Health Survey for England 2017

Background Data Quality Statement

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This is a National Statistics publication

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority’s regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is NHS Digital’s responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.


This report may be of interest to members of the public, policy officials, people working in public health and to commissioners of health and care services who wish to read more about data quality for the Health Survey for England.
Introduction

This document is a background quality report for the Health Survey for England (HSE). The statistics included in this release are the latest available figures at the time of publication.

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 these 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 document

This paper 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 Official Statistics, particularly Principle 4, Practice 2 which states:

“Ensure that official statistics are produced to a level of quality that meets users’ needs and that users are informed about the quality of statistical outputs, including estimates of the main sources of bias and other errors and other aspects of the European Statistical System definition of quality”

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

1 The original quality dimensions are: relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, and coherence and comparability; these are set out in Eurostat Statistical Law. However more recent quality guidance from Eurostat includes some additional quality principles on: output quality trade-offs, user needs and perceptions, performance cost and respondent burden, and confidentiality, transparency and security.

Assessment of statistics against quality dimensions and principles

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)
- perceptions of own weight and perceptions of child’s weight
- smoking
- exposure of children to second-hand smoke
- 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 or three years or four years. An example of a less frequent but regular topic is the large module of questions about physical activity.

The survey is the main source of data on the prevalence of overweight and obesity and body mass index data on adults in England.

Comparability over time is maintain by using the same questions. If changes are made, these are carefully assessed for possible implications on time series data.

There is also scope to incorporate topics into the questionnaire for just one survey year and a variety of different topics have been reported on over time. Examples are dental health, eye care, and sexual health. Some topics have been put in more than one year such as chronic pain and the prevalence of gambling. Further details can be found in the publications and at http://healthsurvey.hscic.gov.uk/content-by-topic.aspx.

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.
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. NHS Digital consults the HSE Steering Group each year to try and ensure we meet most users’ needs for reporting.

Analysis by region is provided using the former Government Office Regions. Unfortunately, estimates below regional level, e.g. for local authorities, cannot be produced as the HSE sample size is not large enough. The Index of Multiple Deprivation is also available at a grouped level.

**Accuracy and reliability**

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

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 2016 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 taken into account 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 household response rate of 60% was achieved. In total, 7,997 adults and 1,985 children were interviewed, including 5,196 adults and 1,195 children who had a nurse visit. Details of the sample design and survey methods and sampling errors and design effects are in the 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 unlikely to have little impact on most prevalence estimates.

The scope for analyses of some data for children may be limited by relatively small sample sizes.
**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 (usually the December following the survey year). Addresses were issued from January to December 2017. Fieldwork was completed in March 2018.

This publication has not suffered any delay compared to the planned and pre-announced release date.

**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.*

The publication is accessible on the NHS Digital website free of charge. Reports are PDF documents. These include charts to illustrate the survey findings. All tables in the publication are provided in Excel format. These documents are available at [http://digital.nhs.uk/pubs/hse2017](http://digital.nhs.uk/pubs/hse2017).

The publication may be requested in large print or other formats through the NHS Digital’s contact centre: [enquiries@nhsdigital.nhs.uk](mailto:enquiries@nhsdigital.nhs.uk) (please include ‘Health Survey for England’ in the subject line).

NHS Digital has published reports about each survey since the 2004 survey on its website. Prior to this the Department of Health produced these reports. These are now available via the national archives [http://webarchive.nationalarchives.gov.uk/20070506192648/http://www.dh.gov.uk/en/Publicationsandstatistics/PublishedSurvey/HealthSurveyForEngland/Healthsurveyresults/index.htm](http://webarchive.nationalarchives.gov.uk/20070506192648/http://www.dh.gov.uk/en/Publicationsandstatistics/PublishedSurvey/HealthSurveyForEngland/Healthsurveyresults/index.htm).

Recent HSE publications include findings and metadata at varying levels of detail to suit different readers’ needs. Shorter, less detailed information is available in the:

- summary report of the survey results
- a quick guide introducing the survey and its methods
- additional webpages highlighting key findings from the most recent surveys and displaying trends for selected key measures at [insert hyperlinks to microsite and explore the trends site](#)

More detailed findings, with key points selected at the front of the reports are published in reports covering different topics which are accompanied by Excel tables. The appendices in the Excel workbooks include tables showing true standard errors, confidence intervals and design effects for key survey measures.

Detailed metadata are published in:

- a Methods report, giving a full account of the technical aspects of the survey including protocols for conducting survey measures such as height and weight.
A user guide explaining how estimates of the numbers of people with health related behaviours and in BMI categories were calculated

Documentation, including questionnaires, field materials

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. Chapter 7 of the Methods report gives further details on the weighting procedures used.

The core topics covered by the survey include; general health, fruit and vegetable consumption, height and weight, obesity and overweight, alcohol consumption and smoking. The 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.

There are a lot of data available at England level but differences in survey methodology and questionnaire design between this survey and health surveys carried out in other countries may sometimes limit comparisons across countries. Users are advised to check these details when using information from different sources for countries within the United Kingdom and Europe as well as for non-European countries.

Trade-offs between output quality components

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

When asking questions about smoking and drinking in a survey there is potential for the methodology to have an impact on how people answer. In particular there was some evidence published previously in the Health Survey for England 2013 report which shows that young people appear less willing to admit to smoking when answering questions at home, particularly in comparison with school-based surveys. The HSE does collect these data via self-completion method to make it easier for respondents to answer honestly.

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.

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, Public Health England, NHS England, Local Government, NHS, charities, academics, professional groups, the public and the media. Uses of the data include: informing and monitoring and evaluating policy; monitoring the prevalence of health or illness and changes in health or health related behaviours e.g. smoking; comparing local indicators with national figures; informing the planning of services; and writing media articles. Universities, charities and the commercial sector use the data for health and social research. The survey data are also used for teaching purposes and by students in their work. The Media use the data to underpin articles in newspapers, journals etc.

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. The most recent consultation with users about the HSE was in 2016 around proposed cuts to the survey and a report on the findings is available on the NHS Digital website at http://content.digital.nhs.uk/media/22910/Health-Survey-for-England-HSE-Survey-Consultation-Report/pdf/HSE-Report-on-the-Consultation.pdf. The style of the report was also part of a wider consultation from NHS Digital. The proposal for HSE was in section A3.

In 2013 there was a consultation looking at how the survey findings were used and what user priorities were for future surveys and this influenced its future size and design and reports. A report from the 2013 consultation is available through the following link: http://content.digital.nhs.uk/article/3659/Health-Survey-for-England. In 2013 the majority of respondents rated the survey publications as very good or good.

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. In the six months following the 2016 HSE publication there were 10,400 downloads of its documents or tables.

We received many enquiries for data from the survey each year. We also received some comments, feedback and suggestions from other users of the report as ad-hoc requests via email.

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, Public Health England, NHS England, academia, Local Government Public Health, other government departments and the UK Health Forum, 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 enquires@digital.nhs.uk (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) 2017 were collected from the population living in private households in England.

As in previous years, the HSE 2017 used a stratified random probability sample of households. The sample comprised 9,612 addresses selected at random in 534 postcode sectors. 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 an interview, followed by a visit from a specially trained nurse for all those who agreed. The nurse visit included additional questions, measurements, collection of blood samples from adults, and collection of saliva samples from adults and from children aged between 4 and 15.

A household response rate of 60% was achieved. In total, 7,997 adults and 1,985 children were interviewed, including 5,196 adults and 1,195 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 official statistics is adhered to from collecting the data to publishing.


The addresses and names of people who take part are held securely by the survey contractor.

As for all NHS Digital publications the risk of disclosing an individual’s identity has been assessed, an annual risk assessment is undertaken prior to publication which addresses any potential issues around disclosure. Information is presented at a high level of aggregation in the reports and tables and data are never presented in a form that can reveal any personal information that could be used to identify individuals.

NHS Digital plans to make a respondent level data file for HSE 2017 which is disclosure controlled and does not identify individuals available for specific research projects. Researchers may apply for access via NHS Digitals on-line Data Access Request Service(DARS) portal at: https://digital.nhs.uk/services/data-access-request-service-dars/data-access-request-service-dars-process. Researchers whose applications are approved will be required to sign a data sharing agreement and further details are available on that page. In the respondent level file, information which would identify an individual is removed and more detailed processes are taken to reduce the amount of detail carried out so that the risk of disclosure of a person’s answers is very low, even if a user has some knowledge about that individual. Disclosure control for HSE datasets was reviewed in 2017 and advice from ONS Statistical Disclosure control unit taken.
Please see links below to relevant NHS Digital policies:

Disclosure Control Procedure

Revisions Procedure

Statement of compliance with the Pre-release Order

Statement of uses and users

Statistical Governance Policy

Freedom of Information Process
content.digital.nhs.uk/foi

A Guide to Confidentiality in Health and Social Care

Privacy and Data Protection
content.digital.nhs.uk/privacy
Information and technology for better health and care

www.digital.nhs.uk
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