Health Survey for England

Anne Conolly

@anne_conolly

September 2017 UKDS workshop
Overview

1. Background and methodology
2. Findings & impact
3. Survey content
Background
What is a survey?

“A survey is a systematic method for gathering information from (a sample of) entities for the purpose of constructing quantitative descriptors of the attributes of the larger population of which the entities are members.”

Groves et al (2009)
When to use a survey

- To quantify something
  - E.g. What proportion of adults smoke?
- To explore relationships
  - E.g. Who is more likely to smoke (age / region / income)?
- To generalise about a population
- NOT to explore feelings, experiences, motives, meanings, perceptions (in any depth)
- NOT to explore topics you don’t know much about
- NOT to explore people’s understanding of concepts
What is the Health Survey for England?

- Annual snapshot of the nation’s health
- Health Examination Survey
- Tracks trends over time
- Cross-sectional
- Nationally representative sample
  - 8,000 adults and 2,000 children year year

Commissioned by: NHS Digital
Carried out by: NatCen Social Research, UCL
Methodological considerations

- What mode of data collection would you use?
  - E.g. online, postal, telephone, face-to-face?

- What time of year would you collect the data?

- How would you sample participants for HSE?
Methodology: data collection

- Face-to-face data collection:
  - Higher response rates
  - Interview length
  - Measurements and samples

- Two stages:
  - Interviewer
  - Nurse

- Continuous data collection throughout the year
Methodology: sample design

- Representative of the population living in private households in England
- Multi-stage, stratified, random probability sample
- Sampled from Postcode Address File
  - Primary Sampling Unit (PSU):
    - postcode sector (e.g. NW3 2JD)
  - Addresses, dwelling units, households
  - Individuals
- Stratification
  - Over-sample in the North East
Methodology: fieldwork

1. Advance letter & leaflet sent
2. Interviewer makes contact
3. Interviews conducted
4. Nurse visits conducted
5. Samples to laboratory
6. Feedback letters (to participants and GPs)
Questions?
Quiz
Q1: In 2015, what proportion of adults in England were overweight (including obese)?

A. 26%
B. 55%
C. 63%
D. 75%
Q2: Were men or women more likely to be overweight (including obese)?

A. Men
B. Women
C. Neither
Q3: In 2015, what proportion of children (aged 2 to 15) were overweight or obese?

A. 16%
B. 28%
C. 35%
D. 42%
Q4: In 2015, what proportion of children (aged 8 to 15) had ever smoked a cigarette?

A. 4%
B. 10%
C. 16%
D. 24%
Children aged 8 to 15 who have ever smoked

Source: NHS Digital
Base: Children aged 8-15
Q5: In 2015, what proportion of children (aged 8 to 15) had ever had an alcoholic drink?

A. 4%
B. 10%
C. 16%
D. 24%
Q6: In 2015, what proportion of women drank more than 14 units of alcohol per week?

A. 10%
B. 16%
C. 31%
D. 45%
Q7: In 2015, what proportion of men drank more than 14 units of alcohol per week?

A. 10%
B. 16%
C. 31%
D. 45%
Children’s physical activity, by age and sex

Base: Aged 5 to 15
Children’s exposure to other people’s smoke

34% of boys
38% of girls
aged 4-15 were exposed to other people’s smoke
BMI status by sex

Base: Aged 2 to 15 with valid height and weight measurements
Obesity and overweight, by income

Base: Aged 2 to 15 with valid height and weight measurements
Mother’s perceptions of child’s weight

- **Neither overweight nor obese**
  - Too light: 20
  - About the right weight: 91
  - Too heavy: 0

- **Overweight**
  - Too light: 1
  - About the right weight: 91
  - Too heavy: 0

- **Obese**
  - Too light: 0
  - About the right weight: 48
  - Too heavy: 52

Base: Aged 4 to 15 with valid height and weight measurements
Trend data
England’s changing health since the 1990s

Adults who are overweight or obese

Winter 2002/03: launch of the 'five-a-day' campaign

Source: NHS Digital
Base: Adults aged 16 and over with a valid height and weight measurement
Children aged 8 to 15 who have ever had an alcoholic drink

Source: NHS Digital
Base: Children aged 8-15
Children aged 8 to 15 who have ever had an alcoholic drink

Source: NHS Digital
Base: Children aged 8-15
Impact
Quick crossings

We discovered that most people aged 65 and over don’t walk fast enough to get across a pelican crossing in sufficient time. Because of this, many local authorities are now considering more time at crossings.
Taking the pressure off

We found that many people didn’t know they had high blood pressure – which can cause serious health problems. **Doctors now check blood pressure more regularly.**
We learned that very few people – especially older people – knew that they had kidney disease. This signalled to GPs that they need to be especially vigilant of the warning signs, to provide treatment against it.
Questions?
Survey content
Interview: interview core content

<table>
<thead>
<tr>
<th>Interview</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General health</td>
<td>Smoking</td>
</tr>
<tr>
<td>Longstanding illness</td>
<td>Drinking</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Physical activity</td>
</tr>
<tr>
<td>Diabetes</td>
<td>GHQ-12 / WEWBS / EQ-5D</td>
</tr>
<tr>
<td>Social care</td>
<td>Demographic information</td>
</tr>
<tr>
<td>Fruit and veg</td>
<td>Height &amp; weight</td>
</tr>
</tbody>
</table>
## Nurse visit

- Prescribed medication
- Vitamins, folic acid
- Infant immunisations
- Blood pressure
- Waist and hip
- Saliva sample
- Blood sample
## Additional content

<table>
<thead>
<tr>
<th>Topic</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gambling behaviour</td>
<td>2012/15/16</td>
</tr>
<tr>
<td>Child physical activity</td>
<td>2015</td>
</tr>
<tr>
<td>Learning difficulties</td>
<td>2014/15</td>
</tr>
<tr>
<td>Hearing</td>
<td>2014</td>
</tr>
<tr>
<td>Mental illness</td>
<td>2014</td>
</tr>
<tr>
<td>Eyesight problems</td>
<td>2013</td>
</tr>
<tr>
<td>Physical activity</td>
<td>2012</td>
</tr>
<tr>
<td>Sexual health</td>
<td>2010/2012</td>
</tr>
<tr>
<td>CVD</td>
<td>2011</td>
</tr>
</tbody>
</table>
## Additional content II

<table>
<thead>
<tr>
<th>Topic</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic pain</td>
<td>2011</td>
</tr>
<tr>
<td>Respiratory health and spirometry</td>
<td>2010</td>
</tr>
<tr>
<td>Contraception</td>
<td>2010</td>
</tr>
<tr>
<td>Swine flu</td>
<td>2010</td>
</tr>
<tr>
<td>Kidney disease</td>
<td>2009-2010</td>
</tr>
<tr>
<td>Physical activity and accelerometry</td>
<td>2008</td>
</tr>
<tr>
<td>Atts and knowledge about health</td>
<td>2007</td>
</tr>
<tr>
<td>Disability, falls, physical function</td>
<td>2005</td>
</tr>
</tbody>
</table>
Additional sample boosts

- Ethnic minority groups
  - 1999, 2004
- Children / young people
- Older people
  - 2000, 2005
- Local area (London, Dudley)
  - 2006, 2014
2015 child boost

5,714 children took part in HSE 2015
Other ways of using HSE

- Follow-up studies
- Blood bank
- Data linkage
  - Hospital Episode Statistics (HES)
  - Cancer register
  - Mortality register
Questions?
Thank you

If you want further information

Anne Conolly, Research Director
Tel: 0207 549 5184
Email: anne.conolly@natcen.ac.uk
@anne_conolly
## Types of sample

| Convenience samples | • Simply sample people who are available (e.g. intercepting people in the street).  
|                    | • Results will almost certainly not be generalisable. |
| Snowball samples   | • Ask respondents to suggest other respondents.  
|                    | • A type of convenience sample, used when the research is trying to target a specific group of people, e.g. drug users, parents  
|                    | • Generally used for qualitative research rather than surveys. |
| Quota samples      | • Used extensively in market research, less so in academic research or for official statistics.  
|                    | • The aim is to produce a sample that roughly reflects the population on key variables (e.g. gender, age groups). |
| Random probability samples | • A sample that has been selected using random selection so that each unit in the population has a known chance of being selected. |
Samples – the great divide!

- Random probability vs. the rest
- Statistical theory assumes a random probability sample
- Random probability sample allows legitimate generalisation to the population

However...

- Surveys using a random probability sample tend to cost more
- The data collection tends to take more time