Northern Ireland Health Survey

A Summary of the Methodology

June 2011

Background on Methodology

The Northern Ireland Health Survey 2010/11 was commissioned by the Department of Health, Social Services and Public Safety in Northern Ireland. The Central Survey Unit (CSU) of the Northern Ireland Statistics and Research Agency (NISRA) carried out the survey in Northern Ireland on behalf of DHSSPSNI. This is the first year of the survey.

Questionnaire

The fieldwork for the survey was 1st April 2010 to 31st March 2011.

Data were collected using Computer Assisted Personal Interviewing (CAPI). In this style of interview, questionnaires are administered in a face-to-face setting. The interviewers visit respondents and interview them by reading the computer script and questions from a pen tab computer and recording their responses in the designated fields. Face-to-face interview techniques enable the survey to accommodate issues such as poor literacy skills and allow for more complex routing than paper and pen questionnaires.

Potentially sensitive issues covered in the questionnaire were administered using Computer Assisted Self Interviewing (CASI) – Whereby respondents completed these sections on their own using the interviewer's computer. In some instances, if the respondent preferred not to use the computer, a self completion booklet was offered instead.

The questionnaire covered many topics including general health, common health conditions, physical activity, smoking/drinking, diet and sunbed usage. Physical measures were also captured – height and weight being entered onto the computer to enable the calculation of body mass index.

Sample

The target sample was those aged 16+ living in private households. Household surveys do not include people living in institutions such as prisons (unless they live in private households in such institutions) or those who are homeless.

Sampling method

An important aim of the survey was to achieve a sample that was representative of the population. A random sample of 5650 addresses across Northern Ireland was selected from the Land and Property Services Agency's (LPS) list of domestic addresses.

The LPS excludes people living in institutions (though not in private households in such institutions).

At the first stage of the survey, interviewers were required to identify the number of households resident at each address issued and, where necessary, select one. The interviewers then listed all members of the household living at the address. It was the role of the survey interviewer to interview all adults (16+) resident at each household and obtain height and weight measurements from all individuals aged 2+.

Sample frame and fieldwork

The Land and Property Services (LPS) list of domestic addresses was used as the sampling frame as it is the most comprehensive and the most up-to-date listing of private households in Northern Ireland and is available to the Northern Ireland Statistics and Research Agency for research purposes. The LPS addresses are sorted by district council and ward, so the sample is effectively stratified geographically.

The original sample frame was used to generate a sample larger than the desired final sample size to allow for survey addresses that were not eligible for interview and for those that did not respond. An address was not eligible if, for example, it was vacant. Non-response occurred when an interview was not achieved from an eligible address. Non-response could be due to factors such as failure to make contact with the householders or respondents refusing to participate. In order to minimise non-response, CSU interviewers carried out a minimum of four calls at each address, unless this was inappropriate, for example, if a household had already refused to participate.

A process of recycling addresses was carried out from early on in the survey field period. If an address is coded as a non contact or 'reallocated' by an interviewer then that address is reissued a couple of months later where other attempts are made to gain an interview.

Sample Size

The sample size was determined by the need to provide robust data in Northern Ireland. It would need to provide robust data on age and gender and HSSB. However, it is recognised that it could not provide robust data for small samples in sub groups of the sample population. CSU recommended the optimum size they could achieve within budget was 4,500 individuals from 3,000 cooperating households in Northern Ireland. The household level target of 3,000 was attained, however the number of individual interviews did not reach 4,500 (4,085).

Response from all households

Addresses issued	5650	
Ineligible	679	
Effective sample	4971	
		Response rate
Complete	3059	62%
Refusal	1211	24%
Non – contact/Not attempted	494	14%

NIHS 2010/11

Weighting

Even with carefully controlled sampling procedures and fieldwork control, it is likely that an achieved sample will not be representative of its survey population. In the achieved sample some groups are represented to a lesser or greater extent than they appear in the target population.

Comparison of NIHS achieved against CHS and Census mid year population estimates

	Age group	NIHS %	CHS%	Mid year population estimate projected for 2010 (%)
Male	16-24	7.9	8	17.19
	25-34	13.5	17	17.77
	35-44	14.7	17	17.94
	45-54	18.1	18	17.10
	55-64	17.5	17	13.67
	65+	28.2	23	16.34
	Base	**1684**	**1502**	**689,022**
Female	16-24	9.1	9	15.45
	25-34	16.3	18	16.76
	35-44	18.8	18	17.41
	45-54	18.5	18	16.89
	55-64	14.7	15	13.24
	65+	22.5	22	20.26
	Base	**2401**	**2027**	**730,699**

To adjust for this, the data from the sample were weighted so that the results would be more representative of the target population. The sample in the current survey was weighted by gender and age. Data used for weighting were derived from the Northern Ireland 2010 mid year population estimates.
The effect of weighting on a selected question can be illustrated below

Q. Do you have any long standing illness, disability or infirmity?

	Age group	NIHS UNWEIGHTED ANSWERING 'YES' %	NIHS WEIGHTED ANSWERING 'YES' %
Male	16-24	2.2	5.4
	25-34	6.5	10.4
	35-44	9.3	13.6
	45-54	18.2	20.9
	55-64	22.9	21.2
	65+	41.0	28.5
Female	16-24	3.6	6.7
	25-34	9.1	9.8
	35-44	13.8	13.3
	45-54	19.0	18.3
	55-64	19.4	18.4
	65+	35.1	33.4