

National Child Development Study

User Guide to the Response and Deaths Datasets

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User guide to the data (First Edition)

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Centre for Longitudinal Studies

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Introduction

This document accompanies the deposit of the National Child Development Study Response and Deaths dataset at the UK Data Service in March 2015. The new deposit replaces the previous response dataset and combines it with data on known deaths among members of the National Child Development Study (NCDS) birth cohort from 1958 to 2013.

The National Child Development Study (NCDS) is a continuing, multi-disciplinary longitudinal study. It began when data were collected about 17,415 babies born in Great Britain (England, Scotland and Wales) in one week in 1958. To date, there have been 10 follow-ups of the cohort which have sought to monitor their development in key domains – health, education, social and economic.

The follow-ups were undertaken when the cohort members were aged 7, 11, 16, 23, 33, 42, 44, 46, 50 and 55 years and, for the first three of these, the birth cohort was also augmented by including in the target sample immigrants born in the relevant week and identified from school registers during tracing. Over the years, information has been gathered from a number of sources (*e.g.* parents, schools, doctors, medical records, cohort members) and in a variety of ways (*e.g.* interview, self-completion, assessments, medical records). In addition, details of public examination entry and performance were obtained from schools prior to the 23 year follow-up.

During the age 33 follow-up, a special study was also undertaken of the children of one third of the cohort members, including assessments of their behaviour and cognitive development. In addition to these main data collections, a number of special sub-studies where additional data has been gathered for samples of cohort members selected for their special characteristics or circumstances. Further information about NCDS is available from the CLS website <http://www.cls.ioe.ac.uk/ncds>.

Response

In this section we describe the ‘cross-sectional’ and ‘longitudinal’ response rates achieved at each follow-up. This builds on the work originally done by Plewis et al¹ which described response up to 2004 and subsequently Atherton et al² which described response up to 2008. The response dataset has now been updated with data from the most recent survey – NCDS9 (2013) and now includes information on the issued sample at NCDS4 (1981), NCDS5 (1991) and NCDS6 (2000) to give a more accurate picture of the response rates in these sweeps. In addition, the response categories have been simplified from previous releases. Additional information on country of birth, ethnicity and twin status and sex has also been provided.

The birth sample includes approximately 98% of all notified births in Great Britain (England, Wales and Scotland) during the week of March 1958³. At NCDS1 (1965), NCDS2 (1969) and NCDS3 (1974) immigrants to Great Britain who were born in the relevant week were identified from school registers and added to the sample⁴. Additional children born in Great Britain not previously contacted for the study during the week in question were also added⁵.

Table 1 shows the number of productive interviews achieved in each follow-up from all cases whether born in Great Britain or otherwise. Where productive interviews were not achieved the reason for this is also shown. The category “not issued” has a different context prior to NCDS3 and from NCDS4 onwards. In the first three sweeps “not issued” are those cohort members who joined the study after the birth data collection either because there were immigrants or were missed during the initial data collection in 1958. From NCDS4 onwards the ‘not issued’ category is comprised of those who chose to permanently withdraw from the study and those for who had been untraced for a lengthy period.

Table 2 shows the number of cohort members resident in Great Britain by country of birth.

This allows us to calculate in *Table 3*, the cross-sectional and longitudinal samples and consequent response rates. Appendix A show a more detailed breakdown of response by country of birth and residence.

1. The cross-sectional sample is defined as “*all those born during the defined week in March 1958, and living in Great Britain (including the Isle of Man and Channel Islands) at the time of the data collection*”.

¹ PLEWIS, I, CALDERWOOD, L, HAWKES, D AND NATHAN, G (2004) [Changes in the NCDS and BCS70 populations and samples over time](#). CLS Technical Report. London: CLS, Institute of Education

² ATHERTON, K., FULLER, E., SHEPHERD, P., STRACHAN, D. P. and POWER, C. (2008) Loss and representativeness in a biomedical survey at age 45 years: 1958 British birth cohort. [Journal of Epidemiology and Community Health](#), 62(3), 216-223

³ BUTLER, N,R and BONHAM, D,G (1963) Perinatal Mortality. Edinburgh: E & S Livingstone

⁴ FERRI, E (1993) Life at 33: The Fifth Follow-up of the National Child Development Study. London: National Children’s Bureau, City University, Economic and Social Research Council

⁵ FOGELMAN, K. (1985) Growing up in Great Britain: collected papers from the National Child Development Study. London: Macmillan

2. The cross-sectional achieved sample is “all those members of the cross-sectional sample who participate in a particular sweep.
3. The longitudinal sample is defined as *“all those born in Great Britain during the defined week in March 1958, and living in Great Britain (including the Isle of Man and Channel Islands) at the time of the data collection”*.
4. The longitudinal achieved sample is “all those members of the longitudinal sample who participate in a particular sweep.

At the most recent sweep both the cross-sectional and longitudinal response rates were 58%.

Table 1: Survey Response

	<i>PMS</i>	<i>NCDS1</i>	<i>NCDS2</i>	<i>NCDS3</i>	<i>NCDS4</i>	<i>NCDS5</i>	<i>NCDS6</i>	<i>Biomedical</i>	<i>NCDS7</i>	<i>NCDS8</i>	<i>NCDS9</i>
	<i>1958</i>	<i>1965</i>	<i>1969</i>	<i>1974</i>	<i>1981</i>	<i>1991</i>	<i>2000</i>	<i>2002</i>	<i>2004</i>	<i>2008</i>	<i>2012</i>
	<i>Birth</i>	<i>7</i>	<i>11</i>	<i>16</i>	<i>23</i>	<i>33</i>	<i>42</i>	<i>44</i>	<i>46</i>	<i>50</i>	<i>54</i>
Productive	17415	15425	15337	14654	12537	11469	11419	9377	9534	9790	9137
Refusal	0	80	797	1151	915	1365	1148	2829	1448	1214	582
Non-contact	218	1036	406	786	1675	1394	1832	792	612	835	860
Other unproductive	0	173	202	295	413	953	263	31	109	332	491
Ineligible	0	0	0	0	0	0	13	65	11	81	0
Not Issued *	925	548	275	0	862	993	1415	2908	4248	3553	4653
Not Issued - Emigrant	0	475	701	799	1196	1335	1268	1234	1272	1293	1287
Not Issued - Dead	0	821	840	873	960	1049	1200	1322	1324	1460	1548
Total	18558	18558	18558	18558	18558	18558	18558	18558	18558	18558	18558

* PMS and NCDS 1-2. Immigrant - not resident in Great Britain, NCDS4 onwards no address or refusal to participate

Table 1a: Survey Response (%)

	<i>PMS</i>	<i>NCDS1</i>	<i>NCDS2</i>	<i>NCDS3</i>	<i>NCDS4</i>	<i>NCDS5</i>	<i>NCDS6</i>	<i>Biomedical</i>	<i>NCDS7</i>	<i>NCDS8</i>	<i>NCDS9</i>
	<i>1958</i>	<i>1965</i>	<i>1969</i>	<i>1974</i>	<i>1981</i>	<i>1991</i>	<i>2000</i>	<i>2002</i>	<i>2004</i>	<i>2008</i>	<i>2012</i>
	<i>Birth</i>	<i>7</i>	<i>11</i>	<i>16</i>	<i>23</i>	<i>33</i>	<i>42</i>	<i>44</i>	<i>46</i>	<i>50</i>	<i>54</i>
Productive	93.8%	83.1%	82.6%	79.0%	67.6%	61.8%	61.5%	50.5%	51.4%	52.8%	49.2%
Refusal	0.0%	0.4%	4.3%	6.2%	4.9%	7.4%	6.2%	15.2%	7.8%	6.5%	3.1%
Non-contact	1.2%	5.6%	2.2%	4.2%	9.0%	7.5%	9.9%	4.3%	3.3%	4.5%	4.6%
Other unproductive	0.0%	0.9%	1.1%	1.6%	2.2%	5.1%	1.4%	0.2%	0.6%	1.8%	2.6%
Ineligible	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.1%	0.4%	0.0%
Not Issued	5.0%	3.0%	1.5%	0.0%	4.6%	5.4%	7.6%	15.7%	22.9%	19.1%	25.1%
Not Issued - Emigrant	0.0%	2.6%	3.8%	4.3%	6.4%	7.2%	6.8%	6.6%	6.9%	7.0%	6.9%
Not Issued - Dead	0.0%	4.4%	4.5%	4.7%	5.2%	5.7%	6.5%	7.1%	7.1%	7.9%	8.3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 2: Residence/Country of birth at each follow-up

	<i>PMS</i>	<i>NCDS1</i>	<i>NCDS2</i>	<i>NCDS3</i>	<i>NCDS4</i>	<i>NCDS5</i>	<i>NCDS6</i>	<i>Biomedical</i>	<i>NCDS7</i>	<i>NCDS8</i>	<i>NCDS9</i>
	<i>1958</i>	<i>1965</i>	<i>1969</i>	<i>1974</i>	<i>1981</i>	<i>1991</i>	<i>2000</i>	<i>2002</i>	<i>2004</i>	<i>2008</i>	<i>2012</i>
	<i>Birth</i>	<i>7</i>	<i>11</i>	<i>16</i>	<i>23</i>	<i>33</i>	<i>42</i>	<i>44</i>	<i>46</i>	<i>50</i>	<i>55</i>
Resident in Great Britain	17633	16714	16742	16886	16402	16174	16091	16003	15963	15806	15723
- <i>born in Great Britain</i>	17633	16427	16232	16149	15718	15508	15424	15317	15300	15150	15070
- <i>born outside of Great Britain</i>	0	287	510	737	684	666	667	686	663	656	653
Not resident in Great Britain	925	1023	976	799	1196	1335	1268	1234	1272	1293	1287
- <i>born in Great Britain</i>	127	512	688	738	1091	1216	1151	1139	1154	1175	1169
- <i>born outside of Great Britain</i>	798	511	288	61	105	119	117	95	118	118	118
Died	0	821	840	873	960	1049	1199	1321	1323	1459	1548
Total	18558	18558	18558	18558	18558	18558	18558	18558	18558	18558	18558

Table 3: Target and achieved samples

	<i>PMS</i>	<i>NCDS1</i>	<i>NCDS2</i>	<i>NCDS3</i>	<i>NCDS4</i>	<i>NCDS5</i>	<i>NCDS6</i>	<i>Biomedical</i>	<i>NCDS7</i>	<i>NCDS8</i>	<i>NCDS9*</i>
	<i>1958</i>	<i>1965</i>	<i>1969</i>	<i>1974</i>	<i>1981</i>	<i>1991</i>	<i>2000</i>	<i>2002</i>	<i>2004</i>	<i>2008</i>	<i>2012</i>
	<i>Birth</i>	<i>7</i>	<i>11</i>	<i>16</i>	<i>23</i>	<i>33</i>	<i>42</i>	<i>44</i>	<i>46</i>	<i>50</i>	<i>54</i>
Cross-sectional target sample #	17633	16714	16742	16886	16174	16091	16091	16003	15963	15806	15529
Cross-sectional achieved sample	17415	15425	15337	14654	11469	11419	11419	9377	9534	9790	8943
Cross-sectional achieved sample (%)	99%	92%	92%	87%	71%	71%	71%	59%	60%	62%	58%
Longitudinal target sample ##	17633	16427	16232	16149	15508	15424	15424	15317	15300	15150	14876
Longitudinal achieved sample	17415	15138	14851	13985	11107	11044	11044	9067	9230	9464	8647
Longitudinal achieved sample (%)	99%	92%	91%	87%	72%	72%	72%	59%	60%	62%	58%

All those known to be alive and resident in Great Britain at the time of the data collection

All those known to be alive, resident and BORN in Great Britain at the time of the data collection

* NCDS9 excludes 194 cohort members who were resident outside of GB but participated in the Web interview

Table 4 show the number of sweeps completed by cohort members. 61% have participated in 7 or more sweeps of data collection.

Table 4: Completed sweeps

Completed sweeps	No of cohort members	%	Cumulative percentage
11	4497	24%	24%
10	2728	15%	39%
9	1699	9%	48%
8	1221	7%	55%
7	1087	6%	61%
6	1273	7%	68%
5	1595	9%	77%
4	1431	8%	85%
3	830	4%	89%
2	655	4%	93%
1	1542	8%	100%

Deaths

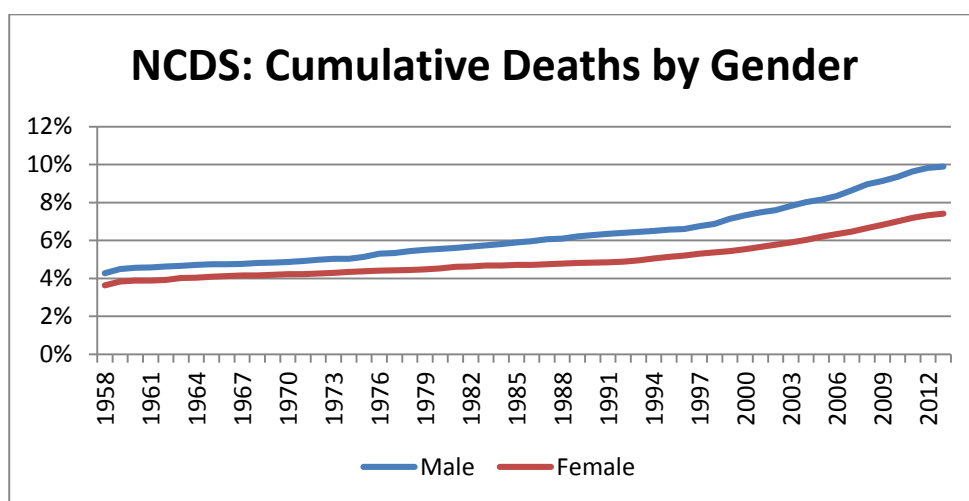
Information on deaths has been taken from the records maintained by the organisations responsible for the study over the life time of the study - the National Birthday Trust Fund, the National Children's Bureau (NCB), the Social Statistics Research Unit (SSRU) and the Centre for Longitudinal Studies (CLS). The information has been gleaned from a variety of sources, including death certificates and other information from the National Health Service Central Register (NHSCR)⁶, and from relatives and friends during survey activities and cohort maintenance work by telephone, letter and e-mail. It includes all deaths up to 31st December 2013. In only 6 cases are the date of death unknown. By the end of December 8.7% of the cohort were known to have died.

Sources of deaths data

- *NHSCR Death Certificates*: death certificates supplied to SSRU/CLS by the NHSCR
- *PMS/NCDS Death Cards*: a card index which recorded deaths among the NCDS cohort from 1958 until (approx) 1981.
- *Survey/Cohort Maintenance work*: information deriving from survey activities (e.g. interviewers being told on the doorstep that cohort member has died), or from the NCDS Address Database, compiled from cohort maintenance work (e.g. response to feedback, phone calls and correspondence between surveys).
- *Stillbirth/Neonatal Death*: these deaths occurred during the period when the NCDS interviewers were still in close contact with the family, and so verification was immediate.

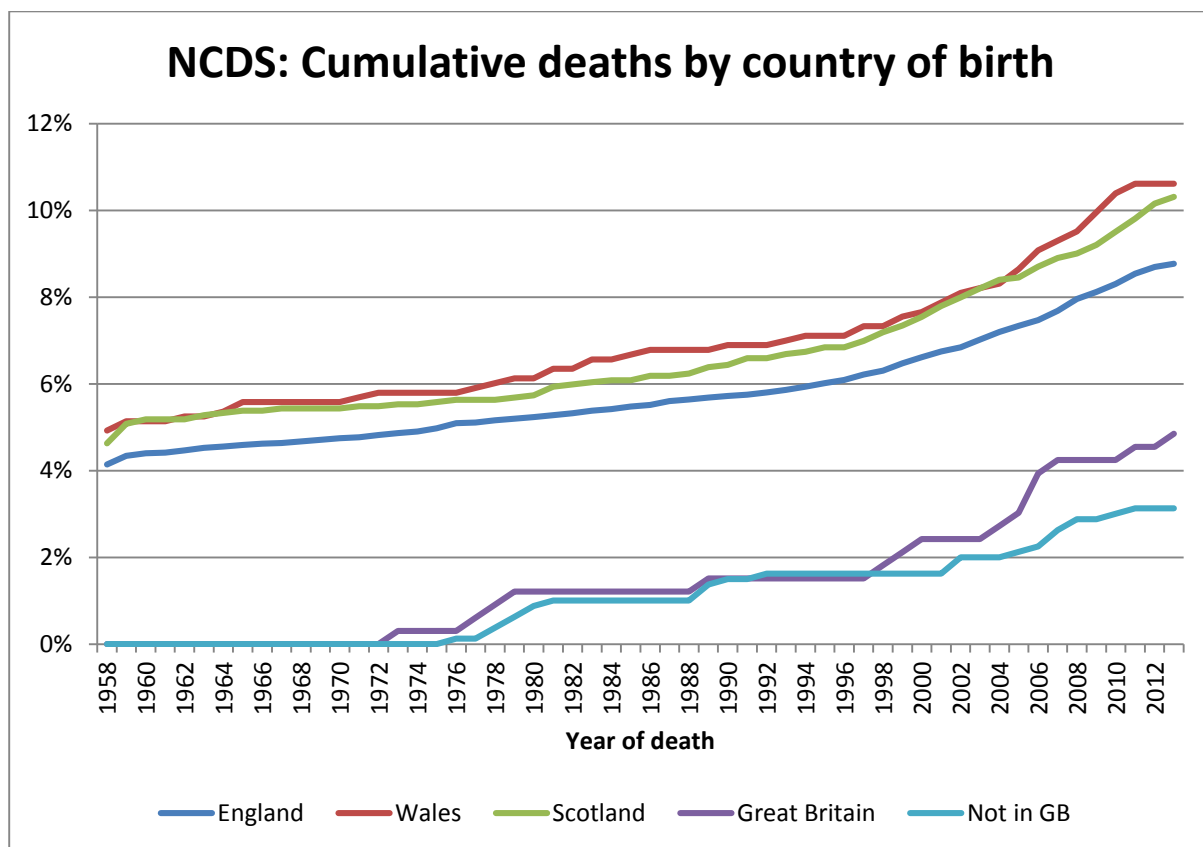
Diagram 3 provides information on death by sex which shows the expected higher mortality of males and Diagram 4 shows the higher mortality on Scotland and Wales.

Diagram 3: Cumulative deaths by sex



⁶ <http://www.ons.gov.uk/about/who-we-are/our-services/medical-research/about-us/national-health-service-central-register--nhscr-/index.html>

Diagram 4: Cumulative deaths by country of birth



The datasets

The content of the datasets is summarised in Table 4. The datasets have been split into two parts, the deaths information has been put under Special Licence to comply with our Section 251 (<http://www.hra.nhs.uk/about-the-hra/our-committees/section-251/>) approval (CAG 1-03(PR2)/2014) from the Health Research Authority Confidential Advisory Group.

Table 4: Overview of datasets

End User Licence Dataset

Variable	Description
NCDSID	Research Serial Number
N622	0-3D Sex of child
BSTATUS	Birth Status
COBIRTH	Country of Birth
MULTIPNO	Twin or triplet identity
MULTCODE	Corresponding multiple identifier
ETHNICID	Cohort Member Ethnic Group - 6 category Census class
OUTCME00	Outcome to PMS (1958)
OUTCME01	Outcome to NCDS1 (1965)
OUTCME02	Outcome to NCDS2 (1969)
OUTCME03	Outcome to NCDS3 (1974)
OUTCME04	Outcome to NCDS4 (1981)
OUTCME05	Outcome to NCDS5 (1991)
OUTCME06	Outcome to NCDS6 (2000)
OUTCMEBM	Outcome to Biomedical (2002)
OUTCME07	Outcome to NCDS7 (2004)
OUTCME08	Outcome to NCDS8 (2008)
OUTCME09	Outcome to NCDS9 (2012)

Special Licence Dataset

Variable	Description
NCDSID	Research Serial Number
DODMTH	Consolidated month of death
DODYR	Consolidated year of death
DSOURCE	Source of death information

Appendix A: Detailed Response by country of birth and residence

	<i>PMS</i>		<i>NCDS1</i>		<i>NCDS2</i>		<i>NCDS3</i>		<i>NCDS4</i>	
	<i>1958</i>		<i>1965</i>		<i>1969</i>		<i>1974</i>		<i>1981</i>	
	<i>Birth</i>		<i>7</i>		<i>11</i>		<i>16</i>		<i>23</i>	
	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>
Productive	17415	0	15138	287	14851	486	13985	669	12120	417
Refusal	0	0	80	0	790	7	1137	14	1136	24
Non-contact	218	0	1036	0	392	14	749	37	1741	126
Other unproductive	0	0	173	0	199	3	278	17	721	117
Ineligible	0	0	0	0	0	0	0	0	0	0
Not Issued *	127	798	37	511	15	260	0	0	0	0
Not Issued - Emigrant	0	0	475	0	673	28	738	61	1091	105
Not Issued - Dead	0	0	821	0	840	0	873	0	951	9
Resident	17633	0	16427	287	16232	510	16149	737	15718	684
Not resident	127	798	512	511	688	288	738	61	1091	105
Dead	0	0	821	0	840	0	873	0	951	9
Total	17760	798	17760	798	17760	798	17760	798	17760	798
Total (sweep)	18558		18558		18558		18558		18558	

* For PMS, NCDS1-2 immigrants and Great Britain future entry to study For NCDS4 onwards
[withdrawal from study, no reliable contact details]

	<i>NCDS5</i>		<i>NCDS6</i>		<i>Biomedical</i>		<i>NCDS7</i>		<i>NCDS8</i>		<i>NCDS9</i>	
	<i>1991</i>		<i>2000</i>		<i>2002</i>		<i>2004</i>		<i>2008</i>		<i>2012</i>	
	<i>33</i>		<i>42</i>		<i>44</i>		<i>46</i>		<i>50</i>		<i>54</i>	
	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>	<i>GB</i>	<i>Not GB</i>
Productive	11107	362	11044	375	9067	310	9230	304	9464	326	9026	307
Refusal	1726	51	1105	43	2760	70	1369	79	1175	39	559	23
Non-contact	1436	93	1675	157	752	40	589	23	794	41	645	19
Other unproductive	1239	160	236	27	31	0	108	1	319	13	469	22
Ineligible	0	0	12	1	58	7	11	0	75	6	0	0
Not Issued *	0	0	1352	64	2649	259	3993	256	3323	231	4416	283
Not Issued - Emigrant	1216	119	1151	117	1139	95	1154	118	1175	118	1169	118
Not Issued - Dead	1036	13	1185	14	1304	17	1306	17	1435	24	1476	26
Resident	15508	666	15424	667	15317	686	15300	663	15150	656	15115	654
Not resident	1216	119	1151	117	1139	95	1154	118	1175	118	1169	118
Dead	1036	13	1185	14	1304	17	1306	17	1435	24	1476	26
Total	17760	798	17760	798	17760	798	17760	798	17760	798	17760	798

*For NCDS4 onwards [withdrawal from study, no reliable contact details]

Further information

Further information on NCDS is available from the CLS website (<http://www.cls.ioe.ac.uk/ncds>). CLS can also be contacted at the following email address: clsfeedback@ioe.ac.uk

Comments

We would value your comments on this document, or on any aspect of NCDS. Please email: clsfeedback@ioe.ac.uk.

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