## **Institute of Education**



# 1970 British Cohort Study

Age 46 Derived Variables User Guide

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CENTRE FOR LONGITUDINAL STUDIES



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## 1. Summary of derived variables

This User Guide describes the derived variables for the 1970 British Cohort Study (BCS70) Age 46 Survey. The variables are all included in the main deposit dataset under End User Licence (bcs\_2016\_main) and can be located at the end of this dataset.

The derived variables included in this dataset are as follows:

## Summary of derived variables available under End User Licence

(CM = cohort member, HH = household)

Research topic	Derived variable	Derived variable label		
	name			
Geography	BD10GOR	Country of interview		
	BD10CNTRY	2010 Government Office Region of residence		
	BD10IMD	2015 Index of Multiple Deprivation rank decile		
	BD10UR01IND	2001 Urban/rural indicator		
Paradata	BD10AGEINT	(Derived) Age in months at interview		
	BD10AGEINTY	(Derived) Age at interview (year part)		
	BD10AGEINTM	(Derived) Age at interview (month part)		
	BD10NURSEINT	(Derived) Whether interviewed by interviewer or nurse		
Household and	BD10HSIZE	(Derived) HH Size		
family	BD10MS	(Derived) CM's legal marital status		
	BD10COHAB	(Derived) Whether CM cohabiting as a couple		
	BD10PARTP	(Derived) Whether CM lives with a spouse or partner		
	BD10PAGE	(Derived) Age of CM's partner		
	BD10PSEX	(Derived) Gender of CM's partner		
	BD10NUMCH	(Derived) Number of children in HH		
	BD10FATHN	(Derived) Whether CM's Father in HH		
	BD10MOTHN	(Derived) Whether CM's Mother in HH		
	BD10SIBHN	(Derived) Whether CM's sibling(s) in HH (incl half/step)		
	BD10SLWHN	(Derived) Whether CM's sibling(s)-in-law in HH		
	BD10PLWHN	(Derived) Whether CM's parent(s)-in-law in HH		
	BD10GRPHN	(Derived) Whether CM's grandparent(s) in HH		
	BD10GRCHN	(Derived) Whether CM's grandchild(ren) in HH		
	BD10RELHN	(Derived) Whether CM's other blood relative(s) in HH		
	BD10OLWHN	(Derived) Whether CM's in-law(s) in HH (other than		
		parent/sibling)		
	BD10FNDHN	(Derived) Whether CM's friend/unrelated sharer(s) in HH		
	BD10LLDHN	(Derived) Whether CM's landlord in HH		
	BD10LOGHN	(Derived) Whether CM's lodger in HH		
	BD10EMPHN	(Derived) Whether CM's employer in HH		
	BD10NANHN	(Derived) Whether CM's nanny/au pair (or similar) in HH		
	BD10OTHHN	(Derived) Whether CM's other non-relative(s) in HH		
	BD10NOCHH	(Derived) Number of own children in HH		
	BD10NPCHH	(Derived) Number of children of current or previous partner in		
		HH		
	BD10AYCHH	(Derived) Age of youngest child (under 19) in HH		
	BD10AOCHH	(Derived) Age of oldest child in HH		
	BD10AYCOC	(Derived) Age of youngest own child (under 19) in HH or absent		
	BD10AOCOC	(Derived) Age of oldest own child in HH or absent		
	BD10NC2H	(Derived) Number of children aged 0 to 2 in HH		
	BD10NC4H	(Derived) Number of children aged 3 to 4 in HH		
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	BD10NC11H	(Derived) Number of children aged 5 to 11 in HH
	BD10NC15H	(Derived) Number of children aged 12 to 15 in HH
	BD10NC20H	(Derived) Number of children aged 16 to 20 in HH
	BD10NC30H	(Derived) Number of children aged 21 to 30 in HH
	BD10NC31H	(Derived) Number of children aged 31 and over in HH
	BD10NOC2A	(Derived) Number of own children aged 0 to 2 in HH or absent
	BD10NOC4A	(Derived) Number of own children aged 3 to 4 in HH or absent
	BD10NOC11A	(Derived) Number of own children aged 5 to 11 in HH or absent
	BD10NOC15A	(Derived) Number of own children aged 12 to 15 in HH or absent
	BD10NOC20A	(Derived) Number of own children aged 16 to 20 in HH or absent
	BD10NOC30A	(Derived) Number of own children aged 21 to 30 in HH or absent
	BD10NOC31A	(Derived) Number of own children aged 31 and over in HH or absent
	BD10NACAB	(Derived) Number of absent children (including step-children etc)
	BD10NOCAB	(Derived) Number of absent children - own children only
	BD10TOTAC	(Derived) Total number of children (in HH or absent, incl. step-
		children etc)
	BD10TOTOC	(Derived) Total number of children (in HH or absent) - own children only
	BD10WCDIE	(Derived) Whether had any (own) children who have died
	BD10NCDIE	(Derived) Number of own children who have died
	BD10TOTCE	(Derived) Total number of children ever had
	BD10MALIV	(Derived) Whether mother alive
	BD10PALIV	(Derived) Whether father alive
Housing	BD10TENURE	(Derived) Housing Tenure
	BD10RENTFROM	(Derived) Who rents from
	BD10WHOTEN	(Derived) Whose name is accommodation held in
Employment	BD10ECACT	(Derived) Current economic activity status
	BD10PEACT	(Derived) Partner's current economic activity status
	BD10CNSSEC	(Derived) NS-SEC Full Operational Categories (CM current job)
	BD10CNSSCC	(Derived) NS-SEC Combined Operational Categories (CM
	DD400NI00	current job)
11'-11	BD10CNS8	(Derived) NS-SEC Analytic Categories (CM current job)
Highest	BD10ACHQ1	(Derived) Highest Academic Qualification CM obtained reported
Qualification	DD40ANIVO4	in Age 46 Survey
	BD10ANVQ1	(Derived) Highest NVQ level from an academic qualification
	BD10VNVQ1	reported in Age 46 Survey (Derived) Highest NVQ Level from a Vocational Qualification
	וטאואעעו	reported in Age 46 Survey
	BD10NVQ1	(Derived) Highest NVQ Level from an Academic or Vocational
	DDTONVQT	Qual reported in Age 46 Survey
	BD10HACHQ	(Derived) Highest Academic Qualification up to 2016-18
	BD10HANVQ	(Derived) Highest NVQ level from an academic qualification up
	35 101 11 11 11 1	to 2016-18
	BD10HVNVQ	(Derived) Highest NVQ Level from a Vocational Qualification up
		to 2016-18
	BD10HNVQ	(Derived) Highest NVQ Level from an Academic or Vocational
		Qual up to 2016-18
Health	BD10DISEQ	(Derived) Disability classification Equality act (2010)
	BD10DISLS	(Derived) Disability classification EU-SILC
	BD10SYMPAN1	(Derived) Angina symptoms (Rose Angina Qure)
	BD10NUALC	(Derived) Number of units of alcohol consumed in last 7 days
	BD10MMGSNV	(Derived) Average grip strength- Non-dominant hand
	BD10MMGSDV	(Derived) Average grip strength- Dominant hand
	BD10HGHTM	(Derived) Self-reported height in metres
	BD10WGHTK	(Derived) Self-reported weight in kilograms
	BD10BMI	(Derived) Body mass index (based on self-reported data)
	BD10MBMI	(Derived) Body mass index (based on nurse measurement)

BD10BMIC	(Derived) Body mass index - classification (based on self-
	reported data)
BD10MBMIC	(Derived) Body mass index - classification (based on nurse
	measurement)
BD10MAL	(Derived) Total Malaise score (9 questions)
BD10MALG	(Derived) Total Malaise score – grouped
BD10WEMWB	(Derived) Warwick Edinburgh Mental Well-Being Scale
BD10AUDIT	(Derived) Total AUDIT-PC Score
BD10AUDG	(Derived) AUDIT-PC Group
BD10WHYST	(Derived) Whether had hysterectomy or ovaries removed
BD10WP12M	(Derived) Whether had period in last 12 months
BD10ALSTP	(Derived) Age at last period
BD10PHHE	(Derived) SF-36 Physical functioning score
BD10RLMP	(Derived) SF-36 Role-limitations due to physical health
BD10RLME	(Derived) SF-36 Role-limitations due to emotional problems
BD10ENFA	(Derived) SF-36 Energy/fatigue score
BD10EMWB	(Derived) SF-36 Emotional Well-Being score
BD10SOCF	(Derived) SF-36 Social Functioning score
BD10PAIN	(Derived) SF-36 Pain score
BD10GENH	(Derived) SF-36 General health score
BD10RPHT	(Derived) SF-36 Reported health transition

## 2. Geographical variables

The geographical variables at Age 46 are produced using postcode data derived from addresses collected during interviews:

- The Country of Interview variable BD10CNTRY is taken from the country where the Age 46 Survey interview took place (England, Wales or Scotland).
- The Government Office Region of residence variable, BD10GOR, is the region variable for the residence of the cohort member at the Age 46 Survey interview.
- Index of Multiple Deprivation (BD10IMD) and the Urban/Rural indicator (BD10UR01IND) are additional geographical variables derived for the 2016 sweep under EUL.

Further geographical variables are available from the UKDS via secure access due to the potentially disclosive nature of the information.

## 3. Paradata

The following variables are derived from data surrounding the interview circumstances rather than data derived from within the interview itself

### **BD10AGEINT** - (Derived) Age in months at interview

Cohort member's age in months at the time they were interviewed. Uses B10INTM and B10INTY and to be accurate to the month of birth.

#### Value labels

(-8) 'Not enough information'

# **BD10AGEINTY** - (Derived) Age at interview (year part) and BD10AGEINTM - (Derived) Age at interview (month part)

This is a more readable format of the above variable separated into years and months.

#### Value labels

(-8) 'Not enough information'

## BD10NURSEINT - (Derived) Whether interviewed by interviewer or nurse

In the first half of fieldwork and throughout fieldwork in Scotland the interview and the biomeasures were all conducted in one visit by a nurse. In the latter half of fieldwork, two visits were conducted. Interviewers conducted the interview and biomeasures were conducted in a separate nurse visit. This variable indicates whether the interview modules were conducted by an interviewer or a nurse.

### Value labels

- (1)'Interview modules completed by interviewer'
- (2)'Interview modules completed by nurse'

## 4. Household and family variables

Household derived variables were taken from the five person loops in the CAPI household grid: partner grid, two child grids (children reported at last sweep and additional children not previously mentioned), two other household members grids (other household members reported at last sweep and additional household members not previously mentioned). These cover all possible household members at the time of interview. The five loops have subsequently been combined into the person grid dataset.

### **BD10HSIZE** – (Derived) HH Size

A count of all people the respondent says is living in the household at the time of interview from the five person loops (including CM)

## **BD10MS** – (Derived) CM's legal marital status

The marital status of the respondent is based on the relationship grid, CAPI question HMS (depending on whether B10MARCHK and B10DIVCHK show marital status has changed) or existing information from previous sweeps.

### Value labels

- (-8)'No information'
- (1) 'Legally separated'
- (2) 'Married'
- (3) 'Divorced'
- (4) 'Widowed'
- (5) 'A Civil Partner'
- (6) 'A former Civil Partner'
- (7) 'A surviving Civil Partner'
- (8) 'Never married or in a Civil Partnership'

## **BD10COHAB** – (Derived) Whether CM cohabiting as a couple

Derived from either the partner grid or last sweep (if relationship status is unchanged). Indicates whether the cohort member has a co-resident spouse or partner.

#### Value labels

- (-8) 'No information'
- (-1) 'Not applicable'
- (1) 'Yes'
- (0) 'No'

## **BD10PARTP** – (Derived) Whether CM lives with a spouse or partner

Similar derivation to BD10COHAB, though separated according to the legal relationship status of the respondent (BD10MS).

#### Value labels

- (-8)'Not enough information'
- (-1)'No partner reported to be living with CM'
- (1)'Spouse'
- (2)'Civil partner'
- (3)'Cohabiting partner'

### **BD10PAGE** – (Derived) Age of CM's Partner

Age of the respondent's partner, either taken from the partner grid or calculated from last sweep if the relationship is unchanged.

- (-8) 'No information'
- (-1) 'Not applicable'

## **BD10PSEX** – (Derived) Gender of CM's Partner

The sex of the respondent's partner, either from bcs\_2016\_relationships (B10RSEX) or last sweep depending on whether the relationship has changed.

#### Value labels

- (-8) 'No information'
- (-1) 'Not applicable'
- (1) 'Male'
- (2) 'Female'

## **BD10NUMCH** – (Derived) Number of children in HH

The total number of children in the household according to relationship and not age. 'Children' are defined as those the respondent considers themselves parent to including current or previous partner's children and foster children.

#### Value labels

(-8) 'No information'

## **BD10FATHN** – (Derived) Whether CM's Father in HH (incl adoptive / step)

Derived from the household grids, whether or not the respondent's natural, adoptive or step father is living in the household

Note: B10DFATHER, which was derived by the survey agency, contains the data for just natural and adoptive parents.

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10MOTHN** – (Derived) Whether CM's Mother in HH (incl adoptive / step)

Derived from the household grids, whether or not the respondent's natural, adoptive or step mother is living in the household

Note: B10DMOTHER, which was derived by the survey agency, contains the data for just natural and adoptive parents.

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10SIBHN** – (Derived) Whether CM's sibling(s) in HH (incl half/step)

Derived from the household grids, whether or not the respondent lives with any natural, half or step-brothers or sisters.

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10SLWHN** – (Derived) Whether CM's sibling(s)-in-law in HH

Derived from the household grids, whether or not the respondent lives with any brothers-inlaw or sisters-in-law.

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10PLWHN** – (Derived) Whether CM's parent(s)-in-law in HH

Derived from the household grids, whether or not the respondent lives with their parent-inlaw.

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## BD10GRPHN - (Derived) Whether CM's grandparent(s) in HH

Derived from the household grids, whether or not the respondent lives with any of their grandparents.

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10GRCHN** – (Derived) Whether CM's grandchild(ren) in HH

Derived from the household grids, whether or not the respondent lives with any of their grandchildren.

### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10RELHN** – (Derived) Whether CM's other blood relative(s) in HH

Derived from the household grids, whether or not the respondent lives with a blood relative other than children, parents, siblings, grandparents or grandchildren.

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD100LWHN** – (Derived) Whether CM's in-law(s) in HH (other than parent/sibling)

Derived from the household grids, whether or not the respondent lives with an in-law other than a parent or sibling.

### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## BD10FNDHN - (Derived) Whether CM's friend/unrelated sharer(s) in HH

Derived from the household grids, whether or not the respondent lives with a friend or acquaintance with no blood or professional relationship to them.

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10LLDHN** – (Derived) Whether CM's landlord in HH

Derived from the household grids, whether or not the respondent lives with the landlord of the property.

### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10LOGHN** – (Derived) Whether CM's lodger in HH

Derived from the household grids, whether or not the respondent lives with a lodger.

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD10EMPHN** – (Derived) Whether CM's employer in HH

Derived from the household grids, whether or not the respondent lives with their employer.

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## BD10NANHN – (Derived) Whether CM's nanny/au pair (or similar) in HH

Derived from the household grids, whether or not the respondent lives with a nanny / au pair (or similar).

### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

## **BD100THHN** – (Derived) Whether any other non-relative(s) in HH

Derived from the household grids, whether or not the respondent lives with any children or adults that are not the respondent's spouse/partner, a child of the respondent or their current/previous partner and does not fit the relationships specified in variables BD10FATHN-BD10NANHN

#### Value labels

- (-8) 'No information'
- (0) 'No'
- (1) 'Yes'

### BD10NOCHH – (Derived) Number of own children in HH

How many of the respondent's natural children live in the household at the time of interview.

#### Value labels

(-8) 'No information'

## **BD10NPCHH** – (Derived) Number of children of current or previous partner in HH

How many children of the respondent's current or previous partner live in the household at the time of interview.

### Value labels

(-8) 'No information'

## **BD10AYCHH** – (Derived) Age of youngest child (under 19) in household

The youngest child living in the respondent's household under the age of 19. 'Child' is defined in the same manner as BD10NUMCH; the respondent's own child, a foster child or a child of their current or previous partner.

## Value labels

(-1) 'Not applicable'

## **BD10AOCHH** – (Derived) Age of oldest child in household

The oldest child (defined by BD10NUMCH) living in the household.

#### Value labels

(-1) 'Not applicable'

## BD10AYCOC – (Derived) Age of youngest own child (under 19) in HH or absent

The youngest natural child of the respondent under the age of 19

### Value labels

(-1) 'Not applicable'

## **BD10AOCOC** – (Derived) Age of oldest own child in HH or absent

The oldest natural child of the respondent

## Value labels

(-1) 'Not applicable'

## Number of children in HH

There are 7 variables that provide the counts of children in the household (defined by BD10NUMCH) according to age group:

- BD10NC2H (Derived) Number of children aged 0 to 2 in HH
- BD10NC4H (Derived) Number of children aged 3 to 4 in HH
- BD10NC11H (Derived) Number of children aged 5 to 11 in HH
- BD10NC15H (Derived) Number of children aged 12 to 15 in HH
- BD10NC20H (Derived) Number of children aged 16 to 20 in HH
- BD10NC30H (Derived) Number of children aged 21 to 30 in HH
- BD10NC31H (Derived) Number of children aged 31 and over in HH

## Value labels

(-1) 'Not applicable'

#### Number of natural children

There are 7 variables that provide the counts of natural children of the respondent according to age group.

For children in the house last sweep, respondents were asked if they still live there. In the few cases where no answer was provided the child is assumed to still be in the house.

- **BD10NOC2A** (Derived) Number of own children aged 0 to 2 in HH or absent
- **BD10NOC4A** (Derived) Number of own children aged 3 to 4 in HH or absent
- BD10NOC11A (Derived) Number of own children aged 5 to 11 in HH or absent
- BD10NOC15A (Derived) Number of own children aged 12 to 15 in HH or absent
- BD10NOC20A (Derived) Number of own children aged 16 to 20 in HH or absent
- BD10NOC30A (Derived) Number of own children aged 21 to 30 in HH or absent
- BD10NOC31A (Derived) Number of own children aged 31 and over in HH or absent

#### Value labels

(-1) 'Not applicable'

**BD10NACAB** – (Derived) Number of absent children (including step-children etc) Children of the respondent or partner who are not living in the household.

**BD10NOCAB** – (Derived) Number of absent children – own children only Natural children of the respondent who are not living in the household.

# **BD10TOTAC** – (Derived) Total number of children (in HH or absent, incl. step-children etc)

The total number of living children of the respondent (natural, adoptive, current or previous partner's children and foster children). This is calculated as the sum of absent children (BD10NACAB) and children in the household (BD10NUMCH).

# **BD10TOTOC** – (Derived) Total number of children (in HH or absent) – own children only

The total number of living natural children of the respondent which is the sum of absent natural children (BD10NOCAB) and natural children in household (BD10NOCHH).

## BD10WCDIE - (Derived) Whether had any (own) children who have died

Whether or not any of the respondent's natural children have died with information obtained from the current sweep combined with that of previous sweeps.

#### Value labels

- (-9) 'Refusal'
- (-8) 'Not enough information'
- (-1) 'Not applicable'
- (0) 'No'
- (1) 'Yes'

## BD10NCDIE - (Derived) Number of own children who have died

The total number of the respondent's natural children that have died which is the number of those reported at the current sweep (BD10WCDIE) combined with those that died previously.

## **BD10TOTCE** – (Derived) Total number of children ever had

The total number of natural children the respondent has ever had, both those that died (BD10NCDIE) and those still alive (BD10TOTOC).

## **BD10MALIV** – (Derived) Whether mother alive

Cohort members are already specifically asked whether their mother is alive (B10MALIVE) though only if they have not previously been reported dead, so the derived variable adds that data. This variable also includes a category for whether the mother is in the household, based on B10DMOTHER which was derived by the data collection agency from the household composition.

#### Value labels

- (-8) 'Not enough information'
- (0) 'Yes in household'
- (1) 'Yes'
- (2) 'No'
- (3) 'No reported dead previously'

### **BD10PALIV** – (Derived) Whether father alive

Cohort members are already specifically asked whether their father is alive (B10PALIVE), though only if they have not previously been reported dead, so the derived variable adds that data. The variable also uses B10DFATHER (derived by the data collection agency from the household composition) to include information on whether the father is currently living with the respondent.

- (-8) 'Not enough information'
- (0) 'Yes in household'
- (1) 'Yes'
- (2) 'No'
- (3) 'No reported dead previously'

## 5. Housing

## **BD10TENURE** – (Derived) Housing Tenure

Using B10TENCK (Whether tenure is the same as last sweep), BD10TENURE is based on either B10TEN (if the situation has changed) or existing tenure information from last sweep.

#### Value labels

- (-8) 'No information'
- (1) 'Own outright'
- (2) 'Own, buying with help of mortgage/loan'
- (3) 'Part rent, part mortgage (shared equity)'
- (4) 'Rent it'
- (5) 'Live rent-free, incl. relatives/friends'
- (6) 'Squatting'
- (7) 'Other'

## **BD10RENTFROM** – (Derived) Who rents from

This is who, if the household is partly or fully rented, the respondent pays rent to. Derived from either last sweeps data or B10RENTFROM (depending on the response to B10TENCK).

### Value labels

- (-8) 'No information'
- (-1) 'Not applicable'
- (1) 'A Local Authority'
- (2) 'A Housing Association'
- (3) 'A Private landlord'
- (4) 'A Parent'
- (5) 'Someone else'

## BD10WHOTEN - (Derived) Whose name is accommodation held in

This is who owns the property the respondent lives in. Based on B10WTEN, provided BD10TENURE is between 1-5 so that the current accommodation can be in someone's name.

- (-8) 'No information'
- (-1) 'Not applicable'
- (1) 'CM's name only'
- (2) 'Both CM and partner's names'
- (3) 'Partner's name only'
- (4) 'CM and someone else's name's'
- (5) 'Someone else's name (including parents)'

## 6. Employment

## BD10ECACT - (Derived) Current economic activity status

The current employment status of the respondent categorised into one of 12 groups. Derivation is as follows: If the cohort member has the same job as last sweep (B10ECLAST) and this employment was continuous (B10CJCONT) then BD10ECACT is based off last sweep. If the previous sweep economic activity was corrected by the cohort member in B10DACTIV and is current and continuous (B10CURACT, B10CURACS) then B10DACTIV is used. Where the economic history loop has been entered but not completed current activity is recorded in B10DACTIV5. If the loop has been completed and the last activity in the loop is current (B10ACURAC) then B10DACTIV3 is used.

#### Value labels

- (-9) 'Refused'
- (-8) 'Not enough information'
- (-1) 'Not applicable'
- (1) 'Full-time employment'
- (2) 'Part-time employment'
- (3) 'Full-time self-employment'
- (4) 'Part-time self-employment'
- (5) 'Unemployment'
- (6) 'Full-time education'
- (7) 'Govt scheme for employment training'
- (8) 'Temporary sickness/disability'
- (9) 'Permanent sickness/disability'
- (10) 'Looking after the home/family'
- (11) 'Retirement'
- (12) 'Other'

### **BD10PEACT** – (Derived) Partner's current economic activity status

The current employment status of the respondent's partner categorised into one of 12 groups based on B10PCNCT2, B10PCNCT3 and B10PCNCT4.

- (-9) 'Refused'
- (-8) 'Not enough information'
- (-1) 'Not applicable'
- (1) 'Full-time employment'
- (2) 'Part-time employment'
- (3) 'Full-time self-employment'
- (4) 'Part-time self-employment'
- (5) 'Unemployment'
- (6) 'Full-time education'
- (7) 'Govt scheme for employment training'
- (8) 'Temporary sickness/disability'
- (9) 'Permanent sickness/disability'
- (10) 'Looking after the home/family'
- (11) 'Retirement'
- (12) 'Other'

## **BD10CNSSEC** – (Derived) NS-SEC Full Operational Categories (CM current job)

Derived full operational categories of the respondent's current employment were in done by the survey agency across all the places employment information is obtained (see details in BD10ECACT). This variable is the result of all that information being combined, incorporating data from last sweep and cleaned.

- (1.0) 'L1 Employers in large establishments'
- (2.0) 'L2 Higher managerial and administrative'
- (3.0) 'L3 Higher professional occupations'
- (3.1) 'L3.1 "Traditional" employees'
- (3.2) 'L3.2 "New" employees'
- (3.3) 'L3.3 "Traditional" self-employed'
- (3.4) 'L3.4 "New" self-employed'
- (4.0) 'Lower professional and higher technical'
- (4.1) 'L4.1 "Traditional" employees'
- (4.2) 'L4.2 "New" employees'
- (4.3) 'L4.3 "Traditional" self-employed'
- (4.4) 'L4.4 "New" self-employed'
- (5.0) 'L5 Lower managerial and administrative'
- (6.0) 'L6 Higher supervisory occupations'
- (7.0) 'L7 Intermediate occupations'
- (7.1) 'Intermediate clerical/administrative'
- (7.2) 'L7.2 Intermediate sales and service'
- (7.3) 'Intermediate technical and auxiliary'
- (7.4) 'L7.4 Intermediate engineering'
- (8.0) 'L8 Employers in small organisations'
- (8.1) 'Small org employers (industry etc.)'
- (8.2) 'Small org employers (agriculture)'
- (9.0) 'L9 Own account workers'
- (9.1) 'Own account workers (non-professional)'
- (9.2) 'L9.2 Own account workers (agriculture)'
- (10.0) 'L10 Lower supervisory occupations'
- (11.0) 'L11 Lower technical occupations'
- (11.1) 'L11.1 Lower technical craft occupations'
- (11.2) 'L11.2 Lower technical process operative'
- (12.0) 'L12 Semi-routine occupations'
- (12.1) 'L12.1 Semi-routine sales occupations'
- (12.2) 'L12.2 Semi-routine service occupations'
- (12.3) 'L12.3 Semi-routine technical'
- (12.4) 'L12.4 Semi-routine operative'
- (12.5) 'L12.5 Semi-routine agricultural'
- (12.6) 'L12.6 Semi-routine clerical occupations'
- (12.7) 'L12.7 Semi-routine childcare'
- (13.0) 'L13 Routine occupations'
- (13.1) 'L13.1 Routine sales and service'
- (13.2) 'L13.2 Routine production occupations'
- (13.3) 'L13.3 Routine technical occupations'
- (13.4) 'L13.4 Routine operative occupations'
- (13.5) 'L13.5 Routine agricultural occupations'
- (14.0) 'Never worked and long-term unemployed'
- (14.1) 'L14.1 Never worked'
- (14.2) 'L14.2 Long-term unemployed'
- (15.0) 'L15 Full-time students'

(16.0) 'L16 Occupations not stated or described'

(17.0) 'L17 Not classifiable for other reasons'

# **BD10CNSSCC** – (Derived) NS-SEC Combined Operational Categories (CM current iob)

Derived combined operational categories of the respondent's current employment were in done by the survey agency across all the places employment information is obtained (see details in BD10ECACT). This variable is the result of all that information being combined, incorporating data from last sweep and cleaned.

#### Value labels

- (1) 'L1 Employers in large establishments'
- (2) 'L2 Higher managerial and administrative'
- (3) 'L3 Higher professional occupations'
- (4) 'Lower professional and higher technical'
- (5) 'L5 Lower managerial and administrative'
- (6) 'L6 Higher supervisory occupations'
- (7) 'L7 Intermediate occupations'
- (8) 'L8 Employers in small organisations'
- (9) 'L9 Own account workers'
- (10) 'L10 Lower supervisory occupations'
- (11) 'L11 Lower technical occupations'
- (12) 'L12 Semi-routine occupations'
- (13) 'L13 Routine occupations'
- (14) 'Never worked and long-term unemployed'
- (15) 'L15 Full-time students'
- (16) 'L16 Occupations not stated or described'
- (17) 'L17 Not classifiable for other reasons'

### **BD10CNS8** – (Derived) NS-SEC Analytic Categories (CM current job)

Derived analytic categories of the respondent's current employment were in done by the survey agency across all the places employment information is obtained (see details in BD10ECACT). This variable is the result of all that information being combined, incorporating data from last sweep and cleaned.

- (1) '1 Higher managerial and administrative'
- (1.1) 'Large employers and higher managerial'
- (1.2) '1.2 Higher professional occupations'
- (2) 'Lower managerial and administrative'
- (3) 'Intermediate occupations'
- (4) 'Small employers and own account workers'
- (5) 'Lower supervisory and technical'
- (6) 'Semi-routine occupations'
- (7) 'Routine occupations'
- (8) 'Never worked and long-term unemployed'
- (9) 'Occs not stated or inadequate desc'

## 7. Highest Qualification

# **BD10ACHQ1** – (Derived) Highest Academic Qualification CM reported in Age 46 Survey

This is highest academic qualification obtained since the 2012 survey or 2008 if they were not interviewed then, derived from all loops of B10QUALTP in the education grid. The qualification from B10QUALTP attributed to the highest value of those listed below is used.

#### Value labels

- (-8) 'Not enough information'
- (-1) 'Not applicable'
- (0) 'no academic qualification'
- (1) 'gcse d-e'
- (2) 'cses2-5, other scottish quals'
- (3) 'gcse a-c, good o levels scot standards'
- (4) 'as levels or 1 a level'
- (5) '2+ a levels, scot higher/6th'
- (6) 'diploma'
- (7) 'degree level'
- (8) 'higher degree'

# **BD10ANVQ1** – (Derived) Highest NVQ level from an academic qualification reported in Age 46 Survey

As with B10ACHQ1 uses all loops of B10QUALTP to obtain the highest academic qualification obtained since the 2012 survey or 2008 if they were not interviewed then, but categorised by their equivalent NVQ level rather than qualification type.

## Value labels

- (-1) 'not codeable'
- (0) 'none'
- (1) 'nvq1 level'
- (2) 'nvq2 level'
- (3) 'nvq3 level'
- (4) 'nvq4 level'
- (5) 'nvq5 level'

# **BD10VNVQ1** – (Derived) Highest NVQ level from a Vocational Qualification reported in Age 46 Survey

All B10QUALTP loops of the education grid were compared to obtain the vocational qualification with the highest associated NVQ level obtained since the 2012 survey or 2008 if they were not interviewed then.

- (-1) 'not codeable'
- (0) 'none'
- (1) 'nvq1 level'
- (2) 'nvq2 level'
- (3) 'nvq3 level'
- (4) 'nvq4 level'
- (5) 'nvq5 level'

# **BD10NVQ1** – (Derived) Highest NVQ level from an Academic or Vocational Qual reported in Age 46 Survey

The highest overall qualification obtained since the 2012 survey or 2008 if they were not interviewed then. This is the NVQ level of either the highest academic qualification (BD10ANVQ1) and vocational qualification (BD10VNVQ1) depending on which is higher.

#### Value labels

- (-1) 'not codeable'
- (0) 'none'
- (1) 'nvq1 level'
- (2) 'nvq2 level'
- (3) 'nvq3 level'
- (4) 'nvq4 level'
- (5) 'nvq5 level'

## BD10HACHQ – (Derived) Highest Academic Qualification up to 2016-18

The highest academic qualification at the current sweep (BD10ACHQ1) was compared to the highest level recorded from all previous sweeps to get the highest overall academic qualification of the cohort member.

#### Value labels

- (-8) 'Not enough information'
- (-1) 'Not applicable'
- (0) 'no academic qualification'
- (1) 'gcse d-e'
- (2) 'cses2-5, other scottish quals'
- (3) 'gcse a-c, good o levels scot standards'
- (4) 'as levels or 1 a level'
- (5) '2+ a levels, scot higher/6th'
- (6) 'diploma'
- (7) 'degree level'
- (8) 'higher degree'

## **BD10HANVQ** – (Derived) Highest NVQ level from an academic qualification up to 2016-18

The highest NVQ level from an academic qualification (BD10ANVQ1) was compared to the highest academic qualification from all previous sweeps to get the highest overall NVQ level from an academic qualification of the cohort member.

- (-1) 'not applicable'
- (0) 'none'
- (1) 'nvq1 level'
- (2) 'nvq2 level'
- (3) 'nvq3 level'
- (4) 'nvq4 level'
- (5) 'nvq5 level'

## **BD10HVNVQ** – (Derived) Highest NVQ Level from a Vocational Qualification up to 2016-18

The highest NVQ level from a vocational qualification (BD10VNVQ1) was compared to the highest vocational qualification from all previous sweeps to get the highest overall NVQ level from a vocational qualification of the cohort member.

#### Value labels

- (-1) 'not applicable'
- (0) 'none'
- (1) 'nvq1 level'
- (2) 'nvq2 level'
- (3) 'nvq3 level'
- (4) 'nvq4 level'
- (5) 'nvq5 level'

# **BD10HNVQ** – (Derived) Highest NVQ Level from an Academic or Vocational Qual up to 2016-18

The highest qualification of any type the cohort member has ever obtained, which is either the highest academic qualification (BD10HANVQ) or the highest vocational qualification (BD10HVNVQ) ever obtained. The qualification is represented as an NVQ level.

- (-1) 'not applicable'
- (0) 'none'
- (1) 'nvq1 level'
- (2) 'nvq2 level'
- (3) 'nvq3 level'
- (4) 'nvq4 level'
- (5) 'nvq5 level'

## 8. Health

## **BD10DISEQ** – (Derived) Disability classification Equality act (2010)

The classification of whether or not the respondent is disabled according to the Equality act 2010 is calculated from responses to B10LOIL (Any physical/mental health conditions lasting or expected to last 12 months) and B10LOLM (Whether illnesses/conditions reduce ability to carry out day to day activities).

If an individual does not have a longstanding illness or condition (B10LOIL=2) or if their long standing illness or condition does not reduce ability to carry out day to day activities (B10LOIL = 1 AND B10LOLM = 3) then BD10DISEQ = 0 (cohort member is not disabled).

If an individual does have a longstanding illness or condition (B10LOIL = 1) and if their long standing illness or condition does reduce ability to carry out day to day activities a lot or a little (B10LOLM = 1 OR B10LOLM = 2) then BD10DISEQ = 1 (cohort member is disabled).

#### Value labels

- (-8) 'Not enough information'
- (0) 'Not disabled (Equality act)'
- (1) 'Disabled (Equality Act)'

## BD10DISLS – (Derived) Disability classification EU-SILC

Classification of disability by extent uses both B10LOIL and B10LOLM, but also B10LOLP (Length of time ability to carry out day to day activities has been reduced) to ascertain the severity of the respondent's disability.

### Variable scoring

If CM does not have a longstanding illness or condition (B10LOIL = 2), or if CM does have a longstanding illness or condition but condition does not reduce ability to carry out day to day activities, or the length of time that the ability to carry out day to day activities has been reduced is less than 6 months (B10LOIL = 1 AND (B10LOLM = 3 or B10LOLP = 1)) then the cohort member does not have an EU-SILC long-standing health condition (BD9DISLS = 0).

If an individual does have a longstanding illness or condition and their ability to carry out day to day activities is reduced a little for 6 months or more (B10LOIL = 1 AND (B10LOLP = 3 OR B10LOLP = 2) AND (B10LOLM = 2)), then the cohort member is categorised as being disabled, hampered to some extent. (BD10DISLS = 1).

If an individual does have a longstanding illness or condition and their ability to carry out day to day activities is reduced a lot for 6 months or more (B10LOIL = 1 AND (B10LOLP = 3 OR B10LOLP = 2) AND (B10LOLM = 1)) then the cohort member is categorised as being disabled, severely hampered. (BD10DISLS = 2).

For more information on disability classification see ONS document 'Long-lasting Health Conditions and Illnesses; Impairments and Disability': <a href="http://www.ons.gov.uk/ons/guide-method/harmonisation/primary-set-of-harmonised-concepts-and-questions/index.html">http://www.ons.gov.uk/ons/guide-method/harmonisation/primary-set-of-harmonised-concepts-and-questions/index.html</a>

- (-8) 'Not enough information'
- (0) 'No EU-SILC long-standing health condition'
- (1) 'EU-SILC classification to some extent'
- (2) 'EU-SILC classification severely hampered'

## **BD10SYMPAN1** - (Derived) Angina symptoms (Rose Angina Qure)

The Rose angina questions cover chest pain based on levels of activity (B10HEANA, B10HEANB, B10HEANC, B10HEANG), duration (B10HEANH) and location of pain (B10HEANI1, B10HEANI2, B10HEANI3, B10HEANI4). From these the presence of angina symptoms is calculated as either grade 1 or 2.

## Variable scoring

If the respondent experiences pain or discomfort in the upper or middle sternum (B10HEANI1 = 1), the lower sternum (B10HEANI2 = 1) or the left anterior chest and left arm (B10HEANI3 = 1 AND B10HEANI4 = 1) and experience chest pain when walking uphill or in a hurry (B10HEANB = 1) then BD10SYMPAN1 = 1 (cohort member has grade 1 angina).

If the respondent experiences any of those chest pain symptoms (BD10SYMPAN1 = 1) and has chest pain when walking at an ordinary pace on level ground (B10HEANC = 1) then BD10SYMPAN1 = 2 (cohort member has grade 2 angina). If the respondent has pain in any other parts of the chest or no chest pain BD10SYMPAN1 = 3 (cohort member does not have angina).

#### Value labels

- (-9) 'Refused'
- (-8) 'Not enough information'
- (1) 'Grade 1 angina'
- (2) 'Grade 2 angina'
- (3) 'No angina'

## BD10NUALC - (Derived) Number of units of alcohol consumed in last 7 days

Calculated from the type of alcoholic drinks consumed in the 7 days prior to interview (B10DRNK01-B10DRNK06) and number of drinks of each type consumed (B10BEERN, B10BEERS, B10SPIRIS, B10SHERRY, B10ALCOPP, B10WINLAG, B10WINSTG, B10WINSMG). BD10NUALC is the total number of expected units in all alcoholic drinks consumed in that timeframe. This only adds units from, or similar to; beer/cider, spirits/liqueurs, sherry, wine and alcopops. Any alcoholic drinks consumed that come under the 'Other' category (B10DRNK07) are not used in the calculation as the number of units cannot be estimated.

### Value labels

- (-9)'Refused'
- (-8)'Not enough information'
- (-1) 'No drink in last 7 days'

### **BD10MMGSNV** – (Derived) Average grip strength- Non-dominant hand

Grip strength was measured up to three times for the non-dominant hand (B10MMGSN1, B10MMGSN2, B10MMGSN3). This derived variable is the mean value of valid measurements taken.

#### Value labels

(-8) 'No Information'

## BD10MMGSDV - (Derived) Average grip strength- Dominant hand

As with BD10MMGSNV, grip strength was measured up to three times for the dominant hand (B10MMGSD1, B10MMGSD2, B10MMGSD3). This derived variable is the mean value of valid measurements taken.

#### Value labels

(-8) 'No Information'

## **BD10HGHTM** – (Derived) Self-reported height in metres

Respondents were asked to provide a self-report of their height, either in metres and centimetres (B10HTMEES, B10HTCMS) or feet and inches (B10HTFEET, B10HTINES). The derived variable has the imperial measures converted to metric (using the formula ((B10HTFEET\*12)+B10HTINES)/39.370), while B10HTMEES and B10HTCMS were combined so all height data is accessible in one variable. This is only done if both parts of the height measurement are present. When any height measurements are missing, the last self-reported height recorded is used (from sweeps 6-9).

#### Value labels

(-8) 'No information'

## **BD10WGHTK** – (Derived) Self-reported weight in kilograms

Respondents were asked to provide a self-report of their weight, either in kilograms (B10WTKIS) or stones and pounds (B10WTSTE, B10WTPOD). The derived variable has the imperial measures converted to metric (using the formula (B10WTSTE\*14+B10WTPOD)\*0.453592) so measures for all respondents are consistent. This is only done if both B10WTSTE and B10WTPOD are present as in a number of cases weight in stones was given, but pounds were not known.

## Value labels

(-8) 'No information'

## **BD10MWGTK** – (Derived) Nurse measured weight in kilograms (all measured)

The recorded weight in kilograms of all respondents the nurse weighed. Respondents who consented to having their weight measured by the nurse could also have their body fat measured simultaneously. Their weight in kilograms is recorded in B10MWEIGHT or B10WGTONLY depending on whether they agreed or not to the body fat measurement. BD10MWGTK is the combination of both variables.

#### Value labels

(-8) 'Not enough information'

## **BD10BMI** – (Derived) Body mass index (based on self-reported data)

Calculated with the derived self-reported height and weight measurements using the formula BD10WGHTK/(BD10HGHTM\*BD10HGHTM).

#### Value labels

(-8) 'Not enough information'

# **BD10BMIC** – (Derived) Body mass index – classification (based on self-reported data)

Self-reported BMI values separated into 5 weight range categories defined by the same classification as that of the NHS.

#### Value labels

- (-8) 'Not enough information'
- (0) 'Underweight (below 18.5)'
- (1) 'Healthy weight range (18.5-24.9)'
- (2) 'Overweight (25-29.9)'
- (3) 'Obese (30-39.9)'
- (4) 'Morbidly obese (Over 40)'

## **BD10MBMI** – (Derived) Body mass index (based on nurse measurement)

If respondents had their height in cm (B10HEIGHTCM) and weight in kg (B10MWEIGHT if measured alongside body fat or B10WGTONLY if not) measured by the nurse then their BMI was calculated with the formula WEIGHT/((HEIGHT/100)\*(HEIGHT/100)).

#### Value labels

(-8) 'Not enough information'

## **BD10MBMIC** – (Derived) Body mass index – classification (based on nurse measurement)

Nurse measured BMI values separated into 5 weight range categories defined by the same classification as that of the NHS.

#### Value labels

- (-8) 'Not enough information'
- (0) 'Underweight (below 18.5)'
- (1) 'Healthy weight range (18.5-24.9)'
- (2) 'Overweight (25-29.9)'
- (3) 'Obese (30-39.9)'
- (4) 'Morbidly obese (Over 40)'

## **BD10WEMWB** – (Derived) Warwick Edinburgh Mental Well-Being Scale

A scale designed to represent the respondent's mental well-being. Calculated as sum of 14 question responses (B10Q1A-B10Q1N) which produces a mental well-being score ranging from 14 to 70 where higher scores indicate improved mental well-being. This is only calculated if all questions are answered.

- (-8)'Not enough information'
- (-1)'Self completion quaire not completed'

## **BD10MAL** – (Derived) Total Malaise score (9 questions)

Total malaise score from a 9 item short version of the malaise inventory (B10Q28A-B10Q28I). Items cover negative emotions and physical response and are coded so high malaise scores always relate to affirmative responses. The score is the total number of 'yes' responses meaning higher scores correspond to higher malaise. Cases were excluded if the number of items without a response accounted for scores being under 4 (the prerequisite score for high malaise).

#### Value labels

(-8)'Not enough information'

## BD10MALG – (Derived) Total Malaise score - grouped

A malaise variable with two categories to separate low from high malaise scores in BD10MAL. High malaise requires at least four affirmative responses.

## Value labels

- (-8) 'Not enough information'
- (1) 'Low malaise (0-3)'
- (2) 'High malaise (4+)'

## BD10AUDIT - (Derived) Total AUDIT-PC Score

A cumulative score of risk-based drinking behaviour computed from five questions (B10DRKFQ, B10DRKDY, B10DRKST, B10DRKFL, B10DRKWR). Score range is between 1 (low risk) and 20 (high risk).

### Variable scoring

The audit scale is computed by allocating scores to the responses to questions B10DRKFQ, B10DRKDY, B10DRKST, B10DRKFL and B10DRKWR and summing these scores according to the following scoring system:

Questions	Scoring system				
Questions	0	1	2	3	4
B10DRKFQ: Frequency of having an alcoholic drink	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week
B10DRKDY: Number of alcoholic drinks consumed on a typical day when drinking	1 -2	3 - 4	5 - 6	7 - 9	10+
B10DRKST: Frequency of not being able to stop drinking once started over last year	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
B10DRKFL: Frequency of failing to do what was expected due to drinking in last year	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
B10DRKWR: Has a relative/friend/health worker been concerned about their drinking	No		Yes, but not in the last year		Yes, during the last year

## For more information on the AUDIT-PC see <a href="https://www.alcohollearningcentre.org.uk/\_library/AUDIT-PC.doc">www.alcohollearningcentre.org.uk/\_library/AUDIT-PC.doc</a>

#### Value labels

- (-8)'Not enough information'
- (-1)'NA does not drink alcohol'

## **BD10AUDG** – (Derived) AUDIT-PC Group

Categorises the BD10AUDIT score into two groups (if the respondent drinks alcohol) to differentiate high risk drinking from low risk behaviour. AUDIT scores of 5 or more are considered higher risk by the grouping.

## Value labels

- (-8)'Not enough information'
- (-1)'NA does not drink alcohol'
- (1)'Unproblematic drinking (0-4)'
- (2)'Increasing or higher risk drinking (5+)'

## BD10WHYST - (Derived) Whether had hysterectomy or ovaries removed

Information about operations on the uterus and ovaries based on B10OVOP, B10HYSTOP and B10OVOP42 as well as previous sweep data. If they have had any such operation this is separated into one of the five combinations of hysterectomy and ovary removal.

#### Value labels

- (-1) 'Not applicable (male)'
- (-8) 'Not enough information'
- (0) 'Ovaries and uterus not removed'
- (1) 'Removal of one ovary'
- (2) 'Removal of both ovaries'
- (3) 'Removal of uterus'
- (4) 'Removal of one ovary and uterus'
- (5) 'Removal of both ovaries and uterus'

## BD10WP12M - (Derived) Whether had period in last 12 months

Largely based off B10MEN12M which specifically asks if the respondent has had a period in the last 12 months. There are changes to reflect BD10WHYST and the corresponding variables from last sweep to avoid potential conflict in scenarios where menstruation would not be possible.

### Value labels

- (-1) 'Not applicable (male)'
- (-8) 'Not enough information'
- (0) 'No'
- (1) 'Yes'

## **BD10ALSTP** – (Derived) Age at last period

This is the age of the respondent when their periods stopped (provided they are no longer having periods). The derivation is based on B10MENAGE for respondents whose periods have stopped since last sweep or existing data had it happened before 2012.

#### Value labels

- (-1) 'Not applicable'
- (-8) 'Not enough information'

## **Short-form health survey**

The 36 item short-form health survey (which was integrated into the self-completion questionnaire) covers eight different aspects of health (4 mental and 4 physical), as well as comparing general health to one year ago. There are 9 derived scores (one for each aspect), all ranging between 0 and 100, meaning original variables are scaled accordingly to calculate this. For all derived variables higher scores indicate better health in the area described. One response for the associated questions is sufficient for a score to be created for these variables. See appendix for specific details on SF-36 scoring.

## **BD10PHHE** – (Derived) SF-36 Physical functioning score

Physical health score coded from 10 items (B10Q2A-B10Q2J). Higher scores represent better functioning across a range of physical activities (e.g. running, dressing, climbing stairs).

## Variable scoring

B10Q2A-B10Q2J are all coded identically. Where activities are 'Yes, limited a lot' they score 0 (1=0), if 'Yes, limited a little' they score 50 (2=50) and 'No, not limited at all' is 100 (3=100). Physical functioning scores are the mean of the total number of questions answered (1-10 responses).

#### Value labels

(-8) 'Not enough information'

### **BD10RLMP** – (Derived) SF-36 Role-limitations due to physical health

Physical health score coded from 4 items (B10Q3A-B10Q3D). Lower scores indicate greater lifestyle limitations as a result of physical health problems in the four weeks prior to interview.

### Variable scoring

B10Q3A-B10Q3D are coded all the same. Responses of 'Yes' score 0, as health has limited the cohort member (1=0), while 'No' is 100 (2=100). BD10RLMP scores are the mean of the total number of questions answered (1-4 responses).

### Value labels

(-8) 'Not enough information'

### **BD10RLME** – (Derived) SF-36 Role-limitations due to emotional problems

Mental health score coded from 3 items (B10Q4A-B10Q4C). Lower scores indicate greater lifestyle limitations as a result of emotional problems in the four weeks prior to interview.

### Variable scoring

B10Q4A-B10Q4C are all coded the same. Responses of 'Yes' score 0, as emotional problems have limited the respondent (1=0), while 'No' is 100 (2=100). BD10RLME scores are the mean of the total number of questions answered (1-3 responses).

#### Value labels

(-8) 'Not enough information'

## BD10ENFA – (Derived) SF-36 Energy/fatigue score

Mental health score coded from 4 items (B10Q8A, B10Q8E, B10Q8G, B10Q8I). Lower scores represent increased tiredness and lack of energy in the four weeks prior to interview

## Variable scoring

B10Q8A and B10Q8E are coded so that higher scores represent higher energy for more of the time (1=100, 2=80, 3=60, 4=40, 5=20, 6=0), while B10Q8G and B10Q8I are coded so that longer periods of lower energy provide lower scores (1=0, 2=20, 3=40, 4=60, 5=80, 6=100). Energy/fatigue scores are the mean of the total number of questions answered (1-4 responses).

### Value labels

(-8) 'Not enough information'

## **BD10EMWB** – (Derived) SF-36 Emotional Well-Being score

Mental health score coded from 5 items (B10Q8B, B10Q8C, B10Q8D, B10Q8F, B10Q8H). Higher scores result from an overall more positive emotional outlook during the four weeks prior to interview.

## Variable scoring

B10Q8B, B10Q8C and B10Q8F are coded so the more time the cohort member experienced negative emotions the lower their score (1=0, 2=20, 3=40, 4=60, 5=80, 6=100). B10QD and B10QH, on the other hand, are about time experiencing positive emotions, so are coded in the opposite direction (1=100, 2=80, 3=60, 4=40, 5=20, 6=0). Emotional well-being scores are the mean of the total number of questions answered (1-5 responses).

#### Value labels

(-8) 'Not enough information'

### **BD10SOCF** – (Derived) SF-36 Social Functioning score

Mental health score coded from 2 items (B10Q5 and B10Q8J). Lower scores indicate greater impact of emotional and physical problems on social life.

For B10Q8J the scale differs from the original design of SF-36 with the inclusion of 'A good bit of the time'. Though derivation accounts for the scale being 6 points rather than 5 any potential impact the change has on the respondents answer to this question will follow through to the score.

### Variable scoring

B10Q5 is a 5-point scale, coded so that scores are lower the more the respondent's social life is affected by physical or emotional problems (1=100, 2=75, 3=50, 4=25, 5=0). B10Q8J is a 6-point scale coded so that the more time social activities are limited by health, the lower

the score (1=0, 2=20, 3=40, 4=60, 5=80, 6=100). Social functioning scores are the mean of the total number of questions answered (1-2 responses).

#### Value labels

(-8) 'Not enough information'

## **BD10PAIN** – (Derived) SF-36 Pain score

Physical health score coded from 2 items (B10Q6 and B10Q7). Lower scores show an increase in pain and its impact on normal life.

### Variable scoring

B10Q6 is a 6-point scale coded so that the more bodily pain experienced the lower the score (1=100, 2=80, 3=60, 4=40, 5=20, 6=0) and B10Q7 is a 5-point scale coded so that the more pain has interfered with normal work the lower the score (1=100, 2=75, 3=50, 4=25, 5=0). Pain scores are the mean of the total number of questions answered (1-2 responses).

#### Value labels

(-8) 'Not enough information'

### **BD10GENH** – (Derived) SF-36 General health score

Physical health score coded from 5 items (B10HLTHGN, B10Q9A-B10Q9D). Higher scores indicate better overall health. B10HLTHGN was part of the main interview, one of two SF-36 items not in the self-completion.

## Variable scoring

B10HLTHGN, B10Q9B and B10Q9D are coded so that a more positive self-assessment of health provides a higher score (1=100, 2=75, 3=50, 4=25, 5=0), while B10Q9A and B10Q9C are coded are similar questions with different wording so are coded in the other direction (1 =0, 2=25, 3=50, 4=75, 5=100). General health scores are the mean of the total number of questions answered (1-5 responses).

### Value labels

(-8) 'Not enough information'

#### **BD10RPHT** – (Derived) SF-36 Reported health transition

General health score coded from one item, B10KHLSTT, from the core interview. Scores close to 50 indicate similar health compared to one year ago, while higher scores are better health and scores closer to 0 worse.

### Variable scoring

B10KHLSTT is the only item and scores translate so 50 means health is the same as one year ago, scores higher than that is an improvement in health and below is worse health than one year ago (1=100, 2=75, 3=50, 4=25, 5=0).

### Value labels

(-8) 'Not enough information'