# **Technical Details**

The Healthy Ireland Survey uses an interviewer-administered questionnaire; the survey is conducted by telephone, with randomly selected individuals aged 15 and over. This report includes findings from the ninth wave of the survey, and data was collected between October 2022 and April 2023. 7,411 interviews were conducted among a representative sample of those living in Ireland.

The Research Ethics Committee at the Royal College of Physicians of Ireland provided ethical approval for this wave of the Healthy Ireland Survey to be conducted. All personal data used and collected for the survey is stored by Ipsos in data centres and servers within Ireland, the UK and the European Economic Area. This is done in compliance with the General Data Protection Regulation (GDPR). Ipsos only retains personal data for as long as is necessary to support the research project and findings.

The ninth wave of the survey follows the previous seven waves which were conducted between 2015 and 2022. The first six waves (conducted between 2015 and 2019) were conducted in-person in respondents' homes. The sixth wave of the survey commenced in October 2019 using the same in-person approach and was later abandoned following the onset of the COVID-19 pandemic. Following the onset of the pandemic, and in line with necessary restrictions on social activity in place at the time, a revised approach to survey fieldwork was devised by the Department of Health and Ipsos, and an interviewer-administered approach using Random Digit Dialling (RDD) was introduced in 2021. This methodology has been maintained since its introduction and has been used to conduct the survey in 2021, 2022, and 2023.

Published reports from all previous years of the survey 2015-2022 can be accessed at the following link: https://www.gov.ie/en/collection/231c02-healthy-ireland-survey-wave/

#### Using a telephone approach to Healthy Ireland Survey interviewing

During the transition from in-person to telephone interviewing, detailed discussions took place between the Department of Health and Ipsos to ensure the updated methodology would account for the following key requirements: ensure the broadest possible representation of the target population (the population aged 15 and over), use robust sampling methodology based on random selection and techniques to ensure maximised response rates, and ensure the survey was accessible to all groups within the population.

Taking these key requirements into account, a two-stage telephone random digit dial approach was implemented. It was decided to use a sample of mobile phone numbers only, based on findings that show near universal ownership of mobile phones (98% of adults aged 18 and over in Ireland have personal use of a mobile phone).

Using a mobile only approach eliminated biases that can arise using mixed mobile and landline samples. In these cases, individuals with access to both a mobile and a landline device have an increased probability of selection. Mobile handsets are individually owned, which also removes the potential for selection bias which can occur when selecting an individual to participate from a shared household landline phone.

The Random Digit Dialling (RDD) approach ensures universal coverage when selecting mobile phone numbers. This approach can have a high degree of waste as non-working mobile numbers can be dialled, however the approach is preferable to others which use lists of numbers which can be limited by their coverage areas.

To minimise the number of wasted numbers and subsequent costs, RDD uses number blocks which are allocated to mobile phone operators by the Commission for Communications Regulation (ComReg) as its starting point. As an example, ComReg does not issue any number block with an 083 prefix that commences with a 21 (i.e. 083 21XXXXX), so this number series is not required to be included in the sampling process.

Survey interviewers contacted randomly generated mobile numbers through Ipsos's Computer-Assisted Telephone Interviewing (CATI) units in Dublin and Mayo. To maximise participation rates, if a number was not answered on the first attempt, up to two more attempts at dialling were made (maximum of 3 total attempts) at different times of the day and on different days of the week.

Once a call is connected, the interviewer initially screens the person to ensure they are aged 15 or over and provides them with an introduction to topics covered by the Healthy Ireland Survey. The person is then asked whether they are willing to participate. Those who are willing to participate are then informed that they will receive a follow up call in the following days by a Healthy Ireland interviewer who will conduct the survey.

To ensure consistency with previous waves, a majority of the Healthy Ireland interviewers who worked on this wave are the same interviewers who conducted previous waves of the survey, with many of them continuing to work on the survey since in-person interviewing took place. This also ensures that this wave benefitted from the extensive experience and training gained by this team from working on the survey over a long period of time.

When interviewers contacted a respondent who agreed to take part in the study, the interviewer first obtained informed consent from the individual (and parental consent for those aged under 18), prior to proceeding with the survey interview.

## Limitations of a Telephone Approach

As a result of the telephone approach to survey interviewing used in the Healthy Ireland Survey, two key limitations are identified.

Reporting by deprivation: Prior to 2021, waves of the survey included reporting by deprivation index. The deprivation index is a method used to measure relative affluence or disadvantage of a geographical area using compiled census data. This data includes compiled CSO Small Area codes (CSAs); to assign an individual to their small area it is necessary to have their exact address. It is not possible to assign to individuals to a small area using a postal address as inconsistencies in postal addresses and shared postal addresses in rural areas mean that it is not sufficiently accurate. Small areas can only be assigned using an Eircode. The 2016 Pobal HP Deprivation Index, designed by Haase and Pratschke, which uses exact address locations, was used to do this under the previous CAPI protocol, from 2015-2019 inclusive.

In 2021, following the onset of the COVID-19 pandemic, Eircodes were requested from respondents in order to enable reporting by deprivation. All respondents were asked to provide their Eircode and were given an explanation as to why this was being requested. Less than half of respondents either do not know their Eircode or are not willing to provide it and were unable to be assigned to the index, this compares to 100% of respondents having an assigned Eircode when using face-to-face interviewing. As a result of this, analysis by deprivation index cannot be considered as reliable and is not included in this report.

Difficulties in administering self-completion surveys by telephone: Certain waves of the Healthy Ireland Survey have included modules on sensitive issues which were typically administered using a self-completion method, whereby respondents would provide their responses directly to the interviewer's device or by using a pen and paper survey. The Healthy Ireland Survey has included a module on experiences of suicide since 2021 and the module was included again on this year's survey. This module was deemed too sensitive to be administered by telephone.

To administer this module in an appropriate manner, respondents were asked at the end of the telephone survey to provide an email address to receive a web link to answer some additional questions relating to suicide. Any individuals who opted in to self-completing this survey module were sent an email a few days after completing the survey inviting them to complete the suicide module online. Those that did not complete the survey were sent a reminder email approximately one week later.

To protect the wellbeing and safety of those completing this survey module, respondents were advised to contact their GP or a provided list of support services should they be affected by any of the issues raised in the survey.

## Survey Response Rates

This wave of the survey involved a multi-stage sampling process as outlined above. The breakdown of outcomes at each stage are provided below.

			Percentage of known eligible numbers
Stage 1 - Screening	Working telephone numbers	46,759	
	No contact after 3 attempts	30,129	
	Refusal at stage 1	1,890	4%
	Recruited to stage 2	14,740	31%

			Percentage of known eligible numbers
Stage 2 - Consent and interview	Completed interviews	7,411	16%
	Refusal at stage 2	2,889	6%
	No contact after 3 attempts	4,111	9%
	Ineligible (unwilling to provide consent, claimed age under 15)	329	1%

The survey participation rate (the percentage of individuals agreeing to take part in the survey who fully complete a survey) is 50% (7,411 divided by 14,740).

All survey respondents were asked to provide an email address to receive the survey module on suicide. 5,176 respondents provided an email address and 2,077 respondents successfully completed this module. This provides a participation rate of 40% (2,077 divided by 5,176) and an overall response rate of 28% (2,077 divided by 7,411).

Participation rates for this module are impacted by respondents' access to the internet and their internet literacy skills. This is evident through lower participation rates among those with lower education (13% of those who left school before completing the Leaving Certificate participated in this module), older respondents (the participation rate among those aged over 75 was 14%), and those who are unemployed (participation rate: 21%).

Additionally, men (participation rate: 24%) were less likely than women (participation rate: 32%) to participate in this module. These lower participation rates have been consistently evident among respondents for the suicide module since it was first included in 2021.

The module on prescription and recreational drug use was also only included for respondents who opted into the module; this module was conducted by telephone along with the main survey interview. Respondents were asked if they were happy to answer some questions about prescription and recreational drug use. A total of 6,407 out of the total 7,411 survey respondents agreed to participate in the module providing a participation rate of 86%.

One of the key benefits of the Healthy Ireland Survey is that it provides a long-term measurement of health behaviours to understand the impact of various policy initiatives. It does this through a robust measurement that remains consistent over time ensuring that reliable comparisons can be made between survey waves. While both face-to-face and telephone approaches are considered sufficiently robust to provide accurate population measurements, it is necessary to consider the differences that exist between the two methodologies and how a change between the methodologies could potentially disrupt survey trends.

It is important to note that in transitioning from face-to-face to telephone interviewing, a considerable body of work was undertaken to maintain as much comparability as possible with previous waves of the Healthy Ireland Survey. This included detailed questionnaire review by experienced researchers in Ipsos and the Department of Health as well as survey piloting and cognitive testing.

However, even with these considerable efforts it is important to recognise that some impact on survey trends can be unavoidable and, furthermore, it is often impossible to disentangle real changes in behaviour from "noise" created by the methodological change.

Previous studies have identified a number of specific ways in which survey measurements can be impacted by methodological differences – these are known as mode effects. In respect of this survey there are two mode effects that are necessary to consider – social desirability and satisficing.

Social desirability occurs when the respondent offers a response that does not accurately represent their situation, but instead offers one that is more socially acceptable. It has been shown to be more common in telephone surveys as the interviewer and participant have not established the same level of rapport as would be typical in a face-to-face survey, and as such the respondent may be less willing to admit to a behaviour that is less socially desirable.

In preparing this survey wave, particular consideration was given to the potential impact that social desirability could have on measurements of smoking – i.e. whether or not respondents would be less likely to reveal over the telephone that they smoke than they would in a face-to-face interview.

Satisficing occurs when a respondent does not give the survey question sufficient attention and offers a convenient or easily accessible answer. Due to the more restricted engagement between interviewer and respondent it is more likely to occur on telephone surveys than in-person surveys. Silences and pauses in the interview can be less comfortable during a telephone interview so the respondent may seek to minimise these by answering a question more quickly and not giving it adequate attention.

Other practical issues can also create mode effect. For example, showcards were commonly used in earlier waves of the Healthy Ireland Survey in order to provide respondents with answer categories (for example, to provide a list of long-term health conditions in order to measure prevalence of each). It is not possible to use these on telephone surveys which instead need to rely on aural communication. Reading out long lists of answer categories is not conducive to an engaging interview process, so the presentation of questions which previously relied on showcards needed to be changed.

Following questionnaire redesign and testing, a revised questionnaire was agreed. This process has been repeated each year, where modules previously asked in person are being adapted for telephone interview; some of the questions were asked in slightly different ways. Telephone questionnaires also need to be shorter than in previous waves in order to maximise respondent engagement.

It is the considered view of the researchers that the various steps taken have minimised as much as possible the potential impact of any mode effect in changing from a face-to-face to a telephone methodology. However, there is still potential that individual survey questions have been impacted and are not fully comparable with previous waves.

The major societal and behavioural changes that occurred during the COVID-19 pandemic further complicate this issue and mean that it is impossible to disentangle real change from differences that occurred from altering the survey methodology.

Survey users need to be conscious of this when considering trend data and comparing the findings of this wave to those conducted before 2021.

#### Data Cleaning and Validation

As the survey was conducted through interviewing software, 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 were conducted to ensure the accuracy of the final dataset.

Additionally, a number of interviews were randomly selected for survey validation. Validation was completed through a combination of recontacting individuals and also listening back to recordings that were taken at various points during the interview. This was done to verify the interview process and to assess the quality of interview.

## **Data Weighting**

Whilst the sampling process is designed to deliver a representative sample of individuals throughout the country, differential response levels means that the survey sample is not a fully accurate representation of the population. As such, the aim of survey weighting is to bring the profile of respondents in line with the population profile.

Survey non-response can cause bias if the individuals who do not participate are systematically different to the individuals who take part. For example, it is often the case that young men are the most reluctant participants in social research, hence most weighting schemes include an adjustment for age and sex. By adjusting on known factors (i.e. characteristics for which population data are known, such as age, sex, etc.) potential biases in survey measurements can be reduced.

For the purposes of this study, three weighting schemes were produced – a main survey weight and separate weights for the suicide and prescription and recreational drug modules.

The main survey weight involves weighting adjustments that were made using known population statistics published by the Central Statistics Office based on Census 2022. The variables used in this respect were: age by gender, education, work status of the respondent, and region. It is important to note that this wave of the Survey is the first to be weighted using the results of Census 2022, which were made available this year; previous waves would have used 2011-2016 Census results, depending on when the data was analysed. There has been significant demographic change since the Survey commenced in 2014/2015.

Separate weights were also produced for the suicide and prescription and recreational drug modules. This was done to overcome differences in survey participation for this module (as outlined above). The same variables were used for this process, and these weights were capped at 3 in order to maximise the effective sample size.

#### Data analysis and reporting

The Healthy Ireland summary report outlines key findings and trends from survey data, and where appropriate compares data to the previous 7 waves of the survey. During the data analysis and reporting process for this wave it was decided to implement two significant changes to improve the summary report. The first is that during data analysis for wave 9, all respondents who selected "Don't know" or "Refused" were removed from the sample at each question. This is important to bear in mind for future researchers using the Healthy Ireland Survey data when and if referring to this report.

Secondly, in many chapters gender and age demographics have been analysed and reported on to a greater extent than they have in previous reports. This is to highlight variations by age and gender that are evident among certain health behaviours and are relevant to policy evaluation and design.