

National Child Development Study

User Guide to the Biomedical Survey 2002-2004 Dataset

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Introduction

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 seven attempts to trace all members of the birth cohort in order 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 and 46 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 (eg: parents, schools, doctors, medical records, cohort members) and in a variety of ways (eg: interview, self-completion, assessments, medical records). It should be noted that details of public examination entry and performance were obtained from schools prior to the 23 year follow-up. Also, 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>)

Funding

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The survey was designed to obtain objective measures of ill-health and biomedical risk factors in order to address a wide range of specific hypotheses relating to anthropometry; cardiovascular, respiratory and allergic diseases; visual and hearing impairment; and mental ill-health.

The target sample comprised some 12,037 cohort members who responded to NCDS4, 5 or 6, and involved nurse-interviewers taking a number of biomedical measurements, including: near, distance and stereo vision; hearing; lung function; blood pressure and pulse, height and weight; and waist and hip. A short mental health interview was also administered, and samples of blood and saliva were taken. Fieldwork began in September 2002 and was completed at the end of March 2004. Levels of co-operation with the survey were high, with some 9,400 cohort members taking part, and only a minority declining to provide samples of blood and saliva.

This guide should be read in conjunction with the Technical Report¹ produced by the National Centre for Social Research which details the development of the survey, the conduct of the fieldwork and subsequent coding and processing of the biological samples.

¹ Fuller E, Power C, Shepherd P, Strachan D. Technical report on the National Child Development Study biomedical survey 2002-2004. National Centre for Social Research 2006).

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Development of the Survey

The survey content was proposed in detail in the MRC grant application. Practical development began in October 2001. Between then and the first pilot in March 2002 the project management team and the collaborators met on a regular basis. The content and order of the interview was determined, including the time allocated to each module, the exact measurements and questions to be included, the equipment that would be used, nurse protocols, and the way information would be recorded in CAPI (computer-assisted personal interviewing) and on paper. The issued sample was defined, and sample management procedures outlined. The CAPI was programmed and the documents were designed. Associated procedures were agreed, such as sample management, the packing and transport of equipment, the mailing of blood and saliva samples, and the exchange of information between the nurses, NatCen's Operations Department and the participating laboratories. Three field pilots were carried out, two using convenience samples recruited from the general public, and the third using a sample of cohort members. These are described in full in the Technical Report.

Target Sample

As in previous waves of the NCDS, the target sample for the biomedical survey was all cohort members currently living in England, Scotland or Wales,¹⁴ excluding permanent refusals – 14,737 cohort members in August 2002. The sample definition was subsequently refined, and some cohort members excluded for various reasons, so that the sample issued to field (i.e. cohort members invited to take part in the study) comprised 12,037 cohort members.

Fieldwork

Nurse briefings

Briefings for nurses began on 30th July 2002. Each briefing lasted three days and was attended by an average of seven nurses. Day 1 was led by researchers from NatCen and CLS, and covered the background to the project; contact procedures; survey documents, including the ARF, consent booklets and self-completion questionnaires; and the CAPI programme, including the CASI and the CIS-R interview. Days 2 and 3 covered the measurement protocols in detail, including practical sessions, and were led by one of the principal investigators and the survey doctor, supported by NatCen nurse supervisors, and, on occasions, other survey collaborators. Before leaving the briefing, each nurse carried out a dummy interview, including measurements, observed by members of the survey team and nurse supervisors. If there was any doubt about a nurse's ability to carry out the interview satisfactorily, additional training and supervision was arranged. All nurses who were new to NatCen were supervised on their first interviews.

Nineteen briefings were held, in London and six regional centres. The first briefing, of nurse supervisors, took place at the end of July 2002. Six briefings were held in August, five in September and two in October 2002, to enable fieldwork to begin promptly. Subsequent briefings were held by demand in order to ensure coverage throughout the fieldwork period, in November and December of 2002, and February, May and July of 2003. In total, 122 nurses were briefed to work on the project during its lifetime.

Issue of work

Fieldwork took place between 9th September 2002 and 26th March 2004. The sample was issued in fifteen monthly waves, starting in September 2002 and finishing in December 2003.²⁰ It was divided into 667 assignments or 'points', each a month's workload for a nurse, clustered into geographically convenient groupings, with an average size of 18 addresses (see Chapter 2 of the Technical Report for further details).

The interview

The CAPI interview used in the main survey included the following elements.

- Vision: measures of near vision in right and left eyes (using appropriate visual correction), with and without pinhole viewer; stereo vision; distance vision (using appropriate visual correction).
- Blood pressure and pulse: three measures of systolic and diastolic blood pressure and resting pulse.
- Prescription drugs: all prescribed drugs taken, by name and BNF code.
- Hearing: thresholds of hearing in right and left ears at 1kHz and 4kHz.
- Standing height, sitting height, weight, waist circumference, hip circumference.
- Lung function: three measures (from up to five attempts) of forced vital capacity (FVC), forced expiratory volume (FEV1) and peak flow (PF).
- Eye measurements using autorefractor: sphere, cylinder and axis of right and left eyes.
- Non-fasting blood sample: four tubes filled and sent by nurses to laboratories in London, Newcastle and Bristol.
- (CASI): AUDIT and supplementary questions about drinking alcohol; adverse childhood experiences.
- CIS-R² interview: modules covering appetite, fatigue, concentration and forgetfulness, sleep problems, irritability, depression, depressive ideas, anxiety, phobias, and panic.

Two paper self-completion questionnaires covered the following topics.

Questionnaire 1 (SC1) ('yellow questionnaire', completed in advance):

- sun exposure
- physical activity connected with work
- hearing
- eyesight
- pain
- working conditions
- household circumstances
- social support.

Questionnaire 2 (SC2) ('lilac questionnaire', completed during the interview):

- general health and diet
- leisure exercise
- employment
- partnership status and children
- life events and

² Lewis G, Pelosi AJ, Araya R, Dunn G. Measuring psychiatric disorder in the community: a standardized assessment for use by lay interviewers. *Psychological Medicine*, 1992, 22 (2), 465-86.

- (women only) contraception and HRT.

Appendix A of the Technical Report includes the CAPI and self-completion questionnaires.

Written consents were collected for:

- all measurements;
- questions about psychological health;
- collection, testing, storage and future use of blood;
- feedback of blood test results to the cohort member;
- feedback of measurements and results to the cohort member's GP;
- analysis, storage and future use of saliva;
- deposit of data in the ESRC data archive;
- use of NHS administrative data.

Cohort members were asked to collect and return two samples of saliva, accompanied by a short self-completion questionnaire

Appendix B of the Technical Report includes information about the equipment used and nurse protocols.

Consent booklets and saliva forms can be found with other survey documents in Appendix C of the Technical Report

Response

9378 Cohort Members were contacted and consented to the Biomedical Survey.

One subsequently withdrew their consent and 9 interviews were lost. The dataset contains 9377 cases (the 9339 productive from the main survey and an additional 29 cases from the Dress Rehearsal.(Pilot 3) and the 9 lost interviews, for which blood was obtained). The full response is shown below.

Summary of cohort, issued sample and response to biomedical survey

	Frequency	Percent	Valid Percent
Valid 101 Productive	9339	50.3	50.3
102 Productive - dress rehearsal	29	.2	.2
103 Lost productive - some data, no CAPI	9	.0	.0
201 Issued but ineligible - dead	28	.2	.2
202 Issued but ineligible - living outside GB	65	.4	.4
301 Refused	1803	9.7	9.7
302 Data withdrawn after interview	1	.0	.0
401 Invalid address	12	.1	.1
402 No contact made at address	191	1.0	1.0
403 Moved to unknown address	494	2.7	2.7
404 Unavailable for interview	86	.5	.5
405 Other reason for no interview	12	.1	.1
501 Ineligible: dead	1196	6.4	6.4
502 Ineligible - living outside GB	1236	6.7	6.7
601 Permanent refusals	1041	5.6	5.6
901 NCDS6 by proxy	31	.2	.2
902 Not issued for another reason	2506	13.5	13.5
903 Not in sample data base	479	2.6	2.6
Total	18558	100.0	100.0

Biochemical analyses of blood samples

Glycosylated haemoglobin (HbA1c)

Glycosylated haemoglobin (HbA1c) was measured on whole citrated blood by ion exchange high performance liquid chromatography, using the Tosoh A1c 2.2 Glycohemoglobin Analyser HLC-723GHb.

Triglycerides, total and HDL cholesterol (trig, chol, hdl, ldl)

Triglycerides, total and HDL cholesterol were measured on non-fasting serum by Olympus model AU640 autoanalyser.

LDL cholesterol was derived by the following formula: $LDL = [Total\ chol] - (HDL + (Trig/2.2))$.

Insulin-like growth factor (igf1)

Insulin-like growth factor (IGF-1) was measured on serum by chemiluminescence-immunoassay.

Immunoglobulin E (ige), House Dust Mite Allergen (hdm), Cat Allergen (cat), Grass Pollen Allergen (grass)

Immunoglobulin E was measured on serum by the HYTEC enzyme immunoassay, with positive and negative controls. Total IgE was assayed on all specimens, and allergen-specific IgE to house dust mite, mixed grasses, and cat fur, were measured on specimens with a total IgE concentration above the median (30kU/L).

Fibrinogen (fib)

Fibrinogen was measured on citrated plasma by the Clauss method using a MDA 180 coagulometer

Tissue plasminogen activator antigen (t-PA) and von Willebrand factor antigen (vWF)

Tissue plasminogen activator antigen (t-PA) and von Willebrand factor antigen (vWF) were measured on citrated plasma by enzyme-linked immunosorbent assays employing a double sandwich technique.²⁷

C-reactive protein (crp)

C-reactive protein was measured on citrated plasma by high-sensitivity nephelometric analysis of latex particles coated with CRP-monoclonal antibodies

D-Dimer

Data on fibrin D-dimer was received from Dr A Rumley and Professor GDO Lowe (University Department of Medicine, Royal Infirmary,) on 1st September 2006. The D-dimer assays were performed at the end of the field study using two different manufacturer kits. Within in manufacture kit quality control checks of the D-dimer assays were within set limits but there was a systematic difference between the two different kits (see Appendix 2).

Coding and Editing

In addition to coding and editing referred to in Section 7 of the Technical Report

Missing values

Where no data entry in CAPI (e.g. because of routing) cells have been left empty. Not on route is coded -1 in data from the self-completion questionnaires. Where a cohort member has not answered a self-completion questionnaire, all the relevant cells have been left empty.

-8, -9 not labelled.

For variables where 'refused' is a listed option this has been retained and has not been recoded to merge with -9 entries. Where values are measures, no response recorded as 99, 999 etc (Note: some value ranges have negative values).

Refused consent/not attempted

These data have not been edited from the original CAPI, although the outcomes for particular measures may be inconsistent in cases where consent was withdrawn during measurement (e.g. blood pressure).

Inconsistencies, improbabilities

The edit has taken note of soft checks within CAPI. Within the self-completion booklets, the approach has been inclusive: that is, inconsistencies and improbabilities have not always been corrected: the policy on this was decided in consultation with the scientific collaborators.

Lung function values

Values have not been cleaned, and there are no 'not obtained' or missing value codes (for FVC these have been left as 9.96, for FEV 9.95, for Peak Flow 995).

Retinomax codes

Where the quality score has been recorded as 0 or 99, all measures for that eye have been recoded as not obtained. Measures with unsatisfactory quality scores of 1 to 6 have been left in the data.

CIS-R coding

Two CIS-R scores have been recoded: IDEASUM and TOTSUM.

Nurse number

The nurse number (nurseno) has been recoded for reasons of anonymity..

Time variables in self-completions

The keying specification of several values (usually timings) was for whole numbers; this was subsequently adjusted to include fractions, so that the whole timings are derived variables.

Pain Coding

Variables e3_acr1 thru e3_acr10 and e3_man1 thru e3_man29 should be used in conjunction with the accompanying document coded_mannikins.pdf.

Lab Data Batch numbers

nclbatch	newcastle batch number (for use with ige and igf1 measurements)
vwfbatch	vwf batch number (for use with vwf measurement)
tpabatch	tpa batch number (for use with tpa measurement)

glabatch glasgow batch number (for use with fib and crp measurements)

Blood Collection (clorec, bldrec)

For these variables -1=Insufficient sample, -3=Old sample, 1=Yes, 0=No or "NSR" (no sample received)

All dates: (bllday, bldmonth, bldyear, dayrnl, monthrnl, yearnl) All 3 variables are set to missing if date recorded as "Refused" or "NODATE".

Variables: cons, plstor, sestor

For these variables 1=Yes, 0=No or "INSUFF" (insufficient)

Samples processed at Newcastle Laboratory

If result coded as NSR (no sample received), NOSEP (no separation), INSUFF (insufficient), UNOLD (old sample - more than 5 days old), UNUS (atypical chromatographic pattern relating to HbA1c), RNCALB (LDL result not calculable), UNSUIT (for HDL calculation as triglyceride>13), LDLUS (for LDL calculation as HDL>4.5), HAEM (?), UNAVH, UNAVL, UNCALC or coded NR (for not required, but only if IgE >30) - result re-coded to missing.

If delay between sampling date and date received > 5 days (or dates missing) then all results set to MISSING Analysis not valid if sample more than 5 days old. (NB Delay could not be calculated for 9 study subjects as information on time blood taken missing)

Variable	Recode	Comments
ldl	"<0.1" re-coded to MISSING	ldl <0.1 - According to Newcastle this is the default (nonsense) value reported by the computer system for a calculated result when the calculation components are non-numeric.
ldl	If hdl measured and hdl>4.5 then ldl re-coded to MISSING	According to Newcastle LDL calculation invalid if HDL>4.5
Igf1	"<2" re-coded to 0	
Ige	Ige ">2000" re-coded to 2000	
hdm	"<0.35" re-coded to 0	
hdm	if Ige measured and Ige<=30 re-coded to 0	According to Newcastle if IgE<=30, house dust mite allergen, cat and grass allergen results are not required.
cat	"<0.35" re-coded to 0	
grass	"<0.35" re-coded to 0	

cat	if Ige measured and Ige<=30 re-coded to 0	According to Newcastle if IgE<=30, house dust mite allergen, cat and grass allergen results are not required.
grass	if Ige measured and Ige<=30 re-coded to 0	According to Newcastle if IgE<=30, house dust mite allergen, cat and grass allergen results are not required.
hdl	If triglyceride measured and triglyceride>13 then hdl re-coded to MISSING	According to Newcastle blood unsuitable for HDL analysis if triglyceride>13.

Structure of the Data

The data file contains 1220 variables. For the main CAPI interview, this is shown as collected. Variables labels are prefixed to indicate which part of the survey excluding the main CAPI interview they were collected in.

CASI – Computer Aided Self Completion

CIS-R – CASI – CIS-R Malaise questions

SC1 – Self Completion Booklet 1 (variable label also indicates the question number)

SC2 – Self Completion Booklet 2 (variable label also indicates the question number)

LAB – Data relating to blood sampling, biochemical measures.

Other files provided with this deposit

Name	Description
biomedical.sav	Data collected in the survey
NCDS biomed technical report.pdf	Technical report on the survey
coded_manikins.pdf	Diagram relating to Pain coding
biomedical_variables.csv	Variable listing

The variable listing file biomedical_variables.csv, is provided to assist relating the data to the CAPI questionnaire, provided in the Technical Report.

Key Variables

Sex of cohort member

This is the “gold standard” variable for the sex of the cohort member, other variables which relate to the sex of the cohort member are left, to explain any consequent erroneous routing.

Derived Variables

smok42_1	Smoking at 42 codes 0 to 2
smok42_2	Smoking at 42 codes 0 to 6
sc0_1	Social Class at birth
sc42_1	Social Class at 42
reg0_58	Region at birth (based on pre-1974 regions)
reg46_58	Region at age 46 (based on pre-1974 regions)
reg46_04	Region at age 46 (based on post-1974 regions)
bresps0	Final outcome code
bresps1	Summary of cohort, issued sample and response

Appendix 1 – Variables by subject

Vision Tests

Variable	Label
notwillv	Check if no vision consent
notestv	No Vision Tests to be taken
viscon2	Amended vision consent
visimp	Any visual impairment
visaids	Any optical correction
viswear	What optical correction
nvwear	Near vision test: optical correction (no vis imp)
visnvis1	Near vision test, not impaired; whether all read correctly
visnvis2	Near vision test, not impaired: level correct
nvimpaid	Near vision test: optical correction (vis imp)
nvimp1	Near vision test, vis impaired: whether all read correctly
nvimp2	Near vision test, vis impaired: level correct
vstereo1	Stereo vision 1
vstereo2	Stereo vision 2
vstereo3	Stereo vision 3
vstereo4	Stereo vision 4
dwwear	Distance vision test: optical correction (no vis imp)
visdvar1	Distance vision test, R eye not impaired
visdvar2	Distance vision test, R eye not impaired; whether 6/3 read correctly
visdvar3	Distance vision test, R eye not impaired: level correct
visdvar4	Pinhole vision test, R eye not impaired
visdvar5	Pinhole vision test, R eye not impaired; whether 6/3 read correctly
visdvar6	Pinhole vision test, R eye not impaired: level correct
visdval1	Distance vision test, L eye not impaired
visdval2	Distance vision test, L eye not impaired; whether 6/3 read correctly
visdval3	Distance vision test, L eye not impaired: level correct
visdval4	Pinhole vision test, L eye not impaired
visdval5	Pinhole vision test, L eye not impaired; whether 6/3 read correctly
visdval6	Pinhole vision test, L eye not impaired: level correct
dvimpaid	Distance vision test: optical correction (vis imp)
vimpr1	Distance vision test, R eye vis impaired
vimpr2	Distance vision test, R eye vis impaired; whether 6/38 read correctly
vimpr3	Distance vision test, R eye not impaired: level correct
vimpr4	Pinhole vision test, R eye vis impaired
vimpr5	Pinhole vision test, R eye vis impaired; whether 6/38 read correctly
vimpr6	Pinhole vision test, R eye vis impaired: level correct
vimpr7	Fingers counted, R eye vis impaired
vimpr8	Can you see light with your right eye?
vimpl1	Distance vision test, L eye vis impaired
vimpl2	Distance vision test, L eye vis impaired; whether 6/38 read

	correctly
vimpl3	Distance vision test, L eye not impaired: level correct
vimpl4	Pinhole vision test, L eye vis impaired
vimpl5	Pinhole vision test, L eye vis impaired; whether 6/38 read correctly
vimpl6	Pinhole vision test, L eye vis impaired: level correct
vimpl7	Fingers counted, L eye vis impaired
vimpl8	Can you see light with your left eye?
vcross1	Cross: distance glasses
hasspare	Cross: lens wearer's spare glasses
vcrossr	Cross: right lens
vcrossl	Cross: left lens

Blood Pressure Tests

Variable	Label
notwilbp	Check if no BP consent
bpcon2	Amended BP consent
nobp	Cohort member pregnant - no BP measure
notestbp	No BP measurement to be taken
consubx1	BP: done in last 30 mins 1
consubx2	BP: done in last 30 mins 2
consubx3	BP: done in last 30 mins 3
ncpregj	PREGNANT OR NOT
pregmes	No BP measure because pregnant
airtemp	Ambient air temperature
omronno	Omron serial number
cufsize	Cuff size
pulse	Pulse 1
sys	Systolic 1
dias	Diastolic 1
full	All readings OK.
pulse2	Pulse 2
sys2	Systolic 2
dias2	Diastolic 2
full2	All readings OK.
pulse3	Pulse 3
sys3	Systolic 3
dias3	Diastolic 3
full3	All readings OK.
ynobp	Why no BP measure recorded
respbps	How many BP measures recorded
nattbpd1	Why BP measure refused or not attempted 1
nattbpd2	Why BP measure refused or not attempted 2
nattbpd3	Why BP measure refused or not attempted 3
nattbpd4	Why BP measure refused or not attempted 4
cnattbp1	Why BP measure refused or not attempted (backcoded 1)
cnattbp2	Why BP measure refused or not attempted (backcoded 2)

Audiometry

Variable	Label
notwillh	Check if no hearing consent

audcon2	Amended hearing consent
notesth	No hearing tests to be done
bhearaid	Do you usually wear a hearing aid nowadays
haidon	Wearing hearing aid at the moment
tinnany	Any tinnitus nowadays
tinnnow	Tinnitus at the moment
audsn	ENTER SERIAL NUMBER OF AUDIOMETER.
audchk	Audiometer check 1
chklead	Audiometer check 2
goodear	Hearing better in which ear
leadear	Lead ear, tested first
audeara	First ear tested at 1 kHz
audearc	First ear tested at 4 kHz
audeara3	Second ear tested at 1kHz
audearc3	Second ear tested at 4 kHz
audall	All measurements completed
audnall	Reason why not all measurements completed
caudnall	Reason why not all measurements completed (backcoded)
audnoise	CODE LEVEL OF BACKGROUND NOISE.
audnot	CODE WHY TEST NOT ATTEMPTED.

Height

Variable	Label
resphts	Whether height measured
bheight	Height in cm
resnhi	Why height measure refused
ehtch	Height estimate given
ehm	Estimated height in metres
ehtft	Estimated height in feet
ehtin	Estimated height in inches
estht	Final measured or estimated height (cm),
nohtbc1	Why height measure not obtained
relhite	Height measure reliable
hinrel	Why height measure unreliable
notwilht	Check if no height consent
htcon2	Amended height consent
notestht	No height measure to be done

Sitting Height

Variable	Label
sithts	Whether sitting height measured
sheight	Sitting height in cm
shrel	Sitting height measure reliable
shnrel	Why sitting height measure unreliable 1
whyshfl	Why sitting height measure unreliable 2
htsn	NURSE: ENTER SERIAL NUMBER OF STADIOMETER

Weight

Variable	Label
respwts	Whether weight measured
bweight	Weight in Kg

resnwt	Why weight measure refused
nowtbc	Why weight measure not obtained
ewtch	Weight estimate given
ewtkg	Estimated weight in kilos
ewtst	Estimated weight in stones
ewtl	Estimated weight in pounds
estwt	Final measured or estimated weight (kg),
floorc1	Scales placed on (1)
floorc2	Scales placed on (2)
relwaitb	Weight measure reliable
notwillw	Check if no weight consent
wtcon2	Amended weight consent
notestw	No weight measure to be done
wtsn	NURSE: ENTER SERIAL NUMBER OF SCALES

Waist and Hip Measurements

Variable	Label
notwilwh	Check if no waist and hip consent
whcon2	Amended waist and hip consent
notestwh	No waist and hip measure to be done
whintro	Whether waist and hip measured
waist	Waist circumference in cms
hip	Hip circumference in cms
donehip	Waist measured
donewst	Hips measured
respwh	Waist and hip measues obtained
ynowh1	Why waist and hip not both obtained
wjrel	Whether waist measure reliable
probwj	What problems experienced with waist measure
hjrel	Whether hip measure reliable
probhj	What problems experienced with hip measure

Lung Function

Variable	Label
notwillf	Check if no Lung Function consent
lfcon2	Amended Lung Function consent
notestf	No Lung Function measure to be done
noread	Flag for no LF readings: was the first FVC coded 9.95
fvc	FVC 1st measurement
fev	FEV 1st measurement
pf	Peak flow 1st measurement
techniqu	LF technique 1
fvc2	FVC 2nd measurement
fev2	FEV 2nd measurement
pf2	Peak flow 2nd measurement
techniq2	LF technique 2
fvc3	FVC 3rd measurement
fev3	FEV 3rd measurement
pf3	Peak flow 3rd measurement
techniq3	LF technique 3
fvc4	FVC 4th measurement

fev4	FEV 4th measurement
pf4	Peak flow 4th measurement
techniq4	LF technique 4
fv5	FVC 5th measurement
fev5	FEV 5th measurement
pf5	Peak flow 5th measurement
techniq5	LF technique 5
nlst1f	SATISFACTORY BLOWS?
htfvc	HIGHEST TECHNICALLY SATISFACTORY VALUE FVC
htfev	HIGHEST TECHNICALLY SATISFACTORY VALUE FEV
htpf	HIGHEST TECHNICALLY SATISFACTORY VALUE PF
sum1	Sum of FVC and FEV 1st blow
sum2	Sum of FVC and FEV 2nd blow
sum3	Sum of FVC and FEV 3rd blow
max1	Maximum of SUM1 to SUM3
besttest	BEST OF FIRST 3 SUM ATTEMPTS
nextbest	NEXT BEST OF FIRST 3 SUMS
variatio	VARIATION IN BESTTEST AND NEXTBEST
done3	3 TECHNICALLY ACCEPTABLE BLOWS REACHED OUT OF 5
first3	FIRST 3 TECHNICALLY ACCEPTABLE BLOWS REACHED
fourblow	FOUR BLOWS OBTAINED
ynolf	Why no LF measured
hasurg	Abdominal or chest surgery in past 3 weeks
hastro	Hospital for heart complaint in past 6 weeks
lfcod2	No Lung Function measure to be done
chestinf	Chest infection in past three weeks
binhaler	Inhaler used in last 24 hours
inhalhrs	Hours since used inhaler
spirno	ENTER THE TWO-DIGIT SPIROMETER SERIAL
lfstand	MEASUREMENTS TAKEN WHILE CM STANDING OR SITTING
lfrsp	Blows attempted or obtained
problf1	Why less than 5 blows obtained 1
problf2	Why less than 5 blows obtained 2
problf3	Why less than 5 blows obtained 3
cproblf1	Why less than 5 blows obtained (backcoded)
noatt1f	GIVE REASON WHY Lung Function MEASUREM

Measurement of Refractive Error

Variable	Label
visrefa1	ARE YOU CARRYING AUTOREFRACTOR?
visrefa2	RECORD SERIAL NUMBER OF AUTOREFRACTOR.
vsphr	Right eye sphere
vcylr	Right eye cylinder
vaxr	Right eye axial
vqualr	Right eye quality score
vsphl	Left eye sphere
vcyll	Left eye cylinder
vaxl	Left eye axial
vqual1	Left eye quality score
printout	Printout attached to consent booklet?

Blood Sampling

Variable	Label
blcons1	Blood consent: any questions asked
blcons21	Consent to blood sample 1
blcons22	Consent to blood sample 2
blcons23	Consent to blood sample 3
blcons24	Consent to blood sample 4
clotb	Clotting or bleeding disorder, taking anti-coagulents
bfit	Fit in last three years
consub	When last ate
refbsc1	Why blood sample refused (1)
refbsc2	Why blood sample refused (2)
refbsc3	Why blood sample refused (3)
refbsc4	Why blood sample refused (4)
refbsc5	Why blood sample refused (5)
refbsc6	Why blood sample refused (6)
timechk1	TIME BEFORE TAKESAM
timechk2	TIME BEFORE SAMPF1
timechk3	TIME BEFORE SAMPF1
sampf1	CODE IF RED EDTA TUBE filled or partly filled
sampf2	CODE IF GREEN CITRATE TUBE filled or partly filled
sampf3	CODE IF WHITE SERUM TUBE filled or partly filled
sampf4	CODE IF YELLOW CPDA TUBE filled or partly filled
samptak	BLOOD SAMPLE OUTCOME:
samparm	RECORD WHICH ARM BLOOD TAKEN FROM:
samdifc1	Record any problems in taking blood sample (1)
samdifc2	Record any problems in taking blood sample (2)
samdifc3	Record any problems in taking blood sample (3)
samdifc4	Record any problems in taking blood sample (4)
csamdif1	Problems in taking blood sample (backcoded 1)
csamdif2	Problems in taking blood sample (backcoded 2)
csamdif3	Problems in taking blood sample (backcoded 3)
nobsc1	Why no blood obtained (1)
nobsc2	Why no blood obtained (2)
nobsc3	Why no blood obtained (3)
nobsc4	Why no blood obtained (4)

Saliva Sampling

Variable	Label
salintro	Willing to take saliva sample

Computer Administered Self Completion (CASI)

Variable	Label
scaccept	CASI: CASI accepted?
resultsc	CASI: Self-completion done

Alcohol Audit (CASI)

Variable	Label
drinkfq	CASI: How often do you have a drink containing alcohol
drinkany	CASI: Have you ever drunk alcohol?

drinkday CASI: How many standard drinks do you have on a typical day?
 drinksix CASI: How often do you have six or more standard drinks on one occasion
 drstop CASI: Last year: have you found that you were not able to stop drinking once you had started
 drfail CASI: Last year: have you failed to do what was normally expected from you because of drinking
 drinkam CASI: Last year: have you needed an alcoholic drink in the morning to get yourself going after a heavy drinking session
 drguilt CASI: Last year: have you had a feeling of guilt and regret after drinking
 drforget CASI: Last year: unable to remember what happened the night before because you had been drinking
 drhurt CASI: Have you or has someone else been injured as a result of your drinking
 drworry CASI: Has a relative, friend, doctor or other health worker been concerned about your drinking..
 drhigh CASI: Drinking at highest level: how often
 drmost CASI: Drinking at highest level: how many drinks on a typical day
 drinkn01 CASI: Reasons for not drinking (1)
 drinkn02 CASI: Reasons for not drinking (2)
 drinkn03 CASI: Reasons for not drinking (3)
 drinkn04 CASI: Reasons for not drinking (4)
 drinkn05 CASI: Reasons for not drinking (5)
 drinkn06 CASI: Reasons for not drinking (6)
 drinkn07 CASI: Reasons for not drinking (7)
 drinkn08 CASI: Reasons for not drinking (8)
 drinkn09 CASI: Reasons for not drinking (9)
 drinkn10 CASI: Reasons for not drinking (10)
 drinkn11 CASI: Reasons for not drinking (11)
 drinkn12 CASI: Reasons for not drinking (12)
 drinkn13 CASI: Reasons for not drinking (13)
 drinkn14 CASI: Reasons for not drinking (14)
 drinkn15 CASI: Reasons for not drinking (15)
 cdrink01 CASI: Reasons for not drinking (backcoded - 1)
 cdrink02 CASI: Reasons for not drinking (backcoded - 2)
 drleve01 CASI: Influences on drinking (1)
 drleve02 CASI: Influences on drinking (2)
 drleve03 CASI: Influences on drinking (3)
 drleve04 CASI: Influences on drinking (4)
 drleve05 CASI: Influences on drinking (5)
 drleve06 CASI: Influences on drinking (6)
 drleve07 CASI: Influences on drinking (7)
 drleve08 CASI: Influences on drinking (8)
 drleve09 CASI: Influences on drinking (9)
 drleve10 CASI: Influences on drinking (10)
 drleve11 CASI: Influences on drinking (11)
 drleve12 CASI: Influences on drinking (12)
 drleve13 CASI: Influences on drinking (13)
 drleve14 CASI: Influences on drinking (14)
 drleve15 CASI: Influences on drinking (15)

cdrlev01	CASI: Influences on drinking (backcoded - 1)
cdrlev02	CASI: Influences on drinking (backcoded - 2)
drstop01	CASI: Reasons for giving up alcohol (1)
drstop02	CASI: Reasons for giving up alcohol (2)
drstop03	CASI: Reasons for giving up alcohol (3)
drstop04	CASI: Reasons for giving up alcohol (4)
drstop05	CASI: Reasons for giving up alcohol (5)
drstop06	CASI: Reasons for giving up alcohol (6)
drstop07	CASI: Reasons for giving up alcohol (7)
drstop08	CASI: Reasons for giving up alcohol (8)
drstop09	CASI: Reasons for giving up alcohol (9)
drstop10	CASI: Reasons for giving up alcohol (10)
drstop11	CASI: Reasons for giving up alcohol (11)
drstop12	CASI: Reasons for giving up alcohol (12)
cdrsto01	CASI: Reasons for giving up alcohol (backcoded - 1)
cdrsto02	CASI: Reasons for giving up alcohol (backcoded - 2)
cdrsto03	CASI: Reasons for giving up alcohol (backcoded - 3)
drcut01	CASI: Reasons for cutting down drinking (1)
drcut02	CASI: Reasons for cutting down drinking (2)
drcut03	CASI: Reasons for cutting down drinking (3)
drcut04	CASI: Reasons for cutting down drinking (4)
drcut05	CASI: Reasons for cutting down drinking (5)
drcut06	CASI: Reasons for cutting down drinking (6)
drcut07	CASI: Reasons for cutting down drinking (7)
drcut08	CASI: Reasons for cutting down drinking (8)
drcut09	CASI: Reasons for cutting down drinking (9)
drcut10	CASI: Reasons for cutting down drinking (10)
cdrcut01	CASI: Reasons for cutting down drinking (backcoded - 1)
cdrcut02	CASI: Reasons for cutting down drinking (backcoded - 2)

Childhood Adversity (CASI)

Please note that these variables are only available by application to CLS under special licence. A summary variable adversity – see Appendix 3 has been derived by Charlotte Clark at QMUL.

Variable	Label
chad1	CASI: How affectionate was your father...
chad2	CASI: Did your father suffer from nervous or emotional trouble...
chad3	CASI: Did your father have trouble with drinking ...
chad4	CASI: How affectionate was your mother...
chad5	CASI: Did your mother suffer from nervous or emotional trouble...
chad6	CASI: Did your mother have trouble with drinking ...
chad7	CASI: How much conflict and tension...
chad9a	CASI: I had a happy childhood
chad9b	CASI: My parents did their best for me
chad9c	CASI: I was neglected
chad9d	CASI: I had a strict, authoritarian or regimented upbringing

chad9e	CASI: I grew up in poverty or financial hardship
chad9f	CASI: I was verbally abused by a parent
chad9g	CASI: I suffered humiliation, ridicule ...
chad9h	CASI: I witnessed physical or sexual abuse...
chad9i	CASI: I was physically abused ...
chad9j	CASI: I received too much physical punishment ...
chad9k	CASI: I was sexually abused ...
chad9l	CASI: I suffered another type of mistreatment
cchad901	CASI: Other mistreatment (backcoded - 1)
cchad902	CASI: Other mistreatment (backcoded - 2)
cchad903	CASI: Other mistreatment (backcoded - 3)
cchad904	CASI: Other mistreatment (backcoded - 4)
chad9n	CASI: Had a normal upbringing
satis1	CASI: CASI any changes (1)
satis2	CASI: CASI any changes (2)

Mental Health Interview (CIS-R) (CASI)

Appetite

Variable	Label
appet1	CIS-R: Have you noticed a marked loss in your appetite ...
appet2	CIS-R: Have you lost any weight in the past month
appet3	CIS-R: Were you trying to lose weight or on a diet
appet4	CIS-R: Did you lose half a stone or more ...
appet5	CIS-R: Have you noticed a marked increase in your appetite
appet6	CIS-R: Have you gained weight in the past month

Fatigue

Variable	Label
fatsum	CIS-R: Fatigue summary score
fatiga	CIS-R: Have you noticed that you have been getting tired in the past month
fatigb	CIS-R: Have you felt you've been lacking in energy
fatigc	CIS-R: Why feeling tired or lacking in energy
fatigd	CIS-R: Main reason tired or lacking in energy
fatige	CIS-R: In past seven days, how many days have you felt... CIS-R: Tired or lacking in energy for more than 3 hours in
fatigf	one day
fatigg	CIS-R: So tired or lacking in energy you've had to push yourself to get things done
fatigh	CIS-R: Felt tired or lacking in energy when doing things you enjoy
fatigi	CIS-R: Tired or lacking in energy when doing things you used to enjoy
fatigj	CIS-R: Howlong have you felt tired or lacking in energy

Concentration and forgetfulness

Variable	Label
forgsum	CIS-R: Concentration and forgetfulness summary score
forgeta	CIS-R: Problems in concentrating
forgetb	CIS-R: Problems forgetting
forgetc	CIS-R: How many days in last week had problems ...

forgetd	CIS-R: Could you concentrate on a TV programme, read a newspaper article or talk to someone without your mind wandering
forgete	CIS-R: Have these problems with your concentration actually stopped you from getting on with things
forgetf	CIS-R: Have you forgotten anything important in the past 7 days
forgetg	CIS-R: How long have you been having these problems

Sleep

Variable	Label
slpsum	CIS-R: Sleep problems summary score
sleepa	CIS-R: Problems trying to get to sleep in last month
sleepb	CIS-R: Sleeping more than usual in past month
sleepc	CIS-R: How many nights in past week had problems
sleepd	CIS-R: Do you know why you are having problems
sleepf	CIS-R: On worst night, how long did you spend trying to get to sleep
sleepg	CIS-R: How many nights 3 hours or more to get to sleep
sleeph	CIS-R: Do you wake more than two hours earlier than you need
sleepi	CIS-R: Worst night, slept how much longer than usual
sleepj	CIS-R: How many nights slept 3 hours or more extra
sleepk	CIS-R: How long have you had these problems with sleep

Irritability

Variable	Label
irritsum	CIS-R: Irritability summary score
irrita	CIS-R: Irritable or short-tempered in past month
irritb	CIS-R: Irritable or short-tempered over trivial things
irritc	CIS-R: How many days in last week irritable or short-tempered ...
irrite	CIS-R: Irritable or short-tempered for an hour or more
irritf	CIS-R: Wanted to shout at someone
irritg	CIS-R: Had arguments, rows or quarrels
irritb	CIS-R: More than once in past week
irriti	CIS-R: Do you think this was justified?
irritj	CIS-R: Justified every time
irritk	CIS-R: How long have you been feeling irritable or short-tempered

Depression

Variable	Label
depsum	CIS-R: Depression summary score
depa	CIS-R: Sad miserable or depressed in last month
depb	CIS-R: Able to enjoy or take an interest in last month
depc	CIS-R: Sad, miserable or depressed in past 7 days
depd	CIS-R: Unable to enjoy or take an interest in past 7 days
depe	CIS-R: How many days in last week felt depressed etc
depf	CIS-R: Felt depressed etc for more than 3 hours in a day
depi	CIS-R: Happier when something nice happened
depj	CIS-R: How long have you been feeling depressed etc

Depressive ideas

Variable	Label
ideasum	CIS-R: Depressive ideas summary score

Please Note : the following variables are only available by application to CLS under Special Licence

ideasa	CIS-R: Worse in morning or evening
ideasb	CIS-R: Interest in sex
ideasc	CIS-R: Restless and couldn't sit still
ideasd	CIS-R: Doing things more slowly
idease	CIS-R: Less talkative than normal
ideasf	CIS-R: Guilty or blamed yourself
ideasg	CIS-R: Felt not as good as other people
ideash	CIS-R: Hopeless about the future
suic1	CIS-R: Felt life not worth living
suic2	CIS-R: Thought of killing yourself
suic3	CIS-R: Talked to a doctor about suicidal thoughts
suic4	CIS-R: Advised to talk to doctor or qualified professional

Anxiety

Variable	Label
anxsum	CIS-R: Anxiety summary score
anxa	CIS-R: Anxious or nervous in past month
anxb	CIS-R: Tense muscles or could not relax in past month
anxc	CIS-R: Anxious, nervous and tense when no reason
anxd	CIS-R: Anxiety brought on by specific situation
anxe	CIS-R: How many days felt generally anxious etc
anxf	CIS-R: How unpleasant
anxg1	CIS-R: Symptoms of anxiety (1)
anxg2	CIS-R: Symptoms of anxiety (2)
anxg3	CIS-R: Symptoms of anxiety (3)
anxg4	CIS-R: Symptoms of anxiety (4)
anxg5	CIS-R: Symptoms of anxiety (5)
anxg6	CIS-R: Symptoms of anxiety (6)
anxg7	CIS-R: Symptoms of anxiety (7)
anxh	CIS-R: Anxious etc for more than 3 hours in a day
anxi	CIS-R: How long have you felt like this

Phobias

Variable	Label
phobsum	CIS-R: Phobias summary score
phoba	CIS-R: Avoided situation because of phobia in last month
phobb	CIS-R: Situation that caused phobia
phobc	CIS-R: Situation most avoided because of phobia
phobd	CIS-R: How many times felt phobia
phobe1	CIS-R: Symptoms of phobia (1)
phobe2	CIS-R: Symptoms of phobia (2)
phobe3	CIS-R: Symptoms of phobia (3)
phobe4	CIS-R: Symptoms of phobia (4)
phobe5	CIS-R: Symptoms of phobia (5)
phobe6	CIS-R: Symptoms of phobia (6)
phobe7	CIS-R: Symptoms of phobia (7)
phobf	CIS-R: Avoided situation because of phobia in last week
phobg	CIS-R: How many times avoided situation
phobh	CIS-R: How long have you felt phobia

Panic

Variable	Label
pansum	CIS-R: Panic summary score
panica	CIS-R: Feared loss of control in past month
panicb	CIS-R: Feared loss of control in past week
panicc	CIS-R: How unpleasant
panicd	CIS-R: Felt panic for longer than 10 mins
panice	CIS-R: Free of anxiety between attacks
panicf	CIS-R: Panic always caused by same thing
panicg	CIS-R: How long have felt panic

Mental Health Summary Variables

Variable	Label
totsum	CIS-R: Total summary variable
overalla	CIS-R: Overall stopped from doing things used to do in past 7 days
overallb	CIS-R: Overall stopped from doing things more than once
overallc	CIS-R: Overall things more difficult

Medications

Variable	Label
drugclot	Any anti-coagulant drugs recorded
medcnjd	Taking any medicines
drcl1	Name of Medicine Taken 1: BNF 44, Sept 2002)
medbia	Used in the last seven days 1
ytake11	Why take drug 1 (1)
ytake12	Why take drug 1 (2)
ytake13	Why take drug 1 (3)
drc2	Name of Medicine Taken 2: BNF 44, Sept 2002)
medbia2	Used in the last seven days 2
ytake14	Why take drug 2 (1)

ytake15 Why take drug 2 (2)
ytake16 Why take drug 2 (3)
drc3 Name of Medicine Taken 3: BNF 44, Sept 2002)
medbia3 Used in the last seven days 3
ytake17 Why take drug 3 (1)
ytake18 Why take drug 3 (2)
ytake19 Why take drug 3 (3)
drc4 Name of Medicine Taken 4: BNF 44, Sept 2002)
medbia4 Used in the last seven days 4
ytake20 Why take drug 4 (1)
ytake21 Why take drug 4 (2)
ytake22 Why take drug 4 (3)
drc5 Name of Medicine Taken 5: BNF 44, Sept 2002)
medbia5 Used in the last seven days 5
ytake23 Why take drug 5 (1)
ytake24 Why take drug 5 (2)
ytake25 Why take drug 5 (3)
drc6 Name of Medicine Taken 6: BNF 44, Sept 2002)
medbia6 Used in the last seven days 6
ytake26 Why take drug 6 (1)
ytake27 Why take drug 6 (2)
ytake28 Why take drug 6 (3)
drc7 Name of Medicine Taken 7: BNF 44, Sept 2002)
medbia7 Used in the last seven days 7
ytake29 Why take drug 7 (1)
ytake30 Why take drug 7 (2)
ytake31 Why take drug 7 (3)
drc8 Name of Medicine Taken 8: BNF 44, Sept 2002)
medbia8 Used in the last seven days 8
ytake32 Why take drug 8 (1)
ytake33 Why take drug 8 (2)
ytake34 Why take drug 8 (3)
drc9 Name of Medicine Taken 9: BNF 44, Sept 2002)
medbia9 Used in the last seven days 9
ytake35 Why take drug 9 (1)
ytake36 Why take drug 9 (2)
ytake37 Why take drug 9 (3)
drc10 Name of Medicine Taken 10: BNF 44, Sept 2002)
medbia10 Used in the last seven days 10
ytake38 Why take drug 10 (1)
ytake39 Why take drug 10 (2)
ytake40 Why take drug 10 (3)
drc11 Name of Medicine Taken 11: BNF 44, Sept 2002)
medbia11 Used in the last seven days 11
ytake41 Why take drug 11 (1)
ytake42 Why take drug 11 (2)
ytake43 Why take drug 11 (3)
drc12 Name of Medicine Taken 12: BNF 44, Sept 2002)
medbia12 Used in the last seven days 12
ytake44 Why take drug 12 (1)
ytake45 Why take drug 12 (2)

ytake46 Why take drug 12 (3)
 drc13 Name of Medicine Taken 13: BNF 44, Sept 2002)
 medbia13 Used in the last seven days 13
 ytake47 Why take drug 13 (1)
 ytake48 Why take drug 13 (2)
 ytake49 Why take drug 13 (3)
 drc14 Name of Medicine Taken 14: BNF 44, Sept 2002)
 medbia14 Used in the last seven days 14
 ytake50 Why take drug 14 (1)
 ytake51 Why take drug 14 (2)
 ytake52 Why take drug 14 (3)
 drc15 Name of Medicine Taken 15: BNF 44, Sept 2002)
 medbia15 Used in the last seven days 15
 ytake53 Why take drug 15 (1)
 ytake54 Why take drug 15 (2)
 ytake55 Why take drug 15 (3)
 drc16 Name of Medicine Taken 16: BNF 44, Sept 2002)
 medbia16 Used in the last seven days 16
 ytake56 Why take drug 16 (1)
 ytake57 Why take drug 16 (2)
 ytake58 Why take drug 16 (3)
 drc17 Name of Medicine Taken 17: BNF 44, Sept 2002)
 medbia17 Used in the last seven days 17
 ytake59 Why take drug 17 (1)
 ytake60 Why take drug 17 (2)
 ytake61 Why take drug 17 (3)
 drc18 Name of Medicine Taken 18: BNF 44, Sept 2002)
 medbia18 Used in the last seven days 18
 ytake62 Why take drug 18 (1)
 ytake63 Why take drug 18 (2)
 ytake64 Why take drug 18 (3)
 drc19 Name of Medicine Taken 19: BNF 44, Sept 2002)
 medbia19 Used in the last seven days 19
 ytake65 Why take drug 19 (1)
 ytake66 Why take drug 19 (2)
 ytake67 Why take drug 19 (3)
 nummeds Number of medicines coded
 medtyp1 Medicine taken for gastro-intestinal system?
 medtyp2 Medicine taken for cardio-vascular system?
 medtyp3 Medicine taken for respiratory system?
 medtyp4 Medicine taken for central nervous system?
 medtyp5 Medicine taken for infection?
 medtyp6 Medicine taken for endocrine system?
 medtyp7 Medicine taken for obs/gynae/urinary tract disorders?
 medtyp8 Medicine taken for malignant disease/immunosuppression?
 medtyp9 Medicine taken for nutrition/blood?
 medtyp10 Medicine taken for musculo-skeletal or joint diseases?
 medtyp11 Eye medicine taken?
 medtyp12 Medicine taken for ear, nose or oropharynx?
 medtyp13 Medicine for skin taken?
 medtyp14 Other medication taken?

Self Completion 1

A Sun Exposure

Variable	Label
sunmon	SC1 (A1a): How long per day do/did you usually spend outdoors during the daylight hours last month
sunsum	SC1 (A1b): How long per day do/did you usually spend outdoors during the daylight hours in Summer
sunwin	SC1 (A1c): How long per day do/did you usually spend outdoors during the daylight hours in Winter
suncover	SC1 (A2a): In sunny weather, both in UK and other countries do you protect your skin from the sun, with clothing or suncream
sunblast	SC1 (A2b): In sunny weather, both in UK and other countries do you get blistering after being burned in the sun
suntan	SC1 (A2c): In sunny weather, both in UK and other countries do you actively seek a suntan
haircol	SC1 (A3): What is the natural colour of your hair (or original colour if grey)
skincol	SC1 (A4): Would you say your natural skin colour is

B Physical Activity

Variable	Label
workyear	SC1 (B1): In the past year have you been in paid employment, or regular voluntary work
wkmiles	SC1 (B2): Roughly how many miles is it from home to work
wktrips	SC1 (B3): How many times a week do you travel between home and work
wkmotor	SC1 (B4a): How often do you travel to work by motorised transport
wkbike	SC1 (B4b): How often do you travel to work by bicycle
wkwalk	SC1 (B4c): How often do you walk to work
sitlt	SC1 (B5a): In your main job in the last year have you undertaken sitting-light work
sitlthr	SC1 (B5a): How many hours per week have you undertaken sitting-light work
sitmod	SC1 (B5b): In your main job in the last year have you undertaken sitting-moderate work
sitmodhr	SC1 (B5b): How many hours per week have you undertaken sitting-moderate work
stdlt	SC1 (B5c): In your main job in the last year have you undertaken standing-light work
stdlthr	SC1 (B5c): How many hours per week have you undertaken standing-light work
stdlm	SC1 (B5d): In your main job in the last year have you undertaken standing-light/moderate work
stdlmhr	SC1 (B5d): How many hours per week have you undertaken standing-light/moderate work
stdmod	SC1 (B5e): In your main job in the last year have you undertaken standing-moderate work
stdmodhr	SC1 (B5e): How many hours per week have you undertaken standing-moderate work
stdmh	SC1 (B5f): In your main job in the last year have you undertaken standing-moderate/heavy work
stdmhhr	SC1 (B5f): How many hours per week have you undertaken standing-moderate/heavy work

wlkl	SC1 (B5g): In your main job in the last year have you undertaken walking at work carrying nothing heavy
wlklthr	SC1 (B5g): How many hours per week have you undertaken walking at work carrying nothing heavy
wlkhv	SC1 (B5h): In your main job in the last year have you undertaken walking carrying something heavy
wlkhvhr	SC1 (B5h): How many hours per week have you undertaken walking at work carrying something heavy
movob	SC1 (B5i): In your main job in the last year have you undertaken moving, pushing heavy objects
movobhr	SC1 (B5i): How many hours per week have you undertaken moving, pushing heavy objects
wkoth1hr	SC1 (B5j): How many hours per week do you do this
wkoth2hr	SC1 (B5k): How many hours per week do you do this
wkstair	SC1 (B6a): At work how many times a day do you normally climb a flight of stairs
wkladd	SC1 (B6b): At work how many times a day do you normally climb a ladder
travcar	SC1 (B7a): Apart from journeys to work, I travel by car most or all of the time
travpub	SC1 (B7b): Apart from journeys to work, I travel by public transport most or all of the time
biketot	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by bicycle and foot
bikeless	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by bicycle of less than 0.5 miles
bikeone	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by bicycle of 0.5 to 1.5 miles
biketwo	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by bicycle of 1.5 to 2.5 miles
bikethre	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by bicycle of 2.5 to 3.5 miles
bikefive	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by bicycle of 3.5 to 5.5 miles
bikemore	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by bicycle of more than 5.5 miles
walktot	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by foot
walkless	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by foot of less than 0.5 miles
walkone	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by foot of 0.5 to 1.5 miles
walktwo	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by foot of 1.5 to 2.5 miles
walkthre	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by foot of 2.5 to 3.5 miles
walkfive	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by foot of 3.5 to 5.5 miles
walkmore	SC1 (B8): Apart from journeys to work,how many journeys in an average week do you make by foot of more than 5.5 miles

C Hearing

Variable	Label
heardiff	SC1 (C1): Do you have any difficulty with your hearing
hearconv	SC1 (C2): Do you find it difficult to follow a conversation if there is background noise

heartt	SC1 (C3a): How well do you hear someone talking to you when that person is sitting on your right side
heartlft	SC1 (C3b): How well do you hear someone talking to you when that person is sitting on your left side
heartv	SC1 (C4a): Do you have difficulty following TV programmes at a volume others find acceptable without any aid to hearing
heargrp	SC1 (C4b): Do you have difficulty having a conversation with several people in a group
loudnois	SC1 (C5): Do very loud noises annoy you
hrworry	SC1 (C6): How much does any difficulty in hearing worry, annoy or upset you
earop	SC1 (C7): Have you ever had an ear operation
famhear	SC1 (C8): Did any of your parents, children, brothers or sisters have great difficulty in hearing before age 55
dustwork	SC1 (C9): Have you ever worked in a place with a lot of dust
noiswork	SC1 (C10): Have you ever worked in a place that was so noisy that you had to shout to be heard

D Eyesight

Variable	Label
qd_1	SC1 (Dintro): What kind of operation or infection have you had (no. of responses)
qd_101	SC1 (Dintro): Eye Infection
qd_102	SC1 (Dintro): Eye operation
qd_103	SC1 (Dintro): Eye sight test
qd_104	SC1 (Dintro): Change of glasses or contact lenses
qd_105	SC1 (Dintro): Change in eyesight
qd_106	SC1 (Dintro): Other eye condition/disorder
qd_108	SC1 (Dintro): Other response
qd_109	SC1 (Dintro): Nothing specified
eyeemb	SC1 (D1a): In the past month have you felt embarrassed because of your eyesight
eyefrust	SC1 (D1b): In the past month have you felt frustrated or annoyed because of your eyesight
eyelone	SC1 (D1c): In the past month have you felt lonely or isolated because of your eyesight
eyesad	SC1 (D1d): In the past month have you felt sad or low because of your eyesight
eyeworry	SC1 (D1e): In the past month how often have you worried about your eyesight
safehome	SC1 (D2a): In the past month how often has your eyesight made you worried about your general safety at home
safeout	SC1 (D2b): In the past month how often has your eyesight made you worried about your general safety when out of your home
copelife	SC1 (D2c): In the past month how often has your eyesight made you worried about coping with everyday life
eyestop	SC1 (D2d): In the past month how often has your eyesight stopped you doing things
eyelife	SC1 (D2e): In the past month how often has your eyesight interfered with your life in general

E Pain

Variable	Label
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bel	SC1 (E1): Pain during the last month lasting > one day
be2	SC1 (E2): Have you been aware of this pain for > 3 months
e3_acr1	SC1 (E3): ACRU Pain Definition - Left Upper
e3_acr2	SC1 (E3): ACRU Pain Definition - Right Upper
e3_acr3	SC1 (E3): ACRU Pain Definition - Left Lower
e3_acr4	SC1 (E3): ACRU Pain Definition - Right Lower
e3_acr5	SC1 (E3): ACRU Pain Definition - Upper Spine
e3_acr6	SC1 (E3): ACRU Pain Definition - Left: Low Back
e3_acr7	SC1 (E3): ACRU Pain Definition - Lower Spine
e3_acr8	SC1 (E3): ACRU Pain Definition - Right: Low Back
e3_acr9	SC1 (E3): ACRU Pain Definition - Left Buttock
e3_acr10	SC1 (E3): ACRU Pain Definition - Right Buttock
e3_man1	SC1 (E3): Manchester Pain Definition - Right Shoulder
e3_man2	SC1 (E3): Manchester Pain Definition - Right Elbow
e3_man3	SC1 (E3): Manchester Pain Definition - Right Forearm
e3_man4	SC1 (E3): Manchester Pain Definition - Right Hand
e3_man5	SC1 (E3): Manchester Pain Definition - Left Shoulder
e3_man6	SC1 (E3): Manchester Pain Definition - Left Elbow
e3_man7	SC1 (E3): Manchester Pain Definition - Left Forearm
e3_man8	SC1 (E3): Manchester Pain Definition - Left Hand
e3_man9	SC1 (E3): Manchester Pain Definition - Right Thigh
e3_man10	SC1 (E3): Manchester Pain Definition - Right Knee
e3_man11	SC1 (E3): Manchester Pain Definition - Right Lower Leg
e3_man12	SC1 (E3): Manchester Pain Definition - Right Foot
e3_man13	SC1 (E3): Manchester Pain Definition - Left Thigh
e3_man14	SC1 (E3): Manchester Pain Definition - Left Knee
e3_man15	SC1 (E3): Manchester Pain Definition - Left Lower Leg
e3_man16	SC1 (E3): Manchester Pain Definition - Left Foot
e3_man17	SC1 (E3): Manchester Pain Definition - Head
e3_man18	SC1 (E3): Manchester Pain Definition - Throat / Sternum
e3_man19	SC1 (E3): Manchester Pain Definition - Right Chest
e3_man20	SC1 (E3): Manchester Pain Definition - Left Chest
e3_man21	SC1 (E3): Manchester Pain Definition - Abdomen
e3_man22	SC1 (E3): Manchester Pain Definition - Left Upper Back
e3_man23	SC1 (E3): Manchester Pain Definition - Right Upper Back
e3_man24	SC1 (E3): Manchester Pain Definition - Upper Spine
e3_man25	SC1 (E3): Manchester Pain Definition - Left Low Back
e3_man26	SC1 (E3): Manchester Pain Definition - Right Low Back
e3_man27	SC1 (E3): Manchester Pain Definition - Lower Spine
e3_man28	SC1 (E3): Manchester Pain Definition - Left Buttock
e3_man29	SC1 (E3): Manchester Pain Definition - Right Buttock

F Work

Variable	Label
workfast	SC1 (F1): Do you have to work very fast
wkintens	SC1 (F2): Do you have to work very intensively
nufftime	SC1 (F3): Do you have enough time to do everything
worknew	SC1 (F4): Do you have a possibility of learning new things through work
wkskill	SC1 (F5): Does you work demand a high level of skill

wkhow	SC1 (F6): Do you have a choice in deciding how you do your work
wkwhat	SC1 (F7): Do you have a choice in deciding what you do at work
wkvary	SC1 (F8): Does your job provide you with a variety of interesting things
paidwork	SC1 (F9): Are you in paid work either full or part time
workhrs	SC1 (F10): How many hours do you work per average week in your main job
otherwk	SC1 (F11): Do you have any other paid employment in addition to main job
wksecure	SC1 (F12): How secure do you feel your present job is
worksay	SC1 (F13): When working how often do you have a good deal of say in decisions about work
wkconfl	SC1 (F14): Do different groups at work demand things from you that you think are hard to combine
collhelp	SC1 (F15a): How often do you get help from your colleagues
collist	SC1 (F15b): How often are your colleagues willing to listen to your work-related problems
bosslist	SC1 (F15c): How often is your immediate superior willing to listen to your problems

G Household Circumstances

Variable	Label
ownhome	SC1 (G1): Do you own or rent your home or is there some other arrangement
usecars	SC1 (G2): How many cars are normally available to you or your household
owncars	SC1 (G3): Do you own these vehicle(s) or is it a company vehicle
afford	SC1 (G4): How often do you not have enough money to afford the food or clothing you/your family should have
paybills	SC1 (G5): How much difficulty do you have meeting the payment of bills

H Social Life

Variable	Label
closenum	SC1 (H1): How many people do you feel very close to
closest	SC1 (H2): The person you felt closest to is this
infohelp	SC1 (H3a): In the last 12 months did this person give information, suggestions that were helpful
clsrely	SC1 (H3b): In the last 12 months could you rely on this person when needed
clsgood	SC1 (H3c): In the last 12 months did this person make you feel good about yourself
pracmore	SC1 (H3d): In the last 12 months would you have liked more practical help with major things from this person
clsfun	SC1 (H3e): In the last 12 months did you share interests, hobbies with this person
clsprob	SC1 (H3f): In the last 12 months did this person give you worries, problems and stress
cnfwant	SC1 (H4a): In the last 12 months did you want to confide in this person
cnfdid	SC1 (H4b): In the last 12 months did you confide in this person
cnfpers	SC1 (H4c): In the last 12 months did you trust this person with your personal worries
cnfmore	SC1 (H4d): In the last 12 months would you have liked to confide more in this person
cnfworse	SC1 (H4e): In the last 12 months did talking to this person make things worse
clstalk	SC1 (H5a): How much in the last 12 months did he/she talk to you about his/her personal worries with you
clsneed	SC1 (H5b): How much in the last 12 months did you need practical help from this person with major things
pracmaj	SC1 (H5c): How much in the last 12 months did this person give you practical help with major things
pracmin	SC1 (H5d): How much in the last 12 months did this person give you practical help with small things when you needed it
seerels	SC1 (H6): How often do you have regular contact with relatives outside your household by visits, telephone, letter or
visrels	SC1 (H7): How often do you visit or are you visited by relatives who live outside your household
numrels	SC1 (H8): How many relatives do you see once a month or more
numpals	SC1 (H9): How often do you have regular contact with friends or acquaintances outside your household by visits, telephone,
vispals	SC1 (H10): How often do you visit or are you visited by friends or acquaintances who live outside your household
mnthpals	SC1 (H11): How many friends or acquaintances do you see once a month or more
member	SC1 (H12): Are you an active member of social or recreation groups, trade union, commercial groups, professional organisation,
orghrs	SC1 (H13): Taking all the above organisations together how many hours in an average month do you devote to activities of these

Self Completion 2

A General Health and Diet

Variable	Label
genhlth	SC1 (A1): How would you describe your health generally.
milktype	SC1 (A2): What type of milk do you usually use.
milkcoff	SC1 (A3): Do you usually have milk with your coffee or coffee substitute.
milktea	SC1 (A4): Do you usually have milk with your tea.
drinktea	SC1 (A5a): How often do you drink tea
drinkcof	SC1 (A5b): How often do you drink coffee
drinkmlk	SC1 (A5c): How often do you drink milk alone or in milky drinks such as hot chocolate
cereal	SC1 (A5d): How often do you drink milk on cereal, including porridge made with milk
savoury	SC1 (A6a): How often do you eat milk based savoury dishes, such as quiche, cheese or white sauce
pudding	SC1 (A6b): How often do you eat milk based desserts such as custard, ice cream, rice pudding or mousse
hdcheese	SC1 (A6c): How often do you eat hard cheeses, such as Edam or Cheddar
sftchees	SC1 (A6d): How often do you eat soft cheeses such as cottage cheese or Brie
marge	SC1 (A7a): And how often do you eat margarine on bread or equivalents
butter	SC1 (A7b): And how often do you eat butter on bread or equivalents
whitefish	SC1 (A7c): And how often do you eat white fish, for example cod, plaice, halibut
oilyfish	SC1 (A7d): And how often do you eat other fish such as salmon, trout, mackerel, sardines, fresh tuna
tintuna	SC1 (A7e): And how often do you eat canned tuna fish
saltcook	SC1 (A8): Do you or does anyone else add salt or salt alternative to your food during cooking
salteat	SC1 (A9): At the table, do you ever add salt to your food
dietsupp	SC1 (A10): In the last month, have you taken any tablets, pills, powders or drops to supplement your diet
covitmin	SC1 (A11a): How often have you taken supplements of combinations of vitamins or minerals
singlevm	SC1 (A11b): How often have you taken supplements of single vitamins or minerals
codfish	SC1 (A11c): How often have you taken supplements of cod liver oil or fish oil
evenprim	SC1 (A11d): How often have you taken supplements of evening primrose type
othsupp	SC1 (A11e): How often have you taken other types of supplements
vits11	SC1 (A12): What do these supplements contain (no. of codes)
vits1101	SC1 (A12): Vitamin A (retinol, beta carotene)
vits1102	SC1 (A12): Folate (folic acid)
vits1103	SC1 (A12): Vitamin C (ascorbic acid)
vits1104	SC1 (A12): Vitamin D (calciferol)
vits1105	SC1 (A12): Vitamin E (a-tocopherol)
vits1106	SC1 (A12): Fluoride
vits1107	SC1 (A12): Iron
vits1108	SC1 (A12): Calcium

vits1109 SC1 (A12): Zinc
vits1110 SC1 (A12): Ginseng
vits1111 SC1 (A12): Other vitamins or minerals

B Leisure Activities

Variable	Label
swimslo	SC1 (B1): How often on average did you do swimming, leisurely not laps last year
swimsloh	SC1 (B1): Average time spent swimming per episode (hours)
swimslom	SC1 (B1): Average time spent swimming per episode (minutes)
swimlap	SC1 (B1): How often on average did you do swimming, competitive or laps last year
swimlaph	SC1 (B1): Average time spent competitive swimming per episode (hours)
swimlapm	SC1 (B1): Average time spent competitive swimming per episode (minutes)
easywlk	SC1 (B1): How often on average did you walk for pleasure, not as a means of transport last year
easywlkh	SC1 (B1): Average time spent walking for pleasure per episode (hours)
easywlkm	SC1 (B1): Average time spent walking for pleasure per episode(minutes)
hillwlk	SC1 (B1): How often on average did you do backpacking, hill walking or mountain climbing last year
hillwlkh	SC1 (B1): Average time spent per episode backpacking,hill walking or mountain climbing(hours)
hillwlkm	SC1 (B1): Average time spent per episode backpacking, hill walking or mountain climbing(minutes)
bikeslo	SC1 (B1): How often did you do cycling for pleasure, not as a form of transport last year
bikesloh	SC1 (B1): Average time spent cycling for pleasure (hours)
bikeslom	SC1 (B1): Average time spent cycling for pleasure (minutes)
bikehd	SC1 (B1): How often on average did you do racing or rough terrain cycling in the last year
bikehdh	SC1 (B1): Average time spent racing or rough terrain cycling per episode (hours)
bikehdm	SC1 (B1): Average time spent racing or rough terrain cycling per episode(minutes)
lawnmo	SC1 (B2): How often on average did you mow the lawn last year
lawnmoh	SC1 (B2): Average time spent per episode(hours)
lawnmom	SC1 (B2): Average time spent per episode(minutes)
gwater	SC1 (B2): How often on average did you water the lawn or garden in the summer last year
gwaterh	SC1 (B2): Average time spent per episode(hours)
gwaterm	SC1 (B2): Average time spent per episode (minutes)
digchop	SC1 (B2): How often on average did you do digging, shovelling or chopping wood in the last year
digchoph	SC1 (B2): Average time spent per episode (hours)
digchopm	SC1 (B2): Average time spent per episode (minutes)
weeding	SC1 (B2): How often on average did you do weeding or pruning in the last year
weedingh	SC1 (B2): Average time spent per episode(hours)
weedingm	SC1 (B2): Average time spent per episode(minutes)
diy	SC1 (B2): How often on average did you do DIY last year
diyh	SC1 (B2): Average time spent per episode (hours)

diym	SC1 (B2): Average time spent per episode (minutes)
aerobhi	SC1 (B3): How often on average did you do high impact aerobics, step aerobics last year
aerobhih	SC1 (B3): Average time spent per episode (hours)
aerobhim	SC1 (B3): Average time spent per episode (minutes)
aeroblo	SC1 (B3): How often on average did you do other aerobics last year
aerobloh	SC1 (B3): Average time spent per episode (hours)
aeroblom	SC1 (B3): Average time spent per episode (minutes)
gymwt	SC1 (B3): How often on average did you do exercises with weights in the last year
gymwth	SC1 (B3): average time spent per episode (hours)
gymwtm	SC1 (B3): average time spent per episode (minutes)
gymcv	SC1 (B3): How often on average did you do conditioning exercises last year
gymcvh	SC1 (B3): Average time spent per episode (hours)
gymcvm	SC1 (B3): Average time spent per episode (minutes)
gymflr	SC1 (B3): How often on average did you do floor exercises last year
gymflrh	SC1 (B3): Average time spent per episode (hours)
gymflrm	SC1 (B3): Average time spent per episode (minutes)
dance	SC1 (B4): How often on average did you do dancing last year
danceh	SC1 (B4): Average time spent hours per episode
dancem	SC1 (B4): Average time spent minutes per episode
running	SC1 (B4): How often on average did you do competitive running last year
runningh	SC1 (B4): Average time spent (hours) per episode
runningm	SC1 (B4): Average time spent (minutes) per episode
jogging	SC1 (B4): How often on average did you go jogging in the last year
joggingh	SC1 (B4): Average time spent hours per episode
joggingm	SC1 (B4): Average time spent minutes per episode
bowling	SC1 (B4): How often on average did you do bowling last year
bowlingh	SC1 (B4): Average time spent hours per episode
bowlingm	SC1 (B4): Average time spent minutes per episode
tennis	SC1 (B4): How often on average did you do tennis or badminton last year
tennish	SC1 (B4): Average time spent hours per episode
tennism	SC1 (B4): Average time spent minutes per episode
squash	SC1 (B4): How often on average did you play squash last year
squashh	SC1 (B4): Average time spent hours per episode
squashm	SC1 (B4): Average time spent minutes per episode
tabten	SC1 (B4): How often on average did you do table tennis last year
tabtenh	SC1 (B4): Average time spent hours per episode
tabtenm	SC1 (B4): Average time spent minutes per episode
golf	SC1 (B4): How often on average did you do golf last year
golfh	SC1 (B4): average time spent hours per episode
golfm	SC1 (B4): Average time spent minutes per episode
footie	SC1 (B4): How often on average did you do football, rugby or hockey last year
footieh	SC1 (B4): Average time spent hours per episode
footiem	SC1 (B4): Average time spent per episode minutes
cricket	SC1 (B4): How often on average did you do cricket last year

cricketh SC1 (B4): Average time spent hours per episode
 cricketm SC1 (B4): Average time spent minutes per episode
 rowing SC1 (B5): How often on average did you do rowing last year
 rowingh SC1 (B5): Average time hours per episode
 rowingm SC1 (B5): Average time spent minutes per episode
 netball SC1 (B5): How often on average did you do netball,
 volleyball, basketball last year
 netballh SC1 (B5): Average time spent hours per episode
 netballm SC1 (B5): Average time spent minutes per episode
 fishing SC1 (B5): How often on average did you do fishing last year
 fishingh SC1 (B5): Average time spent hours per episode
 fishingm SC1 (B5): Average time spent minutes per episode
 hriding SC1 (B5): How often on average did you do horse riding last
 year
 hridingh SC1 (B5): Average time spent hours per episode
 hridingm SC1 (B5): Average time spent minutes per episode
 snooker SC1 (B5): How often on average did you do snooker,
 billiards, darts last year
 snookerh SC1 (B5): Average time spent hours per episode
 snookerm SC1 (B5): Average time spent minutes per episode
 music SC1 (B5): How often on average did you do musical instrument
 playing, singing last year
 musich SC1 (B5): Average time spent hours per episode
 musicm SC1 (B5): Average time spent minutes per episode
 skating SC1 (B5): How often on average did you do ice skating last
 year
 skatingh SC1 (B5): Average time spent hours per episode
 skatingm SC1 (B5): Average time spent minutes per episode
 sailing SC1 (B5): How often on average did you do sailing,
 windsurfing, boating last year
 sailingh SC1 (B5): Average time spent hours per episode
 sailingm SC1 (B5): Average time spent minutes per episode
 skiing SC1 (B5): How often on average did you do winter sports last
 year
 skiingh SC1 (B5): Average time spent hours per episode
 skiingm SC1 (B5): average time spent minutes per episode
 boxing SC1 (B5): How often on average did you do martial
 arts/boxing/wrestling last year
 boxingh SC1 (B5): Average time spent hours per episode
 boxingm SC1 (B5): Average time spent minutes per episode
 exoth1 SC1 (B5): How often did you do other leisure exercises last
 year (1)
 exoth1h SC1 (B5): Average time spent hours per episode on other
 leisure exercise (1)
 exoth1m SC1 (B5): Average time spent minutes per episode on other
 leisure exercise (1)
 exoth2 SC1 (B5): How often did you do other leisure exercises last
 year (2)
 exoth2h SC1 (B5): Average time spent hours per episode on other
 leisure exercise (2)
 exoth2m SC1 (B5): Average time spent minutes per episode on other
 leisure exercise (2)
 tvtime SC1 (B6a): How much time on average did you spend watching
 TV or videos during the last year
 pctime SC1 (B6b): How much time on average did you spend using a
 computer other than for work last year

swimslot SC1 (B1): Time spent swimming per episode in minutes
swimlapt SC1 (B1): Time spent swimming laps per episode in minutes
easywlkt SC1 (B1): Time spent walking for pleasure per episode in minutes
hillwlkt SC1 (B1): Time spent backpacking, hill walking or mountain climbing per episode in minutes
bikeslot SC1 (B1): Time spent cycling for pleasure per episode in minutes
bikehdt SC1 (B1): Time spent racing or rough terrain cycling per episode in minutes
lawnmot SC1 (B2): Time spent mowing lawn per episode in minutes
gwatert SC1 (B2): Time spent watering lawn or garden per episode in minutes
digchopt SC1 (B2): Time spent digging, shovelling or chopping wood per episode in minutes
weedingt SC1 (B2): Time spent weeding or pruning per episode in minutes
diyt SC1 (B2): Time spent doing DIY per episode in minutes
aerobhit SC1 (B3): Time spent doing high impact or step aerobics episode in minutes
aeroblot SC1 (B3): Time spent doing other aerobics per episode in minutes
gymwtt SC1 (B3): Time spent exercising with weights per episode in minutes
gymcvt SC1 (B3): Time spent doing conditioning exercises per episode in minutes
gymflrt SC1 (B3): Time spent doing floor exercises per episode in minutes
dancet SC1 (B4): Time spent dancing per episode in minutes
runningt SC1 (B4): Time spent running competitively per episode in minutes
joggingt SC1 (B4): Time spent jogging per episode in minutes
bowlingt SC1 (B4): Time spent bowling per episode in minutes
tennist SC1 (B4): Time spent playing tennis or badminton per episode in minutes
squasht SC1 (B4): Time spent playing squash per episode in minutes
tabtent SC1 (B4): Time spent playing table tennis per episode in minutes
golft SC1 (B4): Time spent playing golf per episode in minutes
footiet SC1 (B4): Time spent playing football, rugby or hockey per episode in minutes
crickett SC1 (B4): Time spent playing cricket per episode in minutes
rowingt SC1 (B5): Time spent rowing per episode in minutes
netballt SC1 (B5): Time spent playing netball per episode in minutes
fishingt SC1 (B5): Time spent fishing per episode in minutes
hridingt SC1 (B5): Time spent horse riding per episode in minutes
snookert SC1 (B5): Time spent playing snooker, billiards or darts per episode in minutes
musict SC1 (B5): Time spent playing a musical instrument or singing per episode in minutes
skatingt SC1 (B5): Time spent ice skating per episode in minutes
sailingt SC1 (B5): Time spent sailing, windsurfing or boating per episode in minutes
skiingt SC1 (B5): Time spent doing winter sports per episode in minutes
boxingt SC1 (B5): Time spent doing martial arts/boxing/wrestling per episode in minutes

exoth1t SC1 (B5): Time spent doing other leisure exercise (1) per episode in minutes
exoth2t SC1 (B5): Time spent doing other leisure exercise (2) per episode in minutes

C Work and Home Circumstances

Variable	Label
ecactiv	SC1 (C1): Which of these best describes what you are currently doing
startdat	SC1 (C2): Date of starting current economic activity (yyyy/mm/dd)
startm	SC1 (C2): Date of starting current economic activity - month
starty	SC1 (C2): Date of starting current economic activity - year
marital	SC1 (C3): What is your current legal marital status
couple	SC1 (C4): Are you currently living with someone as a couple
separate	SC1 (C5): Have you separated from someone with whom you lived as a couple in the period since March 1999
separat	SC1 (C6): Date separated (yyyy/mm/dd)
separm	SC1 (C6): Date separated - month
separ	SC1 (C6): Date separated - year
children	SC1 (C7): Do you have any children aged 18 or less living with you, whom you care for
childnow	SC1 (C8): How many children do you have living with you aged 18 or less for whom you care
childnum	SC1 (C9): How many natural (biological) children have you ever had

D Life Events

Variable	Label
lifeill	SC1 (D1a): During the last six months have you yourself suffered serious illness, injury or assault
illclose	SC1 (D1b): During the last six months has a serious illness, injury or assault happened to a close relative
famdied	SC1 (D1c): During the last six months has your parent, child or partner died
clsdied	SC1 (D1d): During the last six months has a close family friend or another relative (aunt,cousin,grandparent) died
bbreakup	SC1 (D1e): During the last six months have you broken off a steady relationship
lifeprob	SC1 (D1f): During the last six months have you had a serious problem with a close friend,neighbour or relative
jobprob	SC1 (D1g): During the last six months have you had a crisis or a serious disappointment in your work or career
jobfear	SC1 (D1h): During the last six months have you thought you would soon lose your job
nojob	SC1 (D1i): During the last six months have you become unemployed or were you seeking work unsuccessfully for more than one
joblost	SC1 (D1j): During the last six months were you sacked from your job
cashprob	SC1 (D1k): During the last six months have you had a major financial crisis
police	SC1 (D1l): During the last six months have you had problems with the police and a court appearance
theft	SC1 (D1m): During the last six months was something you valued lost or stolen

partfear	SC1 (D2a): In the last six months has your partner thought they would soon lose their job
partjob	SC1 (D2b): in the last six months has your partner had a crisis or serious disappointment in their work or career
recsplit	SC1 (D2c): In the last six months have you had a separation due to marital difficulties

E Women Only

Variable	Label
everpill	SC1 (E1): Have you ever taken the contraceptive pill or had a contraceptive injection or implant
nowpill	SC1 (E2): Are you currently taking the contraceptive pill or having a contraceptive injection or implant
pillnam1	SC1 (D3): Contraceptive taken
pillkind	SC1 (E4): What kind of contraceptive is this
pillstrt	SC1 (E5): How old were you when you first took the contraceptive pill or had contraceptive injection or implant
piltake	SC1 (E6): For how long in total have you taken the contraceptive pill or had a contraceptive injection or implant
hadop1	SC1 (E7a): Have you ever had an operation for removal of uterus (womb) and both ovaries
hadoply	SC1 (E7a): Date had operation for removal of uterus and both ovaries - year
hadop1a	SC1 (E7a): What was your age at the time of this operation - removal of uterus and both ovaries
hadop2	SC1 (E7b): have you ever had an operation for removal of uterus only
hadop2y	SC1 (E7b): Date had operation for removal of uterus only - year
hadop2a	SC1 (E7b): What was your age at the time of this operation - removal of uterus
hadop3	SC1 (E7c): Have you ever had an operation for removal of uterus and one ovary
hadop3y	SC1 (E7c): Date had operation for removal of uterus and one ovary - year
hadop3a	SC1 (E7c): What was you age at the time of this operation - removal of uterus and one ovary
hadop4	SC1 (E7d): Have you ever had an operation for removal of both ovaries only
hadop4y	SC1 (E7d): Date had operation for removal of both ovaries only - year
hadop4a	SC1 (E7d): What was your age at the time of this operation - removal of both ovaries only
hadop5	SC1 (E7e): Have you ever had an operation for removal of one ovary only
hadop5y	SC1 (E7e): Date had operation for removal of one ovary only - year
hadop5a	SC1 (E7e): What age were you at the time of this operation - removal of one ovary only
period	SC1 (E8): In the last 12 months have you had a period or menstrual bleeding
whystop	SC1 (E9): No. of reasons given for periods stopped

whystop1	SC1 (E9): Periods stopped - surgery
whystop2	SC1 (E9): Periods stopped - chemotherapy or radiation therapy
whystop3	SC1 (E9): Periods stopped - pregnancy or breastfeeding
whystop4	SC1 (E9): Periods stopped - no obvious reason/menopause
whystop5	SC1 (E9): Periods stopped - other reason
perrec	SC1 (E10): In the last 3 months have you had a period or menstrual bleeding
lastpdat	SC1 (E11): Date of last period (yyyy/mm/dd)
lastpday	SC1 (E11): Last period - day of month
lastpmon	SC1 (E11): Last period - month
lastpyr	SC1 (E11): Last period - year
lastpage	SC1 (E11): What was your age at the time of your last period
pchange	SC1 (E12): In the last few years (...before your last period) did your periods ...
whenchan	SC1 (E13): When did you first notice this change
everhrt	SC1 (E14): Have you ever had hormone replacement therapy (HRT)
hrtondat	SC1 (E15): Date first started HRT (yyyy/mm/dd)
hrtonmon	SC1 (E15): Date first started HRT - month
hrtonyr	SC1 (E15): date first started HRT - year
hrtonage	SC1 (E15): What was your age when you first took HRT
hrtpstop	SC1 (E16): Before you started HRT had your menstrual periods stopped
hrtpdat	SC1 (E17): Date of last period before HRT (yyyy/mm/dd)
hrtpmon	SC1 (E17): Date of last period before HRT - month
hrtpyr	SC1 (E17): Date of last period before HRT - year
hrtpage	SC1 (E17): What was your age at the time of your last period before HRT
hrttime	SC1 (E18): How long in total have you taken HRT
hrtnow	SC1 (E19): Are you currently taking HRT
hrtnam1	SC1 (E20): Type of HRT taken

Blood Sample/ Biochemical Assays

Variable	Label
time	LAB: Time sample taken
bldday	LAB: Day sample taken
bldmonth	LAB: Month sample taken
bldyear	LAB: Year sample taken
dayrnl	LAB: Day received NC lab
monthrnl	LAB: Month received NC lab
yearrnl	LAB: Year received NC lab
sexrnl	LAB: Sex 1=Male, 2=Female
bldrec	LAB: CITRATE blood received
clorec	LAB: PLAIN blood received
consn	LAB: Consent to storage
plstor	LAB: CITRATE plasma to SGHMS
sestor	LAB: SERUM to SGHMS
chol	LAB: Total cholesterol
trig	LAB: Triglyceride
hdl	LAB: HDL cholesterol
ldl	LAB: LDL cholesterol
hbalc	LAB: Glycated haemoglobin
nclbatch	LAB: Newcastle batch number (ige and igf1)
ige	LAB: Total IgE
igf1	LAB: Growth factor 1
hdm	LAB: House dust mite allergen
cat	LAB: Cat allergen
grass	LAB: Grass pollen allergen
delaynl	LAB: Delay in sample receipt (NC)
vwfbatch	LAB: vwf batch number
vwf	LAB: Von Willebrand factor
glabatch	LAB: Glasgow batch number (fib and crp)
fib	LAB: Fibrinogen (g/L)
crp	LAB: C reactive protein (g/L)
tpabatch	LAB: tpa batch number
tpa	LAB: Tissue Plasminogen activator (ng/ml)
infor	LAB: information from Newcastle, Glasgow or C
ddimer	LAB: D-dimer (ng/ml)
cortred	Saliva: Baseline cortisol
cortblue	Saliva: Follow-up cortisol
daysc	Saliva: Day saliva collected
monthsc	Saliva: Month saliva collected
years	Saliva: Year saliva collected
hour1	Saliva: Hour sample one
min1	Saliva: Minutes sample one
hour2	Saliva: Hour sample two
min2	Saliva: Minutes sample two
hour0	Saliva: Hour woken up
min0	Saliva: Minutes woken up
ntwak	Saliva: Night awaking (including those time not known)
anh	Saliva: Hour awake from
anfm	Saliva: Minutes awake from
anth	Saliva: Hour awake to

antm	Saliva: Minutes awake to
regnt	Saliva: Night working
dentist	Saliva: Dentist
cuts	Saliva: Cuts
daysg	Saliva: Day saliva delivered lab
monthsg	Saliva: Month saliva delivered lab
years	Saliva: Year saliva delivered lab
ids_vitd	Saliva: vitamin D test value

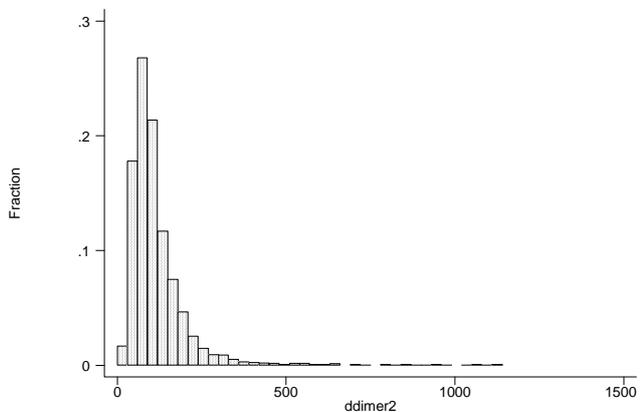
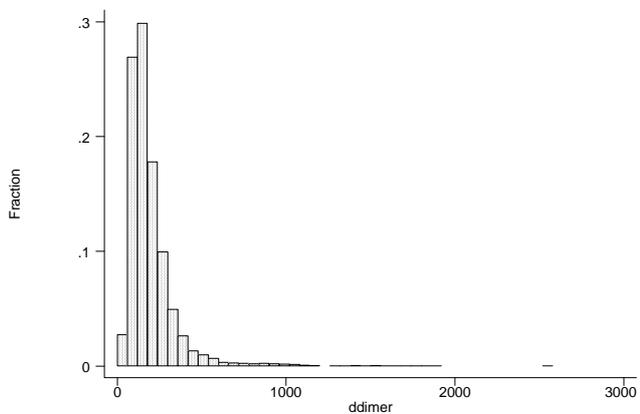
Appendix 2 – D-Dimer Edits

Prepared by: Alicja R Rudnicka, St George's, University of London

Data on fibrin D-dimer was received from Dr A Rumley and Professor GDO Lowe (University Department of Medicine, Royal Infirmary) on 1 September 2006. The D-dimer assays were performed at the end of the field study using two different manufacturer kits. Within in manufacture kit quality control checks of the D-dimer assays were within set limits but there was a systematic difference between the two different kits.

Preliminary results of the difference between two manufacture kits used to measure D-dimer

D-dimer results from Kit (1) D-dimer results from Kit (2)



	D- Dimer kit (1) N=4609 (ng/mL)	D-dimer kit(2) N=3182 (ng/mL)
Median values	160	93
5 th Centile	71	40
90 th centile	325	197

There was a systematic difference between the two kits, with the second kit producing considerably lower readings.

Repeatability of repeat measures of D-dimer on same 1958 samples using two different manufacturer's kits was assessed in 124 samples. The association between the two different kits is displayed graphically below. Figure 1a shows that on the arithmetic scale the difference between the two kits decreases as values of D-dimer increase. Figure 1b shows that the difference between the two kits is constant with $\log(\text{d-dimer})$. There is therefore a constant proportional difference between kit (1) and kit(2). All analyses and adjustments were therefore performed using the log transformation of D-dimer

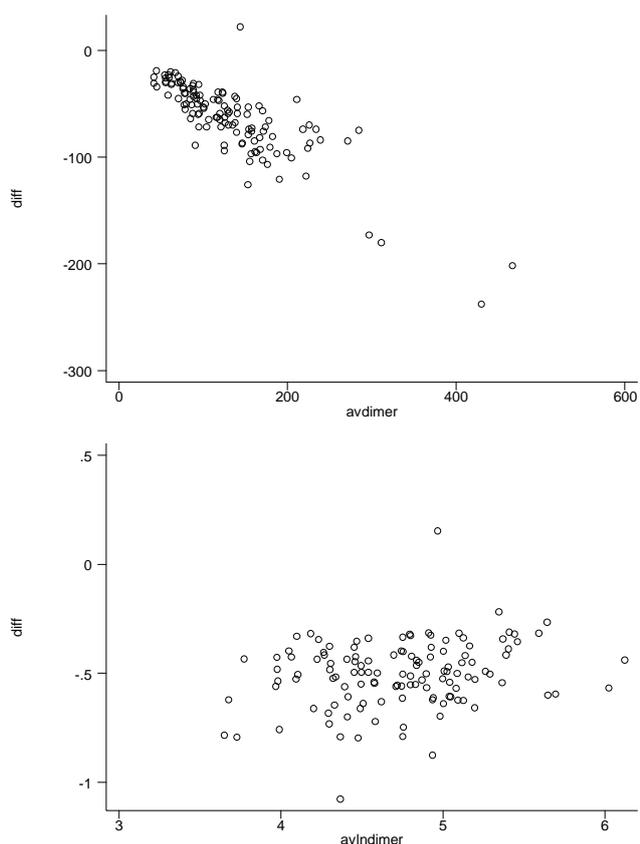


Figure 1: Difference in d-dimer values of kit(2) minus kit(1) on the same samples plotted against average of D-dimer values from kit(1) and kit(2) on the arithmetic scale in (a) and logarithmic scale in (b).

On average D-dimer values from kit (2) were 40% lower than with kit (1). After discussions with Dr A Rumley and Professor GDO Lowe a decision was made to adjust the values from kit(2) to be in line with that on kit (1). All values from kit (2) were increased by 40%.

Appendix 3 Deriving Childhood Adversity

Prepared By Charlotte Clark, Barts School of Medicine & Dentistry, University of London
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The scale used in the biomedical survey was taken from the Australian Path Through Life Study (Rosenman and Rodgers, 2004, 2006). This consists of 17 items which are retrospectively rated as having occurred or not (coded 0=no, 1=yes) by 16years of age.

1. Father or father figure was not affectionate towards me
2. Father or father figure suffered nervous or emotional trouble or depression
3. Father or father figure had trouble with drinking or other drug use
4. Mother or mother figure was not affectionate towards me
5. Mother or mother figure suffered nervous or emotional trouble or depression
6. Mother or mother figure had trouble with drinking or other drug use
7. There was much conflict and tension in the household whilst I was growing up
8. I was neglected
9. I had a strict, authoritarian or regimented childhood
10. I grew up in poverty or financial hardship
11. I was verbally abused by a parent
12. I suffered humiliation, ridicule, bullying or mental cruelty from a parent
13. I witnessed physical or sexual abuse of others in the family
14. I was physically abused by a parent – punched, kicked, hit or beaten with an object or needed medical treatment
15. I received too much physical punishment – hitting, smacking etc
16. I was sexually abused by a parent
Did your parents divorce or permanently separate when you were a child – not asked in Biomedical Survey

NOTE: in the survey, the question about parental divorce by age 16 was NOT asked, but details of divorce can be obtained from childhood measures, as well as data about 33y.

The derived variable adds up the total number of adversities reported – so the scale ranges from 0 to 16, as divorce is not included.

A total score has not been provided for those who were missing one or more item on the scale (coded as -8 in the variable).

Rosenman, S., Rodgers, B., 2004. Childhood adversity in an Australian population. *Soc Psychiatry Psychiatr Epidemiol* 39, 695-702.

Rosenman, S., Rodgers, B., 2006. Childhood adversity and adult personality. *Aust N Z J Psychiatry* 40, 482-490.