

# Welsh Health Survey 2009





## Contact points

### Wales

For statistical enquiries contact the Statistical Directorate:

Tel: 029 2082 5050

E-mail: [stats.info.desk@wales.gsi.gov.uk](mailto:stats.info.desk@wales.gsi.gov.uk)

Minicom: 029 2082 3280

Fax: 029 2082 5350

Address: Statistical Publication Unit,  
Statistical Directorate,  
Welsh Assembly Government,  
Cathays Park,  
CARDIFF, CF10 3NQ

You can also find Statistics for Wales on the internet

[www.wales.gov.uk/statistics](http://www.wales.gov.uk/statistics)

### United Kingdom

For statistical enquiries, contact the Office for National Statistics:

Tel: 0845 601 3034

Enquiries in Welsh: 01633 813381

Minicom: 01633 812399

E-mail: [info@statistics.gov.uk](mailto:info@statistics.gov.uk)

Fax: 01633 652747

Address: Customer Contact Centre,  
Room 1.015,  
Office for National Statistics,  
Cardiff Road,  
Newport,  
NP10 8XG

You can also find National Statistics on the internet

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Tel: 029 2082 6710

E-mail: [stats.healthinfo@wales.gsi.gov.uk](mailto:stats.healthinfo@wales.gsi.gov.uk)

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## Foreword

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This is the latest in the series of annual reports providing key findings from the Welsh Health Survey. The report provides an authoritative insight into the health of the Welsh population. The role of information in developing an evidence-based approach to our work is crucial and the Welsh Health Survey makes a major contribution.

The survey is a major source of information about the health of people living in Wales, the way they use health services and the things that can affect their health. It meets a range of important needs, including the provision of data for monitoring health and health-related lifestyles and measuring progress towards targets. It also provides evidence for informing policies and underpinning strategies for promoting better health. Furthermore, it provides a direct measurement of need for health care resource allocation in Wales.

The survey was established in 2003 and runs all year round. It is designed to be nationally representative of people of different ages, sex and geographic area. This report focuses on the findings for 2009 and shows some comparisons with earlier years.

I welcome this valuable report and would particularly like to express my thanks to all of the people who have given up their time to participate in this important study.



A handwritten signature in black ink that reads "Tony Jewell". The signature is written in a cursive style with a long horizontal line above the first name.

Dr Tony Jewell  
Chief Medical Officer for Wales



## **Editors' acknowledgements**

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We would like to thank everyone who contributed to the survey and the production of this report.

Our thanks go to:

- the National Centre for Social Research (NatCen), in particular Melanie Doyle, Katharine Sadler, Marie Sanchez, David Hussey, John Hurn, John D'Souza and their colleagues, and Pauline Burge, Emma Fenn and their team
- all the interviewers who worked on the survey
- NHS Direct Wales, who provided a helpline on the survey
- all those who reviewed chapters of this report, or who contributed to the development of the survey.

Finally, we would like to thank all those members of the public who gave their time and co-operation in responding to the survey.

*Lisa Walters, Anne Kingdon, Cath Roberts*

September 2010



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# **Chapter 1**

## **Key Facts**

## 1 Key facts

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This report presents the latest information available from the Welsh Health Survey (WHS). The WHS is a source of information about the health of people in Wales, the way they use health services, and the things that can affect people's health.

The findings are based on data from the 2009 Welsh Health Survey, which is based on a sample of the general population living in private households in Wales. Initial results were published earlier in the year, and this report now provides more detailed information.

The main chapters of the report focus on:

- health status, illnesses, and other conditions
- health-related lifestyle
- health service use
- health of children.

This summary presents key findings from the main chapters of the report. For further information, chapters 3 to 6 each begin with a detailed summary of the main findings presented in the body of the text.

### Health status, illnesses, and other conditions

- 16% of adults reported that their health in general was excellent, 35% very good, 28% good, 15% fair, and 6% poor.
- 20% of adults reported currently being treated for high blood pressure, 13% for a respiratory illness, 13% for arthritis, 10% for a mental illness, 9% for a heart condition (other than high blood pressure) and 6% for diabetes
- 27% of adults reported having a limiting long-term illness.
- 27% of adults reported having fewer than 21 teeth, 15% of adults reported having difficulty with their hearing, and 5% with their eyesight.

### Health-related lifestyle

- 24% of adults reported that they currently smoked.
- 22% of adult non-smokers reported being regularly exposed to other people's tobacco smoke indoors, and 33% indoors or outdoors.
- 45% of adults reported drinking above the guidelines on at least one day in the past week, including 27% who reported binge drinking.
- 35% of adults reported eating five or more portions of fruit and vegetables the previous day.
- 29% of adults reported meeting the guidelines for physical activity in the past week.
- 57% of adults were classified as overweight or obese, including 21% obese.

## Health service use

- 18% of adults reported that they had talked to a GP about their own health in the past two weeks.
- 33% of adults reported attending a hospital outpatient department in the past twelve months, and 10% reported staying in hospital as an inpatient (overnight or longer).
- 70% of adults reported using a dentist in the past twelve months, 70% a pharmacist and 50% an optician.
- 51% of adults reported being on regular prescribed medication.

## Health of children

- 67% of children were reported to have very good general health, 27% good, and 5% fair.
- 20% of children were reported as having a long-standing illness, including 6% with a limiting long-standing illness.
- 60% of children were reported as eating fruit every day, and 49% vegetables.
- 54% of children were reported as exercising for at least an hour on five or more days of the previous week, including 38% who did so every day.
- 34% of children were estimated to be overweight or obese, including 19% obese.
- For 12% of children, it was reported that a GP had been consulted about their health in the past two weeks.



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## **Chapter 2**

### **Introduction**





## 2 Introduction

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### 2.1 Background

The Welsh Health Survey is a source of information about the health of people living in Wales, the way they use health services, and the things that can affect their health. It was developed to meet a range of needs, including providing estimates of health status, health-related lifestyle and health service use at national (Wales) level, for population sub-groups (such as age, sex, socio-economic group) and for local authorities. It also provides a direct measurement of need for health care for NHS resource allocation in Wales. The survey was established in October 2003 and runs all year round. This report presents results from the 2009 survey, relating to data collected between January and December 2009.

### 2.2 Overview of survey design

The survey was based on a representative sample of people living in private households in Wales. A random sample of addresses from the Postcode Address File (PAF) was selected and the sample was stratified by local authority. The smaller local authorities were oversampled to allow the production of survey estimates at this level following the collection of two years' data. At each household, all adults and a maximum of two children were eligible for inclusion in the survey. The small proportion of people not covered by the PAF, including those living in institutions, were not covered by the survey. It should be noted that people in institutions are likely to be, on average, in poorer health than those in private households – this should be kept in mind when considering the results from this survey.

Information was collected at two levels: household (through a short interview, offered in English or Welsh) and individual (through English or Welsh self-completion questionnaire). First, a short interview with a responsible adult in the household was conducted to enumerate the household, and to record brief demographic information for each household member and the socio-economic classification of the household reference person. Self-completion questionnaires were then left for completion by each adult aged 16 years and over in the household, for later collection by the interviewer. In households with children, a maximum of two children were randomly selected for inclusion in the survey. For selected children, questionnaires were left for completion (with older children completing their own questionnaires) and height and weight measurements were taken by the interviewer. The survey relies on a self-completion questionnaire. The results, therefore, reflect people's own understanding of their health rather than a clinical assessment of their medical condition, and their own interpretation of the health services they have used.

The survey results were weighted to take account of unequal selection probabilities, and for differential non-response, i.e. to ensure that the age and sex distribution of the responding sample matched that of the population of Wales.

During the period covered by this report, a household interview was obtained with 78% of eligible households in the sample. Self-completion questionnaires were obtained for 82% of adults and 79% of selected children in participating households, and height and weight measurements were obtained for 62% of eligible children in those households. During this period, around 16,000 adults and 3,000 children participated fully in the survey.

Further details of the survey methodology and response are given later in this report (chapter 7). Information about the survey and its outputs is also available on the Statistics for Wales website<sup>1</sup>.

### 2.3 The content of this report

This report is based on data from the 2009 Welsh Health Survey. Initial results<sup>2</sup> were published earlier in the year, and this report now provides more detailed information.

The report is divided into seven chapters. Following the two introductory chapters, chapters 3-5 present the survey findings for adults in more detail, including breakdowns by age and sex. For a selection of key measures, socio-demographic breakdowns are also shown, along with comparisons with earlier years. Chapter 6 presents the survey findings for children. Methods and definitions are shown at the start of each section, tables are included at the end of each chapter. The remaining chapter (chapter 7) covers technical aspects of the survey. Local authority / health board breakdowns for 2008 + 2009 combined are provided in a separate report<sup>3</sup>.

The chapters are:

*Chapter 1 Key facts*

This chapter presents a summary of the key findings.

*Chapter 2 Introduction*

This chapter provides an introduction to the survey, with notes to results.

*Chapter 3 Health status, illnesses, and other conditions*

This chapter presents the survey findings for general health status (including the SF-36 set of questions), a range of reported illnesses, and other conditions (such as eyesight or hearing difficulty).

*Chapter 4 Health-related lifestyle*

This chapter presents the survey findings on reported lifestyle behaviours, including smoking, drinking, fruit and vegetable consumption, physical activity, and body mass index.

*Chapter 5 Health service use*

This chapter presents the survey findings on reported use of a range of health services. It also includes information about medicines.

*Chapter 6 Health of children*

This chapter presents the survey findings on the general health, health-related lifestyle and service use of children.

## Chapter 7 *Technical summary*

This chapter includes technical information about the survey, including information on the sample design, response, and weighting. A more detailed technical report<sup>4</sup> is published by the National Centre for Social Research (NatCen), who carried out the survey on behalf of the Welsh Assembly Government.

### *Appendices*

Appendix A is the glossary. Appendix B contains a copy of the survey questionnaires.

## 2.4 Availability of unpublished data

Enquiries about the information in this report may be addressed to: Health Statistics and Analysis Unit, Statistical Directorate, Welsh Assembly Government, Cathays Park, Cardiff CF10 3NQ; tel 029 2082 6710 (029 2082 3332 in Welsh); e-mail [stats.healthinfo@wales.gsi.gov.uk](mailto:stats.healthinfo@wales.gsi.gov.uk). Some statistical bulletins on specific topics in the survey may also be produced at a later date and will be available through the Statistics for Wales website<sup>1</sup>. Some additional summaries may be produced on request, subject to the availability of resources, data quality and robustness, and provided the confidentiality of respondents is preserved.

A copy of the anonymised dataset will be deposited with the UK Data Archive at the University of Essex<sup>5</sup> and may be made available through them for specific research projects.

## 2.5 Key quality information

- a) Interpretation of the results should take account of the questionnaire design, as the mode of collection (self-reporting on paper) and the questions themselves affect the information collected. The adult and child questionnaires can be found in Appendix B.
- b) Survey results are weighted to take account of unequal selection probabilities, and for differential non-response, i.e. to ensure that the age and sex distribution of the responding sample matches that of the Welsh population.
- c) The following conventions have been used in all tables:
  - percentages greater than zero but less than 0.5%
  - 0 a genuine zero, that is, no observations.
- d) Rounding of percentages may result in columns of some tables summing to 99% or 101%.
- e) Missing answers occur for several reasons, including refusal or inability to answer a particular question, and cases where the question is not applicable to the informant. Missing answers have been omitted from all tables and analyses.
- f) The last column of each table provides unweighted base numbers of respondents to the Welsh Health Survey. In some tables, base numbers vary due to varying response levels between different survey questions. In those

## Introduction

tables, sample sizes are provided, serving as an upper limit for the base numbers of the table.

- g) It should be noted that the design of the survey means that the effective sample sizes will be somewhat smaller than actual sample sizes (base numbers), so these should be interpreted as a guide to precision only.

## References and notes

1. Statistics Wales.  
**[www.wales.gov.uk/statistics](http://www.wales.gov.uk/statistics)**
2. Welsh Health Survey 2009: Initial Headline Results. See link above.
3. Welsh Health Survey: 2008 + 2009 Local Authority / Health Board Results. See link above.
4. NatCen (2010) *Welsh Health Survey 2009 Technical Report*. See link above.
5. **[www.esds.ac.uk/government/whs/](http://www.esds.ac.uk/government/whs/)**



**Chapter 3**  
**Health Status, Illnesses and**  
**Other Conditions**



## 3 Health status, illnesses, and other conditions

---

### 3.1 Introduction

This chapter focuses on general health status, illnesses and other conditions among adults (such as eyesight or hearing difficulty).

Broad figures for Wales are provided along with age and sex breakdowns. For a selection of key measures, information is provided by socio-economic group and area deprivation. Some comparisons with earlier years are also shown. Local authority / health board breakdowns for 2008 + 2009 combined are provided in a separate report<sup>1</sup>.

The Welsh Health Survey relies on a self-completion questionnaire. The results, therefore, reflect people's own understanding of their health rather than a clinical assessment of their medical condition.

This chapter includes information on:

- health status (3.3)
- illnesses (3.4)
- other conditions (3.5)
- key measures by socio-demographic factors (3.6)
- trends for key measures (3.7).

### 3.2 Summary

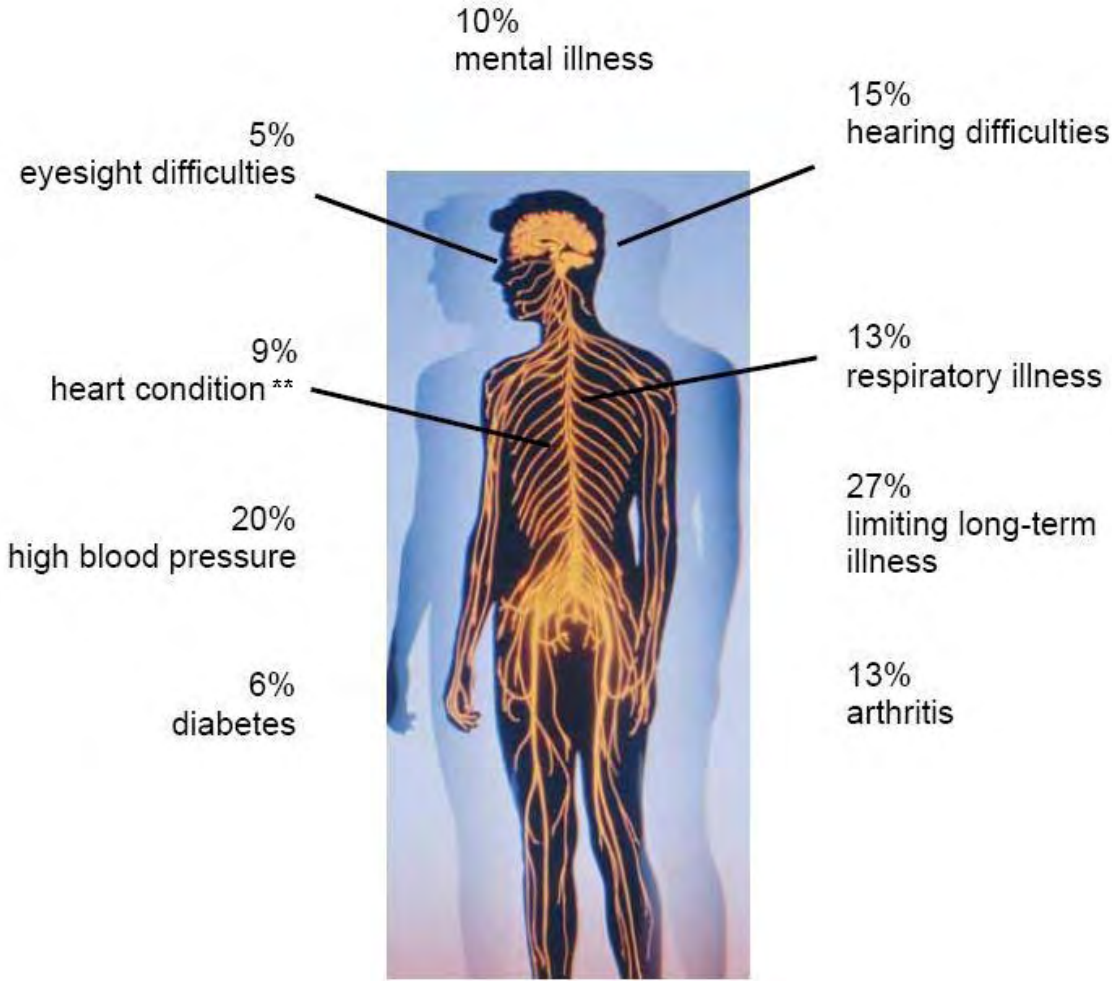
- 16% of adults reported that their health in general was excellent, 35% very good, 28% good, 15% fair, and 6% poor.
- Physical and mental health status scores (using SF-36) were lower for women than for men, indicating worse health and well-being among women.
- 20% of adults reported currently being treated for high blood pressure, 13% for a respiratory illness, 13% for arthritis, 10% for a mental illness, 9% for a heart condition (other than high blood pressure) and 6% for diabetes.

**Figure 3a**

- In general a higher percentage of women than men reported being treated for many of the specified illnesses, but not for heart conditions or diabetes.
- The percentage who reported being treated for specified illnesses generally increased with age, but not for asthma and mental illness.
- 27% of adults reported having a limiting long-term illness, with an increase in the percentage with age.
- 27% of adults reported having fewer than 21 teeth, 15% of adults reported having difficulty with their hearing, and 5% with their eyesight.
- Levels of ill-health increased with levels of area deprivation. In general, those in the most deprived areas reported the worst health.
- There was little change in the rates of most illnesses over the first six years of the survey.



**Figure 3a: Percentage of adults who reported being treated for selected illnesses, or having certain conditions\***



\* With the exception of eyesight, hearing difficulties and limiting long-term illness the figures show the percentage of adults who reported currently being treated.

\*\* Excludes high blood pressure

### 3.3 Health status

#### 3.3.1 Methods and definitions

The Welsh Health Survey adult questionnaire included a standard set of 36 health status questions known as SF-36 (version 2). SF-36 questions asked respondents about their own perception of their physical and mental health and the impact it has on their daily lives.

##### ***SF-36 general health question***

The SF-36 questions include a question asking respondents to rate their own general health on a five-point scale ranging from excellent to poor.

##### ***SF-36 component scores***

Responses can be combined to produce eight scores for the following aspects of health and well-being:

- physical functioning
- role-physical
- bodily pain
- general health
- vitality
- social functioning
- role-emotional
- mental health.

All scores above or below 50 can be interpreted as above or below the general US population norm. See the glossary at Appendix A for further information.

##### ***SF-36 summary scores***

The eight components can be combined to produce two summary measures of physical and mental health - the Physical Component Summary (PCS) and Mental Component Summary (MCS) scores. Higher scores indicate better health.

#### 3.3.2 Results

##### ***SF-36 general health question***

As figure 3b shows:

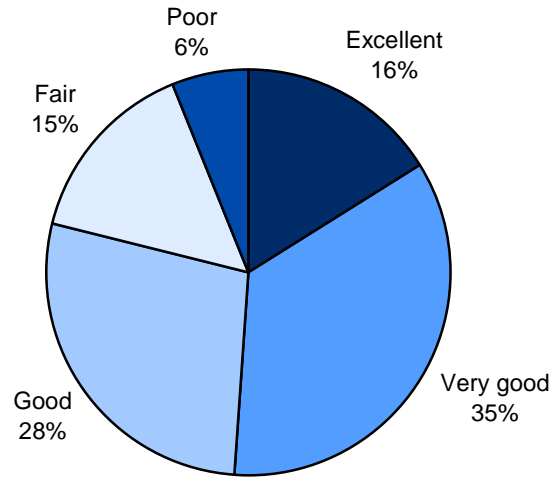
- 16% of adults reported that their health in general was excellent, 35% very good, and 28% good
- 15% of adults reported that their health in general was fair, and 6% poor.

Figure 3c shows that the percentage who reported excellent health decreased with age, while the percentage who reported poor health increased with age.

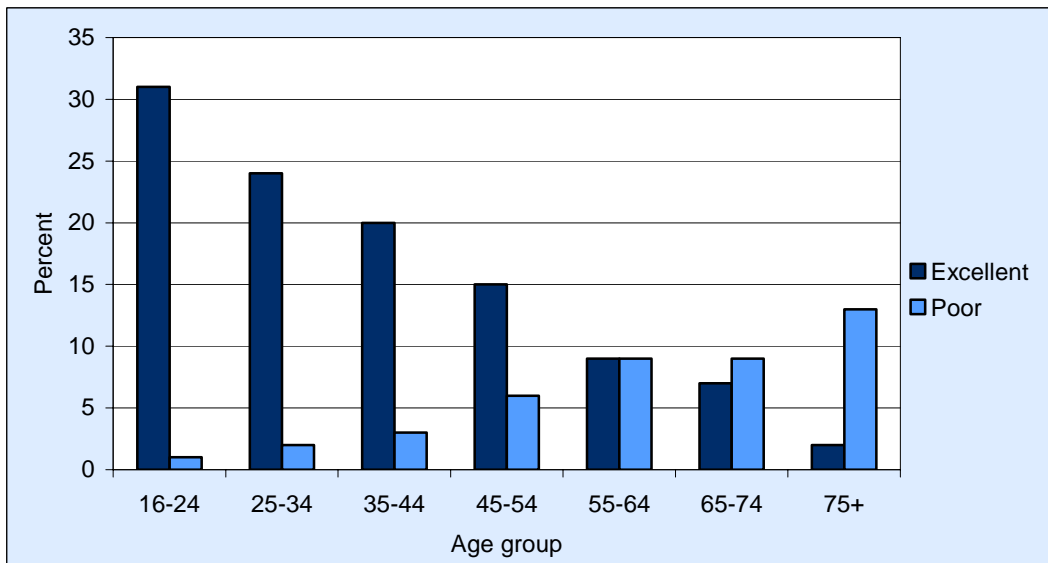
A higher percentage of men than women reported being in excellent health, more notably in the younger age-groups.

Table 3.1, figures 3b, 3c

**Figure 3b: Self-reported general health status of adults**



**Figure 3c: Percentage who reported excellent and poor health, by age**



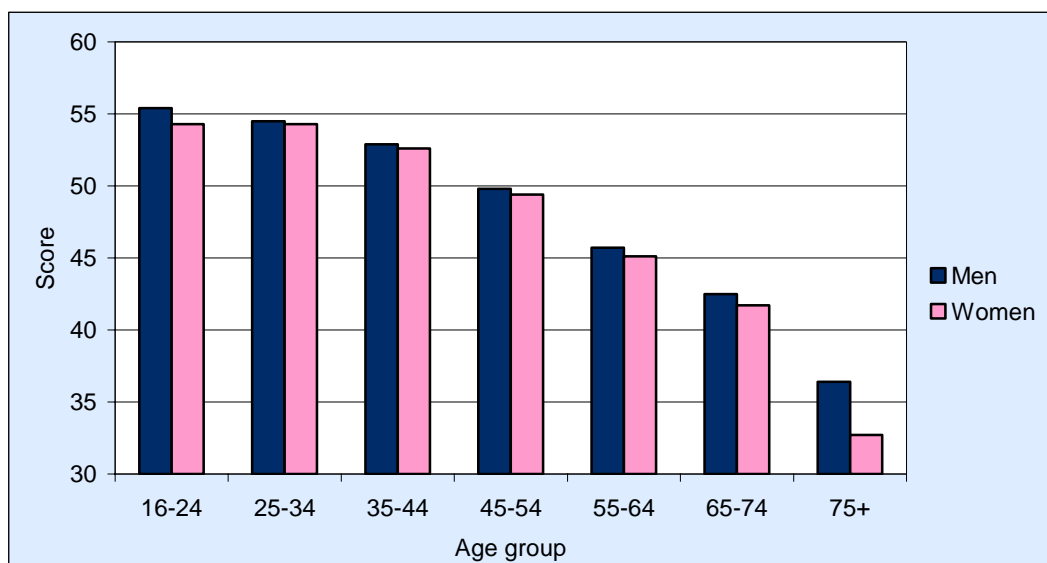
**SF-36 component and summary scores**

Figures 3d and 3e indicate that the mean physical and mental component scores for women were lower than those for men, indicating poorer health and well-being for women.

The physical component score decreased with age, that is health worsened with age. For the MCS there was no clear pattern with age.

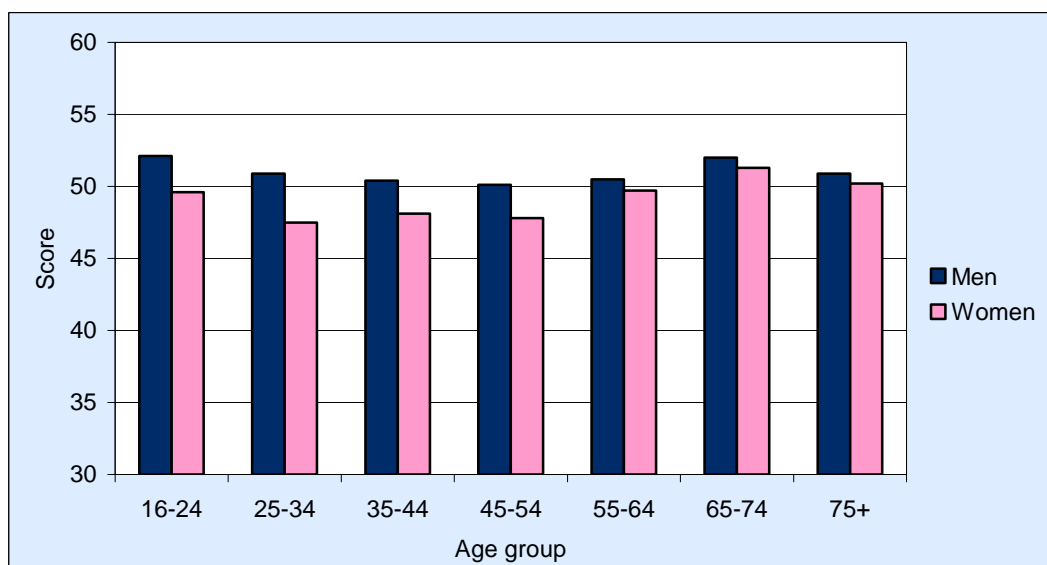
Table 3.2, figures 3d, 3e

**Figure 3d: Mean SF-36 physical component summary score (PCS)\*, by age and sex**



\* Higher scores indicate better health.

**Figure 3e: Mean SF-36 mental component summary score (MCS)\*, by age and sex**



\* Higher scores indicate better health.

## 3.4 Illnesses

### 3.4.1 Methods and definitions

The survey asked adults aged 16 years and over whether they were currently being treated for a range of illnesses. For heart attack, stroke and cancer they were asked whether they had ever been treated for the condition. Information was also collected regarding limiting long-term illness, not specifying whether or not the illness was treated.

### ***Any heart condition***

Adult respondents were classified as having any heart condition if they reported ever having been treated for a heart attack, or currently being treated for angina, heart failure or 'another heart condition'. Text or tables in this report indicate where the definition includes or excludes high blood pressure (hypertension). Results for both definitions are shown because high blood pressure is a risk factor for heart disease rather than an actual heart condition.

### ***Any respiratory illness***

Adult respondents were classified as having any respiratory illness if they reported currently being treated for asthma, pleurisy, bronchitis, or 'another respiratory illness'.

### ***Any mental illness***

Adult respondents were classified as having any mental illness if they reported currently being treated for depression, anxiety, or 'another mental illness'.

### ***Diabetes***

Adult respondents were asked whether they were currently being treated for diabetes, making no distinction between type 1 and type 2 diabetes. If they responded positively, they were asked how their diabetes was controlled (by injection, tablets or diet).

### ***Another chronic illness***

Following questions on specific illnesses in the adult questionnaire, the survey asked if the adult was currently being treated for 'any other chronic or long-term illness', and asked to specify the main illness. Answers were subsequently coded according to a coding frame similar to that used by the General Household Survey and Health Survey for England. The categories into which respondents' answers were coded were collapsed into broad groups approximate to the chapter headings of the International Classification of Diseases (ICD10). See the glossary at Appendix A for more details.

### ***Any illness***

Adult respondents were classified as having 'any illness' if they reported currently being treated for any of the illnesses specified in the questionnaire (see Appendix A), or another chronic illness (see above).

### ***Limiting long-term illness***

The questionnaire asked if the adult has 'any long-term illness, health problem or disability' which limits their daily activities or the work they can do. Adults were asked to include problems due to old age and, if responding positively, asked for the main cause of this limitation. Answers were coded according to the ICD 10 codes (see above).

Limiting long-term illness is widely used as a measure of health status and has been shown to be an accurate predictor of early mortality, psychological health and hospital utilisation<sup>2</sup>. The survey used the same limiting long-term illness question as that used in the 2001 Census.

### 3.4.2 Results

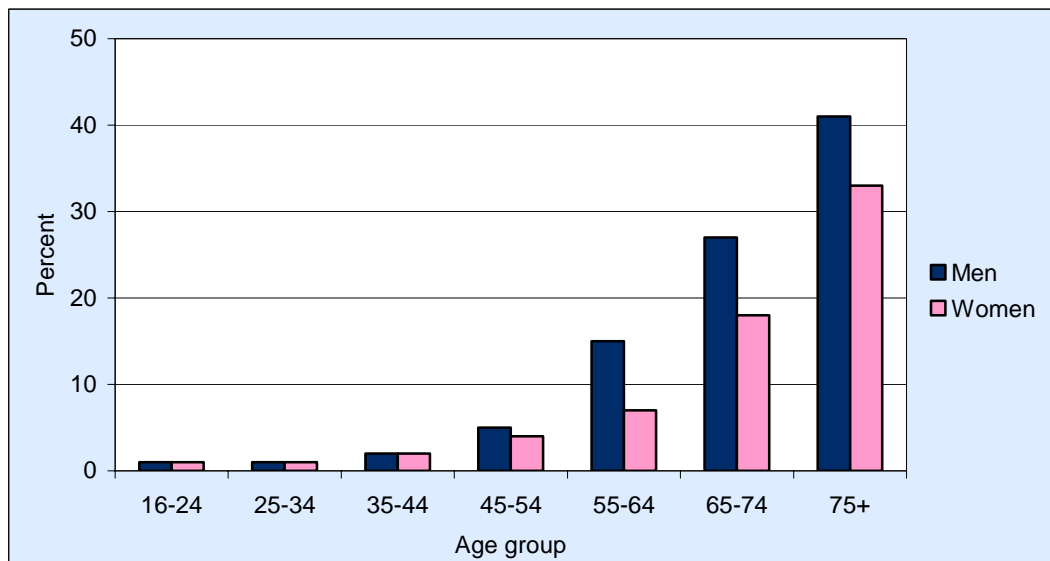
#### **Heart conditions**

- 4% of adults reported ever having been treated for a heart attack.
- 20% of adults reported currently being treated for high blood pressure.
- 4% of adults reported currently being treated for angina, 1% for heart failure, and 4% for another heart condition.
- 9% of adults reported being treated for any heart condition, excluding high blood pressure.
- 24% of adults reported being treated for any heart condition, including high blood pressure.

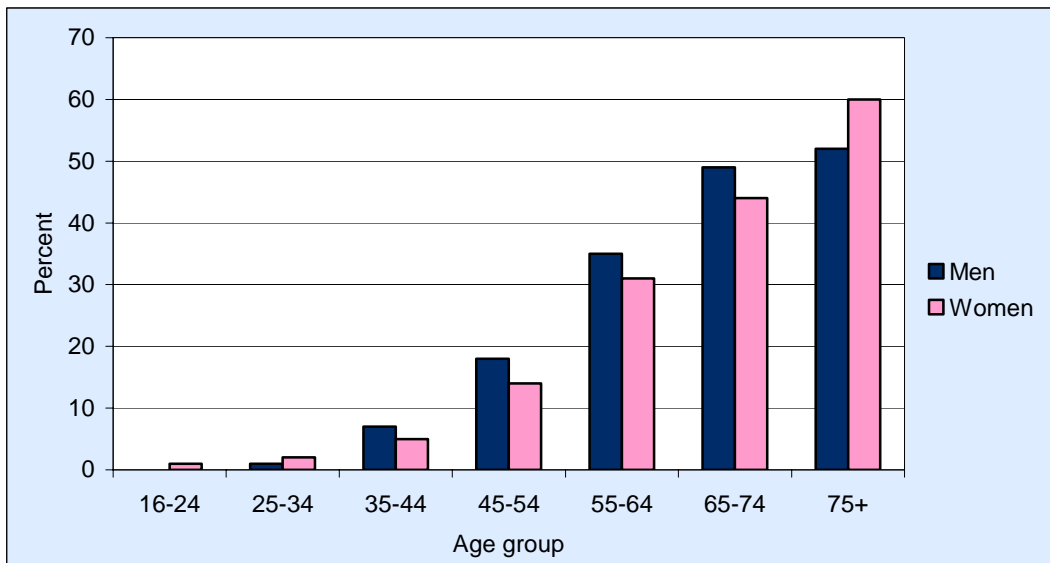
The proportion of adults who reported being treated for a heart condition and for high blood pressure rose with age, as shown in figures 3f and 3g. A slightly higher percentage of men (10%) than women (8%) reported being treated for a heart condition (but not for high blood pressure).

Table 3.3, figures 3f, 3g

**Figure 3f: Percentage who reported being treated for any heart condition, excluding high blood pressure, by age and sex**



**Figure 3g: Percentage who reported being treated for high blood pressure, by age and sex**



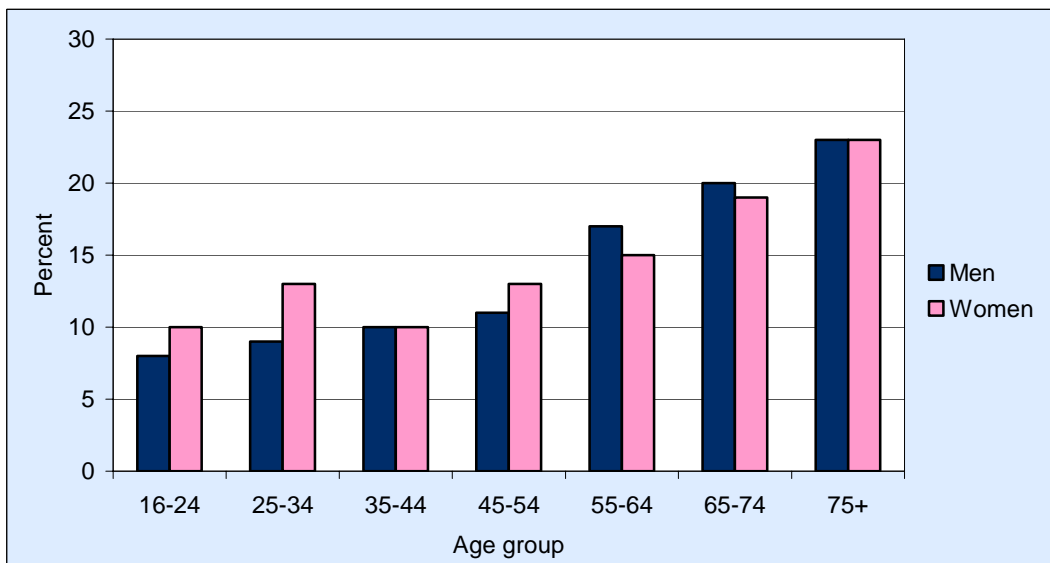
**Respiratory illnesses**

- 10% of adults reported currently being treated for asthma.
- 2% of adults reported currently being treated for bronchitis, 1% for emphysema and 3% for another respiratory illness.
- 13% of adults reported being treated for any respiratory illness.

The percentage of adults who reported being treated for a respiratory illness increased with age (although not for asthma). Figure 3h shows this increase. A slightly higher proportion of women (14%) than men (13%) reported being treated for respiratory illness although the difference was not statistically significant.

Table 3.4, figure 3h

**Figure 3h: Percentage who reported being treated for any respiratory illness, by age and sex**



### Mental illnesses

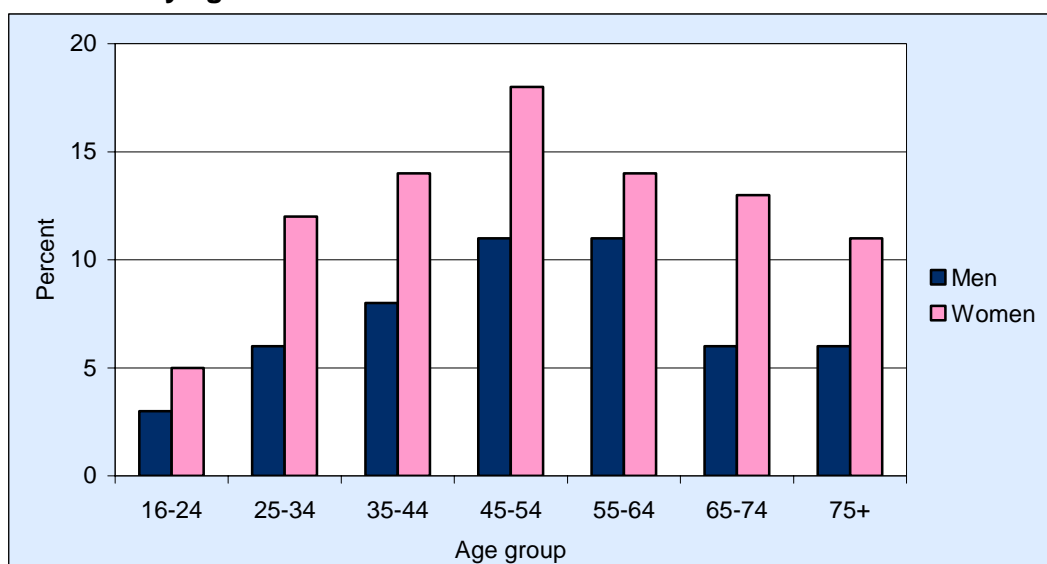
- 8% of adults reported currently being treated for depression, 6% for anxiety, and 1% for another mental illness.
- 10% of adults reported currently being treated for any mental illness.

The percentage of adults who reported being treated for depression and for anxiety increased towards middle age before decreasing in retirement age. This pattern was replicated in the percentage who reported being treated for any mental illness, as shown in figure 3i.

A higher percentage of women (13%) than men (7%) reported being treated for a mental illness. This pattern applies to all age groups (shown in figure 3i).

Table 3.5, figure 3i

Figure 3i: Percentage who reported being treated for any mental illness, by age and sex



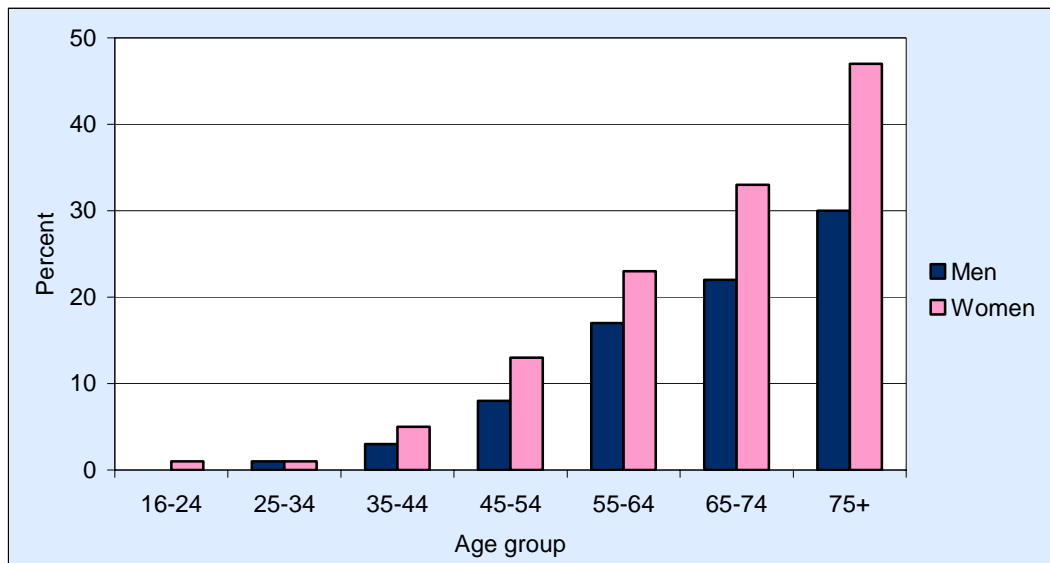
### Other illnesses

- 3% of adults reported ever having been treated for a stroke.
- 13% of adults reported currently being treated for arthritis.
- 12% of adults reported currently being treated for back pain.
- 6% of adults reported currently being treated for diabetes.

The percentage of adults who reported ever having been treated for a stroke increased with age (note that this measure represents an individual's accumulated experience of illness over their lifetime). The percentage of adults who reported being treated for the other specified illnesses increased with age. A higher percentage of women than men reported being treated for arthritis and back pain. Arthritis in particular showed a steep increase with age and a big difference between men and women (figure 3j).



**Figure 3j: Percentage who reported being treated for arthritis, by age and sex**



As noted above, 6% of adults reported being treated for diabetes. They were asked how their diabetes was controlled, and given a list of options to 'tick all that apply'. Of those who reported being treated for diabetes, 24% reported that they control the disease by injection, 61% by tablets, and 48% by diet (not shown in table).

Table 3.6, figure 3j

**Any Illness**

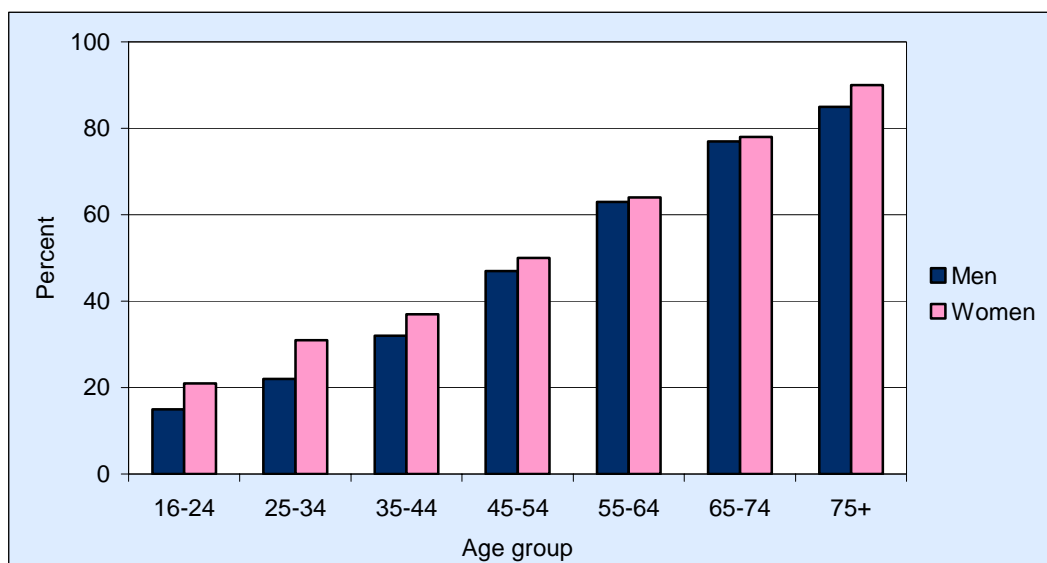
- 48% of adults reported currently being treated for an illness (as defined in section 3.4.1).

Figure 3k shows an increase with age in the percentage who reported being treated for an illness. Overall, women (52%) were more likely than men (45%) to report being treated for an illness.

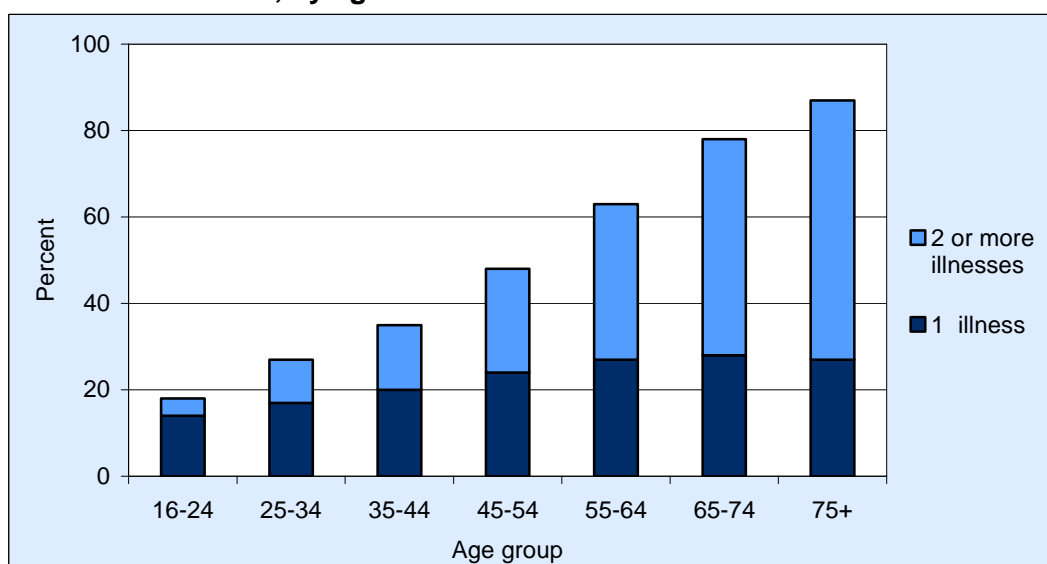
In terms of the number of illnesses reported, 22% of adults reported being treated for one illness only, and 26% reported being treated for two or more illnesses. Figure 3l shows that the percentage who reported two or more illnesses increased with age.

Table 3.7, figures 3k, 3l

**Figure 3k: Percentage who reported being treated for an illness, by age and sex**



**Figure 3l: Percentage who reported being treated for one illness, or two or more illnesses, by age**



### **Limiting long-term illness**

- 27% of adults reported having a limiting long-term illness.

This is consistent with the result from the 2001 Census, where limiting long-term illness was reported for 27% of adults in Wales.

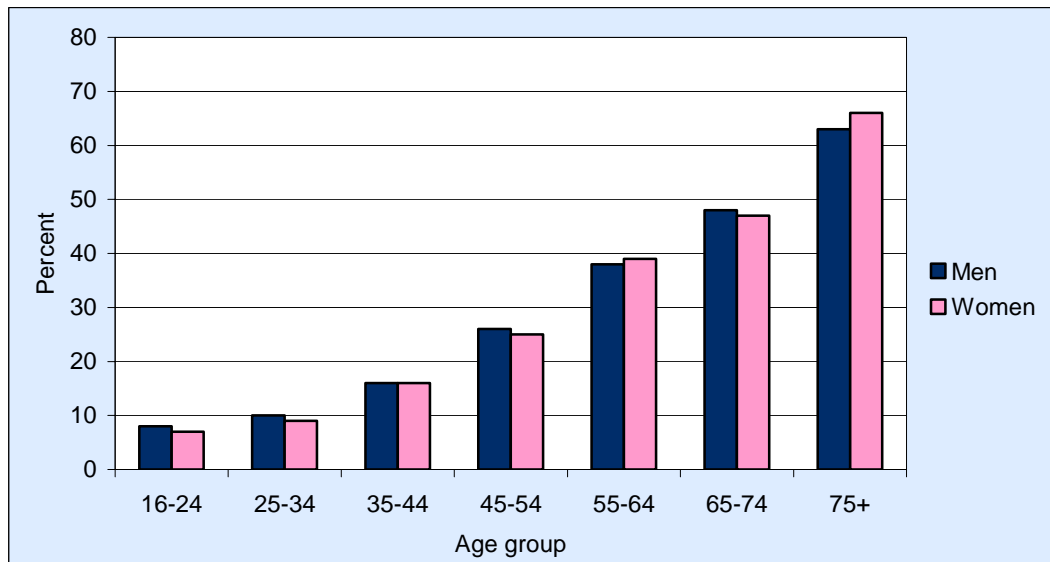
Figure 3m shows an increase with age in the percentage reported as having a limiting long-term illness, with little difference between males and females for most age groups although rates were higher for women aged 75 and over.

As explained in section 3.4.1, adults who reported having a limiting long-term illness were asked to specify the illness which was the main cause of their limitation. By far the most common group of illnesses mentioned here was

musculoskeletal problems (49% of those with a limiting long-term illness), followed by diseases of the heart and circulatory system (11%) (not shown in table).

Table 3.7, figure 3m

**Figure 3m: Percentage who reported having a limiting long-term illness, by age and sex**



## 3.5 Other conditions

### 3.5.1 Methods and definitions

The survey also asked adults about eyesight, hearing, and teeth.

#### **Eyesight**

The survey asked adults whether their eyesight was good enough to see the face of someone across a room, with glasses or contact lenses if they usually wore them. They were able to answer 'yes', 'yes, with difficulty' or 'no'. In this report, those answering 'yes, with difficulty' or 'no' are classified as having an eyesight difficulty.

#### **Hearing**

Respondents were asked whether they had any difficulty with their hearing, without a hearing aid if they usually wore one. If they answered yes, they were asked about the use and effectiveness of hearing aids.

#### **Teeth**

The survey asked adults how many of their own natural teeth they had, with filled and capped teeth counting as their own, but not false teeth nor dentures. Answers were restricted to '21 or more' of their own teeth, or 'less than 21 OR mainly false teeth or dentures'.

### 3.5.2 Results

#### Eyesight

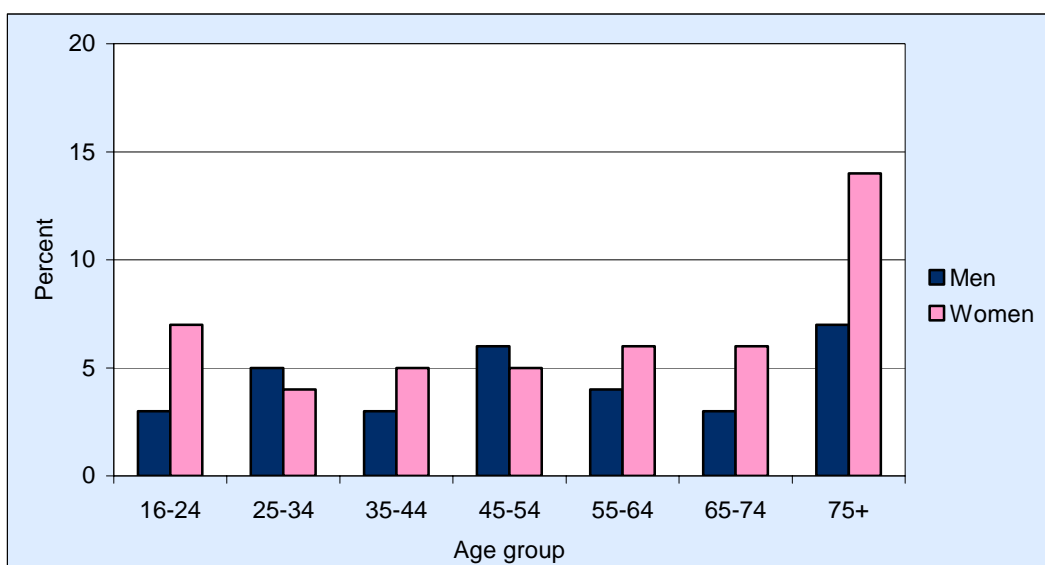
- 5% of adults reported having difficulty with their eyesight.

Figure 3n shows that there was a steep increase in the percentage who reported having difficulty with their eyesight for those aged 75 and over. Women were more likely to report difficulty with their eyesight than men, particularly the older age groups.

Overall, 3% of adults reported difficulty in being able to see the face of someone across a room, and 2% reported not being able to see the face of someone across a room (not shown in table).

Table 3.8, figure 3n

**Figure 3n: Percentage who reported having difficulty with their eyesight, by age and sex**



#### Hearing

- 15% of adults reported having difficulty with their hearing.

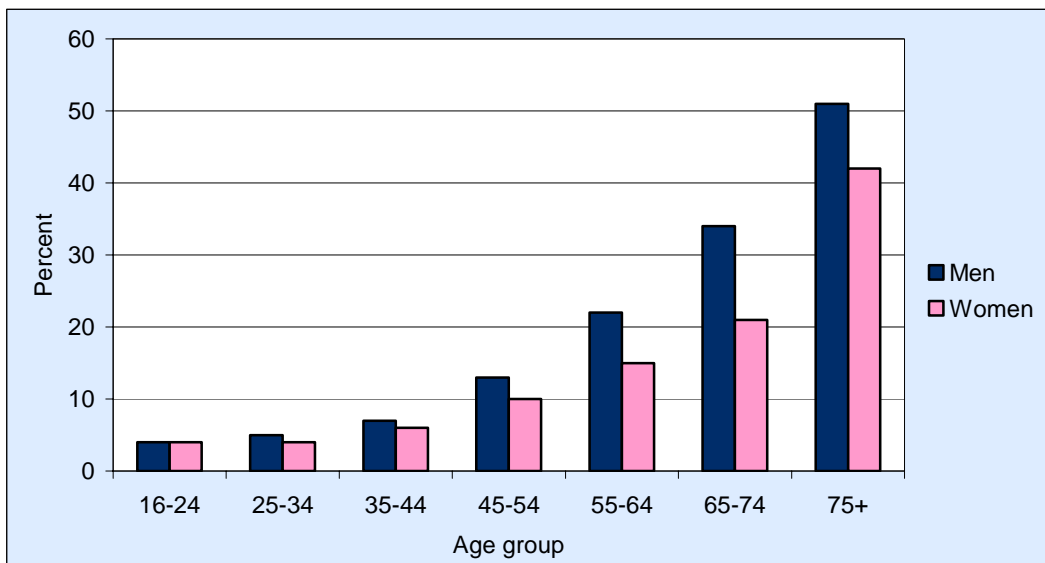
The rate increased with age (figure 3o), and around a third of those aged 65 and over reported a hearing difficulty. Men were more likely than women to report having difficulty with their hearing.

Of those adults who reported having difficulty with their hearing, 56% reported that they did not wear a hearing aid, 9% reported that they did not wear a hearing aid but had tried one, 14% reported wearing a hearing aid some of the time, and 21% reported wearing a hearing aid most of the time (not shown in table).

Of those adults who reported wearing a hearing aid some or most of the time, 46% reported having difficulty with their hearing while wearing the aid (not shown in table).

Table 3.8, figure 3o

**Figure 3o: Percentage who reported having difficulty with their hearing, by age and sex**



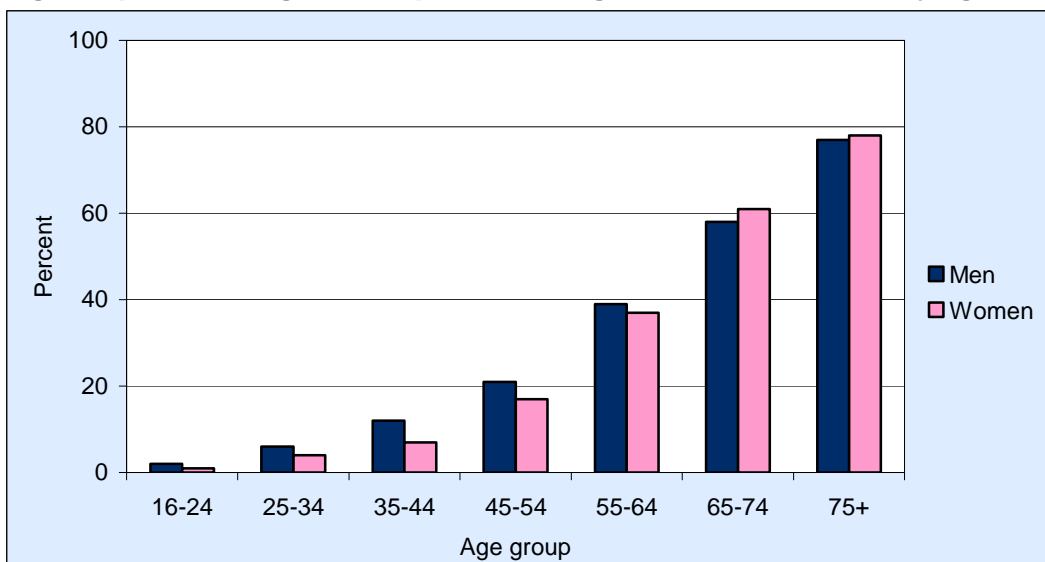
**Teeth**

- 27% of adults reported having fewer than 21 of their own teeth, or having mainly false teeth or dentures.

The percentage who reported having fewer than 21 teeth increased with age, shown in figure 3p. There was little difference between men and women.

Table 3.8, figure 3p

**Figure 3p: Percentage who reported having fewer than 21 teeth, by age and sex**



## 3.6 Key measures by socio-demographic factors

### 3.6.1 Methods and definitions

For some key variables, information is shown by socio-economic group and area deprivation. Observed and age-standardised rates or means are shown. Age-standardisation removes the effect of age from comparisons between groups, in this case between different categories of socio-economic group and area deprivation. See the glossary (Appendix A) for further details.

#### ***Socio-economic group***

The socio-economic classification in use in this report is the 3-class version of the National Statistics Socio-Economic Classification (NS-SEC) of the Household Reference Person (HRP). See the glossary (Appendix A) for further details.

#### ***Area deprivation***

Area deprivation is based on the Welsh Index of Multiple Deprivation 2008 (WIMD). WIMD gives deprivation scores for small areas in Wales. These small areas were split into five groups (“fifths”) of deprivation according to overall WIMD scores and each respondent to the Welsh Health Survey was allocated to the relevant fifth. See the glossary (Appendix A) for further details.

### 3.6.2 Results

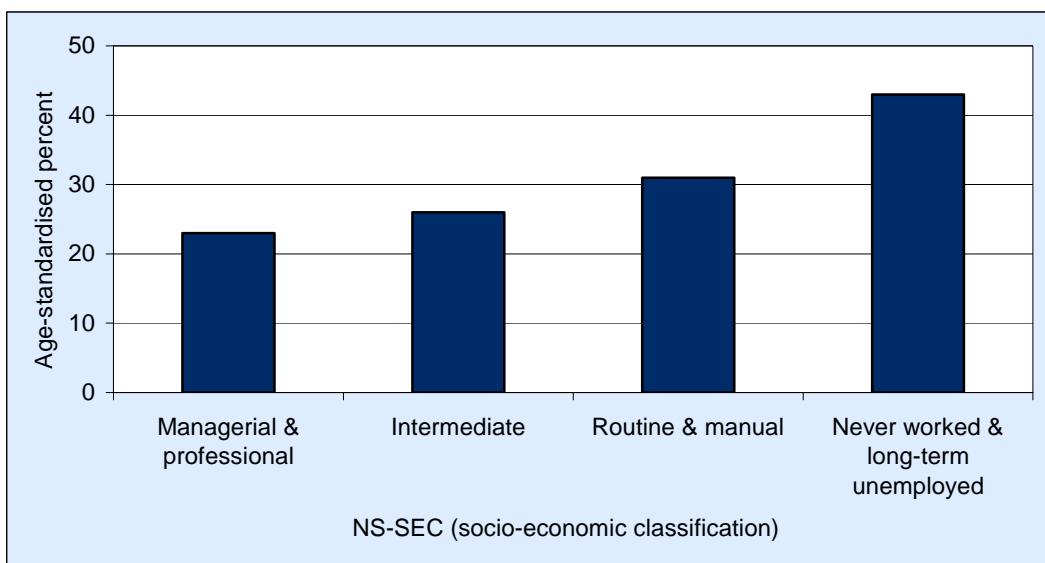
#### ***Socio-economic group (NS-SEC)***

Overall, levels of ill-health increased from managerial and professional households through to routine and manual households. This general pattern is shown for limiting long-term illness by NS-SEC in figure 3q.

In general, adults in households headed by someone who had never worked or was long-term unemployed were in worst health. (It should be noted that this group includes people unable to work because of long-term sickness or disability.) In these households, 43% of adults reported having a limiting long-term illness, compared with 27% overall.

Table 3.9, figure 3q

**Figure 3q: Percentage who reported having a limiting long-term illness, by household NS-SEC**

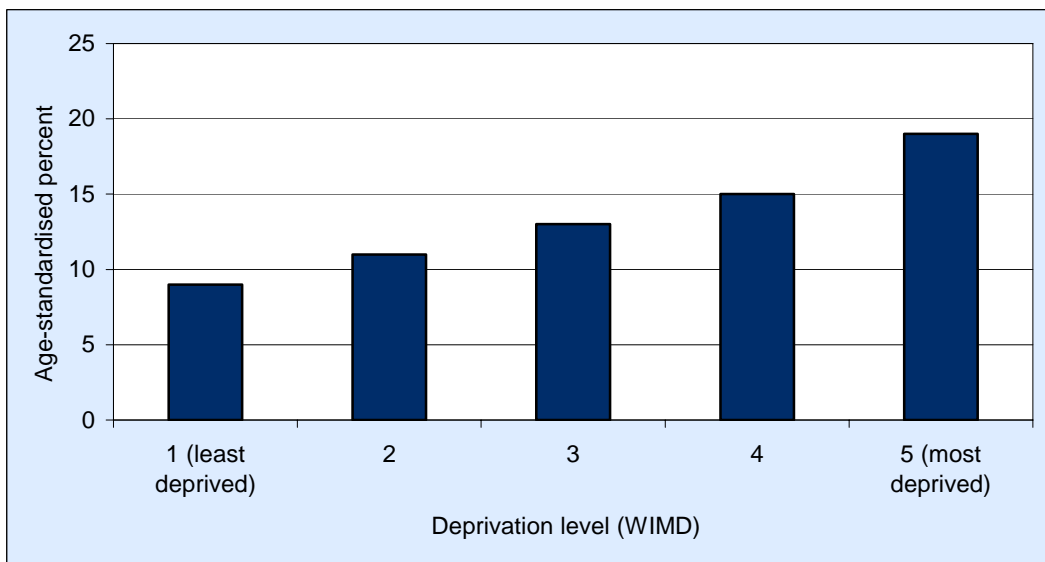


**Area deprivation (WIMD)**

In general, levels of ill-health increased with levels of area deprivation. Those in the most deprived fifth showed the highest rates for each of the illnesses covered. This general pattern is shown for arthritis in figure 3r.

Table 3.10, figure 3r

**Figure 3r: Percentage who reported being treated for arthritis, by area deprivation**



## 3.7 Trends for key measures

### 3.7.1 Methods and definitions

For some key variables, information is shown for the first six years of the survey.

### 3.7.2 Results

For most of the measures shown, there was little change during this time period. However, for men there was a slight increase in the proportion being treated for high blood pressure and diabetes since the 2003/04 survey.

**Table 3.11**

## References and notes

1. Welsh Health Survey: 2008 + 2009 Local Authority / Health Board Results.  
[www.wales.gov.uk/statistics](http://www.wales.gov.uk/statistics)
2. Arber, S. (1997) Comparing inequalities in women's and men's health: Britain in the 1990s. *Social Science & Medicine*, 44:773-787.





## Tables

Table 3.1 Adults' reported general health status, by age and sex

Per cent

	Excellent	Very good	Good	Fair	Poor	Unweighted base
<b>Men aged:</b>						
16-24	37	40	17	5	1	919
25-34	25	44	24	6	2	808
35-44	21	40	29	7	4	1,205
45-54	16	37	27	14	6	1,260
55-64	9	30	33	19	9	1,369
65-74	6	29	31	25	9	1,030
75+	3	17	34	31	14	756
16-44	28	41	23	6	2	2,932
45-64	12	34	30	16	7	2,629
65+	5	24	33	28	11	1,786
<b>Men aged 16+</b>	<b>18</b>	<b>35</b>	<b>27</b>	<b>14</b>	<b>6</b>	<b>7,347</b>
<b>Women aged:</b>						
16-24	25	41	27	5	1	1,020
25-34	22	44	25	7	2	1,057
35-44	19	40	28	9	3	1,401
45-54	14	36	29	14	7	1,425
55-64	10	31	31	19	8	1,515
65-74	8	27	34	24	8	1,141
75+	2	15	31	40	12	966
16-44	22	42	27	7	2	3,478
45-64	12	34	30	17	7	2,940
65+	5	21	32	32	10	2,107
<b>Women aged 16+</b>	<b>15</b>	<b>34</b>	<b>29</b>	<b>16</b>	<b>6</b>	<b>8,525</b>
<b>All aged:</b>						
16-24	31	41	22	5	1	1,939
25-34	24	44	24	6	2	1,865
35-44	20	40	28	8	3	2,606
45-54	15	37	28	14	6	2,685
55-64	9	31	32	19	9	2,884
65-74	7	28	32	24	9	2,171
75+	2	16	32	37	13	1,722
16-44	25	41	25	7	2	6,410
45-64	12	34	30	17	7	5,569
65+	5	22	32	30	11	3,893
<b>All aged 16+</b>	<b>16</b>	<b>35</b>	<b>28</b>	<b>15</b>	<b>6</b>	<b>15,872</b>

**Table 3.2 Adults' reported SF-36 summary scores, by age and sex (a)**

*Mean*

	Physical component summary score	Mental component summary score	<i>Unweighted base</i>
<b>Men aged:</b>			
16-24	55.4	52.1	866
25-34	54.5	50.9	776
35-44	52.9	50.4	1,148
45-54	49.8	50.1	1,199
55-64	45.7	50.5	1,291
65-74	42.5	52.0	928
75+	36.4	50.9	602
16-44	54.2	51.1	2,790
45-64	47.7	50.3	2,490
65+	40.1	51.6	1,530
<b>Men aged 16+</b>	49.5	50.9	6,810
<b>Women aged:</b>			
16-24	54.3	49.6	970
25-34	54.3	47.5	1,005
35-44	52.6	48.1	1,351
45-54	49.4	47.8	1,328
55-64	45.1	49.7	1,398
65-74	41.7	51.3	972
75+	32.7	50.2	756
16-44	53.7	48.4	3,326
45-64	47.3	48.7	2,726
65+	37.3	50.7	1,728
<b>Women aged 16+</b>	48.1	49.0	7,780
<b>All aged:</b>			
16-24	54.9	50.9	1,836
25-34	54.4	49.2	1,781
35-44	52.8	49.2	2,499
45-54	49.6	49.0	2,527
55-64	45.4	50.1	2,689
65-74	42.1	51.6	1,900
75+	34.1	50.5	1,358
16-44	53.9	49.7	6,116
45-64	47.5	49.5	5,216
65+	38.5	51.1	3,258
<b>All aged 16+</b>	48.8	49.9	14,590

(a) See definitions at 3.3.1 and glossary at Appendix A for explanation of SF-36. Higher scores indicate better health or well-being.

**Table 3.3 Adults who reported being treated for heart disease, by age and sex**

Per cent

	Ever treated for:		Currently being treated for:					Unweighted base (b)
	Heart attack	Angina	Heart failure	High blood pressure	Another heart condition	Any heart condition excluding high blood pressure (a)	Any heart condition including high blood pressure (a)	
<b>Men aged:</b>								
16-24	-	-	0	-	-	1	1	911
25-34	-	0	-	1	1	1	2	794
35-44	-	1	-	7	1	2	8	1,188
45-54	2	2	-	18	2	5	21	1,229
55-64	9	7	2	35	7	15	42	1,327
65-74	14	14	4	49	11	27	60	981
75+	22	20	8	52	18	41	69	697
16-44	-	-	-	3	1	1	4	2,893
45-64	5	4	1	26	5	10	31	2,556
65+	18	16	6	51	14	33	64	1,678
<b>Men aged 16+</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>20</b>	<b>4</b>	<b>10</b>	<b>24</b>	<b>7,127</b>
<b>Women aged:</b>								
16-24	0	-	-	1	-	1	1	1,013
25-34	-	-	-	2	-	1	2	1,038
35-44	-	-	-	5	1	2	7	1,379
45-54	1	2	-	14	2	4	17	1,376
55-64	2	4	-	31	3	7	34	1,447
65-74	5	8	3	44	9	18	51	1,060
75+	13	17	5	60	16	33	71	902
16-44	-	-	-	2	1	1	4	3,430
45-64	1	3	-	22	3	5	25	2,823
65+	9	13	4	52	13	26	61	1,962
<b>Women aged 16+</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>20</b>	<b>4</b>	<b>8</b>	<b>24</b>	<b>8,215</b>
<b>All aged:</b>								
16-24	-	-	-	-	-	1	1	1,924
25-34	-	-	-	1	1	1	2	1,832
35-44	-	1	-	6	1	2	7	2,567
45-54	2	2	-	16	2	4	18	2,605
55-64	5	5	1	33	5	11	38	2,774
65-74	10	11	3	47	10	23	55	2,041
75+	17	18	6	57	17	37	70	1,599
16-44	-	-	-	3	1	1	4	6,323
45-64	3	4	1	24	4	8	28	5,379
65+	13	14	5	51	13	29	62	3,640
<b>All aged 16+</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>20</b>	<b>4</b>	<b>9</b>	<b>24</b>	<b>15,342</b>

(a) See definitions at 3.4.1.

(b) Bases vary: those shown are for 'any heart condition including high blood pressure'.

**Table 3.4 Adults who reported currently being treated for respiratory illnesses, by age and sex***Per cent*

	Asthma	Emphysema	Pleurisy	Bronchitis	Another respiratory illness	Any respiratory illness (a)	Unweighted base (b)
<b>Men aged:</b>							
16-24	8	0	-	-	-	8	913
25-34	8	-	0	-	1	9	799
35-44	9	-	-	1	1	10	1,192
45-54	8	-	-	1	2	11	1,228
55-64	11	2	-	3	6	17	1,314
65-74	12	4	-	5	8	20	946
75+	10	6	-	5	10	23	650
16-44	8	-	-	-	1	9	2,904
45-64	10	1	-	2	4	14	2,542
65+	11	5	-	5	9	21	1,596
<b>Men aged 16+</b>	9	1	-	2	3	13	7,042
<b>Women aged:</b>							
16-24	9	0	-	-	1	10	1,015
25-34	12	-	-	1	1	13	1,053
35-44	8	-	-	1	1	10	1,390
45-54	11	-	-	2	3	13	1,383
55-64	12	1	-	3	4	15	1,440
65-74	14	1	1	5	5	19	1,031
75+	15	3	1	5	8	23	820
16-44	10	-	-	1	1	11	3,458
45-64	12	1	-	2	3	14	2,823
65+	15	2	1	5	6	21	1,851
<b>Women aged 16+</b>	11	1	-	2	3	14	8,132
<b>All aged:</b>							
16-24	8	0	-	-	1	9	1,928
25-34	10	-	-	-	1	11	1,852
35-44	9	-	-	1	1	10	2,582
45-54	10	-	-	1	2	12	2,611
55-64	11	2	-	3	5	16	2,754
65-74	13	3	-	5	6	20	1,977
75+	13	4	1	5	9	23	1,470
16-44	9	-	-	1	1	10	6,362
45-64	11	1	-	2	4	14	5,365
65+	13	3	1	5	7	21	3,447
<b>All aged 16+</b>	10	1	-	2	3	13	15,174

(a) See definitions at 3.4.1.

(b) Bases vary: those shown are for 'any respiratory illness'.

**Table 3.5 Adults who reported currently being treated for mental illnesses, by age and sex***Per cent*

	Depression	Anxiety	Another mental illness	Any mental illness (a)	Unweighted base (b)
<b>Men aged:</b>					
16-24	2	2	1	3	911
25-34	4	3	1	6	806
35-44	6	5	3	8	1,194
45-54	8	7	3	11	1,248
55-64	9	7	1	11	1,322
65-74	4	3	1	6	950
75+	4	3	1	6	665
16-44	4	3	2	5	2,911
45-64	9	7	2	11	2,570
65+	4	3	1	6	1,615
<b>Men aged 16+</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>7</b>	<b>7,096</b>
<b>Women aged:</b>					
16-24	4	2	1	5	1,015
25-34	10	7	1	12	1,049
35-44	11	8	2	14	1,401
45-54	16	10	1	18	1,391
55-64	10	9	2	14	1,447
65-74	10	7	1	13	1,042
75+	7	6	1	11	841
16-44	8	6	1	10	3,465
45-64	13	9	1	16	2,838
65+	8	7	1	12	1,883
<b>Women aged 16+</b>	<b>10</b>	<b>7</b>	<b>1</b>	<b>13</b>	<b>8,186</b>
<b>All aged:</b>					
16-24	3	2	1	4	1,926
25-34	7	5	1	9	1,855
35-44	9	6	2	11	2,595
45-54	12	9	2	15	2,639
55-64	9	8	1	12	2,769
65-74	7	5	1	9	1,992
75+	6	5	1	9	1,506
16-44	6	4	2	8	6,376
45-64	11	8	2	13	5,408
65+	6	5	1	9	3,498
<b>All aged 16+</b>	<b>8</b>	<b>6</b>	<b>1</b>	<b>10</b>	<b>15,282</b>

(a) See definitions at 3.4.1.

(b) Bases vary: those shown are for 'any mental illness'.

**Table 3.6 Adults who reported being treated for a range of illnesses, by age and sex**

Per cent

	Ever treated for:		Currently being treated for:			Unweighted base (b)
	Stroke	Arthritis	Back pain	Diabetes (a)		
<b>Men aged:</b>						
16-24	-	-	2	1	929	
25-34	0	1	4	1	817	
35-44	1	3	7	2	1,213	
45-54	1	8	12	6	1,269	
55-64	4	17	17	11	1,380	
65-74	8	22	16	17	1,040	
75+	13	30	21	16	764	
16-44	-	2	4	1	2,959	
45-64	3	13	14	8	2,649	
65+	10	25	18	16	1,804	
<b>Men aged 16+</b>	<b>3</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>7,412</b>	
<b>Women aged:</b>						
16-24	0	1	4	-	1,029	
25-34	-	1	7	1	1,060	
35-44	1	5	10	2	1,407	
45-54	1	13	14	5	1,434	
55-64	2	23	18	7	1,535	
65-74	4	33	23	13	1,151	
75+	11	47	28	16	990	
16-44	-	2	7	1	3,496	
45-64	2	18	16	6	2,969	
65+	7	40	26	14	2,141	
<b>Women aged 16+</b>	<b>2</b>	<b>16</b>	<b>14</b>	<b>6</b>	<b>8,606</b>	
<b>All aged:</b>						
16-24	-	-	3	-	1,958	
25-34	-	1	5	1	1,877	
35-44	1	4	8	2	2,620	
45-54	1	11	13	5	2,703	
55-64	3	20	17	9	2,915	
65-74	6	28	19	15	2,191	
75+	12	40	25	16	1,754	
16-44	-	2	6	1	6,455	
45-64	2	15	15	7	5,618	
65+	9	33	22	15	3,945	
<b>All aged 16+</b>	<b>3</b>	<b>13</b>	<b>12</b>	<b>6</b>	<b>16,018</b>	

(a) See definitions at 3.4.1.

(b) Bases vary: those shown are for the whole sample.

**Table 3.7 Adults who reported having illnesses, or limiting long-term illness, by age and sex**

*Per cent*

	Any illness (a)	1 illness	2 or more illnesses	Limiting long-term illness (a)	Unweighted base (b)
<b>Men aged:</b>					
16-24	15	12	3	8	929
25-34	22	15	7	10	817
35-44	32	19	13	16	1,213
45-54	47	25	22	26	1,269
55-64	63	27	36	38	1,380
65-74	77	28	49	48	1,040
75+	85	30	54	63	764
16-44	23	15	8	11	2,959
45-64	55	26	29	32	2,649
65+	80	29	51	54	1,804
<b>Men aged 16+</b>	45	22	23	27	7,412
<b>Women aged:</b>					
16-24	21	16	5	7	1,029
25-34	31	19	13	9	1,060
35-44	37	20	17	16	1,407
45-54	50	23	27	25	1,434
55-64	64	28	37	39	1,535
65-74	78	27	51	47	1,151
75+	90	26	64	66	990
16-44	30	18	12	11	3,496
45-64	57	26	32	32	2,969
65+	84	26	58	57	2,141
<b>Women aged 16+</b>	52	23	29	28	8,606
<b>All aged:</b>					
16-24	18	14	4	7	1,958
25-34	27	17	10	10	1,877
35-44	35	20	15	16	2,620
45-54	49	24	24	25	2,703
55-64	64	27	36	38	2,915
65-74	77	28	50	47	2,191
75+	88	27	60	65	1,754
16-44	27	17	10	11	6,455
45-64	56	26	30	32	5,618
65+	82	28	55	55	3,945
<b>All aged 16+</b>	48	22	26	27	16,018

(a) See definitions at 3.4.1.

(b) Bases vary: those shown are for the whole sample.



**Table 3.8 Adults who reported other conditions, by age and sex (a)***Per cent*

	Eyesight difficulty	Hearing difficulty	Has fewer than 21 teeth	Unweighted base (b)
<b>Men aged:</b>				
16-24	3	4	2	929
25-34	5	5	6	817
35-44	3	7	12	1,213
45-54	6	13	21	1,269
55-64	4	22	39	1,380
65-74	3	34	58	1,040
75+	7	51	77	764
16-44	4	5	7	2,959
45-64	5	18	30	2,649
65+	5	41	66	1,804
<b>Men aged 16+</b>	4	17	26	7,412
<b>Women aged:</b>				
16-24	7	4	1	1,029
25-34	4	4	4	1,060
35-44	5	6	7	1,407
45-54	5	10	17	1,434
55-64	6	15	37	1,535
65-74	6	21	61	1,151
75+	14	42	78	990
16-44	5	5	4	3,496
45-64	6	12	27	2,969
65+	10	32	70	2,141
<b>Women aged 16+</b>	6	14	27	8,606
<b>All aged:</b>				
16-24	5	4	2	1,958
25-34	5	5	5	1,877
35-44	4	6	9	2,620
45-54	5	12	19	2,703
55-64	5	19	38	2,915
65-74	4	27	59	2,191
75+	11	45	78	1,754
16-44	4	5	6	6,455
45-64	5	15	29	5,618
65+	8	36	68	3,945
<b>All aged 16+</b>	5	15	27	16,018

(a) See definitions at 3.5.1.

(b) Bases vary: those shown are for the whole sample.

**Table 3.9 Adults who reported key illnesses or health status, by the National Statistics Socio-Economic Classification (NS-SEC) of the household reference person (a)**

Socio-economic classification of household reference person	Currently being treated for:					
	High blood pressure	Any heart condition excluding high blood pressure (b)	Any respiratory illness (b)	Any mental illness (b)	Arthritis	Diabetes (b)
	%	%	%	%	%	%
<b>Age-standardised</b>						
Managerial and professional	18	8	12	7	9	5
Intermediate	19	8	11	9	12	7
Routine and manual	22	10	16	12	16	7
Never worked and long-term unemployed	22	13	23	27	24	8
<b>Observed</b>						
Managerial and professional	18	8	12	7	9	5
Intermediate	19	8	12	10	12	7
Routine and manual	23	10	16	12	17	7
Never worked and long-term unemployed	22	15	21	25	23	9
<b>All aged 16+</b>	20	9	13	10	13	6

(a) See definitions at 3.6.1 and glossary at Appendix A for explanations of age-standardisation, National Statistics Socio-Economic Classification, and household reference person.

(b) See definitions at 3.4.1.

(c) See definitions at 3.3.1. Higher scores indicate better health or well-being.

(d) Bases vary: those shown are for the whole sample.

**Table 3.9 Adults who reported key illnesses or health status, by the National Statistics Socio-Economic Classification (NS-SEC) of the household reference person (a) (continued)**

Socio-economic classification of household reference person	Limiting long-term illness (b)	SF-36 Physical component summary score (c)	SF-36 Mental component summary score (c)	<i>Unweighted base (d)</i>
	%	<i>Mean</i>	<i>Mean</i>	
<b>Age-standardised</b>				
Managerial and professional	23	50.3	51.4	5,598
Intermediate	26	49.1	50.5	3,193
Routine and manual	31	47.4	48.7	6,313
Never worked and long-term unemployed	43	45.3	43.1	404
<b>Observed</b>				
Managerial and professional	23	50.4	51.4	5,598
Intermediate	27	49.0	50.5	3,193
Routine and manual	32	47.0	48.8	6,313
Never worked and long-term unemployed	44	45.1	43.9	404
<b>All aged 16+</b>	27	48.8	49.9	16,018

- (a) See definitions at 3.6.1 and glossary at Appendix A for explanations of age-standardisation, National Statistics Socio-Economic Classification, and household reference person.
- (b) See definitions at 3.4.1.
- (c) See definitions at 3.3.1. Higher scores indicate better health or well-being.
- (d) Bases vary: those shown are for the whole sample.

**Table 3.10 Adults who reported key illnesses or health status, by the Welsh Index of Multiple Deprivation (a)**

2008 Welsh Index of Multiple Deprivation quintile	Currently being treated for:					
	High blood pressure	Any heart condition excluding high blood pressure (b)	Any respiratory illness (b)	Any mental illness (b)	Arthritis	Diabetes (b)
	%	%	%	%	%	%
<b>Age-standardised</b>						
1 (least deprived)	18	7	11	7	9	4
2	18	8	11	8	11	6
3	19	8	14	9	13	6
4	22	10	15	11	15	7
5 (most deprived)	23	12	18	16	19	9
<b>Observed</b>						
1 (least deprived)	20	8	11	7	10	5
2	19	8	11	8	11	6
3	20	8	14	9	14	6
4	20	9	14	11	13	6
5 (most deprived)	21	10	17	16	17	8
<b>All aged 16+</b>	20	9	13	10	13	6

(a) See definitions at 3.6.1. and glossary at Appendix A for explanations of age-standardisation and Welsh Index of Multiple Deprivation.

(b) See definitions at 3.4.1.

(c) See definitions at 3.3.1. Higher scores indicate better health or well-being.

(d) Bases vary: those shown are for the whole sample.

**Table 3.10 Adults who reported key illnesses or health status, by the Welsh Index of Multiple Deprivation (a) (continued)**

<b>2008 Welsh Index of Multiple Deprivation quintile</b>	Limiting long-term illness (b)	SF-36 Physical component summary score (c)	SF-36 Mental component summary score (c)	<i>Unweighted base (d)</i>
%	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>(d)</i>
<b>Age-standardised</b>				
1 (least deprived)	22	50.7	51.6	3,177
2	24	49.9	50.8	3,482
3	27	48.8	50.3	3,475
4	30	47.9	49.3	3,099
5 (most deprived)	35	45.9	47.1	2,785
<b>Observed</b>				
1 (least deprived)	24	50.1	51.7	3,177
2	25	49.7	50.8	3,482
3	28	48.7	50.3	3,475
4	29	48.4	49.4	3,099
5 (most deprived)	33	46.7	47.1	2,785
<b>All aged 16+</b>	27	48.8	49.9	16,018

(a) See definitions at 3.6.1 and glossary at Appendix A for explanations of age-standardisation and Welsh Index of Multiple Deprivation.

(b) See definitions at 3.4.1.

(c) See definitions at 3.3.1. Higher scores indicate better health or well-being.

(d) Bases vary: those shown are for the whole sample.

**Table 3.11 Adults who reported key illnesses or health status, 2003/04-2009**

		2003/04	2004/05	2005/06	2007 (a)	2008	2009
<b>Men aged 16+:</b>							
High blood pressure (b)	%	17	17	18	19	18	20
Any heart condition excluding high blood pressure (b)	%	11	10	10	11	10	10
Any respiratory illness (b)	%	12	13	13	13	12	13
Any mental illness (b)	%	7	7	7	7	7	7
Arthritis (b)	%	11	10	10	9	10	10
Diabetes (b)	%	5	6	7	6	7	7
Limiting long-term illness (c)	%	28	27	26	26	26	27
SF-36 Physical component summary score (d)	<i>Mean</i>	49.3	49.4	49.6	49.5	49.8	49.5
SF-36 Mental component summary score (d)	<i>Mean</i>	51.0	50.8	51.1	51.1	51.1	50.9
<b>Women aged 16+:</b>							
High blood pressure (b)	%	19	20	21	20	20	20
Any heart condition excluding high blood pressure (b)	%	9	9	8	8	8	8
Any respiratory illness (b)	%	14	14	15	15	14	14
Any mental illness (b)	%	11	12	11	12	12	13
Arthritis (b)	%	17	17	16	16	16	16
Diabetes (b)	%	5	4	5	6	6	6
Limiting long-term illness (c)	%	28	28	28	28	29	28
SF-36 Physical component summary score (d)	<i>Mean</i>	48.3	47.9	48.3	48.1	48.2	48.1
SF-36 Mental component summary score (d)	<i>Mean</i>	48.6	48.5	48.5	48.9	48.6	49.0
<b>All aged 16+:</b>							
High blood pressure (b)	%	18	19	20	20	19	20
Any heart condition excluding high blood pressure (b)	%	10	9	9	9	9	9
Any respiratory illness (b)	%	13	14	14	14	13	13
Any mental illness (b)	%	9	9	9	9	9	10
Arthritis (b)	%	14	14	13	13	13	13
Diabetes (b)	%	5	5	6	6	6	6
Limiting long-term illness (c)	%	28	27	27	27	27	27
SF-36 Physical component summary score (d)	<i>Mean</i>	48.8	48.6	48.9	48.8	48.9	48.8
SF-36 Mental component summary score (d)	<i>Mean</i>	49.8	49.6	49.8	50.0	49.8	49.9
<b>Unweighted bases (e)</b>							
Men aged 16+		7,486	7,437	6,691	6,418	6,119	7,412
Women aged 16+		8,812	8,598	7,614	7,499	7,194	8,606
All aged 16+		16,298	16,035	14,305	13,917	13,313	16,018

- (a) From 2007 the fieldwork runs on a calendar year basis.  
(b) Currently being treated for illness; see definitions at 3.4.1.  
(c) See definitions at 3.4.1.  
(d) See definitions at 3.3.1. Higher scores indicate better health or well-being.  
(e) Bases vary: those shown are for the whole sample.



**Chapter 4**  
**Health-Related Lifestyle**





## 4 Health-related lifestyle

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### 4.1 Introduction

This chapter focuses on the reported health-related lifestyles of adults.

Broad figures for Wales are provided along with age and sex breakdowns. For a selection of key measures, information is provided by socio-economic group and area deprivation. Some comparisons with earlier years are also shown. Local authority / health board breakdowns for 2008 + 2009 combined are provided in a separate report<sup>1</sup>.

The survey asked adults (aged 16 and over) about their lifestyle, including questions about their exposure to other people's tobacco smoke. In addition, respondents were asked to provide their height and weight.

The survey relies on a self-completion questionnaire, so care should be taken when making comparisons with results from other surveys, for example, when making comparisons of levels of obesity with those from surveys where height and weight is measured by an interviewer or nurse.

This chapter includes information on:

- smoking (4.3)
- alcohol (4.4)
- fruit and vegetable consumption (4.5)
- physical activity (4.6)
- body mass index (4.7)
- key measures by socio-demographic factors (4.8)
- trends for key measures (4.9)

## 4.2 Summary

- 24% of adults reported that they currently smoked.
- 22% of adult non-smokers reported being regularly exposed to other people's tobacco smoke indoors, and 33% indoors or outdoors.
- 45% of adults reported drinking above the guidelines on at least one day in the past week, including 27% who reported binge drinking.
- 35% of adults reported eating five or more portions of fruit and vegetables the previous day.
- 29% of adults reported meeting the guidelines for physical activity in the past week.
- 57% of adults were classified as overweight or obese, including 21% obese.
- In general, men were more likely to drink alcohol above the guidelines and be overweight (but not obese) than women, but also more likely to meet guidelines for physical activity. A slightly higher percentage of women met guidelines for consuming fruit and vegetables. A slightly higher percentage of men were smokers.
- Overall, the percentage of smokers and of those drinking alcohol above guidelines decreased with age, as did the percentage who met guidelines for physical activity.
- In general, adults in the least deprived areas reported healthier lifestyles than those in the most deprived areas, but not for alcohol consumption or physical activity. Smoking rates showed the most variation.
- Smoking rates have remained unchanged since 2007, slightly lower than in previous years of the survey.
- There was little change in physical activity over the six years of the survey. Levels of overweight and obesity have remained unchanged since 2007, following a slight increase in earlier years.

## 4.3 Smoking

### 4.3.1 Method and definitions

The survey asked adults whether they smoked (daily or occasionally), used to smoke (daily or occasionally), or had never smoked. Those who reported smoking were asked where they had smoked in the last 7 days, if they had tried to or wanted to give up, and their reasons for wanting to give up.

It also asked whether respondents were regularly exposed to other people's tobacco smoke in a range of places.

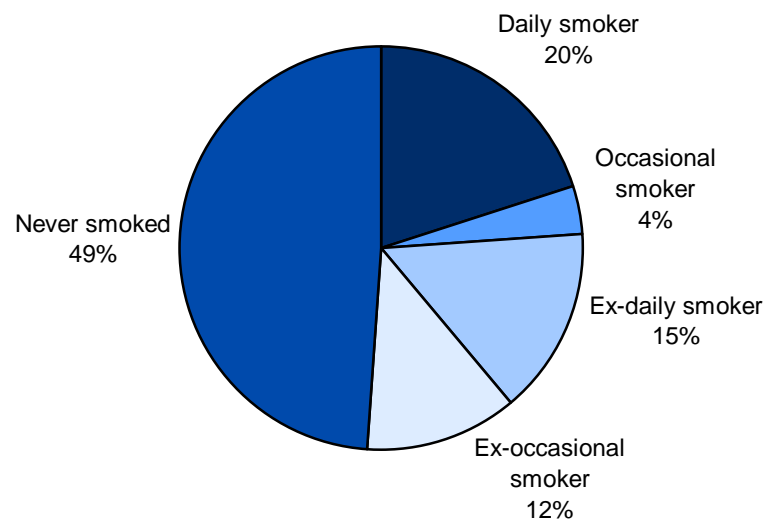
### 4.3.2 Results

#### *Smoking status*

Figure 4a shows the reported smoking behaviour of adult respondents.

- 24% of adults reported that they currently smoked.
- 27% of adults reported that they had given up smoking.
- 49% of adults reported that they had never smoked.

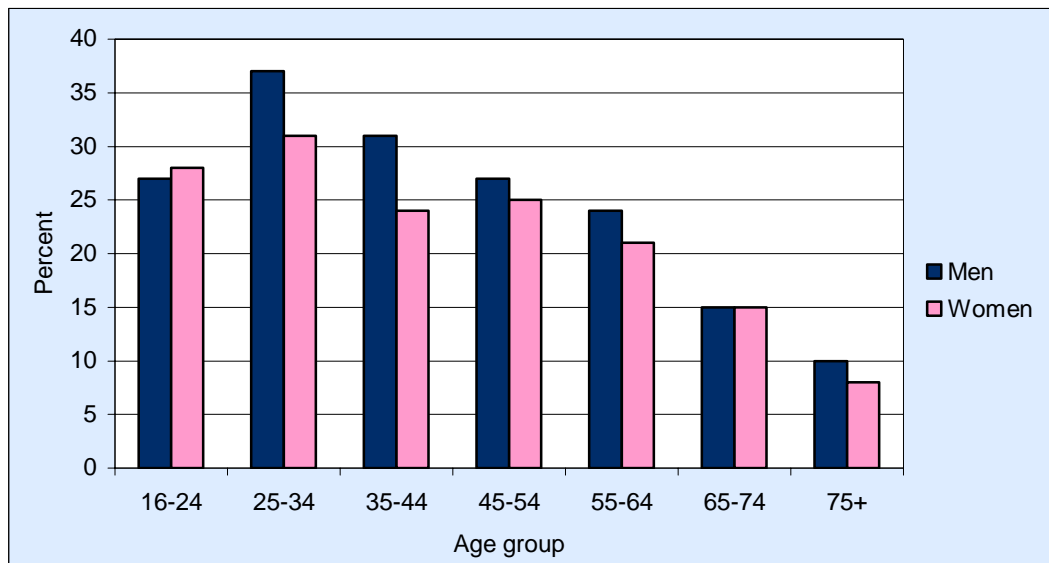
**Figure 4a: Self-reported smoking status of adults**



Overall, a slightly higher proportion of men were smokers. As shown in figure 4b, the proportion of smokers peaked among 25-34 year olds, particularly for men, and then decreased with age.

**Table 4.1, figures 4a, 4b**

**Figure 4b: Percentage who reported being a current smoker, by age and sex**

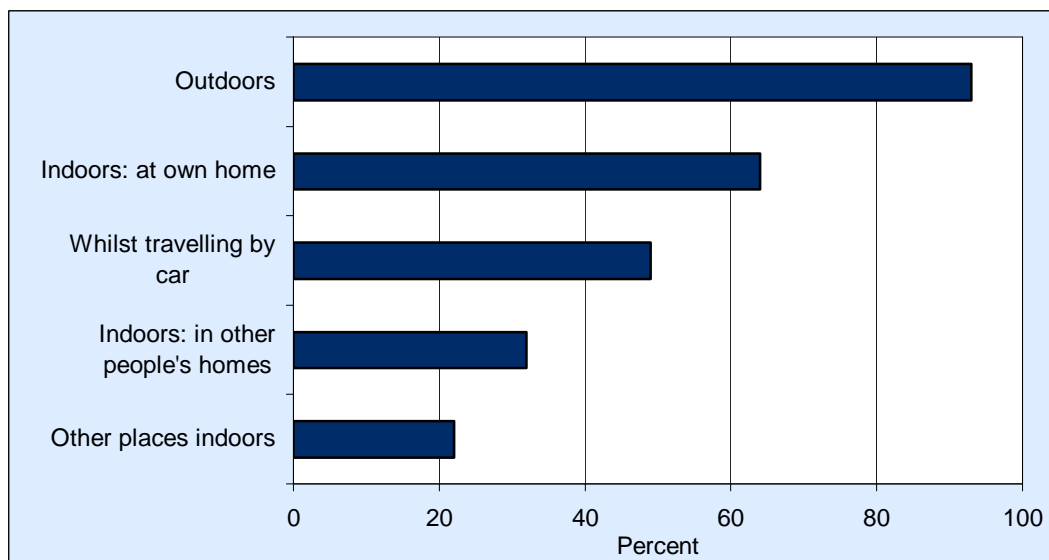


**Where people smoked**

- 64% of smokers reported smoking in their own home in the last 7 days, 32% in other people’s homes, 49% whilst travelling by car and 22% in other places indoors (respondents were allowed to record more than one smoking location). Overall, 78% of smokers reported smoking indoors, 93% outdoors.

Table 4.2, figure 4c

**Figure 4c: Percentage of smokers who reported smoking in various locations\***



\* Those reporting smoking in more than one location are counted in each relevant category

### ***Giving up smoking***

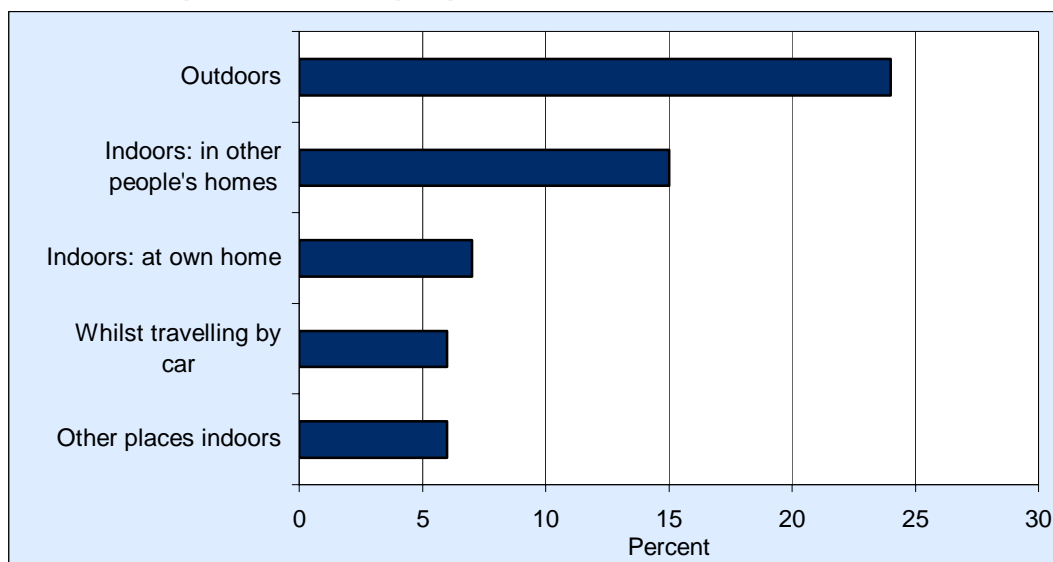
- 70% of smokers reported that they would like to give up and 40% had tried to give up in the last year (not shown in tables). The main reason for wanting to give up was for better health.

### ***Exposure to other people's smoke***

- Overall, 22% of adult non-smokers reported being regularly exposed to other people's tobacco smoke indoors, and 33% indoors or outdoors.

Figure 4d shows the percentage of non-smoking adults who reported being regularly exposed to other people's tobacco smoke in a range of places.

**Figure 4d: Percentage of non-smoking adults who reported being regularly exposed to other people's tobacco smoke\***



\* Those reporting exposure to smoke in more than one location are counted in each relevant category.

Of all adult non-smokers, 15% reported being exposed to other people's smoke in other people's homes, 7% in their own homes, 6% whilst travelling by car, and 6% in other places indoors. Adults' reported exposure to other people's smoke decreased with age, and this applied for all the places specified.

**Table 4.3, figure 4d**

### ***Children living in households where adults smoke***

As well as questions about smoking, the Welsh Health Survey asks about the composition of the household. It is therefore possible to identify households containing children and look at the smoking behaviour of adults in these households. 39% of children lived in households where at least one adult smoked daily or occasionally and 17% in households where at least one adult had smoked in their home in the past seven days (not shown in table).

## 4.4 Alcohol

### 4.4.1 Method and definitions

The survey asked adults a set of questions about their alcohol consumption. Respondents were asked how often, on average, they drank alcohol and, if never, whether they had always been a non-drinker.

Respondents were asked to indicate how many measures of each type of alcohol they had consumed on their heaviest drinking day the previous week. The following table was used to calculate the units drunk on that day:

Type of drink	Measure	Alcohol units
Normal strength beer, lager, stout, cider or shandy	Pints	2
	Large cans or bottles	2
	Small cans or bottles	1.5
Strong beer, lager, stout or cider	Pints	4
	Large cans or bottles	3
	Small cans or bottles	2
Wine	Large glass (250ml)	3
	Standard glass (175ml)	2
	Small glass (125ml)	1.5
	Bottles (750ml)	9
Spirits or liqueurs	Measures or shots (single measure)	1
Fortified wines	Small glass	1
Alcopops	Small can or bottle	1.5

The Department of Health guidelines about sensible drinking<sup>2</sup> are that men should not drink more than 3 - 4 units of alcohol per day, and women no more than 2 - 3 units.

For the purpose of this report, the following definitions of drinking are used, based on the heaviest drinking day in the past week:

Description	Maximum daily alcohol consumption in the past week
None	Did not drink in the last seven days
Sensible	Drank something; men drinking no more than 4 units, women no more than 3 units
Within guidelines	Includes those who did not drink, and men drinking no more than 4 units, women no more than 3 units
Above guidelines, less than binge	Men drinking more than 4 and up to and including 8 units, women more than 3 and up to and including 6 units
Binge	Men drinking more than 8 units, women more than 6 units
Above guidelines	Men drinking more than 4 units, women more than 3 units

#### 4.4.2 Results

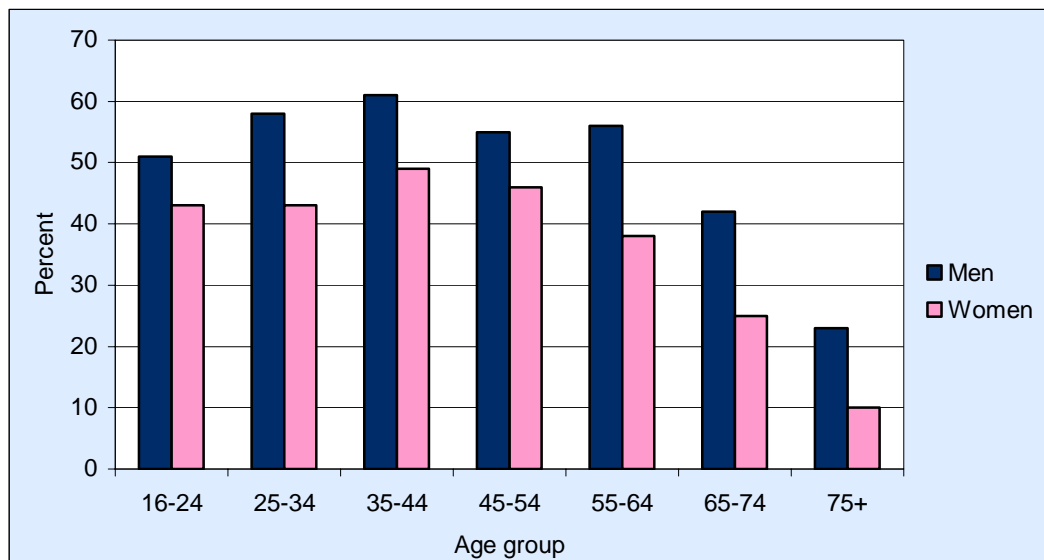
- 12% of adults reported that they were non-drinkers.
- 45% of all adults (i.e. including non-drinkers) reported drinking above the recommended guidelines on at least one day in the past week, including 27% who reported binge drinking.

Men were more likely than women to report drinking above the recommended guidelines in the past week (52% of men compared with 38% of women), and to report binge drinking (34% of men, 21% of women). This pattern applied to all age groups.

Drinking above guidelines was less common in older people, as seen in figure 4e.

Tables 4.4, 4.5, figure 4e

**Figure 4e: Percentage who reported drinking above guidelines on at least one day in the past week, by age and sex**



## 4.5 Fruit and vegetable consumption

### 4.5.1 Method and definitions

The survey asked adults questions about a range of food items to determine the overall amounts of fruit, vegetables and pulses consumed the previous day. The questionnaire could be completed on any day of the week.

For each food item, respondents were asked how much they had consumed, and to write "0" if none eaten. Everyday measures were given for each food item: for example, tablespoons of vegetables, small bowls of salad, or medium sized fruit (such as apples). Each question provided a definition of which foods were to be included. Guidelines<sup>3, 4</sup> recommend eating at least five portions of a variety of fruit and vegetables each day. To conform with these guidelines, the questions and analysis were based on

## Health-related lifestyle

the concept of portions of 80g each and the information collected was converted into standard portions at the analysis stage.

The table below shows portion sizes for the different food items included in the questionnaire.

<b>Food item</b>	<b>Portion size</b>
Vegetables (fresh, frozen or tinned)	3 tablespoons
Pulses	3 tablespoons
Salad	1 small bowl
Dishes made mainly from vegetables or pulses	3 tablespoons
Very large fruit, such as melon	1 average slice
Large fruit, such as grapefruit	Half a fruit
Medium fruit, such as apples, bananas, oranges	1 fruit
Small fruit, such as plums, satsumas	2 fruits
Very small fruit, such as grapes, berries	2 average handfuls
Dried fruit, such as raisins, apricots	1 average handful
Frozen/tinned fruit	3 tablespoons
Dishes made mainly from fruit such as fruit salad or fruit pies	3 tablespoons
Fruit juice	1 small glass

At the analysis stage, rules for certain foods were applied: respondents could obtain no more than one portion of their daily intake from fruit juice, one portion from pulses, and one portion from dried fruit. These restrictions are in line with guidelines, which emphasise that a variety of fruit and vegetables should be consumed.

### 4.5.2 Results

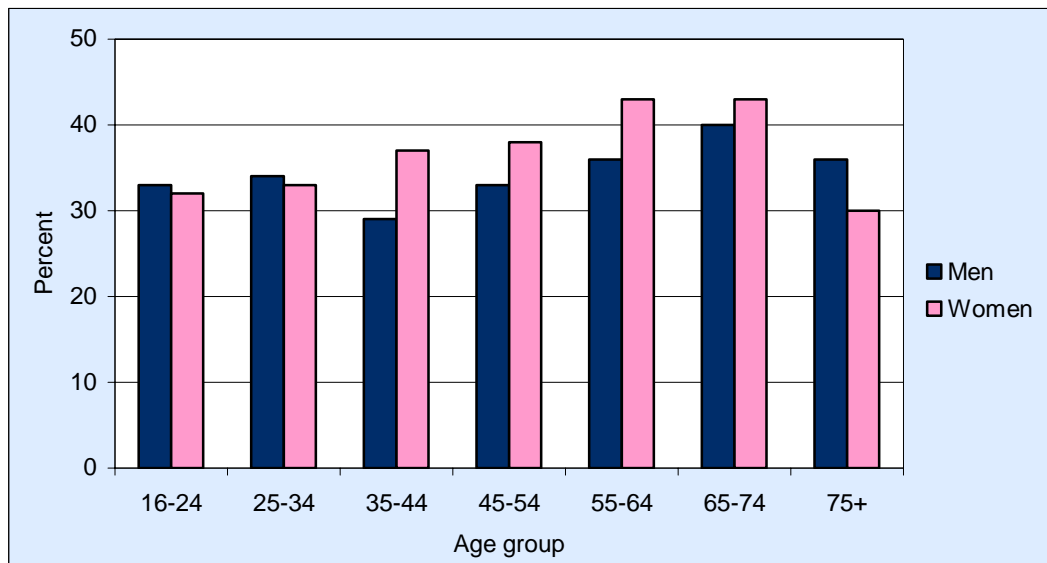
- 35% of adults reported eating five or more portions of fruit and vegetables the previous day.
- 7% of adults reported that they ate no fruit and vegetables at all the previous day.

As shown in figure 4f, the proportions of both men and women who reported eating the recommended five or more portions a day fluctuated with age. Overall, a slightly higher proportion of women (37%) than men (34%) reported eating five or more portions.

**Table 4.6, figure 4f**



**Figure 4f: Percentage who reported eating five or more portions of fruit and vegetables the previous day, by age and sex**



## 4.6 Physical activity

### 4.6.1 Method and definitions

Department of Health guidelines<sup>5</sup> currently recommend that adults do at least 30 minutes of at least moderate intensity physical activity, on five or more days a week.

The survey asked adults on which days in the past week they did at least 30 minutes of light, moderate, and vigorous exercise or physical activity. Blocks of activity lasting more than 10 minutes, which were done on the same day, count towards the full 30 minutes. Respondents were asked to include physical activity which is part of their job. Examples of each type of activity are:

- light activity - housework or golf
- moderate activity - heavy gardening or fast walking
- vigorous activity - running or aerobics.

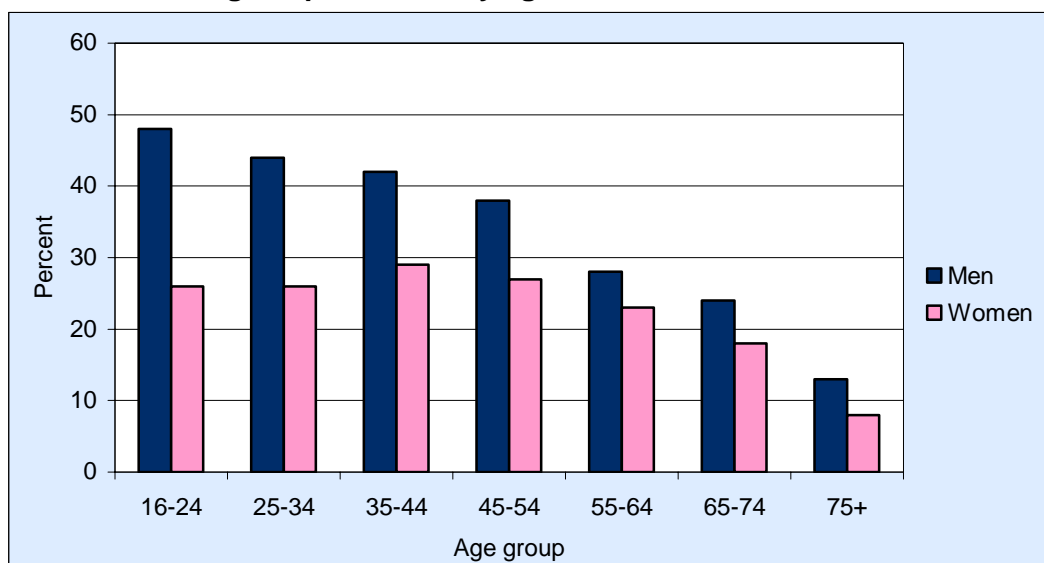
### 4.6.2 Results

- 29% of adults reported meeting the guidelines for physical activity in the past week.

A higher proportion of men (36%) than women (23%) met the guidelines. Figure 4g illustrates that this pattern was seen within each age group. Figure 4g also shows that the proportion of men meeting the physical activity guidelines decreased with age.

**Table 4.7, figure 4g**

**Figure 4g: Percentage who reported meeting physical activity guidelines during the past week, by age and sex**



Some adults (12%) reported that they had done no exercise or physical activity in the past week, and a further 21% had done no more than light activity (not shown in table).

## 4.7 Body Mass Index

### 4.7.1 Method and definitions

The survey asked adults to report their height and their weight. In order to define overweight or obesity, a measurement is required which allows for differences in weight due to height. The Body Mass Index (BMI) is calculated as weight (kg) divided by squared height (m<sup>2</sup>). However, BMI does not distinguish between mass due to body fat and mass due to muscular physique, nor does it take account of the distribution of fat.

BMI was calculated for all respondents, excluding pregnant women, with valid height and weight measurements and classified into the following BMI groups<sup>6</sup>:

BMI (kg/m <sup>2</sup> )	Description
Less than 18.5	Underweight
18.5 to under 25	Healthy weight
25 to under 30	Overweight
30 and over	Obese

Height and weight of respondents are self-reported, and there is evidence to show that some people tend to under-report weight and/or over-report height, resulting in an under-estimation of the prevalence of overweight and obesity<sup>7</sup>.

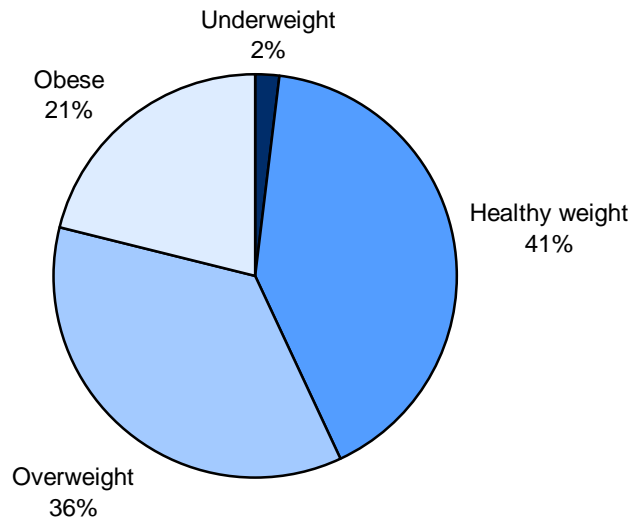
**4.7.2 Results**

- In total, 57% of adults were classified as overweight or obese, including 21% obese.

The proportion of adults falling into each of the BMI categories is shown in Figure 4h.

**Table 4.8, figure 4h**

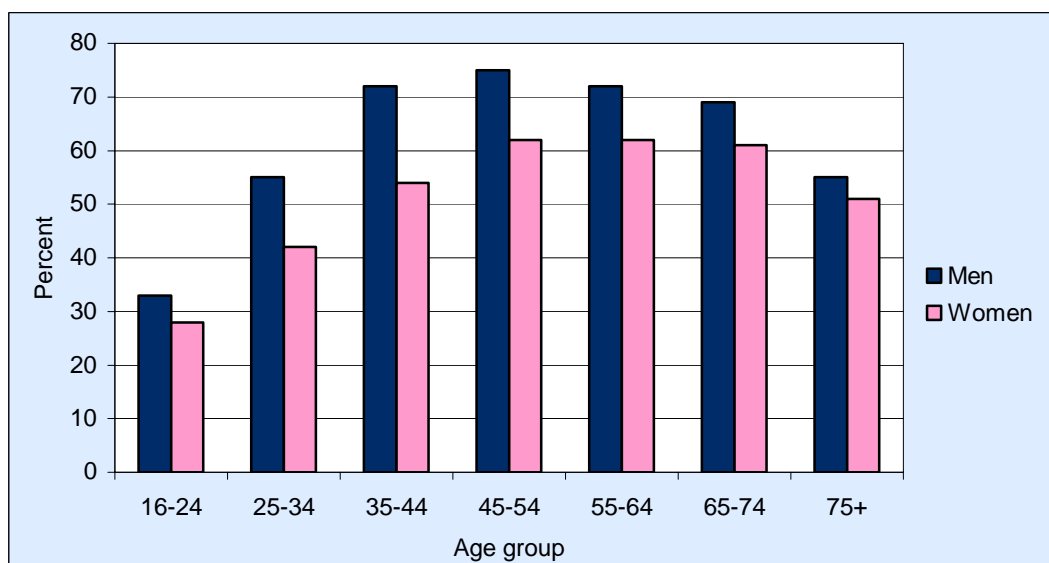
**Figure 4h: Body Mass Index category of adults**



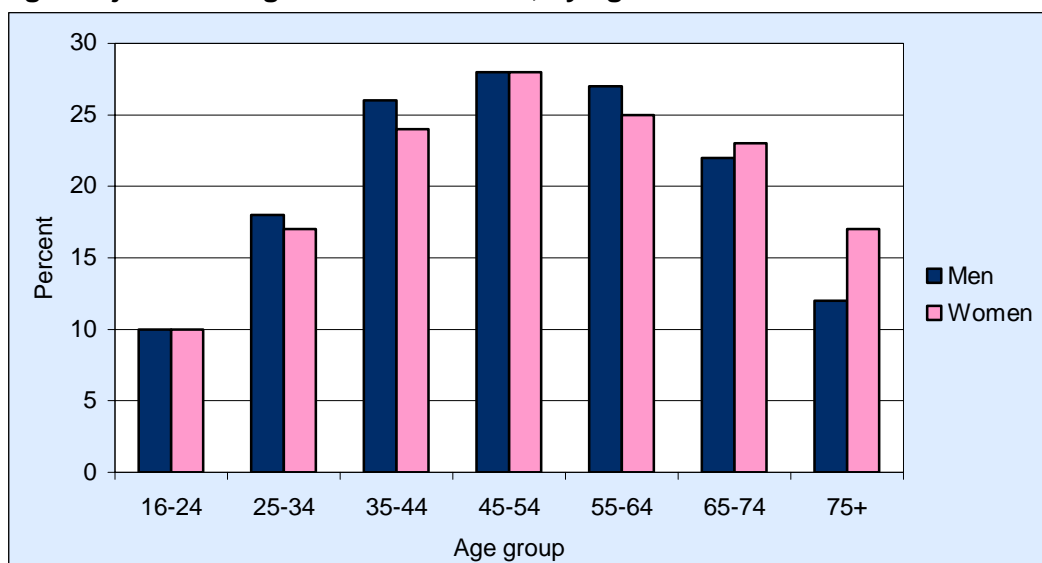
Men were more likely to be overweight than women, but there was little difference in the proportions who were obese. Figure 4i illustrates that for men, the proportion overweight or obese was fairly constant in the age range 35-74 and was lower for younger and older men. For women, levels were highest in the age range 45-74 and were lower for younger and older women. Figure 4j illustrates that the proportion classified as obese peaked in middle age for both men and women.

**Table 4.8, figures 4i, 4j**

**Figure 4i: Percentage who were overweight or obese, by age and sex**



**Figure 4j: Percentage who were obese, by age and sex**



On average, men were 5ft 10in (177cm) tall and weighed 13st 3lb (84kg). For women the equivalent figures were 5ft 4in (162cm) and 10st 13lb (69kg) (not shown in table).

## 4.8 Key measures by socio-demographic factors

### 4.8.1 Methods and definitions

For some key variables, information is shown by socio-economic group and area deprivation. Observed and age-standardised rates are shown. Age-standardisation removes the effect of age from comparisons between groups, in this case between different categories of socio-economic group and area deprivation. See the glossary (Appendix A) for further details.

#### **Socio-economic group**

The socio-economic classification in use in this report is the 3-class version of the National Statistics Socio-Economic Classification (NS-SEC) of the Household Reference Person (HRP). See the glossary (Appendix A) for further details.

#### **Area deprivation**

Area deprivation is based on the Welsh Index of Multiple Deprivation 2008 (WIMD). WIMD gives deprivation scores for small areas in Wales. These small areas were split into five groups (“fifths”) of deprivation according to overall WIMD scores and each respondent to the Welsh Health Survey was allocated to the relevant fifth. See the glossary (Appendix A) for further details.

## 4.8.2 Results

### **Socio-economic group (NS-SEC)**

The largest variation by NS-SEC was for reported smoking behaviour. 15% of adults in managerial and professional households reported that they currently smoked, compared with 31% in routine and manual households, and 44% in households headed by someone who had never worked or was long-term unemployed.

Adults in managerial and professional households were less likely to smoke, more likely to meet guidelines for fruit and vegetable consumption and less likely to be overweight or obese than those in routine and manual households – however, they were also less likely to meet physical activity guidelines and were more likely to drink above guidelines.

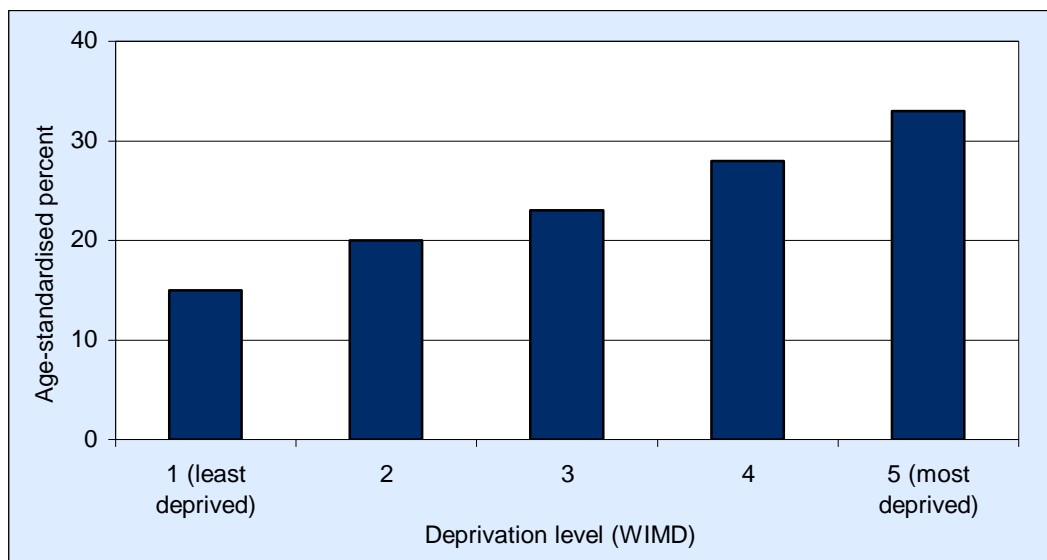
**Table 4.9**

### **Area deprivation (WIMD)**

In general, adults in the least deprived areas reported healthier lifestyles than those in the most deprived areas, but not for alcohol consumption or physical activity. Smoking rates showed the most variation, with rates in the most deprived “fifth” of population more than twice as high as those in the least deprived fifth (33% compared with 15%). This is illustrated in figure 4k.

**Table 4.10, figure 4k**

**Figure 4k: Percentage of adults who reported being a current smoker, by area deprivation**



## 4.9 Trends for key measures

### 4.9.1 Methods and definitions

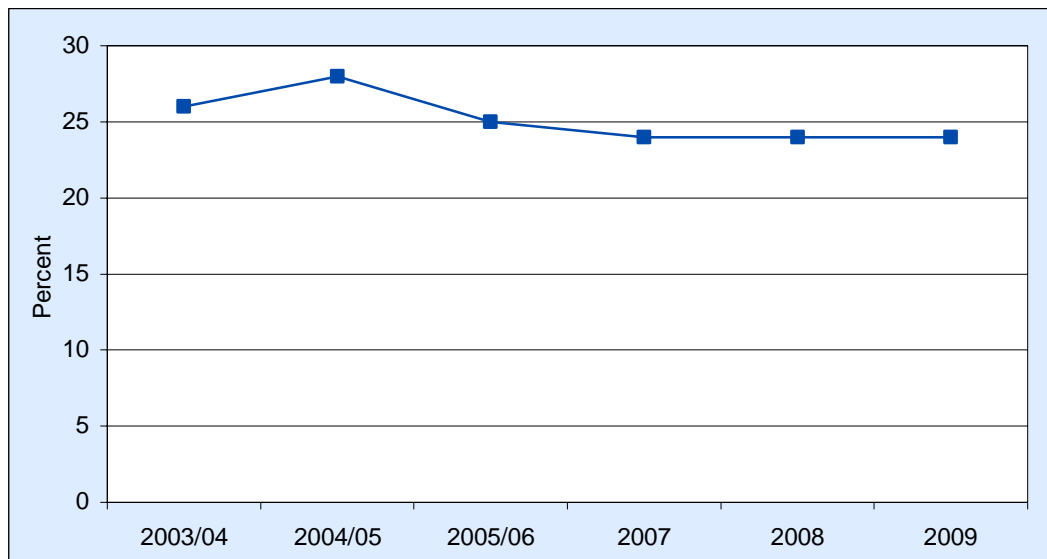
For some key variables, information is shown for six years of the survey. Questions on exposure to passive smoke, alcohol consumption, and fruit and vegetable consumption were changed from 2008 therefore only two years of data are so far available, making it too soon to comment on trends.

### 4.9.2 Results

Smoking rates have remained unchanged since 2007, slightly lower than in previous years of the survey.

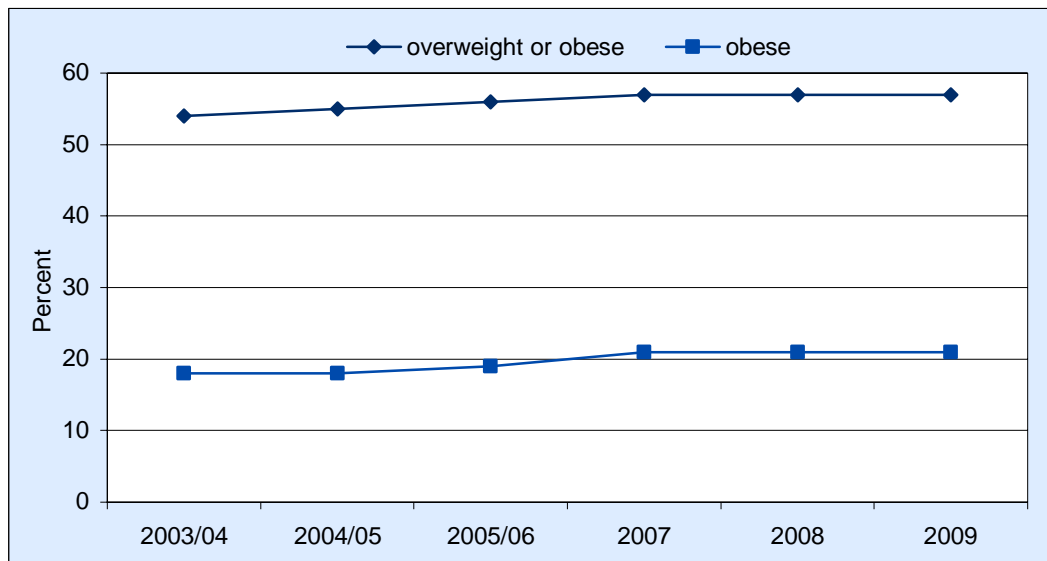
Table 4.11, figures 4l, 4m

Figure 4l: Percentage of adults who reported being a current smoker, 2003/04-2009



There was little change in physical activity over the six years of the survey. Levels of overweight and obesity have remained unchanged since 2007, following a slight increase in earlier years.

**Figure 4m: Percentage of adults who were overweight or obese, 2003/04-2009**



### References and notes

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[www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/AlcoholMisuse/fs/en](http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/AlcoholMisuse/fs/en)
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[http://whqlibdoc.who.int/trs/WHO\\_TRS\\_894.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_894.pdf)
7. Roberts, RJ. (1995) Can self-reported data accurately describe the prevalence of overweight? *Public Health*; 109 (4): 275-84 [Used Welsh data].

## Tables

Table 4.1 Adults' reported smoking behaviour, by age and sex

Per cent

	Daily smoker	Occasional smoker	Smoker (a)	Ex-daily smoker	Ex-occasional smoker	Ex-smoker (b)	Never smoked	Non-smoker (c)	Unweighted base
<b>Men aged:</b>									
16-24	20	7	27	2	7	9	65	73	914
25-34	30	7	37	9	9	18	45	63	808
35-44	27	4	31	12	8	21	48	69	1,203
45-54	22	5	27	16	9	25	48	73	1,253
55-64	20	3	24	28	13	42	35	76	1,368
65-74	13	2	15	37	18	55	30	85	1,034
75+	9	1	10	37	23	60	30	90	749
16-44	25	6	31	8	8	16	53	69	2,925
45-64	21	4	25	22	11	33	41	75	2,621
65+	11	2	13	37	20	57	30	87	1,783
<b>Men aged 16+</b>	<b>21</b>	<b>5</b>	<b>26</b>	<b>18</b>	<b>11</b>	<b>30</b>	<b>45</b>	<b>74</b>	<b>7,329</b>
<b>Women aged:</b>									
16-24	22	6	28	4	7	11	61	72	1,010
25-34	25	6	31	9	12	21	48	69	1,054
35-44	20	4	24	13	11	24	52	76	1,398
45-54	22	3	25	13	11	23	52	75	1,422
55-64	19	3	21	17	13	30	48	79	1,515
65-74	13	2	15	17	16	34	51	85	1,125
75+	6	1	8	15	18	33	59	92	957
16-44	22	5	27	9	10	19	54	73	3,462
45-64	20	3	23	15	12	27	50	77	2,937
65+	10	2	11	16	17	33	55	89	2,082
<b>Women aged 16+</b>	<b>19</b>	<b>4</b>	<b>22</b>	<b>13</b>	<b>12</b>	<b>25</b>	<b>53</b>	<b>78</b>	<b>8,481</b>
<b>All aged:</b>									
16-24	21	7	27	3	7	10	63	73	1,924
25-34	27	7	34	9	10	20	46	66	1,862
35-44	23	4	27	13	9	22	50	73	2,601
45-54	22	4	26	14	10	24	50	74	2,675
55-64	19	3	23	22	13	36	42	77	2,883
65-74	13	2	15	27	17	44	41	85	2,159
75+	7	1	9	24	20	44	48	91	1,706
16-44	24	6	29	9	9	17	53	71	6,387
45-64	21	4	24	18	12	30	46	76	5,558
65+	10	2	12	25	18	44	44	88	3,865
<b>All aged 16+</b>	<b>20</b>	<b>4</b>	<b>24</b>	<b>15</b>	<b>12</b>	<b>27</b>	<b>49</b>	<b>76</b>	<b>15,810</b>

(a) Includes those who smoke either daily or occasionally.

(b) Includes those who used to smoke either daily or occasionally.

(c) Includes those who used to smoke either daily or occasionally, and those who have never smoked.



**Table 4.2 Location of smoking (a)***Per cent*

	Outdoors	Indoors	Indoors:				<i>Unweighted base (b)</i>
			At own home	In other people's homes	Whilst travelling by car	Other places indoors	
<b>Male smokers aged:</b>							
16-34	96	76	51	42	52	27	532
35-54	96	78	65	27	56	26	689
55+	88	80	74	15	44	19	543
<b>Male smokers aged 16+</b>	94	78	62	30	52	25	1,764
<b>Female smokers aged:</b>							
16-34	96	73	49	45	50	20	595
35-54	94	77	69	31	50	19	686
55+	81	88	84	17	33	12	564
<b>Female smokers aged 16+</b>	92	79	66	33	46	18	1,845
<b>All smokers aged:</b>							
16-34	96	75	50	43	51	24	1,127
35-54	95	78	67	29	53	23	1,375
55+	85	84	79	16	38	16	1,107
<b>All smokers aged 16+</b>	93	78	64	32	49	22	3,609

(a) In past seven days.

(b) Bases vary: those shown are for all smokers.

**Table 4.3 Non-smoking adults' reported passive smoking, by age and sex**

Per cent

	Regularly exposed to passive smoke	Regularly exposed to passive smoking		Regularly exposed to passive smoke indoors				Unweighted base (a)
		Outdoors	Indoors	At own home	In other people's homes	Whilst travelling by car	Other places	
<b>Non-smoking men aged:</b>								
16-24	51	39	36	14	25	15	14	673
25-34	40	29	26	6	19	6	8	517
35-44	30	23	20	5	15	4	6	847
45-54	31	24	19	7	12	4	6	920
55-64	28	19	18	6	9	5	6	1,056
65-74	23	15	14	6	8	4	5	882
75+	15	9	9	4	4	3	4	670
16-44	40	30	28	8	20	8	9	2,037
45-64	29	21	18	7	11	4	6	1,976
65+	20	12	12	5	6	3	4	1,552
<b>Non-smoking men aged 16+</b>	<b>32</b>	<b>23</b>	<b>21</b>	<b>7</b>	<b>14</b>	<b>6</b>	<b>7</b>	<b>5,565</b>
<b>Non-smoking women aged:</b>								
16-24	56	44	41	15	32	14	12	734
25-34	42	30	29	6	24	7	7	735
35-44	33	23	22	5	18	4	5	1,060
45-54	34	23	23	7	16	6	6	1,074
55-64	29	19	18	5	13	4	4	1,192
65-74	23	16	14	5	7	2	4	958
75+	15	8	9	4	5	1	3	883
16-44	43	32	30	8	24	8	8	2,529
45-64	31	21	21	6	14	5	5	2,266
65+	19	12	11	5	6	2	4	1,841
<b>Non-smoking women aged 16+</b>	<b>34</b>	<b>24</b>	<b>22</b>	<b>7</b>	<b>17</b>	<b>6</b>	<b>6</b>	<b>6,636</b>
<b>All non-smokers aged:</b>								
16-24	54	42	38	14	28	14	13	1,407
25-34	41	29	28	6	22	7	7	1,252
35-44	32	23	21	5	17	4	6	1,907
45-54	32	23	21	7	14	5	6	1,994
55-64	28	19	18	6	11	4	5	2,248
65-74	23	15	14	5	7	3	4	1,840
75+	15	8	9	4	4	2	4	1,553
16-44	42	31	29	8	22	8	9	4,566
45-64	30	21	19	6	13	5	5	4,242
65+	19	12	12	5	6	2	4	3,393
<b>All non-smokers aged 16+</b>	<b>33</b>	<b>24</b>	<b>22</b>	<b>7</b>	<b>15</b>	<b>6</b>	<b>6</b>	<b>12,201</b>

(a) Bases vary: those shown are for all non-smokers.

**Table 4.4 Adults' reported average frequency of drinking alcohol, by age and sex***Per cent*

	Never	Once or twice a year	Once every couple of months	Once or twice a month	Once or twice a week	Three or four days a week	Five or six days a week	Almost every day	<i>Unweighted base</i>
<b>Men aged:</b>									
16-24	12	7	10	22	35	10	2	3	902
25-34	8	4	8	18	37	14	5	7	806
35-44	7	5	7	14	34	18	5	11	1,199
45-54	8	7	8	11	33	18	5	10	1,252
55-64	8	6	6	9	32	18	6	14	1,369
65-74	11	7	8	10	29	14	6	14	1,020
75+	17	13	8	8	24	9	3	17	731
16-44	9	5	8	18	36	14	4	7	2,907
45-64	8	7	7	10	33	18	6	12	2,621
65+	13	10	8	9	27	12	5	16	1,751
<b>Men aged 16+</b>	9	6	8	14	33	15	5	10	7,279
<b>Women aged:</b>									
16-24	11	10	17	23	31	5	1	1	1,007
25-34	9	10	16	22	30	8	2	2	1,050
35-44	8	10	15	15	30	13	4	5	1,397
45-54	11	11	12	12	28	14	5	7	1,413
55-64	14	13	10	13	27	11	5	7	1,516
65-74	22	15	9	12	21	9	3	8	1,113
75+	36	20	10	8	13	4	2	7	930
16-44	10	10	16	20	30	9	3	3	3,454
45-64	12	12	11	13	28	13	5	7	2,929
65+	29	18	9	10	17	6	3	8	2,043
<b>Women aged 16+</b>	15	12	13	15	26	10	3	5	8,426
<b>All aged:</b>									
16-24	11	8	13	23	33	8	2	2	1,909
25-34	9	7	12	20	34	11	3	4	1,856
35-44	8	7	11	15	32	15	5	8	2,596
45-54	9	9	10	12	31	16	5	8	2,665
55-64	11	10	8	11	29	15	6	11	2,885
65-74	17	12	8	11	25	11	5	11	2,133
75+	29	17	9	8	17	6	2	11	1,661
16-44	9	7	12	19	33	12	3	5	6,361
45-64	10	9	9	12	30	15	5	9	5,550
65+	22	14	9	10	21	9	4	11	3,794
<b>All aged 16+</b>	12	10	10	15	30	12	4	8	15,705

**Table 4.5 Adults' reported maximum daily alcohol consumption in the past week, by age and sex***Per cent*

	None	Sensible	Within guidelines	Above guidelines, less than binge	Binge	Above guidelines	Unweighted base (a)
<b>Men aged:</b>							
16-24	40	9	49	13	38	51	892
25-34	29	13	42	15	43	58	798
35-44	25	14	39	17	43	61	1,175
45-54	29	16	45	18	38	55	1,234
55-64	26	18	44	23	33	56	1,332
65-74	32	26	58	23	19	42	982
75+	47	30	77	14	9	23	692
16-44	31	12	43	15	42	57	2,865
45-64	28	17	44	20	36	56	2,566
65+	38	28	66	19	14	34	1,674
<b>Men aged 16+</b>	31	17	48	17	34	52	7,105
<b>Women aged:</b>							
16-24	48	9	57	11	32	43	986
25-34	46	11	57	13	30	43	1,025
35-44	38	13	51	19	30	49	1,366
45-54	39	15	54	20	26	46	1,371
55-64	43	20	62	25	13	38	1,472
65-74	54	22	75	17	7	25	1,059
75+	70	20	90	8	2	10	889
16-44	44	11	55	15	31	45	3,377
45-64	41	17	58	23	20	42	2,843
65+	62	21	83	13	4	17	1,948
<b>Women aged 16+</b>	47	15	62	17	21	38	8,168
<b>All aged:</b>							
16-24	44	9	53	12	35	47	1,878
25-34	37	12	49	14	37	51	1,823
35-44	32	13	45	18	36	55	2,541
45-54	34	15	49	19	32	51	2,605
55-64	34	19	53	24	23	47	2,804
65-74	43	24	67	20	13	33	2,041
75+	61	24	85	11	4	15	1,581
16-44	38	11	49	15	36	51	6,242
45-64	34	17	51	21	27	49	5,409
65+	52	24	75	16	9	25	3,622
<b>All aged 16+</b>	39	16	55	17	27	45	15,273

(a) Based on all adults (drinkers and non-drinkers). See definitions at 4.4.1.

**Table 4.6 Adults' reported fruit and vegetable consumption, by age and sex***Per cent*

	Number of portions of fruit and vegetables consumed the previous day (a)			<i>Unweighted base</i>
	None	Some, but less than five	Five or more	
<b>Men aged:</b>				
16-24	13	53	33	900
25-34	12	54	34	801
35-44	11	60	29	1,181
45-54	6	61	33	1,236
55-64	7	57	36	1,345
65-74	4	56	40	999
75+	5	60	36	723
16-44	12	56	32	2,882
45-64	6	59	34	2,581
65+	4	57	38	1,722
<b>Men aged 16+</b>	9	57	34	7,185
<b>Women aged:</b>				
16-24	11	57	32	994
25-34	10	57	33	1,044
35-44	5	58	37	1,379
45-54	6	56	38	1,403
55-64	3	54	43	1,500
65-74	5	53	43	1,101
75+	4	66	30	920
16-44	9	58	34	3,417
45-64	5	55	40	2,903
65+	5	59	36	2,021
<b>Women aged 16+</b>	6	57	37	8,341
<b>All aged:</b>				
16-24	12	55	33	1,894
25-34	11	55	33	1,845
35-44	8	59	33	2,560
45-54	6	58	36	2,639
55-64	5	56	39	2,845
65-74	4	54	42	2,100
75+	5	63	32	1,643
16-44	10	57	33	6,299
45-64	6	57	37	5,484
65+	4	58	37	3,743
<b>All aged 16+</b>	7	57	35	15,526

(a) See definitions at 4.5.1.

**Table 4.7 Adults' reported physical activity in the past week, by age and sex**

	Number of days of at least moderate exercise/activity in the past week (a)						<i>Unweighted base</i>
	None	One	Two	Three	Four	Five or more	
<b>Men aged:</b>							
16-24	17	7	9	10	9	48	896
25-34	19	9	12	9	8	44	798
35-44	24	8	10	9	7	42	1,191
45-54	27	8	11	9	7	38	1,236
55-64	41	7	10	8	6	28	1,354
65-74	43	8	9	10	6	24	1,002
75+	65	5	7	4	5	13	725
16-44	20	8	10	9	8	44	2,885
45-64	34	7	10	8	6	33	2,590
65+	53	7	8	8	6	19	1,727
<b>Men aged 16+</b>	31	7	10	9	7	36	7,202
<b>Women aged:</b>							
16-24	23	12	16	14	10	26	994
25-34	22	13	17	13	9	26	1,039
35-44	23	12	15	13	8	29	1,381
45-54	32	10	12	12	8	27	1,403
55-64	39	9	12	10	8	23	1,509
65-74	47	9	11	9	6	18	1,120
75+	74	5	6	4	2	8	934
16-44	23	12	16	13	9	27	3,414
45-64	35	9	12	11	8	25	2,912
65+	61	7	8	7	4	13	2,054
<b>Women aged 16+</b>	36	10	13	11	7	23	8,380
<b>All aged:</b>							
16-24	20	9	12	12	9	37	1,890
25-34	21	11	14	11	8	35	1,837
35-44	24	10	12	11	7	35	2,572
45-54	30	9	11	11	8	32	2,639
55-64	40	8	11	9	7	25	2,863
65-74	45	8	10	9	6	21	2,122
75+	71	5	7	4	3	10	1,659
16-44	21	10	13	11	8	36	6,299
45-64	35	8	11	10	7	29	5,502
65+	57	7	8	7	5	16	3,781
<b>All aged 16+</b>	34	9	11	10	7	29	15,582

(a) See definitions at 4.6.1.

**Table 4.8 Adults reported Body Mass Index, by age and sex (a)***Per cent*

	Underweight	Healthy weight	Overweight	Obese	Overweight or obese	Unweighted base
<b>Men aged:</b>						
16-24	6	61	24	10	33	834
25-34	2	43	37	18	55	756
35-44	1	27	46	26	72	1,132
45-54	1	25	47	28	75	1,207
55-64	1	27	45	27	72	1,326
65-74	1	30	47	22	69	998
75+	2	44	43	12	55	693
16-44	3	44	36	18	54	2,722
45-64	1	26	46	28	73	2,533
65+	1	36	45	18	63	1,691
<b>Men aged 16+</b>	2	36	41	21	62	6,946
<b>Women aged:</b>						
16-24	8	63	18	10	28	859
25-34	4	54	25	17	42	872
35-44	1	44	31	24	54	1,281
45-54	1	37	35	28	62	1,333
55-64	1	37	37	25	62	1,467
65-74	2	37	37	23	61	1,069
75+	5	44	34	17	51	872
16-44	4	53	25	18	43	3,012
45-64	1	37	36	26	62	2,800
65+	4	41	35	20	56	1,941
<b>Women aged 16+</b>	3	45	31	21	52	7,753
<b>All aged:</b>						
16-24	7	62	21	10	31	1,693
25-34	3	48	31	18	49	1,628
35-44	1	36	38	25	63	2,413
45-54	1	31	41	28	68	2,540
55-64	1	32	41	26	67	2,793
65-74	1	34	42	23	65	2,067
75+	4	44	37	15	52	1,565
16-44	3	48	30	18	48	5,734
45-64	1	32	41	27	68	5,333
65+	2	39	40	19	59	3,632
<b>All aged 16+</b>	2	41	36	21	57	14,699

(a) See definitions at 4.7.1. Excludes women who stated they were pregnant.

**Table 4.9 Adults who reported key health-related lifestyles, by the National Statistics Socio-Economic Classification (NS-SEC) of the household reference person (a)***Per cent*

Socio-economic classification of household reference person	Smoker	Non-smoker exposed to passive smoke indoors	Consumption of alcohol		Consumption of fruit and vegetables	Exercise or physical activity done	Body Mass Index		Unweighted base (g)
			Above guidelines (b)	Binge (b)	Meets guidelines (c)	Meets guidelines (d)	Overweight or obese (e)	Obese (f)	
<b>Age-standardised</b>									
Managerial and professional	15	16	50	30	40	26	54	18	5,598
Intermediate	22	21	45	28	35	33	58	21	3,193
Routine and manual	31	30	40	25	31	31	60	24	6,313
Never worked and long-term unemployed	44	31	27	18	28	25	56	28	404
<b>Observed</b>									
Managerial and professional	16	15	51	30	40	26	55	18	5,598
Intermediate	22	21	45	28	35	33	58	21	3,193
Routine and manual	30	29	40	25	31	30	60	24	6,313
Never worked and long-term unemployed	42	30	24	17	28	25	54	26	404
<b>All aged 16+</b>	24	22	45	27	35	29	57	21	16,018

(a) See definitions at 4.8.1 and glossary at Appendix A for explanations of age-standardisation, National Statistics Socio-Economic Classification, and household reference person.

(b) Based on all adults (drinkers and non-drinkers). See definitions at 4.4.1.

(c) See definitions at 4.5.1.

(d) See definitions at 4.6.1.

(e) BMI of 25+. See definitions at 4.7.1.

(f) BMI of 30+. See definitions at 4.7.1.

(g) Bases vary: those shown are for the whole sample.



**Table 4.10 Adults who reported key health-related lifestyles, by the Welsh Index of Multiple Deprivation (a)**

Per cent

2008 Welsh Index of Multiple Deprivation quintile	Smoker	Non-smoker exposed to passive smoke indoors	Consumption of alcohol		Consumption of fruit and vegetables	Exercise or physical activity done	Body Mass Index		Unweighted base (g)
			Above guidelines (b)	Binge (b)	Meets guidelines (c)	Meets guidelines (d)	Overweight or obese (e)	Obese (f)	
<b>Age-standardised</b>									
1 (least deprived)	15	14	50	29	38	27	52	16	3,177
2	20	18	45	27	38	30	56	19	3,482
3	23	22	46	28	36	32	58	21	3,475
4	28	26	44	28	33	30	59	24	3,099
5 (most deprived)	33	33	39	25	31	27	61	26	2,785
<b>Observed</b>									
1 (least deprived)	15	13	49	28	38	26	53	17	3,177
2	20	18	45	27	38	29	56	20	3,482
3	23	22	45	28	36	32	58	21	3,475
4	28	27	44	29	33	30	58	23	3,099
5 (most deprived)	34	34	39	25	31	28	61	26	2,785
<b>All aged 16+</b>	24	22	45	27	35	29	57	21	16,018

(a) See definitions at 4.8.1 and glossary at Appendix A for explanations of age-standardisation and Welsh Index of Multiple Deprivation.

(b) Based on all adults (drinkers and non-drinkers). See definitions at 4.4.1.

(c) See definitions at 4.5.1.

(d) See definitions at 4.6.1.

(e) BMI of 25+. See definitions at 4.7.1.

(f) BMI of 30+. See definitions at 4.7.1.

(g) Bases vary: those shown are for the whole sample.

**Table 4.11 Adults who reported key health-related lifestyles, 2003/04-2009**

Per cent

	2003/04	2004/05	2005/06	2007(a)	2008	2009
<b>Men aged 16+:</b>						
Smoker	27	29	27	25	25	26
Non-smoking adults regularly exposed to passive smoke indoors	-	-	-	-	23	21
Consumption of alcohol: above guidelines (b)	-	-	-	-	52	52
Consumption of alcohol: binge (b)	-	-	-	-	35	34
Consumption of fruit and vegetables: meets guidelines (c)	-	-	-	-	35	34
Exercise or physical activity done: meets guidelines (d)	36	36	38	36	38	36
Overweight or obese (e)	59	60	61	62	62	62
Obese (f)	17	18	19	20	21	21
<b>Women aged 16+:</b>						
Smoker	26	26	24	23	22	22
Non-smoking adults regularly exposed to passive smoke indoors	-	-	-	-	24	22
Consumption of alcohol: above guidelines (b)	-	-	-	-	38	38
Consumption of alcohol: binge (b)	-	-	-	-	22	21
Consumption of fruit and vegetables: meets guidelines (c)	-	-	-	-	37	37
Exercise or physical activity done: meets guidelines (d)	22	23	25	23	22	23
Overweight or obese (e)	49	50	51	51	53	52
Obese (f)	18	18	20	21	21	21
<b>All aged 16+:</b>						
Smoker	26	28	25	24	24	24
Non-smoking adults regularly exposed to passive smoke indoors	-	-	-	-	23	22
Consumption of alcohol: above guidelines (b)	-	-	-	-	45	45
Consumption of alcohol: binge (b)	-	-	-	-	28	27
Consumption of fruit and vegetables: meets guidelines (c)	-	-	-	-	36	35
Exercise or physical activity done: meets guidelines (d)	29	29	31	29	30	29
Overweight or obese (e)	54	55	56	57	57	57
Obese (f)	18	18	19	21	21	21
<b>Unweighted bases (g)</b>						
Men aged 16+	7,486	7,437	6,691	6,418	6,119	7,412
Women aged 16+	8,812	8,598	7,614	7,499	7,194	8,606
All aged 16+	16,298	16,035	14,305	13,917	13,313	16,018

(a) From 2007 the fieldwork runs on a calendar year basis.

(b) Based on all adults (drinkers and non-drinkers). See definitions at 4.4.1.

(c) See definitions at 4.5.1.

(d) See definitions at 4.6.1.

(e) BMI of 25+. See definitions at 4.7.1.

(f) BMI of 30+. See definitions at 4.7.1.

(g) Bases vary: those shown are for the whole sample.



**Chapter 5**  
**Health Service Use**



## 5 Health service use

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### 5.1 Introduction

This chapter focuses on reported use of health services by adults, with some information on medicines.

Broad figures for Wales are provided along with age and sex breakdowns. For a selection of key measures, information is provided by socio-economic group and area deprivation. Local authority /health board breakdowns for 2008 + 2009 combined are provided in a separate report<sup>1</sup>.

The survey asked adults (aged 16 and over) whether they had used a range of health services recently. It complements other administrative sources of data about use of health services as it includes some information about the characteristics of people using them, includes those making little or no use of services, and covers some services for which information from other data sources is not available. The survey relies on a self-completion questionnaire - the results, therefore, reflect people's own interpretation of the health services they have used.

This chapter includes information on:

- use of GP services (5.3)
- use of hospital services (5.4)
- use of other selected health services (5.5)
- medicines (5.6)
- key measures by socio-demographic factors (5.7)

## 5.2 Summary

- 18% of adults reported that they had talked to a GP about their own health in the past two weeks.
- 33% of adults reported attending a hospital outpatient department in the past twelve months, and 17% attending a hospital casualty department.
- 5% of adults reported an accident, injury or poisoning needing a visit to hospital in the past three months.
- 9% of adults reported being a hospital day patient in the past twelve months, and 10% reported staying in hospital as an inpatient (overnight or longer).
- 70% of adults reported using a dentist in the past twelve months, 70% a pharmacist and 50% an optician.
- Use of many health services increased with age (but not casualty, where use fluctuated, or dentists, where use decreased with age). For some services, use by younger women was also relatively high, possibly linked to family planning and child bearing.
- 51% of adults reported being on regular prescribed medication. The percentage increased with age.
- Adults in the most deprived areas were most likely to report talking to a GP and least likely to report using a dentist or optician.

## 5.3 Use of GP services

### 5.3.1 Methods and definitions

The survey asked adults whether they had talked to a GP (family doctor) about their own health in the past two weeks (either in person or by telephone). Those who had were asked how many times they had done so, and whether they received a prescription. The survey also asked whether adults had seen a practice nurse at the GP surgery about their own health in the past 2 weeks.

### 5.3.2 Results

In the past two weeks:

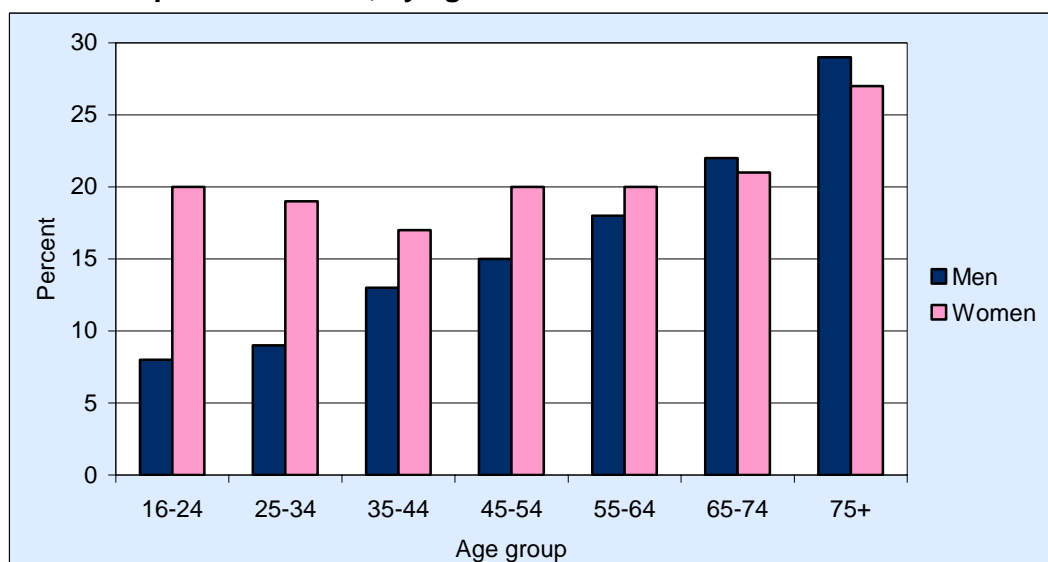
- 18% of adults reported that they had talked to a GP about their own health
- 10% of adults reported that they had seen a practice nurse at the GP surgery about their own health.

The percentage talking to a GP and percentage seeing a practice nurse increased with age (figure 5a shows the pattern for GPs). For younger adults, women were more likely than men to have talked to a GP or seen a practice nurse. Many consultations by women of this age may be associated with family planning or pregnancy, which could account for some of the difference.

Of those talking to a GP about their health, 72% had received a prescription (not shown in table).

Table 5.1, figure 5a

Figure 5a: Percentage who reported talking to a GP about their own health in the past two weeks, by age and sex



## 5.4 Use of hospital services

### 5.4.1 Methods and definitions

The survey asked adults whether they had attended the outpatient or casualty department of a hospital as a patient in the past twelve months (apart from straightforward ante- or post-natal visits), and whether they had been in hospital for treatment as a day patient (admitted to a hospital bed or day ward but not remaining overnight) or inpatient (overnight or longer) in the past twelve months. They were also asked if any of their visits were paid for privately.

The survey also asked adults whether they had had any accident, injury or poisoning needing hospital treatment or a visit to casualty in the past three months. If so, they were asked what the accident was and where the most recent accident took place.

### 5.4.2 Results

In the past three months:

- 5% of adults reported an accident, injury or poisoning needing a visit to hospital.

In the past twelve months:

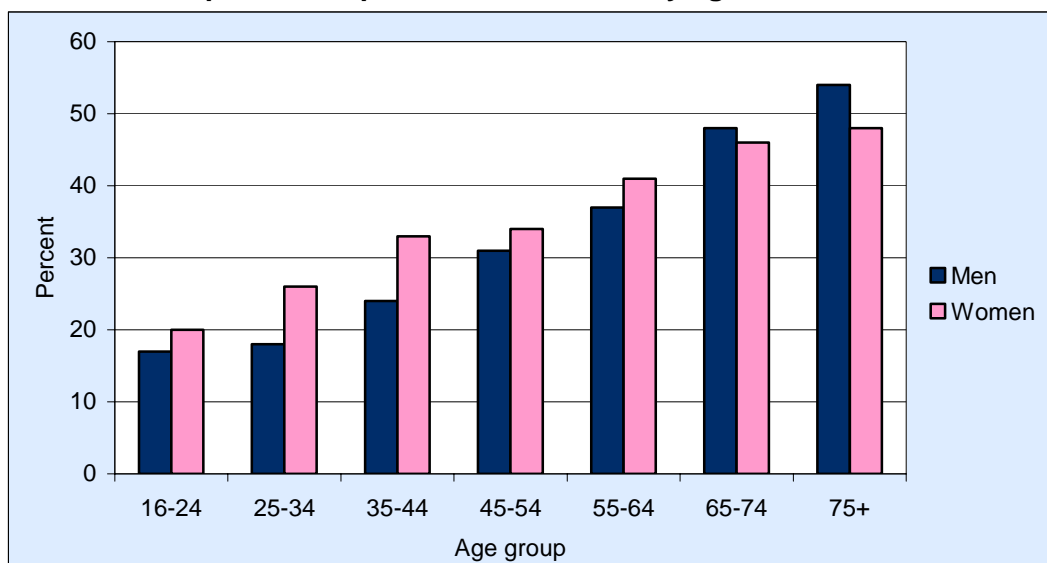
- 33% of adults reported attending the outpatient department of a hospital
- 17% of adults reported attending the casualty department of a hospital
- 9% of adults reported being in hospital for treatment as a day patient
- 10% of adults reported being in hospital as an inpatient (overnight or longer).

The percentage of adults using hospital services generally increased with age, with the exception of casualty and needing a visit to hospital following an accident, injury or poisoning (where rates fluctuated, but were relatively high for young men). For inpatients, rates were relatively high for women aged 25-34 (possibly linked to maternity stays). Figures 5b and 5c show the use by age and sex for outpatients and inpatients.

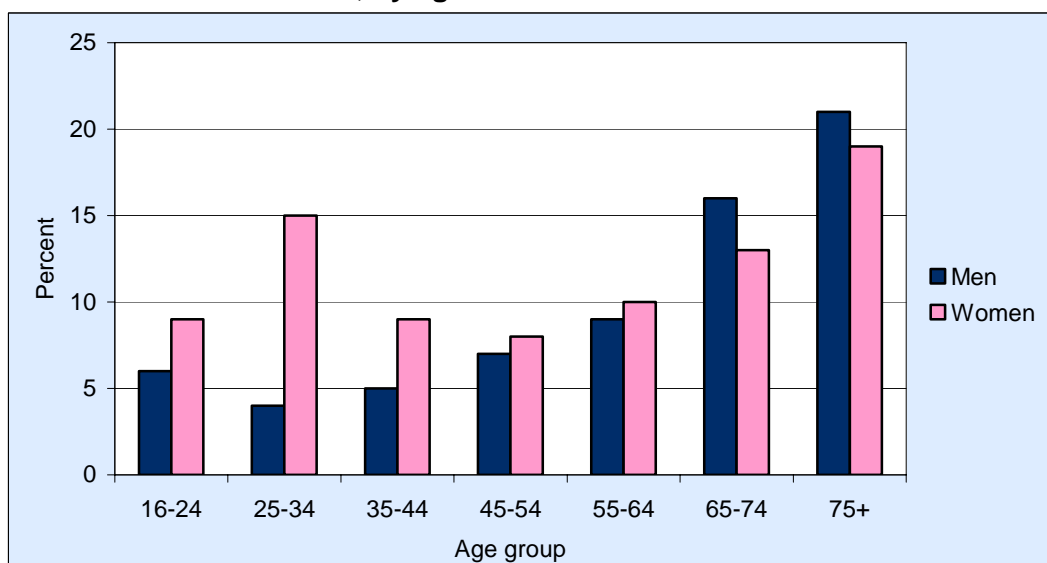
**Table 5.1, figures 5b, 5c**



**Figure 5b: Percentage who reported attending the outpatient department of a hospital in the past twelve months, by age and sex**



**Figure 5c: Percentage who reported being in hospital as an inpatient in the past twelve months, by age and sex**



## 5.5 Use of other selected health services

### 5.5.1 Methods and definitions

The survey asked adults if they had used a range of other services in the past twelve months and for some services asked whether they had any private treatment.

## 5.5.2 Results

In the past twelve months:

- 70% of adults reported using a dentist
- 70% of adults reported using a pharmacist
- 50% of adults reported using an optician
- 14% of adults reported using a health visitor, district or other community nurse
- 12% of adults reported using a chiropodist.

For chiropodists and opticians, the percentage of adults using them increased with age, while for dentists older people were less likely to have used them. The percentage of men using health visitors, district or other community nurses increased with age, while for women there were two peaks: one in women aged 25-34 (possibly linked with child and maternal health), and one in older women aged 75 and over. Women were more likely than men to use many of the services.

The survey also covered a range of other services, including physiotherapist (12%), the NHS Direct helpline (9%), GP out of hours services (8%) and an osteopath (5%). The NHS Direct helpline was more likely to be used by younger adults aged 25-34 than other age groups.

**Table 5.2**

## 5.6 Medicines

### 5.6.1 Methods and definitions

The survey asked adults whether they had bought any medicine (conventional and others) during the past four weeks. Medicine was defined as anything taken or put on the skin, such as tablets, powders, creams, sprays and drops, to treat a medical condition. Those who had bought medicine were asked what kinds they bought.

Adults were also asked whether they were on regular medication (for a year or more) prescribed by a doctor.

### 5.6.2 Results

#### ***Buying medicine***

- 37% of adults reported buying medicine in the past four weeks.

Women were more likely than men to have bought medicines. The percentage of people purchasing medicines was higher in adults aged 25-54 than in younger and older adults.

Of those buying medicine, 90% had bought conventional medicines (e.g. aspirin, eye-drops, antacids, cough medicine), 30% mineral or vitamin supplements, 9%

herbal medicines and 3% homeopathic medicines (some people bought more than one type of medicine) (not shown in table).

Table 5.3

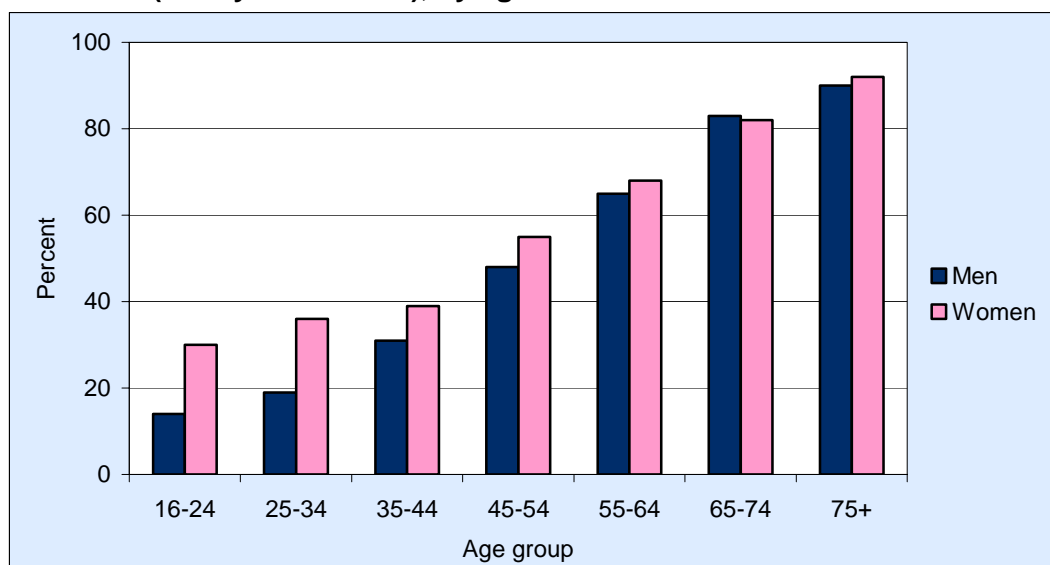
### ***On regular prescribed medication***

- 51% of adults reported being on regular prescribed medication.

The percentage of adults on regular prescribed medication increased with age, and was generally higher for women than men (figure 5d).

Table 5.3, figure 5d

**Figure 5d: Percentage who reported being on regular prescribed medication (for a year or more), by age and sex**



## 5.7 Key measures by socio-demographic factors

### 5.7.1 Methods and definitions

For some key variables, information is shown by socio-economic group and area deprivation. Observed and age-standardised rates or means are shown. Age-standardisation removes the effect of age from comparisons between groups, in this case between different categories of socio-economic group and area deprivation. See the glossary (Appendix A) for further details.

#### ***Socio-economic group***

The socio-economic classification in use in this report is the 3-class version of the National Statistics Socio-Economic Classification (NS-SEC) of the Household Reference Person (HRP). See the glossary (Appendix A) for further details.

#### ***Area deprivation***

Area deprivation is based on the Welsh Index of Multiple Deprivation 2008 (WIMD). WIMD gives deprivation scores for small areas in Wales. These small areas were split into five groups (“fifths”) of deprivation according to overall WIMD scores and each respondent to the Welsh Health Survey was allocated to the relevant fifth. See the glossary (Appendix A) for further details.

### 5.7.2 Results

#### ***Socio-economic group (NS-SEC)***

Adults in managerial and professional households were most likely to report using a dentist and an optician in the past year. Respondents in households of lower socio-economic classification were more likely to report talking to a GP than those in a higher socio-economic classification.

**Table 5.4**

#### ***Area deprivation (WIMD)***

Adults in the most deprived areas were most likely to report talking to a GP and least likely to report using a dentist or an optician.

**Table 5.5**

## References and notes

1. Welsh Health Survey: 2008 + 2009 Local Authority / Health Board Results.  
[www.wales.gov.uk/statistics](http://www.wales.gov.uk/statistics)

## Tables

**Table 5.1 Adults who reported using GP and hospital services, by age and sex***Per cent*

	In the past two weeks		In the past three months	In the past twelve months				<i>Unweighted base (b)</i>
	Talked to family doctor (GP)	Saw practice nurse	Attended hospital because of accident (a)	Attended casualty department	Attended outpatient department	In hospital as a day patient	In hospital as an inpatient	
<b>Men aged:</b>								
16-24	8	3	8	23	17	5	6	929
25-34	9	3	7	18	18	4	4	817
35-44	13	4	5	15	24	7	5	1,213
45-54	15	8	4	13	31	9	7	1,269
55-64	18	10	3	14	37	11	9	1,380
65-74	22	17	2	17	48	14	16	1,040
75+	29	24	6	22	54	18	21	764
16-44	10	3	6	19	20	5	5	2,959
45-64	17	9	4	14	34	10	8	2,649
65+	25	20	4	19	50	15	19	1,804
<b>Men aged 16+</b>	15	8	5	17	30	9	9	7,412
<b>Women aged:</b>								
16-24	20	7	6	20	20	7	9	1,029
25-34	19	9	6	17	26	8	15	1,060
35-44	17	10	4	15	33	9	9	1,407
45-54	20	9	4	15	34	9	8	1,434
55-64	20	10	4	14	41	11	10	1,535
65-74	21	16	4	15	46	12	13	1,151
75+	27	18	6	19	48	15	19	990
16-44	19	9	5	17	26	8	11	3,496
45-64	20	10	4	14	38	10	9	2,969
65+	24	17	5	17	47	13	16	2,141
<b>Women aged 16+</b>	20	11	5	16	35	10	11	8,606
<b>All aged:</b>								
16-24	14	5	7	22	18	6	7	1,958
25-34	14	6	6	18	22	6	10	1,877
35-44	15	7	4	15	29	8	7	2,620
45-54	17	8	4	14	33	9	8	2,703
55-64	19	10	4	14	39	11	10	2,915
65-74	22	16	3	16	47	13	15	2,191
75+	28	20	6	20	50	16	20	1,754
16-44	15	6	6	18	23	7	8	6,455
45-64	18	9	4	14	36	10	9	5,618
65+	25	18	4	18	49	14	17	3,945
<b>All aged 16+</b>	18	10	5	17	33	9	10	16,018

(a) Accident, injury or poisoning needing hospital treatment or a visit to casualty.

(b) Bases vary: those shown are for the whole sample.

**Table 5.2 Adults who reported using other selected health services, by age and sex**

Per cent

	In the past twelve months									Unweighted base (b)
	Pharm- acist	Dentist	Optician	District nurse (a)	Chiro- podist	GP out of hours services	NHS Direct helpline	Physio- therapist	Osteo- path	
<b>Men aged:</b>										
16-24	49	65	29	5	1	5	7	8	2	929
25-34	55	60	28	5	1	6	11	9	4	817
35-44	58	67	32	7	2	5	7	11	6	1,213
45-54	64	71	47	9	6	4	4	12	6	1,269
55-64	74	70	53	13	10	5	5	13	6	1,380
65-74	78	67	60	16	19	5	5	11	6	1,040
75+	81	56	70	27	37	11	6	10	3	764
16-44	54	65	30	6	1	5	8	9	4	2,959
45-64	69	71	50	11	8	5	5	12	6	2,649
65+	79	62	64	21	27	8	5	11	5	1,804
<b>Men aged 16+</b>	64	66	43	10	8	6	7	10	5	7,412
<b>Women aged:</b>										
16-24	69	74	44	17	2	12	14	7	2	1,029
25-34	75	74	43	23	3	12	18	9	3	1,060
35-44	74	83	48	13	4	9	13	13	7	1,407
45-54	73	79	59	12	8	7	8	15	6	1,434
55-64	77	78	62	17	16	7	7	16	8	1,535
65-74	80	71	68	18	33	7	7	17	7	1,151
75+	83	51	70	28	50	13	7	14	4	990
16-44	73	77	45	18	3	11	15	10	4	3,496
45-64	75	78	60	15	12	7	8	16	7	2,969
65+	81	60	69	23	43	10	7	15	5	2,141
<b>Women aged 16+</b>	75	74	56	18	15	10	11	13	5	8,606
<b>All aged:</b>										
16-24	59	69	36	11	2	9	10	8	2	1,958
25-34	65	67	36	14	2	9	15	9	4	1,877
35-44	66	75	40	10	3	7	10	12	6	2,620
45-54	69	75	53	11	7	6	6	14	6	2,703
55-64	76	74	58	15	13	6	6	14	7	2,915
65-74	79	69	64	17	26	6	6	14	6	2,191
75+	82	53	70	28	45	12	6	12	4	1,754
16-44	63	71	37	12	2	8	11	9	4	6,455
45-64	72	75	55	13	10	6	6	14	6	5,618
65+	80	61	67	22	36	9	6	13	5	3,945
<b>All aged 16+</b>	70	70	50	14	12	8	9	12	5	16,018

(a) Health visitor, district or community nurse.

(b) Bases vary: those shown are for the whole sample.

**Table 5.3 Adults' purchase and use of medicine, by age and sex***Per cent*

	Purchased medicine (a)	On regular prescribed medication (b)	<i>Unweighted base (c)</i>
<b>Men aged:</b>			
16-24	24	14	929
25-34	32	19	817
35-44	33	31	1,213
45-54	32	48	1,269
55-64	29	65	1,380
65-74	27	83	1,040
75+	25	90	764
16-44	30	22	2,959
45-64	30	57	2,649
65+	26	86	1,804
<b>Men aged 16+</b>	29	46	7,412
<b>Women aged:</b>			
16-24	35	30	1,029
25-34	47	36	1,060
35-44	49	39	1,407
45-54	51	55	1,434
55-64	45	68	1,535
65-74	38	82	1,151
75+	34	92	990
16-44	44	35	3,496
45-64	48	61	2,969
65+	36	87	2,141
<b>Women aged 16+</b>	43	56	8,606
<b>All aged:</b>			
16-24	29	21	1,958
25-34	39	27	1,877
35-44	41	35	2,620
45-54	42	52	2,703
55-64	37	67	2,915
65-74	33	82	2,191
75+	30	91	1,754
16-44	37	28	6,455
45-64	39	59	5,618
65+	32	86	3,945
<b>All aged 16+</b>	37	51	16,018

- (a) Purchased any medicine in the past four weeks, excluding anything got with a prescription, even if paid for.  
 (b) For a year or more.  
 (c) Bases vary: those shown are for the whole sample.

**Table 5.4 Adults who reported using selected health services, by the National Statistics Socio-Economic Classification (NS-SEC) of the household reference person (a)***Per cent*

Socio-economic classification of household reference person	In the past two weeks	In the past three months	In the past twelve months					Unweighted base (c)
	Family doctor (GP)	Attended hospital because of accident (b)	Outpatient department	In hospital as an inpatient	Pharmacist	Dentist	Optician	
<b>Age-standardised</b>								
Managerial and professional	16	4	33	9	72	78	53	5,598
Intermediate	18	5	32	10	68	72	49	3,193
Routine and manual	19	5	33	11	69	63	47	6,313
Never worked and long-term unemployed	23	8	32	14	73	57	46	404
<b>Observed</b>								
Managerial and professional	16	4	33	9	72	78	53	5,598
Intermediate	18	5	32	10	69	72	49	3,193
Routine and manual	20	5	33	11	69	63	48	6,313
Never worked and long-term unemployed	23	7	31	15	70	53	46	404
<b>All aged 16+</b>	18	5	33	10	70	70	50	16,018

(a) See definitions at 5.9.1 and glossary at Appendix A for explanations of age-standardisation, National Statistics Socio-Economic Classification and household reference person.

(b) Accident, injury or poisoning needing hospital treatment or a visit to casualty.

(c) Bases vary: those shown are for the whole sample.



**Table 5.5 Adults who reported using selected health services, by the Welsh Index of Multiple Deprivation (a)***Per cent*

2008 Welsh Index of Multiple Deprivation quintile	In the past two weeks	In the past three months	In the past twelve months					<i>Unweighted base (c)</i>
	Family doctor (GP)	Attended hospital because of accident (b)	Outpatient department	In hospital as an inpatient	Pharmacist	Dentist	Optician	
<b>Age-standardised</b>								
1 (least deprived)	17	5	32	8	71	79	54	3,177
2	16	4	32	9	69	74	50	3,482
3	18	5	34	10	70	72	50	3,475
4	18	5	32	10	69	66	48	3,099
5 (most deprived)	21	5	34	13	69	57	46	2,785
<b>Observed</b>								
1 (least deprived)	17	4	33	8	72	79	55	3,177
2	16	4	33	9	70	74	50	3,482
3	19	5	34	10	70	72	50	3,475
4	18	5	31	10	68	66	47	3,099
5 (most deprived)	20	5	33	12	69	57	45	2,785
<b>All aged 16+</b>	18	5	33	10	70	70	50	16,018

(a) See definitions at 5.9.1 and glossary at Appendix A for explanations of age-standardisation and Welsh Index of Multiple Deprivation.

(b) Accident, injury or poisoning needing hospital treatment or a visit to casualty.

(c) Bases vary: those shown are for the whole sample.





**Chapter 6**  
**Health of Children**



## 6 Health of children

---

### 6.1 Introduction

This chapter considers the general health, health-related lifestyle and service use of children.

Broad figures for Wales are provided along with breakdowns by sex. Due to the relatively small numbers of children in the sample, breakdowns by other measures such as age and socio-demographic factors are not shown.

For children aged 0-12 years, parents were asked to complete the questionnaire on behalf of their child (with slightly different questions for children aged 0-3 and those aged 4-12). Young people aged 13-15 years were asked to complete the questionnaire themselves. The interviewer also measured the height and weight of children aged 2 and over.

This chapter includes information on:

- general health and well-being (6.3)
- eating habits (6.4)
- physical activity (6.5)
- body mass index (6.6)
- health service use (6.7)
- trends for key measures (6.8)

As the Welsh Health Survey relies on self-completion questionnaires the results reflect people's own understanding of their children's health rather than a clinical assessment of their medical condition.

The results from this survey are not comparable with those from school-based surveys because of differences in the approach used (whether conducted at school or at home), in the precise questions asked, and in the age of children included.

## 6.2 Summary

- 67% of children were reported to have very good general health, 27% good, and 5% fair.
- 20% of children were reported as having a long-standing illness, including 6% with a limiting long-standing illness.
- 60% of children were reported as eating fruit every day, and 49% vegetables.
- 54% of children were reported as exercising for at least an hour on five or more days of the previous week, including 38% who did so every day.
- 34% of children were estimated to be overweight or obese, including 19% obese.
- For 12% of children, it was reported that a GP had been consulted about their health in the past two weeks.

## 6.3 General health and well-being

### 6.3.1 Methods and definitions

The Welsh Health Survey children's questionnaires ask about self-assessed general health and illnesses.

#### ***Self- assessed health***

General health was classified using the following scale: very good, good, fair, bad or very bad.

#### ***Illnesses and other health problems***

The survey asked details of any illness, disability or health problem children had had for some time and whether any of these limited their daily activities. Those with a long-standing illness were asked to record the nature of the problem (up to six different health problems could be recorded). Those reporting a limiting long-term illness were also asked to record details of the problem (up to three health problems). Long-standing illnesses and limiting long-standing illnesses were coded into categories according to the International Classification of Diseases (ICD10) (see the glossary, Appendix A).

The survey also asked whether children were currently being treated for various illnesses and conditions. These included asthma, other breathing problems, skin complaints, ear complaints, eye complaints (including wearing glasses or contact lenses to correct vision), problems with bones, joints, muscles and anxiety, depression or mental illness.

### 6.3.2 Results

#### ***General Health***

- 67% of children were reported to have very good general health, 27% good, and 5% fair.
- 1% were reported as having bad health and fewer than 1% very bad health.

#### ***Illnesses***

- 20% of children were reported as having a long-standing illness. The most commonly reported long-standing illnesses were asthma (5%), a skin complaint (3%) and mental illness (2%).
- 6% of children were reported as having a limiting long-standing illness.
- Among children who were reported as currently being treated for an illness or condition, the most common were eye complaints (11% - includes wearing glasses), a skin complaint (10%), and asthma (10%).

Note that different estimates are obtained depending on whether the question asks about long-standing illness (which may or may not be being treated) or about illnesses currently being treated (which may or may not be long-standing).

There was little difference between boys and girls with the exception of asthma which was slightly more prevalent in boys.

**Table 6.1**

## **6.4 Eating habits**

### **6.4.1 Methods and definitions**

Eating habits were assessed through a question asking about a range of foods. The survey asked how many times a week children aged 4-15 usually ate certain foods.

### **6.4.2 Results**

- 60% of children were reported as eating fruit every day, and 49% vegetables.
- 31% of children were reported as eating sweets every day, and 20% crisps.
- 10% of children were reported as drinking soft drinks containing sugar every day, 20% low sugar soft drinks, and 66% water.

**Table 6.2**

## **6.5 Physical activity**

### **6.5.1 Methods and definitions**

The survey asked how much exercise children aged 4-15 had undertaken on each day in the last week. In the question, “exercise” referred to physical activity that left the child feeling warm or slightly out of breath. Respondents were asked to include exercise done at school and outside of school. Some guidelines suggest that children do at least 60 minutes of moderate-intensity physical activity on 5 or more days a week<sup>1,2</sup>, and others that this level of physical activity should be done every day<sup>3</sup>. Both measures are reported here.

### **6.5.2 Results**

- 54% of children were reported as undertaking physical activity for at least an hour on five or more days of the previous week, including 38% who did so every day.

A higher proportion of boys than girls reported these levels of physical activity.

**Table 6.3**



## 6.6 Body Mass Index

### 6.6.1 Methods and definitions

The heights and weights of children aged 2-15 were measured by the interviewer.

In order to define being overweight or obese a measure is required which allows for differences in weight due to height. The Body Mass Index (BMI) is calculated as weight (kg) divided by squared height (m<sup>2</sup>).

BMI was calculated for all children with valid height and weight measurements. Defining overweight and obesity in children is problematic. Constant changes in body composition during growth mean that the relationship between weight-for-height is age dependent. The child overweight and obesity prevalence estimates in this report have been produced using the 85th percentile (overweight) and 95th percentile (obese) of the 1990 UK BMI reference curves<sup>4</sup>. They are not comparable with estimates produced on a different basis (for instance, those using international cut-offs) or with adult estimates. See the glossary (Appendix A) and technical summary (chapter 7) for further details.

### 6.6.2 Results

- 34% of children were classified as overweight or obese, including 19% obese.

There was little difference between the levels of overweight and obesity in boys and girls.

Estimates using international cut-off points instead of the UK reference curves suggest that around 27% of children would be classified as overweight or obese, including 8% obese (not shown in table).

**Table 6.4**

## 6.7 Health service use

### 6.7.1 Methods and definitions

The survey asked about children's use of a range of health services; these included GP services, hospital services and other selected community and family health services.

Respondents were asked whether someone had talked to a GP (family doctor) about the child's health in the past two weeks (either in person or by telephone), and whether they had received a prescription.

Respondents were asked whether children had used a range of hospital and other selected community and family health services in the past twelve months. They were also asked whether children had had any accident, injury or poisoning in the past three months needing hospital treatment or a visit to casualty.

## 6.7.2 Results

- For 12% of children, it was reported that a GP had been consulted about their health in the past two weeks.
- 7% of children were reported as having an accident, injury or poisoning needing a visit to hospital in the past three months.
- 21% of children were reported to have attended an Accident and Emergency (casualty) department of a hospital in the past twelve months, and 22% an outpatient department.
- 77% of children were reported to have used a dentist in the past twelve months, and 33% an optician.

**Table 6.5**

## 6.8 Trends for key measures

Three years of data is available for children, and estimates are shown for some key variables.

### 6.8.1 Results

During this time, there has been little change in children's reported health and levels of overweight and obesity. The proportion of children estimated as obese in 2009 was slightly higher than in 2008, but the sample sizes were fairly small and the difference was not statistically significant. The 2009 estimate was similar to that for 2007.

**Table 6.6**

## References and notes

1. Health Challenge Wales: fitness.  
[www.wales.gov.uk/hcwsubsite/healthchallenge/individuals/health/fitness](http://www.wales.gov.uk/hcwsubsite/healthchallenge/individuals/health/fitness)
2. Sports Council Wales: active young people.  
[www.sports-council-wales.org.uk/getactiveinthecommunity/active-young-people/10864](http://www.sports-council-wales.org.uk/getactiveinthecommunity/active-young-people/10864)
3. Department of Health: physical activity.  
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4. Cole T, Freeman JV, Preece MA, Body Mass Index reference curves for the UK, 1990.  
[www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1511150](http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1511150)

## Tables

**Table 6.1** Reported health status and illnesses of children, by sex

*Per cent*

	Boys	Girls	Children
<b>General health status</b>			
Very Good	67	68	67
Good	26	27	27
Fair	5	4	5
Bad	1	1	1
Very bad	-	-	-
<b>Illnesses</b>			
Long-standing illness	22	19	20
Limiting long-standing illness	6	5	6
<b>Selected long-standing illnesses</b>			
Asthma	6	4	5
Skin complaint	2	4	3
Mental illness	3	1	2
<b>Illnesses currently being treated</b>			
Asthma	12	8	10
Another respiratory condition	3	2	2
Skin complaint	10	11	10
Ear complaint	3	4	3
Eye complaint	11	11	11
Musculoskeletal problems	4	3	4
Any mental illness	2	1	1
<b>Unweighted base (a)</b>	<b>1,624</b>	<b>1,599</b>	<b>3,223</b>

(a) Bases vary: those shown are for the whole sample of children aged under 16.

**Table 6.2** Reported eating habits of children, by sex (a)

*Per cent*

	Boys	Girls	Children
<b>Eat daily</b>			
Fruit	59	61	60
Vegetables	47	52	49
Sweets	31	30	31
Chips	6	5	5
Potato crisps	19	20	20
Skimmed or semi-skimmed milk	63	62	63
Full fat milk	29	24	27
Low sugar soft drinks	21	19	20
Soft drinks	9	11	10
Water	64	68	66
<b>Eat less than once a week</b>			
Fruit	8	7	7
Vegetables	8	6	7
Sweets	6	7	6
Chips	19	19	19
Potato crisps	15	15	15
Skimmed or semi-skimmed milk	25	25	25
Full fat milk	62	68	65
Low sugar soft drinks	42	46	44
Soft drinks	60	64	62
Water	11	11	11
<b>Unweighted base (b)</b>	1,212	1,198	2,410

(a) Children aged 4-15.

(b) Bases vary: those shown are for the whole sample of children aged 4-15.

**Table 6.3** Reported physical activity of children, by sex (a)

*Per cent*

	Boys	Girls	Children
<b>Number of days with at least one hour of exercise in past week</b>			
None	9	15	12
One	5	5	5
Two	7	13	10
Three	7	12	10
Four	9	11	10
Five	9	9	9
Six	7	7	7
Seven	47	29	38
Five or more	63	45	54
<b>Unweighted base (b)</b>	1,212	1,198	2,410

(a) Children aged 4-15.

(b) Bases vary: those shown are for the whole sample of children aged 4-15.

**Table 6.4 Body Mass Index of children, by sex (a)**

*Per cent*

	Boys	Girls	Children
Overweight (b)	15	15	15
Obese (b)	20	18	19
Overweight or obese (b)	35	33	34
<b>Unweighted base</b>	<b>1,045</b>	<b>974</b>	<b>2,019</b>

(a) Children aged 2-15 with valid height and weight measurements.

(b) Based on 85th (overweight) and 95th (obese) percentiles of the 1990 UK BMI reference curves. See definitions at 6.6.1.

**Table 6.5 Reported health service use by children, by sex**

*Per cent*

	Boys	Girls	Children
Family doctor (GP) in the past two weeks	12	12	12
Accident needing hospital treatment in the past three months (a)	9	6	7
In the past twelve months:			
Accident & Emergency (casualty)	23	18	21
Outpatient	23	20	22
Day patient	8	4	6
Inpatient	7	6	7
Dentist (b)	77	77	77
Health visitor, district nurse or other community nurse	25	27	26
Practice nurse	23	24	23
Optician	32	34	33
Speech therapist	7	3	5
GP out of hours	14	12	13
NHS Direct helpline	13	12	13
Pharmacist	50	50	50
<b>Unweighted base (c)</b>	<b>1,624</b>	<b>1,599</b>	<b>3,223</b>

(a) Accident, injury or poisoning needing hospital treatment or a visit to casualty.

(b) Family, local, community, school or other dentist.

(c) Bases vary: those shown are for the whole sample of children aged under 16.

**Table 6.6 Children's key health measures, 2007-2009**

*Per cent*

	2007	2008	2009
<b>Aged under 16:</b>			
Good/Very good general health	94	94	94
Long-standing illness	20	19	20
Limiting long-standing illness	7	6	6
<b>Aged 2 - 15:</b>			
Overweight or obese (a)	36	33	34
Obese (b)	20	16	19
<b>Unweighted base (c)</b>	2,668	2,653	3,223
<b>Unweighted base (d)</b>	1,765	1,542	2,019

(a) Based on 85th (overweight) percentiles of the 1990 UK BMI reference curves. See definitions at 6.6.1.

(b) Based on 95th (obese) percentiles of the 1990 UK BMI reference curves. See definitions at 6.6.1.

(c) Bases vary: those shown are for all children aged under 16.

(d) Children aged 2-15 with valid height and weight measurements.



**Chapter 7**  
**Technical Summary**





## 7 Technical summary

---

### 7.1 Introduction

This chapter provides some technical information about the survey. A more detailed technical report<sup>1</sup> is published by the National Centre for Social Research (NatCen), who carried out the survey on behalf of the Welsh Assembly Government.

This chapter includes information on:

- sampling (7.2)
- fieldwork (7.3)
- response (7.4)
- data preparation (7.5)
- weighting (7.6)
- sampling errors (7.7)

### 7.2 Sampling

#### 7.2.1 Introduction

The Welsh Health Survey (WHS) aimed to achieve a total sample of 15,000 adults, with at least 600 adults in each local authority, during the period January – December 2009. The issued sample consisted of 14,775 addresses selected from the small user version of the Post Office's Postcode Address File (PAF). The sample was stratified by local authority to allow for analysis of survey data at this level. An unclustered sample was selected within each authority.

The PAF covers more than 99% of private households in Wales; the small proportion of people not covered by the PAF, including those living in institutions, were not covered by the WHS. It should be noted that people living in institutions are likely to be, on average, in poorer health than those in private households - this should be kept in mind when considering the results from this survey.

#### 7.2.2 Selection of primary sampling units, addresses and households

An unclustered sample of addresses was selected from each of the 22 local authorities. Addresses were selected at random from across the whole local authority area and then grouped into interviewer assignments or 'points'. There were 591 points in total, each containing 25 addresses. Addresses were grouped together on the basis of proximity, taking account of natural barriers such as mountains and rivers.

A small proportion of addresses in the PAF contain more than one household. If the number of households at an address selected for the WHS was three or less, then all the households were included in the survey. However, if more than three

households were found, then three households were selected at random to be included. Weights were applied to correct for the selection of three households at multi-occupied addresses.

### **7.2.3 Sampling of children**

Families with children aged under 16 were eligible for the child elements of the survey. In households with three or more children, two children were selected at random for participation to minimise respondent burden.

## **7.3 Fieldwork**

### **7.3.1 Briefings and fieldwork period**

Before fieldwork started, interviewers were briefed in person by the project researchers during briefings lasting a day each, covering all elements of the survey process.

Fieldwork started in January 2009. Each fieldwork point contained 25 addresses and fieldwork began on the first day of each month.

### **7.3.2 Fieldwork procedures**

Prior to the interview, advance letters in English and Welsh were sent out by interviewers to all selected households. This included a set of questions and answers, and a phone number for NHS Direct for respondents to use if they had any queries about the survey. NHS Direct Wales operate a bilingual 24-hour service, and had been briefed on the survey.

Interviewers made contact with respondents by personal visit, with interviewers making a minimum of four calls at different times of the day and different days of the week to try and make contact. Having made contact, interviewers introduced the survey and presented a leaflet containing information about the survey and reinforcing confidentiality in data usage.

The survey consisted of a short household interview with a responsible adult (offered in English or Welsh). All adults aged 16 and over were left a self-completion questionnaire. There were three age-specific versions of the children's questionnaire (0-3 years, 4-12 years, and 13-15 years). Up to two children aged 0-15 were left a questionnaire for their age group, for completion by parent or guardian (0-12 years) or by children (13-15 years). Interviewers collected self-completion questionnaires. They also took height and weight measurements for selected children aged 2-15, after obtaining consent and according to a standard written protocol. Copies of the individual self-completion questionnaires are at Appendix A. All survey documents were available in English and Welsh.

## 7.4 Response

### 7.4.1 Introduction

Response may be broken down to two levels: household level response and individual level response (with individual response shown for adults and children separately).

### 7.4.2 Household response

In calculating household response, a recommended standard method for social surveys was used (details are in NatCen's report<sup>1</sup>). It incorporates an estimate of the number of eligible and deadwood (ineligible) cases amongst those where eligibility is uncertain. Using this method, the final 'adjusted' household response rate was 78%. Tables 7.1 and 7.2 show the household response rates for Wales as a whole, and by local authority.

### 7.4.3 Individual response

Individual response to self-completion questionnaires within productive households was 82% for adults and 79% for selected children. Height and weight measurements were obtained for 62% of eligible selected children in productive households. Tables 7.3 - 7.6 show the individual response rates for Wales as a whole and by local authority.

### 7.4.4 Combined household and individual response

Overall response rates can be calculated taking into account response both at the household and individual levels. The number of adults and children at non-responding households is not known, therefore the average number of adults and children in participating households is used to impute the denominator (i.e., the total number of adults and children in all eligible households). Using this approach, the combined response rate was estimated as 64% for adults and 62% for children.

## 7.5 Data preparation

### 7.5.1 Data keying and scanning

The household questionnaires were keyed in-house at NatCen. The self-completion questionnaires were sent directly to a scanning agency. Once these stages were complete, the scanned questionnaires, data and electronic images were sent to NatCen and the data linked to the household data through serial numbers (at both household and individual levels).

### 7.5.2 Data coding and editing

The self-completion questionnaires were edited using NatCen's in-house system. This ensured that routing was correctly followed, dealt with cases where respondents had coded more than one answer where only one was required, and reconciled incompatible answers. As a separate checking measure the

handwritten digits on the questionnaire were verified visually as part of the quality control process.

The occupation and industry of the Household Reference Person (HRP) was coded and, together with employment status, used to derive the National Statistics Socio-Economic Classification (NS-SEC).

Where respondents identified an 'other' illness they were being treated for, the text was converted to International Classification of Diseases (ICD) groups and chapters. The answers were matched against the previous pre-coded individual illness questions and 'backcoded' into them if appropriate. Where text was provided by respondents to identify a main illness that limited their daily activities or work, this was also converted to ICD groups and chapters.

### **7.5.3 Child Body Mass Index (BMI) classification**

The proportion of children who were overweight and obese was calculated according to the UK national BMI percentiles classification. Using 1990 reference data compiled from a number of sources as the baseline, and adjusted for age and sex, the threshold for overweight was defined as the 85th percentile and the threshold for obesity as the 95th percentile.

## **7.6 Weighting**

### **7.6.1 Introduction**

Respondents to the survey did not have equal chances of selection for a variety of reasons: the probability of selecting an address varied by local authority; at multiple occupancy addresses containing 4 or more households, 3 were selected at random for inclusion in the survey; and at households with 3 or more children, 2 were selected at random for inclusion. Hence it is necessary to weight the WHS sample.

Weights were also calculated to correct for non-response as some groups were under-represented, while others were over-represented. If the difference between the distribution of the survey sample and the true population was left uncorrected, it would lead to bias in the survey estimates.

Two sets of non-response weights were generated, household weights and individual weights. The household weights adjusted for non-contact and refusals of entire households, and the individual weights adjusted for non-response among individuals within responding households.

### **7.6.2 Selection weights**

The first stage of weighting corrected for the imbalances created by the different probabilities of selection within each local authority. Addresses in smaller authorities were over-sampled to ensure a minimum issued sample in each authority. Without appropriate weighting, these smaller authorities would be over-represented in the sample. Therefore, selection weights were calculated.

For each selected address, a maximum of three households was selected for the issued sample. Weights were therefore required to correct for the cases where

more than three households were found at a single address. (There were actually only 10 addresses in the sample for which four or more households were identified.)

### 7.6.3 Household non-response weights

A household non-response model was used to adjust for non-contact and refusals of entire households. The probability of household response was estimated using a logistic regression model, including geographic and Census variables (see NatCen's report<sup>1</sup> for details). Extreme weights below the 1<sup>st</sup> and above the 99<sup>th</sup> percentiles were trimmed to the values at these percentiles to avoid the situation where some individuals have a very large disproportionate influence on the survey estimates (either disproportionately large or disproportionately small).

Calibration weighting was used to further reduce household non-response bias. The initial weights were the product of the selection weights and the household non-response weight. Calibration weighting adjusted the weighted household sample so that the marginal distributions of age/sex and local authority for all individuals within responding households matched the 2008 mid-year population estimates for Wales. The final household weights used were the weights after calibration.

### 7.6.4 Child selection weights

In households with children aged under 16, no more than two children were selected for inclusion. Weights were therefore required to correct for households including three or more children. (Three or more children were identified within 417 productive households.)

### 7.6.5 Individual level non-response weights

Individual weights were calculated for individual respondents to the survey to adjust for non-response at the self-completion stage, in addition to household non-participation. As non-response at each stage was hierarchical, the individual weights were calculated for responding individuals within responding households. Logistic regression models for adults and children were used to estimate the probability of response, using variables from the household interview. Extreme weights below the 1<sup>st</sup> and above the 99<sup>th</sup> percentiles were trimmed to the values at these percentiles.

Calibration weighting was used to ensure that the final sample matched the age/sex distribution of the population. The initial weights were the product of the household weights and the individual level non-response weights. The calibration weighting adjusted the weighted individual sample so that the marginal distribution of age/sex for all individuals and those of children and adults (separately) within local authority matched the 2008 mid-year population estimates for Wales.

As a last step, each set of weights was scaled so that the weighted sample size was the same as the unweighted sample size (i.e., so that the mean of the weights was equal to 1).

## 7.7 Sampling errors

### 7.7.1 Introduction

As with any survey, results are subject to various sources of error. An important component of this is sampling error, which arises because the estimates are based on a sample rather than a full count of the population. The results obtained for any single sample are likely to vary slightly from the true population value, and the difference between the estimates derived from the sample and the population values is referred to as the sampling error. In general, the smaller the sample size the larger the potential error.

It is possible to estimate the size of sampling error by calculating the standard error of survey estimates. The standard error (*se*) of a percentage (*p*) based on a simple random sample of size *n* is calculated as:

$$se(p) = \sqrt{p(100-p)/n}$$

### 7.7.2 Design factors

The WHS was stratified at local authority level, with different probabilities of selection for different authorities. One of the effects of using this complex design is that standard errors for survey estimates are generally higher than the standard errors that would be derived from a simple random sample of the same size.

The ratio of the standard error of the complex sample to that of a simple random sample of the same size is known as the design factor. Put another way, the design factor (or 'deft') is the factor by which the standard error of an estimate from a simple random sample has to be multiplied to give the true standard error of the estimate, given the complex design.

True standard errors and defts for a selection of key WHS variables were calculated using a Taylor Series expansion method, and are shown in NatCen's report<sup>1</sup>.

### 7.7.3 Confidence intervals

A confidence interval can be calculated around a survey estimate, which gives a range within which the true value for the population is likely to fall. The standard error (*se*) measures the precision with which the estimates from the sample approximate to the true population values and is used to construct the confidence interval for a survey estimate. The 95% confidence interval for a percentage (*p*) is calculated as:

$$p \pm 1.96 se(p)$$

Table 7.7 shows approximate 95% confidence intervals for percentages based on a particular sample size, assuming a simple random sample. Note that the WHS was a survey of complex design and as such is likely to have higher standard errors, and thus wider confidence intervals than shown in the table. It should therefore be used as an approximate guide to precision only. NatCen's report contains true standard errors and defts for a selection of key variables.

## References and notes

1. NatCen (2010) *Welsh Health Survey - 2009 Technical Report*.  
[www.wales.gov.uk/statistics](http://www.wales.gov.uk/statistics)

## Tables

**Table 7.1 Household level response rates**

	Number of households	% of eligible sample	% of adjusted eligible sample
<b>Households issued (a)</b>	14,849		
Deadwood (ineligible)	1,619		
<b>Eligible sample</b>	13,230	100.0	
Total unknown eligibility	144	1.1	
Of which, estimate of deadwood	16		
<b>Adjusted eligible sample</b>	13,214		100.0
Estimate of eligible households among those of unknown eligibility	128		1.0
Refusals	1,866	14.1	14.1
Other unproductive	886	6.7	6.7
<b>Productive</b>	<b>10,334</b>	<b>78.1</b>	<b>78.2</b>

(a) From the 14,775 addresses selected, 14,849 separate households were identified.

**Table 7.2 Household response rates, by local authority**

	Eligible households (unadjusted)	Productive eligible households	Response rate	Adjusted response rate
	Number	Number	%	%
<b>Local authority:</b>				
Isle of Anglesey	512	388	75.8	75.9
Gwynedd	525	415	79.0	79.3
Conwy	597	471	78.9	79.1
Denbighshire	582	450	77.3	77.4
Flintshire	604	494	81.8	81.9
Wrexham	586	456	77.8	77.9
Powys	474	399	84.2	84.3
Ceredigion	475	400	84.2	84.5
Pembrokeshire	514	421	81.9	82.2
Carmarthenshire	610	474	77.7	77.8
Swansea	781	594	76.1	76.1
Neath Port Talbot	572	452	79.0	79.0
Bridgend	553	454	82.1	82.1
The Vale of Glamorgan	577	447	77.5	77.6
Cardiff	1,024	764	74.6	74.7
Rhondda Cynon Taf	791	622	78.6	78.6
Merthyr Tydfil	590	450	76.3	76.4
Caerphilly	589	450	76.4	76.4
Blaenau Gwent	558	417	74.7	74.8
Torfaen	582	451	77.5	77.6
Monmouthshire	507	395	77.9	77.9
Newport	627	470	75.0	75.0
<b>Wales</b>	<b>13,230</b>	<b>10,334</b>	<b>78.1</b>	<b>78.2</b>



**Table 7.3 Individual level response rates – adults**

	Number	% of issued sample
<b>Total number of adults identified</b>	19,497	100.0
Average number of adults in productive households	1.9	
Refusal	386	2.0
Questionnaire not returned	2,208	11.3
Other unproductive	885	4.5
<b>Productive</b>	<b>16,018</b>	<b>82.2</b>

**Table 7.4 Individual level response rates – children**

	Number	% of eligible sample
<b>Number of productive households with children</b>	2,648	
<b>Total number of children identified in productive households</b>	4,589	
Average number of children in productive households with children	1.7	
<b>Number of selected children in productive households (a)</b>	4,055	100.0
Average number of selected children in productive households with children	1.5	
Refusal (by child or parent)	70	1.7
Questionnaire not returned	548	13.5
Other unproductive	214	5.3
<b>Productive</b>	<b>3,223</b>	<b>79.5</b>

(a) A maximum of two children were selected per household.

**Table 7.5 Response to child height and weight measurements (a)**

	Height	Weight
<b>Number of eligible selected children (aged 2-15) in productive households</b>	3,578	3,578
Measurement unreliable	34	17
Child unavailable	486	487
Parent refusal	438	447
Child refusal	150	154
Unable to measure child	90	92
Don't know	174	157
Total non-response	1,372	1,354
<b>Reliable measurement achieved</b>	<b>2,206</b>	<b>2,224</b>
<b>Response rate (%)</b>	<b>61.7</b>	<b>62.2</b>

(a) For eligible selected children (aged 2-15) in productive households.

**Table 7.6 Individual response rates, by local authority**

	Adults (productive questionnaires)		Children (productive questionnaires)	
	<i>Number</i>	<i>% of issued sample</i>	<i>Number</i>	<i>% of eligible sample</i>
<b>Local authority:</b>				
Isle of Anglesey	665	87.3	117	86.7
Gwynedd	672	86.6	118	83.7
Conwy	775	88.3	162	87.1
Denbighshire	715	84.1	142	77.2
Flintshire	751	80.8	178	79.1
Wrexham	732	83.8	135	75.0
Powys	648	89.1	115	79.9
Ceredigion	663	86.2	119	93.0
Pembrokeshire	593	75.8	114	72.2
Carmarthenshire	788	88.3	157	81.8
Swansea	858	81.3	196	76.9
Neath Port Talbot	748	88.5	157	84.9
Bridgend	687	80.0	164	80.4
The Vale of Glamorgan	666	77.4	109	69.9
Cardiff	1,167	79.5	229	79.8
Rhondda Cynon Taf	878	74.7	189	70.8
Merthyr Tydfil	657	77.7	138	78.4
Caerphilly	747	83.2	164	82.4
Blaenau Gwent	629	79.1	123	86.0
Torfaen	665	79.5	136	73.9
Monmouthshire	666	88.0	121	85.2
Newport	648	75.3	140	76.1
<b>Wales</b>	<b>16,018</b>	<b>82.2</b>	<b>3,223</b>	<b>79.5</b>

**Table 7.7 95% confidence intervals (a) for a percentage estimate based on a simple random sample**

Estimated %:	sample size (b)											
	100	200	300	400	500	1,000	2,000	3,000	4,000	5,000	10,000	15,000
5%	4.3	3.0	2.5	2.1	1.9	1.4	1.0	0.8	0.7	0.6	0.4	0.3
10%	5.9	4.2	3.4	2.9	2.6	1.9	1.3	1.1	0.9	0.8	0.6	0.5
15%	7.0	4.9	4.0	3.5	3.1	2.2	1.6	1.3	1.1	1.0	0.7	0.6
20%	7.8	5.5	4.5	3.9	3.5	2.5	1.8	1.4	1.2	1.1	0.8	0.6
25%	8.5	6.0	4.9	4.2	3.8	2.7	1.9	1.5	1.3	1.2	0.8	0.7
30%	9.0	6.4	5.2	4.5	4.0	2.8	2.0	1.6	1.4	1.3	0.9	0.7
35%	9.3	6.6	5.4	4.7	4.2	3.0	2.1	1.7	1.5	1.3	0.9	0.8
40%	9.6	6.8	5.5	4.8	4.3	3.0	2.1	1.8	1.5	1.4	1.0	0.8
45%	9.8	6.9	5.6	4.9	4.4	3.1	2.2	1.8	1.5	1.4	1.0	0.8
50%	9.8	6.9	5.7	4.9	4.4	3.1	2.2	1.8	1.5	1.4	1.0	0.8
55%	9.8	6.9	5.6	4.9	4.4	3.1	2.2	1.8	1.5	1.4	1.0	0.8
60%	9.6	6.8	5.5	4.8	4.3	3.0	2.1	1.8	1.5	1.4	1.0	0.8
65%	9.3	6.6	5.4	4.7	4.2	3.0	2.1	1.7	1.5	1.3	0.9	0.8
70%	9.0	6.4	5.2	4.5	4.0	2.8	2.0	1.6	1.4	1.3	0.9	0.7
75%	8.5	6.0	4.9	4.2	3.8	2.7	1.9	1.5	1.3	1.2	0.8	0.7
80%	7.8	5.5	4.5	3.9	3.5	2.5	1.8	1.4	1.2	1.1	0.8	0.6
85%	7.0	4.9	4.0	3.5	3.1	2.2	1.6	1.3	1.1	1.0	0.7	0.6
90%	5.9	4.2	3.4	2.9	2.6	1.9	1.3	1.1	0.9	0.8	0.6	0.5
95%	4.3	3.0	2.5	2.1	1.9	1.4	1.0	0.8	0.7	0.6	0.4	0.3

- (a) The width of the interval depends on the value of the estimated percentage and the sample size on which it was based. 95% confidence intervals are formed as the estimated percentage  $\pm$  the value shown in the table for that sample size. For example, an estimated percentage of 25% based on a sample of 1,000 has a 95% confidence interval of  $25 \pm 2.7\%$  (ie, 22.3% - 27.7%).
- (b) Note that this table assumes a simple random sample, while the WHS was a survey of complex design and is therefore likely to have higher standard errors, and wider confidence intervals than shown. It should therefore be used as an approximate guide to precision only. NatCen's report contains true standard errors and defts for a selection of key WHS variables.





## **Appendices**



## Appendix A: Glossary

---

This glossary explains terms used in the report, other than those fully described in particular chapters.

### Adults

Adults are defined as persons aged 16 years or over.

### Age standardisation

Age standardisation has been used in selected chapters in order to enable groups to be compared after adjusting for the effects of any differences in their age distributions. When different sub-groups are compared in respect of a variable on which age has an important influence, any differences in age distributions between these sub-groups are likely to affect the observed differences in the proportions of interest.

Age standardisation was carried out using the direct standardisation method. The standard population to which the age distribution of sub-groups was adjusted was the mid-year 2007 population estimates for Wales. The age-standardised proportion  $p'$  was calculated as follows, where  $p_i$  is the age specific proportion in age group  $i$  and  $N_i$  is the standard population size in age group  $i$ :

$$p' = \frac{\sum_i N_i p_i}{\sum_i N_i}$$

Therefore  $p'$  can be viewed as a weighted mean of  $p_i$  using the weights  $N_i$ . Age standardisation was carried out using the age groups: 16-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75 and over.

### Area deprivation

See WIMD.

### Base numbers

Base numbers are shown in the last column of each table and are unweighted bases. Actual base numbers vary in some tables due to varying response levels between different survey questions. In these cases, tables show the sample size (that is, the number of respondents to the survey) which serves as an upper limit for the base numbers of the table.

### Body Mass Index (BMI) in children

See Child Body Mass Index (BMI) classification.

### **Child Body Mass Index (BMI) classification**

The proportion of children who were overweight and obese was calculated according to the UK national BMI percentiles classification. Using 1990 reference data compiled from a number of sources as the baseline, and adjusted for age and sex, the threshold for overweight was defined as the 85th percentile and the threshold for obesity as the 95th percentile<sup>1</sup>. This definition is consistent with that used in the Health Surveys for England and Scotland.

Although BMI is widely used as an indicator of obesity in children, the establishment of a specific classification system for children and young people has proved difficult. Several methods can be used, including a variety of BMI curves and cut-off points. Some other studies may use different thresholds from those used in this report, and the estimates here should not be compared with those produced on a different basis (for instance, estimates derived using international cut-offs are likely to be lower as the cut-off points are higher) or with adult estimates.

### **Children**

Children are defined as persons aged under 16 years.

### **Household**

A household is defined as a person or group of people who have the accommodation as their only or main residence and who either share at least one meal a day or share the living accommodation.

### **Household Reference Person (HRP)**

The Household Reference Person (HRP) is the householder (person in whose name the property is owned or rented) with the highest income. If there is more than one householder and they have the same income, the eldest is taken as the Household Reference Person.

### **International Classification of Diseases (ICD)**

A classification system for coding diseases and health problems, used internationally and maintained by the World Health Organization (WHO). The survey makes limited use of groups approximating to ICD chapter headings. The groups used are shown below (along with selected examples of diseases for illustrative purposes). Further information is available at the WHO website<sup>2</sup>.



Condition group	Examples
Neoplasms and benign growths	Cancer, after effects of cancer
Endocrine and metabolic diseases	Diabetes, thyroid
Mental disorders	Depression, dyslexia
Nervous system	Epilepsy, multiple sclerosis
Eye complaints	Cataract, glaucoma
Ear complaints	Deafness, Meniere's disease
Heart and circulatory system	Angina, stroke, blood pressure
Respiratory system	Asthma, bronchitis, hayfever
Digestive system	Stomach ulcer, bowel complaints
Genito-urinary system	Kidney complaints, reproductive system disorders
Musculoskeletal system	Arthritis, back problems
Infectious diseases	Glandular fever, herpes
Blood and related organs	Anaemia, haemophilia
Skin complaints	Eczema, corns

### NS-SEC (National Statistics Socio-Economic Classification)

The National Statistics Socio-Economic Classification (NS-SEC) is an occupationally based classification of social position that was introduced in 2001 for use in official statistics and surveys. There are fourteen operational categories representing different groups of occupations and a further three residual categories for full time students and occupations that cannot be classified due to lack of information or other reasons.

The operational categories may be collapsed to eight, five and three category analytic classes (the three-class version, but not the others, can be assumed to involve some kind of hierarchy). Full details of NS-SEC are in the Office for National Statistics guide 'The National Statistics Socio-Economic Classification User Manual'<sup>3</sup>. In this report, the three-class version is presented, and is based on the current or former occupation of the household reference person (HRP).

### SF-36

The SF-36 is a standard set of 36 health status questions asking respondents about their own perception of their physical and mental health and the impact it has on their daily lives. Responses can be combined to produce scores for eight domains of health and well-being, as well as summary scores for both physical and mental health.

In this report, norm-based scoring has been used, to transform all scores to a mean of 50 and standard deviation of 10 using the general United States

## Glossary

population (for the purpose of comparability and simplicity<sup>4</sup>). Higher scores indicate better health.

Version 2 of SF-36 was used. SF-36 copyrights are held by the Medical Outcomes Trust, Health Assessment Lab, and QualityMetric Incorporated. Further information is available at the SF-36 website<sup>5</sup>.

### **Socio-economic classification**

See NS-SEC (National Statistics Socio-Economic Classification).

### **Unweighted base**

See base numbers.

### **Welsh Index of Multiple Deprivation (WIMD)**

See WIMD.

### **WIMD**

The WIMD is a measure of deprivation for small areas in Wales. WIMD 2008 was used in this report<sup>6</sup>. WIMD gives deprivation scores for small areas in Wales (Lower Layer Super Output areas, or LSOAs). These small areas were ranked from most deprived to least deprived according to overall WIMD scores and split into five groups (“fifths”). Each respondent to the Welsh Health Survey was allocated to the relevant fifth.

## **References and notes**

1. Cole T, Freeman JV, Preece MA. Body Mass Index reference curves for the UK, 1990. *Archives of Disease in Childhood* 1995; 73:25-29.
2. World Health Organisation: International Classification of Diseases. [www.who.int/classifications/icd/en/](http://www.who.int/classifications/icd/en/)
3. ONS: National Statistics Socio-Economic Classification. [www.statistics.gov.uk/nsbase/methods\\_quality/ns\\_sec/default.asp](http://www.statistics.gov.uk/nsbase/methods_quality/ns_sec/default.asp)
4. Jenkinson, C. (1999) Comparison of UK and US methods for weighting and scoring the SF-36 summary measures, *Journal of Public Health Medicine* 21:372-376.
5. [www.sf-36.org](http://www.sf-36.org)
6. Welsh Index of Multiple Deprivation. [www.wales.gov.uk/statistics](http://www.wales.gov.uk/statistics)

## **Appendix B: Questionnaires**

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**Welsh Health Survey Questionnaire (adults)**

**Welsh Health Survey Questionnaires (children, age: 0-3, 4-12, 13-15)**





This questionnaire is about **you**. Please answer about **yourself** and **your health** only.

### HEALTH SERVICE USE

**1a** During the **2 weeks ending yesterday**, did you talk to a family doctor (GP) about your own health either in **person** or by **telephone**?

Tick one only

Yes  1 → Go to 1b

No  2 → Go to 2a

2051

**1b** How many times did you talk to a family doctor (GP) about your own health in these **2 weeks**?

Please write in number

2052-053

**1c** As a result of speaking to a family doctor (GP) about your own health in these **2 weeks**, did they give (send) you a prescription?

Tick one only

Yes  1

No  2

2054

**2a** During the **2 weeks ending yesterday**, did you see a practice nurse or other nurse at the GP surgery about your own health?

Tick one only

Yes  1 → Go to 2b

No  2 → Go to 3a

2055

**2b** How many times did you see a practice nurse or other nurse at the GP surgery about your own health in these **2 weeks**?

Please write in number

2056-057

**3a** During the **last 12 months**, did you attend the **Casualty/A&E** department of a hospital as a patient?

Tick one only

Yes  1 → Go to 3b

No  2 → Go to 4a

2058

**3b** How many times did you go to **Casualty/A&E** altogether in the **last 12 months**?

Please write in number

2059-060

**4a** During the **last 12 months**, did you attend the **outpatient** department of a hospital as a patient (apart from straightforward ante- or post-natal visits)?

Tick one only

Yes  1 → Go to 4b

No  2 → Go to 5a

2061

**4b** Did you have any **outpatient** visits in the **last 12 months** that were paid for privately?

Tick one only

Yes, at least one paid for privately  1

No, all visits under the NHS  2

2062

**5a** During the **last 12 months**, have you been in hospital for treatment as a **day patient**, that is admitted to a hospital bed or day ward, but not required to remain overnight?

Tick one only

Yes  1 → Go to 5b

No  2 → Go to 6a

2063

**5b** Did you have any **day patient** treatments in the **last 12 months** that were paid for privately?

Tick one only

Yes, at least one paid for privately  1

No, all treatments under the NHS  2

2064

**6a** During the **last 12 months**, have you stayed in hospital as an **inpatient**, overnight or longer?

Tick one only

Yes  1 → Go to 6b

No  2 → Go to 7a

2065

**6b** Did you have any **inpatient** stays in the **last 12 months** that were paid for privately?

Tick one only

Yes, at least one paid for privately  1

No, all stays under the NHS  2

2066

Spare 2967-77

**7a** Which of the following services have **you** used for **yourself** in the **last 12 months**, either under the NHS or privately?  
**Please exclude waiting for an appointment**

**Tick one box on each row**

	Did not use	NHS treatment only	Private treatment only	Both NHS and private treatment	
Dentist	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2078
Chiropodist	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2079
Physiotherapist	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2080
Osteopath/chiropractor	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2081

**7b** During the **last 12 months**, have **you** used any of these services for **yourself**?

**Tick one box on each row**

	Yes	No	
Optician	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2082
Health Visitor, District Nurse or other community nurse	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2083
GP out of hours services	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2084
NHS Direct (National NHS telephone helpline)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2085
Pharmacist including local pharmacists and those in large stores and supermarkets (eg picked up prescribed medicine, asked for advice, bought medicines kept behind the counter)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2086

Spare 2087-90

**8** Have you had a flu jab in the **last 12 months**?

**Tick one only**

Yes  1

No  2

2091

## MEDICINES

By medicines we mean anything you take or that you put on your skin, such as tablets, powders, creams, sprays and drops, to treat a medical condition. Include conventional and other medicines.

**9a** During the **past 4 weeks** have you bought any medicine?  
 (Don't count anything that you got with a prescription)

**Tick one only**

Yes  1 → **Go to 9b**

No  2 → **Go to 9c**

2092

**9b** If you have bought medicines in the **past 4 weeks**, which of these kinds did you buy?

**Tick all that apply**

Conventional medicines, eg aspirin, eye-drops, antacids, cough medicine  1

Herbal  2

Homeopathic  3

Mineral or vitamin supplements  4

2093-096

**9c** Are you on any **regular** medication prescribed by a doctor?  
 (Regular means for a year or more)

**Tick one only**

Yes  1

No  2

2097

## ILLNESSES AND OTHER HEALTH PROBLEMS

**10a** Have you **ever** been treated for any of these?

**Tick one box on each row**

	Yes	No	
Heart attack	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2098
Stroke	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2099
Cancer	<input type="checkbox"/> 1	<input type="checkbox"/> 2	2100

**10b** Are you **currently** being treated for any of these?

**Tick one box on each row**

- |  | Yes                        | No                         |      |
|--|----------------------------|----------------------------|------|
| Angina   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2101 |
| Heart failure                                      | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2102 |
| High blood pressure (or hypertension)              | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2103 |
| Another heart condition                            | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2104 |
| Asthma   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2105 |
| Emphysema  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2106 |
| Pleurisy   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2107 |
| Spells of bronchitis that have lasted over 3 years | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2108 |
| Another respiratory illness                        | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2109 |

**10c** Are you **currently** being treated for any of these?

**Tick one box on each row**

- |                        | Yes                        | No                         |      |
|------------------------|----------------------------|----------------------------|------|
| Depression             | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2110 |
| Anxiety                | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2111 |
| Another mental illness | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2112 |
| Arthritis              | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2113 |
| Back pain              | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2114 |
| Epilepsy or fits       | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2115 |
| Varicose veins         | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 2116 |

**10d** Are you **currently** being treated for diabetes?

**Tick one only**

- Yes  1 → **Go to 10e** 2117
- No  2 → **Go to 11a**

**10e** How is your diabetes controlled?

**Tick all that apply**

- Injection  1 2121-123
- Tablets  2
- Diet  3

**11a** Are you **currently** being treated for any other chronic or long-term illness **not listed** in questions 10b – 10d?

**Tick one only**

- Yes  1 → **Go to 11b** 2124
- No  2 → **Go to 12a**

**11b** Please specify the **main** illness below. **Please write in only one illness.**

2125  
2126-129  
Spare 2130-134

**12a** Have you had any accident, injury or poisoning needing hospital treatment or a visit to Casualty/A&E in the **last 3 months**?

**Tick one only**

- Yes  1 → **Go to 12b** 2135
- No  2 → **Go to 13a**

**12b** What was the accident, injury or poisoning?

**Tick all that apply**

- Break or fracture  1 2136-141
- Poisoning  2
- Head injury with concussion  3
- Cut or puncture  4
- Burn  5
- Another kind of injury  6

**12c** Where did the **most recent** accident, injury or poisoning take place?

**Tick one only**

- In the home  1 2142
- In traffic  2
- At work or in school  3
- Somewhere else  4

**13a** Have you had a stomach upset with diarrhoea in the **last 3 months**, which you think was due to something you ate?

**Tick all that apply**

- No  1 → **Go to 14** 2143-145
- Yes, in this country  2 → **Go to 13b**
- Yes, abroad  3 → **Go to 13b**



13b If yes, did you see a doctor about it?

Tick one only

Yes  1

No  2

2146

14 Is your eyesight good enough to see the face of someone across a room?  
(With glasses or contact lenses if you usually wear them)

Tick one only

Yes  1

Yes, with difficulty  2

No  3

2147

15a Do you have any difficulty with your hearing?  
(Without a hearing aid if you usually wear one)

Tick one only

Yes  1 → Go to 15b

No  2 → Go to 16

2148

15b Do you usually wear a hearing aid?

Tick one only

Yes, most of the time  1 → Go to 15c

Yes, some of the time  2 → Go to 15c

No, but have tried one  3 → Go to 16

No, never  4 → Go to 16

2149

15c If you usually wear a hearing aid, do you have any difficulty with your hearing while wearing the aid?

Tick one only

Yes  1

No  2

2150

16 How many of your own natural teeth do you have?  
(Filled and capped teeth count as your own, false teeth and dentures don't)

Tick one only

I have 21 or more of my own teeth  1

I have less than 21 of my own teeth OR  
mainly false teeth or dentures  2

2151

## YOUR HEALTH AND WELL-BEING

Questions 17 – 27 are from SF-36v2™ Health Survey © 1996, 2000 by QualityMetric Incorporated – All rights reserved  
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These questions ask for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities. For each of the following questions, please tick the one box that best describes your answer.

17 In general, would you say your health is ... ?

Excellent  1    Very Good  2    **Tick one only** Good  3    Fair  4    Poor  5

2152

18 Compared to one year ago, how would you rate your health in general now?

Tick one only

Much better now than one year ago  1

Somewhat better now than one year ago  2

About the same as one year ago  3

Somewhat worse now than one year ago  4

Much worse now than one year ago  5

2153

19 The following questions are about activities you might do during a typical day.  
Does your health now limit you in these activities? If so, how much?

Tick one box on each row

Yes, limited a lot     Yes, limited a little     No, not limited at all

a Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports  1  2  3

2154

b Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf  1  2  3

2155

c Lifting or carrying groceries  1  2  3

2156

d Climbing several flights of stairs  1  2  3

2157

e Climbing one flight of stairs  1  2  3

2158

f Bending, kneeling, or stooping  1  2  3

2159

g Walking more than a mile  1  2  3

2160

h Walking several hundred yards  1  2  3

2161

i Walking one hundred yards  1  2  3

2162

j Bathing or dressing yourself  1  2  3

2163

**20** During the **past 4 weeks**, how much of the time have you had any of the following problems with your work or other regular daily activities **as a result of your physical health?**

Tick one box on each row

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
--	-----------------	------------------	------------------	----------------------	------------------

- a Cut down on the **amount of time** you spent on work or other activities  1  2  3  4  5 2164
- b **Accomplished less** than you would like  1  2  3  4  5 2165
- c Were limited in the **kind** of work or other activities  1  2  3  4  5 2166
- d Had **difficulty** performing the work or other activities (for example, it took extra effort)  1  2  3  4  5 2167

**21** During the **past 4 weeks**, how much of the time have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?

Tick one box on each row

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
--	-----------------	------------------	------------------	----------------------	------------------

- a Cut down on the **amount of time** you spent on work or other activities  1  2  3  4  5 2168
- b **Accomplished less** than you would like  1  2  3  4  5 2169
- c Did work or other activities **less carefully than usual**  1  2  3  4  5 2170

**22** During the **past 4 weeks**, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbours, or groups?

Tick one only

Not at all	Slightly	Moderately	Quite a bit	Extremely
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**23** How much **bodily** pain have you had during the **past 4 weeks**?

Tick one only

None	Very Mild	Mild	Moderate	Severe	Very Severe
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

**24** During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)?

Tick one only

Not at all	A little bit	Moderately	Quite a bit	Extremely
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**25** These questions are about how you feel and how things have been with you during the **past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks** ...

Tick one box on each row

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
--	-----------------	------------------	------------------	----------------------	------------------

- a Did you feel full of life?  1  2  3  4  5 2174
- b Have you been very nervous?  1  2  3  4  5 2175
- c Have you felt so down in the dumps that nothing could cheer you up?  1  2  3  4  5 2176
- d Have you felt calm and peaceful?  1  2  3  4  5 2177
- e Did you have a lot of energy?  1  2  3  4  5 2178
- f Have you felt downhearted and low?  1  2  3  4  5 2179
- g Did you feel worn out?  1  2  3  4  5 2180
- h Have you been happy?  1  2  3  4  5 2181
- i Did you feel tired?  1  2  3  4  5 2182

**26** During the **past 4 weeks**, how much of the time has your **physical health or emotional problems** interfered with your social activities (like visiting friends, relatives, etc)?

Tick one only

All of the time	Most of the time	Some of the time	A little of the time	None of the time
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**27** How TRUE or FALSE is each of the following statements for you?

Tick one box on each row

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
--	-----------------	-------------	------------	--------------	------------------

- a I seem to get ill more easily than other people  1  2  3  4  5 2184
- b I am as healthy as anybody I know  1  2  3  4  5 2185
- c I expect my health to get worse  1  2  3  4  5 2186
- d My health is excellent  1  2  3  4  5 2187

**28a** Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do? (Include problems which are due to old age)

Tick one only

Yes  1 → Go to 28b

No  2 → Go to 29

2188

**28b** If you have limitations in any of your daily activities or work, which long-term illness, health problem or disability is the **main** cause? Please write in only one illness.

\_\_\_\_\_

2189

2190-

193

Spare

2194-

199

**SMOKING**

**29** Which one of these best describes you?

Tick one only

I smoke daily  1 → Go to 30

I smoke occasionally but not every day  2 → Go to 30

I used to smoke daily but do not smoke at all now  3 → Go to 35

I used to smoke occasionally but do not smoke at all now  4 → Go to 35

I have never smoked  5 → Go to 35

2200

**30** During the 7 days ending yesterday, did you smoke in any of these places?

Tick one box on each row

Yes No/Does not apply

**Outdoors**

Outside at home  1  2

Other places outdoors  1  2

**Indoors**

In own home  1  2

In other people's homes  1  2

Whilst travelling by car  1  2

Other places indoors  1  2

2201

2202

2203

2204

2205

2206

Spare

2207-

09

**31** Have you tried to give up smoking in the last 12 months?

Tick one only

Yes  1

No  2

2210

**32** Compared with this time last year, do you...?

Tick one only

Smoke more now  1

Smoke about the same now  2

Smoke less now  3

2211

**33** Would you like to give up smoking altogether?

Tick one only

Yes  1 → Go to 34

No  2 → Go to 35

2212

**34** What are your main reasons for wanting to give up?

Tick all that apply

Because of a health problem I have at present  01

Better for my health in general  02

Less risk of getting smoking related illnesses  03

Family/friends want me to stop  04

Financial reasons  05

Worried about the effect on my children  06

Because of the smoking ban  07

Other reasons  08

2213-

28

**35** Are you regularly exposed to other people's tobacco smoke in any of these places?

Tick one box on each row

Yes No/Does not apply

**Outdoors**

Outside at home  1  2

Other places outdoors  1  2

**Indoors**

In own home  1  2

In other people's homes  1  2

Whilst travelling by car  1  2

Other places indoors  1  2

2229

2230

2231

2232

2233

2234

Spare

2235-

49

**ALCOHOL**

**36** How often have you had an alcoholic drink of any kind during the **last 12 months?**

Tick one only

- Almost every day  01 → Go to 38
- Five or six days a week  02 → Go to 38
- Three or four days a week  03 → Go to 38
- Once or twice a week  04 → Go to 38
- Once or twice a month  05 → Go to 38
- Once every couple of months  06 → Go to 38
- Once or twice a year  07 → Go to 38
- Not at all in the last twelve months  08 → Go to 37

2250-51

**37** Have you always been a non-drinker, or did you stop drinking for some reason?

Tick one only

- Always a non-drinker  1 → Go to 40a
- Used to drink but stopped  2 → Go to 40a

2252

**38** Did you have an alcoholic drink of any kind in the **last 7 days?**

Tick one only

- Yes  1 → Go to 39a
- No  2 → Go to 40a

2253

**39a** Please think about the day in the last week on which you drank the most alcohol.

Please write in day

2254-55

**39b** Write in how much of each type of alcohol you drank **on that day.**

Write in how much you drank  
(use any of the measures below)

	Pints	Large cans or bottles	Small cans or bottles	
<b>Normal strength beer, lager, stout, cider or shandy</b> (less than 6% alcohol). <i>Exclude bottles/cans of shandy. You can include half pints under pints, eg "1 1/2"</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>	2256-61

	Pints	Large cans or bottles	Small cans or bottles	
<b>Strong beer, lager, stout or cider</b> (6% alcohol or more), such as Tennants Super, Special Brew, Diamond White. <i>You can include half pints under pints, eg "1 1/2"</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>	2262-67

	Large glasses (250ml)	Standard glasses (175ml)	Small glasses (125ml)	Bottles (750ml)	
<b>Wine</b> , including champagne and Babycham. <i>You can write in parts of a bottle, eg "1/2"</i>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	2268-75

	Measures or shots (count doubles as 2 singles)	
<b>Spirits or liqueurs</b> , such as gin, whisky, rum, brandy, vodka, tequila, Baileys, Archers	<input type="text"/>	2276-77

	Small glasses (count doubles as 2 singles)	
<b>Fortified wines</b> , such as sherry, port, vermouth, Martini, Cinzano, Dubonnet	<input type="text"/>	2278-79

	Small cans or bottles	
<b>Alcopops</b> (alcoholic soft drink), such as WKD, Bacardi Breezer, Smirnoff Ice, Archers Aqua, Reef	<input type="text"/>	2280-81

	Glasses (count doubles as 2 singles)	Pints	Large cans or bottles	Small cans or bottles	
<b>Other kinds of alcoholic drink</b> <i>Write in name of drink</i>					
1 <input style="width: 100%;" type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	2282-91
2 <input style="width: 100%;" type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	2292-301

Spare 2302-20

## FRUIT AND VEGETABLES

Note: A tablespoon is a size bigger than a spoon you would use to eat soup or breakfast cereal

**40a** Using the measures below, how much of the following did you eat **yesterday**?  
Please read through the whole list before answering

Write in number  
(or "0" if none eaten)

Small bowlfuls of <b>salad</b>	<input type="text"/>	small bowlfuls	2321-22
Tablespoons of <b>potatoes</b> Include potatoes in other dishes	<input type="text"/>	tablespoons	2323-24
Tablespoons of <b>other vegetables</b> (raw, cooked, frozen or tinned)	<input type="text"/>	tablespoons	2325-26
Tablespoons of <b>pulses</b> such as baked beans, red kidney beans, lentils, chickpeas, daal	<input type="text"/>	tablespoons	2327-28
Tablespoons of vegetables or pulses <b>in other dishes</b> made <b>mainly</b> from vegetables or pulses Do not include potatoes	<input type="text"/>	tablespoons	2329-30
If no vegetables eaten <b>yesterday</b> , please tick	<input type="checkbox"/>		2331

**40b** Using the measures below, how much of the following did you eat **yesterday**?  
Please read through the whole list before answering

Write in number  
(or "0" if none eaten)

Average handfuls of <b>very small fresh fruit</b> , such as grapes, berries	<input type="text"/>	handfuls	2332-33
<b>Small fruit</b> , such as plums, satsumas	<input type="text"/>	whole fruit	2334-35
<b>Medium fruit</b> , such as apples, bananas, oranges	<input type="text"/>	whole fruit	2336-37
<b>Half (1/2) large fruit</b> , such as grapefruit	<input type="text"/>	half fruit	2338-39
Average slices of a <b>very large fruit</b> , such as melon	<input type="text"/>	slices	2340-41
Tablespoons of <b>frozen or tinned fruit</b>	<input type="text"/>	tablespoons	2342-43
Average handfuls of <b>dried fruit</b> , such as raisins, apricots	<input type="text"/>	handfuls	2344-45
Tablespoons of fruit <b>in other dishes</b> made <b>mainly</b> from fruit such as fruit salad or fruit pies	<input type="text"/>	tablespoons	2346-47
Small glasses of <b>fruit juice</b>	<input type="text"/>	small glasses	2348-49
If no fruit eaten <b>yesterday</b> , please tick	<input type="checkbox"/>		2350

## EXERCISE

**41a** During the **7 days ending yesterday**, on which days did you do **LIGHT** exercise or physical activity **for at least 30 minutes**?  
Blocks of activity lasting at least 10 minutes, which were done on the same day, can be counted towards the full 30 minutes.  
Include physical activity which is part of your job

Tick all days that apply

<b>Light exercise / activity</b>	Mon	Tue	Wed	Thu	Fri	Sat	Sun	2351-64
<b>For example</b> Housework (eg hoovering, dusting), walking at an average pace, golf, light gardening (eg weeding)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	01	02	03	04	05	06	07	
If no light exercise in the <b>last 7 days</b> , please tick	<input type="checkbox"/>							08

**41b** During the **7 days ending yesterday**, on which days did you do **MODERATE** exercise or physical activity **for at least 30 minutes**?  
Blocks of activity lasting at least 10 minutes, which were done on the same day, can be counted towards the full 30 minutes.  
Include physical activity which is part of your job

Tick all days that apply

<b>Moderate exercise / activity</b>	Mon	Tue	Wed	Thu	Fri	Sat	Sun	2365-78
<b>For example</b> Heavy housework (eg spring cleaning, walking with heavy shopping), fast walking, dancing, gentle swimming, heavy gardening (eg digging)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	01	02	03	04	05	06	07	
If no moderate exercise in the <b>last 7 days</b> , please tick	<input type="checkbox"/>							08

**41c** During the **7 days ending yesterday**, on which days did you do **VIGOROUS** exercise or physical activity **for at least 30 minutes**?  
Blocks of activity lasting at least 10 minutes, which were done on the same day, can be counted towards the full 30 minutes.  
Include physical activity which is part of your job

Tick all days that apply

<b>Vigorous exercise / activity</b>	Mon	Tue	Wed	Thu	Fri	Sat	Sun	2379-92
<b>For example</b> Running, jogging, squash, swimming lengths, aerobics, fast cycling, football	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	01	02	03	04	05	06	07	
If no vigorous exercise in the <b>last 7 days</b> , please tick	<input type="checkbox"/>							08

## CARERS

- 42** Do you look after, or give any help or support to family members, friends, neighbours or others because of long-term physical or mental ill-health or disability, or problems related to old age? **Do not count anything you do as part of your paid employment**

Tick time spent in a typical week

- No  1  
 Yes, 1-19 hours a week  2  
 Yes, 20-49 hours a week  3  
 Yes, 50+ hours a week  4

2393

## ABOUT YOU

- 43** Are you....?

Male  1 Female  2

2394

- 44** How old were you on your last birthday?

Please write in whole years

Age   years

2395-97

- 45 Women only:** Are you currently pregnant?

Tick one only

- Yes  1  
 No  2

2398

- 46** How tall are you?

feet   inches **OR**   centimetres

2399  
2400-01  
2402-04

- 47** How much do you weigh?

stone   pounds **OR**   kilograms

2405-06  
2407-08  
2409-11

- 48** To which of these ethnic groups do you consider you belong?

Tick one only

- White**  01  
**Mixed** White and Black Caribbean  02  
 White and Black African  03  
 White and Asian  04  
 Any other Mixed background  05  
**Asian or Asian British** Indian  06  
 Pakistani  07  
 Bangladeshi  08  
 Any other Asian background  09  
**Black or Black British** Caribbean  10  
 African  11  
 Any other Black background  12  
**Chinese**  13  
**Any other ethnic group**  14

2412-13

- 49** Which of these descriptions applies to what you were doing **last week**?

Tick first to apply

- Going to school or college full-time (including on vacation)  01  
 In paid employment or self-employment (or away temporarily)  02  
 On a Government scheme for employment training  03  
 Doing unpaid work for a business that you own, or that a relative owns  04  
 Waiting to take up paid work already obtained  05  
 Looking for paid work or a Government training scheme  06  
 Intending to look for work but prevented by temporary sickness or injury (sick or injured for 28 days or less)  07  
 Permanently unable to work because of long-term sickness or disability  08  
 Retired from paid work  09  
 Looking after the home or family  10  
 Doing something else  11

2414-15

Spare  
2416-19

50 Which of these qualifications do you have?

Tick all the qualifications that apply or, if not specified, their nearest equivalent

2420-43

1+ O levels/CSEs/GCSEs (any grades)	<input type="checkbox"/> 01	NVQ Level 1, Foundation GNVQ	<input type="checkbox"/> 07
5+ O levels, 5+ CSEs (grade 1), 5+ GCSEs (grade A-C), School Certificate	<input type="checkbox"/> 02	NVQ Level 2, Intermediate GNVQ	<input type="checkbox"/> 08
1+ A levels/AS levels	<input type="checkbox"/> 03	NVQ Level 3, Advanced GNVQ	<input type="checkbox"/> 09
2+ A levels, 4+ AS levels, Higher School Certificate	<input type="checkbox"/> 04	NVQ Levels 4-5, HNC, HND	<input type="checkbox"/> 10
First Degree (eg BA, BSc)	<input type="checkbox"/> 05	Other Qualifications (eg City and Guilds, RSA/OCR, BTEC/Edexcel)	<input type="checkbox"/> 11
Higher Degree (eg MA, PhD, PGCE, post-graduate certificate / diplomas)	<input type="checkbox"/> 06	No Qualifications	<input type="checkbox"/> 12

51 Do you have any of the following professional qualifications?

Tick all the boxes that apply

2444-55

No Professional Qualifications	<input type="checkbox"/> 01	Qualified Dentist	<input type="checkbox"/> 04
Qualified Teacher Status (for schools)	<input type="checkbox"/> 02	Qualified Nurse, Midwife, Health Visitor	<input type="checkbox"/> 05
Qualified Medical Doctor	<input type="checkbox"/> 03	Other Professional Qualifications	<input type="checkbox"/> 06

52 If at some future date we wanted to ask you to take part in a further health-related study, may we contact you to see if you are willing to help again?

Tick one only

Yes  1

No  2

2456

**THANK YOU FOR COMPLETING THIS QUESTIONNAIRE**  
Please return the questionnaire to the interviewer  
(or in the envelope provided if sent in the post)

CONFIDENTIAL

# WELSH HEALTH SURVEY 2009

## QUESTIONNAIRE FOR PARENTS OF 0-3 YEAR OLDS

### About the survey

Some questions you may have about this survey are answered in the accompanying leaflet. Should you have any further queries, please do not hesitate to contact NHS Direct Wales on 0845 46 47. (A Minicom service is available on 0845 606 4647.) Alternatively, you may write to the Survey Manager at the address given in the leaflet.

### If you would like this questionnaire in Welsh

Please contact NHS Direct Wales on 0845 46 47.

### Os hoffech gael yr holiadur hwn yn Gymraeg

Cysylltwch â Galw Iechyd Cymru ar 0845 46 47.

### Questionnaire to be filled in by parent or guardian

Child's First Name

Male

Female

3038

3026-037

Serial Number

3001-096

3007

3010

3008-009

Date of placement

Day

Month

Year

3013-018

Interviewer I.D. Number

3019-024

1

3025

3039

Version

1

QV

Card 03  
3011-012

To be collected on:

### How to complete the questionnaire:

This questionnaire should be completed by the parent or legal guardian of the child named on the front page.

Most of the questions can be answered by putting a tick in the box next to the answer that applies to your child.

You are sometimes told to skip over some questions in this survey. When this happens, you will see an arrow (→) with a note that tells you what question to answer next, like this:

### EXAMPLE QUESTIONS (please do not fill in)

E1 Did this child eat breakfast this morning?

Tick one only

Yes  → Go to E2

No  → Go to E3

E2 Has this child eaten any of the following things today?

Tick one box on each row

Yes No

Bread

Yoghurt

E3 How old was this child when he or she first ate a banana?

Please write in

1 year old

E4 What fruit has this child eaten in the last seven days?

Something else (please specify)

cherries

Don't worry if you make a mistake: simply cross out the mistake and tick the correct box.

When you have completed it, please return the questionnaire to the interviewer (or in the envelope provided if sent to you in the post).



Please answer these questions on behalf of the child named on the front page

### ABOUT YOUR CHILD

1 Is this child a boy or a girl?

Tick one only

Boy  1

Girl  2

3045

2a How old is this child?

Please write in

Age in months

OR Age in years

3046-047

3048-049

2b What is this child's date of birth?

Please write in

Day

Month

Year

3050-055

3 To which ethnic group does this child belong?

Tick one only

White  1

Mixed White and Black Caribbean  2

White and Black African  3

White and Asian  4

Any other Mixed background  5

Asian or Asian British Indian  6

Pakistani  7

Bangladeshi  8

Any other Asian background  9

Black or Black British Caribbean  10

African  11

Any other Black background  12

Chinese  13

Any other ethnic group  14

3056-057

### GENERAL HEALTH AND WELL-BEING

4 How is this child's health in general? Would you say it was...

Tick one only

Very good  1

Good  2

Fair  3

Bad  4

Very bad  5

3058

### GP SERVICES

5a In the last 2 weeks did you, any other member of your household, or this child talk to a family doctor (GP) about this child's health either in person or by telephone?

Tick one only

Yes  1 → Go to 5b

No  2 → Go to 6

3059

5b How many times did you, any other member of your household, or this child talk to a family doctor (GP) about this child's health in these 2 weeks?

Please write in number

3060-062

5c As a result of speaking to a family doctor (GP) about this child's health in these 2 weeks, did they give (send) your child a prescription?

Tick one only

Yes  1

No  2

3063































