Technical Report of the National Child Development Study: 2004 - 2005 Survey

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Contents

Ac	kno	wledgements	. 1
1	Intro	oduction	. 3
	1.1	The National Child Development Study	3
2	San	nple Design	5
-	2.1	Introduction	
	2.2	The Sample	
	2.3	Serial Numbers	
3	Dev	elopment	. 7
	3.1	Introduction	
	3.2	The Pilot Study	7
		Objectives	7
		The Sample	8
		The Interview	8
		Fieldwork And Response	
		Key Findings, Outcomes And Changes	9
4	The	NCDS Interview	10
	4.1	The Interview	10
5	Fiel	dwork Procedures	11
	5.1	Interviewer Briefings	11
	5.2	Issue Of Work	11
	5.3	Advance Letter	11
	5.4	Making Contact	12
		Tracing Procedures	
	5.5	Fieldwork Progress	14
	5.6	Thank you Letters	
	5.7	Fieldwork Quality Control	
	5.8	Confidentiality Issues	15
6	Res	ponse	16
	6.1	Summary	16
	6.2	Details Of Survey Response	
		Non-Contact	
		Refusals	
		Other Unproductives	18
7	Cod	ling and editing	19
	7.1	Editing CATI Data	
	7.2	Coding "Other - Specify" Questions	
	7.3	Problems With The Data	21

Tables

Table 2.1	Number of Cohort Members ever participating in NCDS	5
Table 2.2	Cases excluded from the target sample before issue to NatCen	5
Table 3.1	Contact and response achieved during the pilot	9
Table 5.1	Schedule of fieldwork issue	
Table 5.2	Number of calls	13
Table 5.3	Interviews achieved by month	14
Table 6.1	Summary of response to the 2004/2005 NCDS survey	16
Table 6.2	Details of the response to the 2004/2005 NCDS survey	
Table 7.1	List of coded variables	21

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National Centre for Social Research

1 Introduction

1.1 The National Child Development Study

Birth cohort data are some of Britain's richest research resources for the study of human development. Cohort studies follow the same group of people from birth into and through adulthood, providing a picture of whole generations. There are four national longitudinal birth cohort studies in Britain:

- National Survey of Health and Development (NSHD), which began in 1946
- National Child Development Study (NCDS), which began in 1958
- 1970 British Cohort Study (BCS70), which began in 1970
- Millennium Cohort Study (MCS), which began in 2000

This report provides an account of the design, development and conduct of the seventh follow-up survey of the National Child Development Study in 2004/2005.

NCDS started life as the Perinatal Mortality Survey, which was designed to examine the social and obstetric factors associated with stillbirth and infant mortality. In the first survey, data were collected about the births and families of 17,638 babies born in Great Britain during one week in March 1958. Since then, there have been six surveys gathering information from respondents living in England, Scotland and Wales¹, in order to monitor their health, education, social and economic circumstances. These surveys were carried out in 1965 (age seven), 1969 (age eleven), 1974 (age sixteen), 1981 (age 23), 1991 (age 33) and 1999/2000 (age 41). As part of the 1991 survey, information was additionally collected on the children of one in three cohort members; this included assessments of the behaviour and cognitive development of around 5,000 co-resident children. There have also been surveys of subsamples of the cohort, the most recent occurring in 1995 (age 37), when a 10% representative sub-sample was assessed for difficulties with basic skills. Finally, during 2002-2004, 9,340 NCDS cohort members participated in a bio-medical survey, carried out by qualified nurses; the bio-medical survey did not cover any of the topics included in the 2004/2005 survey.

Data for NCDS have so far been collected from a number of different sources; the midwife present at birth, the cohort members' parents, the head and class teachers, school health service personnel, the cohort members themselves, their spouses, cohabitees and children, and the 1971 and 1981 censuses. Data has also been collected using a variety of; paper, electronic and self-completion questionnaires, clinical records, medical examinations, physical measurements, ability tests, educational assessments and diaries.²

¹ Including the Channel Islands, Isle of Man and other offshore islands.

² For further information on NCDS sweeps see: Power, C. and Elliott, J. (2005) Cohort Profile: 1958 British birth cohort (National Child Development Study). *International Journal of Epidemiology*, 2005, Information can also be found on the CLS website <u>http://www.cls.ioe.ac.uk</u>.

The 2004/2005 follow-up aimed to extend the data collection of the previous surveys. This latest wave of the NCDS was conducted for the first time as a telephone interview (CATI)³ when the cohort members were aged 46 and updated information on the cohort member's current situation in contemporary Britain.

The Centre for Longitudinal Studies (CLS), part of the Bedford Group for Lifecourse and Statistical Studies at the Institute of Education, University of London (and formerly the Social Statistics Research Unit at City University), has been responsible for the study since 1985. CLS led the development of the 2004/2005 survey and commissioned NatCen to carry out the fieldwork. In 2004, CLS was granted long-term funding by ESRC to establish a stable infrastructure for the study and ensure that fieldwork is conducted at regular intervals. Fieldwork for the 2004/2005 survey was funded by the Economic and Social Research Council (ESRC).

NatCen was commissioned by CLS to carry out both the 2004/2005 NCDS telephone survey and the BCS70 survey (which is reported elsewhere⁴). NatCen's responsibilities were to collaborate with CLS on the development of the survey instrument, conduct fieldwork and initial data preparation, as well as making contact with and where necessary, tracing cohort members.

NatCen in collaboration with CLS were also responsible for the development, fieldwork and initial data preparation for the 1999/2000 survey and similarly for the 2002/2004 bio-medical survey⁵.

³ CATI stands for Computer Assisted Telephone Interview

⁴ See Simmonds, N., Fuller E., Lessof, C. and Fouduoli, V. (2006). Technical report of the 1970 British Cohort Study: 2004 – 2005 survey. National Centre for Social Research.

⁵ The bio-medical survey involved collaboration between the Institute of Child Health, St George's Hospital Medical School, the Centre for Longitudinal Studies and the National Centre for Social Research.

2 Sample Design

2.1 Introduction

The NCDS selected all babies born in Great Britain during one week in March 1958. In later sweeps, the cohort was augmented by additional children who were born outside Great Britain but within the target week in 1958. These children had moved to and were educated within Britain before the age of sixteen (see Table 2.1). Immigrants were included at sweeps NCDS1-3, but no further attempts were made to augment the sample.

Table 2.1 Number of Coho participating in N			
		No. of cohort	
		members	%
Births during on	e week in March 1958	17,638	95.0
Immigrants to age 16		920	5.0
Total Cohort M	embers	18,558	100.0

As in previous sweeps of the NCDS, the target sample for the survey was all cohort members currently living in England, Scotland or Wales⁶, excluding permanent refusals. The sample definition was subsequently refined, and some cohort members were excluded for specific reasons. The sample issued for the seventh follow-up study (i.e. cohort members invited to take part in the 2004/2005 survey) comprised 11,739 cohort members. Further details are given below.

2.2 The Sample

In order to remain within the available budget, the target sample was selected to minimise administrative efforts. Details of cohort members who had personally refused further participation and those who had emigrated or died were not issued to NatCen. In addition, those who had not participated in any survey since 1981 were also excluded from the target sample⁷ (see Table 2.2).

Table 2.2	Cases excluded from sample before issue t		
-		No. of cohort	
		members	
Personal refusa	1,149		
Emigration and	Emigration and Death		
Other unproduct	3,154		
Total	6,820		

⁶ Including the Channel Islands, Isle of Man and other offshore islands

⁷ In an ideal situation, cohort members who were not contacted in earlier sweeps would be re-issued in the latest survey in an attempt to keep attrition at a minimum

⁸ Includes cases excluded from the address database prior to 1991.

The sample issued to NatCen comprised 11,739 cases. The sample included all eligible cohort members living in Great Britain and outlying islands, interviewed in 1981 or later and whose contact details had been confirmed since 2002. In practice, the sample included a number of cases where the contact information held was believed to be out-of-date or inaccurate. Among the 11,739 cases in the target sample:

- 9, 340 cohort members were last contacted in 2002-2004 as part of the NCDS biomedical follow-up study⁹
- 11, 419 cohort members took part in the 1999/2000 survey, which formed the basis for the 2004/2005 survey
- 1,118 were last interviewed in 1991, and 459 had participated in 1981. None of these cohort members had taken part in the bio-medical survey.

2.3 Serial Numbers

Each NCDS cohort member has a unique serial number that was allocated at the beginning of the study in 1958. In order to facilitate fieldwork management, data processing, and to increase confidentiality, each cohort member in the issued sample was allocated a unique NatCen serial number, specific to this sweep of fieldwork.

The NatCen survey serial number consisted of six digits, plus a check letter (e.g. 219999 C) and was used on the advance letter. The first digit was always 2. The next digit was 1, 2, 3 or 4, indicating the wave (period) of fieldwork. The last four digits identified the cohort member. If a cohort member moved during the fieldwork period, their address and telephone number was updated, but their serial number did not change.

To maintain confidentiality, the NatCen serial number was removed from the dataset before it was deposited at the UK Data Archive (see Appendix D).

⁹ See Fuller, E. 'National Child Development Study: biomedical follow-up 2002-2004 Technical Report'. National Centre for Social Research 2006.

3 **Development**

3.1 Introduction

The development of the 2004/2005 survey was carried out alongside that for the 2004/2005 survey of the BCS70 survey and began in April 2003. NatCen and CLS met on a regular basis to discuss the development of the survey. The issued sample was defined early in this development period, but the content and order of the telephone interview was based on that of the face-to-face interview developed for the BCS70 survey. Formal development work on the content of the NCDS survey did not begin until March 2004 after the content of the BCS70 survey had been finalised. Before the main stage fieldwork started in June 2004, the subset of questions that could be included in a short (target=30 minutes) telephone interview was identified and interviewer instructions developed (again based on the BCS70 model). The selected questions were amended where necessary and programmed into CATI format, and the other survey documents were designed. Associated issues were also agreed, such as the fieldwork timetable, sample management procedures (including the exchange of sample information between NatCen and CLS) and the number of interviewers and briefings required.

Prior to the mainstage survey, a pilot study was conducted in May 2004.

3.2 The Pilot Study

Objectives

The main objective of the pilot was to look at the length and flow of the CATI questionnaire. The questionnaire had been adapted from the BCS70 2004/2005 CAPI survey.

Since the sample had been drawn from cohort members, the pilot also intended to test cohort specific elements, such as the use of feed-forward data in the CATI, the use of CLS sample data on the documents, and provide an indication of likely response.

Finally, the pilot study aimed to identify necessary improvements to the contact and tracing procedures. Interviewers were informed that tracing cohort members might be necessary, either because their telephone number was insufficient/inaccurate or because the cohort member had moved. If the interviewers attempt at tracing the cohort member was unsuccessful, then the case would be returned to CLS who would carry out further tracing.

The Sample

The pilot sample consisted of 73 cohort members (39 males and 34 females) located across England, Scotland and Wales, whose contact details had been confirmed since 2002. Of these cohort members:

- 72 had taken part in the 1999/2000 survey
- 69 had taken part in 2002-2004 as part of the NCDS medical follow-up study

Cohort members were excluded if they had permanently withdrawn from the study or if they had been particularly difficult when last interviewed.

The Interview

The interview length was estimated to be 30 minutes. The first element was the household grid, which was used to confirm and update the information currently known about the cohort member and their household. The interview then updated information on the following topics:

- housing
- partnerships current and ex-partners
- births and other pregnancies
- periods of lone parenthood
- children and the wider family
- family income
- employment status/employment history
- education and training
- access to and use of computers
- basic skills (numeracy and literacy)
- general health
- social participation
- identity

At the end of the interview, there were a series of questions gathering the cohort member's feedback on the interview. Proxy interviews were not allowed in the pilot.

Fieldwork And Response

The pilot took place in May 2004. Five NatCen telephone interviewers were briefed on 20th May 2004 and debriefed on 27th May 2004.

Advance letters were sent to the 73 cohort members in the sample approximately one week before the pilot started. The letters came from the Centre for Longitudinal Studies, on NCDS headed paper, and were signed by Professors John Bynner and Neville Butler, familiar names to the cohort members. The advance letter did not mention that this was a pilot study.

Overall, interviews were conducted with 33 cohort members and four cases were not interviewed due to the end of fieldwork. Interviewers were unable to contact 35 cohort members, and one case was unavailable for interview during the fieldwork period (see Table 3.1).

Table 3.1 Contact and response achieved during the	ne pilot
	No. of cohort members
Productive	
Full interview	33
No contact with cohort member	35
No contact with cohort member	2
Unknown if CM resident due to non-contact at address after 12+ calls	33
Unproductive (out of scope)	
Away / in hospital during entire survey period	1
Contact made but fieldwork period finished before interview scheduled/conducted	4
Total	73

Key Findings, Outcomes And Changes

The pilot went well and no particular problems or issues were reported¹⁰. Interviewers reported that the questionnaire flowed nicely and that the cohort members they contacted were eager to take part. On the whole, cohort members did not object to being interviewed on the telephone, and the average interview length (mean=32.8 minutes, median=31.5 minutes) was acceptable to both interviewers and cohort members.

The CATI questionnaire worked well although a few amendments (including clarification of interviewer instructions, improvements to question wording and the layout of the CATI screen) were made for the main stage.

¹⁰ Thirty five cases proved difficult to contact. For the majority of these cases (n=33), the interviewer was unable to establish whether the cohort member was resident despite making 12 or more calls to the issued telephone number.

4 The NCDS Interview

4.1 The Interview

The main stage 2004/2005 NCDS survey comprised a 30-minute telephone (CATI) interview for all cohort members¹¹. Proxy interviews were not permitted during this latest round of the NCDS, unlike in earlier adult follow-ups. The interview aimed to gather information that may help determine what has shaped the cohort members lives, by updating information on the cohort member's circumstances, and key events in their lives since the last survey in 1999/2000. It also allows comparison of the experiences of the NCDS cohort with those of the BCS70 and NSHD cohort members.

The interview started with a household grid, which updated the cohort member's details and household composition. Topics covered during the interview included the following:

- housing
- partnerships current and ex-partners
- births and other pregnancies
- periods of lone parenthood
- children and the wider family
- family income
- employment status/history
- education¹² and training
- access to and use of computers
- basic skills (numeracy and literacy)
- general health
- smoking, drinking and exercise
- experience of crime
- social participation
- identity and self-esteem.

The majority of the questions in the interview had been asked in earlier waves of the NCDS and in BCS70 2004/2005. This allowed comparisons to be made both across the NCDS sweeps and with the BCS70 cohort. The time period which the questions referred to depended on when the cohort member had last been interviewed (1981, 1991 or 1999/2000). This ensured that they did not have to repeat details already provided during previous waves. Documentation of the NCDS questionnaire is included in Appendix B.

¹¹ For cohort members who were last interviewed in 1981 or 1991, the interview was expected to last a little longer.

¹² Appendix A contains the list that interviewers were given to assist with coding the question 'Whatqual'.

5 Fieldwork Procedures

5.1 Interviewer Briefings

Five briefings were held in Brentwood, Essex, at the NatCen Operations Department. Interviewer briefings began on 28th June 2004 with subsequent briefings in July, August, October and November 2004. In total, 62 telephone interviewers were briefed to work on the survey. The briefings were led by researchers from NatCen and CLS. Interviewers were provided with full written project instructions to supplement the briefing.

The briefings covered the background to the NCDS, the purpose of the 2004/2005 survey, the study documents and contact procedures. A dummy interview was completed and interviewers were encouraged to ask questions on matters they were unclear about.

All interviewers who worked on the NCDS survey had experience in conducting telephone interviews, and were supervised on every shift.

5.2 Issue Of Work

The sample comprised 11,739 cohort members (see section 2.2 for more details). The sample was issued in four monthly waves, between June and November 2004. Fieldwork took place between June 2004 and November 2005.¹³

Table 5.1 shows the schedule of fieldwork and the number of cases in each wave.

Table 5.1	Schedule of fieldwork issue			
Wave	Date advance letters were posted	Date fieldwork started	No of cohort members	
1	21 st June	28 th June	1,562	
2	30 th July	5 th August	3,832	
3	9 September	17 September	3,559	
4	9 November	16 November		
Total			11,739	

5.3 Advance Letter

The Operations Department mailed out advance letters to cohort members, approximately one week before the start of each wave of fieldwork. The advance letter was printed on CLS letterhead, and signed by Professors John Bynner and Neville Butler, both familiar names to cohort members. It included the cohort member's CLS serial number and the NatCen serial number (see also section 2.3).

¹³ Fieldwork was originally scheduled to be completed by the end of 2004; it was extended because of difficulties tracing cohort members.

The letter introduced the current wave of the survey, explained NatCen's role and asked for the cohort member's continued participation in the study, drawing attention to the fact that there were no medical elements in this latest study. A CLS Freephone number was provided in case cohort members wanted to update their contact information or had any questions. This number could also be used if cohort members wanted to schedule an appointment for an interview or did not want to take part in the current wave¹⁴. Cohort members were also sent a leaflet containing general information about the study and key findings.

In order to aid the cohort member's recall of events since their last interview (such as relationship and employment history), a calendar was printed on the back of the advance letter and interviewers also had a copy of this calendar. Cohort members were encouraged to use the calendar during the interview.

A copy of the advance letter can be found in Appendix A of this report.

5.4 Making Contact

Each wave of fieldwork began approximately one week after the advance letter had been sent to cohort members. If interviewers had to make an appointment for an interview, they were advised to try and arrange it for the earliest possible date in the fieldwork wave. There were concerns that conducting the interview by telephone would make it easier for cohort members to refuse to participate. The interviewers were instructed that they should make a particular effort to persuade reluctant cohort member to participate. To maintain confidentiality, interviewers were instructed to avoid mentioning the title of the study to other household members.

Using data provided by CLS, a CATI information screen was generated for each case and this provided interviewers with information such as the cohort member's name, gender, address telephone number(s), and participation status at the medical survey. This information also assisted interviewers with their preparation for the interview and in their attempts to contact the Cohort Member. Interviewers were advised that dial screen information was for their own use only, and should not be discussed with the cohort member or anyone else.

The CATI information screen also enabled interviewers to record their attempts to contact the cohort member and any other relevant information. All attempts to make contact, whether successful or not, were recorded on the CATI information screen. The importance of recording sufficient detail whilst maintaining confidentiality was emphasised.

Interviewers were told to make a minimum of twelve attempts to contact the cohort member at different times of the day and on different days of the week. If cohort members were not available for interview within a reasonable period, they were deferred and re-contacted at a later stage in the fieldwork. If they found that the cohort member had moved, they attempted to obtain their new telephone number and, if possible, their new address by speaking to the current residents. If they were unable to do so, the case was returned to CLS and the information recorded on the CATI information screen was used to conduct further tracing.

¹⁴ Cohort members who chose not to participate ("office refusals") were not approached by NatCen.

In 88% of all cases resulting in a productive interview, interviewers made 12 or fewer calls . In 9.8% of cases, 13 or more calls were made. Therefore, the minimum number of calls appears to have been appropriate. Table 5.2 provides more information on the number of calls.

Table 5.2	Number of calls			
No. of calls	Frequency	%	Valid %	Cumulative %
1	1146	12.0	12.0	12.0
2	1756	18.4	18.4	30.5
3	1465	15.4	15.4	45.9
4	1046	11.0	11.0	56.8
5	798	8.4	8.4	65.2
6	559	5.9	5.9	71.1
7	485	5.1	5.1	76.2
8	332	3.5	3.5	79.7
9	261	2.7	2.7	82.4
10	202	2.1	2.1	84.5
11	196	2.1	2.1	86.6
12	185	1.9	1.9	88.5
13	155	1.6	1.6	90.2
14	116	1.2	1.2	91.4
15	107	1.1	1.1	92.5
16	91	1.0	1.0	93.4
17	83	0.9	0.9	94.3
18	58	0.6	0.6	94.9
19	64	0.7	0.7	95.6
20	64	0.7	0.7	96.3
21 or more	355	3.7	3.7	100.0
Total	9524	100.0	100.0	
Missing information	1 ¹⁵ 10	0.1		
Total	9534	100.0		

Tracing Procedures

Cases were referred to CLS if the interviewers were unable to make contact with the cohort member. CLS's Tracing Unit consulted additional information recorded on the NCDS address database and various other sources, in an attempt to find the cohort member's new contact details. If tracing attempts were successful, the updated contact information was sent to the NatCen Telephone Unit. In total, 764 cases were sent to CLS for tracing, resulting in 351 updated contact details.

In March 2005 an Occupier letter was sent by NatCen to 735 cases. This letter aimed to collect the cohort member's contact details and could be completed by either the cohort member or the person currently living at the cohort member's last known address. A copy of this letter can be found in Appendix A.

¹⁵ These are cases where the total number of calls are unavailable due to technical reasons.

In addition, as the members of the NCDS cohort are flagged on the National Health Service Central Register, CLS were able, with permission from ONS, to arrange for tracing letters to be forwarded (via Health Authorities and subsequently GPs) to 1,472 cohort members during May and July 2005. This resulted in new address information for 278 cohort members. Of the letters sent to NHSCR to be forwarded, 85% were forwarded to GPs and of these 81% were sent on to cohort members.

In total, 1,040 of all productive cases were interviewed after re-issue to the Telephone Unit¹⁶. These re-issued cases included indefinite refusals, movers, those found as a result of tracing, and cases where the interviewer had not completed all of the tracing requirements.

5.5 Fieldwork Progress

Fieldwork was initially due to run from June 2004 to December 2004 but was extended several times, and continued until November 2005 in order to allow more time for tracing respondents and for the overall yield of the study to be maximised. The number of interviews achieved during each of the eighteen months of fieldwork is shown in Table 5.3.

		no. of CMs interviewed by month	% of CMs interviewed by month	Cumulative no. of CMs interviewed by month	Cumulative % of CMs interviewed by month
2004	June	60	0.6	60	0.6
	July	1,020	10.7	1,080	11.3
	August	1,069	11.2	2,149	22.5
	September	1,033	10.8	3,182	33.4
	October	1,545	16.2	4,727	49.6
	November	1,628	17.1	6,355	66.7
	December	1,283	13.5	7,638	80.1
2005	January	976	10.2	8,614	90.4
	February	533	5.6	9,147	95.9
	March	97	1.0	9,244	97.0
	April	45	0.5	9,289	97.4
	May	14	0.1	9,303	97.6
	June	26	0.3	9,329	97.8
	July	46	0.5	9,375	98.3
	August	114	1.2	9,489	99.5
	September	39	0.4	9,528	99.9
	October	5	0.1	9,533	100.0

Table 5.3 includes all re-issued cases, including those who had: broken appointments, originally been difficult to contact, had limited availability for an interview, and those who had refused an interview when first contacted but indicated that they might be available later in fieldwork. As mentioned earlier, this contributed 1,040 additional cases to the achieved sample.

¹⁶ In total, 1,533 cases were re-issued to the Telephone Unit.

5.6 Thank you Letters

All cohort members were sent a letter thanking them for participating in the survey at the end of each wave of fieldwork. A copy of this letter is included in Appendix A.

5.7 Fieldwork Quality Control

As mentioned previously, all interviewers completed a dummy interview before starting work. The majority of interviewers who worked on the project were experienced, and those who were new to NatCen were supervised on their first interviews. In addition, interviewers worked under constant supervision and silent monitoring of interviews was carried out to ensure quality of work and productivity. Any problems identified during monitoring or supervision were followed up by supervisors in a one-to-one session with the interviewer. The interviewer would be monitored again to ensure that they had taken on board the supervisors comments/advice.

The interviewer's route through the CATI 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 CATI. The hard checks did not allow entries outside a given range to be entered, and the soft checks asked the interviewer to confirm what they had entered. Soft checks were usually triggered where values were implausible but not impossible. Soft checks were reviewed when the data were edited.

5.8 Confidentiality Issues

In order to maintain confidentiality, interviewers were instructed to avoid mentioning the title of the study to anyone but the cohort member. 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 occurrences were re-assigned to other interviewers.

As part of the strict procedures adopted in the cohort studies for guaranteeing confidentiality, no personal (including coded) information is included in the dataset deposited at the UK Data Archive for general research use. For this reason, the NatCen serial number was removed from the dataset before it was deposited at the UK Data Archive. However, the CLS serial number (which does not contain coded personal information) was included, to enable linkage between the new survey data and that collected in previous sweeps.

6 Response

6.1 Summary

In total, 9,534 cohort members were successfully interviewed between June 2004 and November 2005. This means that the response rate for the eligible sample was 81% with a co-operation rate of 93%.

The issued sample of 11, 739 cohort members included those who would be eligible and available for interview (see Chapter 2). During fieldwork, 32 cohort members were found to be no longer eligible, either because they had moved abroad or because they had died. In calculating the survey response rate these 32 cases have been excluded because they were ineligible. Therefore the survey response rate (81.4%) is based on the eligible sample rather than the issued sample.

Table 6.1	Summary of response to the 2004/2005 NCDS survey			
	No. of cohort members	% of issued sample	% of eligible sample	
Issued sample	11, 739	100.0	-	
Ineligible	32	0.3	-	
Eligible sample	11,707	99.7	100.0	
Response	9,534	-	81.4	

The response to the survey is summarised in Table 6.1.

6.2 Details Of Survey Response

The contact rate for the survey (i.e. the percentage of eligible cohort members contacted by telephone or CLS's Tracing Unit) was 87% of the total issued sample (including those later identified as ineligible). The co-operation rate (the percentage of cohort members contacted and successfully interviewed) was 93%.

Successful interviews were completed with 9,534 cohort members. Almost all interviews (9,525) were fully productive. The mean and median times for the interview were 24.3 minutes and 23.1 minutes respectively¹⁷.

Table 6.2 provides a detailed breakdown of the response to the survey.

¹⁷ This is less than the anticipated 30 minute interview. However, it should be noted that timings were not available for the full dataset of 9,534 cases. Timings were only available for 6,930 cases due to technical reasons.

	no. of CMs	% of issued sample (n=11,739)	% of eligible sample (n=11,707)	% of CMs contacted (n=10,244)
Ineligible	32	0.3%	-	
CM emigrated	22	0.2%	-	
CM died	10	0.1%	-	
Non contact	1,463	12.5%	12.5%	
Post Office return	49	0.4%	0.4%	
CM moved, new contact details unknown	142	1.2%	1.2%	
CM not known at telephone number	310	2.6%	2.6%	
Telephone number unobtainable-disconnected	436	3.7%	3.7%	
No telephone number found	263	2.2%	2.2%	
No contact after minimum of twelve calls	66	0.6%	0.6%	
Household member refused information	14	0.1%	0.1%	
Anonymous call bar	40	0.3%	0.3%	
No answer (no answering machine)	14	0.1%	0.1%	
Line always busy	1	0.0%	0.0%	
Always fax / modem / data line / pager	13	0.1%	0.1%	
Household language barrier	1	0.0%	0.0%	
Other telephone problems	3	0.0%	0.0%	
Other non-contact	111	0.9%	0.9%	
Refusal	598	5.1%	5.1%	5.8%
Office refusal	13	0.1%	0.1%	0.1%
CM refused	113	1.0%	1.0%	1.1%
Refusal during interview	22	0.2%	0.2%	0.2%
Refusal – agreed to interview later in the year	21	0.2%	0.2%	0.2%
Refusal to this round	131	1.1%	1.1%	1.3%
Might agree to interview later	28	0.2%	0.2%	0.3%
Permanent refusal	126	1.1%	1.1%	1.2%
Proxy refusal	44	0.4%	0.4%	0.4%
Broken appointment	100	0.9%	0.9%	1.0%
Other unproductive	112	1.0%	1.0%	1.1%
Away during fieldwork	4	0.0%	0.0%	0.0%
III in hospital during fieldwork	36	0.3%	0.3%	0.4%
Permanently unable to take part	42	0.4%	0.4%	0.4%
Language or communication difficulties	7	0.1%	0.1%	0.1%
Cannot take part for some other reason	23	0.2%	0.2%	0.2%
Interviews	9,534	81.2%	81.4%	93.1%
Full interview	9,525	81.1%	81.4%	93.0%
Partial interview	9	0.1%	0.1%	0.1%

Non-Contact

In total, 1,463 cohort members (13% of the issued sample) could not be contacted. In the vast majority of cases, the cohort member's telephone number was either unobtainable, disconnected, unknown or had changed/could not be found. There were also cases where there were problems with the issued telephone number (e.g. there was no answer).

Refusals

Overall, 5% of contacted cohort members refused to participate in the current sweep of the NCDS or they permanently withdrew from the survey. The greatest number of refusals came directly from the cohort members, but in a few cases another household member refused on behalf of the cohort member (proxy refusal). Additionally, some cohort members either cancelled or broke their appointment for interview¹⁸.

Other Unproductives

During the fieldwork period, a few cohort members were ill, incapable of completing the interview, away during fieldwork or otherwise unavailable. Since fieldwork was conducted over eighteen months, several attempts were made to contact and interview these cohort members.

¹⁸ Broken appointments were taken to be disguised refusals, that is, the cohort member expressed willingness to take part when spoken to, but was consistently unavailable after several attempts to re-schedule the interview and / or follow-up contact.

7 Coding and editing

7.1 Editing CATI Data

In order to minimise post-interview editing, data entered into CATI was automatically subjected to checks (see section 5.7). Where a "soft" check was triggered, the interviewer often opened and recorded a note explaining the situation that had occurred. These notes were inspected during the edit. However, data checks during the interview were not exhaustive; for example, complex checks, based on the responses from multiple questions, were avoided. As a result, a separate coding and editing process was required and this was carried out electronically, using a new version of the CATI program, specially developed for this purpose using Blaise. The edit checks and coding instructions were agreed with the CLS team.

The coding and editing process required the NatCen Operations Department to conduct further data checking, resolve outstanding queries and code responses to "other-specify" and open-ended questions (see Section 7.2). For each case a paper fact sheet was generated for the editor to use. This factsheet included the cohort member's details, and listed responses which had triggered a soft check during the interview, notes or remarks entered by the interviewer and all verbatim responses to "other - specify" and open-ended questions for coding.

Examples of actions taken by editors included:

- reviewing entries which had triggered a soft check (e.g. extreme values of earnings or amounts received or paid) in conjunction with interviewers' notes where available
- checking and resolving interviewer queries
- reviewing unlikely combinations of open-ended responses (e.g. a school teacher working in a factory)
- back-coding "other specify" responses that interviewers had been unable to code using a revised codeframe (e.g. reasons for using the Internet).

Editors recorded their actions and any outstanding queries on the paper factsheets. These were reviewed by the Operations Department, and, in many cases queries were referred to the NatCen researchers for guidance.

7.2 Coding "Other - Specify" Questions

As mentioned in Section 7.1, the CATI interview included a number of questions where the responses were recorded verbatim and subsequently needed to be coded. These were questions where the interviewer was either unsure where to code a particular response within the existing code frame, or the full range of responses could not be predicted before the interview, or the existing classification scheme was unsuitable for use during the interview due to its length.

The following types of questions required coding:

- Questions where a code frame had been established in the past, either in earlier NCDS sweeps or in other studies. For these questions, provision was made to record additional information by using an "other specify" code. It was agreed that where there were more than 200 "other specify" responses, the existing code frames would be reviewed and new categories added¹⁹. New categories were introduced to the edit codeframe, if the original code frame categories proved insufficient²⁰. Responses were then backcoded into the expanded code frames.
- Questions where a pre-existing classification scheme was used, for example relating to occupation and industry and health problems. For the first group of questions, Standard Occupational Classification (SOC2000) and Standard Industrial Classifications (SIC 1992) were used; the National Statistics Socio-Economic Classification (NS-SEC) was derived from SOC2000 and employment status, and was used as a social class measure. For health questions, coding was based on the International Classification of Diseases, 10th revision (ICD-10). For educational qualification questions, an updated version of a codeframe first adopted for the 1981 NCDS follow-up was used.

Revised code frames for 'other-specify' questions were largely developed by NatCen researchers, with contributions from the CLS team. Final agreement on code frames was reached in December 2004.

A list of all the questions that were coded is provided in Table 7.1. This table also indicates the type of code frame and software used for coding. The bulk of the coding was undertaken by the NatCen Operations Department, however coding of some health conditions and educational qualifications was accomplished after consultation with the NatCen and CLS researchers.

¹⁹ In practice, all available verbatim responses were examined in order to amend the codeframes. In many cases, these exceeded 200 responses. Most of the codeframes had already been revised for BCS70 2004-05, and were found to be suitable for NCDS as well.

²⁰ These were questions where a large number of responses had been coded as "Other specific answer not in code frame", "Vague / Irrelevant" or "Editor cannot code".

Table 7.1 List of	of coded variables		
Code frame	Software used	Module	Variable name
SOC / SIC / NS-SEC	Blaise CAPI edit	BEmploy	CJDo, CJTitle, CJFirm
		BEmploy – Histories	JTitle, Jdo
ICD-10	Excel	BBirth	Pregl
		BHealth3	LsiCond, HLPrb
Qualifications	Excel	BQual	EdqSub, Degree, OthDeg, HighDeg, OthTea, VocSub
Other - specify questions	Blaise CAPI edit	GFields	Othlang
(pre-existing codeframes were <i>expanded</i> after		BHouse	WhyMoth
reviewing responses)		BFamily	PhOther, CareOth
		BEmploy	OthAct, OthAct1, CJOthOrg, JyoEnd
		BPartJob	POthAct
		BNfrmLn1	HuseOth, WuseOth, IntOth ²¹
		BPartic	FintOth

In spite of extensive efforts to improve the code frames used, high percentages of responses remained unclassified at a number of questions (for example, those relating to the use of computers at home or work, or use of the internet and the questions on educational qualifications). This may be a result of the general nature of these questions.

Data relating to the cohort member's educational qualifications were delivered to CLS in a separate dataset. This enabled CLS researchers to further review the verbatim responses to these questions and if necessary, revise the qualification code frame and the codes attached.

Editing and coding instructions are included in Appendix C.

7.3 **Problems With The Data**

During the course of fieldwork, a few routing errors were identified in the program. Where possible, these errors were rectified as soon as they were discovered. However, where this was not possible affected responses were coded as missing values during the edit. Cohort Members were not re-contacted. CLS were provided with a detailed description of each of these occurrences and their resolution.

References

Fuller, E. (2006) National Child Development Study: biomedical follow-up 2002-2004 Technical Report. National Centre for Social Research.

Power, C. and Elliott, J. (2005) Cohort Profile: 1958 British birth cohort (National Child Development Study). *International Journal of Epidemiology*, 2005.

Simmonds, N., Fuller E., Lessof, C. and Fouduoli, V. (2006). Technical report of the 1970 British Cohort Study: 2004 – 2005 survey. National Centre for Social Research.

²¹ Code frames for these questions needed significant development.

Appendix A Fieldwork Documents

Advance letter

Occupier letter

Thank you letter

Education Showcard

Project instructions

Appendix B NCDS 2004- 2005 Survey Questionnaire Documentation

Appendix C Coding And Editing Instructions

CATI coding and editing instructions

ICD-10 health coding instructions

Appendix D Details Of UK Data Archive Deposit