Fás Aníos in Éirinn
Growing Up in Ireland

COHORT '08
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Growing Up in Ireland

Design, Instrumentation and Procedures for Cohort '08 of *Growing Up in Ireland* at 13 Years Old (Wave 6)

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The fieldwork and associated instrument development described in this report were undertaken within the 'old' framework for ***Growing Up in Ireland*** whereby the study was carried out by the Economic and Social Research Institute (ESRI) and Trinity College Dublin (TCD) on behalf of the Department of Children, Equality, Disability, Integration and Youth (DCEDIY), in association with the Central Statistics Office (CSO). However, the final drafting and publication of this report has taken place under the 'new' framework, operational since January 2023, where DCEDIY and the CSO carry out the study directly.

Wave 6 of Cohort '08 at age 13 took place in exceptional circumstances, while public health restrictions relating to the COVID-19 pandemic were still in place. It is a credit to the dedication of those associated with the study – interviewers, staff, and members of the governance structures -that such a large survey was successfully executed almost entirely remotely. We give special acknowledgment to colleagues in the CSO who conducted the online module on behalf of the ***Growing Up in Ireland*** survey.

The authors and ***Growing Up in Ireland*** team are especially grateful, once again, to the young people, families and school principals who contributed their time and experiences to this unique national resource in difficult circumstances. It was a (hopefully) unique period in Ireland's history and the research generated can provide enormous insights into the lives of young people.

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Introduction

1.1 About this report

Growing Up in Ireland (GUI) is the national longitudinal study of children and youth in Ireland. It started in 2006 with two cohorts: one aged 9 years (Cohort '98) and the other aged 9 months (Cohort '08) at the time of the first interview. The younger Cohort '08 participants (which are the subject of this report) were born between December 2007 and June 2008, and there were 11,134 completed cases in Wave 1. The same children and families have been followed up on periodically in the years since, with no new additions to the original sample. Each GUI wave conducted to date has been the subject of its own design report, which can be found on the study website.

This report describes the instruments and procedures employed in Wave 6 of ***Growing Up in Ireland*** Cohort '08 at age 13 years, which was conducted between summer 2021 and spring 2022. This wave was distinct from all other main phases of fieldwork because the onset of the COVID-19 pandemic in March 2020 necessitated remote, rather than face-to-face, data collection. It also meant that associated processes (such as interviewer training and the working practices of office-based staff) had to be adapted in order to comply with public health guidance to work from home where possible. Given the importance of keeping the schedule of ***Growing Up in Ireland*** data collection waves on time – both to capture the transition to secondary school for Cohort '08 and to maintain cross-cohort comparisons with Cohort '98 at the age of 13 years – a decision was taken to proceed with the survey with adaptations rather than delay fieldwork until the children were older.

1.2 About Wave 6 of *Growing Up in Ireland* Cohort '08

Wave 6 of ***Growing Up in Ireland*** Cohort '08 was the main phase of data collection that took place between summer 2021 and spring 2022, when the Study Children (hereafter referred to as the Study Young People) were aged 13 years. It was preceded by a pilot exercise in 2020 (which is described in detail in a separate report: McNamara et al., 2022). Between the pilot phase (with different participants) and the main phase of data collection, a special inter-wave COVID-19 survey of both ***Growing Up in Ireland*** cohorts was conducted in December 2020. This was conducted online with the same families who were later asked to take part in Wave 6 of ***Growing Up in Ireland*** Cohort '08 at age 13 years (referred to in this report as 'the current wave' or 'this wave').

This special COVID-19 survey means that the number of possible phases of data collection with the main participants in GUI Cohort '08 is as outlined in Table 1.1. As is also summarised in Table 1.1, a wave of data collection typically involved in-home interviews with the Primary Caregiver (PCG) and Secondary Caregiver (SCG) (usually the parents), and with the Study Child themselves from the time they were aged 9 years. Depending on the wave, there may have been additional data collection from associated respondents, such as the Study Child's teacher and school principal.

Table 1.1: Summary of data collection waves for Growing Up in Ireland Cohort '08

Wave no.	Age of Study Child	Main year of data collection	Mode	Main respondents	Additional respondents
1	9 months	2008	In-home, CAPI and CASI	PCG; SCG	Postal questionnaires to childcare provider and non-resident parent where relevant
2	3 years	2011	In-home, CAPI and CASI	PCG; SCG	Cognitive test with child; postal questionnaires to childcare provider and non-resident parent where relevant
3	5 years	2013	In-home, CAPI and CASI	PCG; SCG	Cognitive test with child; paper-based questionnaires to child's teacher and school principal; postal questionnaire to non-resident parent where relevant
4	7/8 years	2015	Postal	PCG	None
5	9 years	2017	In-home, CAPI and CASI	PCG; SCG; Study Child	Cognitive test with child; paper-based questionnaires to child's teacher and school principal; postal questionnaire to non-resident parent where relevant
COVID-19 survey	12 years	December 2020	Online	PCG; Study Child	None
6	13 years	2021	CATI and online	PCG; SCG; Study Young Person	School principal (paper questionnaire)

Note: CAPI = computer-assisted personal interview; CASI = computer-assisted self-interview; CATI = computer-assisted telephone interview; PCG = Primary Caregiver; SCG = Secondary Caregiver

1.2.1 Timing of transition to secondary school for Cohort '08

A key feature of this stage in the life course (age 13 years) for adolescents in Ireland is that most will make the transition to secondary school around this age. When the Growing Up in Ireland study was first being structured in the early 2000s, virtually all young people would have moved from primary to secondary school around the age of 12 or 13 years, and therefore when the older Cohort '98 participants were aged 13 years, they would have almost definitely been in either the first or second year of secondary school at the time of interview. Over the last two decades, there has been a move towards a later school start in primary school, which means that children are often a year older when they start secondary school, and this could mean that more 13-year-olds in Cohort '08 would still be in their last year of primary school. However, having data on the participants' year of schooling from the Wave 5 (age 9 years) interview, and from the special COVID-19 survey carried out around six months before the current phase (Wave 6), meant that it was possible to stagger the approach to families in order to maximise the likelihood that the Young Person would have made the transition to secondary school by the time they were interviewed.

1.3 Fieldwork during the COVID-19 pandemic

The original plan for Wave 6 of Growing Up in Ireland Cohort '08 was to have extensive in-home, face-to-face data collection similar to that for Wave 5 (when the Study Children were aged 9 years) – as summarised in Table 1.1 – and consistent with that for Cohort '98 at age 13. A detailed proposal for a pilot along these lines had been put forward to the funding Government Department – the Department of Children, Equality, Disability, Integration and Youth (DCEDIY) – and the Research Ethics Committee (REC) in the winter of 2019–2020, and had been approved just as COVID-19 arrived in Ireland. The public health emergency meant that plans for in-home pilot interviews had to be shelved, but in order to keep the study timeline on track, an alternative pilot using telephone and online surveys was rapidly developed and implemented.

A detailed report on this piloting process has been published separately (McNamara et al., 2022). At the time (summer 2020), it was hoped that in-home data collection would be able to resume in time for the main phase of fieldwork early the following year (2021). Therefore, the focus of the pilot was on trialling the utility and acceptability of brand new survey items. In an effort to keep the remote data collection manageable, many of the 'tried and trusted' measures intended for the main phase of fieldwork were not included in the adapted pilot, with a view to reinserting them into the survey at the next stage.

As it turned out, the COVID-19 pandemic did not resolve as quickly as hoped, and by the winter of 2020–2021, a decision was made to plan for remote data collection for the main fieldwork later in 2021 as well. This meant yet another restructuring of the proposal, because administering the survey by telephone and online meant that the overall instrumentation needed to be much shorter. It would not be possible to simply take all of the new items from the pilot phase and add them to all of the previously used measures from either Cohort '08 at age 9 years or Cohort '98 at age 13 years; therefore, some difficult decisions had to be made in terms of what to exclude from the extensive library of potential survey items. There is further discussion of this in the aforementioned pilot report (McNamara et al., 2022), which gives extended coverage of the piloting process up to the revised proposal for the main study.

The move to remote data collection also meant that some regular features of previous ***Growing Up in Ireland*** waves could not be implemented. These were, notably: (a) an interviewer-administered, standardised test of cognitive ability and/or academic attainment, and (b) interviewer-measured height and weight (of the Young Person and their parents) using standardised equipment. Further implications for the move to remote data collection are discussed throughout this report, and in the corresponding pilot report (McNamara et al., 2022).

On the positive side, however, having conducted the pilot remotely by telephone and via an online survey in summer 2020 – as well as an additional, special online COVID-19 survey in December 2020 – the Study Team were well placed to conduct the main phase of fieldwork for Cohort '08 (13 years) remotely. At each phase (pilot, COVID-19 survey, and main survey), the online survey was hosted on the Central Statistics Office's secure platform and servers.

1.4 Conceptual framework

1.4.1 Overview

The conceptual framework that has guided the ***Growing Up in Ireland*** study since the beginning is described in depth in other reports, most notably Greene et al. (2010); therefore, we will only briefly summarise it here. A core aim of the study is to provide an evidence base from which Irish policy-makers can draw in order to inform decisions on policies relating to children, young people and their families. The longitudinal design is more amenable to inferences about causality than repeated cross-sectional surveys. The cross-cohort design means that data are available on different age groups in a timelier fashion than a single-cohort design, and – as the younger cohort now overlaps with the older one – the effect of the macro context (social, economic and policy) can be more readily evaluated.

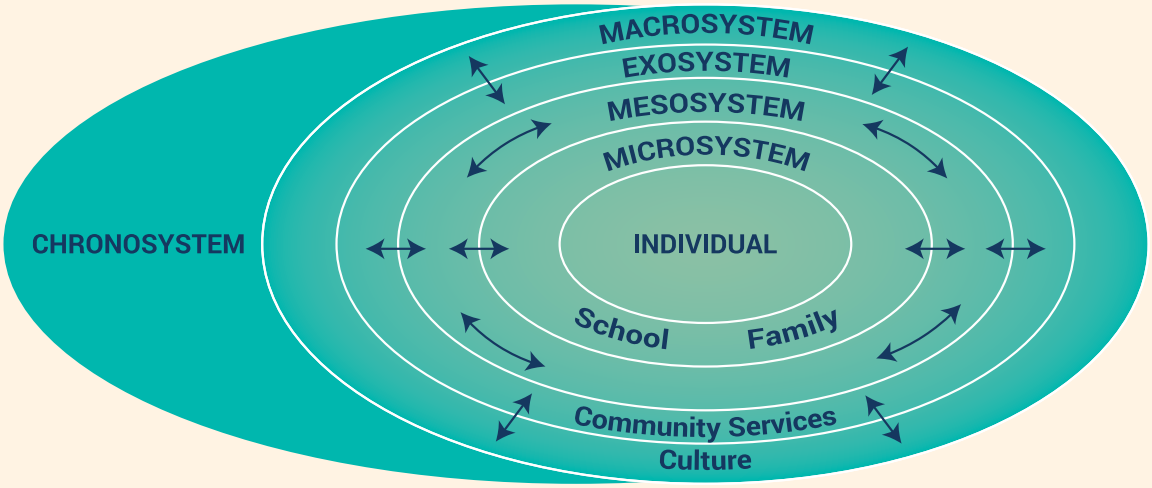
1.4.2 Bronfenbrenner's bioecological model

It is worth noting, in brief, the influence of Bronfenbrenner's bioecological model on the design of ***Growing Up in Ireland*** (e.g. Bronfenbrenner & Morris, 2006). Conceptualising the development of the individual as a dynamic process happening within a complex environment – with multiple actors both proximal (e.g. parents) and distal (e.g. policy-makers) – has guided the multidisciplinary and multi-informant nature of ***Growing Up in Ireland***. The study collects information in core areas of child well-being, including physical health, socio-emotional and behavioural development, and educational/cognitive development, plus key context indicators such as material well-being, social capital, and characteristics of families and schools.

As summarised in the diagram in Figure 1, the immediate family and school context are believed to have the most direct influence on the development of the individual. However, the wider context surrounding that 'microsystem' has (mostly) indirect influences on the child – for example, through community attitudes and resources ('exosystem'); employment opportunities available to parents; or policy decisions on funding for housing, health, social welfare and education ('macrosystem'). The 'mesosystem' refers to interactions between the systems, and particularly interactions between actors in the microsystem, such as the degree of warmth or conflict in the relationship between parents.

This framework also recognises the capacity of the child to exert influence on their context; for example, in how they interact with family and peers, and through choices they make in terms of schoolwork or free-time activities. Particularly by age 13, therefore, the study recognises the importance of capturing the voice of the Young Person in areas such as their attitudes towards school subjects and their perception of their parents' behaviour towards them. Individual characteristics, such as gender and health status, can also influence outcomes and interactions with other people and systems.

Figure 1.1: Summary of Bronfenbrenner's bioecological model



Source: Adapted from Garbarino (1982)

In the context of the COVID-19 pandemic, Bronfenbrenner's framework for considering the effect of time ('chronosystem') on individual development is particularly pertinent. Time may exert influence through 'cohort effects' (e.g. Cohort '08 are among the first to go through the complete, revised curriculum for the Junior Cycle at secondary school), the timing of individual events (such as the premature death of a parent), and 'period effects' (events of historical significance). The global COVID-19 pandemic is the first such event in living memory for most (if not all) of the population alive today. The scope for ***Growing Up in Ireland*** to capture the impact of the pandemic on Cohort '08 is considerable: there is a wealth of pre-pandemic data on the participants to compare against; there was a special contemporaneous survey on the COVID-19 experiences of the cohort mid-pandemic; and the main fieldwork, when participants were aged 13 years, followed approximately 9–15 months after that. In the future, there is continued scope to look at the longer-term consequences and recovery as the young people of Cohort '08 enter later adolescence and early adulthood.

1.5 Guiding decisions on *Growing Up in Ireland* content

With a high-profile, high-quality study such as ***Growing Up in Ireland***, there is always more potential content than can be feasibly included in one interview. The bioecological framework summarised in Section 1.4.2 is a key tool in reflecting on the overall shape and coverage of the survey instrumentation. Other key inputs to the design, such as from academic experts and policy stakeholders, are described in detail in Chapter 3. However, there comes a point in the questionnaire development where there are item-by-item evaluations to include or exclude them in the final instrument. The rest of this section summarises the main criteria by which potential questions and measures were evaluated in the decision of whether to ultimately include them in the survey.

1.5.1 Considerations related to the content of instruments

Relevance to understanding the development and well-being of young people

Since the focus of ***Growing Up in Ireland*** is on the development and well-being of children and young people, with the aim of informing policy, the relevance of topics to this aim was of paramount importance. As noted earlier, the domains of physical health, socio-emotional well-being, and educational/cognitive development have been identified as core areas from the beginning of the ***Growing Up in Ireland*** study.

Relevance to policy

One of the central aims of ***Growing Up in Ireland*** is to provide an understanding of the lives of children and young people that will inform policies that affect them. A domain may be relevant to policy if it is an outcome that policy aims to influence (e.g. health), if it is policy malleable (e.g. the health-related behaviours of children, young people and their parents), if it informs the need to target policies (e.g. gender or migration status), or if it can identify trajectories of development in domains of policy relevance. Research can contribute to policy in a range of ways, including the identification of problems or of groups who are particularly at risk, providing information relevant to the selection of policy instruments, and evaluating the outcomes of particular policy interventions (Lunn & Ruane, 2013).

Developmental trajectories and longitudinal consistency

Since ***Growing Up in Ireland*** is a longitudinal study, the design had to be mindful of the contribution of topics to understanding the developmental trajectories of children and young people. In any given wave, a topic area may be important because it influences the development and/or the well-being of children at that stage of their lives, because it is an outcome of earlier experiences, or because it is expected to influence their future outcomes. For instance, at the age of 13 years, the topic of the transition to secondary school is very relevant because most 13-year-olds will have just completed that transition. Their attitude towards school and school subjects is an important part of their quality of life at that stage, but may also be influenced by their earlier school experiences, and could be an important predictor of their later educational outcomes.

Longitudinal consistency in measurements from one round of a panel study to the next is clearly a key consideration in the development of questionnaires, measures and procedures. This does not necessarily mean using the same scales or instruments across waves, as the age-appropriateness of the measures needs to be taken into account. Nevertheless, where possible, preference was given to repeating the same measures over time in order to aid analysis and subsequent conclusions.

Comparability with other cohorts or populations

In addition to this 'within-cohort' consistency, there was an awareness of 'between-cohort' consistency, particularly with the questionnaires completed by the Cohort '98 13-year-olds when they were interviewed in 2011/12. This is a unique opportunity to compare the outcomes of two groups of young people whose early childhoods were characterised by very different economic circumstances. In brief, the children and families in Cohort '98 spent their early years in the economic boom of the late 1990s and early 2000s. In contrast, the children in Cohort '08 were recruited in 2007–2008, just as the Irish economy fell into a deep recession. A valuable aspect of the two-cohort design adopted in the ***Growing Up in Ireland*** study is the extent to which it will allow researchers to investigate the effects of changing macro-contexts over time on the outcomes and development of children, while controlling for background characteristics.

In addition to the earlier cohort of 13-year-olds in ***Growing Up in Ireland***, the Study Team paid close attention to other related studies, particularly other child cohort studies that commenced since 2000. A further discussion of other studies, and of previous waves of ***Growing Up in Ireland***, can be found in Chapter 3.

Changing social contexts

Notwithstanding the need to maximise intra- and inter-cohort consistency, a number of issues were considered in developing the questionnaires, which necessitated some changes to reflect marked changes in context since Cohort '98 were interviewed at 13 in 2011/12. Change has been so substantial in some aspects of children's lives over this period that it would have been meaningless to adopt the same questions as were used with the Cohort '98 13-year-olds. In some instances, details needed to be recorded on new phenomena.

One example of an area in which changing social and other contexts effectively precluded strict inter-cohort consistency in question wording is in the definition, meaning and applications of technology for 13-year-olds. The diversity of screen-based devices available and the extent of access to the internet has expanded considerably. The widely understood definition of a computer itself, or the concept of screen time, have changed so completely over the last decade that strict longitudinal consistency with the questions used in 2011/12 was not possible or even desirable. Smartphones and computer tablets have so revolutionised this area that it requires completely new sets of questions and measures to be developed in order to adequately capture the differences in the experiences of contemporary 13-year-olds.

Another such area is, inevitably, the COVID-19 pandemic itself. Failure to record any direct information about the participants' experiences of the COVID-19 pandemic would have been a missed opportunity and would have left a gap in putting other information from the survey into context. For this topic, however, there was scope for continuity from the special COVID-19 survey that took place online with both cohorts in December 2020.

Age relevance

The age relevance of a domain or instrument was also considered. This is particularly important in choosing instruments to measure, for example, young people's behavioural development, because the instrument must be appropriate for their developmental stage. As the ***Growing Up in Ireland*** survey moves towards capturing more information through the voice of the Young Person, potential questions also had to be considered in terms of participants' capacity to understand what is being asked.

Another aspect of age relevance is whether this age or stage is the appropriate one at which to gather the data. From this perspective, data on puberty, on the transition to secondary school, changing relationships with parents and peers, and experimentation with risky behaviours such as smoking and drinking are particularly appropriate for the developmental stage of 13-year-olds.

Data not available elsewhere

Given the pressure on space in the questionnaires, particularly in light of the need to further shorten instrumentation in the move to remote data collection, the availability of certain data elsewhere may have reduced the demand to measure them in ***Growing Up in Ireland***. However, this is not necessarily the case. ***Growing Up in Ireland*** is a multidisciplinary and longitudinal study, collecting key information across a range of domains and over time. If an understanding of outcomes in one domain (such as health) requires data on a range of other domains (such as family circumstances), or on related factors at an earlier time (such as birthweight or breastfeeding), then there is an argument for including it in ***Growing Up in Ireland***.

1.5.2 Considerations related to the process of conducting the *Growing Up in Ireland* study

As well as the considerations in Section 1.5.1 which might be thought of as directly related to the content of the study, there were a number of process-related considerations. These are related to the mode of data collection used in ***Growing Up in Ireland***. Among these are whether the domain can be reliably and validly measured in a home-based survey (and subsequently, by telephone or online survey). This evaluation in turn depended on the availability of instruments that have been developed elsewhere (including in previous waves of ***Growing Up in Ireland***), and the acceptability of the instrument to the survey participants, in terms of length as well as content.

The availability of instruments that have been developed and tested elsewhere means that the Study Team does not need to develop new instruments; moreover, it enables a comparison of results between studies. This is important in gaining an understanding of what is typical or normal in terms of young people's development and, where the instruments have been used internationally, to understand how young people in Ireland compare with their counterparts elsewhere.

The acceptability of the instruments to the study participants was a consideration in terms of the response burden for the current wave but also in terms of the need to retain the parents and young people in the study in future waves. Given the need to obtain parental consent for the Young Person's participation, the acceptability of the 13-year-old instrument to the parents, as well as the Young Person, was also a key consideration.

Another very important aspect of the development of instruments and protocols for ***Growing Up in Ireland*** has been to ensure that the study is in full compliance with best practice in terms of conducting research ethically and within the legal requirements. These are discussed further in Chapter 4.

In making some difficult decisions to exclude potentially interesting items from the instrumentation, the Study Team also considered factors that counted 'against' certain questions or topics. These are summarised as follows:

- An alternative or closely related measure was already included in the survey
- Marked respondent burden of an item or scale due to length, difficulty in answering it, or sensitivity
- Usefulness of item (especially in a longitudinal or cross-cohort context) compromised because of the COVID-19 pandemic
- Not possible to measure in a telephone or online survey
- Low level of variation (very rare or very common) indicated in piloting or in previous studies.

1.6 Conclusion

The context for developing and operationalising this Wave 6 of ***Growing Up in Ireland*** Cohort '08 at age 13 years was dramatically different than that applied in any previous wave of the study because of the COVID-19 pandemic. Both content and processes were heavily adapted to allow for remote data collection by telephone and online in order to ensure that fieldwork could continue safely, and on schedule, during the public health emergency.

This chapter outlined the main shifts required for the study to continue; further details are provided in later chapters which describe the input to instruments, ethical and legal considerations, the detail of fieldwork procedures, and questionnaire content. This report is a particularly important resource for researchers using, or considering using, ***Growing Up in Ireland*** data. Such readers may wish to also consult the corresponding pilot report and technical summary guide for this wave, which are published separately.

Chapter 2
Sample and Response Rates

2.1 Introduction

In order to provide an overview of the sampling procedures used in ***Growing Up in Ireland*** with Cohort '08 in the current wave at age 13 years (Wave 6), this chapter begins with a summary outline of the sample designs adopted in the four preceding face-to-face rounds of interviews (when the Study Children were aged 9 months, 3 years, 5 years and 9 years) and the postal phase of the study, when they were aged 7/8 years.[1] It then moves on to discuss sample design, and levels of response and attrition, in this wave. The procedures for statistically adjusting (or reweighting) the data to ensure that they are fully representative of the relevant population[2] in this phase of the study are also outlined.

2.2 Sample design in Waves 1–5

The following sections provide background information on the original sample and the response rates in previous waves of the study. As such, it is drawn largely from tables previously published in the corresponding design reports for those waves. Please see those original reports for full details on individual waves.

2.2.1 Sample design in Wave 1 (age 9 months)

Full details on the population, sampling frame and sample design for Cohort '08 are provided in the report titled *Sample Design and Response in Wave 1 of the Infant Cohort (at 9 months) of Growing Up in Ireland* (Quail et al., 2011). This section presents a brief outline of the sampling in Wave 1 in order to provide the reader with a background to the sampling procedures used.

The Child Benefit Register was used as the sampling frame for the first wave of Cohort '08. Child Benefit is a universal monthly social welfare payment to families with children. At the time of creating the initial sample for ***Growing Up in Ireland***, children had to be registered with the appropriate authorities within six months of birth or becoming part of the family (e.g. through adoption), or within six months of the family coming to reside in Ireland. This administrative database had some extremely attractive characteristics as a sampling frame. It contained a comprehensive, up-to-date listing of eligible members of the relevant population; it had a wide range of relevant characteristic variables of claimants (mostly mothers); and it was already in an electronic form that could be accessed for sampling purposes.[3]

There were just over 70,000 births in Ireland in 2007. The Wave 1 sample for the ***Growing Up in Ireland*** Cohort '08 study was selected from the 41,185 infants registered on the Child Benefit Register as having been born between 1st December 2007 and 30th June 2008. The target sample was selected over this seven-month period, with a view to carrying out fieldwork for Wave 1 between September 2008 and March/April 2009, when the children would be 9 months old. The sample was selected on a systematic basis, with a random start. Prior to selection, the sample was sorted by marital status of the claimant (usually the mother), county of residence and nationality of the claimant, as well as number of children in the payment or 'claim'. A simple systematic selection procedure based on a random start and constant sampling

1 Note that the descriptions of the sample in previous waves are drawn directly from previous publications in order to maintain consistency across documentation describing the same data.

2 This is the population of children who were living in Ireland and aged 9 months when the sample was recruited into the study, and who continued to live in Ireland when they were aged 9 years.

3 Special permission was required to access the Child Benefit Register for sampling purposes and was possible only because the overall study is being conducted under the Statistics Act, 1993, which provides the legal basis for Growing Up in Ireland.

fraction was used. In total, 11,134 children were recruited into Wave 1 of the ***Growing Up in Ireland*** study as part of Cohort '08. This represented a response rate of 65% of all families approached, and 69% of valid contacts made in the course of the fieldwork.

2.2.2 Sample design in Wave 2 (3 years old)

The Wave 2 target sample contained the 11,134 3-year-olds (and their families) who participated in the first round of interviewing. No additions were made to the sample since that time,[4] with the only loss being through inter-wave non-response or attrition (including families who had moved away from Ireland between Wave 1 and Wave 2, or children who had died since the first round of interviewing). The longitudinal population at Wave 2, therefore, was the population of 3-year-olds (and their families) who had been resident in Ireland at Wave 1 (when the Study Children were aged 9 months) and who continued to be resident in Ireland at Wave 2 (at age 3 years). If a family had emigrated from Ireland, they were not included in the calculation of response rates.

A total of 9,793 families participated in this round of interviewing, giving a response rate of 91.4%. Full details are available in McCrory et al. (2013).

2.2.3 Sample design in Wave 3 (age 5 years)

The target sample at Wave 3 comprised the 9,793 children and families who had participated in Wave 2. In addition, it included most of those who had participated in Wave 1 but who had refused or did not otherwise participate in Wave 2. Families who had moved abroad, moved within Ireland with no forwarding address, or who had stated very definitely in Wave 2 that they did not wish to be contacted further about the study were not included in the Wave 3 sample.

A total of 9,001 families completed interviews in Wave 3 giving a response rate of 87% of the valid sample. Further details are available in Williams et al. (2019).

2.2.4 Sample design in Wave 4 (age 7/8 years, inter-wave postal phase)

For Wave 4 of the study, a single postal questionnaire was sent to the home, with an accompanying letter and information sheet. The questionnaire was self-completed and returned by post by the child's Primary Caregiver (PCG). Up to two reminders were sent by post and a subsample were followed up for reminders by telephone.

A total of 5,344 questionnaires were returned, amounting to 48% of the families interviewed when the Study Children were aged 9 months. However, this response rate does not take account of the families who no longer lived in Ireland at the time of the survey, nor those whose letters were returned by the postal service as being unknown at the last address available to the Study Team.

4 Additions to membership of the Study Child's household between waves (in the form of new members residing in the household or being born into the household) are, of course, recorded on the household register in the relevant wave.

2.2.5 Sample design in Wave 5 (age 9 years)

A total of 10,052 children and their families were targeted in Wave 5, when the Study Children were aged 9 years. This sample comprised families who had participated in the face-to-face interview in Wave 3 (when the Study Children were aged 5 years), as well as a small proportion of those who had not participated in Wave 3 but had participated in one of the earlier rounds of the study.

A total of 8,032 interviews were completed at age 9 years (Wave 5), representing a response rate of 78% of the valid sample. Full details are in McNamara et al. (2020a).

2.3 Sample design in Wave 6 (age 13 years) – Current Wave

A total of 9,723 children and their families were included in the sample in Wave 6, when they (from this age referred to as 'Study Young People') were aged 13 years. This sample comprised families who had participated in the face-to-face interview in Wave 5 (when the Study Children were aged 9 years), as well as a small proportion of those who had not participated in Wave 5 but had participated in one of the earlier rounds of the study. Accordingly, the sample that was issued in Wave 6 at 13 years of age was broken down as outlined in Table 2.1.

Table 2.1: Breakdown of the sample issued in Wave 6 (age 13 years)

Response in Wave 5 (age 9 years)	No. of cases in Wave 5 (age 9 years)	Of which:	
		Issued in Wave 6 (age 13 years)	Not issued in Wave 6 (age 13 years)
Not issued at age 9 years	1,106	0	1,106
Completed	8,032	8,005	<30
No contact, despite repeated call-backs	288	284	<30
Refused	1,079	980	99
Moved, no forwarding address	298	294	<30
Other, including unavailable during fieldwork	165	160	<30
Total above	10,968	9,723	1,245
Emigrated (not included in Wave 5 sample)	166		
Grand total of Wave 1 sample (age 9 months)	11,134		

2.3.1 Response rates

Table 2.2 summarises the response at age 13, classified by whether the family had participated in the previous round of interviewing (when the child was 9 years). Column A is based on the 7,986 families who participated at age 9. One can see that a small number of the families in question were identified in Wave 6 as having emigrated outside of Ireland and therefore should be excluded from the calculation of response rates. On this basis, Table 2.2 shows that the response rate among participants in Wave 5 (age 9 years) was 80% (6,353 families). Column B in Table 2.2 summarises the response rates among the families who did not participate in the study in Wave 5. The response rate among this group was (as expected) much lower, at 18%.

Table 2.2: Response at Wave 6 (13 years) by whether family participated at Wave 5 (9 years)

Response	Wave 6 (13 years)			
	A Completed at 9 years		B NOT Completed at 9 years	
	No.	%	No.	%
Completed	6,353	80	302	18
No contact, despite call-backs	769	10	809	47
Refused	815	10	576	34
Moved in Ireland, no forwarding address[5]	-	-	-	-
Other, including unavailable during fieldwork	49	1	<30	2
Total valid sample	7,986	100	1,714	100
Emigrated/child deceased (not included in sample)	<30		<30	
Not issued	1,411			
Grand Total at Wave 1	11,134			

For the first time since the study began in 2008, respondents completed the main interview over the telephone and completed the sensitive supplement online. In some cases, there was a gap of several months between participation in the telephone interview and the invitation to self-complete the sensitive module online. Therefore, response rates for the sensitive supplement were lower than in previous waves, and a new table of attrition between telephone and online modules is given in Table 2.3.

5 Note that as interviews were conducted as a telephone survey, the 'Moved, no forwarding address' response was not a relevant outcome at this wave

Table 2.3: Response rates and attrition between telephone interview and online self-complete module

Respondent	Target sample	Number (%) of phone interviews completed	Number of self-complete modules completed online		
			N	% of phone interviews	% of total sample
PCG	9,723	6,655 (68%)	3,963	60%	41%
SCG	8,952	4,805 (54%)	2,445	51%	27%
YP	9,723	6,375 (66%)	3,128	49%	32%

Note: PCG = Primary Caregiver, SCG = Secondary Caregiver, YP = Young Person

2.3.2 Sample retention, from age 9 months to age 13 years

As a measure of overall retention in the study up to age 13 years, it is instructive to consider the proportion of the initial sample of 11,134 children and families interviewed in 2007–2008 (when the child was 9 months) who were also successfully interviewed in 2021–2022 (when the Young Person was 13 years).

Table 2.4 summarises the retention of the sample from age 9 months to age 13 years. In common with all longitudinal studies, ***Growing Up in Ireland*** has experienced attrition at each round of interviewing. This attrition has been addressed in the longitudinal weights generated for each round of data collection.

As noted in Table 2.3, a total of 6,655 families were interviewed when the Study Young Person was 13 years. Table 2.4 shows that, after subtracting the number of families identified at any of the four waves after Wave 1 as having emigrated from Ireland (i.e. at ages 3, 5, 9 and 13 years) and those where the Study Child had died since the study began, there was a total 'valid' sample of 10,307 families. The 6,655 families who were interviewed represent 65% of the valid target sample at age 13 years. When cumulative non-response and attrition over the period are taken into account, this corresponds to a retention rate of 60% thus far in the study.

Table 2.4: Summary retention of sample at ages 9 months–13 years

Completed sample at 9 months of age. Of whom:	11,134
Emigrated/deceased by age 3 years	414
Emigrated/deceased by age 5 years	251
Emigrated/deceased by age 9 years	170
Emigrated/deceased by age 13 years	<30*
Total valid sample at age 13 years	10,307
Sample interviewed at age 13 years	6,655
Interviewed at 13 years as % of base sample still living in Ireland	65%

*The lower number for emigrated/deceased at the age of 13 years is likely due to the telephone mode used to record data in Wave 6. It is likely that some of the 'no contacts' recorded in this wave have possibly emigrated.

As shown in Table 2.5, the majority (63%) of families who participated when their child was aged 13 years had taken part in all previous face-to-face waves of the study as well as in the postal survey for study children aged 7/8 years (63% of families who participated at age 13). A substantial subset had previously taken part in all waves with the exception of the postal survey, when their child was aged 7/8 years (28%). Finally, 9% of families who participated when their child was aged 13 years had missed at least one of the intervening face-to-face waves since the initial interview when the Study Child was aged 9 months.

Table 2.5: Percentage of participating families at age 13 who completed all previous waves or who had missed at least one wave

	N	As a % of families who participated at age 13
Total families at age 13	6,655	100%
Total families who participated in all previous face-to-face waves (3 years, 5 years, 9 years) but not postal wave at 7/8 years	1,889	28%
Total families who participated in all previous waves incl. 7/8 years postal survey	4,167	63%
Total families who missed at least one previous face-to-face survey wave (but participated at 13)	599	9%

2.3.3 Non-response, inter-wave attrition and sample weights

Non-response and inter-wave attrition are unavoidable in longitudinal surveys, regardless of tracking and conversion procedures employed. These become a problem where they are systematically related to family or other characteristics, or to child outcomes. Watson and Wooden (2009), for example, noted that attrition may be systematically associated with respondents' sex, age, race/ethnicity, marital status, household composition and size, educational attainment, labour force status, and family income. They found that, in the Household, Income and Labour Dynamics in Australia (HILDA) Survey, on average, attrition is higher among males, younger respondents, minority groups, one-parent and non-marital households, less-educated families, the economically active, and low-income families. It is important to understand the levels and correlates of attrition and non-response in order to inform reweighting procedures that statistically adjust the data for systematic non-response or attrition prior to analysis.

To assess the impact of differential non-response and attrition in Wave 6 (age 13), Table 2.6 compares the distribution of child and family characteristics across the target population with those for the completed sample at 13 years old.[6] Column A shows the estimates of the distribution of these characteristics in the target population at age 13 years: those 13-year-olds resident in Ireland in 2021–2022 who were also resident in Ireland when they were aged 9 months. The distribution of characteristics is estimated based on the original sample from Wave 1, excluding those known to be no longer eligible,[7] applying the weights used to control for Wave 1 non-response (Thornton, Williams et al., 2013). It should be noted

6 The characteristics shown in Table 2.6 are those found to be related to non-response and/or attrition.

7 Study Children would be ineligible where they are known to have emigrated or, in a small number of cases, because of the death of the child.

that children whose families moved to Ireland at some point since they were 9 months old are not part of the target population for this study. For this reason, there are limits on the extent to which the sample is representative of all 13-year-olds living in Ireland in 2021–2022.

The characteristics of the children and families shown in Table 2.6 are those as measured at the most recent completed full interview prior to age 13 years (most often, the interview completed when the Study Child was aged 9 years).[8] Some characteristics (such as mother's age at the time of the child's birth, mother's country of birth, child's gender, whether the child was ever breastfed, and the child's health at age 9 months) are taken from Wave 1.

Column B shows the distribution of these characteristics in the completed sample at age 13, with no weights applied to the data. Column C compares this distribution to the population totals in Column A.

Column D shows the distribution characteristics for the completed 13-year sample with the previous sample weights carried forward. These are most often the weights from the 9-year interview but if the family did not respond in that wave, the weights from the most recent completed interview have been used. These weights adjust the sample for initial Wave 1 non-response and for inter-wave attrition up to the time when interviews were conducted with children aged 13 years. Column E shows the difference between this distribution and the population estimates in Column A. This gives an indication of the impact of inter-wave attrition between the 9-year and 13-year waves. In general, the gap between these weighted data and the population is smaller than the gap between the unweighted data and the population: the absolute values of the figures in Column E are smaller than the absolute values of the figures in Column C.[9]

The construction of the analysis weight for the data on 13-year-olds consists of carrying forward the earlier weight (which controls for initial non-response and attrition up to the 5-year wave) and adjusting it for attrition between the 9-year and 13-year waves. The Study Team used the GROSS software, as in previous waves of ***Growing Up in Ireland***.[10] This software has been used extensively by the Economic and Social Research Institute (ESRI) since 1996. GROSS uses a minimum information-loss algorithm to fit a sample distribution of characteristics (as shown in Column D) to population 'control totals' (as shown in Column A). An iterative procedure is used, allowing marginals of characteristics that are associated with one another to be fitted simultaneously.

The sample weights for the Cohort '08 13-year-olds were constructed by taking the weight from the previous wave as the initial weight, then calculating an adjustment factor for the carried-forward weight for each case so that the population distribution in Column A is replicated for the sample.

8 The postal wave of data collection at age 7/8 years is not drawn on here because it collected information on fewer child and family characteristics; in addition, this wave had a lower response rate.

9 Although the prevalence of study children's longstanding health condition (Wave 1) and general health does not differ from the population distribution, it was included in the set of variables used to weight the data in order to ensure that its distribution was not distorted when adjustments to the weights were made for related characteristics such as 'Study Child gender' and 'Mother smoking'.

10 See, for example, Gomulka, J., 1992. "Grossing-Up Revisited", in R. Hancock and H. Sutherland (Eds.), *Microsimulation Models for Public Policy Analysis: New Frontiers*, STICERD, Occasional Paper 17, LSE. Gomulka, J., 1994. "Grossing Up: A Note on Calculating Household Weights from Family Composition Totals". University of Cambridge, Department of Economics, Microsimulation Unit Research Note MU/RN/4, March 1994.

Table 2.6: Population and completed Wave 6 sample distributions of characteristics of the Study Children and their families

		Population total	Unweighted		Weight carried forward		Weight for 13-year-olds	
		A. %	B. %	C = B-A	D. %	E. (D-A)	F. %	G (F-A)
Mother's age at the time of the child's birth	Under 25 years	18%	9%	−9%	12%	−6%	17%	−1%
	25–29 years	23%	21%	−2%	22%	−1%	24%	0%
	30–34 years	34%	38%	5%	37%	4%	35%	1%
	35–39 years	20%	26%	6%	23%	3%	21%	0%
	40+ years	4%	5%	1%	5%	1%	4%	0%
PCG education (at age 9 or earlier)	Primary	3%	1%	−2%	1%	−1%	2%	−1%
	Lower secondary	12%	4%	−8%	8%	−4%	11%	−1%
	Upper secondary/ vocational	36%	27%	−9%	33%	−3%	37%	0%
	Cert./Diploma	21%	23%	3%	23%	2%	21%	0%
	Degree	28%	45%	17%	34%	6%	29%	1%
Family type (age 9 or earlier)	One-parent, 1 child	7%	3%	−4%	4%	−2%	6%	−1%
	One-parent, 2+ children	11%	7%	−4%	8%	−3%	10%	−1%
	Two-parent, 1–2 children	41%	40%	0%	41%	1%	41%	1%
	Two-parent, 3+ children	42%	50%	9%	46%	5%	42%	1%
Cohabiting (at age 9 or earlier)	Cohabiting	12%	9%	−3%	9%	−2%	11%	0%
Equivilised income quintile (at age 9 or earlier)	Lowest	23%	14%	−8%	17%	−6%	22%	−1%
	Second	21%	18%	−3%	19%	−2%	21%	0%
	Middle	19%	19%	0%	20%	0%	19%	0%
	Fourth	18%	23%	5%	21%	3%	19%	0%
	Highest	17%	25%	8%	22%	5%	18%	1%
	Missing	1%	0%	−1%	1%	−1%	1%	0%
Social class (at age 9 or earlier)	Professional	12%	21%	8%	15%	3%	12%	0%
	Managerial/ technical	33%	41%	7%	39%	6%	34%	1%
	Other non-manual	19%	17%	−2%	19%	0%	20%	0%

		Population total	Unweighted		Weight carried forward		Weight for 13-year-olds	
		A. %	B. %	C = B-A	D. %	E. (D-A)	F. %	G (F-A)
Social class (at age 9 or earlier)	Skilled	16%	11%	−5%	13%	−3%	16%	0%
	Semi-skilled	11%	8%	−3%	9%	−1%	11%	0%
	Unskilled	2%	1%	−1%	1%	−1%	2%	0%
	Unknown	5%	1%	−4%	2%	−3%	4%	−1%
PCG's work status (at age 9 or earlier)	Works full time	42%	53%	10%	49%	6%	44%	1%
	Works part time	16%	17%	1%	17%	1%	16%	0%
	Not working	41%	30%	−11%	34%	−7%	40%	−1%
SCG's work status (at age 9 or previous)	Works	73%	84%	11%	81%	8%	75%	2%
	Not working	9%	6%	−3%	7%	−2%	9%	0%
	Not present	18%	10%	−8%	12%	−6%	17%	−1%
Where mother was born (Wave 1)	Ireland	80%	80%	0%	81%	1%	80%	0%
	Northern Ireland, United Kingdom	6%	7%	0%	6%	0%	6%	0%
	Other European Union (EU) country	7%	7%	0%	6%	−1%	7%	0%
	Non-EU country	7%	7%	0%	7%	0%	7%	0%
Tenure	Owner	71%	81%	11%	79%	9%	72%	1%
	Social renter	13%	7%	−6%	9%	−4%	12%	−1%
	Private renter	14%	10%	−4%	10%	−4%	14%	0%
	Other	2%	1%	−1%	1%	0%	2%	0%
Region	Dublin	26%	23%	−3%	27%	1%	26%	0%
	BMW	28%	27%	0%	27%	−1%	28%	0%
	Elsewhere	46%	50%	3%	47%	0%	47%	0%
Mother smoking	Smokes daily	18%	10%	−7%	13%	−5%	17%	−1%
Mother depression	Depressed	12%	9%	−3%	10%	−2%	11%	0%
Study Child gender	Male	52%	50%	−1%	51%	0%	51%	0%
	Female	48%	50%	1%	49%	0%	49%	0%
Breastfeeding	Ever breastfed	50%	64%	14%	56%	6%	51%	1%
Study Child health at 9 mths	Has 1 of 16 conditions	24%	25%	1%	25%	1%	24%	0%
	No condition, some problems	9%	9%	0%	8%	−1%	9%	0%
	No condition, no problems	67%	67%	0%	67%	0%	67%	0%

Note: PCG = Primary Caregiver; BMW = Border Midlands West.

The variables used to adjust for attrition and to generate the 13-year weights are those identified in Table 2.6:

- Age of Primary Caregiver at birth of the Study Child
- Educational attainment of Primary Caregiver
- Family structure/Primary Caregiver marital status (cohabiting or married)
- Family income quintile
- Family social class
- Work status of Primary and Secondary Caregivers
- Where the Primary Caregiver was born (four categories)
- Housing tenure (owner, local authority/Approved Housing Body renter, private renter, other)
- Primary Caregiver smoking (smokes daily)
- Primary Caregiver risk of depression (based on Center for Epidemiologic Studies Depression Scale (CES-D 8))
- Study Child gender
- Whether the Study Child was ever breastfed
- Health/longstanding condition of Study Child in Wave 1.

As noted above, most of these characteristics were measured at the interviews with 13-year-olds; however, characteristics that would not usually change over time (such as the Study Child's gender and PCG's country of birth) were not measured. The weights were truncated in order to avoid undue influence on results for individual cases (or a small number of cases), and also in order to avoid excessively large sampling variances.[11] Column F in Table 2.6 shows the distribution of the child and family characteristics in the completed sample when these weights are applied. As shown in Column G, the distributions are (with one exception) within a percentage point for all the characteristics examined.

11 The weights were truncated to one-fifth of the mean at the lower end, and five times the mean at the higher end.

2.3.4 Response to questionnaires for school principal at 13 years of age

At ages 5 years and 9 years, when children were in primary school, each child's teacher (with the consent of parents) had been asked to provide individual and classroom-level information; in contrast, school-level data were collected from the school principal. Because Cohort '08 were now aged 13 years, most, if not all, were expected to be in secondary school; therefore, only a Principal Questionnaire was completed by the school. This was the same procedure as used with Cohort '98 at age 13 years and is described in detail in Chapter 5 (Overview of fieldwork instruments and procedures) and Chapter 8 (School instrument).

School-based fieldwork began after the Christmas break in January 2022. As Cohort '08 were dispersed across Ireland, and there was a high likelihood of there being at least one ***Growing Up in Ireland*** participant in each school, Principal Questionnaires were sent to every school in Ireland. Post-fieldwork, individual participants were matched to the data collected from the corresponding Principal Questionnaire for their school. Each pupil/participant attending the same school had the same school-level information appended to their data row.

An introductory letter explaining the project was sent to the school principal along with the paper-based questionnaire and a postage-paid envelope for its return. Following the mailing of the questionnaires to the schools, repeated telephone call-backs were made over a period of eight weeks to remind and encourage schools to complete and return them.

In 2021–2022, there were 764 secondary schools in Ireland. In the course of the home-based interview, 732 schools (96% of all secondary schools in Ireland) were identified as having a ***Growing Up in Ireland*** 13-year-old. In total, 545 Principal Questionnaires were completed in the course of school-based fieldwork; 15 of those questionnaires related to schools with no ***Growing Up in Ireland*** 13-year-olds. This represents a school-level (school principal) response rate of 72%. At the level of individual participants, this equates to just over 75% of 13-year-old respondents having school-level data appended to their row in the dataset.

2.4 Conclusion

This chapter detailed the response rates and patterns of attrition up to what is now the sixth wave of data collection for Cohort '08 at age 13 years. It also noted that this is the first wave where household data collection methods were changed to telephone and web-based interviews because of the COVID-19 pandemic. While the study has maintained very high wave-on-wave response rates, it was noted that attrition is not entirely random, as would be expected based on international experience. This chapter also outlined the process undertaken to provide weights for data users to use in their analyses. Chapter 3 describes the consultation procedures and other considerations that informed the design of the instrumentation.

Chapter 3
Input into Instruments and Procedures

3.1 Introduction

This chapter describes the various inputs that were considered during the development of the instruments and procedures for the main phase of data collection with Cohort '08 at age 13 (Wave 6). It also includes a short account of the piloting phase for this wave, which is the subject of a dedicated report (McNamara et al. 2022).

3.1.1 Important note on timing of consultations

The onset of the COVID-19 pandemic inevitably caused significant disruption to the roll-out of ***Growing Up in Ireland*** fieldwork during the summer of 2020 (for the pilot) and subsequently to the roll-out of the main fieldwork, starting in summer 2021. As the consultation process had largely been completed well before the COVID-19 pandemic began in early 2020, the individuals making inputs to the survey design did so on the assumption that a full wave of 'normal', face-to-face data collection would be possible and highlighted the importance of specific topics in the context of an as-yet, COVID-free world.

The pre-pandemic input from the various stakeholders is summarised as it was first presented. Regrettably, it was not ultimately possible to incorporate as much of the original input as was hoped, given the need to alter fieldwork procedures and instruments once the pandemic was in full swing. This timing issue mostly affected input from the focus groups with young people and the Scientific Advisory Group (SAG). However, due to the study's governance structure, policy stakeholders (through the Inter-Departmental Steering Group) and the Research Ethics Committee (REC) continued to have input through the pandemic-related evolution of the survey instruments and procedures.

3.2 Consultation Process

Online and in-person consultations were conducted with key stakeholders, including academic experts, policymakers and young people aged around 13 years.

3.2.1 Focus groups

The Study Team conducted five focus groups with young people in the relevant age group. All but one of the groups were organised within a school setting (i.e. in four of the groups, all the young people in the focus group attended the same school). A mix of urban, suburban and rural catchment areas were represented. A fuller account of the focus groups is given in the corresponding pilot report for this wave (McNamara et al. 2022); however, some of the following key themes emerged:

- Digital technology use: including cyber-bullying and peer-pressure to be 'always on' (i.e. respond quickly to friends' social media posts)
- Difficulties with the transition to secondary school: losing contact with primary school friends, and adapting to multiple teachers and different subjects
- Mental health: difficulties caused by bullying or negative comparisons with the 'ideal lives' portrayed on social media; positives included being supported by friends or using technology (such as listening to music) to cope with stress
- Siblings: positives included siblings as a source of support and companionship (particularly if close in age with shared interests), but a negative effect if the 13-year-old was the oldest sibling and expected to take on a greater level of responsibility.

Efforts were made to incorporate suggestions from the young people; however, the subsequent shortening of the overall instrument meant that these had to be limited. Some examples that made the final draft were: a reworking of the questions about bullying, such that every young person would be asked about their experience of specific bullying behaviours (including cyberbullying) regardless of whether they described themselves as having been bullied; new questions about interactions with siblings; an additional measure of mental health (the five-item Mental Health Inventory (MHI-5)); and new questions about smartphone usage, including an item on feeling pressured to respond to messages or posts straightaway.

3.2.2 Scientific Advisory Group, policy stakeholders and the Steering Group

Online survey

The first stage of consultation with academic and policy stakeholders from around Ireland was via an online survey in which respondents were asked to rate the priority of specific topics on a four-point scale from 'essential' to 'low priority/no relevance'. Respondents could choose just to rate topics in their own domain of expertise, or to rate topics in multiple domains. Those domains were physical health; socio-emotional/behavioural wellbeing (including relationships); education; and socioeconomic and family context. A fifth domain of 'activities and attitudes' was later extracted into a separate category for analysis. In addition to rating pre-specified topic areas, the academic and policy stakeholders could suggest new topics with supporting references.

The survey was completed by 31 respondents from the Scientific Advisory Group and 13 policy stakeholders (with slightly smaller numbers responding to the different sections). In many cases, the policy stakeholders who completed the survey synthesised the responses of several colleagues within the department or agency, so more than this number of people actually contributed to the responses. The following paragraphs summarise the topics that received the highest priority ratings in each domain. A fuller description of the online survey can be found in the pilot report for this wave (McNamara et al. 2022).

Physical health: overall health, exercise, substance use, nutrition/diet, long-term conditions or disabilities, height and weight, and parental health

Education and cognitive development: Young Person's attitude towards school and teachers, bullying, direct assessment of academic attainment, special educational needs, and absenteeism.

Socio-emotional/behavioural well-being and relationships: the mental health of the Young Person, conditions affecting socio-emotional wellbeing and learning, self-concept, friends, and adverse life events.

Socioeconomic and family context: the highest-ranked items were material deprivation and housing. Other socioeconomic markers such as income, parental education, and family social class were also ranked as important. In the area of family context, highlighted topics were the quality of the parental relationship and parental stress or depression.

Activities and attitudes: the highest-ranked items in this section, extracted from the four other domains, related to the use of technology and access to the internet. This was followed by extracurricular activities linked to school and pastimes/hobbies.

Roundtable workshop

The members of the Scientific Advisory Group (SAG) and some additional policy stakeholders were invited to an in-person roundtable workshop in October 2019 to consider the topics arising from the online survey and to debate possible new inclusions. In many, but not all, cases these were the same individuals who had completed the online survey described above.

The first phase of the workshop was an exercise designed to highlight important criteria for evaluating items to be included in the survey. Giving weight to the voice of the child, policy relevance, and longitudinal and cross-cohort consistency for major outcome variables emerged as key considerations.

A substantial amount of material was gathered in terms of topics, and these are more fully described in the pilot report (McNamara et al. 2022). Interestingly, some of the experts within particular domains felt that the online survey had not sufficiently recognised the need to capture certain data in the ***Growing Up in Ireland*** survey: one such example was dental health, given the dearth of national data from other sources.

A summary of key topics in each domain that were highlighted by participants in the roundtable workshop (which in many areas overlaps with those identified in the online survey) follows.

Physical health: overall health, substance use, height, weight, waist circumference, sleep, dental care, sexual health, maturation, puberty, vaccination uptake, behaviours around food (including snacking and skipping meals), and head injury.

Education and cognitive development: transition to secondary school and supports for same, Young Person's choices, bullying, information and communication technology (ICT), Junior Cycle curriculum changes, school ethos, home learning environment, attendance, interaction with parent, and additional support needs.

Socio-emotional/behavioural well-being and relationships: mental health, adverse life events, the Strengths and Difficulties Questionnaire (SDQ), parental mental health, support from others (e.g. 'one good adult'), and the need to be 'always on' in relation to social media use.

Socioeconomic and family context: housing (security, changes, sharing, quality), changing family/household structures (e.g. after marriage breakdown), social pressures/support, community connectedness, and material deprivation (new measure preferred).

Activities and attitudes: participation in organised/structured activities, civic involvement, social networks, Young Person's agency, technology use and safety online, migrants' experiences, and attitudes towards gender identity and gender roles.

Policy input after the start of the COVID-19 pandemic

As noted at the beginning of this chapter, the above consultation activities took place before the COVID-19 pandemic, and the survey instruments had to be substantially altered from what was originally planned. This meant both shortening the surveys for remote fieldwork and recognising that some items (such as participation in organised activities) would be significantly affected by the pandemic. While the full SAG with policy stakeholders was not consulted again for this wave, current policy input in key areas was maintained through engagement with the existing Inter-Departmental Steering Group for the study. This group – organised by the Department of Children, Equality, Disability, Integration and Youth (DCEDIY) – included representation from key policy stakeholders such as the Department of Education and Department of Health. There was also ongoing engagement with the REC (see Section 3.4).

Despite the need to shorten and adapt the survey in light of the pandemic, the Study Team incorporated several of the suggestions raised in the above consultations with academic and policy stakeholders. Some examples include: moving some items (such as adapting to secondary school) to the Young Person questionnaires rather than the parent questionnaires in order to give greater weight to the voice of the child; introducing a new child-reported measure of material deprivation; significantly expanding sections on technology; an additional mental health measure (MHI-5); a question on human papilloma virus (HPV) vaccine uptake; and retention of dental health items.

3.3 Pilot Phase

The start of the COVID-19 pandemic necessitated substantial changes to the original proposal for piloting work. As noted earlier, an initial proposal for in-home fieldwork had been prepared and approved in winter 2019–2020. However, by March 2020, it became clear that the spread of COVID-19 would make in-home fieldwork impossible. Ultimately, the Study Team, in consultation with DCEDIY and associated governance structures, decided to roll out an adapted pilot remotely on a telephone and web basis. The focus of the pilot phase was on trialling mostly new items proposed for main fieldwork, with the expectation that other 'tried-and-tested' questions and scales would be re-inserted at the time of the main phase of data collection. In this period (summer of 2020) it had been expected that the public health situation would have improved sufficiently to return to in-home interviews by spring of 2021.

The pilot phase also included some questions for parents and Young People specifically about their experiences of the pandemic – particularly remote learning. These questions were included primarily with a view to piloting specific items for a COVID-specific online survey with this cohort (which subsequently took place in December 2020).

Ultimately, it was not feasible to conduct main fieldwork face-to-face in participants' homes. Therefore, the experience of conducting the pilot remotely was informative beyond the initial aim of trialling new questions. A full account of the pilot is presented in a separate report (McNamara et al. 2022), but some key learning points that informed procedures for the main phase were as follows:

- Advance contact with families (letters and information sheets) by email and letter simultaneously was recommended, both in order to increase the chance that the family would note the contents and also so that the family would have a hard copy of the information sheet to hand when the interviewer was subsequently talking them through the main points on the phone. This checklist of main points (in relation to consent) was also made more concise following feedback from the pilot phase.
- Overall, the feedback from the pilot phase was that a much shorter survey is required when completion is carried out over the telephone or online (in contrast to an in-home visit, where, for example, it is easier to take short breaks or switch between interviewing the parent and Young Person). This meant that not all the questions originally planned for the main phase could be incorporated.
- In the pilot phase, Young People self-completed all of their survey online. For the main phase, their survey was split between a 'main' interview over the phone and a 'sensitive' self-complete supplement online. This change was intended to respond to concerns about: (a) the overall length of the Young Person survey when combined into a single online questionnaire for self-completion; (b) facilitating greater participation by those who would have found it difficult to complete solely online; and (c) addressing the drop-off in response rates noted between the parent-completed phone interview and the Young Person-completed online survey observed in the pilot phase.
- It would not be feasible to administer a detailed vocabulary or mathematics test over the phone; only the verbal fluency test (animal naming task) was used in the main phase.

3.4 Research Ethics Committee

The ***Growing Up in Ireland*** study had a dedicated Research Ethics Committee (REC) set up by the funding department, DCEDIY. It reviewed all proposals for instrumentation and procedures in advance of each data collection phase, including pilots.

An initial proposal for in-home fieldwork was developed and approved by the REC in early 2020. Key considerations in light of the COVID-19 pandemic, for both the Study Team and the REC, were the emergency public health measures and the safety of individual staff and participants. When it became clear in March 2020 that the original plan for in-home fieldwork would not be possible for the pilot – and subsequently neither for the main phase – the REC reviewed the proposals for adaptations.

As already noted, the major adaptation in response to the pandemic – proposed by the Study Team and subsequently approved by the REC – was the shift to remote data collection by phone and web-based interviews. There were, however, related changes that had to be made, such as the exclusion of many items originally scheduled for inclusion (in order to shorten the survey length for online and telephone completion), and the addition of completely new COVID-specific questions. The unpredictability of the pandemic (such as whether Economic and Social Research Institute (ESRI) staff would be able to access the ESRI building during fieldwork to send out and receive post) also meant changes to usual procedures, such as how consent forms were completed (over the phone by the interviewer rather than a hard copy signed by parents).

In addition, it was necessary for the main phase to distribute souvenir gifts to participants by post through a third-party company approved by the Central Statistics Office (CSO). The Study Team had initially proposed entry into a prize draw for participants in order to reduce the need to send further postal communications to individual households; however, the REC requested that each individual child receive a small gift instead (in keeping with previous waves for this cohort). Other examples of changes in response to input from the REC were: a) the addition of some more positive items and, as far as feasible, a repositioning of negative items in order to avoid too many potentially mood-lowering items in one block; and b) the deferral of a survey item on gender identity until respondents were aged 17. The REC also had some useful suggestions for improving the content of the information sheets provided to participants.

An entirely new element for the REC to consider was the proposal to allow for a proxy or reduced-length interview for young people who would otherwise be unable to participate (e.g. due to illness or disability). While this proposal had been suggested by the Study Team before the pandemic, it assumed higher priority in the move to remote data collection. The proposal was approved.

3.5 Previous Waves of *Growing Up in Ireland*

As noted earlier, consistency with previous waves of data collection with Cohort '08, as well as from the older Cohort '98, was an important consideration in evaluating content items.

3.5.1 Cohort '98 at age 13

In developing the survey instruments for Cohort '08 at age 13 (Wave 6), the initial starting point was the age 13 wave for the older Cohort '98 participants. A key part of the original, cross-cohort design for ***Growing Up in Ireland*** was that overlapping ages between the two cohorts would allow for an exploration of change over time and 'period effects' – in other words, how is the world different for 13-year-olds in 2021 compared with 2011? In a simplified, ideal world, the age 13 wave of Cohort '08 would have involved repeating the instruments and procedures used for Cohort '98 at the same age. Although there was always unlikely to

be an exact replication in real life, given the need to capture data on emerging issues or changed context (such as the advances in digital technology and changes to the Junior Cycle curriculum), the onset of the pandemic necessitated moving further away from the template used for Cohort '98 at age 13 years. Nonetheless, a concerted effort was made to preserve as many of the key outcome measures as possible between the two cohorts at age 13 including, but not limited to:

- The Short Mood and Feelings Questionnaire (Young Person-reported depressive symptoms)
- The Strengths and Difficulties Questionnaire (SDQ; parent report of the Young Person's emotional and behavioural well-being)
- Interactions with teachers (Young Person's report of positive and negative feedback received from teachers, and getting into trouble at school)
- Attitudes towards core subjects (Young Person's report of whether they find English, Irish, Maths and Science 'difficult' or 'interesting')
- Parental monitoring (Young Person's report of parental monitoring of their whereabouts, who they hang out with, etc.)
- Information on sex and relationships (Young Person's report of who they would go to for information or advice on sex or relationship issues)
- Child general health (parent's report of Young Person's health in the past year)
- Health service utilisation (parent's report of number of visits by Young Person to health professionals such as a GP in the last year)
- Parental expectation for Young Person's ultimate educational attainment
- Parental work-life balance
- Household financial strain (parent's report of ease or difficulty in making ends meet).

3.5.2 Cohort '08 at age 9

As well as cross-cohort consistency, maintaining longitudinal consistency within repeated waves of the same cohort enhances the usefulness of the data. Again, the scope for repeating measures from the age 9 phase of Cohort '08 was constrained by the need to shorten the length of the survey for phone and online administration. Despite this, a number of key measures were retained for longitudinal consistency, mostly in relation to the Primary Caregiver (PCG) rather than the Study Child/Young Person. Many of these are the same items that contribute to cross-cohort consistency, such as ratings of the Young Person's health and parental health, the SDQ, expectations for the Young Person's educational attainment, parental work–life balance, and household financial strain.

In later chapters in this report, which detail the content of the questionnaires, it is noted whether questions on the current survey were also asked of Cohort '08 participants at age 9 (and/or asked of Cohort '98 participants at age 13 years).

However, as mentioned, the remote data collection process also meant that it was not possible to repeat some interviewer-administered measures that it would have been desirable to repeat from age 9 (or from Cohort '98 at age 13). In particular, these were the direct measurement of the child's height and weight by the interviewer, and a standardised test of cognitive ability. The uncertainty of access to postal returns during fieldwork also led to the decision not to implement the leave-behind time-use diary or the postal questionnaire to non-resident parents, both of which were completed on paper by the respondent and returned by post to the ESRI building in previous waves.

3.5.3 Special COVID-19 survey

In mid-2020, a decision was made to prepare for a short, additional survey of both ***Growing Up in Ireland*** cohorts in order to capture their contemporary experiences of the COVID-19 pandemic. This survey was implemented online only in December 2020. In relation to Cohort '08, there were two separate questionnaires for the Primary Caregiver and the Study Child (most of whom would have been 12 years old at the time). This was effectively the second remote data collection by online survey (after the Cohort '08 at age 13 pilot that summer 2020), but it was the first to attempt to survey the entire sample of several thousand participants, as opposed to the approximately 200 families in the pilot phase.

While the special COVID-19 survey was a very targeted set of items relating to the pandemic experiences, there were some learning points that informed the subsequent full-sample data collection during the main phase of Cohort '08 at age 13. First, in light of the evolving public health situation, the Study Team felt it would be useful to repeat some of the items in the COVID survey at what would be 9-12 months later. For some topics, this would pick up some key information – such as the availability of an adequate space to study while learning from home, or parental job loss – from participants who did not complete the specific COVID-19 survey in December 2020. For other items, such as the short measure of emotional well-being (the Mental Health Inventory, MHI-5), it would be useful to see if there had been any change in status as restrictions were eased and the vaccine programme was rolled out. Later chapters in this report, which describe the content of the questionnaires in detail, indicate which items also featured on the COVID-19 survey.

Procedures for the main remote fieldwork were informed or assisted by the COVID survey. For example, the extensive work required to update the participant database with current phone and email contact details in advance of circulating the link to the COVID survey considerably smoothed the process of contacting families about participation in the main phase just a few months later. The Study Team also observed the positive effect of evening text reminders to participants about completing the COVID survey, which was helpful in the context of reminding main-phase participants to complete their follow-up 'sensitive' survey online.

3.5.4 Cohort '98 at age 17

Although much less influential in the current wave (wave 6) than the age 13 interview with Cohort '98, in some instances where it was necessary to use shorter measures, the Study Team looked ahead to potential future longitudinal consistency with an age 17 wave with Cohort '08. One example was the introduction of the Rosenberg self-esteem measure in place of the Piers-Harris self-concept measure which had been used with Cohort '08 at age 9 (a shorter 32-item version) and with Cohort '98 at age 13 (the 60-item version). Due to severe pressure on space, a measure as long as the Piers-Harris Self-Concept Scale was simply not viable. Replacing it with the short Rosenberg Self-Esteem Scale at least opened up the possibility of added value (over another alternative) if it is repeated with Cohort '08 at age 17.

Similarly, given that the Study Team had already accepted that it would be impossible to repeat one of the previously used cognitive tests in the context of remote data collection, the use of the short verbal fluency test (animal naming task) with Cohort '08 at age 13 years (which was also used with Cohort '98 at age 17 years) leaves scope for longitudinal and cross-cohort consistency at the next wave; given that the Study Team had already accepted it would be impossible to repeat one of the previously-used cognitive tests in the context of remote data collection. The Study Team did a small, in-house trial of whether the paper-based vocabulary test used at age 17/18 years with Cohort '98 might be administered over the phone.[12] However, this trial highlighted several practical difficulties, even with a very small sample. Such difficulties

[12] A detailed description of the vocabulary measure used with Cohort '98 at age 17/18 years can be found in the design report for that wave (Murphy et al., 2019) www.growingup.ie/pubs/20190531-Cohort98-at-17-report-2019-5.pdf

included misunderstanding the pronunciation of target words over the phone when the subject could only hear rather than see the word spelled out (e.g. the target word 'seethe' could easily be misheard as 'seed' over the phone, in which case the multiple choice options for a word with similar meaning appeared to make no sense). In contrast, the implementation of the semantic verbal fluency test (animal naming task) – in which the respondent calls out as many animal names as they can think of in one minute - was entirely oral/aural in both the face-to-face and phone interview settings.

3.6 Other Studies

By this sixth wave of data collection for Cohort '08 (seventh wave if counting the special COVID-19 survey), many of the survey items that were included had been previously used in earlier waves of ***Growing Up in Ireland***, as described in the preceding section. However, many of those items originally came from, or were inspired by, similar questions in other cohort and household studies. While the focus is now on consistency within and between waves of ***Growing Up in Ireland*** data, drawing on the experiences and content of other surveys has a number of advantages, such as the scope for comparing data internationally, benefitting from the pilot testing of items that has already been carried out by other studies, and identifying worthy topics of exploration that might not otherwise have come under consideration. A brief acknowledgment of those principal comparison studies follows, although this is not an exhaustive list of the sources considered by the Study Team:

- Growing Up in Australia (also known as the Longitudinal Study of Australian Children) – growingupinaustralia.gov.au
- Growing Up in Scotland – growingupinscotland.org.uk
- Growing Up in New Zealand – www.growingup.co.nz
- Millennium Cohort Study (UK) – cls.ucl.ac.uk/cls-studies/millennium-cohort-study
- National Longitudinal Survey of Children and Youth (Canada) – crdcn.org/datasets/nlscy-national-longitudinal-survey-children-and-youth
- Avon Longitudinal Study of Parents and Children (Bristol area of the UK; also known as Children of the 90s) – www.bristol.ac.uk/alspac
- 1970 British Cohort Study (UK) – cls.ucl.ac.uk/cls-studies/1970-british-cohort-study
- Health Behaviour in School-aged Children (HBSC; multi-national, including an Irish branch) – www.nuigalway.ie/hbsc
- My World Survey (Irish national study of youth mental health) – myworldsurvey.ie
- Central Statistics Office (Irish office of national statistics; runs the Irish Census, other household surveys and, most recently, COVID-specific surveys) – www.cso.ie/en/index.html

Furthermore, as the COVID-19 pandemic started to affect fieldwork internationally, ***Growing Up in Ireland*** participated in an informal network with other cohort studies in order to share ideas and experiences of adapting to remote data collection. This real-time engagement with studies facing similar challenges to those of the Study Team was very helpful in promptly developing workable protocols in a short time frame and an uncertain public health context. In addition, many of the studies who were also planning COVID-specific surveys were kind enough to share their draft questionnaires with the ***Growing Up in Ireland*** team or had already made them publicly available. These included the Wellcome Trust-led consortium of several of the UK cohort and panel studies: Born in Bradford; Eurofound; the UCL Centre for Longitudinal Studies, Understanding Society and (in Ireland) the Central Statistics Office (CSO).

3.7 Literature Review

The Study Team complemented the specialist input from the various consultation fora with their own review of the literature. In the original planning for the age 13 wave of Cohort '08, the Study Team undertook a targeted literature review of key areas where substantial change was anticipated to have occurred since Cohort '98 were interviewed at that age (in 2011). A synopsis of this review is included in the pilot report for this wave (McNamara et al. 2022), but the main areas identified are described in the following paragraphs.

Junior Cycle reform: In recent years there have been significant changes to the curriculum, teaching, learning and assessment at junior cycle level (Department of Education & Skills, 2015), with second-level entrants in the school year 2019/20 being the first to experience the full complement of revised subjects.

Activities: It was felt that the scope of structured and informal activities available to adolescents had potentially broadened considerably in the last decade. While the literature in this area was reviewed with a view to extending data collection on this topic, the onset of the COVID-19 pandemic resulted in a curtailment of many activities. This, coupled with pressure on space in a shorter survey, meant the area was ultimately not expanded in the questionnaire.

Online activities: The home technology landscape had expanded in the decade since Cohort '98 were aged 13 years, and online activities were – as it turned out – a potential growth area during the pandemic.

Physical activity and diet: Although it meant sacrificing cross-cohort consistency, a review of the current World Health Organization (WHO) physical activity guidelines suggested that a reframing of the reference period in the questions about amount of physical activity would be necessary.

Thirteen-year-olds' perception of deprivation: Analysis of previous waves of ***Growing Up in Ireland*** data suggested that the existing instrument could be underestimating material deprivation. This issue also arose as part of the roundtable discussions with the Scientific Advisory Group. The Study Team therefore explored some possibilities for an alternative measure that would capture material deprivation as perceived by the 13-year-olds (rather than using the parent-reported deprivation at household-level). An alternative child-reported measure was included in the final survey.

These five main areas for review in anticipation of developing the corresponding areas in the questionnaire were supplemented as necessary by focused consultation of the literature for other specific topics. As the COVID-19 pandemic developed, this included a wider reading of methodological issues associated with remote interviewing and changes in mode (although the change to remote data collection in this instance was driven by the need to safeguard the health of staff and participants). A further discussion of the potential for mode effects is contained in the summary chapter of this report (Chapter 9) and in the associated pilot report for this wave (McNamara et al. 2022).

3.8 Summary

A multidisciplinary, multi-cohort, longitudinal study such as ***Growing Up in Ireland*** endeavours to meet demands for high-quality data from a wide range of academic and policy stakeholders. In order to best meet current and future expectations for the study, each new wave is preceded by a detailed round of in-person consultations and reviews of published material. At this particular wave, there was a need to maintain a degree of longitudinal consistency with previous waves of data collection from Cohort '08 participants and cross-cohort consistency with the data collected from Cohort '98 participants when they were aged 13.

While this exercise would have been complex enough, the COVID-19 pandemic struck just before piloting of this wave which ultimately meant conducting both pilot and main phase data collection remotely. Therefore, substantial adaptations to both content and procedures were needed at what would normally be considered a very late stage in the process for revisions. This meant that not all the planned content that was identified as a result of the various initial consultations and inputs could be included.

Chapter 4
Relevant Legislation and Ethical Considerations

4.1 Introduction

The importance of ethics in research is central to a study such as ***Growing Up in Ireland***, given the focus on the well-being of children and young people. This chapter summarises the pertinent parts of the relevant legislation and summarises the way in which ethical guidelines were put into practice. A short description of the role of the Research Ethics Committee (REC) is also given. The primary concern at all times is the protection of child and youth participants in the study. Procedures relating to child protection are informed by *Children First: National Guidance for the Protection and Welfare of Children* (Department of Children and Youth Affairs, 2017). The Child Safeguarding Statement for the study was reviewed and put in place before the start of fieldwork. All interviewers, as well as other staff working on ***Growing Up in Ireland***, were security vetted by An Garda Síochána (the Irish police force) which included identity verification. A full module on ethics was included in the interviewers' training course, as was the case in previous waves.

4.2 Relevant Acts

Six Acts are of particular relevance for ***Growing Up in Ireland***: the Statistics Act, 1993; the Children First Act 2015; the Data Protection Act, 1988; the Data Protection (Amendment) Act 2003; the Data Protection Act 2018; and the Health Research Regulations 2018.

4.2.1 Statistics Act, 1993

Growing Up in Ireland is conducted within the framework of the Statistics Act, 1993. This is the legislation underpinning the work of the Central Statistics Office (CSO). ***Growing Up in Ireland*** survey data are collected under Section 24 of the Act. While the Act facilitates access to certain data sources for the purposes of the study, the most important implication is that it provides a strong legal basis for the protection of all data collected against their unlawful disclosure. Under the Act, all information collected must be treated as strictly confidential and used for statistical purposes only. All persons working on the study were appointed Officers of Statistics. As such, they were legally obliged to maintain the confidentiality of all information obtained directly in the course of the study.

4.2.2 Children First Act 2015 and *Children First: National Guidance for the Protection and Welfare of Children*

The Children First Act 2015 was enacted on 19th November, 2015 and commenced in full on 11th December 2017. The Act is designed to raise awareness of child abuse and neglect and to ensure an appropriate response to it. The Act places a number of statutory obligations on specific groups of professionals and on particular organisations providing services to children.[13] *Children First: National Guidance for the Protection and Welfare of Children* (Department of Children and Youth Affairs, 2017) sets out the steps that should be taken to ensure that a child is protected from harm. ***Growing Up in Ireland*** has developed and updated its Child Safeguarding Statement, in consultation with the Child Safeguarding Statement Compliance Unit in Tusla, the Child and Family Agency. This is a written statement that specifies

[13] https://www.tusla.ie/children-first/children-first-guidance-and-legislation/

the relevant work being carried out by the ***Growing Up in Ireland*** Study Team and interviewers, and the measures taken to ensure, as far as practicable, that a child engaging with the organisation is safe from harm. It includes a risk assessment detailing the procedures in place to manage potential risks to a child's safety. It is published on the study's website, www.growingup.ie.

The study's policies and procedures relating to child protection are set out in Child Safeguarding – Guiding Principles and Procedures, which is regularly reviewed. These policies and procedures have been, and will continue to be, informed by *Children First: National Guidance for the Protection and Welfare of Children*, in order to ensure that best practice is implemented in recognising and responding to potential signs of harm in children and young people.

4.2.3 Data Protection Acts

The purpose of the Data Protection Acts (namely the Data Protection Act, 1988; the Data Protection (Amendment) Act 2003; and the Data Protection Act 2018) is to clarify the rights of persons with respect to the processing of personal data concerning them. ***Growing Up in Ireland*** involves large-scale processing of personal data, i.e. data relating to identifiable living persons. The processing concerns a large number of individuals, with large quantities of specific data about individuals, including special categories of personal data. It also involves processing such data over a long period of time, as well as processing pseudonymised personal data by external researchers, some of whom may reside outside Ireland and/or outside the European Union (EU).[14]

Data Controllers and Data Processor

At the time of the age 13 wave, the Department of Children, Equality, Disability, Integration and Youth (DCEDIY) and the CSO were the study's joint data controllers.[15] The Economic and Social Research Institute (ESRI) was the study's data processor. On completion of the study, all data (including the respondent contact data) were transferred from the ESRI to the CSO, which will be their custodian on behalf of the State.

The data controllers are responsible for developing and updating the Respondent Privacy Notice (see Appendix A) and managing all data subject requests and data breaches.

4.2.4 Health Research Regulations 2018

These regulations give effect to Section 36(2) of the Data Protection Act 2018, allowing for additional regulations to specify requirements when processing data of a particularly sensitive nature (such as health data). Since ***Growing Up in Ireland*** collects data on health and other sensitive topics, the Study Team ensured that the requirements of the Health Research Regulations 2018 were followed. In particular, the data collection is conducted with the consent of the respondents and this consent is explicit and informed.[16]

[14] Only the Anonymised Microdata File (AMF) is available to researchers outside of Ireland.
[15] Since January 2023, the Growing Up in Ireland survey is conducted exclusively by the CSO.
[16] In this context, consent is a safeguard to protect the rights of data subjects. It is not the legal basis for the data collection.

4.3 Ethical Considerations

Apart from the legal issues related to data protection and confidentiality, several ethical principles are applied when conducting the ***Growing Up in Ireland*** study, in line with best practice in research. Since the study involves contact with children and young people, several special procedures were adopted in order to avoid harm to these vulnerable participants.

4.3.1 Informed consent

Detailed information sheets were prepared for participants in the study, including parents and young people. These sheets described the type of information that would be gathered, what would be involved for participants, and the longitudinal nature of the study, as well as details on the researchers and funding bodies. All participants were informed of the voluntary nature of the study and of their right to refuse to answer any questions that they did not wish to answer. All relevant families were sent a pack containing a hard copy of the information sheet and an accompanying letter; where a valid email address was available, they were also sent soft copies of both documents. Additional material about the study, including a set of infographics highlighting some previous findings and a video about taking part in the study, were either included with the pack or were made available on the growingup.ie website for participants to browse at their leisure.

While the initial, pre-pandemic plan was for a hard copy consent form to be signed by the Primary Caregiver (PCG) (and an assent form to be signed by the 13-year-old), the switch to remote data collection due to the COVID-19 pandemic required a new procedure. In this new procedure, the interviewer talked through a 'consent checklist' with both the PCG and the Young Person (separately) over the phone and asked for confirmation of consent verbally. The interviewer then recorded their own signature against the checklist to confirm that consent had been received. The consent checklist and a copy of the information pack sent in advance to households is provided in Appendix A.

4.3.2 Reporting concerns regarding risks to children

Interviewers were instructed to report all events that caused them concern during the course of their work to the Study Team using an Incident Report Form, especially with regard to the protection of children or other vulnerable persons. All reported incidents were considered and acted upon as necessary. Interviewers were provided with an out-of-hours emergency phone number to contact a senior member of the Study Team if they had an urgent concern.

The Study Team's Designated Liaison Person collated all incoming reports or incidents that could have a Child Welfare or Child Protection dimension. These were considered by a standing committee comprising the Designated Liaison Person, the Survey and Data Manager, the Principal Investigator and the Research Team Leader. This process was carried out following the steps outlined in *Children First: National Guidance for the Protection and Welfare of Children* (Department of Children and Youth Affairs, 2017).

4.3.3 Confidentiality

Confidentiality is an important ethical principle in conducting research. In the case of ***Growing Up in Ireland***, it also has a legal grounding in the Statistics Act, 1993. As noted in Section 4.2.1, interviewers and other staff working on the study were appointed Officers of Statistics by the CSO. This imposes a legal obligation to maintain the confidentiality of all information obtained directly in the course of the study. Under the Statistics Act, 1993, a breach of confidentiality is a criminal offence. At interviewer training it was

emphasised that not all breaches of confidentiality may be malicious in nature. Many breaches can occur as a result of thoughtless or careless comments made to third parties after the interview has been completed.

The survey data were pseudonymised and were never stored with the respondent contact details. Only a limited number of key staff had access to both the survey data and the respondent contact details. Great care was taken to remove any identifying information from the archived datasets, which are made available only to bona fide researchers. No Government department or agency outside the ***Growing Up in Ireland*** study has access to identifiable information. All study data, including survey data and respondent contact details, were transferred to the CSO at the end of 2022 on completion of the contract with the ESRI. In addition, the following steps were taken to ensure the confidentiality of information given as part of ***Growing Up in Ireland***:

- Numerical codes were used on all electronic questionnaires and any associated paper documents.
- Passwords and usernames were used on laptops.
- Laptops were 'stripped-down' to prevent inadvertent connection to a wireless network, and hard disk encryption of the laptops was used.
- All laptops used by interviewers for telephone interviews were encrypted.
- All electronic information that was transferred by interviewers to a dedicated secure server in the ESRI was encrypted.
- The CSO's secure data collection platform and servers were used for the administration of the online, self-complete questionnaires by participants on their own devices.
- The Statistics Act, 1993 ensures that the information obtained can only be used for purposes of statistical compilation and analysis.
- Respondents will only be able to access the information that they have provided about themselves. No individual will be able to see another person's answers, even if that person has recorded details in respect of the individual in question; for example, one parent will not be able to access what the other parent has recorded in their interview regarding both parents' 13-year-old, nor will they be able to access what the Young Person says in their interview. However, 13-year-olds were informed that it was possible that a parent might make an application to the Data Protection Commissioner to see their child's data. Both the parents and young people were also informed that if an interviewer witnessed or was told something, outside of the survey itself, that made them concerned for a child's welfare, the interviewer may have to tell someone about it.

4.3.4 Avoidance of embarrassment/distress

Proactively avoiding the possibility of causing embarrassment or distress started with the design of the survey instruments and protocols. Questions that had the potential for greater sensitivity were reserved for the self-completion part of the interview, which was conducted online. A pilot was conducted in advance of the main fieldwork and those participants were given the opportunity to provide detailed feedback on their experience (including the content of the instruments).

During fieldwork, the importance of maintaining confidentiality both within and outside the home was emphasised to interviewers. Furthermore, it was made clear to respondents at the outset that they could refuse to answer any particular questions, or indeed withdraw from the interview altogether if they so wished. Interviewers were prohibited from getting involved in any family issues or giving advice, regardless of any qualifications or experience they may have had in such matters. Interviewers were, however, provided with a list of helpline numbers for a variety of agencies (separate lists for the parents and young people). These were posted to all families with their information packs and were also posted on the study website.

4.3.5 Research Ethics Committee

The data collection instruments and protocols for Cohort '08 at age 13 years (for both the pilot and main fieldwork) were reviewed by the dedicated, independent Research Ethics Committee (REC) set up by DCEDIY. This included a review of the adaptations needed (compared to the original, pre-pandemic proposal) to switch from in-home interviewing to remote data collection by phone and online. A further description on the input from the REC is contained in Chapter 3: Input to Instruments and Procedures.

4.3.6 Special considerations arising from the COVID-19 pandemic

The logistical adaptations to the onset of the COVID-19 pandemic prior to fieldwork are discussed in detail elsewhere in this report. In terms of the ethical considerations, the pandemic meant an increased focus on the health and safety of both staff and participants. The move away from in-home interviews to telephone and online-only data collection was obviously the principal mechanism for protecting people from infection as a result of their involvement in the study.

In addition, interviewers were trained entirely remotely rather than attending in-person training in the ESRI building. The ethics and child welfare modules during training were adapted to reflect the new mode of interaction with participants: for example, in talking through potential scenarios, interviewers were reminded that even though they would no longer be in a position to observe something of concern in a household, there was still a possibility that a Young Person or parent might make a spontaneous disclosure while speaking to them on the phone.

The uncertainty around access to the ESRI building during fieldwork meant that some traditionally paper-based elements of data collection were excluded for this wave. These elements were principally the time-use diary and the non-resident parent questionnaire. The Study Team were concerned that a strict lockdown during fieldwork, where access to the ESRI building was entirely prohibited, could mean the possible accumulation of returned, completed paper-based questionnaires that could not be collected by staff. The need for the postal dispatch or return of paper documentation with interviewers was minimised by moving to the use of electronic forms.

4.4 Summary

Even in the context of the COVID-19 pandemic, the usual ethical considerations for fieldwork – such as maintaining confidentiality and avoiding harm to participants – applied as much to remote data collection as to in-home interviewing. A robust protocol for dealing with any child protection concerns was put in place, as for previous waves. The Study Team were conscious of their legal obligations under the various Acts described in this chapter. All instruments and procedures were reviewed and approved by a dedicated REC prior to the commencement of fieldwork.

Chapter 5
Overview of Fieldwork Instruments and Procedures

5.1 Introduction

As discussed in Chapter 1, all data collection fieldwork for Wave 6 of ***Growing Up in Ireland*** with Cohort '08 (at age 13) was conducted remotely. There were three distinct phases to data collection at this wave: the main phase, which was conducted via telephone interview; the self-complete phase, which was conducted via online survey; and the postal school-based phase. The main phase involved a telephone-based interview with the 13-year-old, the Primary Caregiver (PCG) and, where relevant, the Secondary Caregiver (SCG), during which the main questionnaires were completed. The self-complete phase involved the completion of a web-based self-complete (previously referred to as 'sensitive') questionnaire, again completed by the 13-year-old, the PCG and, where relevant, the SCG. The school-based phase involved posting questionnaires directly to all 13-year-olds' school principals with a view to analysing school-level effects on the Young Person.

This chapter details the general fieldwork procedures and instruments used with Cohort '08 Wave 6 of the ***Growing Up in Ireland*** study. Remote fieldwork is summarised in Section 5.2. The timing of fieldwork (Section 5.3) and contacting the family (Section 5.4) are also discussed. Interviewer-administered and self-complete procedures for the main questionnaires and self-complete questionnaires are discussed in Section 5.5 and Section 5.6, respectively. Special procedures are described in Section 5.7. The purpose of this chapter is to provide a broad overview of the various levels of instrumentation and their administration, while full details of substantive content are provided in subsequent chapters. The detailed content of the questionnaires for the PCGs/SCGs, Study Young People, and school principals is described in Chapters 6, 7, and 8, respectively.

5.2 Remote Fieldwork and Family Participation

The respondents in the family home were, in all cases, the PCG, the 13-year-old, and, where relevant, the SCG. The PCG was self-defined by the family as the person who provided the most care to the 13-year-old and was most knowledgeable about his/her development. The PCG was usually the mother of the 13-year-old. The SCG was defined as the resident spouse/partner of the PCG. The SCG was most often, but not necessarily, the father of the 13-year-old. Changes in role between the PCG and SCG between waves, or transitions to a new PCG and/or SCG, were anticipated. This had implications for the use of forward feed data, as data provided by one respondent could not be revealed to another respondent.

The main interviews with the PCG, SCG and 13-year-old were administered by the interviewer over the telephone using a Computer-Assisted Telephone Interview (CATI) on the interviewer's laptop, while more sensitive questions were self-completed by the respondents in a Computer-Assisted Web Interview (CAWI), at a time of their choosing, on their own electronic device (i.e. a laptop, smartphone, tablet, or personal computer).

The following is a list of all instruments administered to the family, and the main domains therein:

- **PCG Main Questionnaire*** – Household composition; COVID-19 experiences; 13-year-old's health and disabilities; Primary Caregiver's health; 13-year-old's emotional health and well-being; education and school; Internet and screen time; family relationships and context; housing and socio-demographic background; household income; background characteristics; and neighbourhood and community characteristics.
- **PCG Self-Complete Questionnaire*** – Couple relationship; parental stress; weight; alcohol; smoking and other substance use; emotional well-being; talking about sexual health with child; information on non-resident parent (if relevant); and pregnancy (if relevant)
- **SCG Main Questionnaire** – COVID-19 experiences; caregiver's health; Internet and screen time; family relationships and context; housing and socio-demographics, background characteristics
- **SCG Self-Complete Questionnaire** – Couple relationship; parental stress; weight; alcohol; smoking and other substance use; emotional well-being; talking about sexual health with child; and pregnancy (if relevant)
- **13-year-old Main Questionnaire*** – Activities and time at home during COVID-19 pandemic-related restrictions; Internet and screen time; school and education; parental supervision and discipline; chores, food and self-care; things the Young Person can have or do; feelings; and siblings and friends
- **13-year-old Self-Complete Questionnaire*** –Sources of information on sex/relationships; sexual orientation and puberty; antisocial behaviour; mental health; bullying; cigarettes, alcohol, and other substances; parenting style; height and weight; and aspirations
- **Questionnaire Modules for Twins and Triplets** – subset of questions used where a twin or triplet of the 13-year-old was present
- **13-year-old Short Questionnaire** – subset of main questionnaire for 13-year-olds completed by the 13-year-old (potentially with the assistance of the PCG)
- **13-year-old Proxy Questionnaire** – subset of main questionnaire for 13-year-olds completed by the PCG with or on behalf of the 13-year-old.

* These core items were completed for all households.

As noted previously, detailed descriptions of all instruments are provided in the following chapters:

- Chapter 6: Primary and Secondary Caregiver instruments
- Chapter 7: 13-year-old instruments
- Chapter 8: School instrument.

5.3 Timing of Fieldwork

The timing of interviews with families was staggered so that Young People who were not expected to transition to secondary school until September 2021 (based on their year group in previous waves) were scheduled for interview later. This protocol was designed to maximise the likelihood that they would be in secondary school at the time of interview, and that data could be collected on how they got on with their transition. Telephone interviewing (CATI) began in July 2021, and web-based interviewing (CAWI) began in November 2021. Fieldwork concluded in May 2022. COVID-19-related circumstances and restrictions during fieldwork are discussed in sections 1.1–1.3 of this report.

5.4 Contacting the Family

As at previous waves of the study, all families received an introductory information pack (Appendix A); this represented the first notification from the Study Team of the upcoming wave of fieldwork. The information pack included an introductory letter (addressed to the individual who was identified as the PCG in the last wave (Wave 5) of the study), information sheets for the PCG and the 13-year-old, infographics for showing findings from earlier waves of the study, and a list of support services for both the PCG and the 13-year-old. These documents were posted in advance of the interviewer's first contact with the family. Where an email address was available, PCGs were also sent an advance email informing them of the upcoming wave. This was followed by a telephone call from the interviewer (in place of the initial face-to-face contact used at previous waves) to explain the survey to the respondent, and arrange an appointment to complete the telephone interviews.

At the beginning of the scheduled telephone interview, the interviewer received verbal consent (from the PCG) and assent (from the 13-year-old) for their participation in data collection for Wave 6. The interviews could only begin after consent and assent were received and recorded by the interviewer on their laptop. The consent process is discussed in more detail in Section 4.3.

5.5 CATI Procedure

For this wave of the study, interviewers administered the main questionnaires via Computer-Assisted Telephone Interviewing (CATI). As was the case in all previous waves of the study, the questionnaires were pre-programmed using a software application called Blaise®. This programme facilitated the routing of questions (e.g. skipping non-applicable questions) and the inclusion of hard and soft cross-variable and range checks to alert interviewers to improbable or impossible answers. Questions appeared on the computer screen for the interviewer, sometimes with additional clarification instructions just for the interviewer, who then read them out for the participants and noted their answers on the laptop. Answers were principally recorded by entering the number associated with the selected answer option (e.g. 1 = Excellent, 2 = Very good, etc.), although there was scope to record open text where necessary (e.g. interviewee's occupation).

At previous waves when interviews were conducted in-person, respondents were given prompt cards with the available answer categories (this was particularly important for longer lists of answer options or items

in a scale). However, this was not possible with remote data collection. Instead, questions were either shortened or simplified during the study design phase for ease of interpretation by the participant.

Interviews could be suspended and returned to at a later time, depending on the requirements of the participants. For example, if an unexpected visitor called to the house during an interview, the interview could be suspended and completed later. However, once individual questionnaire tabs were completed, they were locked down and could not be reopened, and as soon as a household interview was marked as fully completed and uploaded to the Economic and Social Research Institute (ESRI) server, it was remotely deleted from the interviewer's laptop.

Completed interviews were outputted from Blaise® as ASCII files and were encrypted and uploaded to a dedicated server at ESRI headquarters by the interviewer. The files in transit did not include any structure or layout map (although the data were themselves structured). The structure of the data was rebuilt when the data reached either the interviewer's laptop or the server at headquarters dedicated to the return of completed questionnaires. This means that even if an encrypted ASCII file were to be intercepted during transport (which was highly unlikely), its content would not be interpretable. The contents could be interpreted only after the data were decrypted and read into the appropriate application on either the interviewer's laptop/device or on the dedicated ***Growing Up in Ireland*** server located in the ESRI building. As well as encryption of the data in transfer, all of the laptops were protected with 256-bit encryption.

5.5.1 Cognitive test

A cognitive test assessing semantic verbal fluency test (also referred to as an animal naming task) was administered by the interviewer to the Young Person over the telephone after they had completed the Main Questionnaire. The test involved naming as many animals as possible in one minute; the interviewer timed the test and recorded the 13-year-old's score. A full description of the test is provided in Section 7.2.11.

5.6 CAWI Procedure

At previous waves of the study (where interviewers visited the family home), the self-complete questionnaire was completed while the interviewer was present in the home. However, as all fieldwork was being conducted remotely for this wave (Wave 6) of the study, self-complete questionnaires were completed online by respondents, after the main questionnaire had been conducted with the interviewer over the telephone. The link for the self-complete web-based questionnaire was made available on the ***Growing Up in Ireland*** website and in reminder emails sent to respondents. The web-based questionnaire could only be accessed using a unique survey access key. Participants were only given their unique codes to access their online questionnaire when the telephone interview was completed. Due to the sensitive nature of the questions in the self-complete questionnaire, PCGs were asked to give specific consent for the Young Person to complete this part of the survey. If no consent was given, the interviewer did not give the CAWI survey link and access key to the Young Person.

Due to a technical issue during fieldwork, however, the online survey (CAWI) was offline for a period of time. During this outage, a full review of the procedures and the information technology (IT) system used was conducted and some minor changes in procedure were made; these are outlined as follows:

- Prior to the outage, the interviewer gave all the access keys (10 characters) to the PCG over the phone as soon as the main telephone interviews were completed, and the PCG passed them on to the SCG and the Young Person.
- During the outage, participants had to wait for access until the issue was resolved. When the online survey became available again, the PCG and SCG access keys (extended to 12 characters) were

posted directly to them. The Young Person access key was sent in a sealed envelope within the PCG letter. For some families, there was a delay of several weeks between completion of their telephone interview and receiving the access code to the self-complete online module.

- After the outage, the interviewer provided each individual (the PCG, SCG, and 13-year-old) with their own 12-character access key over the phone at the end of their initial interview.

Regular email and text reminders were sent to PCGs to encourage them and/or the 13-year-old to complete the CAWI. Reminders were sent directly to SCGs to encourage them to complete their own CAWI. Where email reminders did not lead to a completed CAWI, interviewers telephoned the PCG/SCG to further remind them to complete the web-based questionnaire.

Each access key could only be used once; participants could not partially complete their questionnaire online and return to finish it at a later date. They were also unable to go back and change answers to already-completed items. Once the self-complete questionnaire was finished and submitted, it was 'locked down' and could not be accessed by anyone except the Central Statistics Office (CSO), until those data were transferred securely back to the Study Team in the ESRI for preparation and analysis.

5.7 Special Procedures

Growing Up in Ireland aims to be as inclusive and as representative as possible. Putting special procedures in place to achieve a high level of inclusion is important in order to achieve the study objectives relating to the description of the lives of Irish children and young people, mapping variation in their lives, and providing an evidence base for the creation of policies and services. In addition, some modifications to other elements were necessary for remote data collection.

5.7.1 Physical measurements

All respondents were asked to self-report their height and weight. Interviewers notified respondents about the requirement to provide these measurements during the telephone interview, advising them to record their height and weight in advance of completing the web-based questionnaire. Parents were encouraged to assist the 13-year-old with the measurements, if necessary. The information was recorded on the respective CAWI questionnaires for the PCG, SCG and Young Person. Respondents had the option to provide these measurements using either the metric (kilograms/metres) or imperial (pounds/feet and inches) system, or to provide estimates if they were unable to take measurements.

At previous waves of the study, height and weight measurements were taken by the interviewer during the home visit, but this was not possible through remote data collection. The decision to collect self-reported physical measurements instead brought with it several potential limitations. Numerous studies have noted that participants who self-report their physical measurements tend to slightly over-report their height and under-report their weight, subsequently underestimating their body mass index (BMI) (Merrill & Richardson, 2009; Olfert et al., 2018; Hodge et al., 2020). In these studies, underestimation of BMI tended to be greater among females and those in older age ranges. However, absolute differences remained small, meaning that self-reported height and weight could be used to calculate BMI reasonably accurately for weight classification purposes.

5.7.2 Short and Proxy Questionnaire

Every effort was made to accommodate those requiring special assistance. If, for any reason, the Young Person was unable to complete the full Main Questionnaire, there was scope for them to complete a short questionnaire, or for their PCG to complete a proxy questionnaire on their behalf. The Short Questionnaire

was a shortened version of the 13-year-old Main Questionnaire and could be completed with the help of a parent.

If the 13-year-old was unable to complete either the main or short questionnaires due to a disability, their PCG was given the option to complete the proxy questionnaire with, or on behalf of, their child. This questionnaire was a subset of the 13-year-old Main questionnaire and was administered by the interviewer over the telephone.

The short or proxy questionnaires were only administered with the Young Person's assent; they could not be conducted where the 13-year-old did not wish to participate. Ultimately, however, the decision of whether the 13-year-old was to be included in the study, and the extent of their involvement, rested with their PCG. Interviews completed by proxy are clearly identified as such in the data. Further details on these questionnaires are provided in Section 7.3.

5.7.3 Other languages

As standard, all CATI and CAWI questionnaires were conducted in English, with an option to conduct the whole interview in Irish if requested. While special arrangements were made to facilitate the completion of questionnaires in other languages (e.g. Lithuanian, Chinese, Polish) in previous waves of the study, this was not feasible with the CATI and CAWI modes of data collection at this wave.

5.7.4 Twins and triplets

In households where there were 13-year-old twins and triplets (including the Young Person), the adult respondents completed a PCG and SCG main interview through the CATI and answered the 13-year-old-related questions in respect of one of the twins or triplets. They then completed a twin/triplet module through the CATI for the second and/or third 13-year-old. The latter modules repeated only the child-related questions, this time to be answered in relation to the twin or triplets. A copy of this questionnaire is provided in Appendix B.

5.8 Gifts to Respondents

As a token of appreciation for participation in ***Growing Up in Ireland***, each 13-year-old was given a small gift of a notebook and pen, along with a printed certificate to mark their participation. These were posted directly to respondents. Gifts were mentioned and offered only after the interview had been completed.

5.9 Other Instruments

While this chapter focused on the instruments and procedures relating to the home/family for this wave of fieldwork, there were other elements to the data collection for Wave 6 of the study. As with previous waves of ***Growing Up in Ireland*** when respondents were in school, a survey of school principals was included in order to gather information on the characteristics of the school (such as size and student composition), as well as on aspects of school policy and practices. The was posted out to the school as a paper-based questionnaire; it is described in detail in Chapter 8.

Chapter 6
Primary and Secondary Caregiver Instruments

6.1 Introduction

This chapter describes the topics covered in the Primary and Secondary Caregiver questionnaires used in the main phase of data collection for Cohort '08 at Wave 6 (13 years) of ***Growing Up in Ireland***. Appendix B contains the full text of the questionnaires. The core instrument administered was the Primary Caregiver (PCG) Main Questionnaire. In the case of 13-year-olds, the Primary Caregiver (PCG) was predominantly the mother. The other parent questionnaires were the Secondary Caregiver (SCG) Main Questionnaire (typically administered to the father of the 13-year-old), and both the Primary Caregiver and Secondary Caregiver self-complete questionnaires. The Primary Caregiver main questionnaire and the Secondary Caregiver main questionnaire were administered via Computer-Assisted Telephone Interviewing (CATI) while the self-complete questionnaires were self-completed via Computer-Assisted Web Interviewing (CAWI).

In this chapter, each questionnaire section is tabulated in order to summarise the content and to indicate whether measures and/or topics had been included in previous waves of the Cohort '08 survey, or, with respect to questions about experiences of the COVID-19 pandemic, in the special survey. These tables indicate the continuation of a general topic but this does not necessarily mean that the same specific questions were repeated. The discussion will focus on new questions not previously used by ***Growing Up in Ireland*** (for either Cohort '08 or Cohort '98). Extensive detail on questions previously employed can be found in the associated design reports for previous waves of the study.

6.2 Overall Structure of the Primary Caregiver (PCG) Main Questionnaire

The Primary Caregiver Main Questionnaire has 11 broad sections, as follows (the questionnaire is provided in Appendix B1):

- Section A: Household composition
- Section B: 13-year-old's health and disabilities
- Section C: Primary Caregiver's health
- Section D: 13-year-old's emotional health and well-being
- Section E: Education and school
- Section F: Internet and screen time
- Section G: Family relationships and context
- Section H: Housing and socio-demographic background
- Section J: About you
- Section K: Neighbourhood and community
- Section Z: COVID-19 experiences.

6.2.1 Section A: Household composition

This section collected important demographic information on all household members. This included the first name,[17] gender, date of birth (or age if date of birth was not available), economic status, and relationship to the PCG and 13-year-old of each resident in the household. This section was also used to record those who had joined or left the household since the last interview.

Section A	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Household composition	Household composition and family structure (including family changes)	A1–A19	X	X	X
	Siblings living outside the household	A20–A22	X	X	X

These variables are essential in order to establish family structure, household composition and relationships (e.g. number of siblings, one-parent versus two-parent families). Such variables are also required in order to create key derived measures such as family type (one- or two-parent) and equivalised income. These questions were administered in all previous waves of ***Growing Up in Ireland***.

17 To maintain confidentiality, surnames were not recorded.

6.2.2 Section B: 13-Year-Old's health and disabilities

Questions in this section seek to gather information on general health matters pertaining to the Young Person (13-year-old) and any specific illnesses and conditions that they may have.

Section B	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
13-year-old's health and disabilities	Current health	B1	X	X	X
	Chronic physical or mental health problems, illness or disability	B2–B6	X	X	X
	Resources and supports	B7–B11			X
	Hospital admission, emergency department and accidents	B12–B14	X	X	X
	Frequency of contact with healthcare professionals	B15	X	X	X
	Dental health	B16–B21	X	X	X
	Diet	B22–B24	X	X	
	Distance to school and means of transport	B25–B26		X	X
	Human papilloma virus (HPV) vaccine	B27			

B1: Current health

A self-reported or parent-reported health measure is typically included in national health surveys. This question, in which parents were asked to rate the 13-year-old's current general health using a 5-point Likert scale ranging from 'almost always unwell' to 'very healthy, no problems', is quick to administer and has been a feature of all previous waves for Cohort '08. In the previous wave (for study children aged 9 years), 79% of PCGs reported their child being very healthy, while just over 1% reported their child being 'sometimes quite ill' (McNamara et al., 2020a). Among the Cohort '98 13-year-olds, 75% were reported to be very healthy.

As a longitudinal measure of later health outcomes, Bowling (2005) found this question to be a reliable measure with respect to more objective measures of health. Waters et al. (2000) found a strong positive association between mothers' self-reported health and their reporting of the health of their child, but this relationship was not observed with respect to fathers.

B2–B6: Chronic physical or mental health problems, illness or disability

These items on disability were condensed when compared with the number of items included in previous waves. Question B2 is modelled on new Census questions for 2022, focusing on the function affected (such as vision, movement, learning) rather than the diagnosis. The diagnosis, where applicable, should be captured in the answer to Question B3. Some changes were made to the Census questions for 2022

in order to specifically address the needs of ***Growing Up in Ireland***'s younger age cohort. Asthma is one of the more common conditions in childhood, and therefore breathing difficulty was specifically categorised. Pain was also separated into a distinct category from other conditions. Question B3 sought information about the nature of conditions or difficulties identified in Question B2. The wording of this and subsequent questions has been amended from that used in previous waves of Cohort '08, with 'condition or difficulty' replacing 'problem, illness or disability', in order to reflect the wording of Census items more closely.

Question B6 was a restoration of a previously used question on the extent to which the 13-year-old has been hampered by the condition or difficulty. This question was included in order to allow for longitudinal measurement of the impact of a condition as children enter adolescence. Furthermore, having featured as an instrument for Cohort '98 at age 13 years, it enables cross-cohort comparison. For Cohort '08 at age 9 years, 23% of children were reported to have such a condition. On examining the degree to which this might hinder daily living, the findings showed that 2% were 'severely' hampered while 10% were hampered 'to some extent'. More boys (16%) than girls (9%) were hampered by a condition (McNamara et al., 2020a).

B7–B11: Resources and supports

Question B7 sought information about resources or supports received by the 13-year-old in or through school, while Question B8 asked whether the Young Person's condition or disability resulted in a reduced school day or timetable. Question B9 sought information about supports received outside of school. Question B10 sought information about the degree to which the supports were adequate to meet their needs, on a 4-point scale from 'not adequate' to 'excellent'. Question B11 asked the PCG if, in the case of their child not receiving supports either in or outside of school, this was due to support not being required or otherwise.

The items on the reduced school timetable and the parent's satisfaction with it are new, and were added at the request of a policy stakeholder. Kenny et al. (2020) describe the changes in structure and funding in school-based special education needs projects that have been undertaken in Ireland in recent years. They draw attention to the practice of systematic reduced timetables provided by schools to students with complex needs, noting that in some cases children had received only 1 hour of schooling per day.

B12–B14: Hospital admission, Emergency Department and accidents

Use of secondary health services, particularly the number of nights spent in hospital, acts as a proxy indicator of ill health. This information has many other potential uses when addressing research questions about hospital utilisation. The study's oversight group recommended amending the reference period to the last 12 months, in order to cohere with other questions about health service usage.

Question B12 on accidents requiring hospital treatment was adapted from the Millennium Cohort Study; Cohort '98 at age 13 years were also asked this question. Injuries in childhood are an elevated source of public health concern, and studies tend to show a social gradient for risk of childhood injuries and their severity (for a systematic review, see Mahboob et al., 2019).

B15: Frequency of contact with healthcare professionals

Question B15 sought information about the number of times the Young Person had been in contact with different types of healthcare professionals. The question was originally adapted from the National Longitudinal Survey of Children and Youth, and it addresses the issue of healthcare services sought by the PCG on behalf of the Young Person. The PCG was also asked this question. Health service usage has been an important measure in studying potential inequalities in this area (e.g. Layte & Nolan, 2004), while accessing healthcare has been established as a social determinant of health (McGibbon et al., 2008). Continuing collection of this information offers the potential for longitudinal analysis with later health

outcomes. Using longitudinal analysis of Cohort '08 data, Mohan (2021) investigated the caregiver's migration status on a child's use of healthcare services. They found lower healthcare utilisation among children whose caregivers migrated from non-English-speaking, non-European Union (EU) countries, when these children were compared with their native-born counterparts.

B16–B21: Dental health

Oral health is a core part of overall health (National Institutes of Health, 2000), affecting one's sense of well-being. The Health Behaviour of School-Aged Children study reports that boys brush their teeth less frequently than girls, and teenagers in higher social class groups brush more frequently (Költő et al., 2020). Ireland is below average for frequency of teeth-brushing (Inchley et al., 2016), although there is evidence that the dental health of Irish children has improved more recently (Department of Health, 2019). In the current survey, parents were asked to rate their 13-year-old's dental health in five ordinal categories from 'poor' to 'excellent' (Question B16), give the number of visits per annum (Question B17) and date of last visit to the dentist (Question B18).

Question B20 sought information about treatments other than routine scale and polish, while Question B21 sought information about fillings and extractions. Question B19 asked whether the dentist was accessed/paid through private funding, or through the Health Service Executive (HSE) (Irish public health system).

B22–B24: Diet

The importance of capturing dietary information has been well-described in previous ***Growing Up in Ireland*** reports (e.g. McNamara et al., 2020a). In brief, the social gradient associated with dietary quality has been well established both internationally and in Ireland, as has the association between poor diet and heightened risk of obesity (Lean et al., 2010). In Wave 5 of Cohort '08, PCGs reported that 57% of 9-year-olds ate fruit at least twice in the previous 24 hours, but this rate was reduced for lower-income families (49% of children) and/or where the PCG was educated to Junior Certificate or lower level (40%) (McNamara et al., 2020a).

Question B22 is a modified version of the short food frequency inventory employed for Cohort '98 at age 9 years. The reference period was expanded to one week (it was previously 24 hours) in order to capture material fluctuations in dietary habits between weekdays and weekends. Question B23 was a new item added by the Study Team to allow calibration of fruit and vegetable intake by 13-year-olds with national guidelines. Question B24a sought information about any special diet that the Young Person followed and Question B24b specified the type of special diet, providing categories such as a vegetarian, vegan, gluten-free or dairy-free diet, or any other special diet related to allergies, food intolerance or another condition.

B25–B26: Distance to school and means of transport

Question B25 asked how far away the Young Person's school was and Question B26 sought information about the means of transport used for getting there. The daily commute to school may provide an opportunity for the Young Person to exercise (if walking or cycling). Seventy-five per cent of schoolchildren at primary level use either car or public transport to commute to school, while 25% walk or cycle (CSO, 2016). Smyth (2016), in findings from the older cohort, found that both the type of transport and distance from the school may reduce participation in school-based extracurricular activities.

B27: HPV vaccine

Question B27 was a new question, developed from consultation with the Scientific Advisory Group (SAG) and the policy and stakeholder group. It collected data on whether and to what degree the Young Person has received vaccination against HPV, and it probes the PCG's intentions on whether they may avail of the vaccine.

HPV is transmitted through sexual activity and is the cause of 5% of cancers diagnosed worldwide, predominantly vulval, vaginal and anal cancers (Health Service Executive, 2021). Students in their first year of secondary school are offered the HPV vaccine as part of the standard vaccination programme. The vaccine administered in the school's programme in Ireland protects against 90% of cervical cancers (Health Service Executive, 2021). Corcoran et al. (2018) reported that the completion rate of the HPV vaccine among girls in Ireland had dropped from 86.9% in 2014–2015 to 72.3% in 2015–2016. The authors (Corcoran et al. 2019) subsequently reported a recovery in this vaccination rate following an extensive media campaign. [18]

6.2.3 Section C: Primary Caregiver's health

Section C	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Primary Caregiver's health	General health status of the PCG	C1	X	X	X
	Measurement of disability – long-lasting condition or difficulty	C2–C6	X	X	X
	Parental physical activity	C7	X	X	X
	Healthcare coverage and insurance	C8–C10	X	X	X

C1: General health status of the Primary Caregiver

Question C1 sought information about general health status using a 5-point Likert scale from 'poor' to 'excellent'. It was adapted from the 12-item Short Form Health Survey (SF-12), which measures perceived general physical and mental health status, and which was used previously in ***Growing Up in Ireland***.

The item has longitudinal utility in terms of addressing research questions for health outcomes for both parent and Young Person, as well as links to education and socio-emotional well-being.

C2–C6: Measurement of disability – long-lasting condition or difficulty

Question C2 sought information about whether the PCG has had a long-lasting condition or difficulty. The question has been amended from previous iterations in order to follow the format of the same question which sought information about the Young Person (see Question B2), which was in turn modelled on the Census formulation to focus on affected function rather than diagnosis. The affirmative response offered options of 'yes, to a great extent' and 'yes, to some extent'. Question C3 asked for a fuller description if the PCG indicated that they had a condition. Question C4 sought information about the degree to which the PCG was hampered in daily activities by the condition ('no', 'to some extent', or 'severely'), while Question C5 asked since what year they had been affected. Questions C4 and C5 were adapted from the European Community Household Panel (ECHP) survey, also known as the Living in Ireland surveys 1994–2001.

Question C6 sought information about whether any current or previous chronic illness or disability negatively affected the PCG's ability to look after their child. McNamara et al. (2020a) outlined pathways through which parental conditions or difficulties can affect the child. These include reduced capacity to

18 https://www.hpvworld.com/communication/articles/how-ireland-reversed-a-hpv-vaccination-crisis/

provide care, disruption to availability as a caregiver, and heightened household stress in the child's routine environment.

C7: Parental physical activity

While an item on parental physical activity has appeared in the questionnaires used in all previous waves, this is the first time it was formulated to measure parental physical activity in the standardised format of the International Physical Activity Questionnaire (IPAQ) Short Form. Question C7 asked the PCG about the number of days over the previous seven that they had been physically active for at least 30 minutes. Mitchell et al. (2012) found a positive association between child and parent physical activity levels, and the standardised formatting for both PCG and Young Person items may be valuable in addressing similar research questions with greater precision than was the case in the older question formulation used in earlier waves.

C8–C10: Healthcare coverage and insurance

Questions C8–C10 sought information about funding of the Young Person's medical costs, including general practitioner (GP) visits, either through medical card (Question C8) or private medical insurance (Question C9); the items have been included in questionnaires in all previous waves for both cohorts. They were originally derived from the Living in Ireland Survey (Layte & Nolan, 2004). At age 9 years, 34% of PCGs in ***Growing Up in Ireland***'s Cohort '08 reported having a medical card, with a further 5% having a GP-only card; rates were substantially higher for one-parent families (78%) and for those in the lowest income quintile (82%), as might be expected for a means-tested benefit (McNamara et al., 2020a).

The healthcare coverage and insurance items can be used to address questions of healthcare access and use, and Nolan and Layte (2017) employed these as explanatory variables for changes in GP utilisation among children.

6.2.4 Section D: 13-year-old's emotional health and well-being

Section D	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
13-Year-Old's emotional health and well-being	Adverse life events	D1	X	X	X
	Strengths and Difficulties Questionnaire (SDQ)	D2	X	X	X
	Number of close friends	D3		X	X
	Bullying	D4		X	X

D1: Adverse life events

This question was adapted from the National Longitudinal Survey of Children and Youth and was included for Cohort '98 at age 13 years. It sought information about a list of life events, ranging from moving house to the death of a parent, that may be the source of stress. The type and aggregation of such events experienced by the 13-year-old may affect current and future well-being. A systematic review of the health outcomes of those experiencing specific adverse childhood events found a number of associations, including with risk behaviours, developmental disruption, and increased healthcare utilisation (Kalmakis & Chandler, 2015). In an analysis of stressor events as outcomes, Cotter et al. (2019) found that children from migrant families experienced a greater number of stressful life events.

D2: Strengths and Difficulties Questionnaire (SDQ)

The SDQ (Goodman, 1997) is a 25-item measure of both prosocial and problematic behaviours. The SDQ is appropriate for use with children from the age of 3 years to adolescence. There are different versions for parents, youth and teachers. ***Growing Up in Ireland*** employed the PCG-reported version of the SDQ in Wave 6 of the study. The instrument has been discussed in detail in several previous ***Growing Up in Ireland*** reports, including the recent 'Social-Emotional and Behavioural Outcomes in Early Adolescence' by Nixon (2021) based on Cohort '98 at both age 9 years and age 13 years. In brief, there are four 'difficulties' subscales (peer problems, emotional symptoms, hyperactivity/inattention, and conduct problems) and one 'prosocial' subscale (see Table 6.1 for sample items). An SDQ 'total difficulties' score is created by summing the first four subscales; higher scores indicate 'worse' behaviour relative to peers.

Cohort '08 of ***Growing Up in Ireland*** has used the PCG-reported version of the SDQ at all waves beginning at the age of 3 years. Cohort '98 has used the PCG-reported SDQ at ages 9 years, 13 years and 17/18 years. The use of the SDQ provides longitudinal continuity throughout the ***Growing Up in Ireland*** study and facilitates cross-cohort comparisons within the study as well as enabling international comparison with other comparable studies, such as the Avon Longitudinal Study of Parents and Children (ALSPAC; Boyd et al., 2013) and the Millennium Cohort Study in the United Kingdom (UK) (Connelly & Platt, 2014).

In the aforementioned report by Nixon (2021), higher (i.e. 'worse') total difficulties scores on the SDQ at age 13 years were predicted by late onset of puberty for boys but early onset of puberty for girls, and by consistently high conflict in the child's relationship with parents. Conversely, lower (i.e. 'better') SDQ difficulties scores were associated with higher levels of parent supervision and consistently high parental responsiveness.

Psychometric information

A validation study on the SDQ by Stone et al. (2010) was discussed in the previous ***Growing Up in Ireland*** design report for Cohort '08 at age 9 years (McNamara et al., 2020a). Briefly, strong evidence was found for the stability and replicability of the factor structure of the SDQ as used by both parents and teachers in a large Dutch community sample of over 2,000 teachers and 1,500 parents. A wealth of supporting information on the features of the SDQ is also available on www.sdqinfo.org. This includes normed SDQ scores by nationality, age and gender.

Performance in the main phase of the study

Table 6.1 provides reliability (alpha) statistics for the PCG on all subscales of the SDQ, along with the total difficulties scale. Sample questions are provided, as are means, standard deviations (SD) and achieved ranges for the sample.

The psychometric properties of each SDQ subscale are comparable with previous waves of the study, with

high alpha scores for almost all subscales. Slightly lower (but still acceptable) alpha scores were recorded for peer problems (.57) and conduct problems (.59).

Table 6.1: Performance of the Strengths and Difficulties Questionnaire in the main study

SDQ subscale	Sample item	Mean (SD)	Achieved range	Cronbach's alpha
Peer problems	My child is rather solitary, tends to play alone.	1.4 (1.7)	0–10	.57
Emotional symptoms	My child has many fears, is easily scared.	2.4 (2.4)	0–10	.74
Hyperactivity/inattention	My child is constantly fidgeting or squirming.	2.9 (2.5)	0–10	.76
Conduct problems	My child often fights with other children or bullies them.	1.1 (1.4)	0–10	.59
Total difficulties		7.7 (6.0)	0–35	.79
Prosocial behaviour*	My child is considerate of other people's feelings.	8.7 (1.7)	0–10	.65

* The prosocial behaviour subscale is oriented such that a higher score is related to greater prosocial behaviour.

D3: Number of close friends

This question asked how many close friends the 13-year-old had. It was posed to the PCG in previous waves, and was also asked in the Young Person instrument in Wave 6 of the study. In the previous wave (age 9), 97% of parents reported their child having at least one close friend, while 50% reported their child having at least four close friends (McNamara et al., 2020a). Probing the parental response on this subject permitted comparison with the Young Person's own response. In the previous wave, the data reported by the parent and the child were broadly similar. Monitoring of the continuity or discontinuity of the two reports as the child progresses through adolescence may provide valuable insight into child disclosure and the openness of the parent–child relationship.

D4: Bullying

This short dichotomous report of bullying was added to the Primary Caregiver Main Questionnaire so that some information on this important issue would still be captured in the event that the Young Person did not complete the Sensitive Questionnaire, where the subject is more comprehensively covered. The reference period (3 months) was the same on both instruments. Among this cohort at 9 years, 21% of PCGs reported some form of bullying, while 38% of the children reported that "someone had picked on them" (McNamara et al., 2020a). A similar generational divergence in bullying reports was observed in Cohort '98 at age 9 years (Williams et al., 2009). Such persistence of differing reports may arise through a different understanding of bullying, or a lack of awareness by some parents of their child's experiences.

6.2.5 Section E: Education and school

Section E	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Education and school	Details of school	E1–E2	X	X	X
	School of choice	E3–E4	X		
	Base class in secondary school	E5			
	Attending an open day	E6			X
	Parental contact with the school	E7–E8		X	X
	School absenteeism	E9–E10		X	X
	Homework; parental expectations	E11–E14		X	X
	Care after school	E15			X
	Books in the home	E16	X	X	X

E1–E2: Details of school

Question E1 asked which school year the Young Person would be in the following September; this permits routing of subsequent questions according to whether they would be at primary or secondary school. A further category was available for instances where the Young Person attended a special school; for administrative purposes, this was considered primary school. Question E2 sought the name and address of the Young Person's school for the response provided to Question E1; this permits the linking of data from the survey of school principals to that of the Young Person.

E3–E4: School of choice

Question E3 asked the PCG if they had a choice regarding the secondary school the 13-year-old attended, while Question E4 probed the factors important to the selection (if they did have a choice). These questions have been adapted from Wave 3 (aged 5 years) to reflect entrance to secondary school level rather than primary school level in that wave. While school choice is an important policy area (Oireachtas Library and Research Service, 2015), there is a dearth of information on the matter currently.

E5–E6: Base class in secondary school and attending an open day

Question E5 asked which base class the Young Person was streamed to at secondary school. Smyth et al. (2007) found that the use of inflexible ability grouping is associated with underperformance among students in middle or lower streamed classes, without any commensurate gains among those in higher streamed classes. This question was included in Wave 2 of Cohort '98, with a minor addition on the first category to allow for autism spectrum disorder (ASD) units as well as other kinds of special classes. Question E6 asked whether the Young Person attended their new school open day or not; this question was also asked in Wave 2 of Cohort '98. Question E6 aimed to capture activities which ease the transition

to second-level education. Open days may act as the first pre-entry contact point with the new school. Smyth et al. (2004) found that 50% of those sampled reported that open days helped in the settling in and transition process.

E7–E8: Parental contact with the school

Question E7 asked the PCG whether they had attended a parent-teacher meeting, any school-centred events, Parents Council, and individual meetings with a teacher or principal about the child's behaviour or performance at school. Question E8 asked the PCG to rate their degree of involvement in their child's school life using four categories from 'very involved' to 'not at all involved'.

In Cohort '98 at age 13 years, most PCGs (88%) had attended a parent-teacher meeting in the previous 12 months, while a lower proportion (62%) had attended a school play, concert or other event (Williams et al., 2018). Evidence (e.g. Desforges & Abouchaar, 2003; Boonk et al., 2018) suggests an association between the degree of parental school involvement and the child's school attendance and academic performance. These items have been adapted from Byrne and Smyth (2010) and were recommended at the roundtable workshop.

E9–E10: School absenteeism

Question E9 sought information about how many days over the previous 12 months the child was absent from school for any reason, using six ordinal categories from 'zero days' to 'more than 20 days' (an additional category was available for children reported to not be in school in the previous year). Question E10 then asked the PCG to select the main reason for absences, using a list provided. Both questions originate from the National Longitudinal Survey of Children and Youth, and were posed to parents of Cohort '98 at age 13 years. The question of number of days absent was also posed to the Young Person. Data from Wave 2 of Cohort '98 showed a strong social gradient for parent-reported school absences, with the proportion reporting zero days of absence being greater in the highest income quintile (18%) than in the lowest income quintile (12%). Where the PCG was educated to degree level, the figure was 18%, and where the PCG was educated to Junior Certificate or lower level, the figure was 11% (Williams et al., 2018).

Absenteeism from school is associated with disadvantaged status of the school (O'Briain, 2006). Absenteeism is also associated with lower grades and reduced gains in learning (Kearney, 2003; Lamdin, 1996) and has been found to be a strong predictor of early school leaving (Thornton, Darmody et al., 2013).

E11–E14: Homework; Parental expectations

These questions asked the PCG about the amount of time the 13-year-old spent on homework during weekdays (Question E11) and the degree to which the PCG (or partner) spent time with them on homework. If the answer was 'rarely or never', a reason was sought (Questions E12 and E13). For Wave 5 of Cohort '08, a strong positive relationship was found between the amount of time the 9-year-old spent on homework (as reported by the PCG) and the frequency with which the PCG spent time helping them with homework (McNamara et al., 2020a). For Cohort '98, a large drop was observed in the proportion of PCGs who 'always or nearly always' helped their child with homework between age 9 years (51% of PCGs) and age 13 years (9%) (Williams et al., 2018). Parent engagement in their child's education has been found to be positively associated with school achievement (Feinstein & Symons, 1999; Desforges & Abouchaar, 2003; Boonk et al., 2018).

Question E14 sought information about the PCG's expectations of progress in educational or training achievement, including after the child left secondary school. In Wave 5 of Cohort '08 (age 9 years), 82% of PCGs expected their child to obtain a degree or higher qualification (McNamara et al., 2020a). Smyth (2018) found a mismatch in educational expectations between parent and child, with young people having lower expectations in comparison with their parents.

E15: Care after school

Question E15 asked who, if anyone, minds the Young Person after school until evening time. The question was also posed to Cohort '98 participants at age 13 years, with one category, 'hanging out with friends', now dropped due to low frequency. The implications for this period of potential non-supervision are of concern to policy-makers, as it has been found to be a period of elevated delinquent activity (Gottfredson & Gottfredson, 2001; Sickmund et al., 1997).

E16: Books in the home

Question E16 asked the PCG about the Young Person's access to books at home, and has been asked in previous waves. This measure has been positively associated with the educational outcomes of young people in both reading and maths (Fryer & Levitt, 2004; Smyth et al., 2010).

6.2.6 Section F: Internet and screen time

Section F	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Internet and Screen time	Electronic devices and Internet	F1–F2	X	X	X
	Internet supervision/monitoring	F3–F5	X	X	X
	Young Person screen time	F6	X	X	X
	PCG screen time and consequences	F7–F9			

F1–F9: Electronic devices and Internet

Question F1 sought information about the type of Internet access in the home, while Question F2 asked the PCG whether their 13-year-old had Internet access through a digital device. Questions F3–F5 sought information about supervision of Internet access (Question F3), use of Internet monitoring software (Question F4), and strategies employed by the PCG to restrict viewable content (Question F5). Question F6 asked the PCG for an estimate of time the 13-year-old spent using a smartphone, laptop or computer (excluding screen-based schoolwork) on weekdays, in nine categories ranging from none to 5 or more hours.

These questions were posed to the PCG in Wave 5, and in Wave 6 they were also posed to the Young Person. At age 9 years, the most frequent duration of screen time during weekdays, as reported by the PCG, was between 30 minutes and two hours, while 15% of 9-year-olds were reported to have more than 2 hours of screen time (McNamara et al., 2020a).

Question F7 was a new question for this wave of Cohort '08 which asked the PCG to estimate their own screen-based activities outside of work, for both weekdays and weekend days. Cillero and Jago (2010), in a large-scale systematic review, found that children's screen time was influenced by a wide number of social and family factors, including higher family television watching and lower parental supervision of screen engagement by children. A number of studies showed a positive association between family screen time and child screen time (Jago et al., 2013a; Jago et al., 2013b).

Questions F8 and F9 were also new questions about the PCG's own screen use, specifically about the pressures associated with smartphone messaging and to what degree it distracts the parent when in the company of the Young Person; whether time spent on the Internet affects time spent with family; or whether the PCG was bothered by an inability to access the Internet. Radesky et al. (2016), in a qualitative study, found that parental mobile phone use was a source of tension in their caregiving role.

6.2.7 Section G: Family relationships and context

Section G	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Family relationships and context	Parent-child relationship	G1	X	X	X
	Family time together	G2		X	X
	Amount of time spent with the Young Person	G3–G4			X
	Contact with extended family	G5	X	X	X
	Work–life balance	G6	X	X	X
	Parental leave	G7			

G1: Parent-child relationship (Pianta Child–Parent Relationship Scale)

There is a strong link between the quality of the child–parent relationship and the mental health of children, with early child adjustment having a particular correlation with later adolescent mental health and the child's cognitive appraisal of social situations (Davies et al., 2002). Children with stable and positive parental relationships tend to have better outcomes in a range of domains and are much less likely to engage in antisocial behaviours such as aggressive fighting, bullying or committing property offences (O'Connor & Scott, 2007). In contrast, children experiencing high levels of child–parent conflict are more likely to exhibit conduct and emotional disorders (Yeh, 2011).

The Pianta Child–Parent Relationship Scale (CPRS) is a parent-reported assessment of the quality of the relationship with the child (Pianta, 1992). It is completed by both the PCG (typically the mother) and the Secondary Caregiver (SCG) (typically the father). Previously, ***Growing Up in Ireland*** has used both the closeness and conflict subscales from the measure. However, only the conflict subscale was included in Wave 6 of the Cohort '08 study; this was due to the need to reduce the overall length of the survey and the closeness scale tending towards ceiling effects. The conflict subscale has eight statements to which participants respond on a five-point scale from 'definitely does not apply' to 'definitely applies' to their relationship with the child.

The measure has also been used in the UK Millennium Cohort Study (https://cls.ucl.ac.uk/) and the Longitudinal Study of Australian Children (https://growingupinaustralia.gov.au/), and can provide a comparable measure across international cohorts.

Psychometric information

Validation of the Pianta scale was carried out by its author in a study in 2011 (Driscoll & Pianta, 2011). They found excellent Cronbach's alpha reliability statistics, which were consistently over .8 for the conflict subscale and over .7 for closeness, in a repeated measures study sampling children at around ages 4.5 years and 7 years.

Validity of the measure was assessed by both quantitative and qualitative means. Iruka et al. (2018) conducted a factor analytic validation of the Pianta scale with 718 parents and 740 children from low-income childcare programmes in the United States of America (USA), which demonstrated the expected two-factor structure along with excellent alpha reliability (of over .7) for the conflict and closeness subscales.

The Pianta conflict subscale has been found to show excellent reliability across waves and cohorts in ***Growing Up in Ireland***. In Cohort '98 at age 9 years, alpha values of .85 and .82 were found for the PCG and SCG, respectively. In the main descriptive report for Cohort '98 at age 13 years (Williams et al., 2018), the mean levels of conflict were found to be quite low, with many parents indicating that their relationship with their 13-year-old was reasonably conflict free. There are no formal norms or cut-offs around the Pianta scores. However, the descriptive report for Cohort '98 at age 13 years showed that children in the highest one-third of Pianta conflict subscale scores were more than 10 times as likely as those in the lowest one-third of conflict subscale scores to be in an 'at risk' group for experiencing emotional problems, based on their parent's rating of them on the SDQ (see Section D2 in Section 6.2.4 of this report for more information on the SDQ).

Performance in the main study

Table 6.2 provides reliability (alpha) statistics for the PCG and SCG Pianta conflict subscale in the main phase of the study. Means, SDs, achieved ranges for the sample, and a sample item are provided.

High alpha values were recorded for both the PCG (.85) and SCG (.82), indicating good internal reliability. This was higher than that achieved in the previous wave of Cohort '08.

Table 6.2: Performance of the Pianta scale in the main phase of the study

Pianta CPRS	Mean (SD)	Achieved range	Cronbach's alpha
Conflict – PCG	14.1 (6.8)	8–40	.85
Conflict – SCG	13.2 (5.8)	8–40	.82
Sample item	My child and I always seem to be struggling with each other.		

G2: Family time together

This question sought information about time spent as a family doing activities or eating together; it is adapted from the National Longitudinal Survey of Children and Youth. The question is a reduced version of items previously used in ***Growing Up in Ireland***. There is evidence to suggest that regular, predictable routines and time spent together affect children more positively when compared with situations where

family life is less organised (Boyce et al., 1983; Kremer Sadlik & Paugh, 2007; Offer, 2013).

There may be a change in the amount of time families choose to spend together after enforced changes to routines during the COVID-19 pandemic lockdowns. In the ***Growing Up in Ireland*** special COVID-19 survey, a very high proportion of the PCGs of then-12-year-olds reported that their family did more activities together than prior to the pandemic (48% 'always true' and 46% 'sometimes true'; Growing Up in Ireland Study Team, 2021).

G3–G4: Amount of time spent with the Young Person

In previous waves, questions about school day (Question G3) and weekend day (Question G4) time spent with the Young Person either alone or with others were exclusively posed to the SCG (reflecting some evidence of a relationship between time spent with fathers and better school performance and lower number of behavioural problems; see Jeynes, 2015). These items were included in the PCG instrument in Wave 6 in order to allow a more rounded view of the time the Young Person spent with their parents. Evidence that the adolescent phase is of particular sensitivity in this regard (Milkie et al., 2015) means that collection of these data is of strong policy interest.

G5: Contact with extended family

Question G5 sought information about frequency of time spent with grandparents, uncles and aunts, cousins, and other family members. Five categories were available: 'quite a lot', 'now and again', 'rarely or never', 'lives abroad', and 'doesn't have'. This question is derived from a Growing Up in Scotland item and has been asked at prior waves. For this cohort at age 9 years, 90% had regular contact with grandparents; the percentage was higher among those living in rural areas (93%) and in families in the highest income quintile (94%) (McNamara et al., 2020a).

An earlier review on the role of the extended family for ***Growing Up in Ireland***, which involved interviewing participants at age 9 years (McNamara et al., 2020a), noted that greater contact was associated with better child health outcomes and promotion of positive functioning, while providing a buffer for negative emotional responses.

G6: Work–life balance

Question G6 probes the tension between work and family responsibilities. The PCG was asked to rate, on a 5-point scale from 'strongly disagree' to 'strongly agree', whether work responsibilities had caused them to miss out on home or family activities or had led to less enjoyable family time. Conversely, parents were also asked whether family responsibilities had impacted on their work opportunities and enjoyment. This question has been asked in previous waves for Cohort '08 and for Cohort '98 at age 13 years. The question was originally adapted from the Longitudinal Study of Australian Children.

This question was also posed to the SCG in both this and previous waves. At 13 years in Cohort '98, more SCGs (42%) compared with PCGs (29%) agreed that work responsibilities had caused them to miss out on family activities.

Given the growing proportion of families where both caregivers participate in the labour force, and given the trend towards greater connectivity to work activity outside normal working hours, the tension between family and work life grows in policy interest. O'Connell and Russell (2005) found that such tension was highest among those with young children and for women, while Sirgy and Lee (2018) found that issues such as division of caregiving and household duties were exacerbated where work life impinged more on family life. It will also be interesting to see if COVID-19-pandemic-initiated changes in work practices, such as more remote working and working from home, will be reflected in changes to answer patterns for this particular question.

G7: Parental leave

Question G7 is a new item. From September 2020, parents were statutorily entitled to up to 26 weeks' unpaid parental leave, which may be taken up to the time their child is aged 12 years (previously they were entitled to up to 22 weeks' unpaid parental leave). Although the children of Cohort '08 would have already been aged 12 years in September 2020, their parents may still have been eligible to avail of unpaid parental leave in relation to younger siblings. This question sought to collect some basic details on availing of parental leave. Little research has been undertaken addressing social patterns or trends in the uptake of this provision, and the addition of Question G7 may help to address this.

6.2.8 Section H: Housing and sociodemographic background

Section H	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Housing and socio-demographic background	Accommodation	H1–H7	X	X	X
	Principal Economic Status and related variables	H8–H23	X	X	X
	Spouse's/partner's occupation	H24–H25	X	X	X
	Family income	H26–H30	X	X	X
	Indicators of financial difficulty	H31–H35	X	X	X

H1–H7: Accommodation

When PCGs were first interviewed in this cohort (when the infants were aged 9 months), 73% were owner-occupiers, while 26% reported renting their accommodation. Most PCGs (92%) reported living in a house, while 7% reported living in an apartment, flat or bedsit (Williams et al., 2010). In the intervening period, Ireland's housing market has changed considerably. At the time of the survey, the annual rate of rental inflation was reported to be 9.2% in the first quarter of 2022 with the national standardised rent level at €1460 (based on new tenancies), increasing to €1916 in Dublin (Banking & Payments Federation Ireland, BFPI, 2022). According to the same BFPI report, house prices were also increasingly dramatically with an 11.8% yearly increase in Dublin (up to June 2022) and 16% outside Dublin; while Roantree et al. (2021) found home ownership rates in Ireland to be in longer-term decline.

For the survey with Cohort '08 at 13, questions H1–H7 sought information about the nature and suitability of the family's accommodation, and the type of tenure. Question H1 concerned access to a garden or common space and has been asked in previous waves. An additional category had been added by the Study Team to distinguish between shared and exclusive garden space. In the context of the restrictions to work and social life arising from the COVID-19 pandemic, private space for family use without recourse to social distancing may be of greater relevance. For Question H2, which collected information about the type of occupancy in the accommodation, a category was added to make a distinction between owner-occupiers who have a mortgage and those who own the property outright. The effect of continuing mortgage obligations implies greater housing expense than is the case for people who do not have such obligations.

Question H3 concerned the type of accommodation (eight categories, including detached house, apartment, and mobile home/caravan). Question H4 sought information about the number of rooms in the accommodation available solely for the family's use, while Question H5 asked about the number of bedrooms (even where used as a study/office or for another purpose). Questions H3–H5 have been used in previous waves, and are necessary in order to understand the overall space available to the household relative to the number of occupants (according to the household composition section), a basic dimension of housing quality. Adequate space in the family accommodation gained prominence during the COVID-19 pandemic, with people working and studying from home, and sometimes needing to self-isolate from other household members.

Question H6 asked whether the accommodation had double- or triple-glazed windows. Question H7 asked whether the accommodation had any of the problems on a specified list: insufficient light, leaking or damp, noise, pollution, or insufficient space. Both Questions H6 and H7 were adapted from the Survey on Income and Living Conditions.[19]

H8–H25: Principal Economic Status and related variables

Information on principal economic status (PES) (H8) has been sought on all waves, and is a core variable for household social classification (based on the Central Statistics Office (CSO) Irish Standard Occupational Classification). PES is an important classifier for a range of social, educational and health outcomes for the study participants, and for tracking changes over time. There is considerable routing in this section of the questionnaire, depending on the PCG's PES (employed, studying, ill, home duties, etc.).

The initial batch of subsequent questions sought to add further detail on the PCG's employment. Question H9 asked when they started their current job. Question H10a asked if they worked from home, and Question H10b sought information about their commute time (in minutes) in cases where they did not work from home.

The next set of questions were only asked where the PCG indicated in the answer to Question H8 that they were not in full-time employment currently. Questions H11-12 asked whether they had ever had a full-time job and, if so, when. Question H13 clarified if their last full-time job was as an employee, self-employed or farmer. Questions H14-15 asked if they currently had a part-time job and, if yes, whether this was as an employee, self-employed or farmer.

The following group of questions were posed to those who were currently in full-time or part-time employment. Question H16 asked how many hours per week they normally work. Questions H17-18 asked them to specify their occupation and the main activity of their employing organisation. Question H19 asked whether they worked for a public sector organisation. These questions about sector of employment may be of increased relevance in the aftermath of the COVID-19 pandemic, which saw some areas hit harder than others (e.g. hospitality). Questions H20-21 collected information on the number of people supervised by the PCG, if any. These questions about supervision, in addition to type of occupation, play a role in determining social class categories.

Question H22 was posed to those who indicated in their answer to Question H8 (via routing) that they were a farmer, asking how many acres they farmed. In Question H23, those not currently working were asked to select the most important reason why they were not in paid work outside the home from a list of six reasons provided. Questions H24 and H25 sought to ascertain the occupation and main employer activity for the PCG's spouse or partner. This was done as a contingency in cases where the SCG did not complete their questionnaire.

19 https://www.cso.ie/en/statistics/socialconditions/surveyonincomeandlivingconditionssilc/

H26–H35: Income and financial difficulty

Questions related to household income (H26–H30) were derived from the Household Questionnaire in the Living in Ireland survey (i.e. the Ireland portion of the European Community Household Panel (ECHP) Survey). The same questions have been used consistently in previous waves of ***Growing Up in Ireland***. Question H26 asked the PCG to estimate the proportion of household income derived from social welfare payments, from 0% to 100%. Question H27a asked them to estimate the net aggregate of all income in the household. Question H27b asked what period this referred to (per week, per month or per year). For those who did not complete Question H27, Questions H28 and H29 provided categories for estimating the net aggregate household income in a two-stage process. Question H30 asked whether anyone in the household received income from farming.

The next set of questions in this section sought information about financial strain. Question H31 asked the PCG the degree of difficulty they had in making ends meet, using a 6-point Likert scale (from 'great difficulty' to 'very easily'). This question was derived from the Survey on Income and Living Conditions; it has been asked in every previous wave, and is an important measure of financial strain within the household. Question H32 sought information about changes over time in the household's financial circumstances, and was asked in the previous Cohort '08 wave. Question H33 sought information about whether the family had access to a car. For those who replied that they did not, Question H34 asked if this was because they could not afford a car. Question H35 asked if the household could afford an unexpected expense of €1,000 without recourse to borrowing. In Wave 5 of Cohort '08 (age 9 years), 13% of PCGs reported that the household had 'difficulty' or 'great difficulty' in making ends meet (McNamara et al., 2020a). However, large differences were seen for different subgroups: this share was 29% for one-parent families and 28% for families in the lowest social class. Examining this same measure for Cohort '98 at age 13 years (Williams et al., 2018), which coincided with the time when the effects of the Great Recession in Ireland were at their peak, 23% overall reported the household having 'difficulty' or 'great difficulty' in making ends meet.

Poverty and deprivation have been established as having a strong influence on social, educational and health outcomes, and have been an area of intense research (see overview in Maître et al., 2006; Watson et al., 2014; Duncan, Ludwig & Magnusson, 2007; Duncan et al., 2012). Longitudinal analysis has particular utility in this area in terms of monitoring change and stability over time, and ***Growing Up in Ireland*** data have been used extensively in this regard to date.

6.2.9 Section J: About you

Section J	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
About You	PCG education	J1	X	X	X
	Main language used in the home	J2	X	X	X
	PCG religion	J3–J4	X	X	X
	PCG citizenship and country of birth	J5–J9	X	X	X
	PCG ethnicity	J10	X	X	X

Data on the PCG's education; child's first language; and PCG's reading and numeracy skills, religion, citizenship, and ethnicity were gathered. Questions about some items collected at prior waves were not re-asked in this wave.

PCG education (Question J1) is a component in understanding the social gradient in a number of important areas. McNamara et al. (2020a) have previously established its valuable role in a large number of studies using ***Growing Up in Ireland*** data. Question J2 asked what language was primarily used at home. Where this is at variance with the language used in school, this may affect the young person's learning.

Questions J3–J10 sought basic demographic information on the PCG. Question J3 asked if they belonged to any religion and, if so, Question J4 asked which religion this was. Question J5 asked if they were a citizen of Ireland, and Question J6 asked what citizenship they held where they answered 'no' to Question J5. Question J7 asked if they were born in Ireland; if not, Question J8 asked in which country were they born, while Question J9 asked how long ago they first came to Ireland. Question J10 asked the PCG to indicate their ethnicity or cultural background. These variables are measurements of the representativeness of the overall dataset compared to census data and may be engaged in order to reweight data if required. Establishing ethnicity is important for measuring outcomes that are core to Irish equality legislation, and the categories employed are those used in the Irish Census.

6.2.10 Section K: Neighbourhood and community

Section K	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Neighbourhood and community	Length of time living in area	K1	X	X	X
	Community organisations	K2		X	
	Satisfaction with, and perception of, the local area/neighbourhood	K3–K4	X	X	X
	Distance to green space/beach	K5			

K1–K2: Length of time living in local area

Both of these questions were asked in previous prior waves and at the same stage in Cohort '98. Length of time living in the area (Question K1) may be a measure of stability. Question K2, involvement in local community organisations, may indicate depth of ties to the area.

K3–K4: Satisfaction with, and perception of, the local area/neighbourhood

Question K3 asked how common a list of five neighbourhood issues were in the participant's local area, including litter, vandalism, public drunkenness, and crime or violence. Question K4 asked to what extent the PCG agreed with statements about their locality pertaining to child safety, sport and leisure facilities for teenagers, trust in the people in the area, and sense of identity with the area. Both questions were asked of the PCG at 13 years in Cohort '98 and were intended to assess the degree of contentment or discontentment with several aspects of the local area/neighbourhood. Leslie and Cerin (2008) found that such perceptions have a bearing on well-being, while Diez Roux (2007) found that the neighbourhood environment can influence children's health.

K5: Distance to green space/beach

Question K5 is a new item, asking if there was a park, beach or green space within 2 kilometres of home. This question was added in light of the initial travel restrictions arising from the COVID-19 pandemic. Proximity to green space may have implications for the Young Person's access to suitable exercise infrastructure. Dempsey, Lyons and Nolan (2018a), in a study of older adults in Ireland, found that those with both the highest and the lowest share of green space are at elevated risk of obesity, while Dempsey et al. (2018b) found a positive relationship between exposure to coastal blue space and mental health. Schipperijn et al. (2013) found a positive association between proximity to urban green space and levels of physical activity.

6.2.11 Section Z: COVID-19 Experiences

Section Z	Construct	Questions	Included in special COVID-19 Survey (Cohort '98)
COVID-19 Experiences	Risk and exposure	Z1	X
	Impact on family life	Z2	X
	Impact on employment	Z3–Z4	X
	Impact on partner's/spouse's employment	Z5–Z6	X
	Income and social welfare	Z7–Z8	X
	Impact on exercise	Z9	X

Z1–Z9: COVID-19 Experiences

These new questions have been added to capture aspects of the experiences of COVID-19 for the family from the perspective of the PCG. They follow the same or similar questions that were included in the special COVID survey to this Cohort '08 in December 2020 (see Section 3.5.3 for further details on that inter-wave data collection). Repeating these specific COVID-19-related questions 8–16 months after the initial survey will help to evaluate how the situation has improved (or not) for families as the course of the pandemic progresses.

The COVID-19 experiences questions included risk perception of the disease for both the PCG themselves, their child, and other household members (Question Z1), and the impact on family life and life circumstances (Question Z2). Questions Z3–Z8 sought information about the effect of COVID-19 on employment and income for both the PCG and their partner, where applicable. Question Z3 asked if the PCG was in employment immediately prior to the COVID-19 pandemic, and if the answer was 'yes', Question Z4 sought information about the effects of the pandemic on their employment situation. Questions Z5 and Z6 were similar questions in relation to SCG employment, where relevant.

Question Z7 asked whether the household had received the Pandemic Unemployment Payment or other social welfare payments, and Question Z8 asked the PCG to evaluate the effect of the COVID-19 pandemic on household income on a 5-point scale, from 'fall a lot' to 'increase a lot'. Question Z9 asked the PCG about their current exercise level, compared with their exercise level before the COVID-19 pandemic. Results from the special COVID-19 survey found that the pandemic had a large effect on employment, with 22% of PCGs and 19% of SCGs reporting that they lost their job or were temporarily laid off. Nearly one-half of PCGs (47%) said that their employment had changed since the onset of the pandemic, including remote working (Growing Up in Ireland Study Team, 2021).

6.3 Overall Structure of the Secondary Caregiver (SCG) Main Questionnaire

This section describes the topics in the Secondary Caregiver's (SCG) Main Questionnaire. It is available at Appendix B5. Inclusion of information on the SCG (usually the father) has been central to ***Growing Up in Ireland*** since its inception, with analyses of these data yielding new insights into the way in which activities and the quality of the relationship with the father influence child outcomes in Ireland (Smyth & Russell, 2021).

The SCG Main Questionnaire is a subset of the questions included in the PCG Main Questionnaire. The questions on the SCG questionnaire focus mainly on the SCG him/herself and their relationship with the 13-year-old, rather than core factual information on the Young Person (because there would not be an SCG available in every household). Where items have been discussed in detail in the Primary Caregiver Main Questionnaire, only a cross-reference is noted in this section. The numbering of the individual sections of the Secondary Caregiver main questionnaire noted below corresponds to the relevant section of the Primary Caregiver main questionnaire. The specific sections included in the Secondary Caregiver Main Questionnaire are:

- Section Z: COVID-19 experiences
- Section C: Secondary Caregiver's health
- Section F: Internet and screen time
- Section G: Family relationships and context
- Section H: Housing and sociodemographic background
- Section J: About you.

Section	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
Section Z: COVID-19 experiences	Impact on family life	Z2	N/A	N/A	N/A
	Impact on employment	Z3–Z4	N/A	N/A	N/A
	Impact on exercise	Z9	N/A	N/A	N/A
Section C: Secondary Caregiver's health	SCG current health	C1	X	X	X
	SCG chronic, longstanding conditions	C2–C5	X	X	X
	Caring duties	C6		X	
	Physical activity	C7	X	X	X
Section F: Internet and screen time	Screen time and consequences	F7–F9			
Section G: Family relationships and context	Parent–child relationship	G1	X	X	X
	Family time together	G2			
	Amount of time spent with the Young Person	G3–G4			X

Section	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
	Work–life balance	G6	X	X	X
	Parental leave	G7			
Section H: Housing and sociodemographic background	Principal economic status and work activity	H1–H25	X	X	X
Section J: About you	SCG education	J1	X	X	X
	Main language used in the home	J2			X
	SCG religion	J3–J4	X	X	X
	SCG citizenship and country of birth	J5–J9	X	X	X
	SCG ethnicity	J10	X	X	X

6.3.1 Section Z: COVID-19 experiences

Questions Z2–Z4 and Question Z9 were the four questions posed to the SCG, and were also posed to the PCG. These were all new questions which first featured in the special COVID-19 survey (for PCGs only) conducted by ***Growing Up in Ireland*** in December 2020 (see Section 6.2.11 for a detailed discussion).

6.3.2 Section C: Secondary Caregiver's health

These questions about the SCG's self-reported health status and details on long-term conditions have been asked in previous waves, and were also posed to PCGs in this wave (see Section 6.2.3 for a detailed discussion).

6.3.3 Section F: Internet and screen time

These three questions asked for information on the SCG's estimate of their own screen-based activities, any distraction or pressure felt through smartphone usage, and the impact of the Internet on personal and family life. These were new questions and were also posed to the PCG in this wave (see Section 6.2.6 for a detailed discussion).

6.3.4 Section G: Family relationships and context

These questions were a subset of the questions asked in the PCG Main Questionnaire and are discussed in Section 6.2.7. They include the conflict subscale from the Pianta Child–Parent Relationship Scale. Analyses of previous waves indicate that fathers characterise relationships with their children as generally high in closeness, with low levels of conflict (Smyth & Russell, 2021).

6.3.5 Section H: Housing and sociodemographic background

This set of questions sought information about the items included in the PCG Main Questionnaire that relate to economic status and employment (see Section 6.2.8 for further details).

6.3.6 Section J: About you

These questions sought basic demographic information on the SCG, such as education, religion, and ethnicity, but were not always repeated if available from previous waves. The questions were the same as those asked in the PCG Main Questionnaire as described in Section 6.2.9.

6.4 The Primary and Secondary Caregiver Self-Complete Questionnaire

The PCG and SCG Self-Complete Questionnaires asked some potentially more sensitive questions and, as such, were self-completed by respondents via Computer-Assisted Web Interviewing (CAWI). The same questionnaire was used for both PCGs and SCGs, but the questions about a non-resident parent were only posed to the PCG. The questionnaire is provided in Appendix B2 (PCG) and Appendix B6 (SCG). The table below summarises the subjects covered and their history of inclusion in previous waves of the study.

Section	Construct	Questions	Included at age 5	Included at age 9	Included at age 13 (Cohort '98)
The Primary and Secondary Caregiver Self-Complete Questionnaire	Gender and date of birth	S1–S2	X	X	X
	Whether living with partner, relationship status	S3–S6	X	X	X
	Quality of the couple relationship (Dyadic Adjustment Scale)	S7–S9	X	X	X
	Parenting stress	S10	X	X	X
	Parent-reported weight for self	S11			
	Alcohol use	S12–S15	X	X	X
	Parental smoking, use of e-cigarettes	S16–S19	X	X	X
	Parental drug use	S20–S21	X	X	X
	Parent mental health	S22	X	X	X
	Parent–child discussion of sexual health issues	S23			X
	Non-resident parent information (PCG only)	S24–S31	X	X	X
	Current pregnancy status	S32	X	X	X
	Type of digital device used to complete Sensitive Questionnaire	S33			

S1–S2: Gender and date of birth

These introductory questions were included as a cross-reference to the main questionnaire in order to ensure correct matching across survey components.

S3–S6: Whether living with partner, relationship status

Questions S3–S5 have been asked in all previous waves and seek information about each caregiver's relationship status (in terms of a partner/spouse). Question S3 sought information about the caregiver's current marital status, Question S4 asked whether they were living with someone in the household as a couple, and where they answered 'yes', Question S5 asked how long this had been the case. The answers were used to aid the routing of questions related to the relationship between the PCG and SCG.

Question S6 is a new question, added by the Study Team to ascertain information on whether either caregiver was in a relationship with somebody outside the home. This person may have an influence on the young person's life, and therefore it is important to record the answer to this question.

Research on divorce and its effects on children has found some negative outcomes, including on academic achievement and behaviour (Amato, 2001; Amato & Anthony, 2014). However, in circumstances where parents separate and parent other children, Ginther and Pollak (2004) found no differences in relative educational outcomes of the children. The authors compared these groups with children of unseparated parents, finding poorer educational outcomes; but, after accounting for factors unrelated to family type and structure (such as family income), the differences were weak and, in many cases, there was no statistical difference. Raley and Sweeney (2020), in a review of evidence, concluded that greater transitions in family structure led to lower well-being in children, on average, although this negative consequence of transition was stronger where children were born to married parents and for children of more socioeconomically advantaged parents.

S7–S9: Quality of the couple relationship (Dyadic Adjustment Scale)

Questions S7–S9 sought information about the quality of the parent/couple relationship, using a brief four-item version of the Dyadic Adjustment Scale (DAS-4) (Sabourin et al., 2005). The DAS-4 is answered by both the PCG and SCG and provides an insight into dyadic satisfaction among parents in a relationship at the time of the survey.

A detailed exploration of the rationale of and background to the DAS-4 can be found in previous ***Growing Up in Ireland*** design reports: the Cohort '08 design report for Study Children aged 9 months (Thornton, Willimas et al., 2013) discussed the use of a seven-item version of the DAS (Sharpley & Rogers, 1984) and all following ***Growing Up in Ireland*** design reports presented the use of the DAS-4, which was found to retain many of the useful properties of the longer scales while reducing response burden (Sabourin et al., 2005).

Psychometric information

Longitudinal consistency between different versions of the DAS was explored by Sabourin et al. (2005), who used standardised alphas to demonstrate high comparability and reliability between the DAS-4 (.84), DAS-7 (.85) and original 32-item version of the DAS (.92). Furthermore, the Sabourin et al. study showed that the DAS-4 retained excellent reliability among both distressed (.81) and non-distressed (.92) couples. In recent validation studies, South et al. (2009) and Villeneuve et al. (2015) showed a strongly invariant factor structure across couples in studies using 900 pairs from the Minnesota Twin Family Study and more than 900 pairs from a French-Canadian study of older adult relationships, respectively. 'Strong factorial invariance' between groups is a very high standard to reach for any psychometric measure. Essentially, this means that the DAS is precisely measuring the same concept in any group it is administered to. This

is particularly important in both a longitudinal sense and for any cross-cohort or cross-cultural research on relationships.

Performance in the main phase of the study

Table 6.3 provides reliability (alpha) statistics for the PCG and SCG DAS in the main phase of the study. Means, SDs and achieved ranges for the sample, and a sample item, are provided.

Compared to Wave 5 of Cohort '08 of the study, Wave 6 reported improved internal reliability for the DAS for both the PCG and SCG (.70 and .66, respectively).

Table 6.3: Performance of the DAS in the main phase of the study

	PCG			SCG		
	Mean (SD)	Achieved Range	Cronbach's Alpha	Mean (SD)	Achieved Range	Cronbach's Alpha
DAS	16.4 (3.0)	0–21	.70	16.5 (2.9)	0–21	.66
Sample item	You think that things between you and your partner are going well.					

S10: Parenting stress

Parenting stress is associated with negative parenting attitudes, negative parenting behaviours, and decreased parental well-being (Crnic, Gaze & Hoffman, 2005). While in some studies (Warfield, 2005), parenting stress can be considered an outcome of the childrearing process, it is the consequences of parenting stress for children's developmental outcomes that is of interest in the context of a longitudinal study. The ongoing measurement of parenting stress can be used to explore the interactions between levels of stress and parents' abilities to interact positively with their child (Deater-Deckard, 2005), and consequently the associations of stress with a range of adverse child outcomes can be explored (Crnic & Low, 2002).

Parental Stress Scale

The full 18-item Parental Stress Scale (Berry & Jones, 1995) was used in ***Growing Up in Ireland*** Cohort '08 at 9 months (Wave 1), with the design report for that wave providing a thorough overview of the questionnaire (Thornton, Williams et al., 2013). The Parental Stress Scale (PSS) comprises four subscales: parental rewards (six items), parental stressors (six items), lack of control (three items), and parental satisfaction (three items). Items were rated on a 5-point Likert-type scale ranging from 'strongly disagree' to 'strongly agree'. All subsequent waves of ***Growing Up in Ireland*** (Waves 2–5) employed the parental stressors subscale, with the parental satisfaction subscale also being employed in occasional waves. In the current wave, the parental stressors subscale is comprised of the questionnaire items S10b, S10c, S10e, S10f, S10g, and S10h.

Previous waves of the study show that, as with mothers, fathers report the greatest stress when the child is aged 9 months, as fathers adjust to their role; stress levels then decline until the child is aged 5 years, before increasing again between the time the child is aged 5 years and when they are aged 9 years (Smyth & Russell, 2021).

Psychometric information

Berry and Jones (1995) reported reliability and validity data for a sample of 1,276 parents of both typically developing children and children with developmental and behavioural problems. The Parental Stress Scale (PSS) demonstrated satisfactory levels of internal reliability (alpha = .83), and test-retest reliability (r = .81). It also demonstrated satisfactory convergent validity with various measures of stress, emotion, and role satisfaction, including perceived stress, work/family stress, loneliness, anxiety, guilt, marital satisfaction, marital commitment, job satisfaction, and social support.

Validation of the PSS in Cohort '08 at age 9 years (McNamara et al., 2020a) has produced consistently high alpha values for the parental stressors subscale. For instance, alpha values of .78 were recorded for the PCG and values of .77 were recorded for the SCG.

Performance in the main phase of the study

Table 6.4 provides reliability (alpha) statistics for the PCG and SCG parental stressors subscale in the main phase of the study. Sample questions are provided, as are means, SDs and achieved ranges for the sample.

Internal reliability was high for both the PCG and SCG (.77 and .73, respectively).

Table 6.4: Performance of the PSS in the main phase of the study

	PCG			SCG		
	Mean (SD)	Achieved Range	Cronbach's Alpha	Mean (SD)	Achieved Range	Cronbach's Alpha
Parental stressors	13.4 (4.2)	6–30	.77	12.6 (3.8)	6–29	.73
Sample item	I sometimes worry whether I am doing enough for my child.					

S11: Parent-reported weight for self

In the absence of in-person fieldwork, when the interviewer would take such measurements, the PCG and SCG were asked to record their own weight. This measurement could be used to calculate body mass index (BMI) and categorise respondents based on their weight status (i.e. normal weight, overweight, obese). This information could be used to explore, for example, the association between parent and child obesity.

Strong associations have been observed between parental obesity and increased risk of overweight or obesity among their children (Lean, 2010). For Cohort '98 at age 17/18 years, overall obesity levels among the Young People were 4%; this figure increased to 10% if both of their parents were overweight or obese (McNamara et al., 2020).

S12–S15: Alcohol use

Questions S12–S15 recorded details on alcohol use and consumption. These questions are based on the AUDIT-C alcohol screening tool (Babor et al. 1992). Information on alcohol consumption is relevant to parental health and family context, and may be of particular relevance as the Young Person enters adolescence, when higher rates of experimentation with alcohol might be expected.

S16–S19: Parental smoking, use of e-cigarettes

Question S16 asked whether the PCG/SCG smokes, and if so, whether this was daily or occasionally. Question S17 asked how many cigarettes or cigars the parent smoked per day. As with alcohol consumption, smoking behaviour is relevant not just to individual health but also in the context of passive smoking and the potential 'modelling' of smoking for 13-year-olds. Evidence for harm to young people's health arising from environmental tobacco smoke is strong. Jaakkola and Jaakkola (2002) and Hofhuis, Jongste and Merkus (2003) provide overviews of this evidence.

Question S18 sought information about use of vapes or e-cigarettes and whether this was daily, occasionally, or not at all. Question S19 sought information about the total number of household members who smoked. These questions have been used in previous waves.

S20–S21: Parental drug use

Following feedback from the Research Ethics Committee at a previous wave, this question has been parsed so that the question on cannabis (Question S20) is separate from the question on use of other illicit drugs (Question S21).

There is some evidence of negative effects of parental drug use on child behaviours (Kuppens et al., 2020), and for the quality of parenting provided to the young person (Dawe & Hartnett, 2007).

S22: Parent mental health

The link between parental mental health and child socio-emotional and cognitive outcomes is clear (Beardslee et al., 1996). Measurement of self-reported depressive symptoms, as well as recording clinically diagnosed psychological disorders in caregivers, is therefore an essential part of the data collection in ***Growing Up in Ireland***. With a stable measurement of parental mental health across waves, interactions and associations with other risk factors such as poverty (Eamon & Zuehl, 2001) may be studied.

Centre for Epidemiological Studies Depression scale (8-item) (CES-D)

In addition to questions about longstanding conditions, which included options to indicate diagnoses of psychological conditions, ***Growing Up in Ireland*** included the Centre for Epidemiological Studies Depression Scale (8-item) (CES-D). This is a short self-report screening instrument for depression in the general population (Melchior et al., 1993).

The scale sets a reference period of the last seven days. Respondents are asked to indicate the frequency with which they have experienced a set of symptoms of depression on a four-point scale. This can be used to calculate a composite score across 8 items that gives a level of reported depressive symptoms. A cut-off of 7 points on this composite score has previously been used in ***Growing Up in Ireland*** as indicative of clinically significant levels of depressive symptoms, although this does not equate to a clinical diagnosis of depression.

Psychometric information

In their original validation studies, the shortened CES-D showed high internal consistency (alpha = .86), a very strong correlation (r = .93) with the original 20-item CES-D scale, and it correlated well with the Beck Depression Inventory, another clinically used depression measure (r = .54), supporting its concurrent validity (Melchior et al., 1993). Longitudinal consistency of the measure was explored by DiClemente et al. (2005), who showed a correlation at 6-month (r = .83) and 12-month (r = .87) follow-up in their study. More recent longitudinal information comes from a longitudinal study using the Heart Strategies Concentrating on Risk Evaluation (HeartScore) survey data (Mogos et al., 2015). This study found alpha values between

.84 and .90 across the study and provided evidence for 'partial factorial invariance over time' (where the clarity and precision of the factor structure is maintained over time), which is strongly supportive of the longitudinal use of the depression measure. Partial factorial invariance is a high standard for any psychometric measure to reach, and ensures that there is a high degree of consistency in the concept that is being measured over multiple time points.

The CES-D has been used in all previous waves of the ***Growing Up in Ireland*** survey and is asked of both the PCG and SCG. This provides a consistent longitudinal measure of parental mental health across all waves of the study. In the previous wave of this cohort at 9 years of age, the CES-D showed excellent internal consistency with alpha values of .85 for the PCG and .81 for the SCG.

Performance in the main phase of the study

Table 6.5 provides reliability (alpha) statistics for the PCG and SCG CES-D 8 in the main phase of the study. Means, SDs and achieved ranges for the sample, and a sample item, are provided.

Internal consistency was very high for both the PCG and SCG (.85 and .80, respectively). The proportion of parents classified as having high levels of depressive symptoms was 13.8% for PCGs and 6.7% for SCGs. These figures were higher than those recorded in Wave 5 of Cohort '08, when they were 10.7% and 5.4% for the PCG and SCG, respectively. These higher figures in the Wave 6 data may be partly explained by the effect of the COVID-19 pandemic, as evidenced in the *Growing Up in Ireland Key Findings: Special COVID-19 survey report* (Growing Up in Ireland Study Team, 2021).

Table 6.5: Performance of the CES-D 8 in the main phase of the study

	PCG			SCG		
	Mean (SD)	Achieved Range	Cronbach's Alpha	Mean (SD)	Achieved Range	Cronbach's Alpha
CES-D 8 score	3.10 (3.64)	0-24	.85	2.0 (2.71)	0–20	.80
CES-D 8 categorisation	Percentage above threshold	Percentage below threshold		Percentage above threshold	Percentage below threshold	
	13.8%	86.2%		6.7%	93.3%	
Sample item	I felt depressed.					

S23: Parent–child discussion of sexual health issues

Question S23 sought information about the PCG's perspective on discussing sexual health issues with their 13-year-old, including contraception, sexually transmitted diseases, and sexual orientation. The item appeared in the Wave 2 Cohort '98 (age 13 years) parent self-complete questionnaire. Following a suggestion from reviewers, an additional item was added on the sharing of explicit sexual texts or images.

Widman et al. (2016) conducted a meta-analysis of 52 studies examining the effect of parent–adolescent sexual communication on safer sex behaviour among young people. They found it to have a protective role in safer sex behaviour among young people, with a more pronounced positive effect among girls than boys.

S24–S31: Non-resident parent information (PCG only)

Questions about a non-resident parent were only included in the Primary Caregiver questionnaire. Question S24 sought information about the status of the other biological parent of the Young Person, including whether this person was living in the home, not living in the home, or was deceased. Where the parents were not living together, Question S25 asked whether they had ever lived with or were married to the biological mother/father, and if they had, when they had separated (Question S26). They were asked how often the Young Person had face-to-face contact (Question S27) and other forms of contact (Question S28) with the biological mother/father. Question S28a was a new follow-on question that asked if the COVID-19 pandemic had had any impact on face-to-face contact between the non-resident parent and the Young Person. The answer to this question could contain important contextual information, especially in the case of low levels of face-to-face contact.

Question S29 sought information about the biological mother/father's financial contribution to the household and child maintenance, including regular and irregular payment categories. Question S30 asked the PCG how often they talked to the non-resident parent about the Young Person. Question S31 asked how well the Young Person gets on with the biological mother/father, on a scale from 'very positive' to 'very negative'. All questions with the exception of Question S28a have been posed in all previous waves.

Children who grow up with a non-resident parent may be at increased risk of developing adjustment problems and delinquent behaviours (Jablonska & Lindberg, 2007), although this risk is often mediated by the quality of the non-resident parent–child relationship (Booth et al., 2010) and other aspects. Relationships that exhibit warm and supportive behaviours by the non-resident parent tend to be associated with fewer internalising and externalising problems, and better academic performance in adolescence (King & Sobolewski, 2006). Analysis of Cohort '08 at age 9 years shows that the majority of children who answered the question reported that they got on very well with their non-resident fathers, and a more positive relationship was related to more frequent contact, especially sleepovers, and a better-quality relationship between the parents (Smyth & Russell, 2021).

S32: Current pregnancy status

Question 32 was posed to female respondents only. In order to avoid any inference being made by interviewees about the positioning of this question (it had previously appeared beside questions about risky behaviours), the question was moved to the end of the survey questionnaire. This is primarily a question designed to put other information (such as weight and changes in smoking or drinking behaviour) into context.

S33: Type of digital device used to complete Sensitive Questionnaire

Question S33 sought information about the preferred devices used by respondents for completion of the web interview. The answers to this question will inform planning for the design of web-based surveys in future waves.

6.5 Summary

This chapter detailed the content of the questionnaires administered to the 13-year-old's PCG and SCG; typically, these people were the Young Person's parents. Each caregiver completed a 'main' questionnaire over the telephone with an interviewer, and they were also invited to self-complete a 'sensitive' module online. Chapter 7 describes the survey instruments completed by the Young Person themselves.

Chapter 7
13-Year-Old Instruments

7.1 Introduction

This chapter outlines the topics covered in both the Young Person Main and Self-Complete Questionnaires used in the main phase of the Cohort '08 study at Wave 6 (13 Years), as well as the Young Person Proxy and Short Questionnaires. This chapter should be read in conjunction with Appendix B, which contains the full text of the questionnaires referenced.

In this chapter, each questionnaire section is tabulated in order to summarise the topics addressed and also in order to indicate whether topics were included in Wave 5 of Cohort '08 (age 9 years; the first wave to include an interview with the Study Child – now 'Young Person'), or in Wave 2 of the Cohort '98 survey (age 13 years). Continuing topics does not necessarily mean using the same individual questions.

In the case of some topics, while they are new to the Young Person Main Questionnaire, there are data available from previous waves via data collected from the Primary Caregiver (PCG): for example, questions about how the child is disciplined when misbehaving were posed to the PCG when the Study Child was aged 9 years, but in Wave 6 these questions were moved to the Young Person main questionnaire, in order to expand the child's voice.

The discussion in this chapter will primarily focus on questions not used before with either cohort.

7.2 Overall Structure of the Young Person Main Questionnaire

The Young Person Main Questionnaire was administered over the telephone by an interviewer (i.e. computer-assisted telephone interview; CATI). It is provided in Appendix B3. It consisted of 10 sections:

- Section A: Preliminaries
- Section B: Activities and time at home during COVID-19 pandemic-related restrictions
- Section C: Activities
- Section D: Internet and screen time
- Section E: School and education
- Section F: Parent supervision and discipline; pocket money
- Section G: Physical activities; chores; food; and self-care
- Section H: Things the Young Person can have or do
- Section J: Feelings and how the Young Person sees themselves
- Section K: Siblings and friends.

This is the third time that children in Cohort '08 have taken part in their own interview, having previously been interviewed at age 9 years and during the special COVID-19 survey. Each of the sections of the Young Person Main Questionnaire is outlined below.

7.2.1 Section A: Preliminaries

Section A contained a single question, asking the Young Person to confirm that they had read the information sheet, had discussed participating with a parent/guardian, and agreed to take part in the survey. The main points of the information sheet and consent form were read out to them by the interviewer.

Section A	Construct	Question
Preliminaries	Consent	A1

7.2.2 Section B: Activities and time at home during COVID-19 Restrictions

Section B contained questions that were included in the ***Growing Up in Ireland*** Special COVID Survey addressing experiences during the COVID-19 pandemic-related restrictions.

Section B	Construct	Questions	Included in Special COVID-19 Survey
Experiences during COVID-19 pandemic	Learning experiences during school closures	B1	X
	Family and leisure experiences	B2	X
	Changes in exercise	B3	X

While a more comprehensive list of questions was included in the Special COVID Survey, three items were included in this questionnaire in order to capture key COVID-19 pandemic experiences.

B1: Learning experiences during school closures

Question B1 sought information about educational outcomes during school closures. During the special COVID-19 survey, more than one-half of the young people from this cohort reported at least some difficulty with home learning during the period of COVID-19-related school closures (Growing Up in Ireland Study Team, 2021).

B2: Family and leisure experiences

Question B2 sought information about family time, worry about coronavirus (COVID-19), skills development, socialising, and consumption of snack foods. When surveyed in December 2020 for the special COVID-19 survey, this cohort reported substantial changes across a range of these areas (Growing Up in Ireland Study Team, 2021). Including these items in Wave 6 will enable longitudinal tracking of COVID-19 pandemic experiences.

B3: Changes in exercise

Question B3 asked the Young Person to compare exercise levels during the COVID-19 pandemic-related restrictions to exercise levels before such restrictions. Findings from the COVID survey revealed that more than one in three children from this cohort reported doing less exercise during Level 5 restrictions – the strictest lockdown during the pandemic (Growing Up in Ireland Study Team, 2021).

7.2.3 Section C: Activities

Section C contained questions about the 13-year-old's participation in sports and/or cultural activities.

Section C	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
Activities	Participation in team sports, cultural clubs, or other community groups	C1 – C5	X	X
	Participation in informal sports, cultural, or social activities	C6	X	X

C1–C5: Participation in team sports, cultural clubs, or other community groups

Questions C1–C4 dealt with structured activities that the 13-year-old typically engaged in (excluding during the COVID-19-pandemic-related restrictions). Each question was divided into two parts. Part (a) asked if they engaged in any of the listed activities at least once per month, while part (b) sought information about reasons for not engaging, if relevant. Engagement in structured activities throughout childhood and early adolescence is thought to foster skill advancement, social and teamwork skills, initiative, and autonomy (Denault & Poulin, 2009). At age 9 years, the most popular form of structured activity reported by this cohort was team sports (66% of 9-year-olds), followed by individual sports (62%) and music or dance classes (35%) (McNamara et al., 2021). However, the COVID survey found that 38% of this cohort reported spending less time on sports compared to pre-pandemic activity, while 59% reported reduced participation in cultural activities (e.g. music or drama classes) (Growing Up in Ireland Study Team, 2021). Question C5 asked whether the 13-year-old held a position of responsibility, such as captain or team leader, in any of the structured activities they participated in.

C6: Participation in informal sports, cultural, or social activities

Question C6 sought information about informal activities, covering seven activities the Young Person may do 'for fun or to relax'. Although leisure time spent in informal or unstructured activities has been associated with poor adjustment and antisocial behaviour in some research (e.g. Mahoney, Stattin, & Lord, 2004), informal activities such as reading for pleasure, drawing/painting, singing/playing an instrument, and going

to the cinema have been identified as important aspects of cultural participation (Smyth, 2020b). At age 9, respondents were asked 'Could you tell me three things you like to do most in your free time? (your favourite things)'. The most frequently reported favourite informal activities were Internet/computer screen time (27%), playing with friends (not sport) (23%), and reading or writing (23%) (McNamara et al., 2021). The findings of the special inter-wave COVID-19 survey showed that 60% of this cohort reported an increase in informal screen time compared with informal screen time pre-COVID-19, and 46% reported spending less time meeting friends (Growing Up in Ireland Study Team, 2021).

7.2.4 Section D: Internet and screen time

Section D contained questions about the Young Person's Internet usage and screen time.

Section D	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
Internet and screen time	Internet-enabled devices	D1	X	X
	Screen time	D2	X (PCG report)	X
	Online profiles	D3–D4	X (PCG report)	
	Online 'hygiene'	D5–D9		

D1: Internet-enabled devices

Question D1 asked the Young Person about any devices available to them which they can use to access the Internet. Young people from homes that do not have a computer/laptop/tablet may be at a disadvantage compared with those who do, in that they are unable to practise computer skills and use the Internet as a learning resource at home. At age 9, the most common internet accessible device was an iPad or other tablet (56%), followed by a smartphone (17%) and a games console (12%). Over two-thirds (69%) of 9-year-olds used a device belonging to them, with 17% using a device belonging to a parent and 11% using a family-shared device (McNamara et al., 2021).

D2: Screen time

Question D2 asked how much time the Young Person typically spends watching television/films/videos, playing video games, or engaged in other online or screen-based activities. This question expanded on the item previously used for Cohort '98 at age 13 years, distinguishing between weekdays and weekends and between different types of screen time (TV/films/videos; games; other). While the impact of screen time on outcomes in young people is a topic of ongoing debate, a House of Commons Science and Technology Committee (2019) report, *Impact of social media and screen-use on young people's health*, noted the limited quality and quantity of evidence on the benefits or harms of social media and screen use among children. Based on parental reports when the Study Child was aged 9 years, 80% of 9-year-olds watched TV for at least 30 minutes on a weekday, rising to 90% on weekends. One-half of all Study Children watched TV for more than two hours on a weekend day. For non-TV screen time, 56% of 9-year-olds spent at least 30 minutes on other screen activity during weekdays, rising to 80% for weekends (McNamara et al., 2021).

D3–D4: Online profiles

Questions D3 and D4 sought information about whether the 13-year-old had their own account/profile on a social networking, social media, or gaming site. A similar item was included for Wave 5 of Cohort '08 (age 9 years), with the PCG reporting whether the child had an online profile. An online profile is of concern given that the Young Person may be sharing information about themselves and/or connecting with strangers. Such strangers are not necessarily malign, but there may be an increase in risk. At age 9, PCGs reported that 23% of 9-year-olds had an online profile. There was a considerable difference in the type of profile across genders – boys were more likely than girls to have an online computer game profile (19% versus 8%) and less likely to have a social media profile (4% versus 11%) (McNamara et al., 2021).

D5–D9: Online 'hygiene'

Questions D5–D9 were designed to capture problematic Internet usage (aside from one item about using the Internet to help with a problem, which was added by the Study Team following a request to include a positive aspect of Internet usage). Some of these questions were previously used with Cohort '98 at age 17/18 years, and were based on questions used in the Net Children Go Mobile project and the EU Kids Online survey. Questions include how often the 13-year-old feels bothered when unable to access the Internet, spends less time on other aspects of life due to Internet usage, feels the need to respond to online messages immediately, feels safer when out because they had a mobile phone with them, and uses their smartphone/tablet when doing other activities. Questions also addressed how much their parent/guardian knew about what they do on the Internet. Question D9 asked the Young Person how often they felt their parent/caregiver was distracted by their smartphone during conversation. Each of these items captures potential detrimental effects of Internet usage previously identified in children and young people, including reduced time interacting with family and friends and the possible emergence of addiction to digital technology (Royal College of Psychiatrists, 2020).

7.2.5 Section E: School and education

Section E contained questions about the Young Person's school and education.

Section E	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
School and education	Class	E1	X	X
	Subjects taken	E2 –E4		X
	Transition to secondary school	E5–E9		X
	Perception and experience of school	E10–E16	X	X
	Difficulties in school	E17–E18	X	X
	Young Person's own qualification expectations	E19		X

E1: Class

Question E1 asked which class the 13-year-old had been in since last September. At age 13 years, a significant proportion of Cohort '08 could still be in primary school due to the Free Pre-School Year and a general trend towards later school start time. However, fieldwork was deliberately staggered based on information provided at age 9, and by participants in the COVID survey a few months previously, in order to maximise the likelihood that young people would have made the transition at the time of interview. For those who have made the transition, the fact that they are in first year or second year of secondary education is important when considering their other responses to questions about school.

E2–E4: Subjects taken

Questions E2–E4 asked those in secondary school which subjects they were taking, whether they had taken any short courses in the previous year, and whether they had been given any choice with regard to what subjects they took that year. This information can be used to determine uptake of various subjects, and whether this reflects student choice or school provision. Longitudinally, these data may be useful in looking at pathways for subject choices at exam stage; for example, in relation to the take-up of science, technology, engineering and mathematics (STEM) subjects.

E5–E9: Transition to secondary school

Questions E5–E9 covered the transition to secondary school. Respondents were asked how many of their friends from primary school were at their secondary school. They were also asked to agree or disagree with seven statements on how they had settled into secondary school. Question E9 was posed to those still in primary school (expected to be a minority), and asked to what extent they were excited, looking forward to, or nervous about their upcoming transition to secondary school. Question E7 sought information about the 13-year-old's experiences of learning in secondary school; for example, how often they engage in group work, use digital devices, make presentations, and are assigned projects for outside of class time. In the case of Cohort '98 at age 13 years, the majority of such questions were posed to the PCG; these questions have now been moved to the Young Person questionnaires to expand the child's voice.

E10–E16: Perception and experience of school

Questions E10–E16 addressed general attitudes towards school, time spent doing homework and/or study, and opinions on subject difficulty and interest. Question E15 asked whether the Young Person had received any extra help with any subjects. Research using ***Growing Up in Ireland*** data has reported that general attitudes towards school are longitudinally consistent, in that those who are positive about school at an earlier time point are likely to remain positive throughout education (Smyth, 2017). International research has shown that students who are more positive about school have higher levels of academic achievement, positive relationships with teachers and better overall well-being (Wang & Holcombe, 2010).

E17–E18: Difficulties in school

Question E17 sought information about whether the 13-year-old had got in trouble in school (late for school, skipped class, had to do detention, etc.). Question E18 asked how many days the Young Person had been absent from school in the past 12 months. Negative interactions with teachers and absenteeism (depending on the reason) during the transition to secondary school may reflect early disengagement from school and lead to a cycle of disengagement and underperformance (Whitby et al., 2006; Topping, 2011).

E19: Qualification expectations

Finally, Question E19 asked respondents to provide information on their expected highest qualification upon finishing formal education. For Cohort '98, lower educational expectations at age 13 years were linked to lower educational achievement at age 20 years. However, many young people in that cohort underestimated their highest expected qualification at 13, with 50% of those not expecting to go on to higher education at age 13 having done so by age 20 years (O'Mahony et al., 2021).

7.2.6 Section F: Parent supervision and discipline; pocket money

Section F contained questions about parental supervision, discipline, and pocket money.

Section F	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
Parent supervision	Supervision	F1		X
	Parental control	F2		X
	Discipline	F3		X
	Pocket money	F4–F5		X

F1: Supervision

Question F1 asked how much time the 13-year-old spent at home alone on an average school day. Children with higher levels of adult supervision are less likely to become involved in antisocial or risky behaviour or substance abuse, or to skip school (Aizer, 2004; Lindfors et al., 2017). The answers to this question will potentially provide an interesting contrast with Cohort '98 at age 13 years, given the increased prevalence of parents working from home due to public health guidelines in the COVID-19 pandemic. In the special COVID-19 survey, 47% of PCGs and 36% of Secondary Caregivers (SCGs) in Cohort '08 reported a change in work arrangements, with remote working being the most common change (Growing Up in Ireland Study Team, 2021).

F2: Parental Control

Question F2 identified any rules and limits the parents of the 13-year-olds placed on their activities; for example, needing permission to go out on weeknights, or informing parents where they will be going with friends. Studies have shown that youth who have higher levels of parental monitoring are less likely to engage in delinquency (Jacobson & Crockett, 2000; Pettit et al., 2001) and substance misuse (Lindfors et al., 2017).

Stattin and Kerr (2003) devised four scales (the first three reported by the parent): parental monitoring; parental supervision; child disclosure; and parental control. While all were used for previous waves of ***Growing Up in Ireland***, only the child-reported parental control subscale was retained for Wave 6 of Cohort '08 (age 13 years), given the need to reduce the overall length of the survey.

The parental control measure consists of six statements about the level of control the parent exerts over the Young Person's socialising outside the home. The 13-year-old indicates how often that aspect of control is used on a five-point Likert scale ranging from 'Almost never or never' to 'Almost always or always'. A sixth 'Not applicable/Don't do it' option is also available. The Likert answers are summed to create a scale total, with larger numbers in that total indicating greater levels of control being exerted by parents.

Performance in the main phase of the study

Table 7.1 provides reliability (alpha) statistics for the parental control scale. A sample item is provided along with the mean, standard deviation (SD) and achieved range for the sample. There was good internal consistency in the questions for this scale (.76).

Table 7.1: Performance of parental control scale in the main phase of the study

	Sample item	Mean (SD)	Achieved range	Cronbach's alpha
Parental control	Do you need your parents' permission before going out on weeknights?	18.4 (9.2)	0–30	.76

F3: Discipline

Question F3 asked the Young Person how they are punished when they misbehave. A similar set of questions was used for Cohort '98 at age 13 years, and in the Primary Caregiver questionnaire for this cohort at age 9. However, due to changes in legislation rendering physical chastisement illegal, the response category 'Slap or hit you' was removed. Methods of disciplining children are viewed as an important aspect of parenting, with a strong influence on child behaviour and development (Grusec et al, 2017). Longitudinally, one might expect an evolution in discipline methods as the child matures; therefore, it could be interesting to contrast patterns at age 13 years with four years previously, when the child was 9 years old. Similarly, a contrast with Cohort '98 at age 13 years could explore changes in norms relating to discipline given changes in the policy landscape in this area.

F4–F5: Pocket money

Finally, for this section, Questions F4 and F5 related to pocket money, or money given for jobs inside or outside the home. Access to money provides a likely increase in independence during adolescence, although more pocket money has been associated with increased risk of drinking alcohol (Cardenal & Adell, 2000) and smoking cigarettes (Waa et al., 2011). For Wave 2 of Cohort '98 at age 13 years (in 2011), 55% of 13-year-olds received regular pocket money from parents, while the average amount received per week was €8.98 (Growing Up in Ireland Study Team, 2012b).

7.2.7 Section G: Physical activities; chores; food; and self-care

Section G contained questions about physical activity, chores, food, and self-care.

Section G	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
Physical activity, chores, diet, self-care	Physical activity	G1–G2	X	X
	Chores	G3	X	X
	Diet	G4–G6	X (PCG report)	X
	Dental hygiene	G7	X (PCG report)	X
	Sleep	G8–G9		Captured in time-use diary

G1–G2: Physical activity

Questions G1 and G2 sought information about levels of moderate to vigorous physical activity and levels of light exercise, respectively. These questions have been revised since previous waves in order to enable mapping findings onto the national physical activity guidelines for children. Question G1 asked how many days per week the Young Person was moderately or vigorously physically active (MVPA) for at least 60 minutes. This is based on the protocol used in the Health Behaviour in School-aged Children (HBSC) survey (Inchley et al., 2018). Physical activity levels in early childhood tend to persist into adulthood (Rimal, 2003; Telama et al., 2005; Starc & Strel, 2011). This has protective effects against the development of many diseases in later life (Lee et al., 2012; Reiner et al., 2013), and thus is an important behaviour to monitor longitudinally. At age 9, only 25% of this cohort met the recommendations of 60 minutes of physical activity per day (Growing Up in Ireland Study Team, 2018a). In Cohort '98 at age 13 years, 28% of 13-year-olds were meeting the guidelines (Growing Up in Ireland Study Team, 2012a). Question G2 sought information about light exercise in order to assess whether any exercise was taken by young people who reported very low levels of MVPA.

G3: Chores

Question G3 sought information about chores the 13-year-old had helped with over the last week. This question was significantly reduced compared to previous waves, which had asked respondents to choose from a list of individual chores. The data collected for Wave 6 compiled individual chores into two categories: tasks inside the house (cleaning, tidying, laundry, preparing meals, and taking care of younger children or sick family members) and tasks outside the house (gardening, taking out the bins, washing the car, or helping on a family farm). Involvement in chores during childhood and adolescence helps to foster independence and is important for skills development and responsibility (Ames, 2013; Klein & Goodwin, 2013). Data from Wave 5 of Cohort '08 (age 9 years) highlighted gender inequalities in chores, with girls doing more traditionally female tasks like 'helping with cooking' (McNamara et al., 2021). This had also been reported in Cohort '98 at age 9 years, with gender inequality becoming more pronounced by age 13 years (O'Reilly & Quayle, 2021)

G4–G6: Diet

Questions G4–G6 sought information about patterns of eating. Question G4 asked how often the respondent had breakfast, lunch, dinner, and snacks between meals. Question G5 asked how many snacks the respondent had most days, while Question G6 concerned how many of these snacks were sugary foods or drinks. Diet, alongside physical activity, is a key modifiable variable in controlling weight, and eating habits in childhood and adolescence are a strong predictor of eating habits in adulthood (Mikkilä et al., 2005). Obesity is an area of policy concern in Ireland, with the policies set out in *A Healthy Weight for Ireland* (Department of Health, 2016) aiming to reduce the gap in obesity levels between the highest and lowest socioeconomic groups by 10%. At Wave 5 of Cohort '08 (age 9 years), 18% of this cohort were classified as overweight, while 5% were classified as obese, with higher levels seen in children from one-parent families and low-income households (McNamara et al., 2021).

G7: Dental hygiene

Question G7 asked how often the Young Person brushed their teeth. Oral health is an essential component of overall health (National Institutes of Health, 2000), while dental decay has been identified as a prevalent chronic disease condition in childhood and adolescence (Edelstein, 2002). The teen years are a high-risk time for increased sugar intake, nicotine use, and orthodontic considerations, and are a period where lifelong habits relating to dental hygiene are created (Silk & Kwok, 2017). Research using data from this cohort at age 3 reported that 75% of children consumed more 'free sugars' – the most important risk factor for dental caries – than is recommended by the World Health Organization (WHO) (Crowe et al., 2020).

G8–G9: Sleep

Questions G8 and G9 asked when the Young Person normally went to sleep and woke up on a weekday. Sleep is an important factor related to several outcomes measured in the questionnaire, including general health, mental health, screen time, physical activity, and academic achievement (Moore & Meltzer, 2008; Roberts, Roberts & Duong, 2009). Adolescent sleep health is recognised as an area of significant concern (Bartel et al., 2015; Gradisar et al., 2011). The National Sleep Foundation recommends that children aged 6–13 years sleep between 9 and 11 hours per night, with a recommended sleep duration of 8–10 hours per night for 14–17-year-olds (Hirshkowitz et al., 2015).

In Wave 2 of Cohort '98 (age 13 years), a time-use diary was used to capture time spent sleeping. It was found that, during school term, the average 13-year-old spent 9 hours sleeping on a weekday, and 11 hours on a weekend day. Outside of school term, time spent sleeping increased to 10 hours on a weekday and 11.2 hours on a weekend day (Quail & Williams, 2015). The special COVID-19 survey revealed changes in the sleep patterns of Cohort '98 participants (aged 22 years) during the COVID-19 pandemic – 22% reported sleeping less compared to prior to the pandemic, while 27% reported sleeping more (Growing Up in Ireland Study Team, 2021). The Cohort '08 participants (aged 12 years) were not asked questions about changes in their sleeping patterns in the special COVID-19 survey.

7.2.8 Section H: Things the Young Person has or can do

Section H contained questions about the Young Person's access to goods and experiences in order to determine perceived levels of deprivation.

Section H	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Things the Young Person has or can do	H1		

H1: Things the Young Person has or can do

In this single item with multiple categories, Question H1 asked the Young Person whether they had five key material items (clothes, books, own bed, electronic devices, and a suitable place to study or do homework), and whether they engaged in five key experiences (invite friends over, celebrate their birthday or special events, go on school trips, have a meal out with family, and go on a family holiday at least once a year). This question was developed by the Study Team by drawing on earlier research to identify key indicators of deprivation, including previous experience in the measurement of deprivation among the Study Team and among Economic and Social Research Institute (ESRI) colleagues (Watson & Maître, 2012; Watson et al., 2009; Watson et al., 2014; Maître et al., 2006; Whelan et al., 2007); Irish and international research on deprivation where the child is the informant (Swords et al., 2011; Saunders et al., 2019); and recent European analysis on child deprivation indicators (Guio et al., 2018). Further details on the development of this question can be found in the pilot report for this wave (McNamara et al., 2022).

7.2.9 Section J: Feelings and how the Young Person sees themselves

Section J contained questions about the Young Person's mood, body image, and life satisfaction.

Section J	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years	Included in Special COVID-19 survey
Feelings	Mental Health Inventory (MHI-5)	J1			X
	Perception of own weight and dieting behaviour	J2–J4	X	X	
	Life satisfaction	J5			
	Rosenberg Self-Esteem Scale	J6			

J1: Mental Health Inventory

The five-item Mental Health Inventory (MHI-5) is a brief, valid, and reliable measure to assess mental health and screen emotional disorders in children and younger adolescents. It was first used in ***Growing Up in Ireland*** for the special COVID-19 survey of Cohort '08 (then aged 12 years). The Mental Health Inventory has undergone considerable development from a 38-item questionnaire (Veit & Ware, 1983) to an 18-item scale and, later, the 5-item scale (MHI-5) (Berwick et al., 1991) used in Wave 6 of the study.

The MHI-5 uses child- and young teen-appropriate language and consists of five items. The 13-year-olds were asked how often in the past four weeks they felt certain ways (e.g. 'felt so down in the dumps that nothing could cheer you up'; 'felt calm and peaceful'). Answers were on a 6-point Likert scale ranging from 'All of the time' to 'None of the time'.

Psychometric information

The MHI-5 has been shown to predict anxiety and depressive diagnoses in children and adolescents (Rivera-Riquelme, Piqueras & Cuijpers, 2019). Although the questions are more general in nature than a specific depression questionnaire, it has also been shown to correlate strongly with depression measures and it has produced a similar categorisation of those 'at risk of depression' as the Major Depression Index (MDI) (Thorsen et al., 2013). Thorsen et al.'s study used data from the 'DANES' study, a population-based telephone survey in Denmark, and in a sample of more than 6,000 adults it showed that elevated MHI-5 scores were a better predictor of long-term sickness absence from employment, a proxy indicator of severe health issues, than the MDI. In the National Health Insurance Study, a large-scale longitudinal study in the United States of America (USA) with more than 5,000 participants (Sherbourne et al., 1992; Veit & Ware, 1983), the 18-item version of the MHI displayed a Cronbach's alpha of .93 while the MHI-5 had an alpha of .82.

Performance in the main phase of the study

Table 7.2 provides reliability (alpha) statistics for the MHI-5 scale. The mean, SD and achieved range are also given. Good internal consistency was reported (.78).

The mean score was 77.9. No clinically validated cut-point for the MHI-5 exists. However, a cut-point of 60 has previously been proposed by van Leeuwen et al. (2012) and Kelly et al. (2008). This cut-point was deemed the most suitable for use among the Cohort '08 13-year-olds and has been applied in the *Growing Up in Ireland Key Findings: Special COVID-19 Survey* report as a proxy indicator of the prevalence of mental health difficulties. Alternative cut-points of 68 and 76 (Kelly et al., 2008) and 72 (van Leeuwen et al., 2012) have also been proposed. Using the threshold of 60, 14.3% of 13-year-olds would be considered as potentially having a mental health difficulty.

Table 7.2: Performance of the MHI-5 in the main phase of the study

	Sample item	Mean (SD)	Achieved range	Cronbach's alpha
MHI-5	Felt calm and peaceful	77.9 (15.5)	12–100	.78
MHI-5 categorisation	Percentage with potential mental health difficulty		Percentage with likely no mental health difficulty	
	14.3%		85.7%	

J2–J4: Perception of own weight and dieting behaviour

Questions J2–J4 enquired about the 13-year-old's perception of their own weight and any dieting behaviours they had ever engaged in. Question J2 asked how they would describe themselves, with answers ranging from 'very skinny' to 'very overweight'. Question J3 and Question J4 sought information about whether the Young Person had ever exercised or restricted their dietary intake to manage their weight. These questions are important when considering the high rates of overweight and obesity reported among this cohort in previous waves (18% and 5%, respectively) (McNamara et al., 2021). In Wave 2 of Cohort '98 (age 13 years), almost one-half (48%) of 13-year-olds reported having exercised in order to control weight, while one-third (33%) reported having eaten less food, fewer calories, or low-fat foods in order to control weight. Both forms of weight management were more prevalent among girls than boys (Williams et al., 2018).

J5: Life satisfaction

Question J5 asked respondents to rate their general life satisfaction on a scale of 0 to 10. This method of measuring life satisfaction is frequently employed in other cohort studies, and has been used in Cohort '98, thus enabling both international and cross-cohort comparison. When used in Cohort '98 at age 17/18 years, the mean score was 7.2 (SD = 2.1), suggesting that the average 17/18-year-old was quite satisfied with their life, but with individual differences (McNamara et al., 2020b).

J6: Rosenberg Self-Esteem Scale

Self-esteem refers to a subjective appraisal of the positive and negative evaluations that a person makes of themselves. Self-esteem is a global attribute and should be distinguished from appraisals of specific traits or abilities such as academic self-concept (Orth & Robins, 2014). Research across a range of disciplines has highlighted the relationship of global self-esteem to a number of physical health outcomes (Zeigler-Hill, 2013), mental well-being for adults and adolescents (Baumeister, Campbell, Krueger, & Vohs, 2003; Keane & Loades, 2016), and social relationships (Harris & Orth, 2020).

The Piers-Harris Self-Concept Scale (Piers & Herzberg, 2002) was used in Wave 5 of Cohort '08 (age 9 years) (McNamara et al., 2020a) and was used to track the development of this global concept of self-esteem across different domains. For Wave 6 of Cohort '08 (age 13 years), the Piers-Harris Self-Concept Scale was replaced with the Rosenberg Self-Esteem Scale (RSE) (Rosenberg, 1965). Although there is a loss of continuity between the ages of 9 and 13 years in Cohort '08 and the loss of cross-cohort comparison with Cohort '98 at age 13 years, the use of the RSE positions self-esteem as an important longitudinal variable for Cohort '08 through the early and late teens and beyond, with cross-cohort comparisons with Cohort '98 becoming possible again from age 17 years onwards.

The RSE is one of the most commonly used and well-validated measures of global self-esteem (Robins, Hendin & Trzesniewski, 2001). The Young Person reads a series of positively and negatively phrased statements, and indicates their level of agreement with each on a four-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree). This is then rescored in order to produce a scale total, with larger numbers representing greater levels of self-esteem. The RSE scale originally comprised ten items, but this was successfully shortened to a six-item RSE scale following a validation study on data from longitudinal research on young American men (Bachman et al., 1984). The six-item RSE has gone on to be used successfully in both the Avon Longitudinal Study of Parents and Children (ALSPAC) and the Millennium Cohort Study in the United Kingdom (UK).

Psychometric information

The shortened RSE scale has been validated with both children and adults, and has been shown to have

strong concurrent validity through high correspondence with other measures of self-esteem, such as the Coopersmith Self-Esteem Inventory and Harter's Self-Perception Profile for Adolescents (Hagborg, 1993). Previous use of the scale in Cohort '98 at age 17/18 years (Murphy et al., 2019) also showed that the shortened scale displayed acceptable internal consistency, with a Cronbach's alpha value of .73 for more than 6,000 Irish adolescent participants.

Performance in the main phase of the study

Table 7.3 provides reliability (alpha) statistics for the Rosenberg Self-Esteem Scale in the main phase of the study. The mean, SD, achieved range, and a sample item are also provided. Overall, very good internal consistency was reported for this scale (.83).

Table 7.3: Performance of Rosenberg Self-Esteem Scale in the main phase of the study

	Sample item	Mean (SD)	Achieved range	Cronbach's alpha
Rosenberg Self-Esteem Scale (6-items)	On the whole, I am satisfied with myself.	13.3 (3.0)	1–18	.83

7.2.10 Section K: Siblings and friends

Section K contained questions about siblings, friends, informal sources of support, and future career aspirations.

Section K	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
Siblings and friends	Relationship with siblings	K1–K2		
	Friendship network	K3–K8	X	X
	Sources of support	K9	X	
	Future job aspirations	K10	X	X

K1–K2: Relationship with siblings

Relationships with siblings emerged as a major theme in focus groups with 13-year-olds conducted by the Study Team in preparation for the 13-year-old wave of Cohort '08 (see the accompanying pilot report for this wave, McNamara et al., 2022). Given that 89% of Cohort '08 lived with at least one sibling in Wave 5 (age 9 years) (Growing Up in Ireland Study Team, 2018b), the Study Team included a new set of questions

based on those used in ALSPAC for parents of 11-year-olds (Boyd et al., 2013).

Question K1 was a routing question and asked the 13-year-old whether they had any siblings. If the answer was 'yes', Question K2 asked eight follow-up questions related to '*How often do you do any of the following with any of your brothers or sisters?*'. Questions were answered on a five-point Likert scale ranging from 'never', to 'nearly every day'.

The questions sought information about different types and intensity of activities that the Young Person did with their siblings. Information from Section K of the pilot report covering children aged 13 years discussed the trialling and simplification of the set of ALSPAC items. The remaining questions sought information about cooperative play/activities, e.g. '*Play computer or video games together*', '*Go out together*' as well as engaging in conflict '*Argue with one another*', and '*Push, shove, or hit one another*'.

This list of activities is not intended to work like a scale, and therefore mean, SD and Cronbach's alpha will not be provided for these items.

K3–K8: Friendship network

Questions K3–K8 explored the Young Person's friendship network. The 13-year-olds were asked how many friends they had, how many they would describe as close friends, and the ages of their friends. They were also asked how many of their friends their parents had met, how they usually talk to their friends (e.g. by telephone, social media, in person), and to what extent they have fun with and can rely on their friends. At Wave 5 of Cohort '08 (age 9 years), children of this cohort tended to report large friendship networks, with 60% reporting that they had more than 10 friends. While children were not asked to report how many close friends they had at age 9 years, 97% of PCGs said their child had at least one close friend (McNamara et al, 2021).

K9: Sources of support

Question K9 asked the 13-year-old who they would talk to if they needed support or had a problem. Sources of support included parents, a teacher, another adult in school, friends, a sibling, a grandparent, someone else, or no one. This was a new item, developed by the Study Team in response to feedback from young people in focus groups, which highlighted that if 13-year-olds were worried about something and could not discuss it with their parents, they did not always know which other adult they might approach. It also reflects work by other studies on mental health, such as the My World Survey, which has highlighted the positive impact 'one good adult' can have on well-being in adolescence (Dooley & Fitzgerald, 2012).

K10: Closing question

Finally, Question K10 was an open question, asking the 13-year-old what job they would really like to have in the future. This question was included for two reasons. First, in order to give the 13-year-old an opportunity to think ahead to a positive future, once they had completed the questionnaire. Second, the response data can also be used to track the consistency of young people's aspirations over time. A similar question was asked when they were age 9, and in Wave 2 of Cohort '98 (age 13 years).

7.2.11 Verbal semantic fluency test ('animal naming task')

About the test

In a semantic verbal fluency test, participants are asked to name as many items in a particular category within a time limit. In ***Growing Up in Ireland***, the category was 'animals' and the time limit was one minute. 'Animals' is arguably the most commonly used category in this type of test (Tombaugh et al., 1999). Although often used with people in older age groups, the animal naming task was successfully used with

Growing Up in Ireland's Cohort '98 at age 17/18 years and again at age 20 years (when the category was changed to 'fruit').

From the participants' perspective, this is a relatively simple task, as they are just asked to call out as many animals as they can think of in one minute. The participant does not have to read anything or write anything down. The test draws on skills in vocabulary (knowing the names of animals), crystallised knowledge (knowing what animals exist), and also attention to what they've previously said to avoid repetition. While the test does not tie as directly to a single skill as a conventional vocabulary measure, it has some practical advantages for a survey such as ***Growing Up in Ireland***. These include participants being less likely to be aware that they have done poorly (in contrast to seeing a page of test items that they could not work out); most participants should be able to name at least a few animals, and ceiling effects are only limited by time rather than number of test items. In Wave 2 of ***Growing Up in Ireland*** at Cohort '98 (age 17/18 years), there was anecdotal feedback from interviewers that participants often seemed to enjoy the task.

In Wave 6 of Cohort '08, interviewers administered the test to 13-year-olds over the telephone just after they had completed their main interview, and recorded a count of how many animals were named, excluding repetitions and other unacceptable answers. ***Growing Up in Ireland*** used a broad definition of 'animal' in terms of acceptable answers to include fish, birds, insects, reptiles, and different breeds of the same type of animal (e.g. a 'greyhound' and a 'terrier' could count as two separate animals even though they are both dogs). However, animals just distinguished by characteristics such as colour or size could not be counted as separate answers for scoring (e.g. a 'big dog' and a 'small dog' would not get a point each). Mythological creatures or animal characters (e.g. 'unicorn' or 'Scooby Doo') were not valid answers. Interviewers were instructed to give participants the benefit of the doubt if they called out an animal the interviewers themselves were not familiar with (e.g. 'kudu'). Interviewers were under strict instructions not to offer any hints to participants (such as telling them they could include birds or fish), but they could respond honestly to a clarification request (e.g. if the participant asked, 'do birds count as animals?', the interviewer would confirm they did).

Previous use in *Growing Up in Ireland*

The animal naming task was not originally planned for Cohort '08 at age 13 years; a standardised written test had been proposed, in keeping with Cohort '98 at age 13 years. However, given the change in mode to telephone interviewing, the animal naming task was one of the few viable options available that would provide any indication of the Young Person's current cognitive ability. It offered the possibility of being the first instance of future longitudinal data collection using this measure with Cohort '08, and given that it was introduced at age 17/18 years for Cohort '98, a possibility for future cross-cohort comparisons. At that wave, the mean number of animals named in one minute was just over 21, with a relatively normal distribution (SD = 5.7 and skewness = 0.37). There was a moderate, significant correlation (.32) between the 17-year-olds' scores on the animal naming task and a conventional written vocabulary test administered in the same visit. There were also modest but significant correlations with the participants' summary scores in the Junior Certificate subjects of English, Maths and Science (.27, .31 and .30, respectively), and with their Drumcondra verbal reasoning test score, administered as part of their age 13 years interview (.34). However, it is worth noting that the traditional, written vocabulary test administered at age 17/18 years tended to have stronger correlations with the other indicators of cognitive ability (Murray, 2018).

7.3 Overall Structure of the Young Person Self-Complete Questionnaire

The self-complete section of the Young Person's Questionnaire addressed more sensitive topics, and was completed in a follow-up, self-completion survey online. The Young Person only received a unique code to enable them to access the online survey if: (a) they had already completed the main interview by telephone with an interviewer, and (b) their PCG had given consent for them to participate in this module. The questionnaire, provided in Appendix B4, consisted of 10 sections:

- Relationships and sexuality education
- Sources of information on sex/relationships
- Sexual orientation; puberty
- Antisocial behaviour
- Mental health
- Bullying
- Cigarettes, alcohol, and other substances
- Parenting style
- Height and weight
- Ending.

7.3.1 Preliminaries

In the Preliminaries section, the 13-year-old was asked four questions that were designed to capture technical information, such as the participant's study ID number and consent.

Preliminaries	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Preliminary questions	S1S1c		

S1–S1c: Preliminary questions

Question S1 asked the 13-year-old to enter their unique study ID, while Question S1a asked them to confirm their consent. Question S1b sought information about the type of digital device used to complete the questionnaire. Finally, Question S1c asked the 13-year-old to give their date of birth.

7.3.2 Sources of information on sex/relationships

This section contained questions about respondents' sources of information on sex/relationships.

Sources of information on sex/relationships	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Relationship and sexuality education	S2–S4		X

S2–S4: Relationships and sexuality education

Question S2 asked whether the 13-year-old had been taught relationships and sexuality education (RSE) during the current school year, alongside two new questions about being taught how to stay healthy and how to feel good about themselves. Questions S3 and S4 asked whether they had ever discussed sex and/or relationships with a parent/guardian, and where they would be most likely to obtain information on sex or relationship issues. During questionnaire development, RSE was ranked among the 'essential or high priority' topics in the consultation with the ***Growing Up in Ireland*** Scientific Advisory Group and Policy Stakeholders Group (McNamara et al., 2022).

In Wave 2 of Cohort '98 (age 13 years), 55% of young people reported being taught RSE at school, with girls more likely to receive relationship and sexuality education than boys (Nolan & Smyth, 2020b). Mothers were mentioned as the most likely source of advice on sex or relationship issues by 32% of 13-year-olds in Wave 2 of Cohort '98, with only 6% of 13-year-olds in that cohort citing their father as the most likely source of information (Growing Up in Ireland Study Team, 2012b). Friends (but not boyfriends/girlfriends) were mentioned as the second most likely source for information and advice (23%), while 14% said they would go nowhere for information or advice (Growing Up in Ireland Study Team, 2012b).

7.3.3 Sexual orientation; puberty

This section contained questions about respondents' sexual orientation and puberty.

Sexual orientation; puberty	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Current relationship status	S5a		
	Sexual orientation	S5b		
	Puberty	S6–S7g2		X

S5a: Current relationship status

Question S5a asked whether the 13-year-old had a boyfriend or girlfriend at the time of the survey. This was a new question for this cohort, and was not previously asked of Cohort '98 at 13. It was felt that this wave should fill the gap in knowledge on the age at which adolescents begin to identify relationships as 'boyfriend' or 'girlfriend'. While romantic relationships in adolescence are an important component of development and can foster positive developmental functions, they can also lead to intense emotional experiences, stress, and social-emotional difficulties (Collins et al., 2009). Longitudinal research has highlighted a link between early romantic relationships and externalising behaviours such as rule-breaking, aggression, bullying, alcohol use, and risky sexual behaviours, but notes a dearth of information on the impact of delayed romantic relationships on later development (Connolly et al., 2013).

S5b: Sexual orientation

Question S5b asked whether the 13-year-old was attracted to girls, boys, both girls and boys, neither, or if they were unsure or still deciding. This question was based on an item included in the 2018 HBSC survey, although the ***Growing Up in Ireland*** version added the answer options 'prefer not to say' and 'not sure'. This new item was added in light of the increased policy focus arising from developments such as the LGBTI+ National Youth Strategy 2018-2020, which lists developing the research and data environment to better understand the lives of lesbian, gay, bisexual, transgender and intersex (LGBTI+) young people as one of its three goals (Department of Children and Youth Affairs, 2018). The HBSC 2018 pilot report found that 79% of respondents were opposite-gender attracted, 1.7% were same-gender attracted, 6.7% were both-gender attracted, and 10.5% were not attracted to anyone (Költő et al., 2018).

S6–S7g2: Puberty

Question S6 was a routing question, asking the Young Person if they would prefer to answer the puberty question for 'boys' or 'girls'. Those who answered 'boys' were routed to question S7b, which asked if their voice has changed. Those who answered 'girls' were routed to Question S7g1 and Question S7g2, which asked whether they had started their period and, if so, at what age (in years and months). Puberty is an important transition, both physiologically and psychologically, and typically occurs in early adolescence. Menarche – the occurrence of a first menstrual period in a female adolescent – is regarded as a concrete marker of puberty onset in females, and typically occurs around age 12 years (Lacroix et al., 2021). In males, a physical test is the gold standard for determining puberty onset; however, voice changes are generally regarded as an acceptable marker (Hodges-Simeon et al., 2013).

In Wave 2 of Cohort '98 at age 13 years, 73% of girls had started their period at the time of the interview, while 38% of boys reported that their voice was occasionally lower, 23% reported that it had totally changed, and 21% reported that it had not changed at all (Williams et al., 2018). Longitudinally, those in Cohort '98 who started puberty earlier were more likely to report having a boyfriend or girlfriend at age 17 years (Growing Up in Ireland Study Team, 2016), while international longitudinal research has linked early maturation with lower romantic relationship quality in young adulthood (Reese et al., 2017).

7.3.4 Antisocial behaviour

This section contained questions about respondents' antisocial behaviours and contact with the Gardaí (the Irish police force).

Antisocial behaviour	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Delinquent behaviour	S8		X
	Contact with Gardaí	S9		X

S8: Delinquent behaviour

Question S8 provided the 13-year-old with a list of eight types of delinquent behaviour (not paying the correct fare on public transport, stealing from a shop, antisocial behaviour, stealing from school, carrying a weapon, graffiti, stealing from home, and assaulting someone). A 15-item list was used with Cohort '98 at 13; however, an analysis by the Study Team revealed that eight of the items identified the vast majority of those who had engaged in any type of antisocial behaviour (98%), and therefore the list was shortened accordingly. Antisocial and delinquent behaviour, while important to capture in its own right, has implications for longitudinal analyses, being a strong predictor of future criminal behaviour in adulthood (Murray & Farrington, 2010).

S9: Contact with Gardaí

Question S9 asked the 13-year-old if they had ever been in trouble with the Gardaí. While prevalence was expected to be small at age 13 years, it is an important measure to enable longitudinal analysis, especially in the context of possible trajectories that culminate in more serious contact with the criminal justice system. An early age of contact with police is a predictor of continuing contact throughout adolescence and into adulthood (Monahan & Piquero, 2009). In Wave 2 of Cohort '98 (age 13 years), 8% of 13-year-olds reported having been in trouble with the Gardaí (10% of boys and 5% of girls) (Williams et al., 2018). At age 17/18 years, 11% of Cohort '98 participants said they had been in trouble with the Gardaí (15% of males and 7% of females), while 13% had been cautioned by the Gardaí (19% of males and 8% of females; McNamara et al., 2020b).

7.3.5 Mental health

This section contained questions about mental health.

Mental health	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Short Mood and Feelings Questionnaire	S10_1		X
	Auditory hallucinations	S10_2		X

S10_1: Short Mood and Feelings Questionnaire

Anxiety and depression are the most frequently experienced mental health disorders among young people in Ireland (Cannon et al, 2013). If untreated, depression can result in academic failure, poor peer relationships, conflict with parents and other authority figures, self-harm and suicidal ideation, and substance abuse (Cook, Peterson & Sheldon, 2009; Dooley & Fitzgerald, 2012). Evidence from ***Growing Up in Ireland*** has shown that periods of childhood depressive symptoms increase the chances of further symptoms in early adulthood (O'Mahony et al. 2021).

The Short Mood and Feelings Questionnaire (SMFQ) (Angold et al., 1995) was used in the current wave of ***Growing Up in Ireland*** at 13 years of age, as well as being used as an age-appropriate depression screening measure in Cohort '98 Wave 2 at 13 (Thornton et al., 2016) and Wave 3 of Cohort '98 (age 17/18 years) (Murphy et al., 2019).

The SMFQ is a brief (13-item) self-report questionnaire and is a straightforward measure of childhood and adolescent depression. The 13 items were derived from a longer list in the 30-item Mood and Feelings Questionnaire (MFQ), which were then refined to produce the SMFQ by Angold and colleagues. The SMFQ focuses on affective and cognitive symptoms of depression, including one item pertaining to low mood ('I felt miserable or unhappy') and one item addressing anhedonia ('I didn't enjoy anything at all'). The Young Person rates each statement as 'true', 'sometimes true', or 'not true' over the past two weeks. The scores are summed to create an overall depression score or can be used as subscales.

Psychometric information

Scale development of the SMFQ (Angold et al., 1995) revealed that the SMFQ had excellent internal consistency of alpha = .85 for a version self-completed by children (the Short Mood and Feelings Questionnaire – Child self-report (SMFQ-C)) and alpha = .87 for a version completed by the parent about their child (the Short Mood and Feelings Questionnaire – Parent (SMFQ-P)). The SMFQ was also able to discriminate between paediatric and psychiatric subgroups in the validation study, with higher depressive means found in the psychiatrically referred group with a sensitivity of 0.60 and specificity of 0.85. Further discussion of the psychometric properties of the SMFQ in ***Growing Up in Ireland*** specifically can be found in Murphy et al. (2019).

Performance in the main phase of the study

Table 7.4 provides reliability (alpha) statistics for the SMFQ, as well as the mean, SD, achieved range and a sample item. Very high internal consistency (.92) was reported for this scale.

Table 7.4: Performance of the SMFQ in the main phase of the study

	Sample item	Mean (SD)	Achieved range	Cronbach's alpha
SMFQ	I felt miserable or unhappy.	6.14 (5.84)	0–26	.92

S10_2: Auditory hallucinations

Question S10_2 asked the 13-year-old if they had ever heard voices or sounds that no one else can hear. Several questions addressing symptoms of psychosis were previously used with Cohort '98 in Wave 2 (age 13 years) and Wave 3 (age 17/18 years); however, when streamlining the questionnaire for remote implementation, the Study Team recommended just one of these symptoms for inclusion in the main phase of Wave 6 of Cohort '08. This question sought information about auditory hallucinations, which are frequently used as an indicator of psychotic experiences (e.g. Maijer et al., 2019). However, it is not suggested that this single item measure be used as a diagnostic tool in ***Growing Up in Ireland***.

7.3.6 Bullying

This section contained questions about bullying – both the experience of being bullied and of bullying others.

Bullying	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Being a victim of bullying	S11–S16	X	X
	Bullying others	S17	X	X

S11–S16: Being a victim of bullying

Questions S11–S16 dealt with being a victim of bullying during the previous three months. These questions sought information about the type of bullying (e.g. physical bullying, name calling, online bullying), whether the 13-year-old was bullied by the same person on multiple occasions, how it made them feel, and if they told an adult about being bullied. These questions were modified from those used in Wave 2 of Cohort '98 at age 13 years; specifically, the questions about types of bullying experienced were no longer filtered out even if the respondent answered 'no' to the question 'have you been bullied in the past three months?'. This filter was removed, since its inclusion forced the Young Person to define their experience as 'bullying', which could lead to distorted prevalence rates if respondents were more or less likely to use the label to describe their experiences.

Capturing information on bullying is important in understanding how experiences of bullying can affect well-being. There is also evidence of gender and socioeconomic differences in rates of experiencing being bullied, with boys and those from lower socioeconomic backgrounds being more likely to report bullying (Bradshaw et al., 2017). Boys are also more likely to experience physical bullying, with girls more likely to experience name-calling, gossip, or exclusion (Hong & Espelage, 2012; Carbone-Lopez et al., 2010; Cook et al., 2010). These trends have been found in Cohort '98 at age 13 years and in Wave 5 of the current cohort at age 9 years (McNamara et al., 2021; Williams et al., 2018). In Wave 5 of Cohort '08 (age 9 years), 41% of children reported having been 'picked on' during the previous year.

S17: Bullying others

Question S17 asked 13-year-olds if they had bullied someone else in the last three months. Bullying others has been associated with greater stress, aggression, and poorer health outcomes in adulthood for males

(Matthews et al., 2017), while bully/victims (those who bully others and are also themselves bullied) show higher levels of both aggression and depression, poorer academic outcomes, less prosocial behaviour, and low self-esteem across the life course (Jansen et al., 2011). In this cohort at age 9, 15% of children said they had 'picked on' someone during the previous year (McNamara et al., 2021).

7.3.7 Cigarettes, alcohol, and other substances

This section contained questions about the 13-year-old's use of cigarettes, alcohol, and illicit drugs.

Cigarettes, alcohol, and other substances	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Cigarettes and e-cigarettes	S18–S22		X
	Alcohol	S23–S24		X
	Illicit drug use	S25–S27		X

S18–S22: Cigarettes and e-cigarettes

Questions S18–S22 asked the 13-year-olds if they had ever smoked a cigarette, how often they smoked currently, and how many cigarettes they smoked in an average week. They were also asked about e-cigarette use, and whether they considered e-cigarettes to be more, less, or equally harmful compared with cigarettes. While it is expected that very few 13-year-olds will have smoked or used e-cigarettes, it is important to capture information on the early trajectories of smoking. Longitudinal data from Cohort '98 illustrate a strong link between smoking at age 13 years and smoking at age 20 years, with the likelihood of being a daily smoker at age 20 years increasing almost threefold if the participant had smoked by age 13 years (O'Mahony et al., 2021).

S23–S24: Alcohol

Questions S23 and S24 asked whether the Young Person had ever had an alcoholic drink (aside from just a few sips), and, if yes, how often they drank currently. Again, while prevalence of alcohol use is expected to be low at this age, the potential for long-term, irreversible damage from alcohol use during adolescence renders this important information to capture.

S25–S27: Illicit drug use

Questions S25–S27 sought information about use of 'illicit drugs' – a term used here to refer to any psychoactive substance aside from alcohol and nicotine. Thirteen-year-olds were asked (across different questions) if they had ever used cannabis, inhaled solvents, or if they had ever used other drugs (ecstasy, speed, heroin, methadone, crack, or cocaine). While prevalence is likely to be even lower than that for alcohol or smoking, the significant consequences of childhood drug use means that these are important questions (Wang & Hoyte, 2018). At age 13 years, the young people of Cohort '98 reported low levels of illicit drug use – 2.9% had sniffed solvents, 1.4% had used cannabis, and 0.4% had used other drugs (Williams et al., 2018).

7.3.8 Parenting style

This section contained questions from the responsiveness subscale of the Parenting Style Inventory II (Darling & Toyokawa, 1997).

Parenting style	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Parenting style	S28_1–S28_6		X

S28_1–S28_6: Parenting style

Parents have different patterns of interaction with their children. In this case, parenting style refers to the degree of warmth exhibited and patterns of control that parents tend to use when interacting with their children, such as when responding to bad behaviour. Parenting style is widely acknowledged as being an important input into child development and later well-being (Greene et al., 2010), particularly in relation to the positive impact of an authoritative parenting style (high warmth combined with high control; Baumrind, 1966). Parenting style measures have been used in several phases of ***Growing Up in Ireland***, with an in-depth discussion of parenting style outlined in the design reports for Wave 1 of Cohort '98 (age 9 years) (Murray et al., 2010) and Wave 2 of Cohort '98 (age 13 years) (Thornton et al., 2016).

The Parenting Style Inventory II (PSI-II) (Darling & Toyokawa, 1997) uses subscales of Responsiveness, Demandingness and Autonomy, which are closely related to the concepts of warmth and control in parenting. In the current ***Growing Up in Ireland*** wave, only the responsiveness subscale was employed; this was due to a pressing demand to shorten the questionnaire.

The Young Person was asked to consider their PCG only when answering the questions about parenting style. They first answered a general question (which was not part of the subscale) on relationship quality ('How well do you get on with this parent or guardian who usually looks after you?'), choosing from the options of 'very well', 'fairly well', and 'we do not get on'. The Young Person then read five statements about their PCG's responsiveness and indicated their level of agreement with the statements using a five-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'.

Psychometric information

Previous validation of the PSI (Darling & Toyokawa, 1997) used a sample of 318 11–14-year-olds and found an alpha reliability of .72 for responsiveness (as well as .72 for demandingness and .75 for autonomy-granting, which were not used in this wave of Cohort '08). The authors also demonstrated validity for the scales. For example, responsiveness was found to correlate with parental monitoring (r = .52) and self-esteem (r = .34), while demandingness was associated with school involvement (r = .52) and parental monitoring (r = .30).

In ***Growing Up in Ireland***, Cohort '98 at 13 years of age, the reliability of the PSI subscales was found to be broadly acceptable for responsiveness (alpha = .59 for both PCG and SCG), demandingness (alpha = .68 for PCG and .76 for SCG) and autonomy-granting (alpha = .55 for PCG and .64 for SCG).

Performance in the main phase of the study

Table 7.5 provides reliability (alpha) statistics for the Parenting Style Inventory II in the main phase of the study, as well as the mean, SD, achieved range and a sample item. Internal consistency for this scale was very good (.84).

Table 7.5: Performance of the Parenting Style Inventory II in the main phase of the study

PSI-II	Sample item	Mean (SD)	Achieved range	Cronbach's alpha
Responsiveness	I can count on my parent to help me out if I have a problem.	25.2 (4.0)	7–30	.84

7.3.9 Height and weight

The questions in this section asked respondents to report their height and weight. These measurements were recorded by interviewers in previous waves of the study; however, self-report was necessary due to remote data collection. While numerous studies have noted that self-reported physical measurements tend to slightly overreport height and underreport weight, thus underestimating body mass index (BMI), absolute differences between self-report and measured BMI remained small (Merrill & Richardson, 2009; Olfert et al., 2018; Hodge et al., 2020). This means that self-reported height and weight could be used to calculate BMI reasonably accurately for weight classification purposes.

Height and weight	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Height	S29a–S29c	Measured by interviewer	Measured by interviewer
	Weight	S30a–S30c	Measured by interviewer	Measured by interviewer

S29a–S29c: Height

Questions S29a–S29c asked the 13-year-old to report their height, whether this measurement was taken in the last month or was a guess, and whether an adult helped with this measurement.

S30a–S30c: Weight

Questions S30a–S30c recorded self-reported weight, whether this was measured in the last month, and whether an adult helped with the measurement.

7.3.10 Ending

This section closed the self-complete questionnaire.

Ending	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Looking forward to adulthood	S31		
	Alone when completing questionnaire	S32–S33		X

S31: Looking forward to adulthood

Due to the potential for the self-complete questionnaire to be emotionally intensive, a future-oriented item was included as a cool-down. Question S31 asked the 13-year-old what they were most looking forward to as an adult. Options included studying, training, or doing an apprenticeship; getting a job; living in their own place; travelling to different countries; deciding for themselves things like what to eat or wear; making new friends; and having their own money to spend as they wish. This is a new item, constructed by the Study Team, and its more qualitative slant should complement the other more quantitative-oriented items reported by the Young Person.

S32–S33: Alone when completing questionnaire

The two final questions, Questions S32 and S33, asked whether the Young Person was alone when completing the questionnaire and, if not, who was present. This provides the opportunity for analysis of the potential impact of responses in the presence of others.

7.4 Short and Proxy Questionnaires

In order to facilitate as many young people as possible to take part, the Study Team introduced new instruments and protocols to allow those unable to complete a full interview to take part. If, for any reason, the 13-year-old was unable to complete the full main questionnaire, they were offered the Short Questionnaire. Ideally, this Short Questionnaire would be completed by the 13-year-old themselves, they were welcome to complete it with the help of an advocate if necessary (e.g. a carer, sibling, or parent). If the 13-year-old was unable to complete the Short Questionnaire, even with the help of an advocate, the parent was invited to complete a Proxy Questionnaire on their behalf (with consent from both the Young Person and parent). The Short and Proxy Questionnaires were not used as a means of encouraging reluctant participants who were otherwise able to complete a full interview. The order of preference for completing the Young Person main questionnaire was as follows:

1. The 13-year-old completes the full Young Person main questionnaire with the interviewer.
2. The 13-year-old completes the shorter main questionnaire with the interviewer.
3. The 13-year-old completes the shorter main questionnaire with the help of an advocate.
4. A parent completes the proxy interview on behalf of the 13-year-old.

The 13-year-old was invited to self-complete the Young Person Self-Complete Questionnaire if able to do so. Shortened, assisted, or proxy questionnaires were not offered for sensitive items.

Both the Short and Proxy Questionnaires were made up of questions taken from the 13-year-old Main Questionnaire. As these questions have been addressed in detail earlier in this chapter, this section will only list the sections and constructs addressed in the Short and Proxy Questionnaires. However, there are differences in question numbering across questionnaires. To address this, the corresponding question numbers in the Main Questionnaire are given in parentheses in order to facilitate reference back to the original rationale and description. The full versions of the Short Questionnaire and the Proxy Questionnaire are provided in Appendix B7.

7.4.1 Short Questionnaire Structure

The short questionnaire contained eight sections:

A. Preliminaries
B. Activities and time at home during COVID-19 pandemic-related restrictions
C. Activities
D. Internet and screen time
E. School and education
F. Pocket money
G. Physical activities and chores
H. Siblings and friends.

7.4.1.1 Section A: Preliminaries

Section A included a question asking the Young Person to confirm that they had read the information sheet, discussed participating with a parent/guardian, and agreed to take part in the survey.

7.4.1.2 Section B: Activities and time at home during COVID-19 pandemic-related restrictions

Section B contained a question from the ***Growing Up in Ireland*** Special COVID Survey addressing experiences of home learning during the COVID-19 pandemic-related restrictions.

Section B	Construct	Question	Included in Special COVID Survey
	Learning experiences during school closures	B1 (Main:B1)	X

7.4.1.3 Section C: Activities

Section C addressed the 13-year-old's participation in sports and/or cultural activities.

Section C	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Participation in team sports, cultural clubs, or other community groups	C1, C2, C3, C4 (Main: C1, C2, C3, C4)	X	X
	Participation in informal sports, cultural, or social activities	C6 (Main: C6)	X	X

7.4.1.4 Section D: Internet and screen time

Section D covered the Young Person's Internet usage and screen time.

Section D	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Internet-enabled devices	D1 (Main: D1)	X	X
	Online profiles	D4, D5 (Main: D3 and D4)	X (PCG report)	

7.4.1.5 Section E: School and education

Section E contained questions about the Young Person's school and education.

Section D	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Class	E1 (Main: E1)	X	X
	Subjects taken	E2, E3, E5 (Main: E2, E3, E4)		X
	Transition to secondary school	E8, E11 (Main: E5, E9)		X
	Perception and experience of school	E12, E14, E16, E17, E18, E19 (Main: E10, E12, E13, E14, E15, E16)	X	X

7.4.1.6 Section F: Pocket money

Section F sought information about pocket money.

Section F	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Pocket money	F4, F5 (Main: F4, F5)		X

7.4.1.7 Section G: Physical activities and chores

Section G contained questions about physical activity and chores.

Section G	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Physical activity	G1, G2 (Main: G1, G2)	X	X
	Chores	G5_1 (Main: G3)	X	X

7.4.1.8 Section K: Siblings and friends

Section K contained questions about siblings, friends, informal sources of support, and future career aspirations.

Section K	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Relationship with siblings	K1, K2 (Main: K1, K2)		
	Friendship network	K3, K4, K5, K6, K8, K9 (Main: K3, K4, K5, K6, K7, K8)	X	X

7.4.2 Proxy Interview Structure

The proxy interview contained six sections:

A. Preliminaries
B. Activities
C. Internet and screen time
D. School and education
E. Pocket money
F. Physical activities and chores

7.4.2.1 Section A: Preliminaries

Section A contained a question asking the Young Person to confirm that they had read the information sheet, discussed participating in the survey with a parent/guardian, and agreed to take part in the survey.

7.4.2.2 Section C: Activities

Section C addressed the 13-year-old's participation in sports and/or cultural activities.

Section C	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Participation in team sports, cultural clubs, or other community groups	C1–C4 (Main: C1–C4)	X	X
	Participation in informal sports, cultural, or social activities	C6 (Main: C6)	X	X

7.4.2.3 Section D: Internet and screen time

Section D covered the Young Person's Internet usage and screen time.

Section D	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Internet-enabled devices	D1 (Main: D1)	X	X
	Online profiles	D4 and D5 (Main: D3 and D4)	X (PCG report)	X

7.4.2.4 Section E: School and education

Section E contained questions about the Young Person's school and education.

Section E	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Class	E1 (Main:E1)	X	X
	Subjects taken	E2, E3, E5 (Main: E2, E3, E5)		X
	Transition to secondary school	E8, E11 (Main: E5, E9)		X
	Perception and experience of school	E14, E16, E17, E18, E19 (Main: E12, E13, E14, E15, E16)	X	X

7.4.2.5 Section F: Pocket money

Section F sought information about pocket money.

Section F	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Pocket money	F4 and F5 (Main: F4 and F5)		X

7.4.2.6 Section G: Physical activities and chores

Section G contained questions about physical activity and chores.

Section G	Construct	Questions	Included in Cohort '08 at age 9	Included in Cohort '98 at 13-Years
	Physical activity	G1 and G2 (Main: G1 and G2)	X	X
	Chores	G5_1 (Main: G3)	X	X

Chapter 8
School Instrument

8.1 Introduction

This chapter outlines the topics covered in the survey of secondary school principals. A survey of secondary school principals has been included in all waves of data collection during which Cohort '98 and Cohort '08 respondents were in school. These surveys provide information on the characteristics of the school (such as size and student composition), as well as aspects of school policy and practice. This information enables investigation into how child outcomes are related to school characteristics. The influence of educational inputs on educational outcomes at school level has been an area of ongoing debate, with some researchers (e.g. Holzberger et al., 2020) arguing that there is little evidence to support the relationship between resources and educational outcomes. However, others (e.g. Jackson et al., 2018) argue that per-pupil expenditure is systematically related to student achievement, with reduced expenditure leading to lower test scores and reduced likelihood of progression to further education.

In this chapter, each questionnaire section is tabulated in order to summarise the topics addressed and to indicate whether topics were included in the School Principal Questionnaires at the 9-year wave of the Cohort '08 survey or in the 13-year wave of the Cohort '98 survey. This chapter should be read in conjunction with Appendix B8, which contains the full text of the School Principal questionnaire.

8.2 Overall Structure of the Principal Questionnaire

The Principal Questionnaire was posted out to schools as a paper-based questionnaire with a postage-paid envelope. It consisted of seven sections:

A. School experiences of the COVID-19 pandemic
B. Information on the school principal
C. School characteristics
D. Curriculum, teaching, and learning
E. Student profile and school supports
F. Parental involvement
G. Experiences as a school principal.

8.2.1 Section A: School experiences of the COVID-19 pandemic

Section A gathered information on the school's experiences during the COVID-19 pandemic. It included a new set of questions that had not been included in previous ***Growing Up in Ireland*** waves.

Section A	Construct	Question
	Impact on students	1–2
	Remote learning	3a–3b
	Impact of public health requirements	4, 8
	Funding	5a–5b
	Readjustment following closures	6–7

1–2: Impact on students

Question 1 asked the school principal to compare their student body pre- and post-COVID-19 closures across five domains: engagement, motivation, well-being, attendance, and behaviour in class. This question was adapted from a survey of secondary school principals carried out by Mohan et al. (2020). Question 2 asked the school principal to estimate what percentage of students were 'behind'. This question was adapted from a survey of school leaders and teachers in England conducted by the National Foundation for Educational Research (Sharp et al., 2020).

3a–3b: Remote learning

Question 3a and Question 3b asked how satisfied the school principal was with the remote learning their school was able to provide during the periods of school closures in April 2020 and January 2021, respectively.

4, 8: Impact of public health requirements

Question 4 sought information about the impact that COVID-19 and the associated public health requirements had on a range of school activities. School principals were asked whether activities (including daily teaching, group work, practical work, physical education (PE) and sports, other activities, and interactions between staff and students) continued as normal, continued with some changes, were severely curtailed, or were actively suspended. Question 8 asked whether the school had to close and/or send a year/class/group of students home due to COVID-19 or suspected COVID-19 infection.

5a–5b: Funding

Question 5a and Question 5b asked whether the school had received funding under the COVID Learning and Support Scheme (CLASS), and, if yes, how many students were supported through this scheme. CLASS is a Government programme which provides additional teaching hours to schools in order to address learning loss among students during the periods of school closures.

6–7: Readjustment following closures

Question 6 sought information about any activities the school may have provided in order to help students adjust to the return to in-person learning. These activities included summer programmes for students with special educational needs or at-risk/disengaged students, additional supports, sessions on well-being, and additional socio-emotional support. Question 7 asked whether the school principal believed these activities were effective in helping students to adjust to the return to in-person learning.

8.2.2 Section B: Information on the school principal

Section B collected basic information on the school principal themselves. Research has indicated that personal factors of school principals may have an impact on school practices – for example, in Irish primary schools, female school principals are less likely than male school principals to use punitive disciplinary measures (Smyth & Quail, 2017).

Section B	Construct	Questions	Included in Age 5 Principal Survey	Included in Age 9 Principal Survey	Included in Cohort '98 13yr Principal Survey
	Sex	9	X	X	X
	Age	10	X	X	X
	Years' experience	11a–11b	X	X	X

9: Sex

Question 9 asked if the school principal was male or female.

10: Age

Question 10 asked which age group the school principal belonged to.

11: Years' experience

Questions 11a and 11b sought information about the number of years the respondent had been a school principal, both in their current school and in other secondary schools.

8.2.3 Section C: School characteristics

Section C sought information about the characteristics of the school attended by the Young Person.

Section C	Construct	Questions	Included in Age 5 Principal Survey	Included in Age 9 Principal Survey	Included in Cohort '98 13yr Principal Survey
	Basic information about the school	12–17, 21	X	X	X
	Staffing resources	18–20	X	X	X
	Perception of adequacy of resources and facilities	22–23b	X	X	X

12–17, 21: Basic information about the school

These questions sought information about the school size, gender mix, the type of school (fee-paying, community college, comprehensive, etc.), its ethos in terms of beliefs/ethics, the main language medium and whether the school participates in the Delivering Equality of Opportunity in Schools (DEIS) Programme. School principals were also asked whether the school participates in the School Completion Programme. Longitudinal research has identified positive outcomes associated with DEIS schools, including significant improvements in reading and mathematics test scores, decreased absenteeism rates, and a narrowing of the gap between DEIS and non-DEIS schools in the number of students completing both Junior Cycle and Senior Cycle (Smyth et al., 2015).

18–20: Staffing resources

Question 18 asked how many full-time and part-time teachers work at the school, as well as for a gender breakdown of teachers. Question 19 asked whether the school employs a range of staff in specific roles, such as special education teachers, special needs assistants, and language support teachers. Question 20 sought information about whether the school had a guidance counsellor, and how many hours per week the guidance counsellor spent giving counselling. It has been argued that guidance counselling plays a significant role in improved outcomes for students (Hearne et al., 2017), and a 2016 report by the Institute of Guidance Counsellors reported a 51% reduction in one-to-one guidance counselling provision in schools when compared with previous years, with a shift towards a whole school approach to career guidance (Hearne & Neary, 2020).

22–23b: Perception of adequacy of resources and facilities

Question 22 assessed the perceived adequacy of the school's resources and facilities across several areas (e.g. number of teachers, Internet access, sports facilities, science labs/equipment). Question 23a asked in what year the school was built, while Question 23b asked how many students the school principal feels the school is designed for. School building projects have been a Government focus in recent years, with the National Development Plan 2021-2030 providing €4.4 billion for investment in school infrastructure from 2021 to 2025.

8.2.4 Section D: Curriculum, teaching, and learning

Section D sought information about the school's curriculum, programmes and subjects offered, and teaching practices.

Section D	Construct	Questions	Included in Age 5 Principal Survey	Included in Age 9 Principal Survey	Included in Cohort '98 13yr Principal Survey
	Programmes and curriculum	24–27			X
	Allocation of students	28	X	X	X
	Use of digital devices in the classroom	29		X	
	Perspectives on the revised Junior Cycle	30			

24–27: Programmes and curriculum

Question 24 sought information about the programmes offered by the school (such as the Transition Year programme, Leaving Certificate Applied, and Post-Leaving Certificate Courses, etc.), as well as the new Level 1 and Level 2 Learning Programmes, which are designed to cater for students with special needs who may not be able to engage with the regular curriculum. Question 25 sought information about how many, if any, students were on reduced timetables or shorter days. Question 26 and Question 27 sought information about the subjects offered at Junior Cycle within the school, including new information on the provision of short courses. School principals were asked at what level Irish, English, and Maths are taught.

28: Allocation of students

Question 28 asked how students are allocated to base classes if there is more than one class in any Junior Cycle year group. This question enables identification of schools that use ability grouping. A 2018 literature review concluded that ability grouping presents a class issue, in that working-class students are disproportionately placed in lower groups, which may lead to low motivation and underachievement, and that ability grouping is likely subject to biases from teachers (Jackson, 2018). Irish longitudinal research has also identified that ability grouping results in significantly lower Leaving Certificate grades for those in lower classes, with no achievement gain identified for those in higher classes (Smyth et al., 2011).

29: Use of digital devices in the classroom

Question 29 asked school principals about the proportion of students who use an individual digital device for education purposes in the classroom. This question will complement information gathered from the 13-year-olds themselves on their experience of technology use in the classroom. A 2019 paper highlighted an urgent need for systematic research on the use of digital devices in Irish schools in order to provide insights to help inform policy (Marcus-Quinn et al., 2019).

30: Perspectives on the revised Junior Cycle

Question 30 was designed to capture information on the perceived effects of policy changes relating to the revised Junior Cycle. There have been substantial changes to the curriculum, teaching practices, and learning and assessment strategies at Junior Cycle level in recent years (Department of Education and Skills, 2015). The revised Junior Cycle now features the provision of Level 1 and Level 2 Learning Programmes for students with additional needs, new subject specifications, and a new well-being curriculum, and all subjects aside from Irish, English, and Maths being taken at a common level in contrast to higher or ordinary level. The assessment strategy now involves final exams and assessment tasks alongside classroom-based assessments and achievements in other areas of learning. Secondary school entrants in the 2019–2020 school year were the first to experience the full range of these changes. School principals were asked to what extent they agreed/disagreed with a number of statements about their school's experience of the revised Junior Cycle curriculum. These statements covered issues such as teaching methodologies, teacher perspectives, timetabling challenges, and the development of short courses by the school.

8.2.5 Section E: Student profile and school supports

Section E sought information about the profile of students and the range of supports available to students.

Section E	Construct	Questions	Included in Age 5 Principal Survey	Included in Age 9 Principal Survey	Included in Cohort '98 13yr Principal Survey
	Oversubscription to school and admissions criteria	31–33	X	X	X
	Students with additional needs	34	X	X	X
	School non-attendance	35–36		X	X
	School composition	37	X	X	X
	Proportion of students who go on to higher education	38			
	Supports for students	39–40	X	X	X
	Extracurricular activities	41	X	X	X
	Meal provision and healthy eating policy	42–45c	X	X	
	Anti-bullying programme	46			X
	Student involvement in school decision-making	47			
	Discipline practices in the school	48	X	X	X

31–33: Oversubscription to school and admissions criteria

Questions 31–33 asked whether there were any other local schools in the area, whether the school was oversubscribed, and, if so, what criteria were used to admit students. Since Wave 2 of Cohort '98 (age 13 years) was carried out, the Education (Admission to Schools) Act 2018 (Ireland) has placed additional restrictions on the criteria a school can use to admit students, with the aim of creating a fairer and more transparent admissions process. This means that schools can no longer prioritise applicants based on their attendance at a preschool, their academic ability, skills, aptitude, or their religion (although some exceptions remain regarding religion; for example, schools providing religious instruction or education in a minority religion can prioritise applicants of that religion).

34: Students with additional needs

Question 34 asked approximately what proportion of students have literacy problems, numeracy problems, and/or emotional or behavioural problems that adversely affect their educational development. Research using ***Growing Up in Ireland*** data reports that 21% of students have at least one special educational need, with higher rates in boys, those from disadvantaged backgrounds, and those attending disadvantaged schools (McCoy et al., 2016). This research also found that those with special educational needs are less

likely to like school, are more likely to find school difficult, and have different interactions with both peers and teachers when compared with those who do not have special educational needs.

35–36: School non-attendance

Question 35 and Question 36 addressed non-attendance, seeking information about average daily attendance for the current school year, as well as information about the proportion of students who missed 20 days of school or more in the previous school year as per Tusla, the Child and Family Agency figures. Irish research has identified inequality in school non-attendance, reporting that boys, students who are older than their classmates, and those with lower educational expectations tend to have higher levels of non-attendance. In addition, those who 'skip' school more frequently show lower levels of school completion and progression to further education, as well as greater difficulty securing employment (McCoy et al., 2007).

37: School composition

Question 37 sought information about the number of students in the school who are from immigrant backgrounds, from Traveller backgrounds, who have a native language other than English/Gaeilge, and/or have physical/sensory disabilities or learning/intellectual disabilities. While the impact of school composition on student outcomes has been an area of debate, Irish longitudinal research has indicated that a secondary school's social mix impacts on students' chances of progressing to higher education (McCoy et al., 2014).

38: Proportion of students who go on to higher education

Question 38 sought information about the proportion of students that typically progress to higher (third-level) education, such as universities, technological universities, or institutes of technology. Several studies have shown that schools vary in terms of the proportion of students who progress to higher education, even when controlling for other factors such as gender, family background, and academic performance (Iannelli, 2004; Pustjens et al., 2004). In Irish secondary schools, two processes have been identified as driving much of this variation: school practice around the uptake of higher-level subjects, and guidance for students around post-school options (Smyth, 2020a). This was a new question for ***Growing Up in Ireland*** participants at the age of 13 years, but it was included in the Principal's Questionnaire in Cohort '98 at age 17/18.

39–40: Supports for students

These questions ask about school supports in place for students. Question 39 sought information about any specific supports in place to help first year students adapt to second-level education. Question 40 sought information about the involvement of different members of staff (such as the school principal, year heads, and class tutors) in providing personal and social support to students. ***Growing Up in Ireland*** data have illustrated a significant relationship between positive interactions with secondary school teachers and positive transitions to secondary school (Smyth, 2017).

41: Extracurricular activities

Question 41 sought information about the provision of a range of extracurricular activities. If activities were curtailed due to the COVID-19 pandemic, the school principal was instructed to answer in relation to the pre-COVID-19 period. Schools may be an important provider of extracurricular opportunities, especially where families may have difficulty in paying for activities privately. In ***Growing Up in Ireland***'s special COVID survey, children in Cohort '08 were more likely to say that they participated less than usual in organised cultural activities and sports activities due to COVID-19 pandemic-related restrictions (when schools were

closed) if they were from the lowest- rather than highest-income families (Growing Up in Ireland Study Team, 2021).

42–45c: Meal provision and healthy eating policy

These questions sought information about the provision of meals and whether the school had a healthy eating policy. Schools can – through the provision of healthy food, a healthy eating policy, and/or access to unhealthy foods – influence students' eating habits (Townsend et al., 2011). Initiatives such as breakfast clubs have been linked to a range of positive outcomes, including improved school attendance and punctuality, improved relationships between staff and students, and increased self-esteem and independence in students (Healthy Food for All, 2012).

Question 42 sought information about whether the school provided a breakfast club and/or free meals at lunchtime (if these were curtailed due to the COVID-19 pandemic, the school principal was instructed to answer in relation to the pre-COVID period). Research using data from Wave 3 of Cohort '98 reported that 27% of 17/18-year-olds had attended schools providing a breakfast club, while 18% attended schools providing free lunches, with higher prevalence in those from more socioeconomically disadvantaged backgrounds (Nolan & Smyth, 2020a). Question 43 asked if the school had a healthy eating policy, while Question 44 sought information about a range of healthy eating measures (e.g. are certain foods/drinks banned in school, are students and parents given advice on healthy eating). In Wave 3 of Cohort '98, 58% of 17/18-year-olds attended schools describing themselves as having a healthy eating policy, while 72% attended schools that prohibited certain foods or drinks (Nolan & Smyth, 2020a). Questions 45a–45c asked whether the school had a vending machine, and, if the answer was 'yes', whether it sold sugary drinks and/or sugar-free drinks. Almost one-half (45%) of 17/18-year-olds in Wave 3 of Cohort '98 attended a school that had vending machines, and in 36% of these schools the vending machines sold sugary drinks (Nolan & Smyth, 2020a).

46: Anti-bullying programme

Question 46 sought information about whether the school uses a formal anti-bullying programme. Under the Education (Welfare) Act, 2000, all schools are required to have an anti-bullying policy in place as part of their code of behaviour. While the Department of Education published guidelines for schools in relation to anti-bullying procedures in 2013, a 2021 report by the Joint Committee on Education, Further and Higher Education, Research, Innovation and Science concluded that these guidelines need to be updated in response to developments in international best practice relating to bullying prevention.

47: Student involvement in school decision-making

Question 47 asked to what extent students' opinions are considered when deciding about school rules, teaching practices and materials, and uniforms. One case study on student and teacher involvement in decision-making in an Irish secondary school (Harrison et al., 2016) suggested that students desired more substantial involvement in decision-making (such as through voting), and involvement on 'important' as well 'trivial' matters.

48: Discipline practices in the school

Question 48 asked the school principal about the frequency of use of different forms of addressing misbehaviour in the school. It is similar to the question used in previous waves, with the addition of a new item on the use of restorative justice. Restorative justice, which views misconduct as a violation against people and relationships, as opposed to school rule-breaking (Cameron & Thorsborne, 2001), aims to restore relationships where there has been harm using a process involving offenders, victims, and other members of the community. It has been associated with positive relationships between students and teachers and a reduction in misconduct and discipline referrals (McCluskey et al., 2008).

8.2.6 Section F: Parental involvement

Section F sought information about the level of parental involvement in the school.

Section F	Construct	Questions	Included in Age 5 Principal Survey	Included in Age 9 Principal Survey	Included in Cohort '98 13yr Principal Survey
	Parental involvement	49–51	X	X	X
	Voluntary contributions	52a–52c		X	

49-51: Parental involvement

Question 49 and Question 50 sought information about whether the school usually holds formal parent-teacher meetings at least once per year, and, if so, what percentage of parents attend these meetings. In Wave 2 of Cohort '98 (age 13 years), Primary Caregivers (PCGs) self-reported high levels of attendance at such meetings across different social class groups, although lower social class groups were much less likely to attend other school events (Williams et al., 2018). For Wave 5 of Cohort '08 at age 9 years (when the children were in primary school), however, there was an education gradient in teachers' reports of attendance at parent-teacher meetings for individual children, with almost universal attendance among the highest-educated parents but a slightly lower level of attendance (90%) for parents with the lowest level of education (McNamara et al., 2021).

Question 51 sought information about a range of facilities provided to parents by the school, including a parents' association, a parents' room, courses for parents, and access to health or social service professionals on the school premises.

52: Voluntary contributions

Questions 52a–52c sought information about voluntary financial contributions from parents. These last questions were not asked in Wave 2 of Cohort '98 (age 13 years), but were asked of parents in Wave 5 of Cohort '08 (age 9 years) – at which time two-thirds of PCGs indicated that a voluntary contribution had been requested from the school, which most PCGs had paid (McNamara et al., 2021).

8.2.7 Section G: Experiences as a school principal

Section G sought information about the school's curriculum, programmes and subjects offered, and teaching practices.

Section G	Construct	Questions	Included in Age 5 Principal Survey	Included in Age 9 Principal Survey	Included in Cohort '98 13yr Principal Survey
	Challenges	53	X	X	X
	Job stress and satisfaction	54a–54b	X	X	X

53: Challenges

Question 53 was an open-ended question, asking the respondent to describe the main challenges facing them as a school principal. The answers received could provide detailed insights into variation across schools on the issues they cope with.

The COVID-19 pandemic has meant that schools have had to cope with new challenges. A report by the Joint Oireachtas Committee on Education, Further and Higher Education, Research, Innovation and Science on *The Impact of COVID-19 on Primary and Secondary Education* (January 2021) noted issues such as insufficient space in classrooms to maintain social distancing, problems with ventilation, and an increase in students presenting with Special Educational Needs amongst others.

54a–54b: Job stress and satisfaction

Question 54a and Question 54b asked the school principal to rate how stressed they feel as a result of their job and how satisfied they feel with their job. A report using earlier ***Growing Up in Ireland*** data examined job satisfaction and stress levels in primary school teachers, noting that while the majority (93%) of school principals were happy in their job, 70% reported experiencing occupational stress (Darmody & Smyth, 2011). Factors associated with higher occupational stress included higher proportions of students with emotional/behavioural difficulties, poor administrative support, and older school buildings.

8.3 Conclusion

This chapter focused on the survey of principals of schools attended by the Cohort '08 13-year-olds. The survey captured information about the characteristics of the school as well as aspects of school policy and practices, allowing for investigation into how child outcomes are related to school characteristics.

Chapter 9
Summary

9.1 Introduction

The purpose of this report was to describe in detail the design, instruments and procedures used to implement the sixth wave of ***Growing Up in Ireland*** data collection for Cohort '08 at age 13 years. The report focused on the operational procedures used to conduct fieldwork, as well as the content and structure of the data collection instrumentation used at this wave.

9.2 Survey Mode

The most substantial design-related difference between this and previous waves of the ***Growing Up in Ireland*** study was with regard to the mode of data collection. Previously, the vast majority of fieldwork was conducted in person by interviewers visiting the respondents' homes. However, the COVID-19 pandemic and associated restrictions meant that in-person fieldwork would not be possible for the sixth wave of data collection, which was scheduled to take place during the pandemic. Substantial adaptations were made to the study design, particularly to the mode of data collection, resulting in all fieldwork being conducted remotely; interviews took place via telephone (computer-assisted telephone interview (CATI) for the main questionnaires) and online (computer-assisted web interview (CAWI) for the self-complete questionnaires). The School Principal questionnaire was, however, administered by post, as in previous waves.

In-person interviewing used in previous waves of ***Growing Up in Ireland*** included both interviewer-administered computer-assisted personal interview (CAPI) for the main interviews and computer-assisted self-interview (CASI) for self-complete questionnaires, which were self-completed in the presence of the interviewer. There are several advantages associated with these in-person modes of data collection. Among the main advantages experienced by the Study Team to date are the following:

- The repeated use of the same mode(s) of data collection facilitates longitudinal consistency in the data, allowing for easier and more robust inter-wave and inter-cohort analysis.
- In-person data collection helps to maintain high response rates among participants. Interviewer and participant feedback has regularly cited the in-person contact (including the fact that first contact from the interviewer was always a physical visit to the family home) as greatly assisting the response and retention rates from one study wave to the next. Similarly, participants must make firm commitments to participate in the study (i.e. arrange a suitable time and date for the interviewer to visit the home), and therefore they may feel more obliged to keep that commitment if it is due to be in person.
- In-person interviews are deemed less onerous in terms of understanding and answering longer questions and scaled items. Participants can ask for clarification regarding documentation (i.e. consent) or any interview items. As a result, in-person interviews are arguably more inclusive for participants (particularly child/younger participants) who may require extra support or guidance in completing their interviews.
- Certain data can realistically only be collected in person by an interviewer. This includes physical measurements (i.e. height and weight) and many cognitive tests.

Despite the perceived benefits of in-person data collection, the transition to remote modes of data collection for Wave 6 of the study with Cohort '08 has brought with it its own set of advantages:

- The original decision to schedule data collection at this exact age (13 years) was made with a view to capturing information at a key developmental stage of the life course, as the study participants make the transition from primary to secondary school. Adapting the study design to remote interviewing ensured that fieldwork could continue without disruption to the study schedule.
- Remote data collection during the COVID-19 pandemic allowed the collection of contemporary data on the short-term impact of the pandemic on the lives of study participants.

9.2.1 Survey mode in future waves

The decision to conduct fieldwork via remote modes of data collection (telephone and online questionnaires) in Wave 6 of Cohort '08 was primarily driven by the restrictions imposed as a result of the COVID-19 pandemic and the uncertainty surrounding the associated restrictions at the time. While it is hoped that the choice of mode(s) in future waves will not be influenced by the COVID-19 pandemic, the experience from this wave of the study (for the Study Team, respondents and interviewers) will inform study design decisions going forward. Certainly, initial feedback from both interviewers and respondents suggests that remote data collection can be more convenient and time-efficient for both parties. It is important to note that convenience is often achieved at a cost, primarily through the substantial shortening of questionnaires. There are also potential environmental and cost-related savings associated with remote fieldwork. These observations (both positive and negative) will have to be balanced against one another in informing decisions regarding mode of fieldwork in future waves of the study.

Looking beyond ***Growing Up in Ireland*** at comparable surveys internationally, prior to the COVID-19 pandemic, face-to-face interviewing seemed to be the most popular form of data collection, albeit very often supplemented by other modes. Mixed-mode data collection can take two forms: one instrument used via two modes (i.e. the same questionnaire is completed face-to-face by some participants and via telephone by others), or different instruments via different modes (i.e. all participants complete the main questionnaire face-to-face, and self-complete the sensitive questionnaire, as used in ***Growing Up in Ireland***). Such methods are employed in the Avon Longitudinal Study of Parents and Children (ALSPAC), Next Steps, the US National Longitudinal Study of Youth, and the Longitudinal Study of Australian Children, among many more studies. Mode-related adaptations to the pandemic in these studies remain to be seen, although early evidence from the United Kingdom (UK) Household Longitudinal Study noted that a transition to remote data collection resulted in just a 1.5% reduction in response rates (Cabrera Alvarez et al., 2021). However, the same study did indicate that some social groups within the study population were at increased risk of non-participation for remote fieldwork.

There are advantages and disadvantages associated with both remote and in-person modes of data collection for studies such as ***Growing Up in Ireland***. The Study Team have demonstrated the feasibility of conducting fieldwork using a range of modes, including new modes employed at this wave; this experience will prove hugely beneficial when deciding upon mode(s) of data collection in future waves of the study.

9.3 Potential for Mode Effects

In the interests of public health, remote data collection for Wave 6 of Cohort '08 (at age 13 years) was the only realistic option (other than to delay fieldwork until the children were older). The change in mode while trying to maintain longitudinal consistency in content does, however, raise the possibility that longitudinal or cross-cohort analyses will be compounded by mode effects. In other words, to what extent might a change in scoring patterns on the same measure between age 9 years and age 13 years be due to the

switch from a face-to-face interview to a telephone interview? In a 'normal' world, where a change in mode might have been considered for cost or environmental reasons, such possibilities for mode effects would have been experimentally investigated and evaluated beforehand. Leeuw et al. (2019) reported that many studies, both longitudinal and cross-sectional, were moving towards a migration to mixed mode and online data collection even before the COVID-19 pandemic.

Growing Up in Ireland was not alone in having an abrupt change in mode thrust upon it as a result of the COVID-19 pandemic – some of this change while in the midst of in-person fieldwork (Gummer et al., 2020) – so further evaluations on mode effects from different sources are likely in the future. There are, however, some pre-pandemic examinations of mode effects as other studies considered a move from traditional face-to-face and paper methods to online and telephone methods of data collection. These are discussed in detail in the pilot report for this wave (McNamara et al., 2022), when relevant previous research was considered by the Study Team; however, the main points from this review ahead of the remote pilot are summarised as follows.

Several studies found small or only non-significant differences when moving from CAPI (i.e. in person) to telephone or online (Cernat, 2015; Couper & McGonagle, 2019; Jäckle et al., 2006), even with child respondents (Vogl, 2013). Respondents may be more likely to be candid about sensitive issues if they are not speaking to an interviewer about them (Kriwy et al., 2015; Molina et al., 2017; Burkill et al., 2016). However, from their review of mode effects in panel studies, Couper and McGonagle (2019) noted unexplained mode differences for particular categories of data such as cognitive tests, life histories, job descriptions, and financial information. Al Baghal (2017) also noted apparent mode effects in measurements of cognitive ability, with participants tending to score better on the web CAWI over CAPI modes of different tests. Therefore, it seems that while generally similar responses across interview modes would be anticipated, some categories of data could be more prone to mode effects, and researchers should be cautious about the interpretation of small differences over time or between cohorts.

9.4 Potential for 'Pandemic Effects'

Collecting data during a pandemic has advantages in terms of collecting contemporaneous information on its impact, especially when considering inequality of impact. In particular, contemporaneous data collection is not subject to the same recall bias or forgetting, when compared with collecting retrospective information months or even years later.

There are, however, complications. First, some activities will be directly affected by public health measures in place at the time of the interview. This means that some participant information such as free-time activities or parental employment arrangements might be quite transient, whereas in pre-pandemic times such patterns could reasonably be expected to be stable for a few weeks or months at least. A related complication is that the COVID-19 pandemic-related guidelines and restrictions fluctuated considerably during fieldwork: there was a tightening of restrictions in response to the Omicron variant in winter 2021, and then an almost entire relaxation of restrictions at the end of January 2022. This means that a consideration of the actual date of each interview could be important in future analyses.

The second complication is the counter to the advantage of collecting contemporaneous data on the impact of the pandemic: to what extent is an outcome directly influenced by the circumstances of the pandemic versus what would have happened anyway? For example, if a child's attitude towards school is more negative at age 13 years than it was at age 9 years, how much of this is due to COVID-19 pandemic-related changes or to the transition to secondary school? Similarly, are (hypothetical) cross-cohort declines in mental well-being among 13-year-olds in Cohort '08 (compared with those of 13-year-olds in Cohort '98) attributable to the COVID-19 pandemic, or would a downward trend between generations have been

observed anyway? To some extent, disentangling pandemic effects will be a challenge for researchers to tackle statistically, and the availability of several measures between ages 9 years and 13 years for Cohort '98 could act as a useful comparison for Cohort '08 analyses.

9.5 The Next Wave for Cohort '08

In mirroring the fieldwork scheduling strategy for the older ***Growing Up in Ireland*** cohort (Cohort '98), it is proposed that the next wave of data collection for Cohort '08 will take place when they are aged 17/18 years. This is considered an important milestone from a research perspective; it reflects a new stage in the life-course in terms of developmental maturity, but it is also very significant in a broader societal context. A range of civil rights and responsibilities are conferred upon young people around this age, particularly age 18 years, including the right to vote, the right to work full time, and the right to consume alcohol.

It is worth noting that certain measures that would traditionally be introduced at a later stage of the study (i.e. around age 17/18 years) were brought forward and employed in Wave 6 of Cohort '08 (age 13 years). Specific examples include the Rosenberg Self-Esteem scale and the animal naming test. The decision to include these measures at this early stage was driven by COVID-19-related adaptations; the Rosenberg scale was a shorter alternative to a previously used self-concept measure, and the animal naming test was one of only a few viable options for a cognitive test that could be administered remotely (via telephone). This means that a longitudinal analysis of outcomes on these measures could start at an earlier time point for Cohort '08, assuming that these measures are continued for future waves of the study.

Other measures, such as the Strengths and Difficulties Questionnaire (SDQ) and the Short Mood and Feelings Questionnaire (SMFQ), will also (likely) be employed at both the current and next wave of ***Growing Up in Ireland***. Using the same measures at consecutive waves of the study will lead to increased longitudinal consistency, making inter-wave analysis easier and more robust.

9.6 Conclusion

The sixth wave of fieldwork for Cohort '08 (at age 13 years) represented a substantial shift in study design and data collection methodology from all previous waves of the study. Traditional modes of data collection, focused on interviewer visits to the family home and in-person interviewing, were replaced by completely remote modes of interviewing via telephone and online. These adaptations were necessitated by the circumstances and restrictions surrounding the COVID-19 pandemic; they clearly illustrate the ***Growing Up in Ireland*** Study Team's ability to swiftly adopt new methods of data collection, thus avoiding any delays to the study's schedule. Despite these adaptations, the objectives originally set out for ***Growing Up in Ireland*** continue to be met through the collection of age-appropriate and policy-relevant data.

All these data will be made available on an anonymised basis to policy-makers and researchers for their own analysis needs. Coupled with the Cohort '08 data from the previous five waves of fieldwork (collected at ages 9 months, 3 years, 5 years, 7/8 years, and 9 years), it will be possible to explore the development of young people in Ireland as they move from infancy through childhood and into early adolescence. Longitudinal analysis of relationships, associations and causal pathways surrounding the processes underlying development trajectories will also be increasingly possible. As a result, these data will offer a unique opportunity to build a more complete picture of the lives of young people in Ireland today.

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