Health Survey for England

2013

Health, social care and lifestyles

Summary of key findings

A survey carried out on behalf of the Health and Social Care Information Centre

Joint Health Surveys Unit

NatCen Social Research that works for society

Department of Epidemiology and Public Health, UCL
# Health Survey for England 2013

## Health, social care and lifestyles

### Summary of key findings

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Introduction

The Health Survey for England (HSE) is part of a programme of surveys commissioned by the Health and Social Care Information Centre. It has been carried out since 1994 by the Joint Health Surveys Unit of NatGen Social Research and the Research Department of Epidemiology and Public Health at UCL (University College London). The study provides regular information that cannot be obtained from other sources on a range of aspects concerning the public’s health and many of the factors that affect health. The series of Health Surveys for England was designed to monitor trends in the nation’s health, to estimate the proportion of people in England who have specified health conditions, and to estimate the prevalence of certain risk factors and combinations of risk factors associated with these conditions. The survey is also used to monitor progress towards selected health targets.

Each survey in the series includes core questions and measurements (such as blood pressure, anthropometric measurements and analysis of blood and saliva samples), as well as modules of questions on specific issues that vary from year to year. In some years, the core sample has also been augmented by an additional boosted sample from a specific population subgroup, such as minority ethnic groups, older people or children; there was no boost in 2013.

This is the 23rd annual Health Survey for England. All surveys have covered the adult population aged 16 and over living in private households in England. Since 1995, the surveys have included children who live in households selected for the survey; children aged 2-15 were included from 1995, and infants under two years old were added in 2001. Those living in institutions were outside the scope of the survey. This should be borne in mind when considering survey findings, since the institutional population is likely to be older and less healthy than those living in private households.

The HSE in 2013 provided a representative sample of the population at both national and regional level. 9,408 addresses were randomly selected in 588 postcode sectors, issued over twelve months from January to December 2013. Where an address was found to have multiple dwelling units, a random selection was made and a single dwelling unit was included. Where there were multiple households at a dwelling unit, again one was selected at random.

All adults and children in selected households were eligible for inclusion in the survey. Where there were three or more children aged 0-15 in a household, two of the children were selected at random to limit the respondent burden for parents. A nurse visit was arranged for all participants who consented.

A total of 8,795 adults and 2,185 children were interviewed. A household response rate of 64% was achieved. 6,183 adults and 1,455 children had a nurse visit. It should be noted that, as in 2011 and 2012, there was no child boost sample in 2013. Therefore the scope for analyses of some data for children may be limited by relatively small sample sizes.

Topic coverage is shown in Figure 1. The focus for the 2013 survey was social care. A short module of questions on social care has been included since 2011 as part of the core, and additional funding was obtained to include the full module in 2013. This provides additional detail on tasks for which help was provided, patterns of care, payment, and aids and equipment used.
### Figure 1

#### Health Survey for England 2013: Contents

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<td>Physical activity (short questionnaire)</td>
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<td>Perception of own weight/child’s weight</td>
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<table>
<thead>
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<td>Blood pressure</td>
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<td>Saliva sample</td>
<td>●</td>
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<tr>
<td>Blood sample (non-fasting), including for flu vaccinations</td>
<td>●</td>
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</tbody>
</table>

*This module was administered by self-completion for children aged 8-15.*

*This module was administered by self-completion for those aged 16-17 and some aged 18-24.*
As well as core topics, further additional short modules of questions were also included for adults, covering eyesight, end of life care, shift work, average weekly alcohol consumption, well-being, and physical activity.

Children aged 13-15 were interviewed themselves, and parents of children aged 0-12 were asked about their children, with the interview including questions on general health and physical activity. For children aged 8-15 and some young adults, details of drinking and smoking were collected by self-completion.

Height was measured for participants aged 2 and over, and weight was measured for all participants. Nurses measured waist and hip circumference among those aged 11 and over and blood pressure among those aged 5 and over. Non-fasting blood samples and saliva samples were collected from adults aged 16 and over, and saliva samples for cotinine analysis were collected from children aged 4-15. Nurses obtained written consent before taking samples from adults, and parents gave written consent for their children’s samples. Consent was also obtained to send results to their GPs if participants wished.

Results

This booklet presents findings for adults and children from the 2013 Health Survey for England. All 2013 data in this report are weighted; weighting for adults corrects for non-response, and weighting for children corrects for selection differences and non-response. Both weighted and unweighted bases are given in each table in the main report. The unweighted bases show the number of participants involved. The weighted bases show the relative sizes of the various sample elements after weighting, reflecting their proportions in the population in England.

The full report consists of two volumes, published as a set as ‘The Health Survey for England 2013’:
Volume 1: Health, social care and lifestyles
Volume 2: Methods and documentation.

The second volume, Methods and documentation, provides details of the survey design, methods and response.
Social Care

Social care involves provision of help with personal care and domestic tasks to enable people to live as independently as possible. It affects the daily lives of several million people in England. Some 1.1 million received community-based care arranged by their local authority in 2012-2013 and at least a further 270,000 buy care privately. While those who need care and support are of all ages, many are older people needing help because of problems associated with long-term physical or mental ill-health, disability or problems relating to old age; of the 1.1 million who received community-based care, 0.7 million were aged 65 and over.

A central aspect of the policies of successive governments has been to help people maintain their independence in their own homes for as long as possible. The availability of early, preventative interventions has been seen as a means of helping to reduce the need for more intensive levels of support or crisis interventions at a later stage. Reforms announced for adult social care will have substantial impact on the assessment of care needs, determination of eligibility for care, financing, commissioning and provision of adult social services. Data from the HSE on patterns and duration of community-based care received by older people in 2013 and 2014 will provide valuable baseline information against which to assess the impact of the reforms.

Questions on social care have been asked in the HSE since 2011, and additional funding was obtained to include further questions in 2013. Participants aged 65 and over were asked whether they needed help with a list of Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs); these are activities relating to personal care and mobility about the home, and other activities important to living independently.

### ADLs
- Having a bath or a shower
- Using the toilet
- Getting up and down stairs
- Getting around indoors
- Dressing or undressing
- Getting in and out of bed
- Washing face and hands
- Eating, including cutting up food
- Taking medicine

### IADLs
- Doing routine housework or laundry
- Shopping for food
- Getting out of the house
- Doing paperwork or paying bills

### Need for and receipt of help
- 23% of men and 33% of women aged 65 and over needed help with at least one ADL, and 22% and 35% respectively reported needing help with at least one IADL.
- Overall, 11% of men and 14% of women aged 65 and over had received help with at least one ADL in the last month, and 15% and 30% respectively had received help with at least one IADL.
- Both need for help and receipt of help increased with age.
- There was also variation based on equivalised household income, with greatest need and highest proportions receiving help in the third of households with lowest incomes.
- 19% of men and 29% of women aged 65 and over had some unmet need with at least one ADL, and 13% and 16% respectively had some unmet need with at least one IADL.
Among people who had received help in the last month, most had received this from informal helpers¹ only (88% of men and 71% of women for ADLs, 80% and 76% respectively for IADLs), rather than formal helpers only, or a combination of both.

Patterns of help and support

Help with ADLs was most frequently provided by a spouse or partner (76% of men and 44% of women), followed by daughters and sons. A higher proportion of women than men reported help from a daughter (11% for men and 28% for women). Help with IADLs was most frequently given by a spouse or partner for men (47%) and a daughter for women (38%). Friends and neighbours were more likely to have provided help with IADLs than ADLs.

Information was collected about the patterns of care provided by formal and informal helpers in the last week. Figures 2 and 3 show patterns of care provided by spouses, and for women, by daughters.

¹Informal helpers include relatives and friends or neighbours.
Spouses or partners mainly provided help every day, and a substantial proportion provided 20 or more hours a week (33% for men, 30% for women), while 30% and 39% respectively helped for one to nine hours per week. Most informal care was provided during the daytime only, though for men receiving informal care just over a third received both daytime and night care from their spouse, and for women just over a quarter did so.

Patterns of care provided by daughters to their mothers were different, reflecting the fact that many were not living with their parent. They were more likely to provide care once (25%) or 2-3 times per week (22%), to provide care for fewer than ten hours (68%), and to provide mainly daytime care (88%).

**Aids, equipment and features of the home**

Older people were asked whether they made use of a range of aids and equipment. An alarm to call for help, a grab rail or stair rail and a bath or shower seat were the most frequently mentioned. Women were more likely than men to use most types of equipment.

All adults were asked about accessibility features of their homes, even if they did not currently use them. Among those aged 65 and over, over bath and walk in showers were the most frequently mentioned features (and are not necessarily related to accessibility). Accessible parking or a drop off point and hand rails were also relatively common. Walk in showers, accessible parking and hand rails were much more likely to be found in the homes of older (65+) than younger (16-64) adults.

The majority of people aged 65 and over did not currently use any form of mobility aid (80% of men and 69% of women). Mobility aids were used more as age increased, particularly among women, with 60% of women aged 85 and over using a walking stick, 30% a zimmer frame and 17% a manual wheelchair.
Health and lifestyles

A number of health topics were covered by the HSE in 2013, and chapters in the report cover eye care, end of life care, medicines, shift work, and obesity and overweight. Lifestyle behaviours were also examined, with chapters on fruit and vegetable consumption and smoking. Data for both adults and children are presented for obesity, fruit and vegetable consumption and smoking. Some of the key results on these topics are summarised here.

**Eye care**

Vision impairment has a great impact on people’s lives and can restrict leisure activities and the ability to work and live an independent life, which in turn can affect other socio-economic factors. While only a small proportion of the UK population is registered as blind or partially sighted with severe and irreversible sight loss, recent estimates suggest that blindness and partial sight loss in adults cost the UK economy approximately £22 billion per year.

It has been estimated that over 50% of sight loss can be avoided. The Department of Health’s public health outcomes framework for England includes indicators for preventable sight loss as part of its aim to reduce the numbers of people living with preventable ill health. According to the RNIB a straightforward eye examination could identify symptoms that, if treated, could prevent sight loss, and an eye test is recommended at least once every two years.

**Self-reported eyesight**

HSE results in 2013 show that almost two thirds of adults rated their eyesight as excellent or very good, with women slightly less likely than men to give this assessment (66% of men and 62% of women). 8% of both sexes said that their eyesight was fair or poor. Fewer than 1% of adults were certified as blind or partially sighted.

Self-reported eyesight deteriorated with age for both men and women. Around a quarter of those aged 85 and over rated their eyesight fair or poor (26% of men and 24% of women). There was also an association with self-reported general health: those rating their health as very good had much lower levels of fair or poor eyesight (4% of both men and women) than those reporting very bad health (36% of men and 21% of women).

Those in the lowest income households were around twice as likely to report fair or poor eyesight as those in the highest income households, as shown in Figure 5.

**Eye tests**

A higher proportion of women than men reported having eye tests at least every two years, the minimum frequency recommended by RNIB (71% of women and 59% of men). Around one in ten adults said they only had a test if they had a problem, and fewer women than men reported never having a test (8% of women, 16% of men). Frequency of eye tests increased with age, as illustrated in Figure 6.

The reported frequency of eyesight tests decreased as equivalised household income decreased.
End of life care

End of life care has become an increasing priority within recent years for government, health service commissioners and health and social care professionals. The Department of Health published its ten year End of Life Care Strategy for England in July 2008. The aim of this strategy was to promote high quality care for all adults at the end of life. In addition to this, the National Institute for Health and Care Excellence published a quality standard for end of life care in 2011. Complementing work to change the way end of life care is delivered among health care professionals and carers, there has also been a push to improve public awareness of issues around end of life care, and to influence behaviour.

Approximately 500,000 people die in England each year. When asked, most people say they would prefer to die at home. However, mortality statistics show that place of death is most commonly in hospital. There is also evidence to suggest that there are differences in the perceived quality and experience of care in different settings and by illness type.

Experience of someone close dying in the last five years

A short module of questions about end of life care was included in the HSE 2013. Participants were asked whether anyone close to them had died of a terminal illness in the...
past five years. Around a quarter of participants reported that this had happened, with women more likely than men to report a close death (26% of women and 23% of men).

A large majority of the deaths reported were from cancer, with more women than men reporting this (74% of the deaths reported by women and 69% reported by men). This was much more common than the next most frequently reported illnesses, emphysema or other lung disease, and end stage heart failure, which were mentioned by fewer than one in ten participants.

People most commonly reported that the place the person close to them had died was a hospital (47% of men and 42% of women). Home was the next most common place of death (31% and 33%) followed by a hospice (14% and 16%), as shown in Figure 7.

**Figure 7**

Where the person died, by sex

<table>
<thead>
<tr>
<th>Place of death</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>47%</td>
<td>42%</td>
</tr>
<tr>
<td>At Home</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>In a hospice</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Nursing or residential care home</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Providing care and service use**

Overall 33% of men and 43% of women provided personal care, other care or both for the person close to them who died. More women than men reported having provided personal care to the person who died (34% compared with 26%), and similarly more women than men provided other care (21% and 14% respectively). Therefore women were also more likely than men to provide a combination of both kinds of care. The proportions providing care were higher in older and especially middle age groups.

Participants were asked whether palliative services or other support/care services (such as private carers, meals on wheels or voluntary support) were used. Participants who reported that someone close had died of cancer were twice as likely to mention palliative care use, compared with those reporting other illnesses. As Figure 8 shows, 68% of men and women reported that a person with cancer used a palliative care service, either on its own or in combination with other services, compared with 31% of men and 34% of women for people who had died of other illnesses.

**Medicines**

Patients depend on medicines to help maintain health, prevent illness, manage chronic conditions and treat disease. Prescribing medicines is the most common intervention provided to patients by the NHS. It is the second highest area of spending in the NHS, after staff costs. The cost of medicines in England in 2013 exceeded £15 billion, including costs in hospitals. In 2013, over 1 billion prescription items were dispensed in the community in England. This is an average of 2.7 million items every day. On average, 18.7 prescription items were dispensed per head of population in England in 2013.
Use of prescribed medicines

The HSE 2013 report includes analysis of the use of prescribed medicines in the last week by HSE 2012 and 2013 participants. It describes both the number of such medicines and the use of specific classes of medicines among all adult survey participants and by various subgroups of the population.

43% of men and 50% of women reported that they had taken at least one prescribed medicine in the last week. The proportion increased with age more sharply in men than women, but more young women than young men had taken at least one prescribed medicine in the last week (see Figure 9). 22% of men and 24% of women reported that they had taken at least three prescribed medicines in the last week. This proportion also increased with age, with more than half of participants aged 65-74 and more than 70% of those aged 75 and over taking at least three prescribed medicines.

The proportion of participants who reported that they had taken at least one prescribed medicine in the last week increased with decreasing income: 39% of men and 43% of women in the highest income quintile, compared with 53% and 58% in the lowest.

The majority of people with a longstanding illness had taken at least one prescribed medicine in the last week (69% of men and 78% of women, compared with 26% and 34%
respectively of those with no longstanding illness). The proportion who reported that they had taken at least three prescribed medicines in the last week was higher for those who reported that their longstanding illness was limiting: 40% of men and 45% of women compared with 30% of men and 28% of women with non-limiting longstanding illness.

**Classes of medicines**

The most frequently reported prescribed medicine classes were lipid-lowering medicines (16% of men and 12% women), anti-hypertensive medicines (14% and 15% respectively), and, for women, analgesics and/or non-steroidal anti-inflammatory drugs (12%). Men were considerably more likely than women to report taking lipid-lowering and anti-platelet medicine, while women were more likely to report taking analgesics and antidepressants, as shown in Figure 10.

**Shift work**

Shift work may involve a variety of working patterns and schedules, sometimes with a regular shift worked long term, and sometimes with rotating patterns. Shift workers are exposed to greater health risks compared with those who worked standard hours. Particularly those who work at night may be at risk of ill health because shift work can disrupt the circadian rhythms (internal clock) by interfering with the production of melatonin, disturbing sleep and causing fatigue. The risk of experiencing fatigue is also related to workload, potentially an issue for those working shifts longer than the traditional working day.

A chapter in the HSE 2013 report presents comparisons between shift workers and non-shift workers across a range of health and lifestyle factors. Shift working was defined as working ‘outside the hours of 7am to 7pm in your (main) job’.

**Prevalence of shift working**

Among the working population, men were more likely than women to report that they did shift work (33% of men and 22% of women). 22% of men worked in shift patterns most of the time, while 11% worked in shifts occasionally. 14% of women did shift work most of the time and 8% occasionally.

The proportion of those who did shift work was highest in the 16-24 age group, and declined with age both for men and women. Almost half of men and over a third of women aged 16-24 did shift work compared with fewer than a third of men and fewer than a fifth of women aged 55 and over.

The prevalence of shift work varied significantly by equivalised household income, being highest in the lowest two income quintiles (42-43% among men, 27-28% among women, compared with 21% and 19% respectively in the highest income quintile).
Shift workers and non shift workers

Comparisons showed a number of areas where shift workers’ health differed from non shift workers’. Both men and women in shift work were more likely to report fair or bad general health (28% of both sexes) than non shift workers (21% and 23%). Shift workers were also more likely to have a limiting longstanding illness (25% of men, 28% of women) than non shift workers (19% and 24% respectively).

Shift workers were more likely than non shift workers to be obese. This is reflected in higher mean body mass index (BMI) measurements, higher proportions classified as obese, and greater proportions with a very high waist circumference (see Figure 11 below). Perhaps related to this, men and women in shift work were more likely than non shift workers to have diabetes (10% of both men and women in shift work, compared with 9% and 7% respectively of others).

Current cigarette smoking prevalence was higher among shift workers than non shift workers. 28% of men in shift work currently smoked compared with 23% of other men in employment. The difference was even greater for women where 26% of shift workers currently smoked compared with 15% of non shift workers.

Fig. 11 shows the prevalence of high waist circumference among adults, by shift working and sex. Shift workers were more likely to have a high waist circumference compared to non shift workers, and this was true for both men and women. Shift workers were also more likely to have a very high waist circumference, again particularly for women.

Body mass index, obesity and overweight among adults

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Obesity is associated with an increased risk for a number of common causes of disease and death including diabetes, cardiovascular diseases and some cancers. For individuals classified as obese, the risk of poor health increases sharply with increasing BMI.

Successive governments have introduced a number of initiatives to tackle obesity in England. The current government has renewed their commitment to reduce the level of excess weight by working with a range of partners on prevention and treatment.

The prevalence of overweight and obesity is indicated by body mass index (BMI) as a measure of general obesity, and/or waist circumference as a measure of abdominal obesity. BMI, defined as weight in kilograms divided by the square of the height in metres (kg/m²) was calculated in order to group people into the following categories:

<table>
<thead>
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<th>BMI (kg/m²)</th>
<th>Description</th>
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<tr>
<td>Less than 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 or more</td>
<td>Obese</td>
</tr>
</tbody>
</table>
Mean BMI, obesity and overweight

In 2013 mean BMI was higher among men (27.4kg/m²) than women (26.9kg/m²). Around a quarter of adults (26% of men and 24% of women) were obese. Obesity was strongly related to age, as shown in Figure 12, rising through middle age, decreasing in the oldest age groups.

Overweight was more common than obesity, with 41% of men and 33% of women being overweight but not obese. Thus overall in 2013, 67% of men and 57% of women were either overweight or obese.

Rates of obesity and overweight were similar in 2013 to recent years. Obesity prevalence increased steeply between 1993 and 2000, and the rate of increase was less between 2000 and 2006. The prevalence of obesity has remained at a similar level since then. Figure 13 shows trends with three year moving averages.

Waist circumference

For men, a high waist circumference is defined as 94–102cm, and very high as greater than 102cm. For women, a high waist circumference is 80–88cm and very high is greater than 88cm.
Mean waist circumference in 2013 was higher among men (96.9cm) than women (87.4cm), and increased with age, with a slightly steeper increase among men. More women than men had a high or very high waist circumference (67% of women and 57% of men). For both sexes, the prevalence of a high waist increased with age, and unlike obesity there was no decreasing pattern in older age groups.

**Health risk from obesity**

Both BMI and waist circumference contribute to the National Institute for Health and Care Excellence calculation of health risk caused by overweight and obesity. By these definitions 18% of men had increased risk, 13% a high risk and 23% a very high risk. 14% of women had increased risk, 18% a high risk and 23% a very high risk. Overall, therefore, more than half of men and women were in the increased, high or very high risk categories.

**BMI, obesity and overweight**

There is considerable evidence that childhood overweight and obesity can be linked with numerous long-term and immediate health risks. Childhood and adolescent obesity can persist into adulthood, where the direct health risks of obesity are severe and well established. Childhood and adolescent overweight/obesity have been linked directly to middle-age mortality and morbidity.

In addition to the increased risk for health problems in later life, children face immediate health consequences of obesity, including increased risks for an abnormal lipids profile and elevated blood pressure. Associations between childhood obesity and increased asthma prevalence and incidence of Type 2 diabetes mellitus have been reported. Being overweight or obese can also have psychological effects.

In 2013 the prevalence of obesity and overweight was similar among girls and boys aged 2-15: 16% of boys and 15% of girls were classed as obese, and 30% and 29% respectively were classed as either overweight or obese. The proportion who were obese generally increased with age, from 9% of boys and girls aged 2-4 to 17% of boys and 22% of girls aged 13-15.

Levels of obesity varied according to equivalised household income. Among children aged 2-15, levels of obesity increased from 7% of boys and 6% of girls in the highest income quintile to 22% and 21% respectively in the lowest quintile.

Figure 14 shows trends in obesity and overweight between 1995 and 2013. The prevalence of obesity has increased since 1995, when 11% of boys and 12% of girls aged 2-15 were obese. There was a steady increase up to around 2004 and 2005, where obesity peaked. Levels have

![Figure 14](image-url)
been slightly lower than this peak in the last few years. The levels in 2013, at 16% for boys and 15% for girls, were not statistically significantly different from those over the last three or four years.²

Parent perceptions

Parents of children aged 4-15 were asked whether they thought that their child was about the right weight or too heavy or too light. Most parents thought that their child was about the right weight, and most of them were correct; however, just under a quarter in this group had a child who was overweight or obese.

Fruit and vegetable consumption

In 2002 the World Health Organization (WHO) began to develop a global strategy on diet, physical activity and health in the context of the rising burden of chronic diseases. Diseases like cardiovascular disease, stroke, diabetes and cancer present a major challenge to public health, particularly in developed countries.

A 2005 report estimated that food-related ill health is responsible for about 10% of deaths and illness, costing the NHS £6 billion annually. The vast majority of this burden is due to unhealthy diets. Dietary goals to prevent chronic diseases emphasise eating more fresh vegetables, fruits, and pulses. The ‘5 A DAY’ guidelines were developed based on the recommendation from the WHO that consuming 400g of fruit and vegetables a day can reduce risks of chronic diseases.

Fruit and vegetable consumption is measured in the HSE as an indicator of diet.

Adults

Mean daily fruit and vegetable consumption was higher in women than in men. Women consumed, on average, 3.7 portions per day compared with 3.5 for men. 28% of women ate five or more portions per day compared with 25% of men.

Daily fruit and vegetable consumption varied with age, with intake lowest among those aged 16-24 for both men and women.

Fruit and vegetable consumption in adults was associated with equivalised household income. The mean number of portions of fruit and vegetables consumed declined from the highest to the lowest income quintile, with 3.9 portions for men and 4.3 portions for women in the highest quintile and 2.9 portions and 3.2 portions respectively in the lowest quintile. Adults in the higher income quintiles were more likely than those in the lower income quintiles to meet the recommendation: 30% of men and 35% of women in the highest quintile ate five or more portions the previous day compared with 19% and 23% respectively in the lowest quintile (see Figure 15).

For both men and women, the proportion consuming five or more portions per day increased from 2001 reaching a peak in 2006. Since then, the proportion has dropped slightly, and in the last four or five years the proportions have been stable at around 24-25% of men and 27-29% of women meeting the recommendation, as shown in Figure 16.

Children

Mean daily fruit and vegetable consumption was higher in girls than in boys. Girls consumed, on average, 3.1 portions compared with 2.8 portions for boys. A similar proportion of boys and girls consumed five or more portions per day (16% of boys, 17% of girls).

For both boys and girls, there was an increase in the proportion consuming five or more portions per day after 2004, reaching a peak around 2006. Between 2006 and 2010 the prevalence had been fluctuating around 19%-21% for boys and 20%-22% for girls. In 2011, the proportion dropped slightly for boys from 19% to 16% and this has been maintained in 2013. For girls, there was a drop between 2011 and 2013 from 20% to 17% (see Figure 17). This broadly mirrors the pattern for adults, where there was a peak around 2006 and lower levels since then.

²The sample size for children in 2011, 2012 and 2013 is smaller than in previous years, as child boost samples were used between 2005 and 2010. The margins of error are larger with the smaller base sizes, and thus larger differences are required before significant changes can be detected.
Portions of fruit and vegetables eaten per day, by equivalised household income and sex

Base: Aged 16 and over

Men

Women

Trends in prevalence of eating five or more portions per day, 2001-2013, by sex

Base: Aged 16 and over

Children: trends in prevalence of eating five or more portions per day, 2001-2013, by sex

Base: Aged 5-15
Tobacco use is the leading cause of preventable illness and premature death in England and worldwide. In England in 2012, around 79,100 deaths were attributable to smoking, accounting for 22% of deaths in men and 14% of deaths in women aged over 35. Annual hospital admissions because of a disease that can be caused by smoking among adults aged over 35 have increased from 1.1 million in 1996/1997 to 1.6 million in 2011/2012. About 462,900 (5% of all hospital admissions in those aged over 35) are estimated to be attributable to smoking. The cost to the NHS of treating illnesses due to smoking was estimated to be £5.2 billion in 2006, accounting for approximately 5.5% of total health care costs.

**Adults: smoking prevalence**

HSE 2013 data showed that men were more likely to be cigarette smokers than women. 24% of men and 17% of women were current smokers. Current smoking was highest among those aged 25-34 and then declined with age. There was a much greater proportion of current smokers in lower income quintiles than in higher quintiles. The proportion of current smokers in the two lowest income quintiles was at least double the prevalence in the highest quintile, as shown in Figure 18.

Current smoking among men declined slowly between 1993 and 2006 (from 28% to 24%), but since then the prevalence has been fluctuating with little overall change. The proportion of men smoking in 2013, at 24%, was similar to that in 2006 and 2007, and not significantly different from the proportion in 2012 (22%). Further years’ data will be needed to see how the trend continues. Among women, the decrease in current smoking has continued at a steadier pace, from 26% in 1993 to 17% in 2013.

New questions on intentions to give up smoking were included for current smokers in 2013. There were differences between men and women, with a higher proportion of men than women reporting that they did not want to stop smoking (18% and 15% respectively). Older smokers were more likely than younger smokers to say they did not want to stop smoking.

**Nicotine delivery products**

3% of men and women reported that they currently used e-cigarettes, and 2% that they used other nicotine delivery products, with similar patterns in both sexes. Current use of nicotine delivery products was highest among those aged 25-54, dropping to very low levels among those aged 75 and over. Current smokers were more likely than ex smokers ever to have used e-cigarettes or other nicotine delivery products, as shown in Figure 19.

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3. 1993 is the first year for which HSE data are available.
Objective measures of tobacco use

Cotinine, a derivative of nicotine, is measured from saliva samples. Among all participants who were not currently using nicotine delivery products, 24% of men and 18% of women had cotinine levels of 12ng/ml or above, which is indicative of personal tobacco use. Almost all self-reported current smokers were found to have cotinine levels of 12ng/ml or above. It is interesting to note that a small proportion of self-reported ex-smokers (6% of men and 7% of women) also had cotinine levels of 12ng/ml or above; the proportion decreased steeply with age. Very few self-reported never smokers had cotinine levels of 12ng/ml or above (2% of men and 1% of women). 74% of men and 76% of women who were non-smokers had undetectable saliva cotinine.

Children: prevalence of smoking

Each year in the UK, 207,000 children aged 11-15 start smoking. Individuals who start smoking at a young age have higher age-specific rates for all types of tobacco-related cancers, linked primarily to their earlier exposure to the harmful toxins from cigarettes. Young smokers also experience more short- and long-term respiratory symptoms than their non-smoking peers. Smoking can lead to impaired lung growth in children and young adults.

Those aged 11-16 who smoke can experience high rates of dependence on cigarettes, showing signs of addiction within four weeks of starting to smoke. It has been suggested that smoking a single cigarette is a risk indicator of becoming a regular smoker up to three years later.

The chapter on children’s smoking in the 2013 report combines data from 2011, 2012 and 2013 to provide robust sample sizes. Among children aged 8-15, 8% of boys and 7% of girls reported that they had ever smoked a cigarette, as shown in Figure 20.

A small proportion (1%) reported that they were regular smokers (at least one cigarette per week). This was higher among older children: 4% of boys aged 15 and 6% of girls aged 15 reported that they smoked regularly. Among children aged 13-15 who reported that they had ever smoked, 20% of boys and 23% of girls reported having smoked in the last week.

Exposure to other people’s smoke

In 2011-2013, no exposure to other people’s smoke was reported for 84% of both boys and girls aged 0-15. Overall, an average of 1.0 hour exposure to other people’s smoke per week was reported for boys aged 0-15, and 1.2 hours for girls. The reported mean number of hours per week increased with age, to 1.6 hours for boys and 2.4 hours for girls aged 13-15. Nevertheless, this level of reported exposure was much lower than levels reported in HSE 2007-2008, as shown in Figure 21. The overall average in 2007-2008 was 2.6 hours for boys and 2.7 hours for girls aged 0-15, rising to 7 hours for boys and 8 hours for girls aged 13-15.
Saliva samples were taken from children aged 4-15 during the nurse visit, from which cotinine measurements were derived. Cotinine levels of 12ng/ml or more indicate personal smoking, while levels below this are used to measure exposure to secondhand smoke. Among self-reported non-smokers with cotinine levels below 12ng/ml, 59% of boys and 63% of girls had undetectable levels of cotinine (less than 0.1ng/ml), indicating that they were unlikely to have been exposed to others’ smoke. Younger children (aged 4-12) were more likely than older children (aged 13-15) to be non-smokers who had been exposed to others’ smoke.

Children from lower income households were more likely to be exposed to secondhand smoke than those from higher income households. 35% of boys and 50% of girls in the lowest income quintile had undetectable cotinine, compared with 88% and 81% respectively in the highest quintile.

Geometric mean cotinine levels were higher among non-smoking children with one or more parents who currently smoked cigarettes than those in households with neither parent smoking.4

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4 Geometric means have been presented for non-smokers as their cotinine data have a very skewed distribution: there are large numbers of extremely low values and a small number of very high values. Using the arithmetic mean is not appropriate as this can be distorted with such a distribution. The geometric mean takes the outliers with very high values into account by estimating the typical value (or central tendency) of the set of data.
This booklet is a summary of the findings from the 2013 Health Survey for England: Craig R, Mindell J (eds). Health Survey for England 2013: Health, social care and lifestyles.

Volume 1: Health, social care and lifestyles
Volume 2: Methods and documentation.


Full results are available in the survey report at www.hscic.gov.uk/pubs/hse2013, and also in an anonymised data file lodged with the UK Data Service. Reports and data files from earlier surveys are similarly available.

Tables showing selected trends from 1993 to 2013 will be found on the Health and Social Care Information Centre website at www.hscic.gov.uk/pubs/hse13trend or at the address below.

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Research Department of Epidemiology and Public Health, UCL

The Research Department of Epidemiology and Public Health, chaired by Professor Richard Watt, is a leading centre for research into the social determinants of health, and has a strong interdisciplinary structure. The Department houses 180 staff in 11 main research groups, including the Joint Health Surveys Unit, part of the Health and Social Surveys Research Group (HSSRG). The department studies population health (including health behaviours and treatments) and inequalities in health. Much of the HSSRG’s research is carried out using large population surveys that collect data on health, economic and social issues, using a variety of survey methods and statistical techniques, while qualitative methods are also used by the group. The group is multidisciplinary, with epidemiology, sociology, statistics, public health, demography and geography all represented.

The Joint Health Surveys Unit has been created by NatCen Social Research and the Health and Social Surveys Research Group within the Research Department of Epidemiology and Public Health at UCL. The JHSU enables collaborative working, combining the strengths and talents of each organisation, to carry out major health surveys such as the Health Survey for England.