Health Survey for England

2007

Latest trends

A survey carried out on behalf of The NHS Information Centre

Joint Health Surveys Unit

NatCen
National Centre for Social Research

Department of Epidemiology and Public Health,
UCL Medical School
## Health Survey for England 2007
### Latest trends

<table>
<thead>
<tr>
<th>Tables</th>
<th>Contents</th>
<th>Years available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adults</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Blood pressure level using Omron values and 2003 definition, by survey year, age and sex</td>
<td>2003, 2005-2007</td>
</tr>
<tr>
<td>2</td>
<td>Mean height, by survey year, age and sex</td>
<td>1993-2007</td>
</tr>
<tr>
<td>3</td>
<td>Mean weight, by survey year, age and sex</td>
<td>1993-2007</td>
</tr>
<tr>
<td>4</td>
<td>Body Mass Index (BMI), by survey year, age and sex</td>
<td>1993-2007</td>
</tr>
<tr>
<td>7</td>
<td>Self-reported cigarette smoking status, by survey year and sex</td>
<td>1993-2007</td>
</tr>
<tr>
<td>8</td>
<td>Self-reported cigarette smoking status, by survey year, age and sex</td>
<td>1993-2007</td>
</tr>
<tr>
<td>9</td>
<td>Estimated alcohol consumption on heaviest drinking day in the last week, by survey year, age and sex</td>
<td>1998-2007</td>
</tr>
<tr>
<td>10</td>
<td>Fruit and vegetable consumption, by survey year, age and sex</td>
<td>2001-2007</td>
</tr>
<tr>
<td>11</td>
<td>General health, longstanding illness and acute sickness, by survey year and sex</td>
<td>1993-2007</td>
</tr>
<tr>
<td>Tables</td>
<td>Contents</td>
<td>Years available</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Children’s mean height, by survey year, age and sex</td>
<td>1995-2007</td>
</tr>
<tr>
<td>2</td>
<td>Children’s mean weight, by survey year, age and sex</td>
<td>1995-2007</td>
</tr>
<tr>
<td>3</td>
<td>Children’s mean Body Mass Index (BMI), by survey year, age and sex</td>
<td>1995-2007</td>
</tr>
<tr>
<td>4</td>
<td>Children’s overweight and obesity prevalence, by survey year and sex</td>
<td>1995-2007</td>
</tr>
<tr>
<td>5</td>
<td>Children’s self-reported cigarette smoking status, by survey year, age and sex</td>
<td>1997-2007</td>
</tr>
<tr>
<td>6</td>
<td>Children’s self-reported experience of alcohol, by survey year, age and sex</td>
<td>1999-2007</td>
</tr>
<tr>
<td>7</td>
<td>Children’s fruit and vegetable consumption, by survey year, age and sex</td>
<td>2001-2007</td>
</tr>
<tr>
<td>8</td>
<td>Children’s self-assessed general health, by survey year, age and sex</td>
<td>1995-2007</td>
</tr>
<tr>
<td>9</td>
<td>Children’s longstanding illness, by survey year, age and sex</td>
<td>1995-2007</td>
</tr>
<tr>
<td>10</td>
<td>Children’s acute sickness, by survey year, age and sex</td>
<td>1995-2007</td>
</tr>
</tbody>
</table>
Introduction

The Health Survey for England is a series of annual surveys designed to measure health and health-related behaviours in adults and children living in private households in England. The survey was commissioned originally by the Department of Health and, from April 2005 by The NHS Information Centre for health and social care. Since 1994, the survey has been carried out by the National Centre for Social Research and the Department of Epidemiology at the UCL Medical School.

The survey consists of an interview and nurse visit. It has a series of core elements that are included every year and special topics that are included in selected years. Core topics include general health, smoking, drinking, fruit and vegetable consumption, height, weight, blood pressure measurements and blood and saliva samples. Special topics include cardiovascular disease, physical activity, accidents, lung function measurement and certain blood analytes.

Each year there is a general population sample in which adults and children in selected households are eligible for inclusion. Adults aged 16 and over have been included since the start of the survey, children aged 2-15 were first included in 1995, and infants aged 0-1 have been included since 2001. In some years the size of the general population sample is reduced and a boost sample used to increase the proportion of participants from certain population groups, such as in 2002 when a boost sample of children and young adults was included, and 2005 when a boost of older people aged 65 and over was included. In 2007, there was a half size general population sample and an additional boost sample of children aged 2-15.

The trend tables focus upon key changes in core topics and measurements. Trend tables present the results within the general population sample, although in some years boost sample data are included. For example, 2002, 2005, 2006 and 2007 trends among children and young people are calculated on the basis of data from children and young adults in boost and general population samples. Data from older people in care homes collected for the 2000 survey were not included in trend tables as there were likely to be significant differences in the health of older people living in private households and care homes. The boost sample of older people in 2005 is included in the trend estimates for people aged 65 and over but excluded in the estimates for all men/women/adults. Estimates for all adults/men/women in 2005 are based on the general population sample, excluding the boost of older people.

The trend tables were revised and reformatted in 2006, and some new tables were introduced while others were not continued in the trend tables series. Full details of the changes are given in the commentary to the 2006 tables, available at http://www.ic.nhs.uk/pubs/hse06trends.

The following commentary focuses on key trends in the health of adults and children since 1993, or the earliest year for which comparable data are available. Only statistically significant differences are reported. As results are based on survey data they are affected by sampling error. In 2003, non-response weighting was introduced for the first time in the HSE series. Since the weighted data provide more accurate information for the individual years for which they are available, the following analysis of trends focuses on the weighted estimates for 2003-2007. For children, data for all years have been weighted to adjust for the probabilities of selection, since a maximum of two children are included in each household; from 2003 children’s data have also included non-response weighting.

The 2006 adults’ trend tables (available at http://www.ic.nhs.uk/pubs/hse06trends) present unweighted (directly comparable with previous years) and weighted estimates for 2003-2006. Children’s results in the 2006 tables are presented both with selection weighting only (directly comparable with previous years) and with selection and non-response weighting.

As well as the prevalence trend tables for adults and children, separate tables have been produced for key variables showing estimates of the numbers of people in the population.
These numbers estimates tables are available for adults for Body Mass Index (BMI) categories, smoking, alcohol consumption, fruit and vegetable consumption and physical activity, and for children for BMI categories, fruit and vegetable consumption and physical activity. An introduction to these tables, with a technical note explaining how they are produced, are available in the number estimates tables. In the tables, ‘-’ represents zero, and ‘0.0’ represents a percentage less than 0.5 but not zero.

Commentary

Adults

Blood pressure

Table 1 shows blood pressure level, by survey year, age and sex. High blood pressure is defined as a systolic blood pressure at or above 140mmHg or diastolic blood pressure at or above 90mmHg or on medication for high blood pressure, as described in the 2003 report. Data are presented for 2003-2007, using the Omron monitor to measure blood pressure, and using the 2003 survey definition. Before 2003, blood pressure was measured using a Dinamap monitor, and the definition included use of medication which may affect blood pressure, rather than medication for blood pressure, as used since 2003. The 2006 trend tables presented blood pressure using Dinamap values (with a conversion from Omron to Dinamap from 2003-2006) and the earlier definition; these tables can be found at http://www.ic.nhs.uk/pubs/hse06trends.

The prevalence of high blood pressure in 2007 was at 31% among men and 29% among women. Compared with 2003, the proportion in 2007 with controlled hypertension increased for both sexes (5% to 8% among men and 6% to 8% among women). The proportion of adults with untreated hypertension decreased from 2003 to 2007 for both sexes (20% to 17% among men and 16% to 14% among women).

There are no general population figures for blood pressure in 2004 as only the boost sample was measured in that year.

Table 1  Blood pressure level using Omron values and 2003 definition, by survey year, age and sex

Height and weight

Table 2 shows mean height, by survey year, age and sex. Between 1993 and 2007, mean height varied little from year to year. For both men and women, while there was no change overall between 1993 and 2000, there was a gradual increase in height over the period between 2000 and 2007 (from 174.4 to 175.3cm for men, and from 161.0 to 161.6cm for women). There was no obvious pattern of height variation across years for men and women within any age band.

Table 2  Mean height, by survey year, age and sex

Table 3 shows the pattern of mean weight from 1993 to 2007. Over this period, mean weight increased from 78.9kg to 83.5kg among men and from 66.6kg to 69.7kg among women.

Among men, mean weight increased least among those aged 16-24 (3.0kg between 1993 and 2007) and 25-34 (3.1kg) while it increased most among those aged 45-54 (6.1kg). Mean weight among women aged 16-24 did not change significantly over this period. Mean weight increased most among women aged 35-44 (4.1kg between 1993 and 2007).

Table 3  Mean weight, by survey year, age and sex
Obesity

Table 4 shows categories of body mass index (BMI) by survey year, age and sex. BMI is defined as weight in kg divided by the square of height in metres. Adult participants can be classified into the following BMI groups: 6

<table>
<thead>
<tr>
<th>BMI (kg/m²)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5 to less than 25</td>
<td>Normal</td>
</tr>
<tr>
<td>25 to less than 30</td>
<td>Overweight</td>
</tr>
<tr>
<td>30 and over</td>
<td>Obese</td>
</tr>
</tbody>
</table>

A further category, 40 kg/m² and over, representing those morbidly obese, is also shown.

The proportion of adults with a normal BMI decreased between 1993 and 2007, from 41% to 34% among men and from 50% to 42% among women. Among men the proportion who were overweight (BMI 25 to less than 30) decreased from 44% in 1993 to 41% in 2007.

There was a marked increase in the proportion of adults who were obese, a proportion that has gradually increased over the period examined. The proportion who were categorised as obese (BMI 30 or over) increased from 13% of men in 1993 to 24% in 2007 and from 16% of women in 1993 to 24% in 2007.

Estimates of the number of adults in the population for BMI categories from 2003-2007 are available in the number estimate tables. 3

Table 4  Body Mass Index (BMI), by survey year, age and sex

Waist circumference, a measure of central adiposity, has been measured in a number of years of HSE: 1993-4, 1997-8, 2001-2007. 7 Following the same pattern as for BMI, there have been significant increases for both men and women in mean waist circumference, and in the proportion with a raised waist circumference. Among men, the mean has risen from 93.2 cm in 1993 to 96.7 cm in 2007, and among women from 81.7 cm to 86.5 cm over the same period. The proportion of men with a raised waist circumference (more than 102 cm) rose from 20% in 1993 to 33% in 2007, while for women the proportion with a raised waist circumference (more than 88 cm) rose from 26% to 41%.

Table 5  Mean waist circumference and proportion with raised waist circumference, by survey year, age and sex

Guidance from the National Institute of Health and Clinical Excellence (NICE) 8 currently states that the assessment of the health risks associated with overweight and obesity should be based on both BMI and waist circumference in adults with a BMI less than 35 kg/m² as follows:

<table>
<thead>
<tr>
<th>BMI classification</th>
<th>Waist circumference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Normal weight</td>
<td>No increased risk</td>
</tr>
<tr>
<td>Overweight (25 to less than 30 kg/m²)</td>
<td>No increased risk</td>
</tr>
<tr>
<td>Obesity I (30 to less than 35 kg/m²)</td>
<td>Increased risk</td>
</tr>
</tbody>
</table>

For men, low waist circumference is defined as less than 94 cm, high as 94–102 cm, and very high as greater than 102 cm. For women, low waist circumference is less than 80 cm, high is 80–88 cm and very high is greater than 88 cm. NICE also defines categories of Obesity II (35 to less than 40 kg/m²) and Obesity III (40 kg/m² or more). For adults with a BMI of 35 kg/m² or more, risks are assumed to be very high with any waist circumference.

Table 6 shows combined categories of BMI and waist circumference by survey year and sex. Using these categories to assess risk, there have been significant increases for both
men and women in the proportion found to be at high risk and very high risk. The proportion of men at high risk rose from 11% in 1993 to 13% in 2007, while for women the proportion rose from 12% to 16%. The equivalent figures for the very high risk category were 11% and 21% for men and 14% and 23% for women.

Table 6  Combined BMI categories and waist circumference, by survey year and sex

Cigarette smoking and alcohol

Table 7 shows self-reported smoking status, by survey year and sex and Table 8 shows self-reported cigarette smoking status, by survey year, age and sex.

Among men there was an increase overall in the proportion who never regularly smoked cigarettes (from 39% in 1993 to 48% in 2007). Correspondingly, the proportion of men who were current smokers declined overall from 28% in 1993 to 24% in 2007, as did the proportion who used to smoke regularly (from 33% to 28%). The proportion of men who smoked 20 or more cigarettes per day fell from 11% in 1993 to 7% in 2007. The proportion who smoked fewer than 10 cigarettes or 10 to 19 cigarettes a day showed no significant change (7% and 9% respectively in 2007).

The percentage of women who had never regularly smoked increased from 52% in 1993 to 58% in 2007, while the proportion of current smokers decreased overall in the same period, falling from 26% to 21%. As with men, there were no significant changes in the proportion of women who smoked fewer than 10 cigarettes per day (7% in 2007). Among women there was a significant decrease in those who smoked 10 to 19 cigarettes a day (11% in 1993 to 9% in 2007) and in those who smoked 20 or more cigarettes per day (from 8% to 4% over the same time period).

Estimates of the number of adults in the population for self-reported cigarette smoking status from 2003-2007 are available in the number estimate tables.3

Table 7  Self-reported cigarette smoking status, by survey year and sex

Table 8  Self-reported cigarette smoking status, by survey year, age and sex

Trends in alcohol consumption between 1998 and 2007 are shown in Table 9, based on the heaviest drinking day in the last week. Up to 2002, questions were also asked about usual weekly alcohol consumption, and trend tables from 1992-2002 based on these questions were included in the 2005 trend tables (www.ic.nhs.uk/pubs/hse05trends). In the 2006 and 2007 trend tables, the thresholds for drinking at recommended levels, and at twice recommended levels, have been revised for all survey years to correspond to those used by the General Household Survey (GHS) and other surveys. The tables show the proportion drinking up to and including four units for men, three units for women (rather than up to but below four or three units as in previous tables) for recommended levels. For drinking at twice the recommended levels, the thresholds have changed to more than eight units for men and more than six units for women (rather than eight or more/ six or more as in previous tables).

Table 9 shows estimated alcohol consumption on the heaviest drinking day (the day on which individuals consumed the most alcohol) in the previous week.

The method used by the HSE to convert drinks to units remained essentially unchanged from 1991 until 2005, based on assumptions introduced by the General Household Survey (GHS) in 1990. In recent years, it has become clear that these assumptions are no longer valid. The average strengths of beers and wines have increased in the intervening years, and pubs, bars and restaurants now serve drinks in a broader range of measures; specifically, standard glasses of wine, formerly 125ml, are likely to be 175ml or even 250ml. From 2006, changes have been made in the way HSE and other surveys estimate alcohol consumption. The changes have an impact on the estimated consumption of beer, wine and alcopops; the most significant of these is the revision to the unit equivalent of a glass of wine. In 2006 the conversion for a glass of wine was changed from one unit to two units; in 2007 a further adjustment was made because participants were asked about size
of wine glass, and therefore separate conversion rates were used for 125ml, 175ml and 250ml wine glasses.\textsuperscript{12} Table 9 shows both the original and revised estimates for 2006, and the revised estimates for 2007; the revised methodology will be used to measure trends in future years.\textsuperscript{13}

Current government guidelines advise that daily drinking should not regularly exceed 4 units for men and 3 units for women. The proportion of men consuming more than 4 units/women consuming more than 3 units on the heaviest day’s drinking in the last week did not show substantial change between 2006 and 2007 (41% to 42% of men, 33% to 31% of women). Similarly there was no change between 2006 and 2007 in the proportion who drank more than twice the recommended amount (24% to 26% among men, 16% to 15% among women). See the 2006 trend tables for discussion of trends up to that year based on the original method of conversion to units.\textsuperscript{13}

Revising the way surveys calculate adults’ alcohol consumption enables a better understanding of how much adults in England currently drink, but it is important to note that the difference between the original and revised measures do not reflect actual changes in consumption.

Estimates of the number of adults in the population for alcohol consumption (on the heaviest drinking day in the last week) from 2003-2007 are available in the number estimate tables.\textsuperscript{3}

Table 9 Estimated alcohol consumption on heaviest drinking day in the last week, by survey year, age and sex

**Fruit and vegetable consumption**

Questions about fruit and vegetable consumption were first included in 2001, and are designed to assess fruit and vegetable consumption in terms of portions per day. For both men and women the proportion who consumed five or more portions per day increased significantly; from 22% in 2001 to 27% in 2007 among men, and from 25% to 31% among women.

Estimates of the number of adults in the population for fruit and vegetable consumption from 2003-2007 are available in the number estimate tables.\textsuperscript{3}

Table 10 Fruit and vegetable consumption, by survey year, age and sex

**General health**

Table 11 shows trends in general health, longstanding illness and acute sickness.

Between 1993 and 2007, the proportion reporting very good and good general health has fluctuated between 74% and 78% among men and between 73% and 76% among women (77% and 74% respectively in 2007), with no clear pattern of variation. The prevalence of very bad or bad general health has ranged from 4% to 8% across both sexes over the same period.

The prevalence of longstanding illness among men increased overall from 40% in 1993 to around 44% between 1997 and 2003, but appears to have decreased gradually over the last four years; it was 42% in 2007. Among women, prevalence increased from 40% in 1993 to 47% in 2004, but has since decreased slightly and was 44% in 2007.

Acute sickness is defined as any illness or injury (including any longstanding conditions) in the last two weeks that have caused the participant to cut down on things they usually did.

The prevalence of acute sickness ranged from 12% to 16% of men and from 14% to 19% of women.

Table 11 General health, longstanding illness and acute sickness, by survey year and sex
**Cardiovascular disease**

Table 12 presents variations between 1994, 1998, 2003 and 2006 in IHD (ischaemic heart disease), stroke, and IHD or stroke.

The prevalence of IHD did not show substantial changes between 1994 and 2006 in most age groups. Overall, male prevalence was 6.0% in 1994, 7.1% in 1998 and 6.5% in 2006. The oldest age group (75 and over) was the only one showing a consistent increase across survey years. In women, estimates remained similar over the years examined, being 4.0% in 2006. There was no obvious pattern up to the age of 64, but a gradual increase among those aged 75 and over.

The prevalence of stroke in women increased from 1.6% in 1994 to 2.2% in 2006; similarly, the overall rate of stroke in men has risen from 1.8% to 2.4%. Most of this change is accounted for by increases among those aged 75 and over. For men up to the age of 74, the prevalence of IHD, stroke, and IHD or stroke has remained relatively unchanged since 1994, while the respective prevalence rates among men aged 75 and over have risen markedly (stroke 8.6% to 13.1% from 1994 to 2006, and IHD or stroke 27.7% to 36.9%).

There are no figures available for cardiovascular disease in 2007.


**Diabetes**

Diabetes prevalence was measured in 1994, 1998, 2003 and 2006. Prevalence almost doubled between 1994 and 2003; the largest increases were in men and women aged 45 and over. There has been a further rise since 2003 from 4.3% to 5.6% in men and from 3.4% to 4.2% in women.

There are no figures available for diabetes in 2007.


**Physical activity**

Table 14 shows the proportion achieving different levels of physical activity in 1997, 1998, 2003, 2004 and 2006. Definitions of these categories are as follows:

- **High activity**: 30 minutes or more of moderate or vigorous activity on at least five days per week
- **Medium activity**: 30 minutes or more of moderate or vigorous activity on one to four days per week
- **Low activity**: Lower levels of activity.

The ‘high’ category corresponds to meeting the current physical activity recommendations and is the minimum activity level required to gain some general health benefits (e.g. reduction in the relative risk for cardiovascular morbidity).

For both men and women the proportion achieving high levels of physical activity has increased. This has been a gradual increase over the period, from 32% in 1997 to 40% in 2006 for men, and from 21% to 28% for women. For both sexes the proportion reaching this level of activity fell steadily with age.

There are no figures available for physical activity levels among adults in 2007.

Estimates of the number of adults in the population for physical activity categories for 2003, 2004 and 2006 are available in the number estimate tables.

Children

Height and weight

Infants (aged 0-1) were first included in the survey in 2001. Therefore, trends in height, weight and obesity are examined separately for the periods 1995 to 2001 (ages 2-15) and 2001 to 2007 (ages 0-15).

Table 1 shows children’s mean height, by survey year, age and sex. Overall, children’s mean height increased between 1995 and 2001. Mean height increased from 131.9cm in 1995 to 133.9cm in 2001 among boys aged 2-15, and from 130.6cm in 1995 to 132.8cm in 2001 among girls aged 2-15. There was a further increase between 2001 and 2007 among boys aged 0-15 from 129.3cm to 132.2cm, and among girls aged 0-15 from 128.1cm to 130.2cm. There was no clear pattern of trends within different age groups.

Table 1  Children’s mean height, by survey year, age and sex

Table 2 shows children’s mean weight, by survey year and sex. Between 1995 and 2001, mean weight of children aged 2-15 increased overall from 33.0kg to 34.5kg among boys, and from 32.8kg to 34.6kg among girls. Between 2001 and 2007 there was no significant increase in mean weight.

Table 2  Children’s mean weight, by survey year, age and sex

Obesity

Body mass index (BMI) is defined as weight in kilograms divided by the square of height in metres. Mean BMI by survey year and sex is shown in Table 3 and the prevalence of obesity and overweight among children aged 2-15 is shown in Table 4. The UK National BMI percentiles have been used to define overweight and obesity in children as over the 85th or 95th BMI percentiles respectively of the 1990 reference population.

Between 1995 and 2001, mean BMI increased overall among boys (from 17.7 to 18.2) and girls (from 18.1 to 18.6) aged 2-15. Among boys and girls aged 0-15, mean BMI rose between 2001 and 2004 (from 18.1 to 18.6 among boys and 18.4 to 19.3 among girls) though it has dropped back to 18.3 and 18.6 respectively in 2007, not significantly different from 2001.

Table 3  Children’s mean Body Mass Index (BMI), by survey year, age and sex

Among boys and girls aged 2-15, the proportion who were obese increased overall between 1995 and 2007, from 11% in 1995 to 17% in 2007 among boys, and from 12% in 1995 to 16% in 2007 among girls.

The same overall increase was apparent both among younger children aged 2-10 and boys aged 11-15. Among those aged 2-10, the prevalence of obesity increased from 10% to 16% among boys, and from 10% to 14% among girls between 1995 and 2007. In the 11-15 age group, the prevalence of obesity increased overall from 14% to 18% among boys; there was no significant increase in obesity among girls aged 11-15.

The estimates for the most recent years suggest that the trend in obesity may be flattening out, and the next couple of years’ data will be important in confirming whether this is a continuing pattern, or whether the longer term trend continues upward. There has been no statistically significant change in the prevalence of obesity year on year between 2005 and 2006, or between 2006 and 2007. The only exception to this is a statistically significant decrease between 2005 and 2006 among girls aged 2-15.14

Estimates of the number of children in the population for BMI categories from 2003-2007 are available in the number estimate tables.3

Table 4  Children’s overweight and obesity prevalence, by survey year and sex
Cigarette smoking and alcohol

Table 5 shows children’s self-reported cigarette smoking status, by survey year, age and sex. Trends are examined between 1997 and 2007, as the questions were changed in 1997.

The proportion of children aged 8-15 who had ever smoked decreased overall from 18% of boys in 1997 to 12% in 2007, and from 20% to 11% of girls. On average over survey years, the proportion of boys and girls who had ever tried smoking increased with age.

Table 5  Children’s self-reported cigarette smoking status, by survey year, age and sex

Table 6 shows children’s self-reported experience of drinking alcohol, by survey year, age and sex. Trends are examined between 1999 and 2007, as the questions were changed in 1998 and questions on alcopops were added for 8-12 year olds in 1999. The prevalence of boys ever having had a proper alcoholic drink (including alcopops) ranged from 42% to 47% between 1999 and 2003, dropping in the following four years to 35% in 2007. The proportion of girls who had ever had a proper alcoholic drink varied between 39% and 43% from 1999 to 2004, and was 34% in 2007, not significantly different from 1999.

Table 6  Children’s self-reported experience of alcohol, by survey year, age and sex

Fruit and vegetable consumption

Between 2001 and 2004, there were no significant changes in mean portions of fruit and vegetables consumed among children aged 5-15, but there was an increase in 2005 both in the average number of portions of fruit and vegetables eaten daily and the proportion of children eating five or more portions per day (meeting the recommended guidelines). There was a further significant increase among girls in 2006. This reflects increases in fruit and vegetable consumption reported by adults (see Adults Table 10). There was no significant change in mean portions of fruit and vegetables consumed between 2006 and 2007.

In 2007, boys consumed an average of 3.3 portions of fruit and vegetables per day and girls an average of 3.4, compared with an average of between 2.4 to 2.7 portions per day among boys and between 2.6 and 2.7 portions per day among girls between 2001 to 2004. 21% of both boys and girls consumed at least 5 portions per day in 2007, compared with 10% to 13% between 2001 to 2004. There were no clear trends in the proportion of children in different consumption bands, or trends by age.

Estimates of the number of children aged 5-15 in the population for fruit and vegetable consumption from 2003-2007 are available in the number estimate tables.

Table 7  Children’s fruit and vegetable consumption, by survey year, age and sex

General health

Table 8 shows the prevalence of very good or good general health, by survey year, age and sex. Overall, over the period from 1995 to 2007 at least 90% of boys and girls reported very good or good general health. The proportion of children reporting very good or good health increased overall between 1995 and 2007, from 90% to 95% among boys and from 92% to 94% among girls.

Table 8  Children’s self-assessed general health, by survey year, age and sex

Table 9 shows the prevalence of longstanding illness, by survey year, age and sex. Among boys, prevalence of longstanding illness varied between survey years (from 20% to 29%), while that for limiting longstanding illness varied between 7% and 11%. Among girls, prevalence of longstanding illness between 1995 and 2007 varied between 16% and 25%, while that for limiting longstanding illness varied between 5% and 9%. While year on year changes were generally small, prevalence of both longstanding and limiting longstanding illnesses appears to be decreasing gradually.

Table 9  Children’s longstanding illness, by survey year, age and sex
Table 10 shows the prevalence of acute sickness, by survey year, age and sex. Acute sickness is defined as any illness or injury (including any longstanding conditions) in the last two weeks that have caused the participant to cut down on things they usually did. Prevalence of acute sickness varied between 8% and 14% for boys and 10% to 14% for girls, but there were no obvious trends in acute sickness between 1995 and 2007.

Table 10  Children’s acute sickness, by survey year, age and sex

Physical activity

Table 11 shows the proportion of children in different physical activity categories for 2002, 2006 and 2007. The categories were defined as follows:

- High: active for at least 60 minutes on seven days
- Medium: active for 30-59 minutes on seven days
- Low: lower level of activity than that described above

These categories were based on the Chief Medical Officer’s (CMO’s) recommendations for physical activity for children and young people, with the ‘high’ category representing the recommended level of activity of at least moderate intensity.

There was little variation across years in the proportions of children in each of the levels of physical activity, with 72% of boys and 63% of girls in the high category in 2007, and 15% of boys and 19% of girls in the low category. Among girls, the proportion in the high category decreased with age.

Estimates of the number of children aged 2-15 in the population for physical activity categories for 2006 and 2007 are available in the number estimate tables.3

Table 11  Children’s physical activity levels, by survey year, age and sex.

References and notes

1 In 2003, key survey variables using weighted and unweighted estimates were compared. This showed that there are small differences between weighted and unweighted results, which are generally larger for men than women. See Blake, M. ‘Weighting the data’ in Sproston K, Primastesta P (eds) Health Survey for England 2003. Volume 3: Methodology and documentation, Section 7.4.2.

2 Standard errors of the mean, shown in some tables, have been calculated using the statistical package STATA, as in previous years. In the 2007 report (www.ic.nhs.uk/pubs/hse07healthylifestyles) standard errors have been calculated using the SPSS Complex Samples module, and while prevalences and means are identical in each case there are some instances where the standard errors in these two packages differ by 0.01-0.02. The explanation is that the two software packages deal differently with the situation where a stratification cell/category only contains one Primary Sampling Unit (PSU). This problem can arise when the estimation focuses on a small subset of the HSE data (e.g. adults with valid BMI or children aged 8-15 with smoking data). In any case where the difference in the standard errors produced in the two packages would determine statistical significance, users should exercise caution about interpreting significance so close to the benchmark 5%.


4 In 2003, a new automated device, the Omron HEM 907, was introduced to measure blood pressure, as a replacement for the Dinamap 8100, which had become obsolete. In previous trend tables the Omron values for 2003-2006 were translated into Dinamap values to allow comparison with previous years. In the 2007 tables only Omron values are presented, for 2003 onwards.


6 In HSE 2003, the categorisation of BMI changed to reflect recent medical opinion which now regards it as more appropriate to define 18.5 to 25 kg/m² as desirable and less than 18.5 as undesirable. Reports for HSE 2003 to 2006 have used this revised definition, and for the purpose of trend analysis the revised definition has also been used for 1993 to 2002. This replaces the earlier definition of desirable weight of over 20 to 25kg/m². See Hirani V, Chapter 6: Anthropometric measures, overweight, and obesity in Health Survey for England 2003: Volume 2: Risk factors for cardiovascular disease.

7 Waist circumference was also measured among adults aged 65 and over in 2000.


11 The table below shows the original conversion factors used by the HSE until 2005 and the revised conversion factors also shown in Table 9.

<table>
<thead>
<tr>
<th>Type of drink</th>
<th>Measure</th>
<th>Original equivalent units of alcohol</th>
<th>Revised equivalent units of alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal strength beer, lager, stout, cider, shandy (less than 6% ABV)</td>
<td>Pint</td>
<td>2 amount in pints</td>
<td>2 amount in pints multiplied by 2.5</td>
</tr>
<tr>
<td></td>
<td>Can or bottle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small cans (size unknown)</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Large cans or bottles (size unknown)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Strong beer, lager, stout, cider (6% ABV or more)</td>
<td>Pint</td>
<td>3 amount in pints</td>
<td>4 amount in pints multiplied by 4</td>
</tr>
<tr>
<td></td>
<td>Can or bottle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small cans (size unknown)</td>
<td>1.5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Large cans or bottles (size unknown)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Spirits and liqueurs</td>
<td>Glass (single measure)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sherry, martini and other fortified wines</td>
<td>Glass</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wine</td>
<td>Glass</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Alcopops</td>
<td>Small can or bottle</td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>

12 In 2007 the unit conversions for glasses of wine were as follows:

<table>
<thead>
<tr>
<th>Originalequivalent units of alcohol</th>
<th>Revised equivalent units of alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 amount in pints</td>
<td>2 amount in pints multiplied by 2.5</td>
</tr>
<tr>
<td>1 amount in pints</td>
<td>1 amount in pints multiplied by 4</td>
</tr>
<tr>
<td>1.5 amount in pints</td>
<td>2</td>
</tr>
<tr>
<td>3 amount in pints</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

13 For information on trends using the original method, and differences between the original and revised estimates for 2006, see the 2006 trend tables commentary (available at www.ic.nhs.uk/pubs/hse06trends).

14 The estimate for obesity for girls aged 11-15 in 2004, based on a small sample, was higher than other years. The long term trends suggest that 2004’s estimate may have been an outlier in the series (due to random variation), and otherwise the trend appears to be flattening out for this and other age groups over the most recent years.

15 The question on limiting longstanding illness was introduced in 1996.
National Centre for Social Research
www.natcen.ac.uk

The National Centre for Social Research is the largest independent social research institute in Britain, specialising in social survey and qualitative research for the development and evaluation of policy. NatCen specialises in research in public policy fields such as health, housing, employment, crime, education and political and social attitudes. Projects include ad hoc and continuous surveys, using face-to-face, telephone and postal methods; many use advanced applications of computer assisted interviewing. NatCen has approximately 300 staff, a national panel of over 1,000 interviewers and 200 nurses who work on health-related surveys.

Department of Epidemiology and Public Health, UCL Medical School
www.ucl.ac.uk/epidemiology

The Department of Epidemiology and Public Health, chaired by Professor Sir Michael Marmot, is a leading centre for research into the social determinants of health. The department has a strong interdisciplinary structure. The Department houses over 170 staff, in 11 main research groups, namely the Joint Health Surveys Unit, part of the Health and Social Surveys Research Group; Cancer Research UK-funded Health Behaviour Research Centre; Central and Eastern Europe Research Group; Dental Public Health; Health Care Evaluation Group; International Centre for Life Course Studies; MRC Unit for Lifelong Health and Ageing (including the National Survey of Health and Development); Psychobiology Group; Clinical Epidemiology Group; Genetic Epidemiology Group; and the Whitehall II Study. Collaborative research is conducted through the International Institute for Society and Health and across the Division.

The Department’s research programme is concerned particularly with social factors in health and illness and inequalities in these, including national cross-sectional surveys of health and behaviour (such as diet), longitudinal studies of cardiovascular disease (Whitehall studies) and the English Longitudinal Study of Ageing (ELSA); international studies of cardiovascular disease and diabetes; sociodental indicators of need; and the socio-economic and policy implications of an ageing population.