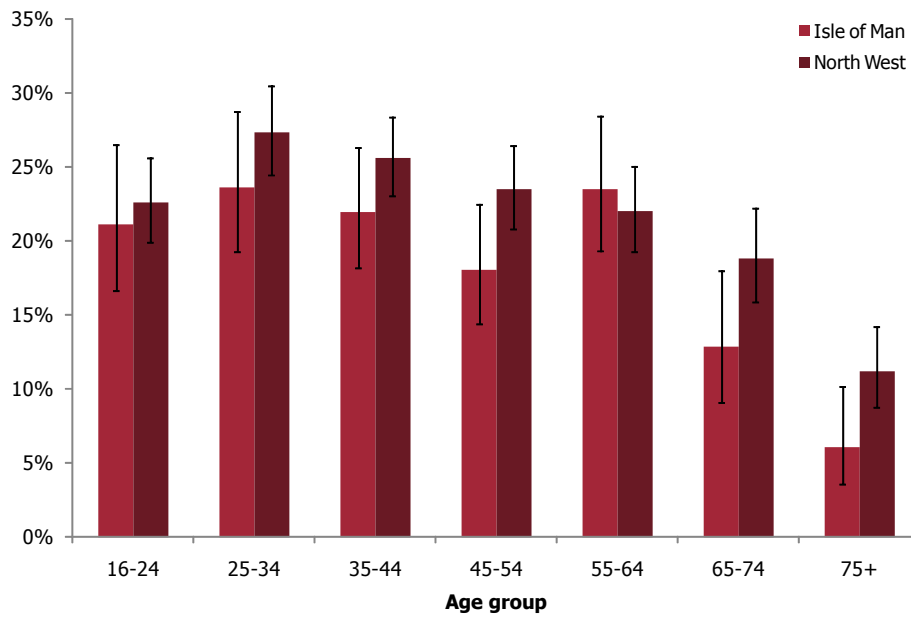
There were no significant differences in the levels of smoking between the Isle of Man and the North West for each of the age groups.

Of all gender and age groups, men aged 25-34 years are most likely to smoke (Isle of Man: 33.8%; North West: 32.2%). Interestingly, in both regions, women aged 65-74 years were more likely to smoke than men of the same age, and on the Isle of Man this difference was two-fold (males: 8.4%; females: 17.0%) although it was not significant.

**Figure 69: Percentage of adults who currently smoke, by gender. Isle of Man and North West of England.**



**Figure 70: Percentage of adults who currently smoke, by age group. Isle of Man and North West of England.**



**Table 20: Percentage of adults who currently smoke, by gender and age group. Isle of Man and North West of England.**

Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	21.4%	17.0%	19.1%	24.1%	20.9%	22.5%
16-24	21.2%	21.1%	21.2%	23.2%	21.9%	22.6%
25-34	33.8%	14.1%	23.7%	32.2%	22.6%	27.4%
35-44	27.4%	17.0%	22.0%	26.6%	24.6%	25.6%
45-54	21.1%	15.0%	18.1%	24.3%	22.8%	23.5%
55-64	19.5%	27.6%	23.5%	24.2%	20.0%	22.0%
65-74	8.4%	17.0%	12.9%	18.2%	19.5%	18.9%
75+	6.1%	6.1%	6.1%	10.1%	11.9%	11.2%

## 9. Caring Responsibilities

### 9.1 Background

A carer is "...someone who, without payment<sup>xcvi</sup> provides help and support to a partner, child, relative, friend or neighbour, who could not manage without their help. This could be due to age, physical or mental illness, addiction or disability".<sup>xcvii</sup> Both adults and children<sup>xcviii</sup> can be carers. Carers are not to be confused with care workers and care assistants who are paid a salary to look after individuals who need support.

Every year, approximately two million people become carers in England.<sup>xcix</sup> The role of carers is invaluable in terms of their contribution to the health and social care system as it is estimated that the economic contribution of carers in the UK amounts to a massive £87 billion per year.<sup>127</sup>

Carers are twice as likely to suffer from poor health compared with someone with no caring responsibilities.<sup>128</sup> Poor physical and mental health in carers may be due to lack of appropriate support, isolation, financial stresses (including lack of awareness of benefits that are available, resulting in millions of pounds of unclaimed carers' benefits) and lack of information.

In England, there are a number of policies and Acts in place to safeguard carers and those they care for, including:

- The *Carers (Recognitions and Services) Act, 1995*.<sup>c</sup>
- The *National Carers Strategy (1999)*, which provides information, support and care for carers. The Government gave local authorities in England money to invest in carers' breaks (considered essential to enable carers to continue caring) through the Carer Grant.<sup>129</sup>
- The *Carers and Disabled Children Act (2000)*, which made provision about the assessment of carers needs, services to help carers, and making payments to carers and disabled children aged 16 or 17 in lieu of the provision of services to them.<sup>130</sup>
- *National Service Framework for Older People*,<sup>22</sup> which was established to look at the problems older people face in receiving care in order to deliver higher quality services. The key standards that underpin the Framework include plans to eradicate age discrimination and to support person-centred care with newly integrated services. A new layer of intermediate care is being developed at home or in care settings.
- The *Carers (Equal Opportunities) Act (2004)*, which placed duties on local authorities and health bodies in respect of carers. It aimed to ensure that carers are able to take up opportunities that people without caring responsibilities often take for granted, such as working, studying or leisure activities.<sup>ci</sup>
- *Our health, our care, our say*,<sup>131</sup> which highlighted the need to increase investment in information and support for carers.
- *New Deal for Carers*, a new national strategy is currently being drawn up to provide an update to the 1999 *National Carers Strategy* and an additional £33 million of further investment. It aims to enable carers to stay in work through the provision of adequate support services and access to flexible working. This new national strategy invited carers to contribute ideas that may help to shape it.<sup>132</sup> The work is being led by the Department of Health, but is a cross-government priority and also involves the Departments for Work

<sup>xcvi</sup> This excludes benefits such as Carer's Allowance.

<sup>xcvii</sup> [www.carers.org/who-is-a-carer,118,GP.html](http://www.carers.org/who-is-a-carer,118,GP.html)

<sup>xcviii</sup> A young carer is a child or young person under the age of 18 carrying out significant caring tasks and assuming a level of responsibility for another person, which would normally be undertaken by an adult.

<sup>xcix</sup> [www.carersuk.org/Information/Newtocaring](http://www.carersuk.org/Information/Newtocaring)

<sup>c</sup> [www.opsi.gov.uk/acts/acts1995/ukpga\\_19950012\\_en\\_1.htm](http://www.opsi.gov.uk/acts/acts1995/ukpga_19950012_en_1.htm)

<sup>ci</sup> [www.opsi.gov.uk/acts/acts2004/plain/ukpga\\_20040015\\_en\\_1\\_content.htm](http://www.opsi.gov.uk/acts/acts2004/plain/ukpga_20040015_en_1_content.htm)

and Pensions; Children, Schools and Families; Trade and Industry; Communities and Local Government and the Treasury.

## 9.2 Existing information

The 2001 Census for England and Wales included for the first time a question on the provision of unpaid care: 'Do you look after or give any help or support to family members, friends or neighbours or others because of: long-term physical or mental ill health or disability or problems related to old age?'.<sup>cii</sup> It showed that in the UK, 12% of the adult population (approximately six million people) provided unpaid care (there were around 4.85 million carers in England in 2001, including 90,000 under 16 year olds). Carers were also asked how many hours per week they spent providing unpaid care. Across England, 3.3 million carers spent between 1-19 hours, 531,000 carers spent 20-49 hours and one million (20.5%) spent 50+ hours per week.<sup>ciii</sup> In terms of age, 45% of carers were between the age of 45 and 64 years and 5% of carers were over 85 years old.

A larger proportion of women than men under the age of 65 years were unpaid carers. The 2001 Census also showed that age was related to the number of hours spent caring for someone: the percentage of older carers providing 50 or more hours per week was higher than the percentage of younger carers. The proportion of carers providing 50+ hours of care per week rose significantly from the age of 65<sup>133</sup> and among carers aged over 85 years, 50.1% spent 50 hours or more caring for someone each week.

Census data from 2001 shows that in England, 11.9% of carers considered themselves to be in 'not good' health, compared with 10.6% of people who did not have caring responsibilities. Among those providing more than 50 hours of care per week, 20.6% said that they were in 'not good' health. Across the North West, the equivalent percentages of those in 'not good' health were higher: 13.6% of carers, 13.1% of non-carers and 22.7% of those providing care for more than 50 hours per week.

There are also significant health impacts for older carers who may be suffering from ill health themselves when taking on caring responsibilities. Those aged 45-54 and 55-64 years appear to make up the largest number of carers in the UK. The number of carers in 'not good' health in the UK increased with age with 4.3% of 290,370 carers aged 16-24 years stating that they were in 'not good' health compared with 30.0% of 40,640 carers aged 85+ years.

The 2001 General Household Survey<sup>134</sup> also found that in England of those who cared for someone for 50 hours per week, 24% had a feeling of strain, 47% reported disturbed sleep and 34% said they felt depressed, indicating the increased pressure they are under.

## 9.3 Survey and analysis methodology

Individuals were asked if they care for someone with long term ill health related to old age, other than as part of a job, in order to determine the profile of carers in the North West. To ascertain the time individuals spent caring for someone they were asked how much time they spent caring for someone (not as part of their job) in a typical week (between 1 and 19 hours a week, between 20 and 49 hours a week, or 50 or more hours a week). These questions were derived from the 2001 Census.

<sup>cii</sup> Note that there is no specific reference to whether this care is provided within the household or outside the household. Therefore, no explicit link can be created to infer that an individual providing care is providing it to a person within the household who has poor general health, or a limiting long term illness, disability or health problem.

<sup>ciii</sup> [www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D8921.xls](http://www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D8921.xls)

## 9.4 Isle of Man survey results: Carers

### 9.4.1 Caring responsibility

Overall, 8.0% of adults on the Isle of Man cared for someone with long-term ill health or problems related to old age, a lower proportion than across the North West (9.6%), but this difference was not significant (Figure 71, Table 21). On the Island significantly more women (9.9%) than men (6.0%) were carers, reflecting the pattern seen in the North West.

On the Isle of Man, there were predominantly more people aged 55-64 (10.7%) who care for someone with long-term ill health or problems related to old age than any other age group. There were, however, no significant differences between the age groups (Figure 72). There were also no significant differences in the proportion of adults who care for someone with long-term ill health or problems relating to old age between the Isle of Man and the North West for each of the age groups.

Across all age groups, predominantly more women than men care for someone with long-term ill health or problems related to old age. The only exception to this is among adults aged 75+ years, but the difference is not significant.

### 9.4.2 Hours spent caring per week

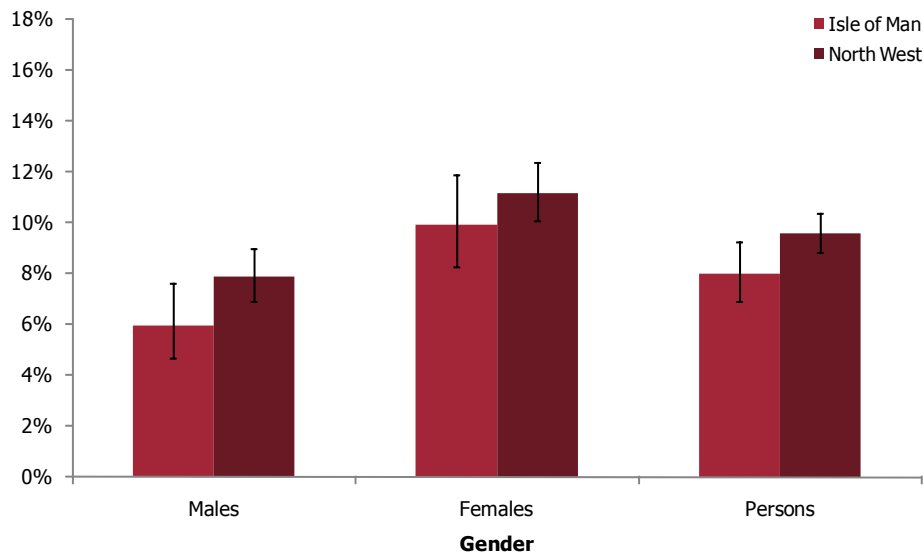
More than half of adult carers on the Isle of Man (56.4%) cared for someone for 1-19 hours per week, 18.2% of carers provided care for someone for 20-49 hours and 25.5% for 50+ hours (Figure 73, Table 22). Overall, there was little difference in terms of the hours spent caring by gender, with no significant differences.

Adult carers on the Isle of Man were more likely to care for someone for 1-19 hours or 20-49 hours per week compared with the North West, while adult carers in the North West are more likely to care for someone for 50+ hours per week. However, none of these differences were significant.

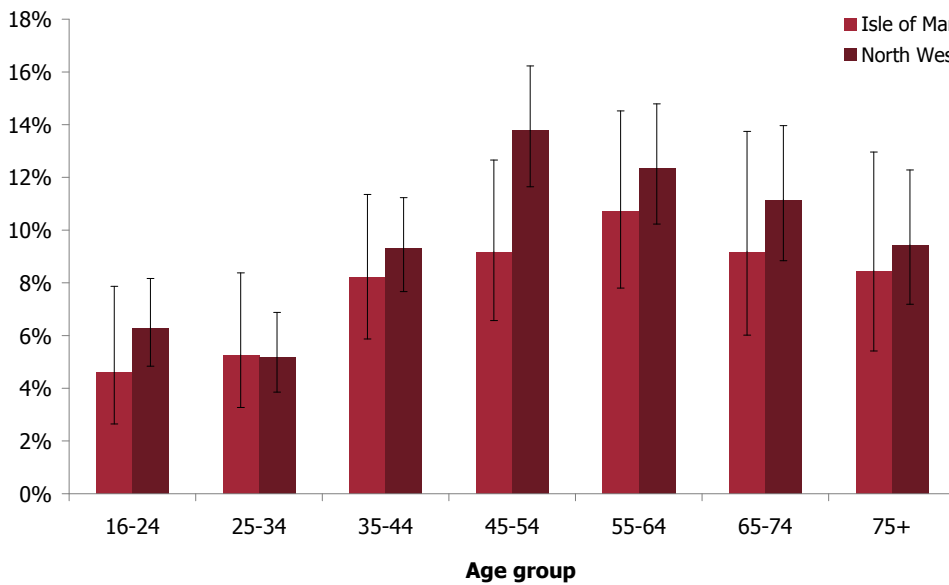
On the Isle of Man, carers aged 45-54 years (68.8%) were more likely than any other age group to care for someone for 1-19 hours per week, significantly higher than those aged 75+ years. Adult carers aged 25-34 years (37.5%) were most likely to care for someone for 20-49 hours a week. More than half of adult carers aged 65-74 years (55.0%) and six out of ten adults aged 75+ years (61.1%) on the Isle of Man care for someone for 50+ hours a week.

There are no significant differences in adult carers who care for someone with long-term ill health or problems relating to old age for 1-19 hours, 20-49 hours or 50+ hours per week when comparing the Isle of Man and the North West within each of the age groups (Figure 78, Figure 79, Figure 80).

**Figure 71: Percentage of adults caring for someone with long-term ill health or problems related to old age, by gender. Isle of Man and North West of England.**



**Figure 72: Percentage of adults caring for someone with long-term ill health or problems related to old age, by age group. Isle of Man and North West of England.**

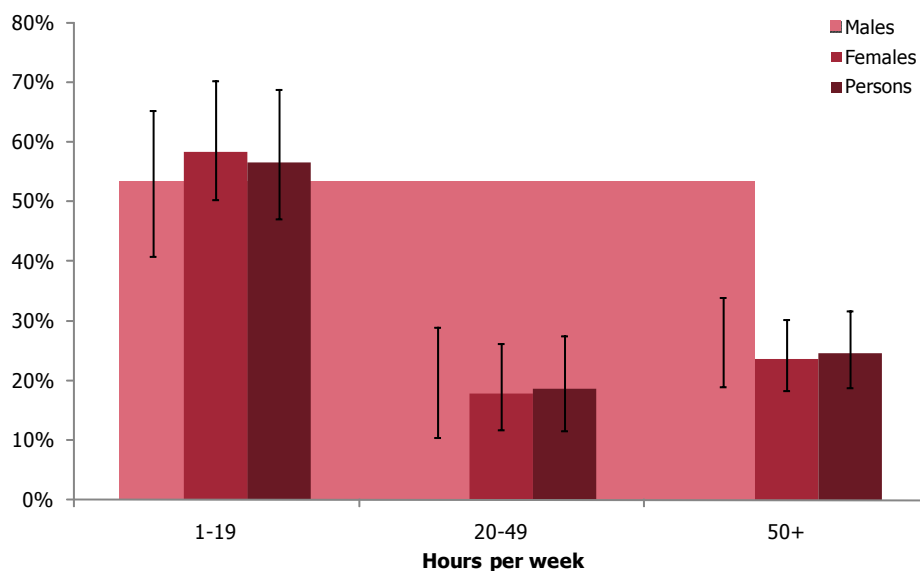




**Table 21: Percentage of adults caring for someone with long-term ill health or problems related to old age, by gender and age group. Isle of Man and North West of England.**

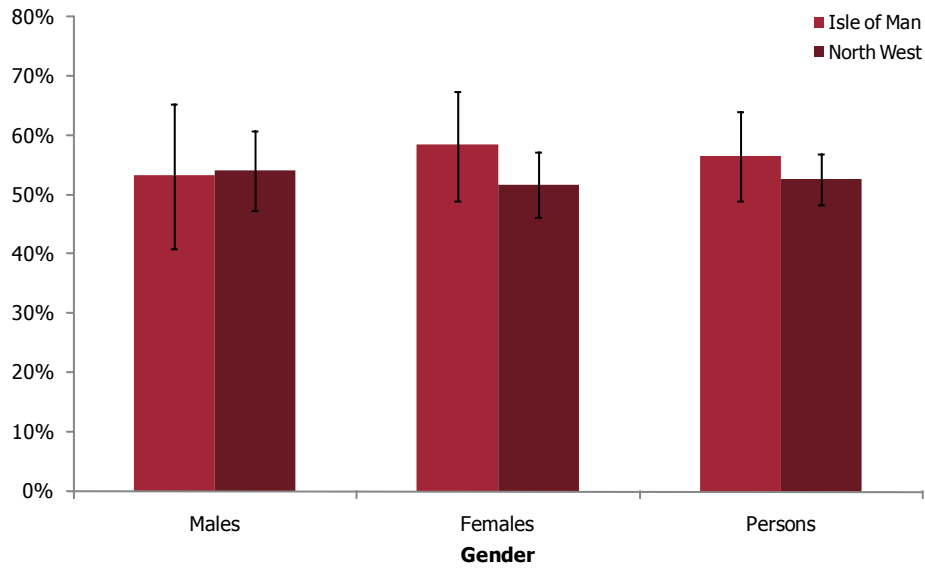
Age group	Isle of Man			North West		
	Males	Females	Persons	Males	Females	Persons
All ages	6.0%	9.9%	8.0%	7.9%	11.2%	9.6%
16-24	3.8%	4.7%	4.6%	6.7%	5.9%	6.3%
25-34	4.1%	7.1%	5.3%	4.1%	6.4%	5.2%
35-44	4.1%	12.4%	8.2%	5.0%	13.5%	9.3%
45-54	6.3%	11.6%	9.2%	11.6%	15.9%	13.8%
55-64	8.5%	13.0%	10.7%	10.3%	14.3%	12.3%
65-74	8.5%	9.9%	9.2%	8.7%	13.3%	11.1%
75+	8.5%	8.4%	8.5%	12.1%	7.8%	9.4%

**Figure 73: Hours per week spent caring for someone with long-term ill health or problems related to old age, by gender. Isle of Man.**



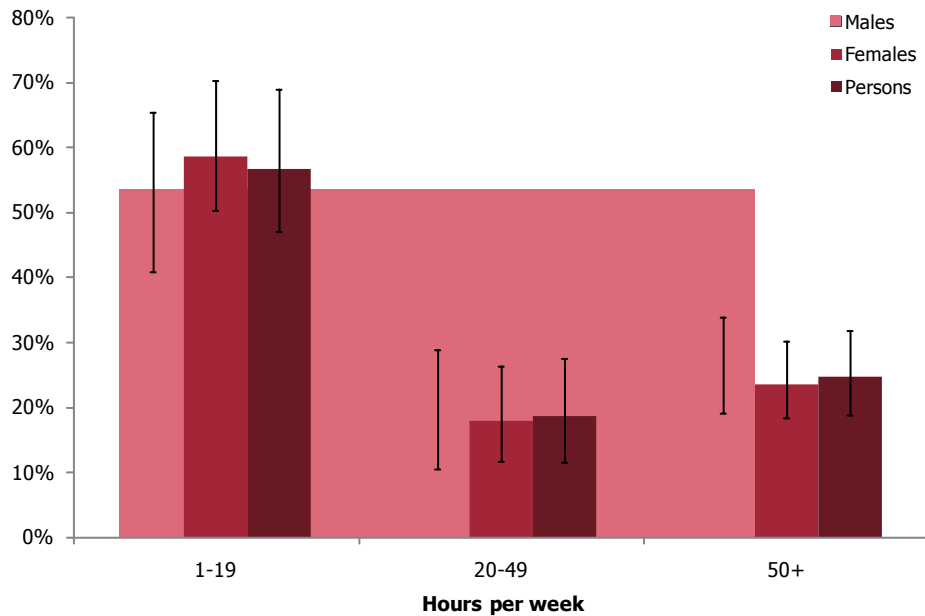
Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Figure 74: Percentage of adult carers who spend 1-19 hours per week caring for someone with long-term ill health or problems related to old age, by gender. Isle of Man and North West of England.**



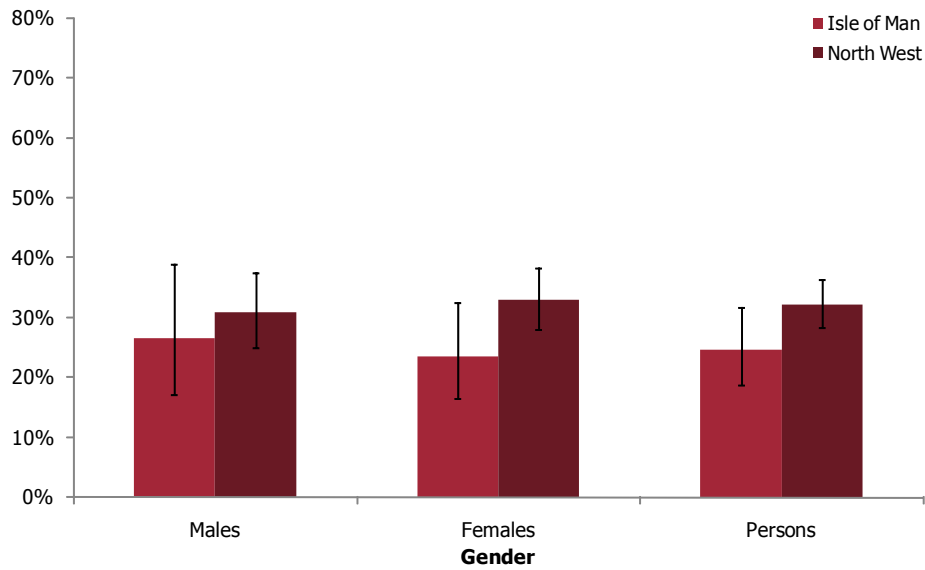
Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Figure 75: Percentage of adult carers who spend 20-49 hours per week caring for someone with long-term ill health or problems related to old age, by gender. Isle of Man and North West of England.**



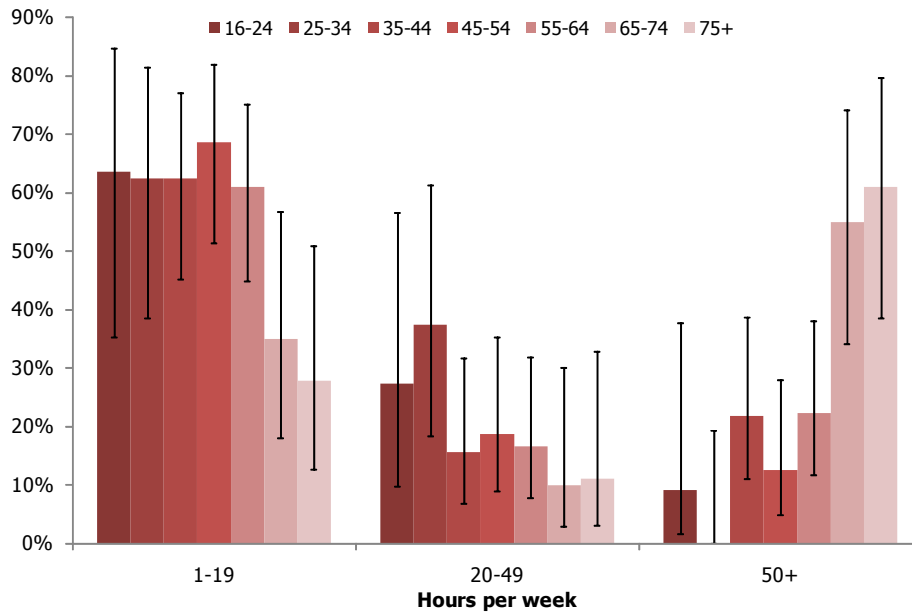
Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Figure 76: Percentage of adult carers who spend 50+ hours per week caring for someone with long-term ill health or problems related to old age, by gender. Isle of Man and North West of England.**



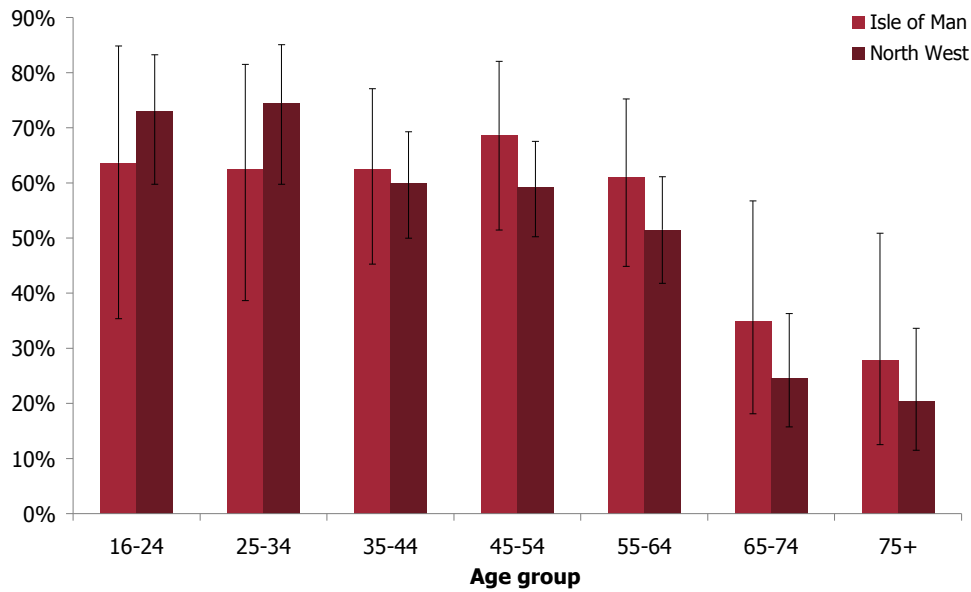
Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Figure 77: Hours per week spent caring for someone with long-term ill health or problems related to old age, by age group. Isle of Man.**



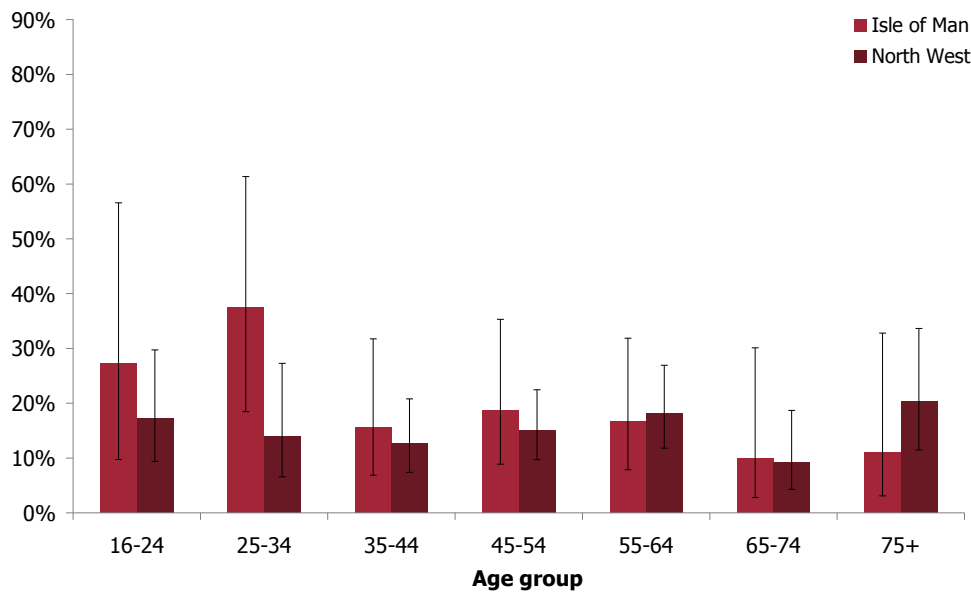
Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Figure 78: Percentage of adult carers who spend 1-19 hours per week caring for someone with long-term ill health or problems related to old age, by age group. Isle of Man and North West of England.**



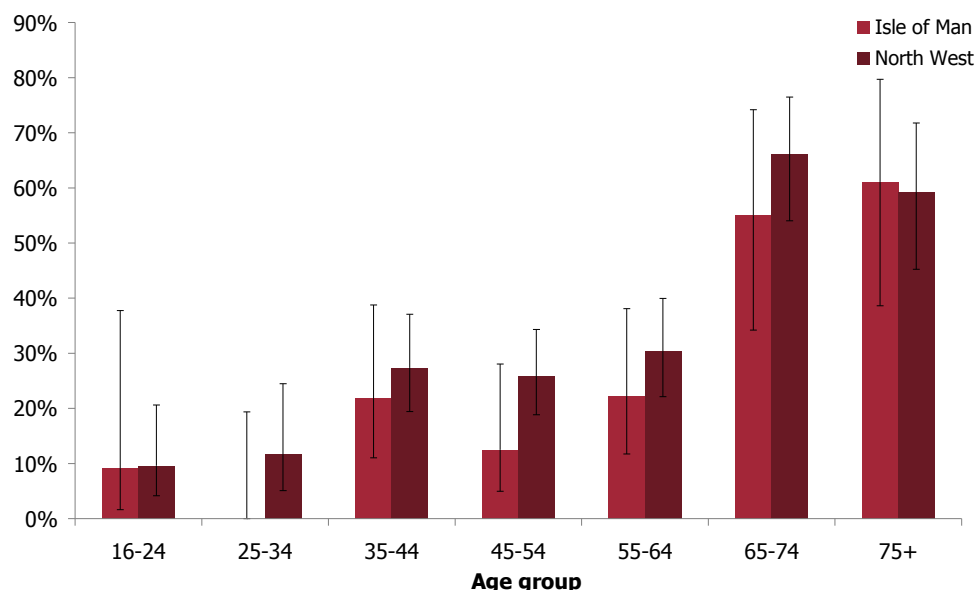
Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Figure 79: Percentage of adult carers who spend 20-49 hours per week caring for someone with long-term ill health or problems related to old age, by age group. Isle of Man and North West of England.**



Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Figure 80: Percentage of adult carers who spend 50+ hours per week caring for someone with long-term ill health or problems related to old age, by age group. Isle of Man and North West of England.**



Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

**Table 22: Hours per week spent caring for someone with long-term ill health or problems related to old age, by gender and age group. Isle of Man and North West of England.**

	Isle of Man			North West			
	Age group	1-19 hours	20-49 hours	50+ hours	1-19 hours	20-49 hours	50+ hours
<b>Males</b>	All ages	54.1%	19.7%	26.2%	54.1%	15.0%	30.9%
	16-24	60.0%	40.0%	0.0%	78.6%	17.9%	3.6%
	25-34	66.7%	33.3%	0.0%	76.5%	11.8%	11.8%
	35-44	75.0%	12.5%	12.5%	68.0%	4.0%	28.0%
	45-54	66.7%	25.0%	8.3%	50.0%	22.0%	28.0%
	55-64	50.0%	21.4%	28.6%	56.1%	12.2%	31.7%
	65-74	33.3%	11.1%	55.6%	29.2%	8.3%	62.5%
	75+	28.6%	0.0%	71.4%	21.7%	26.1%	52.2%
<b>Females</b>	All ages	59.0%	17.1%	23.8%	51.7%	15.2%	33.0%
	16-24	66.7%	16.7%	16.7%	66.7%	16.7%	16.7%
	25-34	63.6%	36.4%	0.0%	70.4%	18.5%	11.1%
	35-44	60.0%	16.0%	24.0%	58.6%	15.7%	25.7%
	45-54	70.0%	15.0%	15.0%	65.2%	10.1%	24.6%
	55-64	71.4%	14.3%	14.3%	48.3%	22.4%	29.3%
	65-74	36.4%	9.1%	54.5%	22.0%	12.2%	65.9%
	75+	27.3%	18.2%	54.5%	19.2%	15.4%	65.4%
<b>Persons</b>	All ages	56.4%	18.2%	25.5%	52.7%	15.1%	32.2%
	16-24	63.6%	27.3%	9.1%	73.1%	17.3%	9.6%
	25-34	62.5%	37.5%	0.0%	74.4%	14.0%	11.6%
	35-44	62.5%	15.6%	21.9%	60.0%	12.6%	27.4%
	45-54	68.8%	18.8%	12.5%	59.2%	15.0%	25.8%
	55-64	61.1%	16.7%	22.2%	51.5%	18.2%	30.3%
	65-74	35.0%	10.0%	55.0%	24.6%	9.2%	66.2%
	75+	27.8%	11.1%	61.1%	20.4%	20.4%	59.2%

Base: Those who care for someone with long-term ill health or problems related to old age other than as part of a job.

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