1. Background

The Health Survey for England 2000 (HSE) data files contain data from the tenth year of a series of surveys designed to monitor trends in the nation’s health. The 2000 Health Survey was commissioned by the Department of Health and carried out by the Joint Health Surveys Unit of The National Centre for Social Research and the Department of Epidemiology and Public Health at University College, London.

The aims of the Health Survey series are:
- to provide annual data about the nation’s health;
- to estimate the proportion of people in England with specified health conditions;
- to estimate the prevalence of certain risk factors associated with these conditions;
- to examine differences between population subgroups;
- to assess the frequency with which combinations of risk factors occur;
- to monitor progress towards selected health targets;
- since 1995, to measure the height of children at different ages, replacing the National Study of Health and Growth.

2. Survey Design

The Health Survey for England 2000 was designed to provide data at both national and regional level about the population aged two and over living in private households in England. In addition, a separate sample of older people (aged 65 and over) resident in care homes was included. As in previous years, the sample for the 2000 survey included a cross-section of the population living in private households for which over 6,800 addresses were drawn from the Postcode Address File (PAF). The private household sample was set at about half the size of those in most previous years of the Health Survey, so that resources could be devoted to the sample of older people resident in care homes.

For the care home sample, 677 care homes were selected. Up to six residents at each care home were selected for interview, and interviews were achieved with nearly 2,500 care home residents. Residents who were capable of completing a full interview were interviewed in person; other residents were interviewed by proxy.

As in previous years, in the private household sample all persons aged 2 and over were eligible for inclusion in the survey. At addresses where there were more than two children aged 2-15, two children were selected at random. Information was obtained directly from persons aged 13 and over. Information about children aged 2-12 was obtained from a parent, with the child present.

For all informants, there was a computer-assisted interview by an interviewer with each eligible person (Stage 1). Informants aged 16 and over in private households, and informants completing personal interviews in the care home sample, were also visited by a nurse (Stage 2) who made a number of measurements and in some cases obtained a blood sample or a saliva sample. Nurses also used computer-assisted interviewing. Blood and saliva samples were sent to a laboratory for analysis.

Interviewing was conducted throughout the year to take account of seasonal differences.

3. Documentation

The documentation has been organised into the following sections
- Interview (contains the CAPI documentation for household and individual questionnaires, nurse visit questionnaires, self-completion booklets and showcards)
- Data (contains the list of variables and list of derived variables)
- Other instructions (contains interviewer, nurse and coding & editing instructions)
4. Using the data

The 1999 data consists of two individual level files and one household level file:

<table>
<thead>
<tr>
<th>File Name</th>
<th>Records</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE00ai.sav</td>
<td>12,413</td>
<td>contains data for all individuals aged 2+ in Household and Care Home sample who gave a full interview, including proxy data. It contains information from the household questionnaire, main individual schedule, self-completions and the nurse visit (where one occurred).</td>
</tr>
<tr>
<td>HSE00ah.sav</td>
<td>14,974</td>
<td>contains data on household / care home composition, and sex, age and marital status for all individuals in co-operating households / care homes. Cognitive function scores for adults aged 65+ who attempted the cognitive function test but did not complete a full interview are included on this file. Other household / care home level variables are stored on the individual file.</td>
</tr>
</tbody>
</table>

4.1 Variables on the files

Each of the data files contain questionnaire variables (excluding variables used for administrative purposes) and derived variables. The variables included in the individual file are detailed in the “List of Variables” document in the data section of the documentation. This document is the best place to look at in order to plan your analysis. It includes:

- Major categories of variables (e.g., Accidents, Anthropometric measurements)
- Sub categories of variables (e.g., Attitudes to cycling, Major accidents within the Accidents category)
- Source of each variable (e.g., Individual questionnaire, Nurse visit, Derived variable etc.)

Once you have decided which variables to include in your analysis, you can look up details of the question wording using the interview section documentation (all variables on the data file are given by name in the copy of the interview schedules provided), or use the “Derived Variables Specification” document in the data section of the documentation for derived variables.

4.2 Weighting variables

**Household Data (Samptype = 2)**

There is no weighted variable for household adult data. For children aged 2-15, the weighted variable Wt_Child should be used.

**Care Home Data (Samptype = 1)**

TWeight is the weight for individual-level analyses of the care home sample. It accounts for the unequal selection of both the care homes and also of the residents.

Wt_65 is for analyses of all people over 65 in both the population sample and the care home sample. For the care home sample, it takes account of the unequal selection of the care homes and also of the residents. It also adjusts the combined sample so that the proportion of people living in care homes represents the true value for England.

Wt_inst is the weight to be used for analyses of the care homes (i.e. for care home-level data). It accounts for the unequal selection of the care homes.
4.3 Multicoded questions

Multicoded questions are stored in the archived HSE 2000 data sets in two ways. Multicoded questions, where for example the interviewer (or nurse) is instructed to “CODE ALL THAT APPLY” or where an open ended question has elicited more than one answer, were stored as array variables in the QUANTUM DBMS system which was used to read and edit the data. However, in SPSS (which was used for analysis and archiving the data) multicoded variables must be stored as ‘flat’ variables, coded either by mention or by category. Questions coded by mention are stored as categorical variables where the complete value set is repeated in each of the variables. Questions coded by category are stored as indicator variables where each value in the set is stored as its own variable. Both approaches have been used in the 1999 Health Survey.

As an example, question CONSUBX on the 1999 adult nurse schedule is a "CODE ALL THAT APPLY" question which asks “Have you eaten, smoked, drunk alcohol or done any vigorous exercise in the past 30 minutes?”. The code frame consists of five values:

1 - eaten
2 - smoked
3 - drunk alcohol
4 - done vigorous exercise
5 - none of these

If recorded by mention, four variables would record the (up to) four possible responses to the question assigning codes 1-5 in the first variable and codes 1-4 in each of the next three variables. In 1999, the variables CONSUBX1-5 store the answer to this question by category as follows:

- CONSUBX1 - coded 1 for those who ate in the last half hour and 0 for those that didn’t.
- CONSUBX2 - coded 1 for those who smoked in the last half hour and 0 for those that didn’t.
- CONSUBX3 - coded 1 for those who drank alcohol in the last half hour and 0 for those that didn’t.
- CONSUBX4 - coded 1 for those who did vigorous exercise in the last half hour and 0 for those that didn’t.
- CONSUBX5 - coded 1 for those who did none of the above in the last half hour and 0 for everyone else.

Because a respondent could have replied with more than one answer, that respondent could have a value 1 for a number of these variables (however, the nature of the question dictates that having a code 1 at CONSUBX5 precludes having a code 1 at any of the variables CONSUBX1 - CONSUBX4). The missing values are the same across all six variables.

In most instances by category variables are denoted by a C after the original variable name, by mention variables are denoted by an M. Documentation for the CAPI questionnaires (household and individual) shows only the name of the first variable (which stores the number of mentions).

4.4 Missing values conventions

-1 Not applicable: Used to signify that a particular variable did not apply to a given respondent usually because of internal routing. For example, men in women only questions.

-2 Schedule not applicable: Used mainly for variables on the self-completions when the respondent was not of the given age range, also used for children without legal guardians in the home who could not participate in the nurse schedule.

-6 Schedule not obtained: Used to signify that a particular variable was not answered because the respondent did not complete or agree to a particular schedule (i.e. nurse schedule or self-completions).
-7 Refused/ not obtained: Used only for variables on the nurse schedules, this code indicates that a respondent refused a particular measurement or test or the measurement was attempted but not obtained or not attempted.

-8 Don't know, Can't say.

-9 No answer/ Refused

These conventions have also been applied to most of the derived variables. Those variables created in earlier years of the Health Survey and used again in 1999 do not on the whole conform to this scheme. The derived variable specifications should be consulted for details.

4.5 Valid cases

In the 1999 Health Survey report, as in previous reports, cases were excluded from the analysis of anthropometric and blood pressure measurements if their measurement was invalid. For example, those who had smoked, drunk or eaten within 30 minutes of having their blood pressure taken were excluded from analysis as this can affect blood pressure. The List of Variables document gives details of which variables show only valid codes, and which also include invalid answers.
5. HSE 2000 Report

Further information about the Health Survey for England 2000 is available in:


or on the Department of Health website at http://www.doh.gov.uk/public/summary1.htm
## Topics covered in 2000 Health Survey for England

### General Population

**Household questionnaire**
- Household size
- Age/sex of household members
- Marital status and living arrangements aged 16+
- Relationship to Head of Household
- Smoking in household
- Tenure and number of bedrooms
- Car and telephone ownership
- Household income
- Economic status and occupation of HRP
- Type of dwelling and area

### Care Homes

**Home Manager questionnaire**
- Care home type and status
- Number of residents and places
- Availability of services and specialised equipment

**Individual questionnaire**
- Cognitive functioning
- General health, longstanding illness, LLSI, acute sickness
- Use of health services: GP, hospital, dental services
- MRC respiratory questionnaire
- Chest pain and claudication
- CVD, including use of services
- Accidents, including details of fractures
- Disabilities
- Eating habits
- Physical activity (shortened version)
- Social capital and social exclusion
- Activities in care home
- Smoking
- Drinking
- Economic status/occupation
- Benefits and pensions
- Educational attainment
- Ethnic origin
- Reported birth weight
- Height/weight measurements

### Age

<table>
<thead>
<tr>
<th>Age</th>
<th>2-7</th>
<th>8-9</th>
<th>10-12</th>
<th>13-15</th>
<th>16-64</th>
<th>65+</th>
<th>65+</th>
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<tbody>
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</tr>
<tr>
<td>8-9</td>
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</tr>
<tr>
<td>10-12</td>
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<tr>
<td>13-15</td>
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<tr>
<td>16-64</td>
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<td>65+</td>
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</tr>
</tbody>
</table>

- Administered by self-completion for age 16, 17 and optionally by self-completion for 18-24

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**APPENDIX A**

**2000 HEALTH SURVEY FOR ENGLAND – CONTENTS**
<table>
<thead>
<tr>
<th>Self-completion</th>
<th>General Population</th>
<th>Care Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
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<td>8-9</td>
</tr>
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<td>GHQ12 (psycho-social health)</td>
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<tr>
<td>SF12</td>
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<tr>
<td>CAGE</td>
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<tr>
<td>Drinking/ smoking</td>
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</table>

<table>
<thead>
<tr>
<th>Nurse visit</th>
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<th>Care Homes</th>
</tr>
</thead>
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<tr>
<td>Age</td>
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<td>8-9</td>
</tr>
<tr>
<td>Blood pressure</td>
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<td>Waist/ hip</td>
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<td>ECG</td>
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<tr>
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<tr>
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</tr>
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<td>Glycated haemoglobin</td>
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</tr>
<tr>
<td>Mean corpuscular volume (MCV)</td>
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<td></td>
</tr>
</tbody>
</table>