



CLOSER Training Dataset

User Guide

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Preface

The UK is home to the world's largest and longest-running longitudinal studies. CLOSER aims to maximise their use, value and impact both at home and abroad. Bringing together eight leading studies, the British Library and the UK Data Service, CLOSER works to stimulate interdisciplinary research, develop shared resources, provide training, and share expertise. In this way, CLOSER is helping to build the body of knowledge on how life in the UK is changing – both across generations and in comparison to the rest of the world.

CLOSER is funded by the Economic and Social Research Council (ESRC) and the Medical Research Council (MRC).

CLOSER's resources include [CLOSER Discovery](#), a search engine that enables researchers to search and browse questionnaires and data from eight leading UK longitudinal studies. CLOSER's [website](#) also includes a range of training materials focused on longitudinal studies and data.

CLOSER's Learning Hub contains details of events and training workshops. In particular, the hub contains suggested analyses which can be performed using the CLOSER training dataset which is the subject of this Guide.

Acknowledgements

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Introduction

The aim of this project was to provide a set of variables derived from the 1958 National Child Development Study (NCDS), for training purposes.

NCDS started in 1958 as the Perinatal Mortality Survey, designed to examine the social and obstetric factors associated with stillbirth and death in early infancy among the children born in Great Britain. It collected information on approximately 17,500 babies born in England, Scotland and Wales in one week of 1958, succeeding in covering 98.5% of those born in that week.

The scope of the survey was broadened as it developed into a longitudinal study, aiming to follow-up respondents at ten further time-points throughout their lives to monitor their health, development, education, social circumstances, employment and possible family formation as adults. These follow-up sweeps were NCDS1 (1965 age 7), NCDS2 (1969 age 11), NCDS3 (1974, age16) and adult sweeps NCDS4-9 at ages 23, 33, 42, 44 (Biomedical sweep), 46, 50 and the most recent at 55 (2013), when 9,137 continuing participants were successfully interviewed. Content from eight sweeps is included in the training dataset.

Variables included

Appendix 1 lists all the variables in the training dataset.

The first variable is the individual case identifier NCDSID.

The variables which follow are grouped into the following broad categories:

n622-n1171	Personal & family background Age: birth, 7, 11 & 16
n90-n1840	Childhood cognitive test results Age: 7
n914-n929	Childhood cognitive test results Age: 11
n16math-n16gep, newghsq	Exam results Age: 16
bmi7 to bmi50	Body-mass index Age: 7, 11, 16, 23, 33, 42 & 50
n5113-n8cohab	Marital/partnership status Age: 23, 33, 42 & 50
n6136-n8sc	Employment/economic status Age: 23, 33, 42 & 50
n5959-n504638	Voting preferences Age: 23, 33, 42 & 50
n5931- n8exsmer	Smoking status/frequency Age: 23, 33, 42 & 50
n5920- n8drinks	Drinking status/frequency Age: 23, 33, 42 & 50
Mal24n4-nd8malg	Psychological distress or depression Age: 23, 33, 42 & 50
nd8wemwb-nd8csp14	Health and well-being indicators Age: 50

Notes on the dataset themes

This section sets out the content of the dataset, by theme.

a. Personal and family background (birth, age 7, 11, 16)

Eight variables cover: sex, parental education level, parental social class and parental marital status.

Variable	Variable description
n622	Sex of cohort member
n545	0 Mother's marital status at birth of cohort member
n716dade	Father left education at min age or not [derived from age 7 and 16]
n16med	Exact age mother left full-time education [from age 16 q'aire]
n16fed	Exact age father left full-time education [from age 16 q'aire]
N2SRGSC	1990-style RG Social Class code for father's occupation 1969 (CM age 11)
n1171	2P 1970-style Social Class of father or male head at CM age 11 (1969)

b. Childhood cognitive test results (at age 7 and 11)

Test results from ages 7 and 11 are included: four from each age. Both ages contain the Copying Designs test, which is a perceptual test assessing how good the child is at copying certain shapes and patterns. At age 7 we also have the Draw-a-man Test⁹, the Southgate Reading Test¹⁰ and the Problem Arithmetic Test¹¹. At age 11 we have James Douglas's General Ability Test¹², and two tests designed for NCDS by the National Foundation for Educational Research (NFER): the Reading Comprehension Test and the Arithmetic/Mathematics Test.

Variable	Variable description
n90	1T Problem Arithmetic Test score, CM age 7
n92	1T Southgate Group Reading Test score, CM age 7
n457	1S Total score on Copying Designs Test, CM age 7
n1840	1T Draw-a-man test score, CM age 7
n914	2T Verbal score on general ability test, CM age 11
n917	2T Non verbal score on gen ability test, CM age 11
n920	2T Total score on general ability test, CM age 11
n923	2T Reading comprehension test score, CM age 11
n926	2T Mathematics test score, CM age 11
n929	2T Copying designs test score, CM age 11

c. Exam results (age 16)

Details of NCDS members' exam results were obtained in 1978 by writing to schools that cohort members were known to have attended at the time of the age 16 follow-up (1974). The current GCSE system was not introduced until 1988,

so in 1974 the standard was called O-level GCE ('Ordinary'-level General Certificate of Education), or else CSE (Certificate of Secondary Education). A grade 1 CSE was equivalent to at least a grade 'C' O-level GCE.

In the NCDS4 sweep at age 23, the variable newghsq recorded the highest qualification obtained by age 23, so it is possible to see by this time whether a degree-level qualification was obtained.

Variable	Variable description
n16math	age 16: Maths Olevel/CSE/SCE grade
n16eng	age 16: English Olevel/CSE/SCE grade
n16mathg	age 16: has a good maths Olevel/CSE/SCE pass [grade A-C, 1)
n16engg	age 16: has a good English Olevel/CSE/SCE pass [grade A-C, 1)
n16gep	age 16: no of A-C grade OLevel/SCE or CSE grade 1 passes by 1974
newghsq	4D Highest qualification by age 23 (GHS classific'n scheme)

d. Body-Mass Index (ages 7, 11, 16, 23, 33, 42, 50)

Body-mass index is calculated at each sweep by dividing the person's weight in kilograms by the square of their height in metres.

Variable	Variable description
Bmi7	CM's body-mass index at age 7 (kg/m ²)
Bmi11	CM's body-mass index at age 11 (kg/m ²)
Bmi16	CM's body-mass index at age 16 (kg/m ²)
Bmi23	CM's body-mass index at age 23 (kg/m ²)
Bmi33	CM's body-mass index at age 33 (kg/m ²)
Bmi42	CM's body-mass index at age 42 (kg/m ²)
Bmi50	CM's body-mass index at age 50 (kg/m ²)

e. Marital/partnership status (ages 23, 33, 42, 50)

At some sweeps cohort members were asked for their legal marital status, (single/married/divorced/widowed) whereas sometimes at least one subsidiary question was asked regarding living arrangements, which would encompass cohabitation without a legal marriage, and also clarify whether the person may have become separated from their spouse without any court order (i.e. still legally married). We have variables at ages 23, 33, 42 and 50. At ages 23 and 50 there are two separate variables (e.g. variable n5113 at age 23 represents legal marital status, and variable n5116 asks if they are cohabiting). At ages 33 and 42 a derived variable has combined the information on legal marital status with cohabiting information.

Variable	Variable description
n5113	4I Legal marital status age 23
n5116	4I Is single respondent cohabiting age 23
marstpar	DV: Legal and partner status (age 33)

MS	CMs current marital or partner status (age 42)
n8MS	CM's legal marital status (age 50)
n8Cohab	Whether CM cohabiting as a couple (age 50)

f. Employment/economic status (ages 23, 33, 42, 50)

At each of these sweeps we have a variable indicating the cohort member's economic status (e.g. employed full-time or part-time, self-employed, unemployed, student, carer, sick/disabled) and also a variable indicating their social class based on their current or most recent job. This is based on the Registrar General's Social Class Scheme, used at the time by the Government's Office for National Statistics (ONS). The scheme had a number of revisions over the decades, but we have standardised here on the 1990 version except for the age 23 variable, which is coded to the 1970 version. Nevertheless it has the same 6 categories as the age 33, 42 and 50 variables, derived from the person's occupation and their status within that occupation (e.g. employee/foreman/manager):

- I Professional
- II Intermediate
- IIINM Skilled Non-Manual
- IIIM Skilled Manual
- IV Semi-Skilled Manual
- V Unskilled Manual

Variable	Variable description
n6136	4I current or last job 1970 social class age 23
econstat	4D Current economic status age 23
n540033	Current/last job: 1990 Social Class 1990 age 33
n500520	CMI:2,A1a) Current main economic activity age 33
SC	(Current Job) Social Class (age 42)
econact	CMs current main activity (age 42)
n8sc	Curr Job: Social Class (1990 scheme) (age 50)
n8Econ02	CM's current economic activity (age 50)

g. Voting behaviour and preferences (ages 23, 33, 42, 50)

At each of these sweeps we asked whether the person voted at the last general election; which way they voted; and how they would vote were there an election at the time of the interview. At age 33 the third question was phrased slightly differently: variable n504638 asks whether the respondent feels they are Conservative/Labour/Green/Lib Dem etc.

Variable	Variable description
n5959	4I Whether voted in 1979 general election (age 23)
n5960	4I Party voted for in 1979 general election (age 23)
n5962	4I Current voting intentions (age 23)
n504635	CMI:96 G4 Voted in General Election in June 1987 (age 33)
n504636	CMI:96 G5 Party voted for in June 1987 General Election (age 33)
n504638	CMI:96 G6 Thinks of self as Conservative/Labour/etc (age 33)

vote97	Voted in last General Election-May 97 (age 42)
votewho	Which party did you vote for? (age 42)
votenow	Which party would you vote for now (age 42)
n8vote01	Whether voted in the General Election (May 2005) (age 50)
n8votewo	Party voted for in the General Election (May2005) (age 50)
n8votenw	Party that would vote for now (age 50)

h. Health behaviours: smoking and drinking (ages 23, 33, 42, 50)

At each of these sweeps we asked respondents whether they smoked or drank, the number of cigarettes and frequency of drinking; and at age 50 we asked if they had ever been a smoker (variables n8exsmr).

Variable	Variable description
n5931	4I Current cigarette smoking (age 23) [YES/NO]
n5935	4I Number of cigarettes smoked per day (age 23)
n504262	CMI:87 F41a) Smokes cigarettes (age 33)
n504263	CMI:87 F42 No. cigarettes/day usually smoked (age 33)
smoking	CM current smoking status (age 42)
nofcigs	Number of cigarettes usually smoked daily (age 42)
n8smokig	Smoking frequency (age 50)
n8nfcigs	Smoking frequency per day (age 50)
n8exsmer	Whether has ever been a regular smoker (age 50)
n5920	4I Frequency of drinking (age 23)
n504273	CMI:87 F49 How often drinks alcohol (age 33)
drinks	Frequency that cohort member has alcoholic drink of any kind (age 42)
n8drinks	Frequency of drinking alcohol (age 50)

i. Assessing psychological distress or depression: the Malaise Inventory (ages 23, 33, 42, 50)

The Malaise inventory is a well-established method of assessing psychological well-being or depression. The full inventory has 24 questions, but a shorter (9-category) version of it was asked at the age NCDS age 50 follow-up. In the 24-question scale, a score of 0-7 is considered normal, with 8 or more indicating a level of depression. In the 9-question scale, a score of 4 or higher is indicative of depression. See Appendix 2 for a fuller discussion.

Variable	Variable description
mal24n4	Malaise Inventory (24-pt) Score Age 23
mal9n4	Malaise Inventory (9-pt) Score Age 23
mal24n5	Malaise Inventory (24-pt) Score Age 33
mal9n5	Malaise Inventory (9-pt) Score Age 33
mal24n6	Malaise Inventory (24-pt) Score Age 42
mal9n6	Malaise Inventory (9-pt) Score Age 42

nd8mal	Malaise Inventory (9-pt) Score Age 50
nd8malg	Malaise Inventory (9-pt) Score Age 50 – grouped

j. Health and well-being (age 50)

Three scales were used to assess health and wellbeing at age 50. There is a certain amount of correlation between these measures, as one might expect:

- Warwick-Edinburgh Mental Well-Being Scale (WEMWBS). This 14-point scale is both a Hedonic and Eudaemonic measure of well-being⁵. The term 'hedonic' refers to the notion of generally feeling good and enjoying life, whereas eudaemonic is a term attributed to Aristotle, involving the notion that one is doing what is worth doing and finding one's rightful place in the world.
- CASP 12-item Scale. Developed by Profs. R.D Wiggins, David Blane et al¹⁶. The acronym refers to 'Control/Autonomy/Self-realisation/Pleasure,' and the 12 items can be split into these four separate components of 3 questions each (see also www.casp19.com)
- SF-36 Inventory of Physical and Mental/emotional Health^{13,14,15}. As with CASP, this 36-point scale can be split into 2 broad components (Physical and Mental health), each of which is subdivided into four further components (physical function; whether age limits physical ability; pain; general self-rated health); (whether age limits emotional well-being; energy/fatigue; general mental health; social function).

Variable	Variable description
nd8wemwb	NCDS Age 50 Warwick Edinburgh Mental Well-Being Scale
nd8phhe	NCDS Age 50 SF-36 Physical functioning score
nd8rlmp	NCDS Age 50 SF-36 Role-limitations due to physical health
nd8rlme	NCDS Age 50 SF-26 Role-limitations due to emotional problems
nd8enfa	NCDS Age 50 SF-36 Energy/fatigue score
nd8emwb	NCDS Age 50 SF-36 Emotional Well-Being score
nd8socf	NCDS Age 50 SF-36 Social Functioning score
nd8pain	NCDS Age 50 SF-36 Pain score
nd8genh	NCDS Age 50 SF-36 General health score
nd8csp14	NCDS Age 50 Overall CASP-14 Quality of Life Score

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Appendix 1: Variables in the dataset

Variable	Variable description
ncdsid	Individual case identifier
n622	Sex of NCDS cohort member
n545	0 Mother's marital status at birth of cohort member
n016nmed	Mother left education at min age or not [derived from age 0 and 16]
n716dade	Father left education at min age or not [derived from age 7 and 16]
n16med	Exact age mother left full-time education [from age 16 q'aire]
n16fed	Exact age father left full-time education [from age 16 q'aire]
N2SRGSC	1990-style RG Social Class code for father's occupation 1969 (CM age 11)
n1171	2P 1970-style Social Class of father or male head at CM age 11 (1969)
n90	1T Problem Arithmetic Test score, CM age 7
n92	1T Southgate Group Reading Test score, CM age 7
n457	1S Total score on Copying Designs Test, CM age 7
n1840	1T Draw-a-man test score, CM age 7
n914	2T Verbal score on general ability test, CM age 11
n917	2T Non verbal score on gen ability test, CM age 11
n920	2T Total score on general ability test, CM age 11
n923	2T Reading comprehension test score, CM age 11
n926	2T Mathematics test score, CM age 11
n929	2T Copying designs test score, CM age 11
n16math	age 16: Maths Olevel/CSE/SCE grade
n16eng	age 16: English Olevel/CSE/SCE grade
n16mathg	age 16: has a good maths Olevel/CSE/SCE pass [grade A-C, 1)
n16engg	age 16: has a good English Olevel/CSE/SCE pass [grade A-C, 1)
n16gep	age 16: no of A-C grade OLevel/SCE or CSE grade 1 passes by 1974
newghsq	4D Highest qualification by age 23 (GHS classific'n scheme)
Bmi7	CM's body-mass index at age 7 (kg/m ²)
Bmi11	CM's body-mass index at age 11 (kg/m ²)
Bmi16	CM's body-mass index at age 16 (kg/m ²)
Bmi23	CM's body-mass index at age 23 (kg/m ²)
Bmi33	CM's body-mass index at age 33 (kg/m ²)
Bmi42	CM's body-mass index at age 42 (kg/m ²)
Bmi50	CM's body-mass index at age 50 (kg/m ²)
n5113	4I Legal marital status age 23
n5116	4I Is single respondent cohabiting age 23
marstpar	DV: Legal and partner status (age 33)
MS	CMs current marital or partner status (age 42)
n8MS	CM's legal marital status (age 50)
n8Cohab	Whether CM cohabiting as a couple (age 50)
n6136	4I Current or last job 1970 social class age 23
econstat	4D Current economic status age 23
n540033	Current/last job: 1990 Social Class 1990 age 33
n500520	CMI:2,A1a) Current main economic activity age 33

SC	(Current Job) Social Class (age 42)
econact	CMs current main activity (age 42)
n8sc	Curr Job: Social Class (1990 scheme) (age 50)
n8Econ02	CM's current economic activity (age 50)
n5959	4I Whether voted in 1979 general election (age 23)
n5960	4I Party voted for in 1979 general election (age 23)
n5962	4I Current voting intentions (age 23)
n504635	CMI:96 G4 Voted in General Election in June 1987 (age 33)
n504636	CMI:96 G5 Party voted for in June 1987 General Election (age 33)
n504638	CMI:96 G6 Thinks of self as Conservative/Labour/etc (age 33)
vote97	Voted in last General Election-May 97 (age 42)
votewho	Which party did you vote for? (age 42)
Votenow	Which party would you vote for now (age 42)
n8vote01	Whether voted in the General Election (May 2005) (age 50)
n8votewo	Party voted for in the General Election (May2005) (age 50)
n8votenw	Party that would vote for now (age 50)
n5931	4I Current cigarette smoking (age 23)
n5935	4I Number of cigarettes smoked per day (age 23)
n504262	CMI:87 F41a) Smokes cigarettes (age 33)
n504263	CMI:87 F42 No. cigarettes/day usually smoked (age 33)
smoking	CM current smoking status (age 42)
nofcigs	Number of cigarettes usually smoked daily (age 42)
n8smokig	Smoking frequency (age 50)
n8nfcigs	Smoking frequency per day (age 50)
n8exsmer	Whether has ever been a regular smoker (age 50)
n5920	4I Frequency of drinking (age 23)
n504273	CMI:87 F49 How often drinks alcohol (age 33)
drinks	Frequency that cohort member has alcoholic drink of any kind (age 42)
n8drinks	Frequency of drinking alcohol (age 50)
mal24n4	Malaise Inventory (24-pt) Score Age 23
mal9n4	Malaise Inventory (9-pt) Score Age 23
mal24n5	Malaise Inventory (24-pt) Score Age 33
mal9n5	Malaise Inventory (9-pt) Score Age 33
mal24n6	Malaise Inventory (24-pt) Score Age 42
mal9n6	Malaise Inventory (9-pt) Score Age 42
nd8mal	Malaise Inventory (9-pt) Score Age 50
nd8malg	Malaise Inventory (9-pt) Score Age 50 – grouped
nd8wemwb	NCDS Age 50 Warwick Edinburgh Mental Well-Being Scale
nd8phhe	NCDS Age 50 SF-36 Physical functioning score
nd8rlmp	NCDS Age 50 SF-36 Role-limitations due to physical health
nd8rlme	NCDS Age 50 SF-26 Role-limitations due to emotional problems
nd8enfa	NCDS Age 50 SF-36 Energy/fatigue score
nd8emwb	NCDS Age 50 SF-36 Emotional Well-Being score
nd8socf	NCDS Age 50 SF-36 Social Functioning score
nd8pain	NCDS Age 50 SF-36 Pain score
nd8genh	NCDS Age 50 SF-36 General health score

nd8csp14 NCDS Age 50 Overall CASP-14 Quality of Life Score

Appendix 2: Malaise questions in NCDS

	Age 23	Age 33	Age 42	Age 50
1. Do you often have backache?	✓	✓	✓	
2. Do you feel tired most of the time?	✓	✓	✓	✓
3. Do you often feel depressed?	✓	✓	✓	✓
4. Do you often have bad headaches?	✓	✓	✓	
5. Do you often get worried about things?	✓	✓	✓	✓
6. Do you usually have great difficulty in falling or staying asleep?	✓	✓	✓	
7. Do you usually wake unnecessarily early in the morning?	✓	✓	✓	
8. Do you wear yourself out worrying about your health?	✓	✓	✓	
9. Do you often get into a violent rage?	✓	✓	✓	✓
10. Do people annoy and irritate you?	✓	✓	✓	
11. Have you at times had a twitching of the face, head or shoulders?	✓	✓	✓	
12. Do you suddenly become scared for no good reason?	✓	✓	✓	✓
13. Are you scared to be alone when there are not friends near you?	✓	✓	✓	
14. Are you easily upset or irritated?	✓	✓	✓	✓
15. Are you frightened of going out alone or of meeting people?	✓	✓	✓	
16. Are you constantly keyed up and jittery?	✓	✓	✓	✓
17. Do you suffer from indigestion?	✓	✓	✓	
18. Do you suffer from an upset stomach?	✓	✓	✓	
19. Is your appetite poor?	✓	✓	✓	
20. Does every little thing get on your nerves and wear you out?	✓	✓	✓	✓
21. Does your heart often race like mad?	✓	✓	✓	✓
22. Do you often have bad pain in eyes?	✓	✓	✓	
23. Are you troubled with rheumatism or fibrosis?	✓	✓	✓	
24. Have you ever had a nervous breakdown?	✓	✓	✓	

At these ages cohort members have completed *The Malaise Inventory* (Rutter et al, 1970) a set of self-completion questions which combine to measure levels of psychological distress, or depression. The 24 'yes-no' items of the inventory cover emotional disturbance and associated physical symptoms. When administered in its standard format, scores range from 0 to 24. It was itself developed from the Cornell Medical Index Health Questionnaire (CMI) which comprises 195 self-completion questions (Brodman et al, 1949, 1952). Fourteen of the 24 questions are taken directly from the CMI (Rutter et al., 1970). Individuals responding 'yes' to eight or more of the 24 items are considered to be at risk of depression (Rodgers et al., 1999). The internal consistency of the scale has been shown to be acceptable and validity of the inventory shown to hold in different socio-economic groups (Rodgers et al., 1999). The scale has been used in both general population studies (McGee, Williams & Silva, 1986; Rutter & Madge, 1976; Rodgers et al, 1999) and in investigations of high-risk groups (Grant, Nolan & Ellis, 1990). Rutter himself affirms that 'the inventory differentiates moderately well between individuals with and without psychiatric disorder' (Rutter et al, 1970, p160).