



**Healthy Ireland Survey 2017  
Technical Report**  
Prepared by Ipsos MRBI

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**Report**

# 1. Introduction

The Healthy Ireland Survey is an annual interviewer-administered face-to-face survey commissioned by the Department of Health. It is part of the Healthy Ireland Framework to improve the health and wellbeing of people living in Ireland.

The objectives of this survey are to:

- Provide and report on current and credible data, to enhance the monitoring and assessment of the various policy initiatives under the Framework
- Support and enhance Ireland’s ability to meet many of its international reporting obligations
- Feed into the Outcomes Framework for Healthy Ireland and contribute to assessing, monitoring and realising the benefits of the overall health reform strategy
- Allow targeted monitoring where necessary, with an outcomes-focussed approach, leading to enhanced responsiveness and agility from a policy-making perspective
- Support the Department of Health in ongoing engagement and awareness-raising activities in the various policy areas and support better understanding of policy priorities

In June 2014, the Department of Health commissioned Ipsos MRBI to undertake this survey. Fieldwork for the initial wave of this survey took place between November 2014 and August 2015. Fieldwork for the second wave took place between September 2015 and May 2016. Results of both waves have previously been published.

This report relates to design and administration of the third wave of this survey. The third wave consists of 7,487 interviews conducted with a representative sample of the population aged 15 and older living in Ireland. Respondents were selected using a probability-based methodology and interviewed in their homes. Survey fieldwork was conducted by Ipsos MRBI between September 2016 and June 2017.

## 2. Background

This wave of the Healthy Ireland Survey included questions covering a variety of topics including:

- Smoking
- Alcohol
- Diet and nutrition
- Physical measurements (weight, height and waist circumference)
- Sexual health
- General health
- Health service utilisation
- Active travel
- Attitudes to breastfeeding
- Usage of antibiotics

As part of the survey, participants were asked to take part in a physical measurement module. Within this module interviewers measured and recorded the respondent's height, weight and waist circumference. A total of 5,868 (78% of all respondents) participated in this module.

After completing the interviewer-administered survey questionnaire, respondents aged 17 and over were asked to complete a self-completion questionnaire on issues relating to sexual health. A total of 6,291 respondents (85% of those aged 17 and over) provided a valid answer to at least one question in this section.

Approval to conduct the study was provided by the Research Ethics Committee at the Royal College of Physicians of Ireland.



## 3. Development of Survey Instruments

### 3.1 Questionnaire Design

A core objective of the Healthy Ireland Survey is to provide a source for current and consistent data on a variety of aspects relating to the health and wellbeing of the population in Ireland. In order to ensure consistency in these measurements some elements of the questionnaire are not changed between survey waves. However, a degree of flexibility exists to introduce changes to other elements of the questionnaire in order to allow for exploration of additional areas of interest.

The process of revising the questionnaire for the 2017 wave took place between May and August 2016. This took into account new survey modules requested by the Department of Health as well as revisions to existing modules.

### 3.2 Differences Between Questionnaires Used in 2017 & 2016 Surveys

The table below outlines the key differences between the questionnaires used in the 2017 and 2016 surveys. A copy of the questionnaire used in the 2017 survey is included in the Appendices.

Section	Changes made
General Health	Revision to question wording used to identify existing health conditions, and expansion of list of health conditions asked about.  Removal of questions relating to visits to GP, GP Practice Nurse and Consultants.  Revisions to questions in relation to visits to Emergency Departments and hospital admissions.
Usage of antibiotics	New module
Smoking	No changes
Alcohol	Removal of questions in relation to perceptions of own drinking, and health risks from excessive drinking.
Diet and nutrition	Removal of questions in relation to eating breakfast, meal preparation, consumption of salt and whether currently taking a folic acid supplement.

	Change to question in relation to fruit consumption to include fruit juice (previously excluded). Addition of questions relating to consumption of particular types of unhealthy foods.
Breastfeeding	New module
Physical activity	Module changed to focus on active forms of travel.
Weight management	Unchanged
Physical measurements	Re-introduced to survey using same procedures as used in wave one.
Socio-demographics	Unchanged
Sexual health	Module changed to focus on HIV and STI/STD testing.
Social connectedness	Removed from survey
Wellbeing	Removed from survey
Attitudes to dementia	Removed from survey
Mental health	Removed from survey



### 3.3 CAPI Scripting

All interviewing was conducted through Computer Assisted Personal Interviewing (CAPI). Following agreement on changes to be implemented to the questionnaire, it was converted into a CAPI script suitable for interviewing.

As with previous waves of the survey a range of procedures were put in place to ensure that the data were suitably validated, further enhancing the quality of the data. Examples of key procedures used were as follows:

- Survey routing to ensure that respondents are only asked those questions relevant to them. For example, only those who smoked were asked questions in relation to quitting.
- Text substitutions in question wording to ensure questions are worded effectively and easily understood. For example, changing the tense of questions to reflect current working status.
- Not allowing contradictions at certain questions. For example, the interviewer was not permitted to record that the respondent never drank six or more standard drinks, if it had already been recorded that the respondent typically drank a higher amount than this.

The survey used Dimensions software which is designed with ease of use and minimal training in mind. Question wording and instructions were clearly displayed at the top of the screen, and answer options at the bottom of the screen.

### 3.4 Questionnaire Testing

In advance of commencement of fieldwork, the questionnaire and CAPI script underwent a period of extensive testing. This rigorous piloting procedure ensured that the questionnaire presented questions to respondents in a meaningful way that could be easily understood and were logical in context of earlier answers given.

The survey script and stimulus materials were subsequently refined based on feedback from this process.

## 4. Sample Design

In selecting a sample design strategy before commencing the first wave of this survey, consideration was required in terms of a key objective of the study – to provide data that is in line with best international practice. In this regard, it was decided to utilise a probability sample.

The sampling approach used in this wave directly replicates that used in both previous waves, and a summary of the steps taken are outlined below.

The study uses the An Post/Ordnance Survey Ireland GeoDirectory as the primary sampling frame. GeoDirectory is a complete database of every building in the Republic of Ireland. Each of the 2.2 million addresses contained in GeoDirectory includes an accurate standardised postal address, usage details for each building (commercial or residential), a unique 8-digit identity number and geo-coordinates which accurately locate the centre point of each building to within one metre.

A two-stage equal-probability sample of addresses was drawn, with the aim of attempting to interview a randomly selected individual at each selected address.

The sample was issued in Electoral Division clusters. In line with good sampling practice, all Electoral Divisions containing fewer than 500 addresses were combined with adjacent sectors before the first stage of sampling (i.e. before clusters are selected). This ensured that each cluster covered a sufficiently large geographic area.

The sample was stratified by region and within this by relevant variables. Stratification is effective to the extent that variables chosen as stratifiers correlate with key survey variables. In the light of this, stratified within region, by urban/rural and proportion of owner occupiers.

A total of 686 clusters were selected with probability proportional to address count. Addresses selected for the previous survey waves were removed from the sample, and twenty addresses were then selected systematically (random start and fixed interval skip) from the list of addresses in each PSU, thereby ensuring a spread of addresses across the cluster.

With 10.5% of addresses anticipated to be ineligible and a target 60% response rate (which is considered the gold standard on population studies such as this one) this would deliver an average of 10.74 interviews per cluster.

Summary of sample design	
Number of clusters	686
Number of addresses per cluster	20
Gross sample of addresses	13,720
Estimated number eligible (89.5%)	12,277
Anticipated number of completed interviews (60% response rate)	7,366

## Selecting households and adults

In the cases where an address generates more than one household, one was selected by the interviewer in the field using a random selection method. This method was simple for the interviewer to apply and has a minimal impact on design effects.

In each selected household, individuals aged 15+ were listed and the interviewer selected one eligible individual through a randomised approach (KISH Grid). This is the only individual within that household that could be interviewed, and the interviewer could not seek a replacement if that individual was unwilling to participate.

## 5. Fieldwork Procedures

### 5.1 Briefing and Training Of Interviewers

A total of 85 interviewers worked on this wave of the Healthy Ireland Survey. This includes 72 interviewers who also worked on the previous wave of the survey.

Interviewers received extensive briefing and training, including a personal briefing by the Project Director at Ipsos MRBI and receiving a detailed interviewer manual.

Topics covered by the briefings included:

- Background to the study
- Questionnaire coverage
- Social class coding
- Sampling and Contact Sheets
- Recording Physical Measurements
- Ethical considerations
- Maximising survey response
- Project administration

In addition to the personal briefing received, all interviewers were also provided with detailed written instructions on all aspects of the project. This included instructions for individual questions to assist interviewers in addressing respondent queries.

Interviewers also had ongoing access to telephone support from field management staff throughout the fieldwork period.

### 5.2 Interviewer Materials

Upon completion of interviewer training, all interviewers were issued with their initial assignment of twenty addresses as well as a workpack containing the necessary fieldwork materials. This workpack included:

- Survey materials
  - Interviewer manual
  - A paper copy of the CAPI questionnaire
  - Assignment sheets

- Contact sheets
- KISH grid
- Showcards and information sheets
- Self-completion questionnaire
- Envelopes for self-completion questionnaire
  
- Advance communications
  - Letter of introduction for each household (2 copies of each letter)
  - Call back cards
  - Appointment cards
  - Garda introduction and form
  - Copy of Healthy Ireland letter to household
  
- Respondent materials
  - Consent form
  - Thank you slips

### 5.3 Undertaking Survey Fieldwork

Whilst the interviewing methodology is relatively straightforward to administer, ensuring it is done in the correct manner requires the implementation of specific strategies to ensure respondents understand what is involved in the survey and can provide informed consent. Details on the specific strategies used on this study are provided below.

#### 5.3.1 Sending advance letters to potential respondents

Two advance letters were provided to all households that were selected to take part in the study. One letter was sent before the start of fieldwork on Department of Health – Healthy Ireland headed paper to inform the householder that it had commissioned Ipsos MRBI to undertake this study and that their household had been selected to take part. It also provided an overview of what was involved in taking part in the study. The second letter was issued a few days before the interviewer commenced work on a particular assignment. It was printed on Ipsos MRBI headed paper and provided further detail on the survey process and a respondent information sheet providing information on the household selection process and survey content.

Both letters were sent separately in advance of the interviewer commencing work on an assignment. Where the selected address was identified on GeoDirectory as being unique (i.e. it

did not share its address with other households), these letters were despatched centrally by post.

In the case of non-unique addresses, interviewers themselves delivered the letters from Ipsos MRBI by hand. In addition, as those living in households that share addresses with other households may not have received a letter from Healthy Ireland (due to insufficient address details for delivery through the postal system), the interviewer had a copy of this letter to show to respondents in those households.

This practical step provides reassurance to the occupants of the household, as they will be forewarned about the survey and had both Ipsos MRBI's and Healthy Ireland's details. It also formalises the process lending weight to the notion of a 'pre-selected address' where no other address could be substituted in its place.

### **5.3.2 Informing the Garda Síochána**

In advance of commencing the fieldwork Ipsos MRBI sent a letter to the Garda Headquarters to inform them of the nature of the survey and that interviewers would be working throughout the country. In addition, interviewers were required to visit local Garda stations in the areas they were working in and deliver a form that informed the local Gardaí that they would be working in the area during a particular time period. This form provided information about their car as well as contact details for the interviewer and the Project Manager. This was accompanied by a copy of the letter that was sent to Garda Headquarters.

This step ensured that Gardaí could provide reassurances about interviewers visiting their area, in particular given that a car they do not recognise may be driving around the area and visiting different households.

### **5.3.3 Informed consent**

Verbal consent was obtained from all participants. In providing this consent, respondents were informed that their participation in the survey was voluntary, that they are free to refuse to answer any particular question, to stop the interview at any point and to request that all data they provided to Ipsos MRBI be destroyed. Signed consent from the parent/guardian of those aged under 18 was received prior to approaching a minor to request their participation in an interview.

### **5.3.4 Additional forms of communication**

In addition to the information provided to respondents through a variety of written and verbal communication from Healthy Ireland, Ipsos MRBI and the interviewer, respondents could request further information through a variety of forms of contact. All materials provided to respondents included a telephone number and email address to make contact with the project management team. In addition, the Ipsos MRBI website included a dedicated section with an outline of the study and a contact form should further detail be required.

### **5.3.5 Multiple contacts with households**

Interviewers carried out up to five calls – an initial call, plus four call-backs – at each address for each potential respondent in each household, at different times and days. In practice, some addresses would have received more calls in order to convert “soft refusals” and to follow-up on appointments with other members of the household.

Interviewers also left appointment cards at households where a respondent was not at home. This card provided brief details of the study and a name and telephone number to call either to arrange an interview at a time most convenient to them or to find out more about the study.

## **5.4 Fieldwork Quality Controls**

Ipsos MRBI’s ISO 9001 certified fieldwork management procedures were used to ensure timely and effective completion of interviewing. This involved a number of specific procedures:

- Ongoing contact with interviewers and field management to monitor progress across individual sampling points and regions;
- Completed interviews were uploaded by interviewers on a daily basis to ensure that interim data files could be produced to check the quality and integrity of the data;
- Interviewers had the support of head office field management staff throughout the project, ensuring a swift resolution to any problems that emerged.

In order to monitor progress, and calculate response rates, interviewers completed a contact sheet for each address that was issued to them. These contact sheets were prefilled with household address and sample identifier numbers, and required interviewers to record details of each visit to the household and outcomes for individual household members.

A key element of the quality control process involves randomly selecting a minimum of 10% of all assignments and contacting each household. In doing so, householders are asked a series of questions including:

- Whether an interviewer has called to their house recently
- What the subject of the survey was
- How long the survey took in total
- Overall rating of the interviewer
- Whether respondent was asked to complete a self-completion questionnaire (among those 17+)

A total of 100 interviewing assignments were randomly selected and contacted by telephone. In order to maximise the number of households contacted, each telephone number was attempted up to three times. All who were contacted verified the survey information that was collected. As such no changes were made to the data as a result of these quality checks.



## 6. Fieldwork Response

In order to conduct the Healthy Ireland survey, 13,720 addresses were pre-selected in advance of fieldwork in line with the sampling procedures outlined in section four of this report. In order to maximise the robustness of this approach it is crucial to achieve a high response rate. A core requirement of the Healthy Ireland Survey is to achieve a response rate of 60% amongst all eligible households.

Table 6.1 below details the response rate for each household that was sampled.

**Table 6.1 Overview of fieldwork response**

Category	Outcome	Cases
Complete interview	Full interview	7,487
Unproductive address	No reply after five contacts	1,960
	Address inaccessible/dangerous	317
	Address not found	87
	Appointment not maintained by respondent	4
	Partial interview	3
	Other reason unproductive	336
Refusal	Upfront refusal to interviewer	2,002
	Respondent refusal by contacting head office	193
Ineligible	Property vacant	957
	Occupied, but not main residence (e.g. holiday home)	195
	Non-residential address	63
	Communication difficulties	116
<b>Total</b>		<b>13,720</b>

The response rate is calculated by dividing the number of complete interviews by the sum of all addresses minus ineligible addresses. The response rate therefore is 60.4% (7,487 divided by 12,389).

Further analysis of the response rate indicates a much lower response rate in Dublin compared to other regions (43.6% within Dublin compared to 66.8% outside Dublin). This is comparable to other surveys and is addressed through the post-survey weighting structure that is applied.

**Table 6.2 Fieldwork response by region**

Category	Outcome	Dublin	Rest of Leinster	Munster	Conn/ Ulster
Complete interview	Full interview	1,489	2,026	2,170	1,802
Unproductive address	No reply after five contacts	813	391	501	255
	Address inaccessible/ dangerous	206	31	52	28
	Address not found	37	14	18	18
	Appointment not maintained by respondent	0	2	1	1
	Partial interview	1	0	1	1
	Other reason unproductive	104	100	95	37
Refusal	Upfront refusal to interviewer	693	545	570	194
	Respondent refusal by contacting head office	72	51	52	18
Ineligible	Property vacant	200	249	274	234
	Occupied, but not main residence (e.g. holiday home)	5	47	81	62
	Non-residential address	16	18	19	10
	Communication difficulties	44	26	26	20
Total		3,680	3,500	3,860	2,680
<b>Response rate</b>		<b>43.6%</b>	<b>64.1%</b>	<b>62.7%</b>	<b>76.6%</b>

Over the course of the fieldwork period, 38,144 contacts were made to the 13,720 households that were selected. This equates to an average of 2.78 contacts per household, with 2,835 households being contacted at least five times before a final outcome was achieved.

**Table 6.3 Number of contacts made to each selected household**

Number of contacts made to household	Number of households
1	4,257
2	3,026
3	2,069
4	1,533
5	1,514
6 or more	1,321
<b>Total</b>	<b>13,720</b>

Two of the modules on the questionnaire – physical measurements and sexual health – were optional for respondents. While respondents were encouraged to answer these questions, a proportion of respondents opted not to complete one or both sections.

A total of 5,868 respondents (78% of all survey respondents) participated in the physical measurements module. Participation in the sexual health module was limited to those aged 17 and over, with 6,151 respondents (83% of those aged 17 and over) agreeing to participate in the module. Participation rates differed by demographic group, with younger respondents typically more likely to participate in each module.

**Table 6.4 Participation in physical measurements module**

	% Participating
<b>Total</b>	<b>78%</b>
Men	<b>83%</b>
Women	<b>76%</b>
17-24	<b>86%</b>
25-34	<b>80%</b>
35-44	<b>82%</b>
45-54	<b>81%</b>
55-64	<b>79%</b>
65+	<b>73%</b>

**Table 6.5 Participation in sexual health module**

	% Participating*
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<b>Total</b>	<b>83%</b>
Men	<b>82%</b>
Women	<b>84%</b>
17-24	<b>95%</b>
25-34	<b>95%</b>
35-44	<b>94%</b>
45-54	<b>89%</b>
55-64	<b>83%</b>
65+	<b>62%</b>

Necessary adjustments were made when weighting the data in order to account for differential participation rates.

## 7. Data Preparation

### 7.1 Data Processing

As the survey was conducted through CAPI (Computer Assisted Personal Interviewing) the survey routing and many of the survey logic checks were automated and completed during fieldwork. This minimised the extent of data cleaning that was required post-fieldwork. However, extensive data checking was conducted following data collection and appropriate editing and data coding was conducted to ensure the accuracy of the final dataset.

Data processing was conducted on an ongoing basis during survey fieldwork. This involved a number of tasks:

- Data entry of contact sheets
- Data entry of self-completion questionnaires
- Merging and validation checks between different data sources (CAPI interview, self-completion questionnaire and contact sheet)
- Logic checking of data
- Formatting of values for missing, don't know and refused answers
- Review and recoding of other specify codes
- Allocation of social class coding
- Creating derived variables to facilitate data analysis (for example, variables indicating journey time to work/college)
- Formatting of variable names to ensure they appear in a sensible manner in the dataset
- Converting final data into SAS format and checking that transition was made correctly

Whilst some of this process was semi-automated, it also involved an extensive amount of manual checking of data and comparisons between different data sources. Extensive analysis was also conducted at this stage and compared to other population studies and national statistics to ensure comparability with other datasets.

All data processing was conducted by Ipsos MRBI's specialist data management team and data were delivered in SAS format.

## 7.2 Data Weighting

A survey of this nature requires data weighting for two reasons. Firstly, differential response rates mean that some groups in the population are less likely to respond to the survey than others. This may be due to them being less accessible (for example, younger males typically spend less time at home than other groups so are less likely to take part in surveys), or are being less amenable to an approach to participate in a survey (for example, those living in Dublin are typically less likely to take part in surveys than those living in rural areas).

Secondly, the sampling approach used for this survey (one individual selected at random within a household) meant that those living in households with fewer people were more likely to be selected than those living in households with more people. For example, someone living alone in a selected household is three times more likely to be selected than someone living with two other individuals aged 15 or older.

As such, data weighting is used to overcome potential distortions that could arise as a result of these factors.

In producing weights for the Healthy Ireland survey it is necessary to do this at three levels – firstly for the overall dataset, and additionally for the physical measurements and sexual health modules. These modules were optional for survey participants, and although they had a high response rate it was observed that older individuals in particular were less likely to participate which could potentially distort the results.

### Overall weights

The first stage in producing these weights is to generate a selection weight. This is done in order to address any issues that may arise due to those living in smaller households being more likely to be selected. In doing so a weight is calculated that is the inverse of the selection probabilities – i.e. those living in larger households had a higher weight applied than those living in smaller households.

The second stage in this process is to overcome discrepancies that arise due to differential response rates. In doing so the weighting variables should relate to both response behaviour (i.e. likelihood of participating) and healthy behaviours. With this in mind, weights were produced by the following variables.

- Age by sex
- Education
- Working status (respondent)
- Region

Population information taken from Central Statistics Office (Census and Quarterly National Household Survey), and a rim weighting process was used.

### **Weights for sexual health and physical measurements module**

Weights for the sexual health and physical measurements modules were generated using logistic regression modelling. This method is generally used where individual-level information about each respondent is known. In this instance, although someone may not have participated in the specific module, a wide variety of information is known about them from other questions that they did answer. The logistic regression model makes best use of the available data to model non-response behaviour and predict the likelihood that a respondent will participate, given their individual and household characteristics. The weights are then generated as the inverse of this predicted probability.

Only respondents aged 17 and over were eligible for the sexual health questions, hence any individuals aged 15 or 16 were excluded from the sexual health non-response model. This means the non-response model is modelling response behaviour for eligible individuals only – i.e. those aged 17 and over, rather than the overall profile.

Variables used to produce weights for the sexual health module were

- Gender
- Education
- Working status
- Region
- General health (Q.1)
- Number of people living in the household
- Ethnicity
- Whether the individual has ever drunk alcohol

Variables used to produce weights for the physical measurements module were

- Age by gender
- Working status
- Whether or not the respondent is the chief income earner in the household
- General health (Q.1)
- Number of people living in the household

- Region

The weights were checked at each stage and a small number (around 0.5%) of high weights were capped to prevent extreme weights. The final weights were scaled to give a mean of one and ensure the weighted sample size matches the unweighted sample size.



## Appendices

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Appendix A	Final Questionnaire
Appendix B	Showcards
Appendix C	Self-Complete Questionnaire
Appendix D	Contact Sheet
Appendix E	Letter of Introduction (Ipsos MRBI)
Appendix F	Letter of Introduction (Department of Health)
Appendix G	Parental Consent Form

