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Publication, Part of Health Survey for England

Health Survey for England, 2021 part 2

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Current Chapter
Health Survey for England, 2021 part 2
View all

Next Chapter
Introduction

Summary

The Health Survey for England is used to estimate the proportion of people in England who have health conditions, and the prevalence of risk factors and behaviours associated with certain health conditions. The surveys provide regular information that cannot be obtained from other sources.

Health Survey for England 2021 is published in 2 parts, part 2 features:

- Adults' health covering general health, diabetes, cholesterol and hypertension
- Loneliness and wellbeing
- Physical activity
- Social care for older adults
- Gambling.

Key findings

77% of adults reported good or very good general health. 6% reported bad or very bad health.

40% of adults had at least one longstanding illness or condition.

27% of adults reported that they never felt lonely. However, 22% of adults felt lonely at least some of the time, including 6% who reported that they often or always felt lonely.

62% of adults who reported bad or very bad health reported that they felt lonely at least some of the time, compared to 35% of adults with fair health and 18% of those with good or very good health

A higher proportion of men (70%) than women (59%) aged 16 and over met the 2011 aerobic guidelines

of at least 150 minutes of moderate activity or 75 minutes of vigorous activity per week or an equivalent combination of both, in sessions of 10 minutes or more.

Among adults who had gambled in the last 12 months, their PGSI scores identified 5.8% as engaging in at-risk or problem gambling compared with 18.2% of those who had gambled online.

10% of adults had participated in any online gambling during the last 12 months.

Part 1 was published in December 2022 and featured:

- Smoking, E-cigarettes and Alcohol
- Overweight and obesity.

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Data Sets

- Health Survey for England, 2021: Data tables

Resources

Health Survey for England, 2021: Survey Documentation

PDF 3 MB

Health Survey for England, 2021: Methods

PDF 1 MB

ARTICLE

Information on topics included in each year of the survey from 1993

ARTICLE

Information about Health Survey for England datasets

Last edited: 16 May 2023 9:31 am

Next Chapter

Introduction

Pages in this publication

Introduction

The Health Survey for England (HSE)

The Health Survey for England (HSE) is designed to estimate the proportion of people in England who have health conditions, and the prevalence of risk factors and behaviours associated with certain health conditions among the population and to monitor trends. It provides information about adults aged 16 and over, and children aged 0 to 15, living in private households in England.

Each survey in the series includes core questions, and measurements such as blood pressure, height and weight measurements and analysis of blood and saliva samples. In addition, there are modules of questions on specific issues that vary from year to year.

The 2021 HSE

Owing to the Covid-19 pandemic, the fieldwork for the 2020 HSE ceased in March. In 2021, the data collection approach differed from previous years. This included a change in mode, from face-to-face interviewer visits to remote telephone and video interviews, to limit contact between participants and interviewers.

Self-completion questionnaires were returned by post.

From October 2021 participants received a follow-up visit by a nurse, which included measurements and samples of blood, saliva and urine. This was carried out in the same way as in previous years.

Full details can be found in the HSE 2021 Methods report.

- 5,880 adults (aged 16 and over) and 1,240 children (aged 0 to 15) were interviewed in the 2021 survey.
- 3,847 adults and 298 children returned self-completion questionnaires.
- 1,705 adults and 250 children had a nurse visit.

The 2021 report has been published in two stages. Findings are for adults only; findings about children are not included because of low sample numbers within different age groups.

The HSE 2021: Part One publication included reports on Overweight and obesity and Health-related behaviours.

This publication includes reports on:

- Adults' health covering general health, diabetes, cholesterol and hypertension
- Loneliness and wellbeing
- Physical Activity
- Social care for older adults
- Gambling.

About this report

Comparisons with past survey estimates

The usual Health Survey for England (HSE) data collection methodology was adapted in 2021 to reflect restrictions caused by the COVID-19 pandemic and the sensitivities of potential participants. The main change was that interviews were carried out by telephone, rather than in person. Estimates of height and weight were based on self-report rather than in-home measurement, as in all previous HSE survey years. The

differences between the 2021 survey and previous years are summarised in the HSE 2021 Methods report.

The household response rate was also lower than usual; 32% of eligible households participated, compared with 60% in 2019, the last full survey year. For more information on household and individual response to the survey, see the HSE 2021 Methods report.

Because of these differences, findings from 2021 are not directly comparable with those from previous years. Past trends are discussed in the text and shown in the tables. However, any apparent differences or similarities between these and 2021 estimates may be influenced by how the surveys were carried out, so caution is advised if making inferences about any apparent changes in prevalence over time.

About the survey estimates

The Health Survey for England, in common with other surveys, collects information from a sample of the population. The sample is designed to represent the whole population as accurately as possible within practical constraints, such as time and cost. Consequently, statistics based on the survey are estimates, rather than precise figures, and are subject to a margin of error, shown as a 95% confidence interval.

For example, the survey estimate might be 24% with a 95% confidence interval of 22% to 26%. A different sample might have given a different estimate, but we expect that the true value of the statistic in the population would be within the range given by the 95% confidence interval in 95 cases out of 100.

Where differences are commented on in this report, these reflect the same degree of certainty that these differences are real, and not just within the margins of sampling error. These differences can be described as statistically significant implying no more than a 5% chance that any reported difference is not a real one but a consequence of sampling error. Statistical significance does not imply substantive importance; differences that are statistically significant are not necessarily meaningful or relevant.

Confidence intervals are shown for key statistics within this report in the accompanying Excel tables. Confidence intervals are affected by the size of the sample on which the estimate is based. Generally, the larger the sample, the smaller the confidence interval, and hence the more precise the estimate.

Age standardisation

Adult data within this report have been age-standardised to allow comparisons between groups 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. For information

about the method used, see the HSE 2021 Methods report.

Rounding of estimates

Estimates presented in the text are rounded to the nearest whole number. Where categories are combined the sum of two estimates may sometimes appear to be greater or less than expected. This reflects the effect of rounding; for example, estimates of 10.6% and 12.7% would round respectively to 11% and 13%, but the sum (23.3%) will round to 23% rather than 24%.

Last edited: 16 May 2023 9:31 am

Previous Chapter
Overview

Next Chapter
Adults' health

Adults' health

Summary

This report examines general health, diabetes, raised cholesterol, and hypertension among adults aged 16 and over.

Detailed tables accompanying this report can be accessed here.

Key findings

- 77% of adults reported good or very good general health. 6% reported bad or very bad health.
- 40% of adults had at least one longstanding illness or condition. This included a higher proportion of women (43%) than men (37%).
- Prevalence of doctor-diagnosed diabetes increased with age, from 1% of adults aged under 35 to 16% of those aged 75 and over.
- The prevalence of raised cholesterol was 59%.
- The prevalence of hypertension increased with age, from 9% of adults aged 16 to 44 to 60% of adults aged 65 and over.
- After age was taken into account, the prevalence of hypertension varied by quintile

of the Index of Multiple Deprivation (IMD), ranging from 23% in the least deprived quintile to 40% in the most deprived quintile.

Last edited: 16 May 2023 9:31 am

Previous Chapter

Introduction

Next Chapter

Adults' health: General health, acute sickness, and longstanding conditions

Adults' health: General health, acute sickness, and longstanding conditions

General health

Background

Self-assessed general health is an important indicator of the general health of the population. It is a valid measure for predicting future health outcomes and can be used to project use of health services and provide information useful for policy development. In older people, self-assessed poor overall health has been associated with increased mortality risk (Mossey and Shapiro, 1982) and functional decline (Idler and Kasi, 1995).

Self-reported general health and sex

Participants were asked ‘How is your health in general?’ and offered five response options, ranging from very good to very bad. The responses to this question are described as self-reported general health.

In 2021, 77% of adults reported good or very good general health. 17% said their health was fair and 6% reported bad or very bad health.

A higher proportion of men (78%) than women (76%) reported good or very good general health. A higher proportion of women (7%) than men (5%) reported bad or very bad general health.

For more information: Table 1

Self-reported general health by sex

Download the data for this chart Self-reported general health by sex

Trends in self-reported general health from 1993 to 2019

Findings from the 2021 survey are not directly comparable with previous HSE survey years.

Between 1993 and 2019, the proportion reporting very good or good general health varied between 74% and 78% among men and between 73% and 76% among women with no clear pattern.

The prevalence of very bad or bad general health among adults remained steady at 5% between 1993 and 1995. From 1996 to 2019, this proportion varied between 6% and 8%.

Acute sickness

Definition

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

Acute sickness by sex

14% of adults reported that they were affected by acute sickness in the last two weeks. The prevalence of acute sickness was higher among women (16%) than men (11%).

Trends in acute sickness

Findings from HSE 2021 are not comparable with those from previous surveys.

Over the period 1993 to 2019, the prevalence of acute sickness was consistently higher in women than in men. Acute sickness varied between 12% and 16% of men and between 14% and 19% of women.

For more information: Table 1

Longstanding conditions

Background

Longstanding conditions affect the body or mind for 12 months or more. Most longstanding conditions increase in prevalence with age (Moody, 2019), and vary in their effects on individuals, from minimal impact to disability. Most longstanding conditions are managed in the community, but some require inpatient stays, or domiciliary or residential care. Some of the longstanding conditions treated by GPs are monitored through the Quality Outcomes Framework (QOF) for prevalence and achievement of treatment targets.

Methods and definitions

The question on longstanding illness is included in the main interview. Prior to 2012, the question referred to 'an illness, disability or infirmity…that has troubled you over a period of time or that is likely to affect you over a period of time'. In 2012, the questions on longstanding illness were changed to be consistent with the Office for National Statistics (ONS) harmonised disability questions designed for use in social surveys (HSE 2012). Participants were asked this question: 'Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more?'

Participants who reported that they had a physical or mental health condition or illness lasting or expected to last 12 months or more were further asked 'What is the matter with you?', and their answers for up to six conditions were recorded verbatim. These were coded into 42 conditions, which were further grouped into the 14 chapter categories of the ICD-10, covering infectious and non-communicable diseases of the body and mind.

Further information about the ICD-10

Longstanding conditions by sex

In 2021, 40% of adults aged 16 and over had at least one longstanding illness or condition. Participants could record up to six conditions and so the overall prevalence of having any longstanding condition is lower than the combined prevalence of individual conditions.

For more information: Table 1

The most common conditions were:

- conditions of the musculoskeletal system (13%)
- mental, behavioural and neurodevelopmental conditions (9%)
- conditions of the heart and circulatory system (9%)
- conditions of the respiratory system (8%)
- diabetes and other endocrine and metabolic conditions (7%).

Other types of longstanding conditions had prevalence levels below 5%.

Women were more likely than men to have one or more longstanding conditions (43% of women had a longstanding condition, compared with 37% of men).

Women were more likely than men to have:

- musculoskeletal conditions (15% compared to 11%)
- mental, behavioural and neurodevelopmental conditions (11% compared to 8%)
- diabetes and other endocrine and metabolic conditions (8% compared to 6%)
- nervous system conditions (5% compared to 3%).

Heart and circulatory conditions were more commonly reported by men (9% of men, 8% of women).

For more information: Table 2

Trends in longstanding conditions

The current question wording for longstanding illness was introduced in 2012. Since then, there has been a gradual increase in the prevalence of longstanding illness among men, from 35% in 2012 to 41% in 2017, and it remained at a similar level (40%) in 2018 and 2019. Among women, prevalence was stable between 2012 and 2015 and has increased since, from 41% in 2015 to 45% in 2017, remaining at that level in 2018 and 2019.

Findings from HSE 2021 are not comparable with those from previous surveys.

For more information: Table 1

Last edited: 16 May 2023 9:31 am

Previous Chapter
Adults' health

Next Chapter
Adults' health: Diabetes

Adults' health: Diabetes

Diabetes

Background

Diabetes is characterised by high blood glucose levels (hyperglycaemia).

Untreated, hyperglycaemia is associated with damage and possible failure of many organs, especially the eyes, kidneys, nerves, heart, and blood vessels. Diabetes substantially increases the risk of cardiovascular disease (CVD) and tends to worsen the effect of other risk factors for CVD, such as abnormal levels of blood fats, raised blood pressure, smoking and obesity (Garcia et al, 1974).

Diabetes mellitus (both Types 1 and 2) is a leading cause of avoidable mortality. The 2017/18 National Diabetes Audit report, which focused on complications and mortality, estimated that the additional risk of death each year among people with diagnosed diabetes in England and Wales was 53%, with the highest risk in those with Type 1 diabetes (Source: National Diabetes Audit 2017-18).

Methods and definitions

Methods

HSE measures diabetes in two ways. The prevalence of self-reported doctor-diagnosed diabetes is included in the main interview.

In addition to the interview question, glycated haemoglobin (HbA1c) levels are measured in blood samples collected at the nurse visit. HbA1c reflects average blood sugar levels over the previous two to three months and can therefore be used both to monitor diabetic control in people with diagnosed diabetes, and to detect undiagnosed diabetes (Source: World Health Organization).

Definitions

The presence of doctor-diagnosed diabetes is identified if a participant answers yes to two questions.

- Do you now have, or have you ever had, diabetes?
- Were you told by a doctor that you had diabetes?

This report does not distinguish between Type 1 and Type 2 diabetes.

Further information about Type 1 and Type 2 Diabetes

Total diabetes in the population includes all participants who reported having doctor-

diagnosed diabetes, as well as those with a blood sample measured as having an HbA1c level of 48mmol/mol or above, diagnostic of diabetes. Among those with total diabetes, participants with a raised HbA1c who did not report having doctor-diagnosed diabetes are defined as having undiagnosed diabetes.

Further information on diagnosed and undiagnosed diabetes

Further details of the protocols for collecting measurements and blood samples can be found in the HSE 2021 Methods report.

Prevalence of doctor-diagnosed diabetes, by age and sex

In 2021, 6% of adults reported that a doctor had told them that they had diabetes.

The prevalence of doctor-diagnosed diabetes was higher among men (7%) than women (5%). Prevalence increased with age, from 1% of adults aged under 35 to 16% of adults aged 75 and over.

For more information: Table 3

Prevalence of doctor-diagnosed diabetes by age

Download the data for this chart Prevalence of doctor-diagnosed diabetes by age

Prevalence of total diabetes, by age and sex

Estimates of the prevalence of total diabetes, using glycated haemoglobin levels, are limited to participants with a nurse visit and a valid HbA1c measurement.

Consequently, the estimates of those with doctor-diagnosed diabetes in Tables 4 to 7, which are limited to only those with a blood sample, vary slightly from those in Table 3, which shows the definitive estimates.

10% of adults had total diabetes; this comprised 7% with doctor-diagnosed diabetes and a further 3% with undiagnosed diabetes.

The prevalence of total diabetes was higher among men (12%) than women (8%).

For more information: Table 4

Prevalence of doctor-diagnosed and undiagnosed diabetes by sex

Download the data for this chart Prevalence of doctor-diagnosed and undiagnosed diabetes by sex

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The prevalence of total diabetes increased with age, from 5% of adults aged 16 to 44 to 21% of adults aged 65 and over.

For more information: Table 4

Prevalence of doctor-diagnosed and undiagnosed diabetes by age

Download the data for this chart Prevalence of doctor-diagnosed and undiagnosed diabetes by age

Prevalence of total diabetes, by income

The HSE uses the measure of equivalised household income, which takes into account the number of adults and dependent children in the household, as well as overall household income. For this section of the report, households are divided into tertiles (thirds) based on this measure. The age profile of the income tertiles have been age-standardised to account for differences in age profiles between households. Previous years have divided households into quintiles, but this was not possible for HSE 2021 owing to smaller numbers. Some differences across income groups have been observed in previous years with more groups for analysis.

For information about how equivalised income is calculated, see the HSE 2021 Methods report.

The age-standardised prevalence of total diabetes was similar across the equivalised income tertiles.

For more information: Table 5

Prevalence of total diabetes, by area deprivation

The Index of Multiple Deprivation (IMD) is a measure of area deprivation, based on 39 indicators, across seven domains of deprivation. IMD is a measure of the overall deprivation experienced by people living in a neighbourhood, although not everyone who lives in a deprived neighbourhood will be deprived themselves. To enable comparisons, areas are classified into quintiles (fifths). For further information about the IMD, see the HSE 2021 Methods report.

The age-standardised prevalence of total diabetes was similar across the IMD quintiles.

For more information: Table 6

Trends in diabetes

Findings from HSE 2021 are not comparable with those from previous surveys.

Doctor-diagnosed diabetes

The proportion of adults with doctor-diagnosed diabetes increased between 1994 and 2009, from 3% to 7% among men and from 2% to 5% among women. Between 2010 and 2019, the proportion varied between 6% and 9% of men and 5% and 6% of women.

For more information: Table 3

Total diabetes

Levels of total diabetes, as identified through HbA1c levels, have varied in the years 2011 to 2019 between 9% and 11% among men, and between 6% and 9% among women, with no clear pattern.

The prevalence of undiagnosed diabetes has been consistent at between 2% and 4% since 2011.

For more information: Table 7

Last edited: 16 May 2023 9:31 am

Previous Chapter

Adults' health: General health, acute sickness, and longstanding conditions

Next Chapter

Adults' health: Cholesterol

Adults' health: Cholesterol

Raised total cholesterol

Background

Cholesterol is a fatty substance (also referred to as a lipid) found in the blood and is

needed by the body to function. There are different types of cholesterol including LDL (low density lipoprotein) cholesterol, VLDL (very low density lipoprotein) cholesterol, and HDL (high density lipoprotein) cholesterol.

HDL cholesterol is beneficial, as it carries cholesterol away from the arteries back to the liver, where it can be excreted. Too much non-HDL cholesterol is harmful as it can clog blood vessels, causing them to become stiff and narrow, reducing blood flow. High cholesterol is a significant risk factor for CVD, including narrowing of the arteries (atherosclerosis), heart attack (Peters et al, 2016) and stroke (Law, Wald and Rudnicka, 2003).

Methods and definitions

Methods

In HSE, cholesterol levels were measured via blood samples taken at the nurse visit.

Measuring cholesterol

Full details of the HSE blood sample protocols, analytical methods and equipment can be found in the HSE 2021 Methods report.

Definition

Raised total cholesterol is defined as total cholesterol equal to or greater than 5mmol/L. No distinction is made between different types of cholesterol.

Raised total cholesterol, by age and sex

In 2021, the prevalence of raised total cholesterol was 59%.

The overall difference in prevalence between men (56%) and women (61%) was not statistically significant. Though some differences are apparent between men and women in different age groups, these are in different directions and therefore make the figures for all ages combined closer.

The prevalence of raised cholesterol differed by age and was highest among those aged between 45 and 64 (72%).

Among adults aged 16 to 44, men (53%) were more likely than women (46%) to have raised cholesterol. In older age groups, the prevalence of raised cholesterol was higher among women. 77% of women aged 45 to 64 and 65% aged 65 and over had raised

cholesterol. Among men, 67% aged 45 to 64 and 48% of those aged 65 and over had raised cholesterol.

For more information: Table 8

Prevalence of raised total cholesterol by age and sex

Download the data for this chart Prevalence of raised total cholesterol by age and sex

Raised total cholesterol, by equivalised household income

The proportions of adults with raised cholesterol were similar across equivalised household income tertiles.

For more information: Table 9

Raised total cholesterol, by area deprivation

The proportions of adults with raised cholesterol were similar across the IMD quintiles.

For more information: Table 10

Trends in raised total cholesterol

The proportion of adults with raised total cholesterol declined from 1998 to 2019, from 66% to 40% among men, and from 67% to 45% among women.

In 2021, the prevalence of raised cholesterol was 56% among men and 61% among women, higher than in recent years. It is not possible to determine how much this reflects real change in the prevalence of raised cholesterol. It may be influenced by the lower response rates in 2021 to different stages of the HSE. In 2021, valid blood samples were obtained from 16% of adults taking part in the survey, compared with 35% in 2019.

There is evidence to suggest some, at least, of this difference is due to real change in the population. The period between the two surveys included the COVID-19 pandemic, during which access to GPs, particularly access in person, was severely restricted. This may have had implications for the number of people tested for raised cholesterol, including those eligible for NHS Health Checks. These are offered every five years to adults aged 40 to 74 who do not have a range of pre-existing conditions, such as heart disease, diabetes or hypertension.

According to data published by the Office for Health Improvement and Disparities

(OHID), the number of individuals receiving NHS Health Checks was 1.2 million or more each year between 2013/14 and 2019/20. In 2020/21, 190,712 adults received an NHS Health Check, increasing to 551,293 eligible adults in 2021/22.

An analysis of initial prescriptions of lipid-lowering drugs for the period March 2020 to July 2021 shows that new prescriptions for lipid-lowering drugs fell during the period when compared with the pre-pandemic period. In England, Scotland and Wales, 316,018 fewer first prescriptions were recorded overall, an average of 16,744 cases a month (Dale et al, 2023).

For more information: Table 11

Last edited: 16 May 2023 9:31 am

Previous Chapter
Adults' health: Diabetes

Next Chapter
Adults' health: Hypertension

Adults' health: Hypertension

Hypertension

Background

Hypertension (persistent high blood pressure) is an important public health challenge worldwide because of its high prevalence and the associated risk of CVD. It is one of the most important modifiable risk factors for stroke, ischaemic heart disease (such as angina, heart attacks, and heart failure), and renal disease, and is one of the most preventable and treatable causes of premature deaths worldwide (Source: World Health Organization).

Methods and definitions

Methods

Trend data on the prevalence of hypertension are presented for 2003 and from 2005 onwards, using measurements taken with the Omron HEM207 sphygmomanometer to measure blood pressure.

The HSE cannot be completely accurate in identifying people with hypertension as the definition requires persistently raised blood pressure; HSE measures the blood pressure of each participant three times but on a single occasion.

Definitions

High blood pressure is defined in this report as a systolic blood pressure (SBP) at or above 140mmHg or diastolic blood pressure (DBP) at or above 90mmHg or on medication prescribed for high blood pressure. Participants are classified into one of four groups as follows:

- Normotensive untreated: SBP below 140mmHg and DBP below 90mmHg, not currently taking medication for blood pressure.
- Hypertensive controlled: SBP below 140mmHg and DBP below 90mmHg, currently taking medication for blood pressure.
- Hypertensive uncontrolled: SBP at or greater than 140mmHg and/or DBP at or greater than 90mmHg, currently taking medication for blood pressure.
- Hypertensive untreated: SBP at or greater than 140mmHg and/or DBP at or greater than 90mmHg, not currently taking medication for blood pressure.

Prevalence of hypertension, by age and sex

30% of adults had hypertension (high blood pressure), including 15% with untreated hypertension. Overall prevalence was at similar levels for men and women.

The prevalence of total hypertension increased with age, from 9% of adults aged 16 to 44 to 60% of adults aged 65 and over.

For more information: Table 12

Prevalence of hypertension by age

Download the data for this chart Prevalence of hypertension by age

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The prevalence of untreated hypertension was highest at an earlier age for men than women. Among men, untreated hypertension was highest among those aged 45 to 64 (25%), among women, this proportion increased with age and was highest among those aged 65 and over (25%).

For more information: Table 12

Prevalence of untreated hypertension by age and sex

Download the data for this chart Prevalence of untreated hypertension by age

and sex

Prevalence of hypertension, by income

After taking age into account, the prevalence of hypertension was similar across household income tertiles, as was the prevalence of untreated hypertension.

For more information: Table 13

Prevalence of hypertension, by area deprivation

After taking age into account, the prevalence of hypertension varied by area deprivation, ranging from 23% in the least deprived quintile of IMD to 40% in the most deprived quintile.

The prevalence of untreated hypertension was similar across the area deprivation quintiles.

For more information: Table 14

Prevalence of hypertension by IMD

Download the data for this chart Prevalence of hypertension by IMD

Trends in hypertension

The prevalence of hypertension (high blood pressure) among all adults was 31% in 2003 and remained between 29% and 30% between 2005 and 2014. Over the period 2015 to 2019, the prevalence of total hypertension varied between 27% and 28%.

The proportion of adults in the population with untreated hypertension (SBP at or greater than 140mmHg and/or DBP at or greater than 90mmHg, not currently taking medication for blood pressure) decreased from 2003 to 2019 for both men (20% to 14%) and women (16% to 11%).

For more information: Table 15

Last edited: 16 May 2023 9:31 am

Previous Chapter
Adults' health: Cholesterol

Next Chapter
Adults' health: References

Adults' health: References

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Last edited: 16 May 2023 9:31 am

Previous Chapter

Adults' health: Hypertension

Next Chapter

Loneliness and wellbeing

Loneliness and wellbeing

Summary

This report includes findings from the 2021 Health Survey for England (HSE) for adults aged 16 and over. It describes self-reported loneliness and subjective wellbeing, using the short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS).

Detailed tables accompanying this report can be accessed here.

Key findings

- In 2021, 27% of adults reported that they never felt lonely. However, 22% of adults felt lonely at least some of the time, including 6% who reported that they often or always felt lonely (chronic loneliness).
- Women (24%) were more likely than men (20%) to feel lonely at least some of the time.
- 62% of adults who reported bad or very bad health reported that they felt lonely at least some of the time, compared to 35% of adults with fair health and 18% of those with good or very good health.
- The proportions of adults who felt lonely at least some of the time higher among adults in lower income households and among those who lived in the most deprived areas. Other characteristics linked with being lonely at least some of the time were obesity, physical inactivity and living alone.
- In 2021, the mean wellbeing score of adults in England was 26.0. Men (26.1) had, on average, higher scores than women (25.8).
- Wellbeing scores were particularly low among those in bad or very bad health (20.7) and those who often or always felt lonely (19.6).
- Those living in the most deprived areas had lower wellbeing scores than those living in other areas. Lower wellbeing scores were also associated with obesity and physical inactivity.

Introduction

Loneliness, wellbeing, and health

Persistent and prolonged exposure to feeling lonely has been associated with an adverse impact on wellbeing and health. Research has shown loneliness increases the likelihood of early mortality and poor physical health; it has also been shown to put individuals at greater risk of poor mental health including depression.

Mental wellbeing is a facet of mental health that includes experiences of positive emotions, a person's perception of themselves and their lives, and overall life satisfaction. Lower mental wellbeing is associated with poor physical health, higher morbidity, and lower life satisfaction.

Methods and Definitions

Loneliness

The Office for National Statistics (ONS) have developed a number of questions to measure loneliness.

The HSE in 2021 included the direct measure of loneliness, which asks participants directly about their experience of loneliness: 'How often do you feel lonely?'. Participants were asked to respond on a five-point scale, with categories 'Never', 'Hardly ever', 'Occasionally', 'Some of the time' and 'Often or always'. This was included in the self-completion questionnaire.

The Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS)

The Warwick-Edinburg Mental Well-Being Scale (WEMWBS) is a 14-item scale that is designed to measure positive mental health, looking at factors like feelings, thoughts, and functioning. In previous years, the HSE included the full 14-item scale.

In 2021, the HSE used the shortened version of the scale (SWEMWBS) as part of the self-completion questionnaire. This can be found within the Survey Documentation.

SWEMWBS has seven items that mostly cover the functioning aspect of mental wellbeing. The items are scored on a Likert scale, from 'None of the time (1)', to 'All of the time (5)'. All seven items are worded positively, so higher SWEMWBS scores indicate higher positive mental wellbeing. The lowest score possible is 7 and the highest score possible is 35.

Loneliness

Loneliness, by sex and age

Participants were asked how often they felt lonely:

- 27% of adults said that they never felt lonely
- 31% said that they hardly ever felt lonely
- 20% said they occasionally felt lonely
- 17% said they felt lonely some of the time
- 6% said they often or always felt lonely (chronic loneliness).

Those who felt lonely some of the time and those who often or always felt lonely are collectively described in this report as feeling lonely at least some of the time (22% of adults).

For more information: Table 1

Men (32%) were more likely than women (22%) to report that they never felt lonely.

Women (24%) were more likely than men (20%) to report that they felt lonely at least some of the time.

Similar proportions of men (5%) and women (6%) experienced chronic loneliness, defined as feeling lonely often or always.

How often feels lonely, by sex

Download the data for this chart How often feels lonely, by sex

The experience of loneliness also varied with age. The proportion who said that they never felt lonely increased with age from 22% of those aged 16 to 34 to 36% of those aged between 65 and 74, but was lower (30%) among those aged 75 and over.

For more information: Table 1

Proportion of adults who never feel lonely, by age

Download the data for this chart Proportion of adults who never feel lonely, by age

Younger adults were more likely to say that they felt lonely some of the time, often or always, and this proportion declined broadly in line with age, from 26% of those aged 16 to 34 to 16% of those aged 65 to 74 and 17% of those aged 75 and over.

For more information: Table 1

Proportion of adults who feel lonely at least some of the time, by age

Download the data for this chart Proportion of adults who feel lonely at least some of the time, by age

The remainder of this report focuses on the prevalence of loneliness at least some of the time.

Loneliness, by region

Estimates by region are shown in the tables as both observed and age-standardised. Observed estimates show the prevalence of reported loneliness in each region. Comparisons between regions are based on age-standardised data, which take into account different regional age profiles.

After controlling for age, the proportion of adults who reported feeling lonely at least some of the time varied across regions: ranging from 15% in the East Midlands to 27% in the North East.

For more information: Table 2

Loneliness, by household income

The HSE uses the measure of equivalised household income, which accounts for the number of adults and dependent children in the household as well as overall household income. Households are divided into quintiles (fifths) based on this measure. The age profile of the income quintiles has been age-standardised to account for differences in age profiles between households. For information about how equivalised income is calculated, see the HSE 2021 Methods report.

The proportion of adults feeling lonely at least some of the time was higher in lower income households. 27% in the lowest income quintile and 28% in the second lowest quintile reported that they felt lonely at least some of the time, compared with 18% to 20% in the other, better-off households.

This pattern is accounted for in part by those who reported feeling chronically lonely (often and always). 7% and 9% of those in the two lowest income quintiles often or always felt lonely, compared with 4% of adults in better-off households.

For more information: Table 3

Proportion of adults feeling lonely at least some of the time, by household income

Download the data for this chart Proportion of adults feeling lonely at least some of the time, by household income

Loneliness, by area deprivation

The English Index of Multiple Deprivation (IMD) is a measure of area deprivation, based on 37 indicators, across seven domains of deprivation. IMD is a measure of the overall deprivation experienced by people living in a neighbourhood, although not everyone who lives in a deprived neighbourhood will be deprived themselves. To enable comparisons, areas are classified into quintiles (fifths). For further information about the IMD, see the HSE 2021 Methods report.

The proportion of adults feeling lonely some of the time or more often varied with area deprivation. In the most deprived IMD quintile, 32% of adults reported feeling lonely at least some of the time compared with between 19% and 24% in other areas.

Adults living in the most deprived areas were most likely to report experiencing chronic loneliness (10%, compared with between 3% and 6% in other areas).

For more information: Table 4

Proportion of adults feeling lonely at least some of the time, by area deprivation

Download the data for this chart Proportion of adults feeling lonely at least some of the time, by area deprivation

Loneliness, by Body Mass Index (BMI) status and sex

For the HSE 2021, Body Mass Index (BMI) was calculated using participants' self-reported height and weight, adjusted to account for systematic misreporting. More information on height and weight in HSE 2021 can be found in the HSE 2021 report on overweight and obesity.

BMI scores are grouped into three categories, based on the World Health Organisation's BMI classification (WHO, 2010), as below.

BMI (kg/m2)	Description
Less than 25	Neither overweight nor obese
25 to less than 30	Overweight, but not obese
30 or more	Obese

Obesity was associated with loneliness. 30% of those who were obese reported being lonely some of the time or more often, compared with those who were overweight (20%) and those who were neither overweight nor obese (22%).

This pattern was similar for chronic loneliness. 8% of adults who were obese reported feeling lonely often or always compared with overweight adults (4%) and adults who were neither overweight nor obese (5%).

For more information: Table 5

Proportion of adults feeling lonely at least some of the time, by BMI status

Download the data for this chart Proportion of adults feeling lonely at least some of the time, by BMI status

Loneliness, by physical activity and sex

Participants answered a series of detailed questions about the types and amounts of physical activity they had done in the past four weeks. From this data, levels of physical activity were calculated in relation to government recommendations.

- Meets aerobic guidelines: at least 150 minutes moderately intensive physical activity or 75 minutes vigorous activity per week, or an equivalent combination of these,
- Some/low activity: 30 to 149 minutes moderately intensive activity or 15 to 74 minutes vigorous activity per week, or an equivalent combination of these,
- Inactive: less than 30 minutes moderately intensive activity or less than 15 minutes vigorous activity per week, or an equivalent combination of these.

For more information see the Physical Activity report.

Levels of exercise were linked to feelings of loneliness. Adults who were inactive (29%) or active below recommendations (28%) were more likely to feel lonely some of the time or more often compared with those who met the physical activity recommendations (19%).

There was a similar pattern for the prevalence of often or always feeling lonely.

For more information: Table 6

Proportion of adults feeling lonely at least some of the time, by physical activity levels

Download the data for this chart Proportion of adults feeling lonely at least some of the time, by physical activity levels

Loneliness, by self-reported general health and sex

Participants were asked about their general health, with five answer categories ranging

from ‘very good’ to ‘very bad’. For analysis the categories ‘very good’ and ‘good’ were grouped, as were the categories ‘bad’ and ‘very bad’.

The prevalence of feeling lonely some of the time or more often varied with general health status. 18% of those who reported good or very good health reported that they felt lonely at least some of the time, and this proportion increased to 35% of those with fair health and to 62% of those with bad or very bad health.

The difference was more extreme for men than women. The proportions of men who were lonely at least some of the time varied from 15% of those whose health was good or very good, to 70% of those whose health was bad or very bad. The corresponding difference for women was 20% compared with 57% respectively.

The proportion of those who experienced chronic loneliness was also lower among those in good or very health (4%), compared with 28% of those with bad or very bad health.

For more information: Table 7

Proportion of adults feeling lonely at least some of the time, by self-reported general health status

Download the data for this chart Proportion of adults feeling lonely at least some of the time, by self-reported general health status

Loneliness, by whether lives alone or with other people

Participants were asked who lived in their household and were categorised based on whether they lived alone or with other people (adults or children).

Adults living alone were almost twice as likely to feel lonely at least some of the time as were those who lived with other adults or children: 37% of those who lived alone, compared with 19% of those who lived with other people.

There was a similar pattern for feeling lonely often or always (chronic loneliness). 10% of those who lived alone were chronically lonely, compared with 4% of those who lived with other people.

For more information: Table 8

Proportion of adults feeling lonely at least some of the time, by whether lives alone or with other people

Download the data for this chart Proportion of adults feeling lonely at least some of the time, by whether lives alone or with other people

Wellbeing

Wellbeing scores, by age and sex

In 2021, the mean wellbeing score of adults in England was 26.0. Men had, on average, higher scores than women (26.1 and 25.8 respectively).

Wellbeing varied with age, with the lowest mean scores amongst those aged 35 to 44 (25.6) and the highest amongst those aged 65 to 74 (26.9).

For more information: Table 9

Wellbeing (SWEMWBS) mean score, by age

Download the data for this chart Wellbeing (SWEMWBS) mean score, by age

Wellbeing scores, by region

Estimates by region are shown in the tables both as observed and age-standardised to account for the different age profiles across different regions. After age-standardisation, mean wellbeing scores were similar across regions.

For more information: Table 10

Wellbeing scores, by household income

The HSE uses the measure of equivalised household income, which takes into account the number of adults and dependent children in the household as well as overall household income. In this topic report, households are divided into fifths (quintiles) based on this measure. Data reported by income quintiles have been age-standardised to account for difference in age profiles across household incomes.

Wellbeing scores were at similar levels across income groups.

For more information: Table 11

Wellbeing scores, by area deprivation

Data reported by Index of Multiple Deprivation (IMD) quintiles have been age-standardised to account for different area age profiles.

The English Index of Multiple Deprivation (IMD)

Mean wellbeing scores varied by area deprivation. Those living in the most deprived areas had the lowest average score (24.9), compared with those living in less deprived areas (mean scores between 26.0 and 26.3)

For more information: Table 12

Wellbeing (SWEMWBS) mean score, by Index of Multiple Deprivation (IMD)

Download the data for this chart Wellbeing (SWEMWBS) mean score, by Index of Multiple Deprivation (IMD)

Wellbeing scores, by Body Mass Index (BMI) status

Body Mass Index (BMI) status

Adults who were obese had lower average wellbeing scores (25.5) than those who were overweight or neither overweight nor obese (both 26.2).

For more information: Table 13

Wellbeing (SWEMWBS) mean score, by BMI category

Download the data for this chart Wellbeing (SWEMWBS) mean score, by BMI category

Wellbeing scores, by physical activity and sex

Physical activity guidelines

Participants who met the aerobic guidelines had the highest mean wellbeing scores (26.5). As physical activity decreased, so did mean wellbeing scores to 25.7 for adults who were active but below recommendations and 24.7 for those classed as inactive.

For more information: Table 14

Wellbeing (SWEMWBS) mean score, by level of physical activity

Download the data for this chart Wellbeing (SWEMWBS) mean score, by level of physical activity

Wellbeing, by self-reported general health

Participants were asked about their general health, with five answer categories ranging from 'very good' to 'very bad'. For analysis the categories 'very good' and 'good' were grouped, as were the categories 'bad' and 'very bad'.

Those who reported their health as good or very good had the highest wellbeing scores (26.7). Wellbeing declined with lower levels of general health, with mean scores of 24.2 among those who reported that their health was fair, and 20.7 among those who reported having bad or very bad health.

For more information: Table 15

Wellbeing (SWEMWBS) mean score, by self-reported general health

Download the data for this chart Wellbeing (SWEMWBS) mean score, by self-reported general health

Wellbeing, by self-reported loneliness

Participants self-reported how often they felt lonely on a five-point scale from 'never feel lonely' to 'often or always feel lonely'.

Those who reported that they never felt lonely had the highest wellbeing scores (28.9). Mean wellbeing scores decreased as self-reported loneliness increased to 19.6 for those who said that they always felt lonely.

For more information: Table 16

Wellbeing (SWEMWBS) mean score, by self-reported loneliness

Download the data for this chart Wellbeing (SWEMWBS) mean score, by self-reported loneliness

Wellbeing scores, by whether lives alone or with other people

Participants were asked who lived in their household and were categorised based on whether they lived alone or with other people (adults or children).

Those living alone had lower mean scores than those living with others (24.8 compared to 26.1, respectively).

For more information: Table 17

Wellbeing (SWEMWBS) mean score, by whether lives alone or with other people

Download the data for this chart Wellbeing (SWEMWBS) mean score, by whether lives alone or with other people

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Previous Chapter
Adults' health: References

Next Chapter
Adult physical activity

Adult physical activity

Summary

This report presents results from the 2021 Health Survey for England describing physical activity in the context of the 2011 UK guidelines for aerobic activity, muscle-strengthening activities, and, for older adults, activities to improve balance.

Detailed tables accompanying this report can be accessed here.

Key findings

- A higher proportion of men (70%) than women (59%) aged 16 and over met the 2011 aerobic guidelines of at least 150 minutes of moderate activity or 75 minutes of vigorous activity per week or an equivalent combination of both, in sessions of 10 minutes or more.
- The proportion of adults meeting the 2011 aerobic guidelines varied by region, being lowest in the North West (58%) and highest in the East Midlands (71%).
- The proportion of adults meeting the 2011 aerobic guidelines was lowest (53%) in the most deprived area quintile and highest in the in the least deprived area quintile

(68%) and in the second least deprived quintile (70%).

- Adults are recommended to undertake muscle-strengthening activities on at least two days a week to increase bone strength and muscular fitness. A higher proportion of men (36%) than women (29%) aged 16 and over met this guideline.
- Older adults are recommended to undertake balance exercises on at least two days a week to maintain or improve their physical function. A higher proportion of men (17%) than women (14%) aged 65 and over met both the muscle-strengthening and balance exercise guideline.

Introduction

Background

Physical activity is important for cardiovascular health. Analysis of the Global Burden of Diseases, Injuries and Risk Factors Study found that physical inactivity (including low physical activity) was the fourth leading risk factor contributing to deaths and the burden of disease globally, ranking ahead of overweight or obesity (Lim, Vos, Flaxman et al, 2012). Physical inactivity was estimated to contribute to almost one in ten premature deaths from coronary heart disease (CHD) and one in six deaths from any cause (Lee, Shiroma, Lobelo et al, 2012).

Regular physical activity is beneficial for mental wellbeing and for reducing the risk of depression (Mammen and Faukner, 2013). Among older people, physical activity is associated with better health and cognitive function (Paillard, Rolland, de Souto Barreto, 2015) and can reduce the risk of falls in those with mobility problems (Bauman, Merom, Bull, 2016).

In 2011, the Chief Medical Officers of the four UK countries introduced revised guidelines for physical activity (Department of Health, 2011). Separate guidelines were issued for aerobic activity (recommending a combination of moderate and vigorous intensity activities, in sessions lasting at least 10 minutes at a time); muscle-strengthening activities; and, among older people at risk of falls, activities to improve balance and co-ordination.

The 2011 guidelines were revised in 2019 . The current guidelines are broadly consistent with the previous recommendations, while introducing some new elements (for example additional guidance on being active during pregnancy, and after giving birth, and for disabled adults) and removing the 10-minute criterion, reflecting the latest evidence which suggests that there is no minimum amount of physical activity required to achieve some health benefits.

Data from the Health Survey for England (HSE) are regularly used to monitor adherence to the UK physical activity guidelines (Scholes and Mindell, 2013; Scholes, 2017). As the HSE includes occupational activity in the overall summary measure of physical activity in

adults (see below), it complements the local measurement of physical activity and sport through Sport England's Active Lives Survey.

Methods and definitions

Methods

The physical activity questionnaire in HSE 2021 was previously included in the HSE in 2012 and 2016. In 2021, these questions were asked as part of the telephone interview.

For non-occupational activities, questions concerned participation during the last four weeks in housework, manual work, gardening and DIY activities, walking, and sports and exercise. For each activity, participants were asked:

- how many separate days in the past four weeks they did that activity for at least 10 minutes at a time
- the amount of time they usually spent doing that activity
- (for sports and exercise and for walking) the intensity of the activity.

The questionnaire also asked about physical activity while at work. The questions focused on what participants actually did at work, and asked how many hours they typically spent doing these activities on an average work day.

Details of how each type of activity was measured and classified are included in the Technical Appendix to this report.

Full details of the questions used to assess physical activity are included in the Survey Documentation.

Definitions

Summary levels of aerobic activity

The following abbreviations are used throughout this report:

- MPA: Moderate physical activity
- VPA: Vigorous physical activity
- MVPA: Moderate to vigorous physical activity

10-minute criterion

The 2011 guidelines recommended that adults aged 19 and over should undertake a minimum of 150 minutes of moderate intensity activity per week (Department of Health, 2011). Alternatively, comparable benefits could be achieved through 75 minutes of

vigorous intensity activity, or equivalent combinations of moderate and vigorous intensity activity. Sessions or bouts of physical activity only counted towards the overall total minutes if they lasted for at least 10 minutes at a time. This recommendation is referred to throughout this report as the 2011 aerobic, or MVPA, guideline.

The 2019 guidelines recommend that adults aged 19 and over should undertake a minimum of 150 minutes of MVPA per week in sessions of any length.

To enable comparisons over time, the physical activity questions in the HSE 2021 were unchanged from those in the HSE 2012 and 2016. This report continues to reflect the 2011 guidelines, and non-occupational activities are only counted if carried out for at least 10 minutes.

Physical activity while at work

In HSE 2012 and 2016, participants' activity while at work was classified by whether it was of at least moderate intensity according to their occupation, which was categorised using the 2000 Standard Occupational Classification (SOC 2000). A full description of the methods, including the list of occupations identified as requiring moderate level activity, is provided in Scholes and Mindell (2013).

The occupational status of participants was not collected in HSE 2021. Physical activity while at work (walking, climbing stairs or ladders, and lifting, carrying or moving heavy loads) was included in the calculation of aerobic activity levels only for those participants who reported being very physically active in their job. For this report, data from the HSE in 2012 and 2016 have been analysed in a comparable manner.

Summary levels of aerobic activity

To assess levels of activity against the 2011 guidelines, participants were classified according to the weekly time spent in activities of at least moderate intensity.

Only sessions of 10 minutes or more were included in the 150 minutes per week target. Minutes of vigorous intensity activity were given twice the credit of minutes of moderate intensity activity when combining moderate and vigorous intensity to calculate the equivalent combination.

The summary activity level classification is shown in the Table A.

Table A: Classification of summary activity levels (2011 guidelines)

Activity Level	Definition
Meets 2011 aerobic / MVPA guidelines	Reported at least 150 minutes/week of MPA, at least 75 minutes/week of VPA, or an equivalent combination of the two, in sessions of 10 minutes or more.

Some activity	Reported 60-149 minutes/week of MPA, 30-74 minutes/week of VPA, or an equivalent combination of these, in sessions of 10 minutes or more.
Low activity	Reported 30-59 minutes/week of MPA, 15-29 minutes/week of VPA, or an equivalent combination of these, in sessions of 10 minutes or more.
Inactive	Reported less than 30 minutes/week of MPA, less than 15 minutes/week of VPA, or an equivalent combination of these, in sessions of 10 minutes or more.

All analyses presented in this report refer to physical activity of at least moderate intensity.

Further details of the how the intensity levels of activities were assigned are given in the Technical Appendix to this report.

Muscle-strengthening activities

In addition to aerobic activity, the 2011 and 2019 guidelines recommend that adults aged 19 and over should also undertake physical activity to improve muscle strength on at least two days a week to increase bone strength and muscular fitness (Department of Health, 2011; Department of Health and Social Care et al, 2019).

Physical activities that strengthen muscles involve using body weight or working against a resistance and should involve using all the major muscle groups.

Participants were provided with examples of sports and exercise activities and asked which they engaged in during the last four weeks (for at least 10 minutes at a time), and whether there were any other similar activities they engaged in. A further question was asked in some cases to establish whether the effort of each specific sport or exercise activity was usually enough to make their muscles 'feel some tension, shake or feel warm'.

The guidelines have not specified a recommended session length for muscle-strengthening activities. In this report only sessions of sports or exercise lasting for a minimum of 10 minutes were included in assessing adherence to the muscle-strengthening guideline.

Full details of the activities included are given in the Technical Appendix to this report.

Activities to improve balance among older adults

The aerobic and muscle-strengthening guidelines apply to all adults aged 19 and over. The 2011 guidelines additionally recommended that older adults (aged 65 and over) at risk of falls should undertake physical activity to improve balance and co-ordination on at least two days a week (Department of Health, 2011).

The 2019 guidelines recommend that older adults should maintain or improve their physical function by undertaking activities aimed at improving balance and flexibility on at least two days a week. Activities aimed at improving balance could be combined with sessions involving muscle-strengthening activity or could be additional sessions aimed specifically at these components of fitness.

The guidelines have not specified a recommended session length for balance exercises. In this report only sessions of sports or exercise lasting for at least 10 minutes were included in assessing adherence to the balance exercise guideline.

Full details of the activities included are given in the Technical Appendix to this report.

Aerobic activity

The HSE defines adults as those aged 16 and over, which is the age group used for the main tables and text in this report. The aerobic and muscle-strengthening guidelines are aimed at adults aged 19 and over, and key estimates are also presented separately for this target group.

Aerobic activity, by age and sex

In 2021, 64% of adults aged 16 and over met the 2011 guidelines for aerobic activity (see Table A above). A further 11% did not meet the guidelines but achieved some activity, 4% had low activity levels and 20% were defined as inactive.

A higher proportion of men (70%) than women (59%) met the guidelines for aerobic activity.

For more information: Table 1

Summary activity levels, by sex

Download the data for this chart Summary activity levels, by sex

Adults aged between 25 and 44 were most likely to meet the guidelines (72%). Among older adults, activity fell with age to 60% of adults aged between 65 and 74 and 38% of adults aged 75 and over.

For more information: Table 1

Aerobic activity, by region

Summary levels of aerobic activity by region are shown in the tables as both observed and age-standardised. Observed estimates show the actual summary levels of aerobic activity in each region. Comparisons between regions should be based on the age-standardised data, which account for the different regional age profiles.

The proportion of adults who met the 2011 guidelines for aerobic activity varied between regions. The proportion of adults meeting these guidelines was lowest in the North West (58%) and highest in the East Midlands (71%).

For more information: Table 2

Summary activity levels, by region (age-standardised)

Download the data for this chart Summary activity levels, by region (age-standardised)

Aerobic activity, by area deprivation

The English Index of Multiple Deprivation (IMD) is a measure of area deprivation, based on 39 indicators, across seven domains of deprivation. IMD is a measure of the overall deprivation experienced by people living in a neighbourhood, although not everyone who lives in a deprived neighbourhood will be deprived themselves. To enable comparisons, areas are classified into quintiles (fifths). For further information about the IMD, see the Methods Report.

Data have been age-standardised to take into account different area age profiles across IMD quintiles.

Levels of aerobic activity varied by areas, with those living in more deprived areas being less likely to have met the guidelines. The proportion of adults meeting the guidelines was 53% in the most deprived quintile, compared with 68% in the least deprived quintile and 70% in the second least deprived quintile.

For more information: Table 3

Summary activity levels, by IMD

Download the data for this chart Summary activity levels, by IMD

Aerobic activity, by Body Mass Index (BMI) category

To define overweight or obesity, a measurement is required that allows for differences in weight due to height. Body mass index (BMI), defined as weight in kilograms divided by the square of the height in metres (kg/m2), is used for this purpose in the HSE series.

Due to the change in mode for the HSE 2021 (from face-to-face interviewer visits to telephone interviews) it was not possible to directly measure participants' height and weight. Instead, participants were asked about their height and weight during the interview.

Studies have shown that adults tend to overestimate height and underestimate weight compared with measured values. For this report, BMI was calculated using a set of correction factors that adjust self-reported height and weight to predict measured height and weight more accurately. For more details, see the Obesity Report.

Participants were classified into three mutually exclusive BMI groups (shown in the table below) according to the World Health Organization's BMI classification (WHO, 2010). BMI status is presented only for these groups due to corrected values likely being less accurate at the low and high ends of the BMI scale.

Table B: BMI category

BMI (kg/m2)	Description
Less than 25	Neither overweight nor obese
25 to less than 30	Overweight, but not obese
30 or more	Obese

Data have been age-standardised to take into account different age profiles across BMI categories.

The proportion of adults who met the 2011 guidelines for aerobic activity varied by BMI category. Obese adults were least likely to do so; 55% of obese adults met the guidelines, compared with 69% of adults who were overweight or neither overweight nor obese.

For more information: Table 4

Summary activity levels, by BMI category

Download the data for this chart Summary activity levels, by BMI category

Trends in aerobic activity

Comparability of findings

Caution is advised if making inferences about whether behaviour has changed. Findings from 2021 are not directly comparable with those from previous years because of changes in survey methodology (in-person interviews in 2012 and 2016, a telephone

interview in 2021) and changes in response.

In addition, there is a change to the way occupational activity has been calculated.

In 2012 and 2016, participants' activity while at work was classified by whether it was of at least moderate intensity according to their occupation, which was categorised using the Standard Occupational Classification (SOC) 2000.

The occupational status of participants was not collected in HSE 2021. To include activities of at least moderate intensity, physical activity at work was included in the calculation of aerobic activity levels only for those participants who reported being very physically active in their job.

For this report, data from the HSE 2012 and 2016 have been analysed in a comparable manner, and estimates of summary levels of aerobic activity may differ from previously published tables (Scholes and Mindell 2013; Scholes 2017) which used Standard Occupational Classification codes.

Trends

The proportion of adults aged 16 and over who met the 2011 guidelines for aerobic activity was at a similar level in 2012 and 2016 for men (67% in both surveys) but increased by three percentage points for women (56% in 2012; 59% in 2016).

The proportion of adults aged 19 and over (the target group) meeting these guidelines was at a similar level in 2012 and 2016 for men (66% in 2012; 67% in 2016) and also increased by three percentage points for women (56% in 2012; 59% in 2016).

In 2021, 70% of men and 59% of women aged 16 and over met the 2011 guidelines for aerobic activity. 70% of men and 60% of women aged 19 and over (the target group) met the guidelines.

Findings from 2021 are not directly comparable with those from previous years because of changes in survey methodology and response, and caution is advised if making inferences about whether behaviour has changed.

For more information: Table 5

Aerobic and muscle-strengthening activities

This section compares the proportions of adults who met either the aerobic activity guidelines or the muscle strengthening guideline or both (see Definitions above).

Participation in aerobic and muscle-strengthening activities, by age and sex

In 2021, 32% of adults aged 16 and over met the muscle-strengthening guideline. This included a higher proportion of men (36%) than women (29%). 30% of adults met both the aerobic and the muscle-strengthening guidelines, including a higher proportion of men (34%) than women (27%).

For more information: Table 6

Proportion meeting aerobic and muscle strengthening guidelines, by sex

Download the data for this chart Proportion meeting aerobic and muscle strengthening guidelines, by sex

The proportion who met the muscle-strengthening guideline decreased with age. It was highest among those aged 16 to 24 (45%), lowest among those aged 75 and over (11%). Similarly, the proportion of adults who met both guidelines decreased from 43% of those aged 16 to 24 to 10% of those aged 75 and over.

For more information: Table 6

Proportion meeting aerobic and muscle strengthening guidelines, by age

Download the data for this chart Proportion meeting aerobic and muscle strengthening guidelines, by age

Trends in participation in aerobic and in muscle-strengthening activities

Caution is advised if making inferences about whether behaviour has changed over time. Findings from 2021 are not directly comparable with those from previous years because of changes in survey methodology (in-person interviews in 2012 and 2016, a telephone interview in 2021) and response.

The proportion of adults aged 16 and over who met both the aerobic and muscle-strengthening guidelines was at a similar level in 2012 and 2016 for men (33% in 2012; 31% in 2016) and for women (23% in 2012; 24% in 2016).

In 2021, 34% of men and 27% of women met both guidelines.

The proportion of adults aged 19 and over (the target group) who met both the aerobic and muscle-strengthening guidelines was at a similar level in 2012 and 2016 for men (31% in 2012; 30% in 2016) and for women (22% in 2012; 23% in 2016).

In 2021, 33% of men and 26% of women aged 19 and over met both guidelines.

For more information: Table 6

Participation in muscle-strengthening and in balance exercises among older adults

As well as the muscle-strengthening guideline, older adults (aged 65 and over) are recommended to do balance exercises on at least two days a week. Only sessions of 10 minutes or more were included in this analysis.

Participation in muscle-strengthening and in balance exercises among older adults, by sex

In 2021, 17% of adults in this age group met the muscle-strengthening guideline. 19% of adults aged 65 and over met the balance exercise guideline, including a higher proportion of men (21%) than women (17%).

15% of adults met both the muscle-strengthening and balance exercise guidelines. This proportion was higher for men (17%) than for women (14%).

For more information: Table 7

Proportion meeting muscle-strength and balance and co-ordination guidelines, by sex

Download the data for this chart Proportion meeting muscle-strength and balance and co-ordination guidelines, by sex

Trends

Caution is advised if making inferences about whether behaviour has changed over time. Findings from 2021 are not directly comparable with those from previous years because of changes in survey methodology (in-person interviews in 2012 and 2016, a telephone interview in 2021) and changes in response.

The proportion of adults aged 65 and over (the target group) who met both the muscle-strengthening and balance exercise guidelines was at a similar level in 2012 and 2016 for men (13% in 2012; 11% in 2016) and for women (8% in 2012; 9% in 2016).

In 2021, 17% of men and 14% of women aged 65 and over met both guidelines.

For more information: Table 7

Participation in different activities of at least moderate intensity

Number of days of participation in different activities

Heavy housework

A higher proportion of women (60%) than men (52%) had done some heavy housework in the last four weeks (in sessions of 10 minutes or more).

The mean number of days in the last four weeks on which heavy housework was undertaken was higher for women (3.5 days) than for men (2.8 days). Among both sexes, participation in heavy housework was lowest in the youngest and oldest age groups: an average of 2.1 days for adults aged under 25 and 75 and over, compared with between 3.2 and 3.7 for other age groups.

For more information: Table 8

Heavy housework number of days in the last four weeks, by age and sex

Download the data for this chart Heavy housework number of days in the last four weeks, by age and sex

Heavy manual work, gardening and DIY

A higher proportion of men (30%) than women (14%) had done some heavy manual work, gardening and DIY in the last four weeks (in sessions of 10 minutes or more).

For both sexes, the proportions who did some heavy manual work, gardening or DIY increased up to middle age (peaking between the ages of 55 to 64) then decreased in older age.

The mean number of days engaged in heavy manual work, gardening or DIY in the last four weeks was higher for men (1.4 days) than for women (0.6 days), and the difference between men and women increased with age in those aged 16 to 74.

For more information: Table 8

Heavy manual work, gardening and DIY number of days in the last four weeks, by age and sex

Download the data for this chart Heavy manual work, gardening and DIY number of days in the last four weeks, by age and sex

Walking

48% of men and 38% of women reported walking of at least moderate intensity for 10 minutes or more on at least one day in the past four weeks. The difference in participation between men and women was accounted for by those aged under 65.

For more information: Table 8

Participation in any moderate-intensity walking on at least one day in the last four weeks, by age and sex

Download the data for this chart Participation in any moderate-intensity walking on at least one day in the last four weeks, by age and sex

The mean number of days in the last four weeks on which they walked was higher for men (8.7 days) than for women (7.6 days). Among both sexes, the average number of days on which they walked varied with age with no clear pattern.

For more information: Table 8

Sports and exercise

A higher proportion of men (52%) than women (45%) had taken part in sports and exercise of at least moderate intensity at least once during the last four weeks (in sessions of 10 minutes or more). For both sexes, the proportions who did some sports and exercise were highest between the ages of 16 to 44, then decreased with age.

For more information: Table 8

Participation in any moderate-intensity sports or exercise on at least one day in the last four weeks, by age

Download the data for this chart Participation in any moderate-intensity sports or exercise on at least one day in the last four weeks, by age

The mean number of days on which they participated in sports and exercise in the last four weeks was higher for men (7.8 days) than for women (6.0 days). For both sexes, the mean number of days on which they participated in sports and exercise decreased with age.

For more information: Table 8

All non-occupational activities

Similar proportions of men (84%) and women (81%) had taken part in at least one non-occupational physical activity (of at least moderate intensity, in sessions of 10 minutes or more) during the past four weeks. This included home activities, walking and sport and exercise.

The mean number of days on which they participated in non-occupational activity in the last four weeks was higher for men (15.9 days) than for women (13.9 days).

In both men and women, levels of participation in any non-occupational activity in the last four weeks varied with age with no clear pattern.

For more information: Table 8

Average time spent participating in different activities

Excluding activities carried out at work, men spent on average 428.8 minutes per week (7.1 hours) and women 364.5 minutes per week (6.1 hours) on moderate-intensity non-occupational physical activity. The average time spent in these activities varied with age with no clear pattern.

For more information: Table 9

Average time per week spent in non-occupational moderately intensive activity, by age

Download the data for this chart Average time per week spent in non-occupational moderately intensive activity, by age

Patterns in the average time that participants had spent in the four types of moderate-intensity non-occupational physical activity (in the past four weeks, in sessions of 10 minutes or more) were generally similar to the number of days of participation in the different activities.

For more information: Table 8

Average time per week spent on activities, by sex

Download the data for this chart Average time per week spent on activities, by sex

There were differences between men and women in the amount of time per week spent on activities, with the exception of walking.

Women (94.1 minutes per week) spent more time than men (60.8 minutes per week) in heavy housework. For men and women, the time spent in heavy housework was lowest in the youngest and oldest age groups: an average of 55.4 minutes days for adults aged under 25 and 47.2 minutes for those aged 75 and over, compared with between 78.6 and 93.5 minutes for other age groups.

Men (68.7 minutes per week) spent more time than women (25.8 minutes per week) in heavy manual work, gardening and DIY activities.

Men (118.7 minutes per week) participated for more time than women (79.3 minutes per week) in sports and exercise.

Among both sexes, the average time that participants had spent walking varied with age, with the highest level among those aged 65 to 74. The average time spent walking was similar for men and women.

For more information: Table 9

Mean minutes per week spent in moderate-intensity walking, by age

Download the data for this chart Mean minutes per week spent in moderate-intensity walking, by age

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Time spent in different occupational activities

Physical activity while at work

Activities at work were those done as part of a job, either employed or self-employed, including voluntary and unpaid work. Participants aged 75 and over were not asked about occupational activity.

Physical activity while at work (walking, climbing stairs or ladders, and lifting, carrying or moving heavy loads) was included in the calculation of aerobic activity levels only for those participants who reported being very physically active in their job. Work-based activities were assumed to be of moderate intensity.

Self-reported activity at work

One in five working adults (20%) reported being very physically active at work. Men (23%) were more likely to report this than were women (16%).

Among both sexes, this proportion varied with age, with the highest levels among those aged 16 to 24 and 55 to 64.

For more information: Table 10

Self-reported physical activity at work, by age

Download the data for this chart Self-reported physical activity at work, by age

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Men (5.4 hours) and women (5.3 hours) spent a similar amount of time on an average work day (in the last four weeks) sitting down or standing up while at work.

Overall men (6.0 hours per week) spent more time than women (3.2 hours per week) in

moderately intensive physical activity while at work.

Time spent in different occupational activities

Overall, the amount of time spent walking at work on an average work day (in the last four weeks) was similar among men (1.9 hours) and women (1.7 hours).There were differences by age between men and women in the amount of time spent walking at work. For example, among those aged 35 to 44, women (1.8 hours) averaged more time than men (1.4 hours) walking at work on an average work day. Among those aged 55 to 64, men (2.1 hours) averaged more time than women (1.6 hours) walking at work on an average work day.

Men (0.3 hours per day) spent more time on average than women (0.2 hours per day) climbing stairs or ladders while at work.

More men (35%) than women (23%) spent some time in lifting, carrying or moving heavy loads while at work in the past four weeks. Men (0.8 hours per day worked) averaged more time than women (0.4 hours per day worked) in this occupational activity.

For more information: Table 10

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Last edited: 16 May 2023 9:31 am

Previous Chapter
Loneliness and wellbeing

Next Chapter
Physical Activity Technical Appendix

Physical Activity Technical Appendix

The evolution of physical activity questions for adults used in the HSE series was described in detail in the HSE 2012 report (Scholes and Mindell, 2013).

Activity types, frequency, duration, and intensity

Details about four main types of physical activity were included in the questionnaire.

Occupational activities

Occupational activities include activities done while employed or self-employed, including voluntary and unpaid work, other than home activities.

Participants who did any paid or unpaid work in the last four weeks were asked 'Which of these did you do whilst working?'

- Sitting down or standing up
- Walking at work (e.g. door to door sales, hospital nurse work)
- Climbing stairs or ladders
- Lifting, carrying or moving heavy loads.

For each activity that they did, they were asked how long they usually spent doing it on an average work day.

Participants who reported that they did some climbing of stairs or ladders, or lifting, carrying or moving heavy loads were asked whether they did that activity every working day, or only on some days. Those who did not do an activity every working day were asked on how many days in the last four weeks they had done it.

Participants were also asked 'Thinking about your job in general would you say that you are…very physically active; fairly physically active; not very physically active; not at all physically active?' Physical activity while at work was included in the calculation of aerobic activity levels only for those participants who reported being very physically active in their job.

The questions asked about activities over the last four weeks to ensure that occasional activities were adequately covered. Weekly averages were calculated over the four-week period. So, for instance, someone who had done an activity twice a week on average might have done it twice every week, or on four days over two weeks, or some other pattern.

Work-based activities were assumed to be of moderate intensity.

Home activity

Participants were provided with a list of examples of light housework first and then heavy housework. For each, they were asked if they had done any of the listed activities. For heavy housework only (not light activities), the number of days in the past four weeks and the average length of time spent doing each activity was recorded.

Similar sequences of questions were asked for manual work, gardening and DIY.

Examples of heavy housework, manual work, gardening and DIY were classified as 'moderate'.

The listed activities are included in the Survey Documentation.

Walking

Participants were asked 'During the past four weeks, on how many days did you do a walk of at least 10 minutes?'

Walking intensity was assessed by asking participants to rate their usual walking pace (slow, average, fairly brisk or fast). Walking at a fairly brisk or fast pace was considered to be moderate intensity physical activity.

Because walking at a slow or average pace can also represent moderate intensity physical activity in some older people, an additional question asked participants aged 65 and over whether the effort of walking for 10 minutes or more was usually enough to make them 'breathe faster, feel warmer or sweat'.

Sports and exercise

Participants were shown a list of ten activities and asked: 'Can you tell me on how many separate days you did [name of specific sport and exercise activity] for at least 10 minutes at a time during the past four weeks?'. They could also list up to six other sports or exercise activities. For each activity they reported, they were asked for the amount of time they usually spent doing that activity and the intensity was assessed by asking participants whether the activity had made them 'out of breath or sweaty'.

Intensity level assigned to sports and exercise

Sports and exercises were grouped into light, moderate or vigorous intensity categories based on the MET (metabolic equivalent) intensity. MET is a unit used to estimate the intensity of physical activity. It is based on the amount of oxygen consumed during physical activity. The baseline energy used by the body at rest in one minute is defined as 1 MET. Thus an activity with a MET value of 1.5 uses 50% more energy than baseline energy expenditure. MET levels can be linked to specific activities in various settings. Moderate physical activity (MPA) includes activities with estimated intensity levels of 3-6 METs; vigorous physical activities (VPA) are those with estimated intensity levels of 6 METs or higher.

Vigorous:

a) All occurrences of a number of activities (classified as being 7.5-12 METs) including: climbing, hockey, martial arts, running/jogging, squash.

b) The following activities (5.5-7 METs) were coded as vigorous intensity if they had made the participant 'out of breath or sweaty', but were otherwise coded as moderate intensity: aerobics, badminton, boxing, cycling, football, hillwalking, rugby, skiing, swimming, tennis, workout at a gym (e.g. exercise bike, weight training).

Moderate:

a) See 'vigorous' category (b).

b) All occasions of a large number of activities (3.5-5 METs) including: canoeing, cricket, fell walking, golf, horse riding, tai chi, table tennis.

c) The following sports/exercise activities were coded as moderate intensity if they had made the participant 'out of breath or sweaty', but were otherwise coded as light intensity: dancing, exercise (press-ups, sit-ups etc.).

Light:

a) See 'moderate' category (c).

b) All occasions of a large number of activities (1.5-3 METs) including: bowls, fishing, pilates, snooker, yoga.

Muscle-strengthening activities

Muscle-strengthening activities were identified in this report as follows:

- Working out at a gym, aerobics, or exercises such as press-ups or sit-ups (which were included in the list of sports and exercise activities specifically asked about) or reported additional activities such as golf and volleyball were included as muscle-strengthening activities if participants reported that the effort of that activity was usually enough to make their muscles feel some tension, shake or feel warm.
- Sports and exercise such as canoeing or climbing (not provided in the initial list of 10 activities but reported as additional activities) were always included as muscle-strengthening activities (regardless of responses to the follow-up question).
- Some pursuits such as cycling, swimming, squash and football were included in the initial list of sports and exercise activities were always included as muscle-strengthening, possibly leading to some overestimate of the proportion of adults meeting the muscle-strengthening guideline.

The following activities were always included as muscle-strengthening activities: canoeing, climbing, field athletics, horse riding, kayaking, rowing, sailing, skiing or snowboarding, Tai-chi, water skiing, wind surfing.

The following activities were included as muscle-strengthening activities for participants who reported that the effort of that activity was usually enough to make their muscles feel some tension, shake or feel warm: aqua aerobics or aquafit, aerobics, basketball, body boarding, bowls, exercise (press-ups, sit-ups etc), cricket, curling, golf, hillwalking, hockey, ice skating, martial arts other than tai chi, netball, pilates, rambling, surfing, tenpin bowling, volleyball, workout at a gym (e.g. exercise bike, weight training), yoga.

For some activities the question about whether the effort of that activity was usually enough to make their muscles feel some tension, shake or feel warm was not asked: badminton, cycling, dancing, football, rugby, running or jogging, squash, swimming, tennis. These activities were always included as muscle-strengthening, possibly leading to

some overestimate of the proportion of adults meeting the muscle-strengthening guideline.

Balance improving exercises

The following activities were included as activities that improve balance: aerobics, aqua aerobics/aquafit, badminton, basketball, body boarding, bowls, canoeing, climbing, cricket, curling, cycling, dancing, field athletics, football, golf, hillwalking, hockey, horse riding, ice skating, kayaking, workout at a gym, martial arts, netball, pilates, rambling, rugby, running or jogging, sailing, skiing or snowboarding, squash, surfing, table tennis, Tai-chi, tennis, tenpin bowling, volleyball, wind surfing, yoga, water-skiing. Exercise (press-ups, sit-ups etc) was included as balance-improving for participants who reported that the exercises involved standing up and moving about.

Last edited: 16 May 2023 9:31 am

Previous Chapter
Adult physical activity

Next Chapter
Social care for older adults

Social care for older adults

Summary

This report includes results from the 2021 Health Survey for England describing the need for and receipt of social care among adults aged 65 and over. It compares social care needs and receipt by age, sex, household income, area deprivation, longstanding illnesses and health status.

Detailed tables accompanying this report can be accessed here.

Key findings for 2021

- 24% of men and 28% of women aged 65 and over needed help with at least one Activity of Daily Living (ADL) in the past month. 21% of men and 29% of women needed help with at least one Instrumental Activity of Daily Living (IADL).

- The proportions needing help with ADLs or IADLs increased with age from 21% of adults aged between 65 and 69 to 52% of those aged 80 and over. Need for help with two or more ADLs or IADLs also increased with age from 15% of adults aged 65 to 69 to 40% aged 80 and over.
- 22% of adults aged 65 and over had an unmet need for help with at least one ADL, and 15% had an unmet need for help with at least one IADL.
- Adults aged 65 and over from the most deprived area were twice as likely to need help with ADLs and IADLs as adults living in the least deprived areas. The proportions who had received some help and who had unmet need were also higher in more deprived areas.
- More than half of adults with a limiting longstanding illness needed help with ADLs (53%) and IADLs (51%), compared with less than 10% of those with a non-limiting longstanding illness or no longstanding illness.

Introduction

Contents

The Health Survey for England (HSE) has included questions on social care for adults aged 65 and over every year since 2011. This report describes older adults' need for social care and to what extent care is provided, including analysis by age, sex, income, area deprivation and longstanding illness.

The data are based on a representative sample of the adults aged 65 and over living in private households. Adults in hospitals and care homes were not included in the sample.

Background

Social care is the provision and receipt of help with personal care and domestic tasks to help enable individuals to live as independently as possible. It impacts the lives of many, including those who require formal care and support, their families, unpaid carers, and the social care workforce. Overall, social care affects over 10 million adults of all ages in England at any one time (Source: People at the Heart of Care: adult social care reform white paper).

Between 2021 and 2022, local authorities in England spent £22 billion on adult social care. There were almost 2 million requests for adult social care support from 1.4 million new clients. Adults over 65 years of age made up 69% of those requests (Source: Adult Social Care Activity and Finance Report, England, 2021-22).

The current demand for social care services is expected to increase due to an ageing population, better diagnosis, and higher survival rates in premature babies. It is predicted that by 2050 one in four people in the UK will be aged 65 and over, increasing

from one in five in 2018 (Source: Overview of the UK population - Office for National Statistics). The impact of the COVID-19 pandemic on both physical and mental health will contribute to future demand for social care (Source: People at the Heart of Care: adult social care reform white paper).

Methods and definitions

Methods

Questions for those in need of, or in receipt of, social care were asked of adults aged 65 and over. In 2021, these questions were part of the telephone interview.

The current modules of social care questions were developed in 2009 and 2010 and first used in the HSE 2011. They are designed to investigate different, but related, areas.

- The need for and receipt of social care among adults aged 65 and over
- How those services are provided by paid-for and unpaid carers
- The characteristics and experiences of adults who provide unpaid social care and support to family members, friends and neighbours.

Core questions for adults aged 65 and over are included in HSE in every year. More detailed questions alternate every other year, covering either the nature of care received by older adults (as in HSE 2021) or focused on the experience of unpaid care givers.

More detailed information about the modules can be found in the HSE 2011 report.

While social care may be needed by and provided for people of any age, the sample for the HSE does not include sufficient numbers of social care recipients among children and adults aged under 65 to allow robust analyses of the patterns of need and receipt of care among different groups and therefore these questions are only asked of adults aged 65 and over. Only private households were included in the sample, and older adults in hospitals and care homes are not covered.

The full questionnaires can be found within the Survey Documentation.

Definitions

Measuring need for and receipt of social care: ADLs and IADLs
The need for and receipt of social care is measured using a number of Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). ADLs are activities relating to personal care and mobility about the home that are fundamental to daily living. IADLs are activities which, while not fundamental to functioning, are important aspects of living independently. A total of thirteen ADLs and IADLs were used in the HSE

and are shown in Table A; these were carefully selected to represent a full range of key activities.

The ADLs and IADLs included in the social care module allow an approximation of the Barthel Index, a measure of ability to live independently at home for older people. For further details see the 2011 report.

Table A: Summary of Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)

ADLs	IADLs
Having a bath or shower	Doing routine housework or laundry
Using the toilet	Shopping for food
Getting up and down stairs	Getting out of the house
Getting around indoors	Doing paperwork or paying bills
Dressing or undressing	
Getting in and out of bed	
Washing face and hands	
Eating, including cutting up food	
Taking medicine	

ADLs and IADLs and the Care Act 2014 eligibility criteria

Need for help and unmet need

For each ADL and IADL, participants aged 65 and over were asked whether they could:

- carry out the activity on their own,
- manage on their own with difficulty,
- only do the activity with help, or
- could not do it at all.

Where 'need' for help is discussed in the report, it refers to people in the last three categories.

For the IADLs relating to shopping, housework and paperwork, participants were asked to exclude help which was provided simply because of the way household responsibilities were divided.

Participants who indicated that they needed some degree of help for at least one ADL or IADL were asked whether they had received any help in the last month.

'Unmet need' refers to cases where participants indicated that they needed help with a particular ADL or IADL but had not received any help with it in the last month. Participants could be receiving help with one or more activity but also have unmet needs for other ADLs or IADLs.

Care needs of adults aged 65 and over

Ability to perform ADLs and IADLs in the last month

Adults aged 65 and over were asked how well they could carry out each of the 13 Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). Those who said they could not carry out the activity without help were combined into a category of adults aged 65 and over who had need for help with that activity.

Among ADLs, adults aged 65 and over were most likely to need help with

- getting up and down the stairs (20%)
- having a bath or shower (13%)
- dressing and undressing (13%).

For more information: Table 1

Ability to perform ADLS in the last month

Download the data for this chart Ability to perform ADLS in the last month

Among IADLs, adults aged 65 and over were most likely to need help with

- shopping for food (20%)
- doing routine housework or laundry (19%).

For more information: Table 1

Ability to perform IADLs in the last month

Download the data for this chart Ability to perform IADLs in the last month

For most ADLs, participants who needed help were most likely to say that they could manage the activities on their own but with difficulty. A smaller proportion of adults aged 65 and over said that they could do these activities only with help, or not do them at all.

Where help was needed, participants were most likely to say that they needed help with two or more ADLs or IADLs in the last month (24%).

Need for help with ADLs and IADLs, by age and sex

69% of adults aged 65 and over reported that they could perform all the ADLs and IADLs on their own without help. The proportions who needed help with at least one ADL in the last month (26%) or at least one IADL (25%) were similar.

The proportion who did not need help decreased with age from 79% of adults aged 65 to 69, 69% of adults aged 75 to 79, and was much lower (48%) among those aged 80 or over.

Consequently, the proportions needing help increased with age from 21% of adults aged between 65 and 69 to 52% of those aged 80 and over. Need for help with two or more ADLs and/or IADLs also increased with age: from 15% of adults aged 65 to 69 to 40% aged 80 and over.

A higher proportion of women than men aged 65 and over needed help in the last month: 34% of women needed help, compared with 27% of men. This was true for both ADLs (help needed by 28% of women and 24% of men) and IADLs (help needed by 29% of women and 21% of men).

For more information: Table 2

Need for help with multiple ADLs and IADLs in the last month among men by age

Download the data for this chart Need for help with multiple ADLs and IADLs in the last month among men by age

Need for help with multiple ADLs and IADLs in the last month among women by age

Download the data for this chart Need for help with multiple ADLs and IADLs in the last month among women by age

Receipt of help and unmet need in the last month, by age and sex

Help with ADLs

11% of adults aged 65 and over received help in the last month with at least one ADL. This included similar proportions of men (10%) and women (11%).

The proportions who received help with ADLs in the last month was similar for adults aged between 65 and 79 (9%-10%) and was higher (17%) for those aged 80 and over.

Help with IADLs

17% of adults aged 65 and over had received help in the last month with at least one IADL. A higher proportion of women (21%) than men (13%) received help with at least one IADL in the last month.

The proportions who received help with IADLs in the last month increased with age from 11% of those aged 65 to 69 to 17% of those aged between 75 and 79 and was highest among those aged 80 and over (33%).

Unmet need

Adults who had some need for help with an ADL or IADL but who had not received help with that activity in the last month were categorised as having unmet need. It was possible to have received help with some ADLs or IADLs and still have unmet need for help with others.

Of adults aged 65 and over, 22% had some unmet need for help with ADLs; Similar proportions of men and women had some unmet need for help with ADLs.

Unmet need for help with ADLs increased with age, from 14% of those aged 65 to 69 to 36% of adults aged 80 and over.

Unmet need for help with IADLs was lower (15%). Similar proportions of men and women had some unmet need for help with IADLs.

Unmet need for help with IADLs increased with age, from 10% of those aged 65 to 69 to 25% of those aged over 80.

For more information: Table 3

Need for help, receipt of help and unmet need for help with ADLs and IADLs in the last month

Download the data for this chart Need for help, receipt of help and unmet need for help with ADLs and IADLs in the last month

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Need for and receipt of help in the last month,

by household income

The HSE uses the measure of equivalised household income, which takes into account the number of adults and dependent children in the household as well as overall household income. In this topic report, households are divided into tertiles (thirds) based on this measure. Data reported by income tertiles have been age standardised to account for difference in age profiles across household incomes.

For information about how equivalised income is calculated, see the HSE 2021 Methods report.

The proportion of adults aged 65 and over who needed help with at least one ADL or IADL varied by household income.

- In the lowest income group, 33% needed help with at least one ADL, and 31% needed help with at least one IADL.
- In the middle income group, 20% needed help with at least one ADL, and 19% needed help with at least one IADL.
- In the highest income group, 21% needed help with at least one ADL, and 21% needed help with at least one IADL.

For more information: Table 4

Need for help with ADLs and IADLs in the last month, by equivalised household income

Download the data for this chart Need for help with ADLs and IADLs in the last month, by equivalised household income

Adults aged 65 and over in the lowest household income group were more likely than those in higher income groups to have received help with ADLs and IADLs.

- For ADLs, 13% in the lowest household income group received help compared to 7% in other groups.
- For IADLs, 21% in the lowest household group received help, compared with 13% in the middle income group and 12% in the highest household income group.

For more information: Table 4

Received help with ADLs and IADLs in the last month, by equivalised household income

Download the data for this chart Received help with ADLs and IADLs in the last month, by equivalised household income

There was a similar pattern by household income for unmet need. Adults aged 65 and over in the lowest household income group were more likely to have an unmet need for help than higher income groups.

- In the lowest household income group, 28% had an unmet need for help with ADLs and 19% had unmet need for help with IADLs.
- In the middle income group, 17% had an unmet need for help with ADLs and 10% had unmet need for help with IADLs.
- In the highest income group, 19% had an unmet need for help with ADLs and 14% had unmet need for help with IADLs.

For more information: Table 4

Unmet needs with ADLs and IADLs in the last month, by equivalised household income

Download the data for this chart Unmet needs with ADLs and IADLs in the last month, by equivalised household income

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Need for and receipt of help in the last month, by area deprivation

The English Index of Multiple Deprivation (IMD) is a measure of area deprivation, based on 37 indicators, across seven domains of deprivation. IMD is a measure of the overall deprivation experienced by people living in a neighbourhood, although not everyone who lives in a deprived neighbourhood will be deprived themselves. To enable comparisons, areas are classified into quintiles (fifths). Data reported by IMD quintiles have been age-standardised to account for different area age profiles.

For further information about the IMD, see the HSE 2021 Methods report.

Adults in the most deprived areas were twice as likely to need help with ADLs and IADLs than those in less deprived areas. In the least deprived areas 20% of adults needed help with ADLs, and this proportion increased with the level of deprivation to 44% in the most deprived areas. There was a similar pattern for adults who needed help with IADLs: from 19% in the least deprived areas to 45% of those in the most deprived areas.

For more information: Table 5

Need for help with ADLs and IADLs in the last month, by Index of Multiple Deprivation (IMD)

Download the data for this chart Need for help with ADLs and IADLs in the last

month, by Index of Multiple Deprivation (IMD)

The proportion of adults aged 65 and over who received help with ADLs was lowest in the least deprived areas (8%) and increased to 19% in the most deprived areas. The pattern was similar for IADLs: 12% received help in the least deprived areas compared with 36% in the most deprived areas.

For more information: Table 5

Received help with ADLs and IADLs in the last month, by Index of Multiple Deprivation (IMD)

Download the data for this chart Received help with ADLs and IADLs in the last month, by Index of Multiple Deprivation (IMD)

The proportion of adults aged 65 and over who reported an unmet need for help with ADLs and IADLs was twice as high in the most deprived areas compared to the least deprived areas. In the most deprived areas, 38% had an unmet need for help with ADLs, compared to 17% in the least deprived areas.

There was a similar pattern for unmet need for help with IADLs; this was reported by 26% in the most deprived areas, compared with 12% in the least deprived areas.

For more information: Table 5

Unmet need with ADLs and IADLs in the last month, by Index of Multiple Deprivation (IMD)

Download the data for this chart Unmet need with ADLs and IADLs in the last month, by Index of Multiple Deprivation (IMD)

Need for and receipt of help in the last month, by limiting longstanding illness

Longstanding illness is defined as ‘any physical or mental health condition or illness lasting or expected to last 12 months or more’. A longstanding illness is defined as limiting if the participant reports that it reduces their ability to carry out day-to-day activities. The prevalence of longstanding illness is described in the HSE 2021 report on Adults’ health.

Two in five (40%) adults aged 65 and over had a limiting longstanding illness, and one in

five (20%) had a non-limiting longstanding illness. The proportion of adults aged 65 and over with a limiting longstanding illness increased with age, from 31% of those aged between 65 and 69, to 57% of those aged 80 and over. The proportion with a non-limiting longstanding illness did not vary by age.

More than half of adults aged 65 and over who had a limiting longstanding illness needed help with at least one ADL (53%). This compares with 9% of those with a non-limiting longstanding illness and 7% of those with no longstanding illness. This pattern was also observed for IADLs, with 51% of those with a limiting longstanding illness, 8% with a non-limiting longstanding illness and 8% with no longstanding illness needing help.

The proportion of adults who received help in the last month was higher in adults with a limiting longstanding illness (24% for ADLs and 38% for IADLs) than for those with a non-limiting longstanding illness (1% for ADLs and 4% for IADLs) or no longstanding illness (2% for ADLs and 4% for IADLs).

Just under half of adults aged 65 and over with a limiting longstanding illness had an unmet need for help with ADLs (45%), and 29% had an unmet need for help with IADLs. 8% of those with a non-limiting longstanding illness had an unmet need for help with ADLs, and 6% had an unmet need for help with IADLs. Among those with no longstanding illness, 7% had some unmet need for help with ADLs and 5% had an unmet need for help with IADLs.

For more information: Table 6

Trends in need and receipt of help and unmet needs

Because of methodological changes, findings from the 2021 HSE are not directly comparable with previous HSEs (see the HSE 2021 Methods report for more information).

Between 2011 and 2018, the proportion of adults who needed help with ADLs declined from 32% in 2011 to 27% in 2018. The proportion who needed help with IADLs also decreased, from 33% in 2011 to 26% in 2018. In 2021, 26% of adults aged 65 and over needed help with ADLs and 25% needed help with IADLs.

The proportion of adults aged 65 and over who received help in the last month also declined from 2011 to 2018. In 2011, 15% of adults received help with ADLs, decreasing to 11% in 2018. For IADLs, the proportion of adults who received help decreased from 27% to 20% between 2011 and 2018. In 2021, 11% received help for ADLs and 17% received help for IADLs in the last month.

The prevalence of unmet need for help with ADLs and IADLs remained relatively stable between 2011 and 2018, and is at similar levels in 2021. Between 22% and 26% of adults

had an unmet need for help with ADLs between 2011 and 2018. Unmet need for help with IADLs varied between 13% and 16% across the same period. In 2021, 22% had an unmet need for help with ADLs and 15% had an unmet need for help with IADLs.

For more information: Table 7

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Previous Chapter
Physical Activity Technical Appendix

Next Chapter
Gambling behaviour

Gambling behaviour

Summary

This report includes results from the 2021 Health Survey for England describing gambling

participation and the prevalence of at-risk and problem gambling.

Detailed tables accompanying this report can be accessed here.

Key findings

- In 2021, 50% of adults had participated in a gambling activity in the last 12 months. Men (55%) were more likely than women (45%) to take part in any gambling activity.
- 10% of adults had participated in any online gambling (excluding National Lottery and other lotteries) in the last 12 months.
- According to their Problem Gambling Severity Index (PGSI) scores, 2.8% of adults were identified as engaging in at-risk or problem gambling and 0.3% as engaging in problem gambling.
- Men were more likely to be identified as engaging in at-risk or problem gambling than women (4.4% of men and 1.1% of women).
- People who had gambled and spent money on four or more different gambling activities in the last 12 months were more likely to engage in at-risk or problem gambling (27.8%) than those who gambled on two or three different activities (4.6%) or only one activity (1.6%).
- Among adults who had gambled in the last 12 months, their PGSI scores identified 5.8% as engaging in at-risk or problem gambling compared with 18.2% of those who had gambled online.

Introduction

Gambling and health

Great Britain has one of the most accessible gambling markets in the world. Opportunities to gamble exist on most high streets and, with access to the internet, in virtually every home. Concerns regarding the harms associated with gambling have been increasing in the UK in recent years and gambling is viewed as a public health issue.

Content

This chapter looks at the types of gambling activities that all adults, aged 16 and over, have taken part in in the last 12 months. Taking part in a gambling activity was defined as having spent money on a gambling activity in the last 12 months. Prevalence of gambling is compared across different groups, including by region, household income

and Index of Multiple Deprivation (IMD). Validated scales are used to estimate the prevalence of at-risk and problem gambling.

As data collection took place during the COVID-19 pandemic some gambling activities, such as those done in-person (e.g. at a bookmaker, casino, bingo hall) were not always available during the 12 months prior to participants completing the questionnaire. For this reason, along with those outlined elsewhere about methodology, comparisons between 2021 findings those from earlier HSE surveys have not been made.

The full questionnaires, including self-completion booklets, can be found within the Survey Documentation.

Methods and definitions

Methods

Questions about gambling were included in the self-completion booklet to ensure that they could be answered in confidence.

The questionnaire asked about participation in the past 12 months in 19 different types of gambling.

For those who had participated in any type of gambling in the past 12 months, there was a summary question about how often participants had spent money on gambling. Finally, there were questions asking about experiences connected with gambling: the Problem Gambling Severity Index and a screening instrument taken from the Diagnostic and Statistical Manual of Mental Disorders.

Problem Gambling Severity Index (PGSI)

The PGSI was designed for use among the general population rather than within a clinical context. It was developed, tested and validated within a general population survey of over 3,000 Canadian residents (Ferris and Wynne, 2001).

The instrument itself has been subject to critical evaluation and was revised in 2003. The PGSI consists of nine items ranging from ‘chasing losses’ to ‘gambling causing health problems’ to ‘feeling guilty about gambling’. Each item is assessed on a four-point scale: never, sometimes, most of the time, almost always.

Responses to each item are given the following scores: never = 0; sometimes = 1; most of the time = 2; almost always = 3. When scores to each item are summed, a total score can range from 0 to 27. The PGSI was also developed to give additional information on sub-threshold problem gamblers.

Diagnostic and Statistical Manual of Mental Disorders, fourth version (DSM-IV)

The DSM-IV screening instrument is based on criteria from the fourth edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV) (APA, 1993). It was originally created as a clinical diagnostic tool and was not intended for use as a screening instrument among the general population.

An adapted version of the DSM-IV for use in a survey setting was developed for the British Gambling Prevalence Survey (BGPS) series and was subject to a rigorous development and testing process, including cognitive testing and piloting.

The DSM-IV contains ten diagnostic criteria ranging from 'chasing losses' to 'committing a crime to fund gambling'. Each item is assessed on a four-point scale, ranging from 'never' to 'very often'.

This report follows the scoring method used by the BGPS. Each item is coded according to whether the participant had a positive score, resulting in a total score between 0 and 10. Among clinicians, a diagnosis of pathological gambling is made if a person meets five out of the ten criteria. Many surveys, when adapting the DSM-IV criteria into a screening instrument for use within a general population survey, have included a category of "problem gambler" for those who meet at least three of the DSM-IV criteria (Fisher, 1996, Productivity Commission, 1999, Clarke et al, 2006, NGISC, 1999).

Definitions

Types of gambling

As well as individual types of gambling, activities are summarised in four main ways within this publication.

- **Any gambling** refers to all types of gambling reported.
- **Any gambling excluding the National Lottery** includes all activities except the National Lottery draws. This category excludes those whose only gambling activity was playing the National Lottery.
- **Any gambling excluding lotteries and scratchcards** includes all activities except the National Lottery, other lotteries or scratchcards. This category excludes those who did not do any gambling activity other than lotteries or scratchcards.
- **Online gambling** refers to any gambling online, apart from National Lottery draws, for example online poker, bingo instant win/scratchcards games, slot machine style games or casino games for money and online betting with a bookmaker. Questions about participation in lotteries did not specify whether participation was online or offline, so these are excluded from the online category.

Problem gambling

The HSE uses two screening tools to identify at risk or problematic gambling: the DSM-IV criteria and the Problem Gambling Severity Index (PGSI) (Ferris and Wynne, 2001). A score of 3 or more for DSM-IV or a score of 8 or more for PGSI is indicative of problem gambling.

At-risk gambling

A score of 1 or more for PGSI is indicative of at-risk gambling. A score of 1 to 2 is considered low risk and a score of 3 to 7 is considered moderate risk.

Participation in gambling activities in the last 12 months

Participation in gambling activities, by age and sex

In 2021, 50% of adults aged 16 and over had participated in some form of gambling in the last 12 months. A proportion of this is accounted for by the National Lottery: 36% had participated in gambling other than the National Lottery. When any lotteries or scratchcards are excluded, 18% of adults had participated in other types of gambling in the last 12 months.

The most popular gambling activities were:

- Tickets for National Lottery Draw (34%)
- Tickets for other lotteries (15%)
- Scratchcards (14%)
- Online betting with a bookmaker (8%)
- Betting on horse races at a bookmaker, by phone or at a racecourse (5%).

All other gambling activities had participation rates below 5%.

One in ten adults had participated in any online gambling in the last 12 months.

Men (55%) were more likely than women (45%) to take part in any gambling activity.

For more information: Table 1

Participation in gambling in the last 12 months, by sex

Download the data for this chart Participation in gambling in the last 12 months, by sex

The proportion of adults aged 16 and over who took part in gambling activities increased with age, with the highest gambling participation in those aged 45 to 54 (61%) before gradually decreasing with age to 45% in those aged 75 and over.

Gambling participation was lowest in those aged 16 to 34 (39%). In the UK, all types of gambling, including lotteries and scratchcards, are illegal for under 18s.

For more information: Table 2

Participation in gambling in the last 12 months, by age

Download the data for this chart Participation in gambling in the last 12 months, by age

Men were more likely than women to take part in gambling activities other than the National Lottery (39% and 33% respectively). The proportion of all adults aged 16 and over who took part in gambling activities excluding the National Lottery varied between age groups, following a similar pattern to that of all gambling activities.

When scratchcards and all lotteries were excluded, participation was also higher among men than women. Similar proportions of adults aged under 54 took part (between 22% of 16 to 34 year olds and 20% of 45 to 54 year olds), but participation declined with age thereafter.

Men were more likely than women to take part in online gambling activities excluding lotteries (14% and 5% respectively). The proportion of adults who took part in an online gambling activity decreased with age from 14% of those aged between 16 and 44, to 1% of those aged 75 and over.

For more information: Tables 1 and 2

Participation in gambling activities, by region

Regional estimates are shown as observed and age-standardised estimates. Observed data show the actual prevalence rate. Age-standardised data take into account the different age profiles within regions enabling comparisons between regions.

There were differences between regions in gambling participation rates. The proportion of adults who took part in any gambling activity in the last 12 months was highest in the North East (59%) and lowest in the South West (41%).

For more information: Table 3

Participation in any gambling activities in the last 12 months, by region

Download the data for this chart Participation in any gambling activities in the last 12 months, by region

There were also regional variations in the proportion of adults who participated in gambling activities other than the National Lottery and in those who participated in online gambling. Although the patterns of variation were not consistent, both types of gambling were highest in the North East, where 43% of adults participated in gambling other than the National Lottery and 15% participated in online gambling.

Participation in gambling activities other than the National Lottery was lowest in the South West, 27%, and online gambling was also lowest in the South West, 4%.

For more information: Table 3

Participation in gambling activities, by household income

The HSE uses the measure of equivalised household income, which accounts for the number of adults and dependent children in the household as well as overall household income. Households are divided into quintiles (fifths) based on this measure. The age profile of the income quintiles has been age-standardised to account for differences in age profiles between households. For information about how equivalised income is calculated, see the HSE 2021 Methods report.

The proportion of adults who had participated in any type of gambling activity in the last 12 months was similar across household income levels. This was also the case for participation in any gambling activity excluding the National Lottery and for online gambling.

For more information: Table 4

Participation in gambling activities, by area deprivation

The English Index of Multiple Deprivation (IMD) is a measure of area deprivation, based on 37 indicators, across seven domains of deprivation. IMD is a measure of the overall deprivation experienced by people living in a neighbourhood, although not everyone who lives in a deprived neighbourhood will be deprived themselves. To enable comparisons, areas are classified into quintiles (fifths). For further information about the IMD, see the HSE 2021 Methods report.

The proportion of adults who had participated in any type of gambling activity in the last 12 months was similar across area deprivation levels. This was also the case for participation in any gambling activity (apart from the National Lottery) and in any online gambling.

For more information: Table 5

Frequency of gambling

Adults who had gambled at least once in the past 12 months were asked how often they spent money on any gambling activities. The question did not distinguish the frequency of taking part in specific activities or types of activity.

The majority of adults who gambled in the past year reported spending money on gambling once a month or less (53%). 47% of adults who gambled did so more than once a month, including 22% who reported gambling once a week and 12% who reported gambling two or more times a week. There was a similar pattern for those who gambled on activities other than the National Lottery.

Adults who gambled online participated in gambling activities more often. 58% of those who gambled online spent money on all gambling activities, online or offline, more than once a month. This includes 21% who reported gambling once a week and 20% who reported gambling two or more times a week.

For more information: Table 6

Frequency of taking part in any gambling activity in the last 12 months

Download the data for this chart Frequency of taking part in any gambling activity in the last 12 months

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Prevalence of at-risk and problem gambling (DSM-IV and PGSI scores)

Prevalence of at-risk and problem gambling, by sex and age

From their responses to the PGSI questions, 2.8% of adults were identified as engaging in at-risk or problem gambling (score 1+).

Men were more likely to be identified as engaging in at-risk or problem gambling than women. 4.4% of men and 1.1% of women were identified as engaging in at-risk or problem gambling according to their PGSI scores.

The proportion of adults identified as engaging in at-risk or problem gambling was highest amongst those aged 35 to 44 (4.5%) and 45 to 54 (3.7%).

For more information: Table 7

Prevalence of at-risk or problem gambling according to PGSI score, by sex and age

Download the data for this chart Prevalence of at-risk or problem gambling according to PGSI score, by sex and age

Using PGSI scores, 0.3% of adults were identified as engaging in problem gambling

(score 8+). Using DSM-IV scores, 0.4% of adults were identified as engaging in problem gambling, defined as having a DSM-IV score of 3+.

For more information: Table 7

Prevalence of at-risk and problem gambling amongst gamblers, by type of activity undertaken

Among adults who gambled at all in the last 12 months, PGSI scores identified 5.8% as engaging in at-risk or problem gambling (score 1+).

The prevalence of at-risk and problem gambling was higher amongst gamblers when those gambling on the National Lottery only were excluded: 7.9% of individuals who gambled on any gambling activity apart from the National Lottery were identified as engaging in at-risk or problem gambling (PGSI score 1+).

The prevalence of at-risk and problem gambling was higher still amongst gamblers who gambled online. 18.2% of individuals who participated in online gambling activities were identified as engaging in at-risk or problem gambling.

For more information: Table 8

Prevalence of at-risk and problem gambling (PGSI), by type of activity undertaken

Download the data for this chart Prevalence of at-risk and problem gambling (PGSI), by type of activity undertaken

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Among those who had gambled in the last year, 0.5% were identified as engaging in problem gambling according to their PGSI scores (8+) and 0.8% were identified as engaging in problem gambling according to their DSM-IV scores (3+).

For more information: Table 8

Prevalence of at-risk and problem gambling amongst gamblers, by number of activities undertaken

According to PGSI scores, the proportion of gamblers engaging in at-risk or problem gambling increased with the number of gambling activities gamblers spent money on.

- 1.6% of gamblers who spent money on only one gambling activity were identified as engaging in at-risk or problem gambling
- 4.6% of gamblers who spent money on two or three gambling activities were

identified as engaging in at-risk or problem gambling
- 27.8% of gamblers who spent money on four or more gambling activities were identified as engaging in at-risk or problem gambling.

For more information: Table 9

Prevalence of at-risk and problem gambling, by number of gambling activities undertaken

Download the data for this chart Prevalence of at-risk and problem gambling, by number of gambling activities undertaken

The prevalence of problem gambling amongst gamblers increased with the number of gambling activities undertaken. Using DSM-IV scores, gamblers who spent money on four or more gambling activities in the last 12 months were more likely to engage in problem gambling (5.6%) than those who gambled on two or three activities (0.1%) or only one activity (0.2%). Similarly, using PGSI scores, gamblers who spent money on four or more gambling activities in the last 12 months were more likely to engage in problem gambling (3.6%) than those who gambled on two or three activities (0.1%) or only one activity (0.2%).

For more information: Table 9

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Previous Chapter
Social care for older adults

Next Chapter
Data Quality Statement

Data Quality Statement

Background

Context

The Health Survey for England series was designed to monitor trends in the health, and health related behaviours, of adults and children in England. The survey is used to estimate the proportion of people in England who have specified health conditions, and the prevalence of risk factors and behaviours associated with health conditions. The surveys provide regular information that cannot be obtained from other sources. The surveys have been carried out since 1994 by the Joint Health Surveys Unit of NatCen Social Research and the Research Department of Epidemiology and Public Health at UCL.

Purpose of report

This statement aims to provide users with an evidence-based assessment of quality of the statistical output included in this report.

It reports against those of the nine European Statistical System (ESS) quality dimensions and principles appropriate to this output. In doing so, this meets NHS Digital's obligation to comply with the UK Statistics Authority (UKSA) Code of Practice for Statistics, and the following principles in particular:

- Trustworthiness pillar, principle 6 (Data governance) which states "Organisations should look after people's information securely and manage data in ways that are

consistent with relevant legislation and serve the public good."

- Quality pillar, principle 3 (Assured Quality) which states "Producers of statistics and data should explain clearly how they assure themselves that statistics and data are accurate, reliable, coherent and timely."
- Value pillar, principle 1 (Relevance to Users) which states "Users of statistics and data should be at the centre of statistical production; their needs should be understood, their views sought and acted upon, and their use of statistics supported."
- Value pillar, principle 2 (Accessibility) which states "Statistics and data should be equally available to all, not given to some people before others. They should be published at a sufficient level of detail and remain publicly available."

The Health Survey for England was assessed in 2010 by the UK Statistical Authority (UKSA) for compliance with the Code of Practice and the publication was recommended for continued designation as National Statistics.

Relevance

This dimension covers the degree to which the statistical product meets user needs in both coverage and content.

Each survey in the series includes core questions and measurements (such as blood pressure, height and weight and analysis of blood and saliva samples), as well as some modules of questions that are on specific topics that vary from year to year.
Frequent topics include:

- height, weight, BMI (body mass index)
- smoking
- alcohol
- fruit and vegetable consumption
- general health, acute sickness and long-standing illness
- General Health Questionnaire (GHQ-12) an indicator of probable mental ill health
- blood pressure and hypertension
- diabetes
- prescribed medicines taken
- well-being
- physical activity
- social care for older people

Most of these are included each year in the survey, but some may be every two, three or four years.

The contents of the publication vary from year to year. Key prevalence measures are

included each year and other topics vary to ensure that the wide range of topics is covered over time and also to reflect the inclusion of new topics. The publication includes trends tables reporting on key elements of the survey every year and the longevity of the survey means there is a long time series of comparable data available. It is one of the longest running health surveys across Europe.

NHS Digital regularly consults the HSE Steering Group (consisting of Department of Health and Social Care (DHSC), Office for Health Improvement and Disparities (OHID), NHS England and academics and public health leaders) regarding survey design, content and reporting to try and ensure most users' needs are met.

Accuracy and reliability

This dimension covers, with respect to the statistics, their proximity between an estimate and the unknown true value.

The figures in this publication come from surveys, which gather information from a sample rather than from the whole population. The sample is designed to be as accurate as possible given practical limitations such as time and cost constraints. Results from sample surveys are always estimates, not precise figures. This can have an impact on how changes in the estimates should be interpreted, especially for short-term comparisons.

As the number of people available in the sample gets smaller, the variability of the estimates that we can make from that sample size gets larger. Estimates for small groups are less reliable and tend to be more volatile than for larger aggregated groups.

As the data are based on a sample (rather than a census) of the population, the estimates are subject to sampling error. The Health Survey for England 2021 used a clustered, stratified multi-stage sample design and in addition, weights were applied when obtaining survey estimates. One of the effects of using the complex design and weighting is that standard errors for survey estimates are generally higher than the standard errors that would be derived from an unweighted simple random sample of the same size. The calculation of standard errors shown in the tables, and comments on statistical significance have been included in the report, all of which have considered the clustering, stratification and weighting of the data.

In general, attention is drawn to differences between estimates only when they are significant at the 95% confidence level, thus indicating that there is less than 5% probability that the observed difference could be due to random sampling variation when no difference occurred in the population from which the sample is drawn.

A total of 5,880 adults (aged 16 and over) and 1,240 children (aged 0 to 15) were interviewed in the 2021 survey. 1,705 adults and 250 children had a nurse visit and measurements. Findings for 2021 are for adults only; findings about children are not included because of low sample numbers within different age groups. Details of the

sample design and survey methods and sampling errors and design effects are in the publication's Methods report which accompanies this publication.

The sample was designed to be representative of the population living in private households in England. People living in institutional settings such as residential care homes, offender institutions, prisons, in temporary housing (such as hostels or bed and breakfasts) or sleeping rough are outside the scope of the survey. This should be borne in mind when considering survey findings, especially those for older people, since the institutional population in care homes is likely to be older and, on average, less healthy than those living in private households. The health of other people not covered by the survey might also vary from that of people in private households in some ways. However, the proportion of these in the England population is very small and so is likely to have little impact on most prevalence estimates.

Timeliness and punctuality

Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.

A report about the survey findings and trend data tables are published annually and as soon as possible following completion of fieldwork data collection, data validation and analysis. Addresses were issued from January 2021 to March 2022. Fieldwork was completed in June 2022.

Due to the effects of the Covid-19 pandemic and extended data collection period, a decision was made to publish the 2021 HSE report in two parts to ensure timeliness of the data.

This publication has not suffered any delay compared to the planned and preannounced release dates.

Accessibility and clarity

Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

From 2021 reports have been published in HTML format, with tables provided in Excel format. Methods and Survey documentation materials are available for download in pdf format.

Approved researchers seeking to undertake secondary analysis of the Health Survey for

England will be able to apply for access via the UK Data Service or for access to a more detailed data set via the NHS Digital's Data Access Request Service (DARS) and the UK Data Service, more information is available on the Population Health Data Access Webpage.

Coherence and comparability

Coherence is the degree to which data which have been derived from different sources or methods but refer to the same topic are similar. Comparability is the degree to which data can be compared over time and domain.

There have been over twenty-five annual surveys in the series. 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. The data are weighted relative to the size of each group of the population making the results comparable over the time series

The core topics covered by the survey include general health, fruit and vegetable consumption, height and weight, obesity and overweight, alcohol consumption and smoking. Trend tables present data for key measures for the years in which they were collected to make comparisons over time more accessible. The number of years of data available varies; from a few years for newer topics such as well-being, to others such as general health, smoking status, height, weight and body mass index, for which data were first collected in 1993 or 1995. The Health Survey for England content page includes information about which topics were included each year of the survey from 1993 to 2021.

Owing to the Covid-19 pandemic, in 2021, the approach differed from previous years. This included a change in mode, from face-to-face interviewer visits to remote telephone and a small proportion of video interviews, to limit contact between participants and interviewers. For January to March 2021 the survey was opt in and participants had to contact NatCen to schedule a survey interview. From April onwards the survey moved back to doorstep recruitment, but survey interviews were then arranged for over the telephone at a later date rather than face to face. The survey contains a self-completion element: during the face-to-face interview participants complete the self-completions during the interview, however for 2021 these were asked to be completed after the interview and posted back, reminder letters were sent. This led to lower numbers of response for the self-completion elements of the survey. More details are within the Methods Report.

In previous years, participants would have had their height and weight measured during the face-to-face interview. In 2021, this was replaced with using self-reported height and weight to estimate overweight and obesity prevalence. A methodology study using HSE data from 2011 to 2016 developed a set of prediction equations that adjusted self-

reported values of height and weight so that they more accurately predicted measured values of height and weight. The difference in methodology should be considered when reviewing trend data. More information about the impact of changing how height, weight and body mass index were measured is available at Methodological changes - NHS Digital and within the Methods Report.

Trade-offs between output quality components

This dimension describes the extent to which different aspects of quality are balanced against each other.

Changes were made to the 2021 survey to allow for data collection to be carried out in a timely fashion after data collection for the 2020 survey had to be stopped in March 2020 due to the Covid-19 pandemic (with no subsequent annual publication). The change from face-to-face to telephone and video interview has potential to affect the recruited sample and also to impact on how people answer.

It is also possible that some question topics in HSE (e.g. smoking, drinking and fruit and vegetable consumption) may be susceptible to social desirability bias, where the individual is tempted to give an answer which is more socially acceptable. Respondents are assured that their answers will be kept private to reduce this temptation and more sensitive themes are asked via self completion to allow more privacy when answering.

Assessment of user needs and perceptions

This dimension covers the processes for finding out about users and uses and their views on the statistical products.

From our engagement with customers, we know that there are many users of these statistics. They are used by the Department of Health and Social Care, Office for Health Improvement and Disparities, NHS England, Local Government, charities, academics, professional groups, the public and the media. Uses of the data include:

- Informing, monitoring and evaluating policy;
- Monitoring changes in health or health related behaviours e.g. smoking;
- Comparing local indicators with national figures;
- Informing the planning of services;
- Writing media articles.
- Health and social research

NHS Digital tries to engage with users of these statistics to gain a better understanding of the uses and users and to ensure these statistics remain relevant and useful. We

capture information on the number of unique page views the reports and tables receive and this survey is one of our most frequently viewed publications.

The survey questionnaire and content of the report is discussed and agreed with a steering group which contains representatives from NHS Digital, Department of Health and Social Care, Office for Health Improvement and Disparities, NHS England, academia, Local Government Public Health and other government departments as well as the contractor carrying out the survey.

NHS Digital is keen to gain a better understanding of the users of this publication and of their needs; feedback is welcome and may be sent to (please include 'Health Survey for England' in the subject line).

Performance, cost and respondent burden

This dimension describes the effectiveness, efficiency and economy of the statistical output.

Data for the Health Survey for England (HSE) 2021 were collected from the population living in private households in England.

As in previous years, the HSE 2021 used a stratified random probability sample of households. The sample comprised of 9,774 addresses in 543 postcode sectors for the core sample, and 3,024 addresses in 168 postcode samples for the reserve sample. Adults and children were interviewed in households identified at the selected addresses. To limit the burden of responding for parents, no more than four children in each household were selected at random: up to two children aged between 0 and 12, and up to two aged between 13 and 15.

Data collection comprised a telephone or video interview. Participants in the interview were sent a paper questionnaire with additional questions to complete and return by post. A proportion (89%) of participating households were invited to have a visit from a specially trained nurse. The nurse visit included additional questions, measurements, collection of blood samples from adults aged 16 and over, urine samples from adults aged 35 and over, and saliva samples from adults and children aged 4 and over.

A household response rate of 32% was achieved. In total, 5,880 adults and 1,240 children were interviewed, including 1,705 adults and 250 children who had a nurse visit.

Confidentiality, transparency and security

The procedures and policy used to ensure sound confidentiality, security and transparent practices.

The data contained in this publication are National Statistics. The Code of Practice for Statistics is adhered to from collecting the data to publishing.

No personal/individual level information is contained in the report. Information is presented at a high level of aggregation. As for all NHS Digital publications the risk of disclosing an individual's identity in this publication series has been assessed and the data are published in line with a Disclosure Control Method for the dataset.

Please see links below to relevant NHS Digital policies:

Statistical Governance Policy

https://digital.nhs.uk/data-and-information/find-data-and-publications/statement-of-administrative-sources/a-z-of-nhs-digital-official-and-national-statistics-publications#user-documents

Freedom of Information Process

https://digital.nhs.uk/about-nhs-digital/contact-us/freedom-of-information

A Guide to Confidentiality in Health and Social Care

https://digital.nhs.uk/about-nhs-digital/our-work/keeping-patient-data-safe

Privacy and Data Protection

https://digital.nhs.uk/about-nhs-digital/privacy-and-cookies

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Previous Chapter
Gambling behaviour