

Millennium Cohort Study Sweep 3 *Technical Report*

Joanna Chaplin Gray, Reg Gatenby and Nadine Simmonds

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1 Introduction

The Millennium Cohort Study (also known as the Child of the New Century Survey), is one of Britain's world famous national longitudinal birth cohort studies, three of which are run by the Centre for Longitudinal Studies at the Institute of Education, University of London.

Britain has a unique tradition of carrying out national birth cohort studies, following the same group of people from birth into and through adulthood, and providing a picture of whole generations. There are four such surveys, of which the Millennium Cohort Study is the fourth:

- National Survey of Health and Development (started in 1946)
- National Child Development Study (started in 1958)
- 1970 British Cohort Study (started in 1970)
- Millennium Cohort Study (started in 2000)

Each follows a large number of individuals born at a particular time through the course of their lives, charting the effects of events and circumstances in early life on outcomes and achievements later on. The questions on health, education, family, employment and so on are put together by academic researchers and policy makers to understand and improve life in Britain today and in the future.

The study is funded by the ESRC (the Economic and Social Research Council) and a consortium of other government departments led by the Office for National Statistics. The government departments involved in the study are the Department of Health (DoH), Department for Children, Schools and Families (DCSF), the Department for Work and Pensions (DWP) and all of the devolved administrations (Welsh Assembly Government, the Scottish Government, and the Northern Ireland Executive).

Following competitive tender, the Centre for Longitudinal Studies commissioned the National Centre for Social Research (NatCen) to carry out the instrument development, data collection and initial data preparation for the third sweep (Age 5 Survey) of the Millennium Cohort Study. Fieldwork in Northern Ireland was sub-contracted by NatCen to the Northern Ireland Statistics and Research Agency (NISRA).

1.1 The first sweep

The first sweep of the Millennium Cohort Study (MCS1) was conducted during 2001 to 2002 and laid the foundations for a major new longitudinal research resource. Information was collected from co-resident parents of almost 19,000 babies aged nine months. The first survey covered the circumstances of pregnancy and birth, as well as those of the all-important early months of life, and the social and economic background of the family into which the children were born. NatCen was involved in the first sweep of MCS in 2000 to 2001. The data from the first study is now being used by researchers and policy-makers and a book covering the main findings was published in October 2005¹.

¹ Shirley Dex and Heather Joshi (eds) (2005) *Children of the 21st Century: from birth to nine months*. Bristol: Policy Press

1.2 The second sweep

The second sweep (MCS2) took place during 2003 to 2004 when the children were three. Interviews were conducted with the co-resident parents and there were some additional questions about older siblings and, in England, a self-completion questionnaire for siblings aged 10 to 15. The cohort children were also involved directly in the study for the first time: they completed a cognitive assessment and had their height and weight measured by interviewers. A saliva sample was also taken (by parents) from the children in order to measure exposure to common childhood infections. The saliva was not used for DNA or genetic testing. Interviewers were asked to record some observations about the home environment and the neighbourhood.

The data from this sweep was deposited at the UK data archive in the summer of 2006, and a report on the results was published in June 2007².

1.3 The third sweep

The third sweep (MCS3) was timed to take place when the children turned five and started school. Fieldwork started in February 2006, and finished in January 2007.

1.4 Follow-up studies

Since the study started there have also been a number of small-scale follow-ups of particular groups of respondents. After sweep one, there was a postal survey of mothers who reported receiving fertility treatment for the birth of their child, which was led by the National Perinatal Epidemiology Unit at the University of Oxford. Since sweep two a team of specialist researchers, also from the University of Oxford, have, with the parents' permission, visited some of the nurseries attended by cohort members in order to evaluate the quality of care provided.

² Kirstine Hansen and Heather Joshi (eds) (2007) *Millennium Cohort Study second survey: a user's guide to initial findings*. London: Centre for Longitudinal Studies, Institute of Education, University of London

2 The Sample

2.1 Introduction

The design of the sample for the Millennium Cohort Study has a number of important features:

- The cohort was born over a 12-month period in order that the effect of season of birth can be taken into account when looking at the results. This is one of the ways in which the Child of the New Century is different from the other British birth cohorts, which all follow a group of people born in one week.
- The cohort covers the whole of the UK (unlike the other cohort studies which do not include Northern Ireland) and has proportionally greater numbers of families in Scotland, Wales and Northern Ireland. These 'boosted samples' were paid for by the devolved administrations in order to ensure that there were sufficient numbers to compare families *within* the same country as well as to make comparisons between countries.
- The sample was geographically clustered by electoral ward in order to facilitate analysis using geographical indicators (such as whether families live in urban or rural areas) and in order to investigate the effect that the area in which people live has on their lives.
- The cohort has an over-representation of children from minority ethnic groups in order that sufficient numbers were included in the study to make comparisons between different groups.
- The cohort has an over-representation of children from deprived areas in order that the effect of disadvantage can be better understood. In addition, it is known that families from deprived areas are more likely to drop out of the study over time.

The design was implemented through the selection of the electoral wards in the study. All of the electoral wards in the UK were allocated into one of three 'sampling strata':

- 'Ethnic' (defined as wards in England in which 30% or more of the population were 'Black' or 'Asian' according to the 1991 Census of the population)
- 'Disadvantaged' (defined as wards that were not classified as ethnic that had a value on the 1998 Child Poverty Index which put them in the bottom 25% in England and Wales. The Child Poverty Index is based on the proportion of children living in families in receipt of certain state benefits)
- 'Advantaged' (all other wards not classified as 'Ethnic' or 'Disadvantaged')

The next stage was to sample the electoral wards for the study. A total of 398 were chosen with proportionally more chosen in Scotland, Wales, Northern Ireland and from those classified as 'Ethnic' and 'Disadvantaged'.

The sample of children was selected from Child Benefit Records held by the Department of Work and Pensions (DWP). The DWP sent opt-out letters to all families claiming Child Benefit at an address in one of the selected wards for a child born between the following dates:

- 1st September 2000 and 31st August 2001 in England and Wales
- 24th November 2000 and 11th January 2002 in Scotland and Northern Ireland

In order to be eligible for the study the child had to be living in one of the selected wards when aged 9 months.

A total of 21180 families (who did not opt-out) were issued to the field for the first sweep and 18552 families (containing 18818 cohort children) were recruited to the cohort at age 9 months.

Of the 18552 families recruited into the original cohort, 14898 took part again in the second sweep of the study (MCS2) when the children were aged three years old. In addition, during MCS2 an extra 692 families were recruited to the cohort. These were families that had a child eligible for the study (according to the criteria above) but were not sampled at sweep one because they were not on the Child Benefit register.

2.2 Issued sample at MCS3

The cohort for the study totals 19244 families and comprises the 18552 families interviewed at sweep one and the 692 families recruited at sweep two. The cohort children in these families are eligible for inclusion in the study for as long as they are alive and living in the UK.

The issued sample for MCS3 was all families except those that were ineligible (died or emigrated) and those who had permanently withdrawn from the study. The issued sample was 18528 households.

2.3 Serial numbers

Each family within the cohort was issued a unique serial number at the start of the study, and these were used for MCS3. Each member of the family was also allocated a two-digit 'person number'.

2.4 Allocating the sample to waves

The timing of MCS3 was planned so that almost all of the cohort children would be in their first year of school when the interviews took place.

CLS allocated the sample to eight waves, which were determined by the country of residence in September 2005, and dates of birth, and hence the school-starting age, of the cohort children. A summary of the wave structure can be found in Table 2.1, and the following sections outline how the waves were determined.

Table 2.1 Summary of wave structure for MCS3

Wave name	Country	Dates of birth	Timetabled fieldwork dates
E1	England	1 September 2000 - 28 February 2001	January - April 2006
E2	England	1 March 2001 - 31 August 2001	April - July 2006
W1	Wales	1 September 2000 - 28 February 2001	January - April 2006
W2	Wales	1 March 2001 - 31 August 2001	April - July 2006
N1	Northern Ireland	24 November 2000 - 1 July 2001	April - July 2006
N2	Northern Ireland	2 July 2001 - 11 January 2002	September - December 2006
S1	Scotland	24 November 2000 - 28 February 2001	April - July 2006
S2	Scotland	1 March 2001 - 11 January 2002	August - December 2006

2.4.1 England and Wales

In England and Wales, reception class is the first compulsory year of schooling, and children start reception class in the academic year they turn five. For the overwhelming majority of the children in the study living in England and Wales, this was the academic year 2005 to 2006. Fieldwork in England and Wales was scheduled to take place from January to July 2006.

Admissions policy on which term children start school varies by Local Education Authority, but the majority of children in the study were expected to start reception class in September 2005 and a minority in January 2006. In a few local authorities, children born later in the academic year may not have started school until April 2006, but this was very uncommon.

In England and Wales the first wave of fieldwork in each country was scheduled to take place in January to April 2006, and children born between 1st September 2000 and 28th February 2001 were assigned to this wave. Children born between 1st March 2001 and 31st August 2001 were assigned to the second wave of fieldwork, which was scheduled to take place between April and July 2006.

2.4.2 Northern Ireland

In Northern Ireland, primary one is the first year of compulsory schooling and most children start in the academic year they turn five. Children born in July and August start school in the academic year they turn six.

Unlike in England and Wales, the cohort children in Northern Ireland and Scotland did not all start school in the same academic year. Cohort children living in Northern Ireland born between 24th November and 1st July 2001 were due to start school in the academic year 2005 to 2006 and these were assigned to the first wave of fieldwork, scheduled to take place from April to July 2006.

Children born between 2nd July 2001 and 11th January 2002 were due to start school in the academic year 2006 to 2007, and these children were assigned to the second wave of fieldwork scheduled for September to December 2006.

2.4.3 Scotland

Primary one is the first year of compulsory schooling in Scotland. Children born between September and February are able to start school in the August before or the August after their fifth birthday, but most start in the August before their fifth birthday; children born between March and August start school in the August after their fifth birthday (or in the August they turn five, in the case of August births).

The cohort children in Scotland were born between 24th November 2000 and 11th January 2002. Those children born between 24th November 2000 and 28th February 2001 could start school in either August 2005 or August 2006. These children were assigned to the first wave of fieldwork in Scotland, which was scheduled to take place from April to July 2006. When interviewers made the initial contact with the family, they ascertained whether or not the cohort child had started primary one. If not, then the interview was deferred until the second wave of fieldwork, by which time the child would have started school.

Children born between 1st March 2001 and 31st August 2001 started school in August 2006. Children born between 1st September 2001 and 11th January 2002 could start school in August 2006 or August 2007. All of these children were assigned to the second wave of fieldwork, scheduled to take place from August to December 2006. A small number of children born between September 2001 and January 2002 would not have started school at the time of fieldwork, but these interviews were not deferred.

2.5 Changes to wave allocations

Although date of birth is not subject to change, it was possible that country of residence could change. This meant that after the initial sample allocation to waves, some cases had to be moved from one fieldwork period to another. For example, some changes in country of residence meant that a case had to be delayed until a later fieldwork period, and some changes in country of residence meant that the case had to be brought forward to an earlier fieldwork period. It was possible for a change in country of residence to be discovered by CLS or by interviewers in the field.

Changes in country of residence discovered by interviewers in the field were dealt with by NatCen on a case-by-case basis according to NatCen's usual procedures for transferring movers between interviewers.

Where a change in country of residence was known by CLS prior to the delivery of the live sample information to NatCen, CLS assigned a new 'current wave'.

After a case was delivered to NatCen the fieldwork wave it was assigned to was fixed i.e. the 'current wave' was not updated again, even when the case was conducted in another wave. So, for example, if at the start of fieldwork a cohort member was living in Wales and had been assigned to wave W1, but moved to England, their wave would still appear in the data as W1: it was not changed to E1.

Where CLS discovered a change in country of residence which implied that a case that had already been issued should be delayed to a later fieldwork period, CLS sent the new address to NatCen and it was processed according to NatCen's usual procedures for transferring movers between interviewers. For example, if a family with a child born in

September 2000 and living in England (hence assigned to E1 and due to be interviewed in January to April 2006) told CLS that they had moved to Scotland after wave E1 was issued, CLS would tell NatCen and the interview would be delayed to April to July 2006 which was the fieldwork period for wave S1.

2.6 The sample files

CLS was responsible for providing sample information for families that are part of the Millennium Cohort Study Age 5 Survey to NatCen and for ensuring that this information was as accurate and up-to-date as possible.

The sample information that was provided to NatCen was split into two types: fixed sample, and live sample. The fixed sample file contained details of all sample members, and contained information that was not subject to change, such as:

- serial numbers
- survey outcomes from previous sweeps
- information from previous sweeps
 - date and time of last interview
 - address at last interview
 - whether the family had given consent to access child health records in MCS2
 - whether the household contained older siblings at MCS2

Live sample files were produced for each wave, and included the following information:

- serial numbers
- survey status code (i.e. whether or not the family was eligible for inclusion in MCS3)
- cohort child details
 - full name
 - sex
 - date of birth
- resident parent details
 - title
 - full Name
 - details of the type of interview each parent did in MC2, or, if the household did not take part in MCS2, in MCS1, either main, partner or proxy, or that parent was not eligible for interview last time (e.g. if they were not resident in the household at the time of the last interview).
 - whether translations were required in previous sweeps, and if so, which language
- contact details
 - the last known address and telephone numbers for the household.
 - stable address details, i.e. the contact details of another family member not resident in the household - these details could be used for tracing if required (see section 5.9).

Two additional fields relating to the contact details were also given: an address status, and the date this status was assigned. The address status was determined by CLS, and

related to whether or not the household was confirmed as resident at the address provided, and the date at which this was confirmed. Prior to the start of fieldwork, it was estimated that in approximately 1.5% of the issued cases, CLS would know prior to fieldwork that the family was no longer resident at the address provided for them but had been unable to find a new address.

2.6.1 Delivery of sample files to NatCen

The fixed sample file was delivered to NatCen before the start of fieldwork; the live sample file for each wave was delivered to NatCen about six weeks before the start of each wave.

Once the sample was delivered to NatCen it was loaded onto NatCen's fieldwork management systems. This was then used to produce the paper documents containing the sample information for interviewers and advance letters; details of these can be found in sections 5.4 and 5.8. The information was also loaded into the CAPI programme.

2.6.2 Other sample information

In addition to the fixed and live sample files, a single 'feed-forward' file was also delivered to NatCen before the start of fieldwork. This contained the answers respondents had given to some of the questions in previous interviews.

These answers were loaded or 'fed-forward' into the current CAPI questionnaire. For example, the previous school the cohort child had attended was fed-forward into the question about the name of the school currently attended and the respondent was asked if the cohort child was still attending that school. Similarly the respondent's job title given at the previous interview was fed forward and the respondent was asked if that was still their job.

As well as information from previous interviews being added to question text, it was also used in question routing. For example, a question such as, "Has the child ever had measles?" would be routed past if the respondent has said at a previous interview that the child had had measles.

2.7 Sample updates

CLS continued to trace families until the start of fieldwork for each wave. In some cases, CLS received information about cohort families after the sample had been sent to NatCen. Sample updates were sent to NatCen on a weekly basis. These sample updates consisted of three types:

- changes in classification information: eligibility status, participation status, status of address
- changes to contact information: change of address, telephone numbers, names, sex, dates of birth, stable address details, etc.
- other information

The action taken as a result of the sample updates depended on the type of sample update and the progress of the case, that is, whether the case had been issued to an interviewer or not, and if it had been issued to an interviewer whether the interviewer had started working on a case or not.

For details of how sample updates were handled by NatCen, please see section 5.12.1.

2.8 Return of sample to CLS at end of fieldwork

NatCen was responsible for updating sample information for families that are part of MCS3 during the fieldwork period and transferring this updated sample information to CLS at the end of fieldwork.

SECTION 3: OVERVIEW OF THE ELEMENTS OF THE SURVEY

3 Overview of the elements of the study

The third sweep of the Millennium Cohort Study consisted of the following elements:

- household questionnaire
- main respondent interview (CAPI and CASI)
- partner interview (CAPI and CASI)
- child cognitive assessments
 - Sally and Anne
 - Naming Vocabulary
 - Picture Similarities
 - Pattern Construction
- child physical measurements
 - height
 - weight
 - waist
- parent physical measurements
- interviewer observation of the conditions in which the cognitive assessments were conducted
- older siblings self-completion questionnaire (in England only)
- neighbourhood observation
- collection of consents
 - data collection
 - cohort child health records
 - cohort child school records (England only)
 - cohort child teacher survey (Northern Ireland, Scotland and Wales)
 - older siblings questionnaire placement

This chapter contains a brief description of each element of the study. Details of the development work for the study are contained in Chapter 4.

A survey of the cohort children's teachers was also conducted in Northern Ireland, Scotland and Wales, the technical report of which will be published separately.

The following elements were included in the development stages of the study, but were dropped before the main stage:

- non-resident parent questionnaire
- child cognitive assessment: British Picture Vocabulary Scale
- collection of consent: older siblings data linkage

Details of these can be found in Chapter 4.

3.1 Household questionnaire

This was the first part of the CAPI, and was completed by the main respondent or partner from a previous sweep. If neither was living with the cohort child, interviewers were instructed to complete the household questionnaire with any resident parent.

The household questionnaire collected information about the household members, and checked availability for interview.

3.1.1 Selection of main and partner respondents

At the end of the household questionnaire the CAPI determined which parent was to be the main respondent, and which the partner respondent.

The selection of main and partner respondents was based exclusively on relationships between household members. Parents (including step, foster and adoptive) of the cohort child and any partners (including same-sex partners) of parents were selected for interview. In general, the mother was selected for the main interview and the father or father-figure for the partner interview. The main exception was when the father was the natural parent of the cohort child and the mother was not the cohort child's natural parent. If there were no parents living with the child, the CAPI selected the main carer and his or her partner for interview.

Interviewers were able to overwrite the initial CAPI selection and complete the main interview with the person CAPI selected for the partner interview and vice-versa. This would be done if, for example, the father was the main carer of the child or if the mother did not wish to take part.

Interviewers were only able to conduct the main and partner interviews with the people identified by CAPI as main and partner respondents at the end of the household questionnaire.

3.2 Main respondent interview

The main respondent was asked a series of CAPI questions, supplemented with showcards where appropriate. The CAPI modules covered the following areas:

- family context
- early education and schooling of the cohort child
- child and family activities
- parenting activities
- child health
- parent's health
- employment
- education
- income
- housing and local area
- other matters
- self-completion section

3.3 Partner interview

As for the main respondent, the partner interview consisted of a series of CAPI questions, supplemented with showcards where appropriate. The questions for the partner were a subset of the main respondent questions, and covered the following areas:

- family context
- early education and schooling
- parenting activities
- parent's health
- employment
- education
- income
- self-completion section

3.3.1 Proxy partner interview

If a household contained an eligible partner who was away for the entire fieldwork period or incapable of completing an interview themselves, then the main respondent was asked to complete a very short interview about their partner. There were questions in the household questionnaire that determined whether or not a proxy partner interview should be done. Proxy interviews were only required if the circumstances mentioned above applied to the partner; they were not required in cases where the partner simply did not want to take part in the survey. The proxy partner interview covered the following topics:

- family context
- parent's health
- employment, education and income

3.4 Child cognitive assessments

Four cognitive assessments were included in the main stage of the study. These assessments are all educational assessment tools that are well respected and widely used. They are used to examine cognitive development and educational attainment and are normally employed by educational psychologists in a classroom or clinical setting.

Each assessment was adapted for use in a survey setting, and modified to be administered with the help of a CAPI programme so that the interviewer did not need to memorise a complex set of rules for routing children through each assessment. The basic principles of each assessment were retained.

The cognitive assessments included in the main stage were:

- Sally and Anne task
- three assessments from the British Ability Scales: Second Edition (BAS 2)
 - Picture Similarities
 - Naming Vocabulary
 - Pattern Construction

3.4.1 Sally and Anne task

The Sally and Anne task used in MCS3 is based on a social cognition, or false belief, task developed by Wimmer and Perner (1983)³ and subsequently modified by Baron-Cohen et al (1985)⁴ for use with preschool and school age children. Baron-Cohen et al's version of the Sally and Anne task has become the standard version of the task; in this version, two puppets are used to act out a story for the child. The child is introduced to a character, Sally, who leaves a desirable object such as a ball in her basket, before leaving the scene. In her absence, another character, Anne, removes the object and places it in a box. Children are asked to predict, on Sally's return to the room, where Sally will look for the object (or, sometimes, where she thinks the object is). In addition, children are asked two control questions: a reality question (where is the object, really?) and a memory question (where did Sally put the object at the beginning?)

In MCS3, the Sally and Anne task was mainly used to train the child and develop rapport. The task was adapted for use in a survey setting: instead of puppets, pictures were used, and the interviewers followed a script that was written in the CAPI.

Procedure for the Sally and Anne task in MCS3

Picture 1

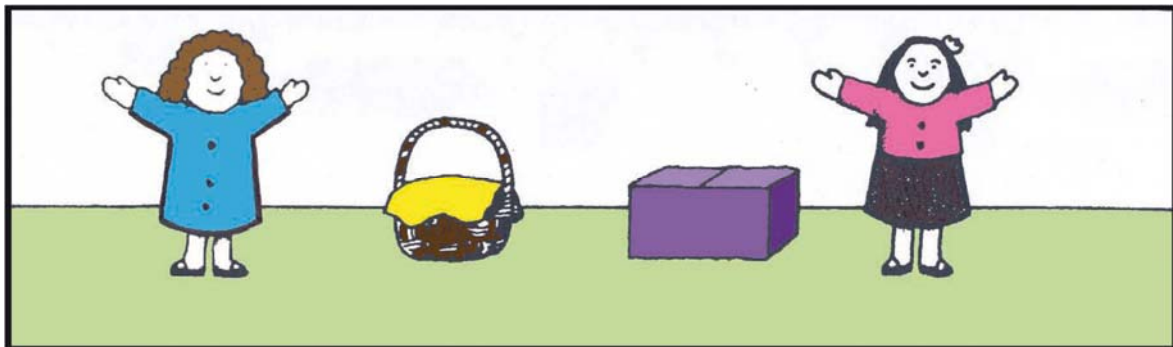


Image © Institute of Education 2005. Reproduced with permission

The interviewer points to the girl on the left of the picture, wearing the blue dress, and says, "This is Sally." Then, pointing to the basket, says, "Sally has a basket."

Next, the interviewer points to the girl on the right of the picture and says: "This is Anne," followed by pointing to the box and saying, "Anne has a box."

If the child appears to have understood the picture, the interviewer moves on to the next picture, but if the child seems uncertain, or asks the interviewer to explain the picture a second time, the interviewer is allowed to repeat the story. This same principle applies to the subsequent pictures.

³ Wimmer, H., & Perner, J. (1983). Beliefs about beliefs: representation and the containing function of wrong beliefs in young children's understanding of deception. *Cognition*, 13, 103-128.

⁴ Baron-Cohen S, Leslie AM, Frith U (1985). Does the autistic child have a 'theory of mind'? *Cognition*, 21 (1): 37-46

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Picture 2

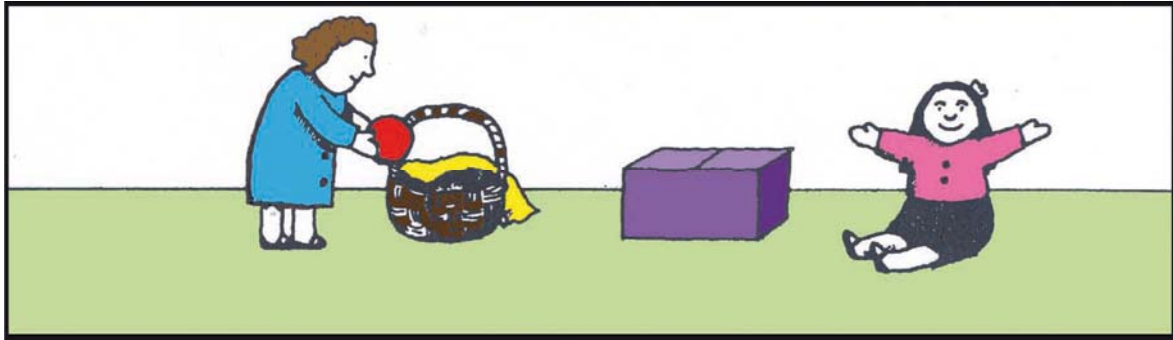


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The interviewer points to Sally, and says, "Sally also has a ball. She puts the ball into her basket."

Picture 3

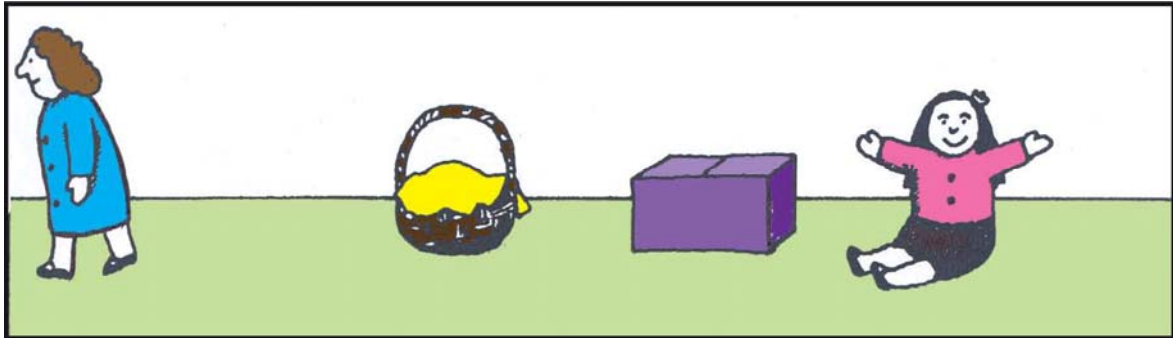


Image © Institute of Education 2005. Reproduced with permission

The interviewer points to Sally and says, "Sally goes out for a walk."

Picture 4



Image © Institute of Education 2005. Reproduced with permission

The interviewer points to Anne and says, "Anne takes the ball out of Sally's basket and puts it into her box."

Picture 5



Image © Institute of Education 2005. Reproduced with permission

The interviewer points to Sally, and says, “Now Sally comes back.”

“Sally wants to play with her ball. Where will Sally look for her ball?”

The child’s response is recorded in the CAPI programme. If the child gave an answer other than the basket or the box, then the interviewer was instructed to record the child’s verbatim response.

The correct response is in the basket, because Sally left the room and does not know that Anne has moved her ball.

Two final questions are asked to establish whether or not the child understood the assessment.

The first is a reality question: “Where is the ball really?”

The second is a memory question, which is asked after removing the cards from the child’s view: “Where did Sally put the ball at the beginning?”

3.4.2 Picture Similarities

This task assesses children’s non-verbal reasoning ability

This assessment comprises 33 items. Each item consists of a set of four pictures which are printed in the BAS easel, and a separate card printed with a fifth picture called the picture response card. For each item, the child is asked to place the separate card underneath the picture in the easel which shares a similar element or concept with the card.

This assessment is designed to be used with children from the age of two years and six months to seven years and 11 months. The number of items administered during the assessment is dependent on the age of the child and their performance during the assessment. All of the children in MCS3 started at item 11, as this was the start point for children of their age.

Summary of procedure

For each item, interviewers point across the row of pictures and at the same time say, “Here is a row of pictures.” They then turn over the corresponding picture response card, and hand it to the child, saying, “Which picture does this one go with? Please put it under the picture it goes with.”

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Once the child has responded, the interviewer records whether the child put the picture response card underneath the correct picture in the CAPI. An example of the CAPI screen is shown in Figure 1..

The first two items that are administered in this assessment are ‘teaching items’, which are designed to ensure the child understands what they are supposed to do. If the child’s response at these items is correct, then the interviewer is instructed to say, “That’s right. Now let’s try another one.” If the child’s response is incorrect, then the interviewer puts the picture response card underneath the correct picture, and says, “The card goes here because ...” followed by an explanation, the text of which is provided in the CAPI.

On subsequent items, interviewers do not give feedback on whether the response is correct or incorrect, but give neutral feedback only, and proceed to the next item.

A child’s progression through the assessment is dependent on the responses he or she gives. If a child gives six or more incorrect responses in any consecutive set of eight items, then the assessment stops. The exception to this is the first eight items at the start of the assessment, where if a child gives six or more incorrect responses the CAPI routes the assessment to earlier items, which are easier, and include additional teaching items.

Figure 1: example of CAPI screen for Picture Similarities

P2533 - Child of the New Century Sweep3 V2
Forms Answer Navigate Options Help

PAGE 11

POINT ACROSS THE ROW OF PICTURES AND SAY: **Here is a row of pictures.**

TURN OVER PICTURE **CARD 11.**

HAND THE CARD TO THE CHILD AND SAY: **Which picture does this one go with? Please put it under the picture it goes with.**

(SEE HELP <F9> FOR PROBES)

INTERVIEWER: DID THE CHILD PUT THE CARD **UNDER PICTURE 3?**

1. Yes (PUT CARD **UNDER PICTURE 3**)

2. No

P11S

7/179 CogAssessment[1] 2117005 CAssess[1].P5.P115 17/01/2006 14:02:59

Interviewers were given full instructions on what to do in various scenarios, for example, interviewers were able to repeat the general directions if asked to do so by the child, or if the child did not appear to understand the instructions the first time. If the child placed the picture card so it corresponded with more than one picture in the set, the interviewer was instructed to say, “Which picture do you mean?”

3.4.3 Naming Vocabulary

This is a verbal task that measures knowledge of the English language. Children are shown a series of pictures of objects, and asked to name each item. In total, there are 36 pictures of objects, but all of the children in MCS3 started the assessment at item 12, which is the starting point for children aged five.

Summary of procedure

For each item, the interviewer shows the child the picture in the BAS easel, and asks, "What is this?", and records the child's response in the CAPI. Common correct and incorrect answers are given on the CAPI screen for each item. An example of the CAPI screen is shown in Figure 2. As mentioned above, all children in MCS3 started this assessment at item 12, and, as in the Picture Similarities assessment, the first two items administered were teaching items, which were used to ensure the child understood the task.

Figure 2: example of CAPI screen for Naming Vocabulary (object = scissors)

PICTURE 12 (SEE HELP <F9>)

INTERVIEWER: GENTLY PROBE TO CLARIFY OR EXPAND ANSWER

IF THE RESPONSE IS **CUT WITH / METAL / SHARP** (OR DESCRIBES THE FUNCTION, MATERIALS OR PARTS OF THE OBJECT), SAY: Yes, but what is it called OR Tell me its name.

IF THE RESPONSE IS OVER GENERAL (E.G. IT'S A SHAPE), SAY: Yes, but what kind of ...?

IF THE CHILD NAMES A RELATED OBJECT, SAY: What else could you call it?

1. CORRECT - Scissors
 2. CORRECT - Shears
 3. CORRECT - Other
 4. INCORRECT - Cut with
 5. INCORRECT - Sharp
 6. INCORRECT - Metal
 7. INCORRECT - Other
 88. Don't know / refusal / no response

N12V Wrong?

N12P

35/179 CogAssessment[1] 2117005 CAssess[1].NV.N12P 16/01/2006 16:12:08

In addition to the words listed as correct in the CAPI, any appropriate name can be accepted as correct, provided it is not too general, e.g. for the item shown in Figure 2, 'pair of scissors' would be accepted as correct, and coded as 'CORRECT - scissors'. All items had the option to record 'CORRECT - Other', and at some items there was also the option to record 'CORRECT - name of any specific type of [name of item]' If these codes were used, the interviewer was directed to record the child's answer verbatim.

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If the answer given by a child is correct, then the CAPI routes the assessment to the next item. If the answer given by a child is incorrect, then the interviewer is instructed to do one of the following, depending on the circumstances:

If the child does not respond, the interviewer is instructed to encourage the child to answer by saying, "What is it called?" or "Tell me what this thing is?"

For some incorrect responses, the CAPI directs the interviewer to a new question, the purpose of which is to encourage a more accurate response from the child. The circumstances under which this happens are:

- If the child gives a response that describes the function, material that the item is made of, or parts of the object, for example, by saying "it's made of metal", "they're used to cut things" or "they're sharp" for scissors. The interviewer is then instructed to say, "Yes, but what is it called?" or, "Tell me its name."
- If the child gives an over-general response such as, "It's a shape", the interviewer is instructed to say, "Yes, but what kind of shape?"
- If the child names a related object, for example saying clock instead of watch, the interviewer is instructed to say, "What else could you call it?"

If the child spontaneously changes their response or gives a string of responses, the interviewer is instructed to code the best response.

Answers in other languages, apart from Welsh, are not permitted. If a child is bilingual, interviewers are asked to note this in the CAPI before beginning the assessment. If a child responds in a language other than English or Welsh, the child is asked to say the name of the object in English. If the child continues to respond in another language, interviewers are instructed to code 'INCORRECT - other' and then record that the child responded in another language.

As with the Picture Similarities assessment, children's progression through the task is dependent on the answers they give. The assessment stops automatically if the child makes five consecutive errors, apart from at the beginning of the assessment, where if the child makes five consecutive errors, and has fewer than three correct answers, the assessment is routed to earlier items in the assessment, which are easier and contain additional teaching items.

3.4.4 Pattern Construction

This task assesses children's non-verbal reasoning and spatial visualisation.

The assessment comprises 23 items and four example items. For each item, a pattern is presented to the child, and the child asked to replicate the pattern using flat foam squares or solid plastic cubes with black and yellow patterns on each side.

This assessment can be used with children from age 3 until 17 years 11 months. The number of items administered during the assessment is dependent of each child's performance during the assessment.

Summary of procedure

For each item, the child is presented with a pattern, and asked to construct the pattern using foam squares or plastic cubes. The patterns increase in complexity as the assessment progresses. The first few items are made using foam squares with one black

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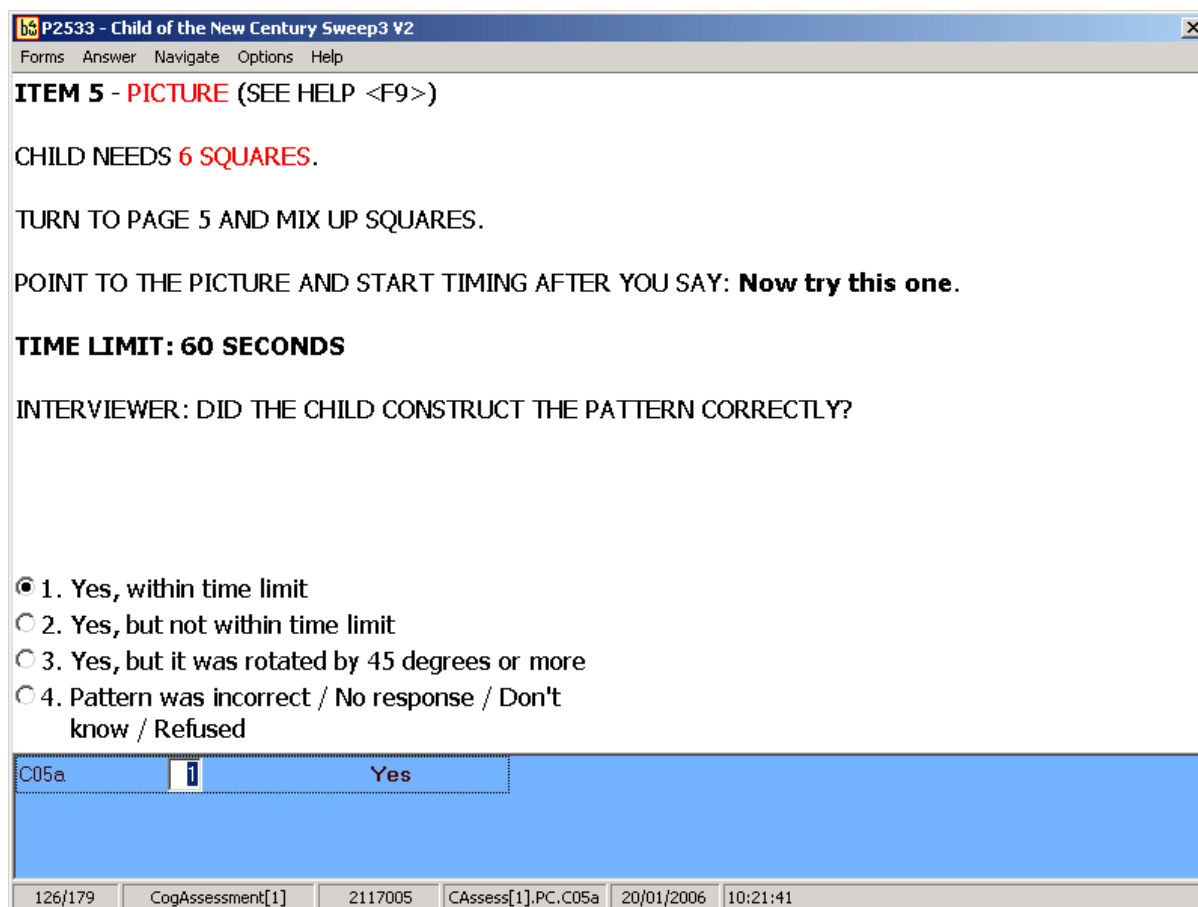
side and one yellow side, and the remaining items are made using identical solid plastic cubes with one black face, one yellow face, and four patterned faces as shown below:



For all but the first item, Example A, the patterns are presented to the child as a picture in the BAS easel. In addition, at some items the interviewer is required to ‘demonstrate’ the pattern, and at others to ‘model’ the pattern. These methods of presentation are described below. The child is given the correct number of pieces needed to replicate the pattern, and asked to construct the pattern using his or her pieces. Instructions to the interviewer are included in the CAPI programme, and all interviewers were trained to follow the instructions as they appeared in the CAPI, and to pay close attention to the presentation method.

The interviewer measures the time taken to construct the pattern using a stop-watch, and the outcome of each item is recorded in the CAPI. An example of the CAPI screen is shown in Figure 3.

Figure 3: example of CAPI screen for Pattern Construction



All of the children in MCS3 started the assessment at the beginning with Example A, as this is the appropriate starting point for children of this age. Example A is a ‘teaching

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item', designed to ensure each child understands what they are supposed to do in the task. Additional teaching items appear at several different points throughout the assessment.

At Example A, the interviewer gives the child two foam squares, and shows the child that the squares have one black face and one yellow face. The interviewer then places two squares next to each other, and asks the child to copy the model made using his or her own pieces. This method of presenting the design is referred to as 'modelling'. If the child correctly replicates the pattern, the interviewer moves onto the next item; if the child does not correctly replicate the pattern, or does not appear to understand the task, the interviewer demonstrates how to put the pieces together to form the pattern using the child's pieces, then mixes up the pieces, hands them to the child, and asks the child to try again. This method of presenting the pattern is referred to as 'demonstration'.

For all of the other items, the pattern is presented to the child as a picture in the BAS easel. Each time the number of pieces increases, the interviewer is also required to use the 'demonstration' method to present the design, and when the pieces used to build the design change from the flat foam squares to the solid plastic cubes, the interviewer is required to also use the 'modelling' method. This is done to ensure that the child understands the task.

Each item has a specific time limit, and interviewers start timing, using a stop-watch, as soon as they finish saying the instructions for the item. The interviewer stops timing either when the child indicates they have completed the item, or when the time limit is reached. If the time limit is reached and the child is not close to completing the pattern or is showing signs of distress, the interviewer says, "Let's try another one". However, if the time limit is approaching and the child is near to correctly constructing the pattern, the child is allowed to exceed the time limit in order to experience success. In these circumstances, it would be recorded in the CAPI that the child had constructed the pattern correctly, but not within the time limit.

Once the child has finished constructing the pattern, the interviewer codes whether or not the pattern was constructed correctly, and whether or not the pattern was constructed within the time limit. Once the assessment has progressed, interviewers are asked to enter the time in seconds when CAPI instructs them to do so.

At the end of each item, the interviewer removes the child's pieces, and mixes them up before giving them back to the child for the next item. Interviewers were given specific instructions on how to mix the pieces so that they did not inadvertently present the pieces to the child in such a way that the task of completing the pattern was made easier, i.e. that the way the pieces were presented to the child did not resemble the pattern they were being asked to construct.

For the first few items in the assessment, the exact length of time taken for the child to construct the pattern is not recorded; however, as the assessment progresses, interviewers are required to enter the amount of time taken for the child to construct the pattern in the CAPI, and children are only told they are being timed part way through the assessment.

As with the other cognitive assessments, interviewers were given full instructions on what to do in various scenarios. For example, interviewers were able to repeat the general instructions if asked to do so or if the child did not appear to understand the instructions the first time.

If a child correctly completed a pattern, but did not immediately indicate that they had finished, interviewers were instructed to make a note of the timing on a notepad, but not to stop the timer. This was because the child may not have actually finished: he or she

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could have been considering their response, and decide to amend the pattern. If the child did proceed to change the pattern, interviewers were instructed to ignore the initial completion time. If, however, the child did not amend the pattern, the interviewer was instructed to enter the child's original completion time.

Sometimes, children constructed the pattern correctly but left small gaps between the squares or cubes. In these cases, the interviewer was instructed to code the construction as correct, but if the gaps between the pieces were particularly large, then the interviewer was instructed to push the pieces together and say, "Try to put them together so they touch like this". If the child continued to leave large gaps between the pieces, subsequent patterns were coded as incorrect.

If the sides of the cubes distracted the child, interviewers were instructed to point to the cubes and say, "The sides don't matter. Make the tops look like this."

If the child tried to build their pattern on or against the picture or model, interviewers were instructed to point to the area in front of the easel and say, "Make your pattern down here."

If a child constructed a pattern correctly, but it was rotated by 45 degrees or more, the interviewer was instructed to say, "To make a pattern just like this, you should make it straight like this," and then turn the child's model so it was correctly orientated.

Each item is scored according to the speed and accuracy with which the pattern is constructed, and children's progression through the task is dependent on the speed and accuracy with which they construct the patterns. The assessment stops automatically if a child makes four errors in five consecutive items. As the assessment progresses, and the patterns increase in complexity, it is necessary for children to have achieved the maximum score for the majority of the items in order to progress to the next level.

When the assessment stops, and when the assessment reaches item 14, the CAPI asks the interviewer if the child is suitable for timing i.e. should the child's score be determined by how quickly they respond within the time limit as well as how accurately they construct the pattern. Interviewers were instructed to code that a child was not suitable for timing in rare circumstances, such as if the child has:

- a motor impairment that slows their handling of the squares / cubes;
- a behavioural condition (such as ADHD) which leads them to exhibit extreme compulsiveness and results in the child 'tinkering' excessively with their response; or
- if there is other evidence that indicates that the child does not respond well to speeded tasks due to a health or behavioural condition.

If an interviewer codes that a child is not suitable for timed scoring, the CAPI uses an alternative scoring structure for the assessment which is based upon whether or not the child constructs patterns within the time limit for the items, but the actual length of time taken to construct the pattern is not taken into account. In addition, three extra items are included in the assessment, which do not appear in the standard assessment. As with the standard assessment, CAPI stops automatically if a child makes four errors in five consecutive items, or if a child reaches the end of the assessment.

3.5 Child physical measurements

All children for whom consent was obtained and who could stand unaided were eligible for the child physical measurements: height, weight and waist circumference. Height and weight are used to calculate the child's Body Mass Index, and the waist circumference is a

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measure of central fat. These values can be compared with population reference data to identify children who are overweight or obese, and therefore at risk of a number of short and long term physical and psychological consequences.

Before taking the measurements, the child's parent or guardian was asked to remove the child's shoes and socks, to ensure that the child was wearing light, indoor clothing, and to remove any items the child had in their pockets, and remove any hair ornaments that could affect the measurements.

Below is an overview of the measurement protocols.

3.5.1 Measuring height

Heights were measured using a Leicester stadiometer, which consists of a base-plate, measuring rod, and a head-plate. All interviewers were trained in the use of this equipment during the briefing.

The interviewer was responsible for ensuring that the child was correctly positioned for measuring the height, by moving the child's head so that the Frankfort Plane (an imaginary line passing through the flap of skin in the ear and the bottom of the eye) was in a horizontal position, parallel to the floor, and then firmly, but gently, stretching the child to their maximum height. The child's parent or guardian was asked to assist in the measurement by moving the head-plate when required, and by ensuring the child did not lift their feet when the interviewer performed the stretch.

Once the head-plate was lowered into position, the child was asked to relax and breathe out, and then step off the stadiometer, which it was possible to do without ducking if the measurement had been taken correctly. The interviewer then read the height to the nearest completed millimetre, and entered it into the CAPI programme. If the interviewer was not happy with the accuracy of the measurement, they could repeat it as long as the child and parent or guardian were happy for them to do so.

3.5.2 Measuring weight

The weight measurement was taken using Tanita scales. Each set of scales was checked before being sent out to interviewers by placing the scales on a concrete paving slab and then placing three 20 kilogram weights on the scales. Scales which displayed between 59.8 kilograms and 60.2 kilograms inclusive were accepted, but scales that displayed outside this range were sent to an outside contractor for recalibration.

For measurements by interviewers the scales were placed on a firm, level surface before use. If only a soft, carpeted surface was available, interviewers were asked to make a note of this in the CAPI program.

Once the scales were ready to use, the interviewer asked the child to step onto the scales with their feet in the correct position. The interviewer read the measurement from the display, and immediately recorded it in the CAPI programme. As with the height measurement, interviewers were allowed to repeat the measurement if they were not happy with the first one.

3.5.3 Measuring waist circumference

To take the waist measurement, interviewers were provided with a SECA tape measure calibrated in millimetres, stickers and a pack of pens.

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Ideally, the interviewer would take the waist measurement without parental help in order to ensure consistency, but the interviewer was permitted to involve the child's parent or guardian in the waist measurement if preferred by the interviewer or the parent/ guardian.

The waist measurement could be taken against the skin, which was preferred for accuracy, but it was also permissible to take the measurement over clothing if necessary, for example if that was the parent's preference. If the measurement was taken over clothing, then it was necessary for the parent or guardian to assist the interviewer.

Before taking the waist measurement, the interviewer explained to the child and parent or guardian that they would have to get close up to feel the child's ribs and hip bones to do the measurement. If the measurement was taken against the skin, the child was asked to help by holding their vest or t-shirt up with both hands.

The waist measurement was measured midway between the costal margin (lower ribs) and iliac crest (hip bone) on the mid-axillary line, an imaginary vertical line running down from the middle of the armpit. At this vertical line the interviewers gently located the costal margin with their fingers, and keeping one finger at this point, found the iliac crest with the others. Next, they visually estimated the mid-point between the two and marked this position with either a pen or a sticker if measuring against bare skin, or by asking the parent or guardian to put their finger at the mid-point if measuring over clothing. The tape-measure was then passed round the child, and the measurement taken at the mid-point.

The interviewer read the measurement to the nearest completed millimetre, and then repeated the whole procedure once more. If the difference between the two measurements was two centimetres or more, a third measurement was taken.

3.6 Parent physical measurements

Main and partner respondents were asked to give their weight during the main interview, and were also asked their height if this had not been given in previous sweeps of the study. Those parents who were asked their height/ weight but refused to give or did not know this information were asked if they would be willing to have their height/ weight measured. If they agreed, their height/ weight was measured at the same time as the cohort child, using the procedures outlined above. If the interviewer was not able to take the height/ weight measurement at the same time as measuring the child, for example, because the child's measurements were taken before doing the parent's interview was conducted, then they were not required to make another appointment to take the parent's measurements.

3.7 Observation of conditions in which cognitive assessments were administered

This element comprised nine questions about the condition in the home at the time the cognitive assessments were administered. The questions covered the following topics:

- level of background noise, such as television, background conversation, other children
- presence of potential disturbances, such as people entering or leaving the room or house
- interruptions to the cognitive assessments by other people
- child's level of awakesness at start of the assessments

Interviewers were asked to complete this section at their own home, as soon as possible after the interview.

3.8 Older siblings self-completion questionnaire

In England only, if the cohort child had older siblings living in their household, up to two older siblings aged 10 to 15 were asked to complete a self-completion questionnaire which covered the following topics:

- activities taken part in school and out of school
- life at home
- health
- school
- things that have happened
- things they have done
- area where they live

The CAPI identified families that had eligible older siblings, and interviewers were instructed not to attempt to place older siblings questionnaires unless instructed to do so in the CAPI.

A copy of the questionnaire can be found in the appendix.

3.9 Neighbourhood observation

This element consisted of two questions that are asked as standard in NatCen surveys:

- whether or not there are any physical barriers to entry present at the cohort child's house/ flat/ building (such as a locked common entrance or gates)
- what type of accommodation the cohort child lives in

3.10 Collection of consents

An important requirement for this survey was that all adult respondents had to give informed consent in writing to take part in the study. Written consent was also required from a parent or guardian for the participation of a child. This necessitated the use of several consent forms that had to be completed before parts of the survey could be administered. In addition, written consent was requested for linkage to health records, school records and to approach the class teacher.

Interviewers were prompted to collect the data collection consents at the end of the household questionnaire. It was possible for interviewers to leave the collection of some of the data collection consents until later in the interview, and prompts were built into several places within the CAPI questionnaire. Interviewers were prompted to collect consent for linkage to health records, school records and to approach the class teacher towards the end of main interview.

In total there were five consent forms for families in England, and four for families in other countries. The consent forms were carbon-backed, and printed in triplicate. One copy was retained by the respondent, and the other two copies returned by interviewers to NatCen's operations department. Copies of the consent forms can be found in the appendix.

Consents 1 and 2: Data collection

The purpose of these forms was to gain consent from the parent(s) to administer the survey, and also to gain permission to carry out the cognitive assessments and physical measurements of the cohort children.

Consent 1 was usually completed by the main carer of the cohort child, who was also usually the main respondent, but it was possible for it to be completed by either parent.

Consent 1 was split into two parts. The first part of the form gained consent to administer the CAPI and CASI for the parent or carer, and it was necessary for this to be completed before the interviewer started to administer the CAPI to the relevant parent.

The second part of the form was to gain consent to administer the child cognitive assessments and measurements. Interviewers were first prompted to ask for this consent at the end of the household questionnaire. If they did not gain consent at this stage, they were prompted again at the end of the main questionnaire.

Consent 2 was designed to collect consent to administer the CAPI and CASI to the other parent or carer, and was usually used for the partner respondent.

Consent 3: Cohort child health records

The main respondent CAPI contained questions about the cohort child's health. To supplement this information permission was asked for access to the cohort children's hospital admissions and treatment from the routine records kept by the National Health Service.

This consent had been included in MCS2, where permission, if given, covered data up to and including when the cohort children were seven years of age.

Interviewers were prompted to collect this consent towards the end of the main interview. If permission was given at MCS2, then permission was not needed again at MCS3.

Consent 4: Cohort child school records - (England only)

For every pupil in England, teachers complete the Foundation Stage Profile at the end of the child's reception year. The Foundation Stage profile collects information about children's social and personal, communication, language, literacy and mathematical development.

The information is passed from schools to the Local Education Authority where it is held centrally.

The fourth consent form in England asked for permission to access the child's Foundation Stage Profile. Interviewers were prompted to collect this consent towards the end of the main interview.

Consent 4: Cohort child teacher survey - (Northern Ireland, Scotland and Wales)

At present, only teachers in England complete the Foundation Stage Profile described above. In order to collect similar information in Northern Ireland, Scotland and Wales, it was necessary to approach teachers directly and ask them to complete a questionnaire. Consent 4 collected consent to do this for each child.

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This formed the Teacher Survey, and details of this are contained in a separate technical report. Interviewers were prompted to collect this consent towards the end of the main interview.

Consent 5: Older siblings questionnaire placement - England only

The final consent form for England was to gain consent to place the older siblings questionnaires where applicable. Details of this element of the study can be found in section 3.8.

4 Development Work

4.1 Scope of the development work

The pilot and development stages of MCS3 were conducted over a 12 month period from January to December 2005.

The programme of development work was based on cognitive question testing, two pilot studies, and subsequent CAPI program testing. In addition, design work was done on the associated survey documents.

4.2 Ethical approval

Ethical approval for both the pilot surveys and the main survey were obtained by CLS. Approval was given by the London Multi-Centre Research Ethics Committee (MREC) of the NHS. Further details can be found in 'Millennium Cohort Study First, Second and Third Surveys: A Guide to the Datasets' Third Edition, edited by K.Hansen, March 2008, Centre for Longitudinal Studies, Institute of Education.

4.3 Cognitive question testing

Two rounds of cognitive question testing were conducted prior to the first pilot. The first of these took place in March 2005, and the second in April 2005.

4.3.1 First round of cognitive question testing

The first round of cognitive question testing was designed to test new questions that had been developed for the main respondent CAPI, covering the following topic areas:

- children's participation in physical activities
- diet and nutrition
- school choice

In this round of cognitive question testing, in addition to testing the new questions, interviewers were also asked to test a protocol for measuring the waist of children, which was developed by The Institute of Education.

The sample for the first round of cognitive interviews consisted of the mothers of twelve children aged five years old who had started school. The sample was selected to include a mix of parents of boys and girls. In addition, interviewers were asked to recruit some families where the target child had younger siblings and some families where the target child had older siblings.

A total of twelve cognitive interviews were conducted

4.3.2 Second round of cognitive question testing

The second round of cognitive interviews was designed to test a self-completion questionnaire that was developed for involved non-resident parents of children. The questionnaire covered the following topic areas:

- seeing the child
- the relationship between the parent and the child and activities they are doing together
- financial support for the child
- the relationship between the non-resident parent and the other parent
- parenting styles
- demographics

The sample for this round of cognitive question testing was non-resident parents of twelve children aged four to six five years old. The sample was selected to include a mix of parents of boys and girls. In addition, interviewers were asked to try to recruit parents with different socio-economic characteristics.

4.3.3 Main findings from the cognitive interviews

New question development

The cognitive interviews highlighted some problems with the new questions that had been proposed for both the CAPI interview and the involved non-resident parent questionnaire, such as:

- confusion about the scope of some of the questions, resulting in respondents and interviewers being unsure about what should and what should not be included in the answers to the questions
- difficulty in recording accurate answers, for example because levels of physical activity varied by season, or because it was not clear whether or not to mention things that had been mentioned earlier in the interview
- answer categories not being comprehensive enough, or not being applicable to the age of the children
- differences in interpreting some of the terms used in the questions
- difficulties in recalling information, especially in relation to school choice questions

Protocol for waist measurement

Interviewers reported finding it difficult to take accurate waist measurements, but that it became easier with practice. Several suggestions were made for improving both the procedure for taking the measurement, and the training provided to interviewers.

4.4 First pilot survey

The first pilot survey took place in May 2005. The main aims of the first pilot were to:

- test the content and flow of the questionnaire, indicating how acceptable and comprehensible the questions were for respondents
- estimate how long the interview would take in a home setting
- assess the ease and appropriateness of administering the cognitive assessments and to check whether they were working according to standard rules
- check whether the protocols developed for height, weight and waist measurement were appropriate
- explore the process of collecting contact details for involved non-resident parents
- identify any difficulties that might be encountered by interviewers
- help evaluate the CAPI and paper instruments (including showcards), briefing, and interviewer instructions

Although feedback from the pilot was intended to provide useful information about the content of the questionnaire, it was not designed, or able, to provide a thorough and complete assessment of the validity or reliability of specific modules of questions. The final choice of content was guided by the research team at CLS in consultation with collaborators.

4.4.1 Elements included in the first pilot

The following elements were included in the pilot:

- household questionnaire
- main respondent interview (CAPI and CASI)
- partner interview (CAPI and CASI)
- child cognitive assessments
 - Sally and Anne
 - Naming Vocabulary
 - Picture Similarities
 - Pattern Construction
 - British Picture Vocabulary Scale II
- child physical assessments
 - height
 - weight
 - waist
- interviewer observation of the conditions in which the cognitive assessments were conducted
- neighbourhood observation
- involved non-resident parent questionnaire

4.4.2 Pilot briefing and debriefing

A group of ten interviewers from a wide range of urban and rural locations in England, Wales and Scotland were briefed by NatCen researchers, with extensive contributions from members of the CLS research team. The briefing took place over three days. The first two days ran consecutively, and then there was a two day break before the third day of the briefing. Each interviewer was asked to carry out two practice sessions of the cognitive assessments and physical measurements between the second and third day of the briefing, based on what was briefed during the first two days.

4.4.3 Pilot sample

Interviewers were asked to use doorstep screening and snowballing techniques to meet a quota sample of families. During the period of the pilot study, 49 families were successfully contacted and interviewed. The sample was selected to include a mix of parents of boys and girls, ethnic minority children and households where there was an involved non-resident parent.

In practice, interviewers experienced some difficulties recruiting families with children using doorstep approaches and snowballing techniques. The time period for doing this was short and many families were reluctant to have someone collect information from their child.

4.4.4 Key findings and changes

The length of the MCS3 interview

Interviewers were asked to report the time taken for each element of the survey and these were compared with the times calculated by the computer to provide two measures of interview length. These reports agreed well and showed that the interview needed to be cut by approximately 45 minutes to reflect the interview time planned for the full survey, and to reduce the overall burden on households. Although many areas needed to be cut, two areas in particular were perceived as particularly long: the main respondent CASI and the child assessments.

In addition to this, interviewers reported that a considerable amount of additional time was taken up introducing the survey to respondents and wrapping up at the end of the survey: around 10 to 15 minutes at either end of the interview. Furthermore, interviewers reported that, with only a few exceptions, three visits were needed to complete the interview in households where the parent, child and partner were all involved. This 'in-and-out' time alongside the need for many visits, made a significant impact on the overall interviewer time taken, and perhaps more importantly, on the burden experienced by the household.

Main respondent CAPI and CASI interview

In general, all of the modules of the questionnaires worked and there were no parts of modules that were resisted by respondents. The structure of the questionnaire worked well, and difficult sections, such as early education and job history, were programmed successfully based on the specification provided. At the individual question level, most questions appeared to work well, including most of the new questions. There were lots of clear suggestions from interviewers on how to improve a number of questions, including typographical errors, grammar, and clarifications.

Partner CAPI and CASI interview

The partner interview comprised a sub-set of the main interview questions. Interviewers felt this was thorough, and not excessively detailed or long. The main problem was finding a time when the partner was free to do the interview and this often involved a third visit, which increased the burden on the household. NatCen recommended considering whether alternative modes of completion for the partner interview would be helpful, for example transferring some or all of the CASI to a paper format or using telephone interviewing for the partner.

Child cognitive assessments

Five cognitive assessments were included in the first pilot survey. Each assessment was adapted for use in a survey setting, and modified to be administered with the help of the CAPI programme, so that interviewers did not need to memorise a complex set of rules for routing children through each assessment.

The cognitive assessments used in the pilot were:

- Sally and Anne task
- British Picture Vocabulary Scale II (BPVS)
- three assessments from the British Ability Scales: Second Edition (BAS 2):
 - Picture Similarities
 - Naming Vocabulary
 - Pattern Construction

An overview of the Sally and Anne task and the three assessments from the British Ability Scales can be found in sections 3.4.1 to 3.4.4.

The British Picture Vocabulary Scale II (BPVS) is a verbal task that measures the extent of the child's standard English vocabulary by assessing their response to vocabulary that they hear. Children are shown four pictures in the BPVS easel and are asked to select which of the pictures is the best representation of the spoken word. Words can be pronounced within locally accepted standards, or using standard forms of pronunciation, but not otherwise modified.

Parents, children and interviewers all enjoyed the cognitive assessments. Both interviewers and children found it easy to become familiar with the assessments. Most parents observed their child's performance. Other children in the household sometimes disrupted the assessments, and interviewers used the stickers provided in the Funpacks to occupy these children and reduce their interference where possible.

However, the assessments were generally perceived as far too long and interviewers reported that children flagged during the British Picture Vocabulary Scale in particular, and towards the end of the assessments.

Some specific suggestions were made in order to improve the ease with which interviewers could administer the assessments, for example changing the layout of the picture card used for the Sally and Anne assessment, and improvements to the CAPI script in terms of both layout, and giving more guidance on screen about how specific answers should be coded.

Following the first pilot, the BPVS assessment was dropped from the study in order to cut down the length of time the assessments took to administer. Changes were also made to the CAPI programme, and to the order of assessments.

Child physical assessments

Every child's height, weight and waist circumference was measured. The procedures for the height and weight measurement used were the same as those used in the main stage, described in sections 3.5.1 to 3.5.2. For the waist measurement, interviewers were permitted to take the measurement either against bare skin or over clothing, as in the main stage (see section 3.5.3 for details), but, unlike in the final protocol, parental assistance was not specifically advised. Instead, when taking the measurement over clothing, interviewers were instructed to mark the midway point between the iliac crest and costal margin with a sticker placed on the clothing.

Interviewers generally agreed that it was better to take the physical measurements after having spent some time in the household, so that the child had become familiar with seeing them and was less shy, and this advice was included in future briefings..

There were no major problems with the height and weight measurements, which most interviewers had done before. The waist measurement was more challenging and there were some practical difficulties, but interviewers found that this improved with practice and recommended the briefing and practise sessions should be reviewed in light of this. When taking the measurement over clothing, some interviewers found that using a sticker could lead to inaccuracies in the measurement because of the clothing moving, so several interviewers asked for the mother's help instead. It was recommended that consideration should be given to amending the protocol to allow for this; the protocol was subsequently revised accordingly.

Prior to the first pilot, concerns had been raised about male interviewers taking the waist measurement against bare skin. The concerns were twofold: that parents would not be happy allowing a male interviewer to take the measurement, and that male interviewers themselves would not want to do the measurement this way. One male interviewer was not prepared to take the measurement on bare skin, but most respondents interviewed by female interviewers said they would have been happy with a male interviewer taking the measurements, provided a parent was present. However, a few people said they would not allow a male interviewer to take the measurement.

Non-resident parent self completion questionnaire

Where the child's other natural parent (usually the father) was in contact with the child but was not resident in the same household, there was a self-completion questionnaire for them to complete. Interviewers were asked to obtain the non-resident parent's contact details, and to post them the self-completion questionnaire. If necessary, they were allowed to deliver the questionnaire to the non-resident parent through the main respondent, but this approach was not encouraged.

Nine households with involved non-resident fathers were identified. Of the nine households, three questionnaires were posted out by interviewers. Four questionnaires were expected to be placed in person with the absent father by the main respondent as the main respondent was not prepared to provide contact details to the interviewer. Two mothers, both of whom had an unfriendly relationship with their partner, refused to provide contact details which would enable the interviewer to post the questionnaire to the non-resident parent, and they were not prepared to ask the father to participate directly.

Despite the fact that some respondents refused, interviewers did not feel it was a problem to ask mothers to pass on the questionnaire. Interviewers found, however, that asking for the exact contact details was more difficult.

Overall it was found that once interviewers had established rapport with the respondent they were able to tailor their approach to the circumstances, changing strategy when they met resistance. This provided some reassuring evidence about the effect that this part of the study might have on the main respondent.

However the corollary was that there were relatively few records with full contact details for the non-resident parent. This meant that it could not be ascertained that the questionnaire reached the non-resident parent, and reminders could not be sent. It was felt that this did not bode well for response, and meant that careful attention was to be given to this element of the study at the dress rehearsal.

Home observation

In the first pilot, the home observation section covered two main areas: the physical environment of the home, and parental interactions with the child during the assessments. There were twenty questions in total, many of which had been taken from the Home Observation for Measure of the Environment (HOME) Inventory. Questions on the physical environment covered factors such as the safety of the home, cleanliness, clutter, noise and interruptions. Questions on parent-child interactions covered whether the parent talked to the child, whether interactions were warm and positive, whether the parent praised the child, cuddled, scolded or physically restrained the child.

Interviewers recorded answers on a self-completion module of the computer (CASI). They were asked to complete the questionnaire after the visit during which the cognitive assessments were completed and as soon as possible after leaving the respondents' homes.

Interviewers had no problems remembering the circumstances of the home and household. The section was quick to complete and the questions were generally clear. There were a few, very specific suggestions for improvement.

Neighbourhood observation

For the neighbourhood observation for the first pilot interviewers were asked to record their views on the neighbourhood on the ARF. There were eight questions on the following topics:

- general condition of most of the residences or other buildings in the street
- whether any of the fronts of residential or commercial units had metal security blinds, gates, or iron bars and grilles
- whether there were any traffic calming measures in place on the street
- whether there was rubbish, litter, broken glass, drug related items, beer cans, cigarette ends or discarded packs in the street or on the pavement
- whether there was any evidence of vandalism such as broken glass from car windows, bus shelters or telephone boxes
- whether there were any adults or teenagers in the street or on the pavements arguing, fighting, drinking, or behaving in any kind of hostile or threatening manner
- how the interviewers felt parking, walking or waiting at the door in the street
- any other observation about the street

This was straightforward for all interviewers to complete. There were a few specific requests for clarifications. It was noted that areas could be quite different during the day and at night and it was suggested that data from the calls record sheet, where interviewers recorded the time of their visit to the household, would need to be taken into account when analysing the responses.

4.5 Pilot two: dress rehearsal

This dress rehearsal was conducted between 21st September and 17th October 2005. The main aim of the dress rehearsal was to test the whole survey process including:

- contact procedures
- administration of the survey, including assessments
- distribution of paper questionnaires
- consent forms, ARFs and other administrative paperwork

The secondary aim was to test the questionnaires for:

- content
- comprehension
- flow
- length

An additional objective of the dress rehearsal was to find out what NatCen could do to ensure that the cognitive assessments and physical measurements were carried out according to the protocols to ensure that the results were consistent across all of the interviews, and comparable with data from other studies using the same measures.

Feedback from the dress rehearsal was intended to provide useful information about the content of the questionnaires, but it was not designed, or able, to provide a thorough and complete assessment of the validity or reliability of specific modules of questions. The final choice of content was guided by the research team at CLS in consultation with collaborators.

4.5.1 Elements included in the dress rehearsal

The dress rehearsal included the following elements:

- household questionnaire
- main respondent interview (CAPI and CASI)
- partner interview (CAPI and CASI)
- child cognitive assessments
 - Sally and Anne
 - Naming Vocabulary
 - Picture Similarities
 - Pattern construction
- child physical assessments
 - height
 - weight
 - waist
- interviewer observation of the conditions in which the cognitive assessments were conducted
- older siblings self-completion questionnaire (in England only)
- neighbourhood observation
- involved non-resident parent questionnaire
- teacher questionnaire
- collection of consents

4.5.2 Dress rehearsal briefing and debriefing

A group of fifteen interviewers from a wide range of urban and rural locations in England, Wales, Scotland and Northern Ireland were briefed by NatCen researchers, with extensive contributions from the CLS research team. The briefing took place on the 15th, 16th and 20th September 2005 in London. Each interviewer was required to carry out two practice sessions of the cognitive assessments between the second and third days of the briefing, based on what was briefed in the first two days.

Interviewers were strongly encouraged to start recruiting respondents before the start of the briefing, in order to make best use of the fieldwork period. They were given full, written instructions to supplement the briefing.

A two day debrief took place on the 18th and 19th October 2005.

4.5.3 Dress rehearsal sample

The sample of wards chosen for the dress rehearsal was selected to reflect the mix of wards in the main stage fieldwork, and all of the dress rehearsal wards were included in the main stage.

The sample for the dress rehearsal consisted of 259 families sampled from 14 wards across the UK. Fieldwork in Northern Ireland was subcontracted to the Northern Ireland Statistics and Research Agency (NISRA).

Seventy six of these families had taken part in previous dress rehearsals for the Millennium Cohort Study. The remainder was a new sample selected by the Department for Work and Pensions (DWP) and was drawn from Child Benefit records. In Great Britain, the additional families were sampled from the same 13 wards as the original sample but had earlier dates of birth. Families in Northern Ireland were recruited for the first time. The DWP sampled an additional 174 cases. The sampling criteria were:

- i) living in a selected ward
- ii) born between 1st May 2000 and 11th June 2000 in Great Britain and born between 1st May 2000 and 22nd July 2000 in Northern Ireland.

Children in the original dress rehearsal sample, recruited at MCS1, were born between 13th June 2000 and 22nd July 2000.

All families in the new sample were sent a letter and a leaflet about the study by NatCen, which explained that they had been selected for inclusion in the study, and gave them the opportunity to opt out prior to fieldwork. Seven families chose to opt out before fieldwork.

A further two families were excluded from the study as they had moved home, and because they had moved far away from their original addresses, they became out of scope to the study due to location.

The sample of families for the dress rehearsal was divided into three waves:

- wave 1 consisted of families who took part in the dress rehearsal(s) for MCS1/MCS2;
- waves 2 and 3 consisted of a new sample of families drawn from Child Benefit records. Families from the new sample were allocated randomly to waves 2 and 3.

All cases in waves 1 and 2 were issued to interviewers at the start of fieldwork. Each interviewer was initially allocated 12 addresses, and in most cases this comprised a mix of wave 1 and wave 2 addresses. The exception to this was Belfast, which did not have any wave 1 cases as this area had not been included in the dress rehearsals for previous sweeps of MCS. Wave 3 was kept as a reserve sample, to only be issued if needed.

In total 185 cases were issued and 109 productive interviews were achieved. Two of the issued families contained twins.

All productive interviews had a completed main respondent interview.

Seventy-nine families contained someone who was eligible for a partner interview. Of these, 65 produced a productive interview, and a further six partner interviews were conducted by proxy.

4.5.4 Key findings and changes

The length of the MCS3 interview

NatCen asked interviewers to report the time taken for each element of the survey and compared these with the time calculated by the computer to provide two measures of interview length. These reports agreed well and showed that the interview needed to be

cut by approximately 10 minutes to reflect the interview time planned for the full survey, and to reduce the overall burden on households. Many areas needed to be cut, but the main respondent CAPI and CASI were perceived as particularly long.

Main respondent CAPI and CASI interview

In general, interviewers felt there were few problems with the main interview, and that it flowed well. NatCen found that all modules worked and there were no parts of modules that were resisted by respondents.

It was felt that some questions in the CAPI were too personal or sensitive, and would have been more appropriate in the self-completion section, particularly parts of the child and parent health section, for example the questions on parental depression and anxiety.

The interview was too long, with the CASI section being perceived as particularly long by respondents, but there were no obvious targets for deletion based on respondent (or interviewer) reaction. Some interviewers felt it would be better to have the self-completions on paper in order to free up the laptop so the interviewers could carry out other parts of the interview.

At the individual question level, most questions appeared to work well. There were some minor problems with routing that were noticed by interviewers, and lots of clear suggestions were given on how to improve a number of questions (including typos, grammar and clarifications).

Partner CAPI and CASI interview

As in the first pilot, the partner interview comprised a sub-set of the main interview questions. Interviewers felt this was thorough, and not excessively detailed or long. The main problem was finding a time when the partner was free to do the interview and this often involved a third visit, which increased the burden on the household.

Child cognitive assessments

For the dress rehearsal, the number of cognitive assessments was reduced from five to four, and the order in which they appeared in CAPI was changed, in response to feedback from the first pilot.

Parents, children and interviewers all enjoyed the cognitive assessments, although some felt that the assessments were too long. Both interviewers and children found it easy to become familiar with the assessments. Most parents observed their child's performance and only a few interfered with the assessments. Both respondents and interviewers felt that enough information was supplied to them in the leaflet given to them before the interview by the interviewers.

Some changes were suggested by interviewers in order to improve the ease with which interviewers could administer the assessments, which included minor changes to the CAPI script, and more emphasis in the briefings on parts of the cognitive assessments.

Child physical assessments

All but five children had their height, weight and waist circumference measured. Interviewers generally agreed that it was better to take the physical measurements after having spent some time in the household, so that the child had become familiar with seeing them and was less shy.

Both parents and children were very interested in the measurements, and parents sometimes wanted the cohort child's siblings to be measured too. To overcome this, interviewers suggested carrying out the physical measurements at the end of the interview, so respondents were less likely to want additional members of the household to be measured.

Non-resident parent self completion questionnaire

In households where the cohort child had an involved, non-resident parent, interviewers were asked to seek permission from the main carer to send a short, paper, self-completion questionnaire to the non-resident parent.

If permission was granted to contact the non-resident parent, interviewers were asked to record the non-resident parent's address and telephone number, and post a non-resident parent questionnaire to the non-resident parent, along with a leaflet explaining the purpose of the survey and a reply-paid envelope.

Interviewers were instructed that non-resident parent questionnaires should ideally be posted to non-resident parents. However, in the first pilot it was found that some main carers were reluctant to provide contact details for the non-resident parent and would offer to pass on the questionnaire to the non-resident parent. Interviewers were therefore briefed that if the main carer offered to pass the questionnaire to the non-resident parent, they should explain that they have been instructed to post the questionnaire. If the main carer insisted on passing on the questionnaire, interviewers were to ensure that they collected the name, address and telephone number of the non-resident parent. It was explained to the main carer that these details were required so that the non-resident parent could be reminded by letter or phone call, if needed.

Children in 22 out of the 109 productive households had an involved, non-resident parent, and questionnaires were placed with 17 of these 22.

Three weeks after the end of the dress rehearsal fieldwork, only three questionnaires had been returned. Of these three, all respondents considered the questionnaire straightforward to complete, and no particular problems were reported.

Of the remaining 14 questionnaires, contact details were only available for six of the involved non-resident parents. A reminder mailing was sent to these parents, but no further questionnaires were returned to NatCen.

This represented a very poor response rate. NatCen believed there were very few additional improvements that could be made to this element of the study in the length of time available before the start of the main stage fieldwork, and that it would therefore not be possible for a significant improvement in response to be achieved.

In addition, it was felt that the opportunities for a reminder strategy to raise the response rate appeared limited as few main carers provided contact details that would allow NatCen to send follow-up letters by post or to make reminder telephone calls. Furthermore, in the main stage it would not be appropriate to re-contact main carers to ask them to chase the non-resident parent to return the questionnaire, or to supply them with a new one. This would reveal that the non-resident parent had not co-operated with the research and would be likely to create a source of tension between some parents. Main carers might perceive this as an imposition and it was feared this could have a negative effect on their overall view of the study. In its proposal to carry out MCS3 and MCS4, NatCen recommended not following this strategy as it was considered inappropriate, and this view was unchanged after the dress rehearsal.

As a result, NatCen anticipated that if this element of the research continued some modest improvements in response could be made, but NatCen expected that ultimately a very low response rate would be achieved and did not believe this would be acceptable, as strenuous efforts to improve response could have a negative effect on the study as a whole, and would be likely to lead to significant bias in the nature of responding non-resident parents. NatCen hypothesised that responding parents were more likely to be involved, and more likely to be co-operating well with the main carer who lives with the cohort child, and that the results would not be representative.

It was therefore strongly recommended that this element of the study not be included in the main stage, and this recommendation was accepted by CLS.

Older siblings questionnaire

Interviewers had no problems gaining consent for the older siblings questionnaire. Some interviewers found it helped if they offered to show the blank questionnaire to the main carer first. Interviewers found that some of the older siblings had problems understanding the questionnaire, depending on their age. Aside from this issue, no problems were reported.

Home observation

The home observation module used in the dress rehearsal was virtually identical to that used in the first pilot. Overall, there were no problems with the home observations, although some interviewers struggled to remember the particular circumstances of the interview by the time they came to record the observations.

However, concerns were raised within NatCen about the ethical issues surrounding covert observation of respondents. The concerns were twofold: that data was being recorded without the informed consent of the respondents, and that the measurements being recorded were subjective, and that interviewers were not trained to make these types of observations. Some suggestions were made to change the wording of items within this module to make them more objective, but this obviously did not address the issue of data being collected without respondents' consent.

After the dress rehearsal this module was changed. The objective measurements pertaining to the conditions within the home at the time the cognitive assessments were administered were retained, but the items relating to interactions between the parents and children were dropped.

Neighbourhood observation

The neighbourhood observation questions used for the dress rehearsal were the same as those used in the first pilot. In general, interviewers had no difficulties with completing the neighbourhood observation questions. Interviewers reported that questions were easy to follow and could be completed within five minutes.

However, following the dress rehearsal, these questions were dropped from the study because of time constraints, and were replaced with the two questions used as standard in NatCen surveys, as described in section 3.9.

Teacher survey

There were no problems gaining consent to contact the cohort children's teachers and in getting their contact details. Interviewers suggested having a copy of the questionnaire to show parents if requested.

Collection of consents

For the dress rehearsal, seven different consent forms were used. For details of the background of the consent forms, and of how they were administered in the interview, see section 3.10.

The consent forms used in the dress rehearsal were as follows:

Data collection

The purpose of this form was to gain consent from the parent(s) to administer the main and partner interviews, and to gain permission to carry out the cognitive assessments and physical measurements of the children.

Although no problems were reported in the use of this form by interviewers, following the dress rehearsal, this consent form was changed so that separate consent forms were produced for each parent.

Cohort child school records - England

The purpose of this form was to ask for permission to access the cohort child's Foundation Stage Profile. No problems were reported about the use of this form, and the form remained unchanged for the main stage.

Cohort child school records - Scotland, Wales and Northern Ireland

This form asked parents for consent to send a Teacher Questionnaire to the cohort child's school teacher. Interviewers did not report any problems in gaining consent for this element of the study, nor in collecting the teachers' details, and this form was therefore not changed for the main stage.

Cohort child health records

This form asked for consent to access details of the cohort child's hospital admissions and treatment from routine records kept by the National Health Service. This consent had also been used in MCS2, and no changes were made to it.

Older siblings questionnaire placement (England only)

For the dress rehearsal, a requirement of the MREC was that as well as gaining consent from a parent or guardian to place the older siblings questionnaire, written consent also had to be gained from the older siblings themselves.

The research teams at NatCen and CLS felt it was unnecessary to gain written consent from older siblings for the placement of the older siblings questionnaire as completion of the questionnaire itself implied consent, and older siblings were free to refuse to complete the questionnaire even if their parent or guardian had given consent for the questionnaire to be placed. However, it was agreed to pilot consent forms that collected consent from both parents and older siblings.

Following the dress rehearsal, the requirement to gain written consent from the older siblings for the placement of the questionnaire was dropped.

Older siblings school records (England only)

The National Pupil Database, maintained by the Department for Education and Skills, contains information about the levels reached on the Standard Aptitude Tests (SATs) taken at age seven, 11 and 14, and the examination results of pupils at 16.

For the dress rehearsal, permission was sought to access this information for the older siblings of the cohort children in England.

The MREC stipulated that as well as gaining written consent from the parents or guardians, written consent also had to be given by each of the older siblings for whom the information was requested. Two consent forms were therefore developed: one for parents and one for older siblings. However, concerns were raised about whether or not children as young as ten years old were able to give informed consent about the release of this data.

Following the dress rehearsal, the research team at CLS asked the MREC to drop the requirement to collect written consent from the older siblings. As the MREC was not due to convene until shortly before the start of the main stage fieldwork, it was necessary to develop these consent forms for the main stage, and to have sets printed in case the MREC did not drop the requirement to gain written consent from the older siblings. The MREC did not agree to drop the requirement to gain consent from the older siblings; this element of the study was therefore dropped from the study altogether, and the printed consent forms were destroyed.

4.6 Post dress rehearsal changes and fieldwork delay

Following the dress rehearsal debriefing, a summary of recommended changes was prepared. Question cuts were necessary to reduce the questionnaire length by about 10 to 12 minutes, and NatCen provided timings for individual questions so that the impact of cuts could be accurately estimated.

The research team at CLS consulted with sponsors about changes to be made to the study prior to the main stage. Unfortunately, it was necessary for CLS to delay the delivery of revised question specifications by two weeks to allow sufficient time for this consultation; no change was made to the date at which fieldwork was scheduled to start, so the timetable for making and testing changes was compressed.

Once the specifications were received it became apparent that there was a large volume of changes to the questionnaire, including much general improvement such as text changes, textfills and small routing changes. The volume of changes was so large that it was not possible to implement the changes and thoroughly test the questionnaire before the scheduled fieldwork start date, and the start of fieldwork therefore had to be delayed by three weeks.

SECTION 5: CONDUCT OF FIELDWORK

5 Conduct of fieldwork

Interviewing in England, Wales and Scotland was carried out by NatCen's interviewers. Interviewing in Northern Ireland was subcontracted to NISRA.

A total of 451 interviewers worked on the study: 383 from NatCen, and 68 from NISRA.

5.1 Briefings

All interviewers were required to attend a briefing before starting work on the study. A total of 35 briefings was conducted, starting in January 2006, and finishing in August 2006. All briefings were led by researchers from NatCen and CLS.

The number of interviewers at each briefing varied. Most briefings were attended by 12 to 15 interviewers, although some of the briefings were smaller than this.

All briefings for NatCen interviewers had a Briefing Manager from NatCen's field force. The role of the Briefing Manager was to oversee and control the briefing, ensure its smooth running, deal with any inappropriate behaviour, including unnecessary interruptions and digressions by interviewers, and monitor the quality of the dummy interviews. In addition they were responsible for covering all interviewer administration. The Briefing Manager was also responsible for carrying out the risk assessment for the venue. In Northern Ireland, the role of Briefing Manager was fulfilled by staff from NISRA's head office.

Some of the briefings were also attended by members of staff from the funding organisations and other members of staff from CLS as observers.

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Each briefing lasted three days, and covered the following topics:

Day 1	Day 2	Day 3
<p>Overview of the Millennium Cohort study</p> <ul style="list-style-type: none"> ➤ Background to study ➤ Overview of sweep 3 <p>Introduction to cognitive assessments</p> <ul style="list-style-type: none"> ➤ Brief description of content and purpose of each assessment ➤ General administration points <p>Cognitive assessments</p> <ul style="list-style-type: none"> ➤ Outline of assessments ➤ Demonstration of administration (video) ➤ Overview of administration ➤ Dummy interviewing in pairs <p>Height, weight and waist measurements</p> <ul style="list-style-type: none"> ➤ Demonstration of how to use and care for equipment ➤ Demonstration of administration of physical measurements (video) ➤ Overview of protocols for taking physical measurements ➤ Practice taking measurements in small groups <p>Practice sessions</p> <ul style="list-style-type: none"> ➤ Overview and explanation 	<p>Feedback on cognitive and physical assessments</p> <ul style="list-style-type: none"> ➤ Training ➤ Administration ➤ Timings <p>Observations of conditions of cognitive assessments</p> <ul style="list-style-type: none"> ➤ Introduction ➤ Demonstration using CAPI <p>Additional information on background to study</p> <p>Overview of the interview components</p> <ul style="list-style-type: none"> ➤ Structure of interview ➤ Overview of CAPI structure ➤ Consents <p>The sample</p> <ul style="list-style-type: none"> ➤ Who the cohort members are ➤ Panel maintenance (inc. pre-notification) ➤ Assignments ➤ Serial numbers <p>Contacting sample members and tracing</p> <ul style="list-style-type: none"> ➤ The ARF - labels, sample information sheet ➤ Contact procedures ➤ Pre-notification mail out ➤ Advance letters/ leaflet ➤ Telephone/ personal visits ➤ Tracing 	<p>Arranging appointments</p> <ul style="list-style-type: none"> ➤ Introducing the survey ➤ Persuading respondents to take part ➤ Answering questions about the survey ➤ Organising the interview in the household ➤ Interviewing children ➤ Consents <p>School admin data/ Teacher questionnaire</p> <ul style="list-style-type: none"> ➤ Background and objectives ➤ Procedure ➤ Consent forms <p>Health admin data</p> <p>Older siblings (NB just England)</p> <ul style="list-style-type: none"> ➤ Background and objectives ➤ Procedure for self-completion (inc consent) ➤ Data linkage - (inc consent) <p>CAPI - household questionnaire and main respondent interview</p> <ul style="list-style-type: none"> ➤ Overview ➤ Household questionnaire ➤ Main respondent interview ➤ Dummy interview <p>CAPI - partner interview</p> <ul style="list-style-type: none"> ➤ Introduction ➤ Dummy interview <p>CAPI - Admin block</p> <p>Returning work and other admin</p>

Training videos were used during the briefing to demonstrate how to build rapport with children, and how to administer the different cognitive assessments and physical measurements. Between the second and third days of the briefings, interviewers were required to conduct two practice sessions with children aged 5 years old, who they were asked to recruit before the first day of the briefing. The purpose of these sessions was for interviewers to familiarise themselves with the cognitive and physical assessments, and to be able to practice them in a real-life setting, that is with children of the same age as the cohort children. In addition, it gave interviewers the opportunity to discuss their experiences of the cognitive and physical assessments with each other, and to clarify any issues arising from the practice sessions before they started work on the study.

The majority of interviewers who worked on MCS3 were experienced and had worked on other cohort studies, including previous sweeps of MCS, in the past.

5.2 Materials for interviewers

Interviewers were supplied with the following materials for use on the study:

Advance materials to be sent to respondents

Advance letters (and postage-paid envelopes)
First leaflet - to be sent to respondents with advance letter
Laminated copy of advance letters backed with pre-notification letter

Contact documents

Address Record Form (ARF) - single cohort child
ARF - multi-cohort children
Sample information sheet (attached to back of ARF)
Tracing letter (plus post-paid envelope and reply paid envelope)
Occupier letter (plus envelope and reply paid envelope)
Second leaflet (cognitive and physical assessments)

Consent forms

Pad 1 - Parent and cohort child consents

Consent 1: data collection - parent 1
Consent 2: data collection - parent 2
Consent 3: cohort child health records
Consent 4: cohort child school records (England)
Consent 4: cohort child teacher survey (Northern Ireland, Scotland and Wales)

Pad 2 - Older siblings consent (England only)

Consent 5: older siblings questionnaire placement (England only)

Pad 3 - continuation sheets for multi-child households

Consent 1m: data collection: parent 1
Consent 3m: cohort child health records
Consent 4m: cohort child school records (England)
Consent 4m: cohort child teacher survey (Northern Ireland, Scotland and Wales)

Older siblings self-completion questionnaire (England only)

Older siblings self-completion questionnaire and freepost envelope for return to Brentwood

Teacher survey (Wales, Scotland and Northern Ireland)

Example teacher's letter
Example teachers' questionnaire
Example teacher information sheet

Showcards

Interviewer instructions

Project instructions
Child Assessment and Measurement Instructions

Equipment

Sally and Anne showcards
BAS easel (Naming Vocabulary and Pattern Construction)
BAS easel (Picture Similarities)
Squares for Pattern Construction
Cubes for Pattern Construction
Picture cards for Picture Similarities
Tape measure
Stop watches
Stadiometer
Scales
Pack of 4 A4 batteries for scales available on request
Stickers for waist measurement
Skin pens for waist measurements
Frankfort Plane Card
Calendar
Police letter

Gifts

Funpacks for children
Pencil cases

Miscellaneous

Post-its
CLS Child of the New Century information leaflet for interviewers
Envelopes for return of work
Appointment cards
Plastic wallets for organising work

5.3 Interviewer assignments

In England, Wales and Scotland, within each wave (see section 2.4 for description of waves) the sample was grouped into interviewer assignments, or points. These points were defined in consultation with NatCen’s fieldwork managers to reflect local geography, but addresses in some, particularly rural, areas were widely spread. The size of the assignments varied from less than ten to over 20 addresses.

In Northern Ireland, the sample within each wave was grouped by District Council and ward. The sample was then allocated to interviewers working in those areas. The size of the assignments depended on the number of interviewers available to work in each area.

In terms of productive interviews, each interviewer on average achieved 36 productive interviews (see Table 5.1). Seven per cent of interviewers achieved 10 or fewer interviews, and eight per cent achieved 61 or more.

Table 5.1 Number of productive interviews per interviewer

Number of productive interviews	Number of interviewers	% of all interviewers
1 to 10	32	7
11 to 20	75	17
21 to 30	99	22
31 to 40	116	26
41 to 50	70	16
51 to 60	24	5
61 or more	35	8
TOTAL	451	100
Mean	36	

5.4 Issuing sample to interviewers

NatCen's interviewers were issued with their assignment at the beginning of each wave. In Northern Ireland, the interviewers were issued with their sample on a monthly basis during each wave.

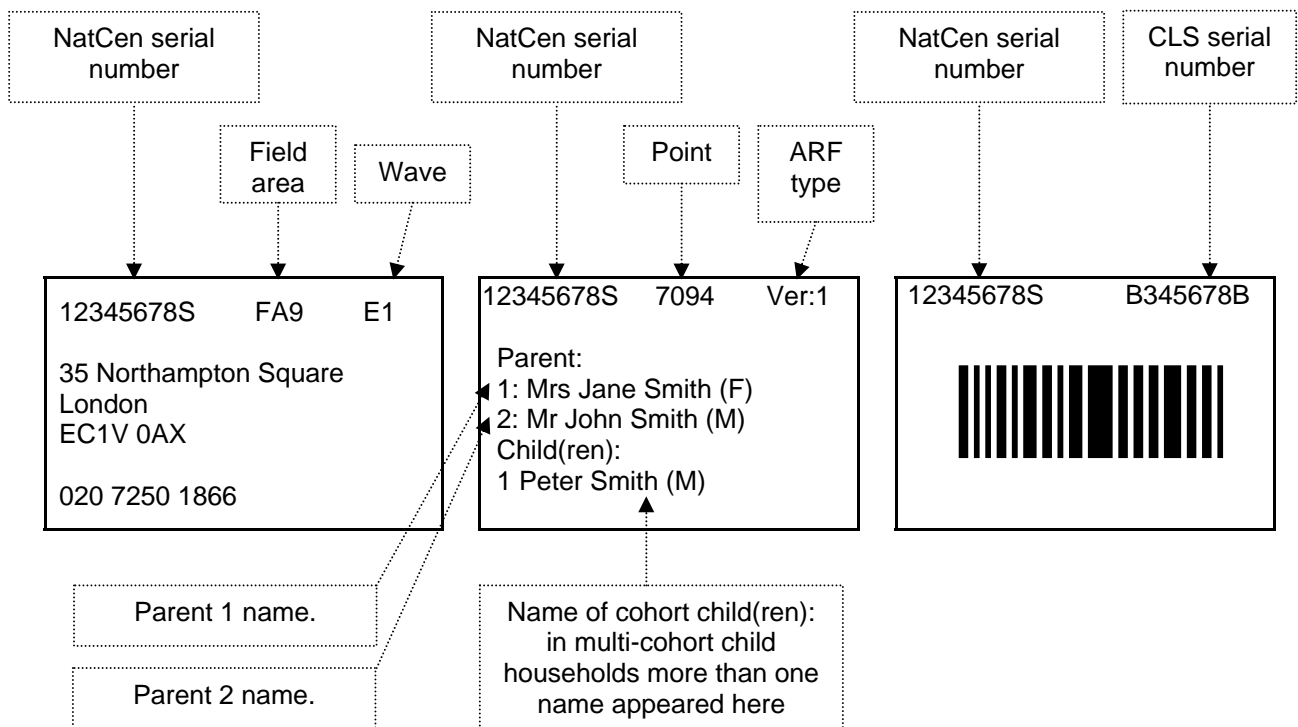
Sample information was provided on an Address Record Form (ARF), supplemented with a Sample Information Sheet (SIS). The information printed on these documents came from the sample files provided by CLS (see section 2.6 for details).

All interviewers were instructed to review their assignments when they received them in order to plan their work. They were advised to prioritise the contact of some cohort families, such as those who were not interviewed in 2003/2004 and may therefore have needed tracing, those who were known to no longer be living at the address given, and so would require tracing, and those whose addresses were furthest away from where the interviewer lived, or who were most isolated from others in the point.

5.4.1 The Address Record Form (ARF)

Two versions of the ARF were produced: one for families containing a single cohort child, and one for families containing more than one cohort child.

The sample information on the ARF was provided in three labels attached to the front. Details of the layout and content of these labels is shown in Figure 4.

Figure 4: sample information provided on the ARF (fictitious example)

The first label was printed with NatCen's serial number, NatCen's field area, and the allocated wave, together with the last known address of the family, and a contact telephone number.

The second label was printed with the point number (see section 5.3), ARF type (whether it was an ARF for a family with a single cohort child or for a family with two or more cohort children), and the names of the parents and cohort child or children.

The parents were labelled as Parent 1 and Parent 2 (if there was more than one parent in the household). Parent 1 was usually the main respondent from the last sweep of the study that the family had participated in, and Parent 2 the partner respondent. In some cases the partner respondent, and not the main respondent, was labelled as Parent 1, and vice versa; this usually happened when CLS had been asked to address correspondence to the partner.

The third label was printed with both the NatCen and CLS serial numbers, and also had a barcode on, which was used by NatCen's Operations Department when booking in returned work.

As well as the sample information, the ARF contained space for interviewers to record all attempts made to contact the respondents, including any tracing done, interview outcomes, and the neighbourhood observation.

Copies of the ARFs can be found in the appendix.

5.4.2 The Sample Information Sheet

The Sample Information Sheet included the following information:

Cohort child details

This contained each cohort child's full name, sex and date of birth.

Resident parent details

This contained each resident parent's title, full name, and date of birth. It also contained details of the type of interview they last did, either main, partner or proxy, or it indicated if they were not eligible for interview last time (e.g. if they were not resident in the household at the time of the last interview).

Contact details

This contained the last known address and telephone numbers for the household. It also contained two additional fields: address status, and the date that status was assigned. This indicated that on the date shown, the household had either been confirmed as being resident at that address, or that they had been confirmed as not living at that address.

Information from previous surveys

This section contained the following information:

- household outcomes from the first and second sweeps of the survey
- date, day and time of last interview
- whether or not there were any older siblings present in the household at MCS2; this information was provided so interviewers knew whether or not older siblings questionnaires would be required for the household in MCS3
- whether or not consent to access the cohort child's health records was given at MCS2 (if consent was given at MCS2, then interviewers did not have to ask for consent to access the child's health records in MCS3).
- individual outcomes for the parent(s):
 - the outcome last time
 - whether or not any of the questionnaire had to be translated, and if so, into which language.
- address at last interview

Office notes/ updates

This space was used to record any information received between the sample file being received at NatCen and the start of fieldwork, such as sample updates.

Information to be used for tracing

- Stable address details, i.e. contact details provided by respondents, usually of a close relative of one of the respondents.

5.5 Pre-notification of cohort families

All cohort families were sent a pre-notification letter from CLS before the start of fieldwork. This letter had two purposes: it informed the cohort family about the publication of the first book about the study, and also introduced the Age 5 Survey and explained NatCen's role. A glossy 8-page leaflet covering the main findings from the book was included with the letter, along with an order form for the book at a discounted price.

The letter was sent in October 2005 (to sample issued in January 2006), January 2006 (for sample issued in April 2006) and April 2006 (for sample issued in August/September 2006).

A copy of the letter is included in the appendix.

5.6 Informing the Police

A letter was sent out to all of the Chief Constables in the UK informing them that the study was taking place.

NatCen's interviewers were required to check in at the local police station before they started work. They were asked to tell the police what the survey was about, give them a copy of the police letter and the advance letter, and explain how long they would be working in the area. Interviewers were also asked to make a note of the name of the officer to whom they spoke and the date of their call so that they were fully covered in the event of any query or complaint to the police.

The reason interviewers were asked to contact the police is that it is reassuring for suspicious families, as well as other people interviewers come into contact with, to be told that the police are aware the interviewer is working in the area.

In Northern Ireland, NISRA provided District Commanders with details of all interviewers (i.e. name and vehicle information) working in their respective sub-divisional areas. Each District Commander was asked to forward these details to all local police stations under their sub-divisional command, so that in the event of any queries from the public, the interviewers' identity could be authenticated immediately and the member of the public assured that they were working on official business.

5.7 Who to contact

The method of contacting respondents, and the person whom interviewers were instructed to attempt to contact in the first instance, was determined by the respondents' participation status in the first and second sweeps of the study.

If there were two parents listed on the Sample Information Sheet, and both took part in MCS2, then interviewers were instructed to attempt to make initial contact with the person who was the main respondent in MCS2. If they were not able to contact this person, then they were to attempt to contact the person who was the partner respondent last time.

If there were two parents listed on the Sample Information Sheet, but only one of them took part in MCS2, then interviewers were instructed to attempt to contact that person first.

If two parents were listed, but neither took part in MCS2, then interviewers were asked to check whether or not the parents took part in MCS1. If both had taken part in MCS1, interviewers were instructed to attempt to contact the person who was the main

respondent first. If only one of the parents took part in MCS1, then interviewers were instructed to contact that person. If neither parent took part in MCS1 or MCS2, then interviewers could attempt to contact either parent.

In cases where the cohort child's parents were no longer living together, interviewers were asked to try to find out who the child now lived with and interview at that address. If the child lived with both parents for some of the time, interviewers were asked to try to establish where the child mainly lived and interview at that address. If residence was shared equally between the two parents, then interviews were usually conducted in the household that contained the main respondent from last time.

5.8 Contact procedures

5.8.1 Stage 1: Advance letter and first leaflet

An advance letter was produced for each family in the sample. Each letter was pre-printed with name(s) and address of the cohort child(ren)'s parent(s). In England, Scotland and Wales, a space was provided at the bottom of the letter for interviewers to write in their name.

A leaflet describing the study was also produced.

There were four versions of the advance letter: one for each country in the UK. Three versions of the leaflet were produced: one for families residing in England, one for families residing in Scotland and Wales, and one for families residing in Northern Ireland.

Copies of the advance letters and leaflets can be found in the appendix.

NatCen's interviewers were asked to send out an advance letter and leaflet to each of the families in their assignment within 3 days of receiving their workpacks.

In Northern Ireland, the advance letters for each month's assignments were sent directly from NISRA's office to the families. These were posted at least three days prior to the interviewers commencing work on their assignment. The interviewer name was not included on these advance letters.

5.8.2 Stage 2: Telephone contact with cohort families

If a family had participated in MCS2 and a telephone number for that family was available, then interviewers were required to attempt to make first contact with the family by telephone.

In the majority of cases, only one telephone number per family was available, but if more than one was available then interviewers were instructed to try to contact the mother first, and then the partner.

If interviewers were unable to successfully arrange an appointment by telephone, they were required to make a personal visit to the address before accepting the case as a refusal.

5.8.3 Stage 3: Personal visits

For those for whom first contact by telephone was not appropriate, or where telephone contact was unsuccessful, interviewers were required to make one or more personal visits.

If no one was at home, interviewers were instructed to leave a NatCen appointment card to inform the residents of their visit, and try again at a later date.

If when contacting a household interviewers were greeted by a child or young person who said there were no adults present or available for the interviewer to talk to, the interviewer was instructed to leave the household, and not to ask a child or young person for information about household residents, or their likely availability, or for a telephone number.

If interviewers were not able to contact respondents by telephone or through the personal visit, then they were expected to make reasonable attempts to trace the respondents, as outlined in the next section.

5.9 Tracing cohort members

If an interviewer found that a cohort family had moved, they were expected to attempt to find their new address, and there were several steps they had to follow before returning a case to NatCen or NISRA for further tracing by CLS.

In order to learn a new address, interviewers asked the current residents of the original address or neighbours. It was anticipated that these people might not know the whereabouts of the cohort family, but that they might be able to direct interviewers to friends or relatives nearby who would know how to contact the cohort member.

If this means of tracing was unsuccessful, then interviewers were required to contact the stable address if they had been provided with a telephone number on the Sample Information Sheet, or if the stable address was in their area.

If interviewers were successful in finding a new address for a family that had moved, then they would manually update the sample details on the ARF and in the CAPI. If the address was in their area, they would follow the contact procedures outlined in section 5.8 at the new address. If the new address was outside of the interviewer's area, the interviewer would return the case to NatCen's operations department or NISRA's office so it could be reallocated to another interviewer.

When tracing, interviewers were not to mention the cohort child's name to anyone other than the cohort child's family; they were therefore instructed to say they were looking for the parent or parents. However, it was reinforced to interviewers that it was the cohort child who was the subject of the survey, and that if their investigations revealed that the cohort child was no longer living with their natural parents, they were to try to find out where the child was now living. This meant that if the child was living with adoptive parents, it was the adoptive parents that should be interviewed.

5.9.1 Tracing letter

In instances where interviewers found someone who knew where the cohort family was living but was unwilling to give this information to the interviewer, a tracing letter could be used.

This letter explained that MCS3 was taking place, and that an interviewer from NatCen had tried to contact the respondent. The respondent was asked to send their new address to CLS. Interviewers completed these letters, and placed them in an envelope containing a blank post-paid envelope, and asked the person who knew the cohort family's whereabouts to post or pass on the letter to the cohort family.

A copy of the Tracing Letter can be found in the appendix.

5.9.2 Occupier letter

If interviewers were not able to make contact with anyone at the last known address of the cohort family, and were not able to establish their whereabouts from neighbours or the stable address, then they were asked to post an occupier letter through the letterbox at the last known address of the cohort family.

This letter explained that CLS was trying to contact a person who was part of a very important research project, and that this was the last known address for that person. The letter asked the recipient of the letter to contact CLS, or to forward the letter to the addressee, if their new address was known.

A copy of the Occupier Letter can be found in the appendix.

5.9.3 Incomplete addresses

If any of the addresses provided were incomplete, or could not be found, interviewers were asked to check the address with local residents, maps, directories, the police, etc to seek to find the correct address.

5.10 Making appointments

Interviewers were aware before they started work that it might be necessary to make more than one appointment to cover all elements of the survey, depending on the availability of the survey respondents.

Once an appointment was made, interviewers were asked to complete an appointment card, and give a second leaflet to the respondent. The second leaflet contained additional information about the child cognitive assessments and physical measurements, including information about how the child should ideally be dressed for the interviewer to take the physical measurements. A copy of the second leaflet can be found in the appendix.

It was important that interviewers gave this leaflet to respondents before the appointment so the respondent could read the information beforehand. If interviewers contacted a respondent and made the appointment by telephone, then they were required to post the second leaflet to the respondent along with a NatCen appointment card. If the timing of the appointment meant there was not enough time to post the leaflet to the respondent before the appointment, interviewers were asked to explain the content of the leaflet to the respondent, so the respondent was fully aware of what the cognitive assessments and physical measurements entailed, and so they could ensure the child was appropriately dressed when the interviewer visited

5.11 Return of work

Interviewers recorded the progress of each case on the ARF, and in the CAPI. Once interviewers had finished with a case, an outcome code was assigned to the case, the interviewer transmitted the case electronically to NatCen or NISRA, and returned all the associated paperwork.

Details of the outcome codes used can be found in the appendix.

NatCen and NISRA checked each case individually once it was returned, and then processed the case as described in the following sections.

5.11.1 Productive and partially productive cases

These were checked to ensure that all necessary consent forms had been returned and were correctly completed and also that older-siblings questionnaires were returned where applicable and were correctly completed. The information written on the forms was cross-checked with the sample data contained in the CAPI to ensure that the forms were signed by the correct respondents.

If any problems came to light during the checking, the interviewer was contacted so the problems could be rectified as soon after the case was completed as possible.

Once NatCen Operations was satisfied a case was complete and in order, the data was coded and edited. This process is described in section 7.

5.11.2 Unproductive cases

The course of action taken when cases were returned with unproductive outcomes was dependent on the type of unproductive outcome.

- Refusals: these were checked to ensure that interviewers had made face to face contact with the respondents. Interviewers were not allowed to accept refusals over the telephone. If a case was returned to NatCen's operations department as a refusal, but face to face contact had not been made, the case was reissued to the interviewer.
- Non-contacts: these were checked to ensure interviewers had tried hard enough to make contact with the family, that is that they had tried to make contact by telephone and in person, and had called on different days of the week and at different times of the day. If this had not been done, the case was reissued to the interviewer.
- Movers - no address found: these cases were checked to ensure that interviewers had done sufficient tracing before returning the case to NatCen's operations department. If the interviewer had not followed all of the tracing steps outlined in section 5.9, the case was reissued to them for further tracing. If sufficient tracing had been done, then the case was referred to CLS's tracing team for further tracing.
- Movers - new address found: if the interviewer had located a new address, but it was outside his or her area, then the address was checked to ensure it was complete. If it was complete, the case was reallocated to another interviewer. If the address was not complete, then the case was returned to CLS for further tracing by CLS's tracing team.

Data about untraced movers was collated in a 'mover file', and this was sent to CLS on a weekly basis. CLS returned any updated information in the weekly sample update file, which is described in the next section. The first 'mover file' was sent to CLS on the 12th May 2006. Details of the number of movers sent to CLS can be found in Table 5.3 and details of tracing success in Table 6.8.

5.12 Sample management during fieldwork

5.12.1 Sample updates from CLS

As mentioned in section 2.7, CLS ceased active tracing of cohort members once the sample file was sent to NatCen prior to the start of fieldwork for each wave. However, information was sometimes received by CLS once the sample had been sent to NatCen.

CLS provided NatCen with a file containing sample updates once a week during fieldwork. How the information was handled depended on the type of information received, i.e. whether it was a change in eligibility or participation status, or a change in contact information, and the progress of the case, i.e. whether the case had been issued to an interviewer and whether the interviewer had started working on the case.

Table 5.2 summarises the actions taken by NatCen's operations department as a result of sample updates from CLS.

Changes to other contact information, such as names, sex, dates of birth, etc. were not normally notified to NatCen.

Respondents sometimes contacted NatCen's head office or operations department with information. This information was handled in the same way as the sample updates from CLS.

Table 5.2 Actions taken as a result of sample updates

Type of update	Status of case		
	Not yet issued to interviewer	Issued to interviewer, but not yet returned to NatCen	Issued to interviewer and returned to NatCen
Change in eligibility status, i.e. death or emigration of cohort child	NatCen assigned the appropriate outcome code, and the case was not issued to an interviewer.	NatCen notified the interviewer of change of status, and the interviewer assigned the appropriate outcome code and returned the case to NatCen.	If the case had been returned with a productive outcome code, no action was taken. If the case had been returned with an unproductive outcome code, a new survey outcome code was assigned
Change in participation status	As above	As above	No action, but NatCen ensured cases with unproductive outcomes were not reissued
Change in status of address, i.e. it became known that the cohort family was no longer living at the address, but the new address was not known	NatCen manually amended the Sample Information sheet, and the case was issued to an interviewer for tracing.	NatCen notified the interviewer of the change, the interviewer manually updated the ARF/ Sample Information Sheet, and attempted to trace the family	No action
Change to contact information	As above	As above	If the case had been returned with a productive outcome code, NatCen stored the new address as the most recent address until the case was returned to CLS. If the case had been returned with an unproductive outcome code but the interviewer had made contact with the respondent, NatCen stored the new address as the most recent address until the case was returned to CLS If the case had been returned with a non-contact outcome code the case was reissued.

The following table shows the number of cases that were sent to CLS in the 'mover file' (see section 5.11.2 for details) and the number of cases sent to NatCen in the sample update file.

Table 5.3 Number of cases in 'mover file' and sample update file, by month

Month	No of cases in Mover file sent to CLS	No of cases in Sample Update file sent to NatCen
February	0	85
March	0	49
April	0	62
May	362	153
June	246	62
July	99	193
August	137	345
September	63	346
October	18	86
November	46	76
December	25	67
TOTAL	996	1524

5.12.2 Updating sample information by interviewers

Interviewers were responsible for updating the contact information for all the cases issued to them.

For productive cases, the sample information was checked, and updated if necessary, during the interview. For unproductive cases, interviewers would sometimes obtain updates to the sample information during the course of contacting the respondents, and this information was recorded on the ARF/ Sample Information Sheet, and in the CAPI.

All updates and changes made to the sample information by interviewers were recorded in such a way that the new information was distinguishable from the original information.

5.13 Fieldwork progress

Fieldwork was initially due to run from November 2005 to December 2006. However, in the development stages of the study it became clear that a fieldwork start date of November did not allow enough time for development of the study, and the quality of the data collection instruments would be compromised if more time was not allowed for development and testing.

The start of fieldwork was therefore delayed until the beginning of January 2006. After the dress rehearsal, delays in agreeing final changes to the questionnaire meant that fieldwork had to be further delayed to allow for sufficient testing of the final questionnaires. The first briefing was moved to the end of January 2006, and fieldwork started in early February.

Each wave of fieldwork started on time or nearly on time, but a number of the waves finished much later than originally timetabled. The waves that were due to finish in the middle of fieldwork suffered the greatest delays. However, those due to finish at the end of December over-ran by only three weeks.

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E1 and W1 were due to start in January 2006, and continue until April 2006, a total of 14 weeks. This was an overly-ambitious timetable; in addition, the briefings for these two waves did not finish until the seventh week of fieldwork, effectively reducing an already short fieldwork period.

In Wales, the problem of the short fieldwork period was exacerbated as eight interviewers stopped working on the study in the first few weeks after being briefed. Three of these interviewers resigned from NatCen, three resigned from the study (but not from NatCen), and a further two had to stop working or limit working for family reasons.

The following table shows the timetabled and actual fieldwork dates.

Table 5.4 Proposed and actual fieldwork dates

Wave name	Timetabled fieldwork dates	Actual fieldwork dates
E1	January - April 2006	January - October 2006
E2	April - July 2006	April - October 2006
W1	January - April 2006	February - October 2006
W2	April - July 2006	April - October 2006
S1	April - July 2006	April - December 2006
S2	August - December 2006	August 2006 - January 2007
N1	April - July 2006	April - December 2006
N2	September - December 2006	September 2006 - January 2007

Table 5.5 shows the interviews achieved each month, with the timetabled fieldwork dates highlighted, and Table 5.6 shows the proportion of interviews that were delayed.

Table 5.5 Interviews achieved by month

	E1	E2	W1	W2	S1	S2	N1	N2	Total
	N	N	N	N	N	N	N	N	N
February 06	553	0	33	0	2	0	0	0	588
March	2026	0	247	0	0	0	0	0	2273
April	1278	748	275	49	158	0	50	0	2558
May	633	1401	175	161	149	0	179	0	2698
June	213	1088	96	144	34	0	247	0	1822
July	82	836	121	151	10	0	151	0	1351
August	40	508	83	241	11	53	122	0	1058
September	36	242	52	263	35	352	20	107	1107
October	34	33	30	31	29	312	13	168	650
November	0	0	0	0	18	436	4	334	792
December	0	0	0	0	12	166	4	120	302
January 07	0	0	0	0	0	29	0	18	47
TOTAL	4895	4856	1112	1040	458	1348	790	747	15246

Table 5.6 Proportion of interviews delayed

	E1	E2	W1	W2	S1	S2	N1	N2
	%	%	%	%	%	%	%	%
Conducted within timetabled fieldwork dates	80	84	50	49	77	98	80	98
Delayed, but conducted in same school year	19	10	43	23	2	2	15	2
Delayed to next school year	1	6	7	28	21*	0	5	0

* In Scotland, some interviews in S1 were deliberately delayed until the next school year for those children who had delayed the start of school until the following year.

In England, Scotland and Northern Ireland, the majority of interviews were conducted within the timetabled fieldwork periods. The proportion delayed to the next academic year was small in England and Northern Ireland. In Scotland, a higher proportion of interviews (21%) was delayed to the next academic year, but this was a deliberate, and desired, delay, timed for those Scottish children who had delayed the start of school until that year.

For Wales, only about half the interviews were carried out during the timetabled fieldwork period. Only a few interviews in the first wave were delayed until September, but for W2, over a quarter of interviews were delayed until the next school year.

The fieldwork did, however, finish strongly, with 98% of N2 and S2 interviews being carried out in the timetabled fieldwork period, and those few interviews that were delayed were still conducted in the same academic year. The short over-run at the very end of fieldwork had no impact on the overall survey timetable, including data delivery.

5.14 Progress reporting

Fieldwork progress reports were sent to CLS weekly, and more substantial progress reports monthly. The weekly reports were at household level and comprised a breakdown of survey response (broadly, into categories of productive, non-productive, ineligible and outstanding cases) by fieldwork wave. The monthly reports had additional household level breakdowns (by prior response, country of issue, sample-type), response to the different survey elements, and an analysis of movers.

The first weekly report was provided on April 7th 2006, and the first monthly report in May 2006, with reports continuing throughout fieldwork.

5.15 Translations

The advance letters, leaflets and consent forms were available in the following languages:

- Welsh
- Urdu
- Punjabi
- Gujarati
- Hindi
- Bengali
- Somali
- Tamil
- Turkish
- Kurdish
- Arabic

Where respondents could not understand English sufficiently to take part in the interview but were able to understand the questions through an interpreter, interviewers had to find someone suitable to act as an interpreter and conduct the interview through them. Ideally the interpreter should have been an adult household member, but in some households the adult members spoke little or no English whereas the resident children were fluent English speakers and used to translating on their parents' behalf.

For NatCen surveys a child may be asked to assist in this way only where:

- both parent(s) and child are willing to participate and
- the child is of an age to properly comprehend the questionnaire content.

If the household contained no suitable person to interpret, interviewers were instructed to contact the office so that an interpreter could be found from another source.

In Wales, Welsh-speaking interviewers were provided where requested.

If an interview was conducted in translation, the self-completion section could be administered by the interviewer. Where this was done, some questions were skipped because of their sensitive nature.

At the end of the interview, interviewers recorded whether or not the interview was conducted in translation in full or in part, and in which language. The number of interviews conducted in languages other than English is shown in Table 5.7.

Table 5.7 Number of interviews conducted in languages other than English

Language	Main respondent	Partner respondent
	N	N
Welsh	1	5
Urdu	80	52
Punjabi	79	57
Gujarati	22	17
Hindi	3	3
Bengali	60	46
Sylheti	9	2
Cantonese	1	1
Somali	20	9
Tamil	12	10
Turkish	3	2
Kurdish	2	2
Arabic	16	12
Other	40	27
Translated - no information which language	0	3
Total translated	348	248

Cohort members in Wales were offered the option of completing the Naming Vocabulary assessment either in English or Welsh; this was the only assessment for which this language option was offered, and no other language options were offered for any of the assessments. Out of the 2125 completed Naming Vocabulary assessments in Wales, 25 (1%) were completed in Welsh.

5.16 Thank you card

All families that took part in the study were sent a thank you card, unless they had requested they not be contacted again. The thank you cards were designed by a professional graphic designer. A copy of the card is contained in the appendix.

The information written on the back of the card was translated into the languages mentioned previously, and the language slips were used for those respondents for whom the interview had been translated.

It had been planned to send out thank you cards to respondents shortly after they took part in the study; however, the process of designing the card took longer than anticipated. In addition, CLS requested that thank you cards were not sent out until all of the contact information for these cases was cleaned and ready to be returned to CLS. The first cards were therefore not sent out until early September 2006, almost seven months after the first interviews took place.

The following table shows the number of thank you cards sent by month. A contact information file was provided to CLS at the same time as each thank you card mailing.

Table 5.8 Thank you mailings by month

Month	No of thank you cards sent
September 2006	8393
November 2006	4414
December 2006	1342
January 2007	204
March 2007	851
TOTAL	15204

5.17 Fieldwork Quality Control

As mentioned previously, all interviewers were required to attend a three-day briefing and conduct two practice sessions before starting work. During the briefing, interviewers conducted dummy interviews, and were encouraged to practice further at home.

The majority of NatCen interviewers working on the study were experienced interviewers, and many had worked on previous cohort studies at NatCen. All new interviewers were supervised during their first interview, and if necessary given further assistance with the study. In Northern Ireland all of the interviewers working on the study were experienced interviewers, but only a few had previously worked on cohort studies.

Interviewers' work was checked when it was returned to the office to ensure that sufficient tracing was done where necessary, that outcome codes were assigned correctly, and that all necessary paperwork, such as consent forms and paper self-completion questionnaires, was returned. If it was felt that an interviewer had not tried hard enough to trace respondents that had moved, then the case was returned to the interviewer for further tracing. See section 5.11 for further details.

It is standard practice at NatCen for interviewers to be supervised in the field twice a year, and for their work to be reviewed on an on-going basis. In addition, standard NatCen checking procedures applied: 10% of cohort families interviewed were re-contacted by telephone or letter, and interviewers were supervised regularly. Interviewers whose performance was below expectation were contacted and offered further briefing and support. NISRA adheres to the same practice, with the exception that their interviewers are supervised in the field once a year.

The interviewer's route through the CAPI questionnaire was programmed so that all relevant questions came on route according to the cohort member's earlier answers. Several checks of values and measurements were also built into the CAPI. The 'hard' checks did not allow entries outside a given range, and the 'soft' checks asked the interviewer to confirm what he or she had entered. Soft checks were usually triggered where values were implausible but not impossible. These checks were reviewed when the data were edited.

5.18 Fieldwork complaints

NatCen has a standard procedure for dealing with complaints from respondents about interviewers, but this procedure was altered slightly for MCS because of the longitudinal nature of the study, and the fact that respondents could contact the sponsors and researchers directly.

If complaints were made directly to CLS, the complaint was acknowledged with a standard response explaining that the matter would be referred to NatCen for further investigation, and the details were then forwarded to the research team at NatCen, who then forwarded the complaint to Field Services at NatCen who deal with such matters.

If complaints were made directly to the NatCen research team, the complaint was acknowledged with a standard response, again explaining that the matter would be investigated fully, and then forwarded to Field Services.

Field services would contact the interviewer's Area Manager explaining that a complaint had been made, and requesting the interviewer's account of events in writing. At this stage, the nature of the complaint was not explained in detail to the interviewer as this could influence the interviewer's account.

Once the interviewer's version of events was received, Field services responded to the Area Manager with fuller details of the complaint, which the Area Manager relayed to the interviewer, asking if the interviewer wished to add anything to their original account.

If the complaint was justified, then action was taken against the interviewer. The action taken would depend on the type of incident, and the severity of the matter.

5.19 Safety, Consent and Confidentiality Issues

5.19.1 Safety Issues

Interviewers were given guidance on how to work effectively with children. They were instructed to take care to avoid physical contact the children except where necessary for the purpose of taking the child physical measurements. Where contact was necessary, interviewers were instructed to explain beforehand what would be required, and to ensure that the parent was able to see what was happening throughout the process.

Interviewers were also advised to ensure that a parent was present when they were administering the assessments to the children. If the parent left the room momentarily, interviewers were advised to make sure that the door to the room remained open and that the parent remained within earshot, and if they felt uncomfortable being alone with the child to ask the child to go to its parent, or to make an excuse to leave the household e.g. saying they had to pop out to their car.

5.19.2 Consent issues

Any parent or parent-figure was able to give consent for the data collection elements, regardless of their relationship to the child. So for example a step-parent could give consent for the cohort child cognitive assessments and physical measurements (Consent 1) and the older siblings questionnaire placements (Consent 5). This is because these consents were an ethical rather than a legal requirement, so it was not necessary for the person signing the form to have legal parental responsibility for the child. However, in

general, if there was a natural parent available, interviewers were advised to seek the consent of that parent.

For the release of school administrative data/contacting class teacher and releasing information from health records, there were legal restrictions about who could give permission for the release of this information. Interviewers were therefore required to ensure they correctly recorded the reference number on the form of the person who signed the form so that their relationship to the cohort child could be checked by CLS to establish whether or not they were legally able to give permission for the information to be released.

A person whose mother tongue was English but who could not read and understand the advance leaflet or consent forms for themselves because of literacy problems or poor vision would have the leaflets and consent forms read out to them. Large-type copies of the leaflets and consent forms were available on request.

Interviewers were reminded that consent from a parent or guardian did not imply consent from the child, who retained the right to decide whether or not to take part in the survey.

5.19.3 Confidentiality issues

In order to maintain confidentiality, interviewers were instructed to avoid mentioning the title of the study to anyone but the cohort member or their parents. As mentioned in the advance letter, the cohort member's answers were treated in strict confidence in accordance with the Data Protection Act. In addition, interviewers were not permitted to interview anyone known to them personally, such as a friend, a neighbour or a colleague. Such instances were re-assigned to other interviewers.

6 Survey Response

6.1 Household response

A total of 15246 families were successfully interviewed, giving a response rate of 82.6% of the eligible sample, and a co-operation rate of 85.8%.

Of the 18528 households in the issued sample, 76 were not eligible because the cohort child had died or emigrated, or because the family was not part of the cohort and was issued in error by CLS. A further 682 were of uncertain eligibility: see section 6.3 for details.

Overall, 12.5% of contacted cohort families refused to participate in the survey. Table 6.1 provides a detailed breakdown of the response to the survey.

Table 6.1 Summary of contact and response

	No.	Survey response rate	Co-operation rate
Total sample	18528		
Total ineligible	76		
Died	3		
Emigrated	71		
Ineligible/ out of survey	2		
Total eligible sample	18452	100%	
Uncertain eligibility	682	3.7%	
Untraced movers	496	2.7%	
Address not attempted/ ran out of time	186	1.0%	
Total sample traced and eligible	17770	96.3%	100%
Productive	15246	82.6%	85.8%
Fully productive	13562	73.5%	76.3%
Partially productive	1684	9.1%	9.5%
Refusals	2308	12.5%	13.0%
Office refusal	288	1.6%	1.6%
Refusal to interviewer	2020	10.9%	11.4%
Other unproductive	216	1.2%	1.2%
Non-contact	63	*	
Ill during fieldwork period	16	*	*
Away during fieldwork period	27	*	*
Physical or mentally incompetent	2	*	*
Language difficulties	13	*	*
Data lost on laptop	4	*	*
Other reason	88	*	*
Productive - but respondent asked for data deletion	3	*	*

6.1.1 Household response by response at prior sweeps

Table 6.2 shows how the contact and response rates varied by households' participation status in previous sweeps.⁵

As expected, co-operation rates were highest among those families that had taken part in MCS2, at 91.6% for those families that had taken part in both previous sweeps, and 87.1% for those that had taken part in MCS2 only⁶. Co-operation was lowest among those who had taken part in MCS1 but had not taken part in MCS2, at 51.3%.

At MCS2, there were 668 households that had not been traced. Almost three-quarters (74.7%) of these families were traced during MCS3, and of those families contacted, 74.3% took part in the survey.

Table 6.2 Summary of response by response in previous sweeps

	Total	Productive at both MCS1 and MCS2	Productive at MCS1, unproductive or ineligible at MCS2	Productive at MCS1, untraced at MCS2	New MCS2 families: productive at MCS2 only
	N	N	N	N	N
Total sample	18528	14673	2499	668	688
Total ineligible	76	44	16	12	4
Died	3	0	2	1	0
Emigrated	71	44	14	11	2
Ineligible/ out of survey	2	0	0	0	2
Uncertain ineligibility	682	271	210	169	32
Untraced movers	496	176	162	134	24
Outstanding movers/ ran out of time	186	95	48	35	8
Total sample traced and eligible	17770	14358	2273	487	652
Productive	15246	13151	1165	362	568
Unproductive	2524	1207	1108	125	84
	%	%	%	%	%
Sample traced and eligible	95.9	97.9	91.0	72.9	94.8
Survey response rate	82.6	89.9	46.9	55.2	83.0
Co-operation rate	85.8	91.6	51.3	74.3	87.1

⁵ This table uses the outcomes for previous sweeps as provided prior to fieldwork, and used throughout fieldwork. At a later date some of these previous outcomes were revised.

⁶ See section 2.1 for details

6.1.2 Household response by country of issue

There were slight variations in response and co-operation rates by country. These are shown in Table 6.3.

Table 6.3 Summary of response by country of issue

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Total sample	18528	11814	2622	2206	1886
Total ineligible	76	55	10	6	5
Died	3	1	1	0	1
Emigrated	71	52	9	6	4
Ineligible/ out of survey	2	2	0	0	0
Uncertain ineligibility	682	473	71	88	50
Untraced movers	496	343	55	57	41
Outstanding movers/ ran out of time	186	130	16	31	9
Total sample traced and eligible	17770	11286	2541	2112	1831
Productive	15246	9751	2152	1806	1537
Unproductive	2524	1535	389	306	294
	%	%	%	%	%
Sample traced and eligible	95.9	95.5	96.9	95.7	97.1
Survey response rate	82.6	82.9	82.4	82.1	81.7
Co-operation rate	85.8	86.4	84.7	85.5	83.9

6.2 Mode of contact

If a family had participated in MCS2 and a telephone number for that family was available, then interviewers were required to attempt to make first contact with the family by telephone.

Overall, telephone contact was attempted at just over two-thirds of addresses (68.4%). Attempted telephone contact was, as expected, lowest in Northern Ireland (52.6%). Interviewers there work on several surveys at one time in quite small areas, and so they are more likely to find face-to-face contact to be a convenient initial approach. Appointments were made by telephone at 44% of UK addresses. This figure was highest in Scotland, and lowest in Northern Ireland, which reflected the proportions of addresses at which telephone contact was attempted.

Table 6.4 Summary of telephone contact by country of issue

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Total sample	18528	11814	2622	2206	1886
Telephone contact attempted	12671	8426	1619	1634	992
Telephone contact made	8983	5999	1131	1163	690
Appointments made by telephone	8157	5456	1020	1054	627
	%	%	%	%	%
Telephone contact attempted	68.4	71.3	61.7	74.1	52.6
Telephone contact made	48.5	50.8	43.1	52.7	36.6
Appointment made by telephone	44.0	46.2	38.9	47.8	33.2

Table 6.5 shows the proportion of attempted telephone contacts which resulted in actual contact. At just over seven in 10 addresses where contact was attempted by telephone, the interviewers successfully contacted the respondent, that is the interviewer actually spoke to the respondent, and in the majority of cases (90.8%) an interview was arranged over the telephone.

Table 6.5 Proportion of attempted telephone contacts where contact was made by telephone

	Total	England	Wales	Scotland	N Ireland
	%	%	%	%	%
Base: number of addresses at which telephone contact attempted	12671	8426	1619	1634	992
Telephone contact made	70.9	71.2	69.9	71.2	69.6
Appointment made by telephone	64.4	64.8	63.0	64.5	63.2
Base: Telephone contact made	%	%	%	%	%
Appointment made by telephone	90.8	90.9	90.2	90.6	90.9

If interviewers were not able to make contact by telephone, or were unable to make an appointment over the telephone, they were required to make personal visits to the address, as described in section 5.8.3.

Overall interviewers averaged three visits per household, which includes any personal visits to make an appointment, and visits to conduct the interview.

6.3 Movers and tracing

12.5% of cohort families were identified as movers, that is they no longer lived at the issued address. Details of the steps interviewers took to trace respondents can be found in section 5.9.

Table 6.6 Proportion of sample that no longer lived at issued address

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Total sample	18528	11814	2622	2206	1886
Non-movers	16209	10388	2304	1882	1635
Movers	2319	1426	318	324	251
	%	%	%	%	%
Non movers	87.5	87.9	87.9	85.3	86.7
Movers	12.5	12.1	12.1	14.7	13.3

Over half (52.7%) of those identified as movers were traced by interviewers, and the overwhelming majority of these cases still lived within the same area. Only 66 families moved out of their original country of issue.

Table 6.7 Movers between countries

Original country of issue	Total who moved to different country	Country moved to			
		England	Wales	Scotland	Northern Ireland
	N	N	N	N	N
England	25	-	14	8	3
Wales	29	28	-	0	1
Scotland	9	5	4	-	0
Northern Ireland	3	1	0	2	-
TOTAL	66	34	18	10	4

When interviewers were not able to trace the respondents, the case was sent to CLS for tracing. CLS successfully traced around a fifth of movers.

In total, 682 families' eligibility was uncertain at the end of fieldwork:

- 496 of these had been identified as movers by interviewers during fieldwork, but neither the interviewers, nor the tracing team at CLS, were able to establish a new address for the families.
- 112 families were identified as movers by interviewers, but there was not enough time for CLS to complete the tracing procedures for these families.

- 67 families were identified as movers by interviewers, and returned to CLS for tracing. Updated details for these families were found, but the details came back to NatCen too late for the cases to be reissued to interviewers, so the eligibility of these cases remained uncertain at the end of fieldwork.

Table 6.8 shows a breakdown of movers, and the tracing outcomes, by country of issue.

Table 6.8 Tracing outcomes for movers

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Total movers	2319	1426	318	324	251
Movers who were traced	1644	959	247	237	201
Traced by interviewer	1222	669	178	193	182
<i>Address within own area</i>	1123	607	166	182	168
<i>Address outside own area</i>	90	56	11	11	12
<i>Address overseas/ emigrated</i>	9	6	1	0	2
Traced by CLS	422	290	69	44	19
<i>New address / information</i>	276	192	44	25	15
<i>Emigrated</i>	63	46	8	6	3
<i>Refusal/ ineligible</i>	83	52	17	13	1
Untraced movers	496	343	55	57	41
Outstanding movers	179	124	16	30	9
Movers identified by NatCen/ NISRA - no time to complete	112	63	13	27	9
Movers returned to NatCen/ NISRA by CLS - no time to complete	67	61	3	3	0
	%	%	%	%	%
Traced by interviewers	52.7	46.9	56.0	59.6	72.5
Traced by CLS	18.2	20.3	21.7	13.6	7.6
Untraced	21.4	24.1	17.3	17.6	16.3
Outstanding movers	7.7	8.7	5.0	9.3	3.6

6.4 Response to individual survey elements

This section is based on the 15246 households that took part in MCS3.

As described in section 3, the interview consisted of several elements. For a household to be classified as fully productive, all required elements of the study had to be either fully or partially complete. For a household to be classified as partially complete, some of the elements of the study were unproductive.

6.4.1 Main respondent interview

Main respondent interviews were completed with 15246 respondents. The majority of interviews were fully productive.

Table 6.9 Response - main respondent interview

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Base: total productive households	15246	9751	2152	1806	1537
Productive	15185	9706	2144	1809	1532
<i>Fully productive</i>	14777	9346	2133	1791	1507
<i>Partially productive</i>	408	360	11	12	25
Unproductive	61	45	8	3	5
	%	%	%	%	%
Productive	99.6	99.5	99.6	99.8	99.7
<i>Fully productive</i>	96.9	95.8	99.1	99.2	98.0
<i>Partially productive</i>	2.7	3.7	0.5	0.7	1.6
Unproductive	0.4	0.5	0.4	0.2	0.3

The mean and median times for the main respondent interview, including the completion of the household questionnaire were 76.9 and 68.6 minutes respectively.

Table 6.10 shows the individual module timings.

Table 6.10 Module timings - main respondent interview

Interview block	Mean time (decimal minutes)	Median time (decimal minutes)
HD - Household grid	4.8	4.0
Consents - some (after household grid)	4.5	4.1
FC - Parental Situation	1.9	1.1
ES - Early Education and Schooling	11.5	10.9
AB - Child and Family Activities	5.4	5.1
PA - Parenting Activities	1.4	1.3
CH - Child Health	8.8	8.1
PH - Parent's Health	3.2	3.0
Ela - Employment	3.7	3.5
Elb - Income	5.6	5.2
Elc - Education / Job History	1.1	0.6
HA - Housing and Local Area	2.8	2.4
OM - Other Matters	1.1	0.9
SC - Self Completion	15.6	14.0
OS - Older Siblings ⁷	3.0	2.7
Z - Check sample information	2.5	1.7
Main respondent total	76.9	68.6

⁷ The Older Siblings module was asked only if the cohort child had any older siblings. This means that the module was asked of only 49% of households, and the mean/ mode in table 6.10 includes those routed past the entire module.

6.4.2 Partner interview

Overall, just over eight in ten households (80.1%) contained an eligible partner respondent. Interviews were conducted with partners in 88.2% of eligible households. A further 2.3% of eligible households completed the partner interview by proxy.

Details of response to the partner interview by country can be found in Table 6.11.

Table 6.11 Response - partner interview

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Base: total productive households	15246	9751	2152	1806	1537
Ineligible - no partner in household	3027	1928	444	335	320
Eligible households	12219	7823	1708	1471	1217
Productive	10778	6931	1529	1291	1027
<i>Fully productive</i>	9971	6269	1461	1251	990
<i>Partially productive</i>	524	447	28	18	31
Proxy interviews	283	215	40	22	6
Unproductive	1441	892	179	180	190
	%	%	%	%	%
Eligible households	80.1	80.2	79.4	81.5	79.2
Productive ⁸	88.2	88.6	89.5	87.8	84.4
<i>Fully productive</i>	81.6	80.1	85.5	85.0	81.3
<i>Partially productive</i>	4.3	5.7	1.6	1.2	2.5
Proxy interviews	2.3	2.7	2.3	1.5	0.5
Unproductive	11.8	11.4	10.5	12.2	15.6

The mean and median times for the partner interview were 22.6 and 19.7 minutes respectively.

Table 6.12 shows the individual module timings. The mean and median times for the proxy partner interview were 6.1 and 5.0 minutes respectively.

⁸ As a proportion of eligible households

Table 6.12 Module timings - partner interview

Interview block	Mean time (decimal minutes)	Median time (decimal minutes)
FC - Parental Situation	1.1	0.9
ES - Early Education and Schooling	0.4	0.4
PA - Parenting Activities	2.1	1.9
PH - Parent's Health	2.9	2.8
Ela - Employment	3.4	3.1
Elb - Income	2.4	2.1
Elc - Education / Job History	1.1	0.6
OM - Other Matters	1.0	0.9
SC - Self Completion	7.5	6.6
Z - Check sample information	0.7	0.4
Partner respondent total	22.6	21.8
Proxy partner interview	6.1	5.0

6.4.3 Child cognitive assessments and physical measurements

There were 15459 cohort children in all, including several pairs of twins and triplets. The child cognitive assessments were successfully conducted with 98.3% of the cohort children, and the physical measurements with 98.6%. Table 6.13 shows the breakdown of response for the cognitive assessments, and Table 6.14 for the physical measurements.

Table 6.13 Response - child cognitive assessments

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Base: total cohort children in productive households	15459	9884	2179	1832	1564
Productive	15196	9722	2136	1800	1538
<i>Fully productive</i>	14949	9549	2113	1767	1520
<i>Partially productive</i>	247	173	23	33	18
Unproductive	263	162	43	32	26
	%	%	%	%	%
Productive	98.3	98.4	98.0	98.3	98.3
<i>Fully productive</i>	96.7	96.6	97.0	96.5	97.2
<i>Partially productive</i>	1.6	1.8	1.1	1.8	1.2
Unproductive	1.7	1.6	2.0	1.7	1.7

Table 6.14 Response - child physical measurements

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Base: total cohort children in productive households	15459	9884	2179	1832	1564
Productive	15236	9751	2137	1807	1541
<i>Fully productive</i>	15003	9593	2117	1772	1521
<i>Partially productive</i>	233	158	20	35	20
Unproductive	223	133	42	25	23
	%	%	%	%	%
Productive	98.6	98.7	98.1	98.6	98.5
<i>Fully productive</i>	97.1	97.1	97.2	96.7	97.3
<i>Partially productive</i>	1.5	1.6	0.9	1.9	1.3
Unproductive	1.4	1.3	1.9	1.4	1.5

The mean and median times for the cognitive assessments were 26.6 and 25.0 minutes respectively, and for the physical measurements 10.4 and 9.9 minutes.

6.4.4 Older siblings self-completion questionnaire

There were a total of 2633 older siblings eligible to complete the older siblings self-completion questionnaire.

A total of 2493 questionnaires were placed, representing a placement rate of 94.7%.

A total of 2048 questionnaires were returned complete to NatCen, a response rate of 82.2%.

6.4.5 Consent rates for data linkage

Almost two thirds (63.4%) of households had given permission for their cohort child's health records to be accessed at MCS2. The majority of parents who did not give permission for this at MCS2 did give permission at MCS3.

Table 6.15 Consent rates for cohort child's health records

	Total	England	Wales	Scotland	N Ireland
	N	N	N	N	N
Base: total cohort children in productive households	15459	9884	2179	1832	1564
Consent given at prior interview	9796	6932	1645	1217	2
Consent given at MCS3	5109	2601	484	532	1492
Consent not given at MCS3	554	351	50	83	70
	%	%	%	%	%
Consent given at prior interview	63.4	70.1	75.5	66.4	0.1
Consent given at MCS3	33.0	26.3	22.2	29.0	95.4
Total consent given	96.4	96.4	97.7	95.5	95.5

Permission to access school records was asked for England only (see section 3.10 for details). Almost all (94.2%) of households gave permission to access their cohort child's school records.

Table 6.16 Consent rates for cohort child's school records (England only)

England	
	N
Base: total cohort children in productive households	9884
Consent given at MCS3	9310
	%
Consent given at MCS3	94.2

7 Coding, Editing and Data Preparation

7.1 Editing CAPI data

In the Millennium Cohort Study, as in most CAPI surveys, most of the editing of data was carried out by interviewers in the field. The Blaise program ensured that the correct routing was followed through the interview questionnaire and applied range and consistency error checks. This enabled interviewers to clarify and query data discrepancies directly with the respondent during the interview.

Consistency errors comprise 'soft' and 'hard' checks. Hard checks must be resolved by the interviewer at the time of the interview, but soft checks can be suppressed by the interviewer and investigated at the coding and edit stage.

However, some data checking is too complex to be carried out in the field. In addition it is not always possible to include all possible consistency checks in the program. As a result, a separate in-house editing process was required.

For each case a paper fact sheet was generated for the editor to use. The factsheets included the cohort member's details, and the details of other people in the household, and the relationships between other members of the household and the cohort child. In addition, all responses that had triggered a soft check were listed, along with any notes made by interviewers, and all verbatim responses to open-ended and semi-closed questions for coding (see section 7.3 for details of these).

As part of the CAPI edit program, suspected errors in the data were triggered for the editor to action as they moved through the questionnaire, and there were some additional checks which related to inconsistencies in the data.

Editors only made changes to the data according to the rules written in the codebook provided. If a situation was not covered by the code-book, then editors consulted with their supervisors, who in turn consulted NatCen researchers.

All actions taken by editors, and any outstanding queries, were recorded onto the factsheets.

7.2 Quality Control

Initially, all factsheets were reviewed by NatCen researchers, to ensure that the editing and coding rules were being applied consistently. If any inconsistencies were found, feedback, and additional guidance, was given to the editors, and, where required, the codebook was updated with additional information that helped to ensure consistency and accuracy. Once researchers were satisfied that the coding and editing was being done consistently, spot checks only were performed on a sample of the factsheets.

7.3 Coding open-ended and 'other-specify' questions

In the Millennium Cohort study, as in most CAPI surveys, the majority of answers given by respondents were coded during the interview by the interviewer into pre-specified code frames. Many questions had fully closed code frames, that is the interviewer had to code the respondent's answer to one of the existing categories. However, there were a number

of questions where an option was included in the code frame to allow the interviewer to enter an answer that they were not confident of coding into the pre-specified options or to record an answer which was truly an 'other' answer. In these cases the interviewer simply transcribed the answer given by the respondent. Questions of this type are called 'other-specify' questions. In addition, there were some questions where a code frame was deliberately not included in the CAPI program and interviewers were asked to transcribe all the answers to these questions. This type of question is called an 'open' question.

7.3.1 Other-specify questions

Most of the questions that required coding were 'other-specify' questions. In many cases it was possible for editors to code 'other-specify' answers back into the existing code frame (back coding). However, in some cases back coding is not always possible as new, distinct groups of responses emerge.

Therefore, before the data was passed to the Operations Department at NatCen for editing, the researchers at NatCen reviewed the early data to try to identify where additional codes were needed, and what they should be. All new codes that were identified via this process were incorporated into the code frames.

However, in some cases it was still not possible for responses to be allocated an existing code or any of the additional codes. In these instances, coders assigned a new 'other' code as appropriate. These codes were:

- code 85 - other specific answer
- code 86 - vague/ irrelevant answer
- code 87 - editor cannot deal with this

'Code 85 - other specific answer' was used for most of the responses that could not be coded using the existing/additional codes in the code frames.

'Code 86 - irrelevant response' was only used for responses that did not answer the question.

NatCen researchers reviewed all responses given one of these codes by editors.

7.3.2 Open questions

Open questions require the interviewer to record the respondent's responses verbatim, i.e. it was intentional that a code frame was not provided in the CAPI.

For these questions the researchers reviewed the answers given, and developed entirely new code frames from the responses.

As with the other-specify questions, if interviewers were not able to allocate the responses to a code in the code frame, then a new other code was allocated, as above.

7.3.3 SOC Coding, drugs coding, and ICD-10

Some of the questions made use of pre-existing classification schemes: Standard Occupational Classification (SOC2000), drugs codes (taken from the British National Formulary No 48, September 2005) and the International Classification of Diseases, 10th revision (ICD-10).

The drugs coding, in particular, proved to be problematic for coders. In the code frame used, all drugs are coded to six digits. Several drugs have multiple uses, and the assigned code differs according to the use, for example aspirin and betnesol. In addition, some drugs were hard to find, and many answers given by respondents were too vague to be allocated a code using this code frame.

In these circumstances, the editors were allowed to use the following codes:

- code 850000 - other specific answer
- code 860000 - vague/ irrelevant answer
- code 870000 - editor cannot deal with this

7.4 Editing paper questionnaire data

Keying of the older siblings questionnaires was undertaken by an external agency, and then the data was edited in a similar way to the CAPI data. Unlike the CAPI data, all of the code frames had to be developed from scratch, i.e. there were no pre-existing code frames that could be used.

Editors needed to resolve contradictions in the data, for example where respondents had not followed the correct routing instructions, or where they had ticked more than one answer where only one response was allowed.

7.5 CAPI problems with the data

The CAPI questionnaire was issued to interviewers once before the start of fieldwork and it was not found necessary to issue any revisions during fieldwork.

Interviewer queries during fieldwork mainly related to protocols over families with unusual circumstances, and there was the occasional problem with incorrect feed-forward data.

During the edit one CAPI routing error was identified in the complex family history section. Households with a different set of parents from the last interview were erroneously routed to a question which should only be asked of families with the **same** parents as the last interview. This affected 47 households. The interviewers had worked around this in the field and once diagnosed it was straightforward to correct in the edit.

7.6 Survey outputs

Table 7.1 Survey outputs

Output	Date delivered	Notes
CAPI Data		
Interim data	17 Nov 2006	
Final data	4 May 2007	
CAPI Questionnaire Documentation		
Draft 1	5 May 2007	
Cognitive assessments/ physical measurements	8 May 2007	Un-edited
Draft 2	11 September 2007	
Near Final	25 April 2008	
Final	22 September 2008	
Contact Information		
Contact Information File - Final	31 May 2007	Includes both productives and unproductives. Note that contact files were delivered for each of the thank-you letter mailings, but this file superseded those.
Final Response and ParaData		
Final household outcome	24 August 2007	File contains just NatCen serial number plus household outcome code for full sample of productives and unproductives.
Final household outcome	27 August 2007	As above, with CLS serial number added.
Final household outcome codes	5 September 2007	A description of each household outcome code
Final outcomes for each survey element	9 April 2008	For productive households only.
Interviewer identifiers	11 September 2007	Anonymised but unique numbers to identify individual interviewers. Includes both productives and unproductives for GB only.
XML files	5 March 2007	
Teacher Survey		
First part delivery	29 March 2007	
Final delivery	21 September 2007	
Personal identifiers	13 June 2007	Teacher names and school names

Older siblings paper self-completion

Final data file

4 May 2007

