



Teaching students quantitative methods using resources from the British Birth Cohorts

Measuring signs of psychological distress or depression in teenagers and adults

The Malaise Inventory

MalaiseVariables.doc: this document includes

- a) A list of all the variables in the *b034malaise.sav* and the *n042malaise.sav* SPSS data files. (Original variable names from the full dataset and documentation of a particular survey are also included.)
- b) *b034malaise.sav* contains all individual Malaise questions asked in BCS70 at age 16, 26, 30 and 34, overall summary Malaise scores at age 16, 26, 30 and 34, together with a variety socio-economic measures from the cohort members childhood and adult years.
- c) *n042malaise.sav* contains all individual Malaise questions asked in NCDS at age 23, 33 and 42, overall summary Malaise scores at age 23, 33 and 42 together with a variety socio-economic measures from the cohort members childhood and adult years.
- d) SPSS syntax for constructing summary Malaise scores

The NCDS Malaise Questions Dataset

File: 'n042malaise.sav'

The data

This longitudinal dataset includes information from the 1958 National Child Development Study (NCDS) for looking at the relationship between socio-economic circumstances in childhood and mental well-being in adulthood over time. This file contains 110 variables, representing information collected from cohort members' birth in 1958 up to 2000, when they had reached age 42. Information included in this file from birth was provided by the cohort members' mother. Information collected at age 7, age 11 and age 16 was provided by the mother or father. At age 23, 33 and 42 the cohort member themselves provided the information. There are 18,560 cases in the dataset, 8,960 are women and 9,593 are men (7 did not have a sex recorded at their premature birth). At age 23, 12,487 cohort members answered at least one Malaise question; at age 33, 11,342 cohort members answered at least one Malaise question and at age 42, 11,276 cohort members answered at least one Malaise question. 8,457 cohort members answered at least one Malaise question in all three of these sweeps. To enable the information included here to be cross referenced with the original questionnaire documentation, original variable names are included in the variable label. The variables are listed in Table 1.

The BCS70 Malaise Questions Dataset

File: 'b034malaise.sav'

The data

This longitudinal dataset includes information from the 1970 British Cohort Study (BCS70) for looking at the relationship between socio-economic circumstances in childhood and mental well-being in adulthood over time. This file contains 135 variables, representing information collected from cohort members' birth in 1970 up to 2004, when they had reached age 34. Data from birth is provided by the cohort members' mothers; data collected at age 5, age 10 and age 16 were collected from the mother (or father and at age 26, 30 and 34 the cohort member themselves provided the information. There are 18,732 cohort members in the dataset, 9,740 (52%) are men and 8,984 (48%) are women (8 did not have a sex recorded at their premature birth). Table 2 contains a list of all the variables in the *b034malaise.sav* dataset. At age 16, 5,539 cohort members answered at least one Malaise question; at age 26, 8,968 cohort members answered at least one Malaise question; at age 30, 11,112 cohort members answered at least one Malaise question and at age 34, 9,598 cohort members answered at least one Malaise question. 6360 cohort members answered at least one Malaise question at age 26, 30 and 34, with 2,970 cohort members answering at least one Malaise question at age 16, 26, 30 and 34. To enable the information included here to be cross referenced with the original questionnaire documentation, original variable names are included in the variable label. The variables are listed in Table 2.

This file can also be merged with the *b016mothermalaise.sav* file to look at the relationship between a mother and her child's mental well-being.

Table 1: Variables in 'n042malaise.sav' data file

<u>Name</u>	<u>Label</u>
serial	unique serial number of cohort member
n0sex	ncds age 0: sex of cohort member (n622)
n23mal	ncds age 23: total Malaise score
n23malg	ncds age 23: total Malaise score - grouped
n33mal	ncds age 33: total Malaise score
n33malg	ncds age 33: total Malaise score - grouped
n42mal	ncds age 42: total Malaise score
n42malg	ncds age 42: total Malaise score - grouped
n2342in	ncds age 23 to 42: cohort members with complete Malaise information
n0region	ncds age 0: Region where cm born (n624)
n0bwght	ncds age 0: birthweight of cm in grams (n574 + n646)
n0bwght1	ncds age 0: birthweight of cm in grams < 2515 (n574 + n646)
n0rgsc	ncds age 0: social class from fathers occupation or grandfather (if missing or single mom) (n236 + n526)
n0mumed	ncds age 0: mum left education at min age (n537)
n7rgsc	ncds age 7: social class from fathers occupation (n190)
n7crowd	ncds age 7: persons per room ratio (n201 n419)
n7crowdg	ncds age 7: persons per room ratio – grouped (n201 n419)
n7ownh	ncds age 7: home ownership (n200)
n11rgsc	ncds age 11: social class from fathers occupation (n1657)
n11fsm	ncds age 11: CM receives free school meals? (n858)
n11bens	ncds age 11: family received state benefits in last year (n1176 to n1180)
n11mint	ncds age 11: mother's interest in CM education (n852)
n11fint	ncds age 11: father's interest in CM education (n851)
n11read	ncds age 11: reading score (n923)
n11maths	ncds age 11: maths score (n926)
n16rgsc	ncds age 16: social class from fathers occupation (n2384)
n16mrgsc	ncds age 16: social class from mothers occupation (n2392 + n2393)
n16ledu	ncds age 16: age cm parent(s) hope cm will leave school (n2407)
n16finhd	ncds age 16: family experienced financial hardship (n2441)
n23rgsc	ncds age 23: social class from current occupation (n6149)
n33rgsc	ncds age 33: social class from current occupation (n6166)
n42rgsc	ncds age 42: social class from current occupation (sc)
n42lefted	ncds age 42: age cohort member left full-time education (actagel2 agelfte2 furthed2 lftmore2)
n42hq8	ncds age 42: highest academic qualification - 8 groups (hqaca00).
n42hq6	ncds age 42: highest academic qualification - 6 groups (hqaghm00).
n23mal01	ncds age 23: Do you often have backache? (n6016)
n23mal02	ncds age 23: Do you feel tired most of the time? (n6017)
n23mal03	ncds age 23: Do you often feel depressed? (n6018)
n23mal04	ncds age 23: Do you often have bad headaches? (n6019)
n23mal05	ncds age 23: Do you often get worried about things? (n6020)
n23mal06	ncds age 23: Do you usually have great difficulty in falling or staying asleep? (n6021)

Table 1: Variables in 'n042malaise.sav' data file

<u>Name</u>	<u>Label</u>
n23mal07	ncds age 23: Do you usually wake unnecessarily early in the morning? (n6022)
n23mal08	ncds age 23: Do you wear yourself out worrying about your health? (n6023)
n23mal09	ncds age 23: Do you often get into a violent rage? (n6024)
n23mal10	ncds age 23: Do people annoy and irritate you? (n6025)
n23mal11	ncds age 23: Have you at times had a twitching of the face, head or shoulders? (n6026)
n23mal12	ncds age 23: Do you suddenly become scared for no good reason? (n6027)
n23mal13	ncds age 23: Are you scared to be alone when there are not friends near you? (n6028)
n23mal14	ncds age 23: Are you easily upset or irritated? (n6029)
n23mal15	ncds age 23: Are you frightened of going out alone or of meeting people? (n6030)
n23mal16	ncds age 23: Are you constantly keyed up and jittery? (n6031)
n23mal17	ncds age 23: Do you suffer from indigestion? (n6032)
n23mal18	ncds age 23: Do you suffer from an upset stomach? (n6033)
n23mal19	ncds age 23: Is your appetite poor? (n6034)
n23mal20	ncds age 23: Does every little thing get on your nerves and wear you out? (n6035)
n23mal21	ncds age 23: Does your heart often race like mad? (n6036)
n23mal22	ncds age 23: Do you often have bad pain in eyes? (n6037)
n23mal23	ncds age 23: Are you troubled with rheumatism or fibrosis? (n6038)
n23mal24	ncds age 23: Have you ever had a nervous breakdown? (n6039)
n33mal01	ncds age 33: Do you often have backache? (n504238)
n33mal02	ncds age 33: Do you feel tired most of the time? (n504239)
n33mal03	ncds age 33: Do you often feel depressed? (n504240)
n33mal04	ncds age 33: Do you often have bad headaches? (n504241)
n33mal05	ncds age 33: Do you often get worried about things? (n504242)
n33mal06	ncds age 33: Do you usually have great difficulty in falling or staying asleep? (n504243)
n33mal07	ncds age 33: Do you usually wake unnecessarily early in the morning? (n504244)
n33mal08	ncds age 33: Do you wear yourself out worrying about your health? (n504245)
n33mal09	ncds age 33: Do you often get into a violent rage? (n504246)
n33mal10	ncds age 33: Do people annoy and irritate you? (n504247)
n33mal11	ncds age 33: Have you at times had a twitching of the face, head or shoulders? (n504248)
n33mal12	ncds age 33: Do you suddenly become scared for no good reason? (n504249)
n33mal13	ncds age 33: Are you scared to be alone when there are not friends near you? (n504250)
n33mal14	ncds age 33: Are you easily upset or irritated? (n504251)
n33mal15	ncds age 33: Are you frightened of going out alone or of meeting

Table 1: Variables in 'n042malaise.sav' data file

<u>Name</u>	<u>Label</u>
	people? (n504252)
n33mal16	ncds age 33: Are you constantly keyed up and jittery? (n504253)
n33mal17	ncds age 33: Do you suffer from indigestion? (n504254)
n33mal18	ncds age 33: Do you suffer from an upset stomach? (n504255)
n33mal19	ncds age 33: Is your appetite poor? (n504256)
n33mal20	ncds age 33: Does every little thing get on your nerves and wear you out? (n504257)
n33mal21	ncds age 33: Does your heart often race like mad? (n504258)
n33mal22	ncds age 33: Do you often have bad pain in eyes? (n504259)
n33mal23	ncds age 33: Are you troubled with rheumatism or fibrosis? (n504260)
n33mal24	ncds age 33: Have you ever had a nervous breakdown? (n504261)
n42mal01	ncds age 42: Do you often have backache? (mal01)
n42mal02	ncds age 42: Do you feel tired most of the time? (mal02)
n42mal03	ncds age 42: Do you often feel depressed? (mal03)
n42mal04	ncds age 42: Do you often have bad headaches? (mal04)
n42mal05	ncds age 42: Do you often get worried about things? (mal05)
n42mal06	ncds age 42: Do you usually have great difficulty in falling or staying asleep? (mal06)
n42mal07	ncds age 42: Do you usually wake unnecessarily early in the morning? (mal07)
n42mal08	ncds age 42: Do you wear yourself out worrying about your health? (mal08)
n42mal09	ncds age 42: Do you often get into a violent rage? (mal09)
n42mal10	ncds age 42: Do people annoy and irritate you? (mal10)
n42mal11	ncds age 42: Have you at times had a twitching of the face, head or shoulders? (mal11)
n42mal12	ncds age 42: Do you suddenly become scared for no good reason? (mal12)
n42mal13	ncds age 42: Are you scared to be alone when there are not friends near you? (mal13)
n42mal14	ncds age 42: Are you easily upset or irritated? (mal14)
n42mal15	ncds age 42: Are you frightened of going out alone or of meeting people? (mal15)
n42mal16	ncds age 42: Are you constantly keyed up and jittery? (mal16)
n42mal17	ncds age 42: Do you suffer from indigestion? (mal17)
n42mal18	ncds age 42: Do you suffer from an upset stomach? (mal18)
n42mal19	ncds age 42: Is your appetite poor? (mal19)
n42mal20	ncds age 42: Does every little thing get on your nerves and wear you out? (mal20)
n42mal21	ncds age 42: Does your heart often race like mad? (mal21)
n42mal22	ncds age 42: Do you often have bad pain in eyes? (mal22)
n42mal23	ncds age 42: Are you troubled with rheumatism or fibrosis? (mal23)
n42mal24	ncds age 42: Have you ever had a nervous breakdown? (mal24)

Table 2: Variables in 'b034malaise.sav' data file

<u>Name</u>	<u>Label</u>
key	unique case identifier of cohort member
bsex	bcs70 age 0 - 34: sex of cohort member (derived from variables in childhood a0255 d003 sex10)
b16mal	bcs70 age 16: total Malaise score
b16malg	bcs70 age 16: total Malaise score - grouped
b26mal	bcs70 age 26: total Malaise score
b26malg	bcs70 age 26: total Malaise score - grouped
b30mal	bcs70 age 30: total Malaise score
b30malg	bcs70 age 30: total Malaise score - grouped
b34mal	bcs70 age 34: total Malaise score
b34malg	bcs70 age 34: total Malaise score - grouped
b1634in	bcs70 age 16 to 34: cohort members with complete Malaise information
b2634in	bcs70 age 26 to 34: cohort members with complete Malaise information
b0region	bcs70 1970: Region of residence of mother at CM birth (a0004b)
b0mumage	bcs70 1970: Mothers age at CM birth (a0005a)
b0marry	bcs70 age 0: marital status of CM mother at CM birth (a0012)
b0agefb	bcs70 age 0: CM mother age at 1st birth (derived from various variables)
b0teenmo	bcs70 age 0: ever a teenage mother (b0agefb grouped)
b0bwght	bcs70 age 0: birthweight of CM in grams (a0278)
b0bwght1	bcs70 age 0: birthweight of CM in grams < 2515 (a0278)
b0mumed	bcs70 age 0: age mother completed full-time education (a0009)
b0mumedg	bcs70 age 0: mother in education post-15 (a0009)
b0daded	bcs70 age 0: age father completed full-time education (a0010)
b0dadedg	bcs70 age 0: father in education post-15 (a0010)
b0fsoc	bcs70 age 0: social class at birth: fathers occupation (a0014)
b0msoc	bcs70 age 0: social class at birth: mothers occupation (a0018)
b0psoc	bcs70 age 0: social class at birth: fathers occupation (or mothers if missing) (a0014 + a0018)
b5fsoc	bcs70 age 5: social class from fathers occupation (e197)
b5msoc	bcs70 age 5: social class from mothers occupation (e206)
b5psoc	bcs70 age 5: social class from fathers occupation (or mothers if missing) (e197 + e206)
b5crowd	bcs70 age 5: bcs70 age 5: persons per room ratio (e228b)
b5crowdg	bcs70 age 5: bcs70 age 5: persons per room ratio – grouped (e228b)
b5ownh	bcs70 age 5: home ownership (e220)
b5mhq	bcs70 age 5: highest qualification of CM mother (e189a)
b5dhq	bcs70 age 5: highest qualification of CM father (e189b)
b5ethnic	bcs70 age 5: ethnic group of cohort member (e245)
b10fsoc	bcs70 age 10: social class from fathers occupation (c3.4)
b10msoc	bcs70 age 10: social class from mothers occupation (c3.11)
b10psoc	bcs70 age 10: social class from fathers occupation (or mothers if missing) (c3.4 + c3.11)

Table 2: Variables in 'b034malaise.sav' data file

<u>Name</u>	<u>Label</u>
b10ben	bcs70 age 10: received state benefit last 12 months? (c8.1 to c8.11)
b10inc	bcs70 age 10: gross weekly family income (c9.1 to c9.8)
b10fsm	bcs70 age 10: child receives free school meals (m126)
b10mint	bcs70 age 10: CM mum interested in child's education (j097)
b10fint	bcs70 age 10: CM dad interested in child's education (j098)
b10ledu	bcs70 age 10: age parent(s) thinks CM will leave school (m134)
b10read	bcs70 age 10: Edinburgh Reading Test score (i3003 to i3069)
b10maths	bcs70 age 10: Friendly Maths Test score (i2504 to i2575)
b16fsoc	bcs70 age 16: social class from fathers occupation (t11.2)
b16msoc	bcs70 age 16: social class from mothers occupation (t11.9)
b16psoc	bcs70 age 16: social class from fathers occupation (or mothers if missing) (t11.2 + t11.9)
b16finhd	bcs70 age 16: family troubled by financial hardship in last year (oe4.1)
b26soc	bcs70 age 26: social class from current occupation (rgsc91)
b30soc	bcs70 age 30: social class from current occupation (sc)
b34soc	bcs70 age 34: social class from current occupation (b7sc)
b34hq5	bcs70 age 34: highest academic qualification – 5 groups (derived variable bd7hq5)
b34hq13	bcs70 age 34: highest academic qualification – 13 groups (derived variable bd7hq5)
b34lefted	bcs70 age 34: age cohort member left full-time education (b7lftme2)
b16mal01	bcs70 age 16: Do you often have backache? (c5o1)
b16mal02	bcs70 age 16: Do you feel tired most of the time? (c5o2)
b16mal03	bcs70 age 16: Do you often feel depressed? (c5o3)
b16mal04	bcs70 age 16: Do you often have bad headaches? (c5o4)
b16mal05	bcs70 age 16: Do you often get worried about things? (c5o5)
b16mal06	bcs70 age 16: Do you usually have great difficulty in falling or staying asleep? (c5o6)
b16mal07	bcs70 age 16: Do you usually wake unnecessarily early in the morning? (c5o7)
b16mal08	bcs70 age 16: Do you wear yourself out worrying about your health? (c5o8)
b16mal09	bcs70 age 16: Do you often get into a violent rage? (c5o9)
b16mal10	bcs70 age 16: Do people annoy and irritate you? (c5o10)
b16mal11	bcs70 age 16: Have you at times had a twitching of the face, head or shoulders? (c5o11)
b16mal12	bcs70 age 16: Do you suddenly become scared for no good reason? (c5o12)
b16mal13	bcs70 age 16: Are you scared to be alone when there are not friends near you? (c5o13)
b16mal14	bcs70 age 16: Are you easily upset or irritated? (c5o14)
b16mal15	bcs70 age 16: Are you frightened of going out alone or of meeting people? (c5o15)
b16mal16	bcs70 age 16: Are you constantly keyed up and jittery? (c5o16)
b16mal17	bcs70 age 16: Do you suffer from indigestion? (c5o17)
b16mal18	bcs70 age 16: Do you suffer from an upset stomach? (c5o18)

Table 2: Variables in 'b034malaise.sav' data file

<u>Name</u>	<u>Label</u>
b16mal19	bcs70 age 16: Is your appetite poor? (c5o19)
b16mal20	bcs70 age 16: Does every little thing get on your nerves and wear you out? (c5o20)
b16mal21	bcs70 age 16: Does your heart often race like mad? (c5o21)
b16mal22	bcs70 age 16: Do you often have bad pain in eyes? (c5o22)
b26mal01	bcs70 age 26: Do you often have backache? (b960637)
b26mal02	bcs70 age 26: Do you feel tired most of the time? (b960638)
b26mal03	bcs70 age 26: Do you often feel depressed? (b960639)
b26mal04	bcs70 age 26: Do you often have bad headaches? (b960640)
b26mal05	bcs70 age 26: Do you often get worried about things? (b960641)
b26mal06	bcs70 age 26: Do you usually have great difficulty in falling or staying asleep? (b960642)
b26mal07	bcs70 age 26: Do you usually wake unnecessarily early in the morning? (b960643)
b26mal08	bcs70 age 26: Do you wear yourself out worrying about your health? (b960644)
b26mal09	bcs70 age 26: Do you often get into a violent rage? (b960645)
b26mal10	bcs70 age 26: Do people annoy and irritate you? (b960646)
b26mal11	bcs70 age 26: Have you at times had a twitching of the face, head or shoulders? (b960647)
b26mal12	bcs70 age 26: Do you suddenly become scared for no good reason? (b960648)
b26mal13	bcs70 age 26: Are you scared to be alone when there are not friends near you? (b960649)
b26mal14	bcs70 age 26: Are you easily upset or irritated? (b960650)
b26mal15	bcs70 age 26: Are you frightened of going out alone or of meeting people? (b960651)
b26mal16	bcs70 age 26: Are you constantly keyed up and jittery? (b960652)
b26mal17	bcs70 age 26: Do you suffer from indigestion? (b960653)
b26mal18	bcs70 age 26: Do you suffer from an upset stomach? (b960654)
b26mal19	bcs70 age 26: Is your appetite poor? (b960655)
b26mal20	bcs70 age 26: Does every little thing get on your nerves and wear you out? (b960656)
b26mal21	bcs70 age 26: Does your heart often race like mad? (b960657)
b26mal22	bcs70 age 26: Do you often have bad pain in eyes? (b960658)
b26mal23	bcs70 age 26: Are you troubled with rheumatism or fibrosis? (b960659)
b26mal24	bcs70 age 26: Have you ever had a nervous breakdown? (b960660)
b30mal01	bcs70 age 30: Do you often have backache? (mal01)
b30mal02	bcs70 age 30: Do you feel tired most of the time? (mal02)
b30mal03	bcs70 age 30: Do you often feel depressed? (mal03)
b30mal04	bcs70 age 30: Do you often have bad headaches? (mal04)
b30mal05	bcs70 age 30: Do you often get worried about things? (mal05)
b30mal06	bcs70 age 30: Do you usually have great difficulty in falling or staying asleep? (mal06)
b30mal07	bcs70 age 30: Do you usually wake unnecessarily early in the

Table 2: Variables in 'b034malaise.sav' data file

<u>Name</u>	<u>Label</u>
	morning? (mal07)
b30mal08	bcs70 age 30: Do you wear yourself out worrying about your health? (mal08)
b30mal09	bcs70 age 30: Do you often get into a violent rage? (mal09)
b30mal10	bcs70 age 30: Do people annoy and irritate you? (mal10)
b30mal11	bcs70 age 30: Have you at times had a twitching of the face, head or shoulders? (mal11)
b30mal12	bcs70 age 30: Do you suddenly become scared for no good reason? (mal12)
b30mal13	bcs70 age 30: Are you scared to be alone when there are not friends near you? (mal13)
b30mal14	bcs70 age 30: Are you easily upset or irritated? (mal14)
b30mal15	bcs70 age 30: Are you frightened of going out alone or of meeting people? (mal15)
b30mal16	bcs70 age 30: Are you constantly keyed up and jittery? (mal16)
b30mal17	bcs70 age 30: Do you suffer from indigestion? (mal17)
b30mal18	bcs70 age 30: Do you suffer from an upset stomach? (mal18)
b30mal19	bcs70 age 30: Is your appetite poor? (mal19)
b30mal20	bcs70 age 30: Does every little thing get on your nerves and wear you out? (mal20)
b30mal21	bcs70 age 30: Does your heart often race like mad? (mal21)
b30mal22	bcs70 age 30: Do you often have bad pain in eyes? (mal22)
b30mal23	bcs70 age 30: Are you troubled with rheumatism or fibrosis? (mal23)
b30mal24	bcs70 age 30: Have you ever had a nervous breakdown? (mal24)
b34mal02	bcs70 age 34: Do you feel tired most of the time? (b7mal02)
b34mal03	bcs70 age 34: Do you often feel depressed? (b7mal03)
b34mal05	bcs70 age 34: Do you often get worried about things? (b7mal05)
b34mal09	bcs70 age 34: Do you often get into a violent rage? (b7mal09)
b34mal12	bcs70 age 34: Do you suddenly become scared for no good reason? (b7mal12)
b34mal14	bcs70 age 34: Are you easily upset or irritated? (b7mal14)
b34mal16	bcs70 age 34: Are you constantly keyed up and jittery? (b7mal16)
b34mal20	bcs70 age 34: Does every little thing get on your nerves and wear you out? (b7mal20)
b34mal21	bcs70 age 34: Does your heart often race like mad? (b7mal21)

SPSS syntax for constructing summary Malaise scores

BCS70 variables

Summary variables at age 26 and age 30 are constructed from questions asked in the standard 'yes/no' format, where yes=1 and no=0. The cut-off point to indicate depression is a score of 8 plus. At age 34 just 9 'yes/no' questions were asked: a cut off point of 4+ is used to indicate depression. At age 16, 22 questions were asked with three answer categories of 0=rarely/never, 1=sometimes, 2=most of the time. A score of 15+ indicates depression. The syntax to create these variables is given below.

An alternative way of constructing these variables to make them comparable overtime could be to group the top 10% of scores at each age (or 15%, 20% etc) as being those most likely to be suffering from depression.

Age 16

```
do if (b16mal01 >= -2).
count b16mal1 = b16mal01 b16mal02 b16mal03 b16mal04 b16mal05 b16mal06
b16mal07 b16mal08 b16mal09 b16mal10 b16mal11 b16mal12 b16mal13
b16mal14 b16mal15 b16mal16 b16mal17 b16mal18 b16mal19 b16mal20
b16mal21 b16mal22 (1) .
count b16mal2 = b16mal01 b16mal02 b16mal03 b16mal04 b16mal05 b16mal06
b16mal07 b16mal08 b16mal09 b16mal10 b16mal11 b16mal12 b16mal13
b16mal14 b16mal15 b16mal16 b16mal17 b16mal18 b16mal19 b16mal20
b16mal21 b16mal22 (2).
compute b16mal2 = b16mal2 * 2.
compute b16mal = SUM(b16mal1,b16mal2).
count b16miss = b16mal01 b16mal02 b16mal03 b16mal04 b16mal05 b16mal06
b16mal07 b16mal08 b16mal09 b16mal10 b16mal11 b16mal12 b16mal13
b16mal14 b16mal15 b16mal16 b16mal17 b16mal18 b16mal19
b16mal20 b16mal21 b16mal22 (-2).
count b16miss2 = b16mal01 b16mal02 b16mal03 b16mal04 b16mal05
b16mal06 b16mal07 b16mal08 b16mal09 b16mal10 b16mal11 b16mal12
b16mal13 b16mal14 b16mal15 b16mal16 b16mal17 b16mal18 b16mal19
b16mal20 b16mal21 b16mal22 (-1).
compute malmiss =b16mal + b16miss.
```

**this code is used to include as many individuals as possible but excludes those with enough missing values to potentially give them a 'high' malaise score.

```
if (b16miss > 0 and b16mal <= 14 and malmiss >= 15) b16mal = -1.
if (b16miss2 = 22) b16mal = -2.
recode b16mal (0 thru 14=1) (15 thru 44 = 2) (-2,-1=copy) into b16malg.
end if.
missing values b16mal b16malg (-1,-2).
variable labels b16mal 'bcs70 age 16: total Malaise score - 22 questions'.
```

```
variable labels b16malg 'bcs70 age 16: total Malaise score - 22 questions
grouped'.
value labels b16mal -1'incomplete info' -2'not stated any questions'.
value labels b16malg 1'0-14' 2'15+' -1'incomplete info' -2'not stated any
questions' .
freq b16mal b16malg.
```

Age 26

```
COMPUTE b26mal = SUM(b26mal01,b26mal02,b26mal03,b26mal04,b26mal05,
b26mal06,b26mal07,b26mal08,b26mal09,b26mal10,b26mal11,b26mal12,
b26mal13,b26mal14,b26mal15,b26mal16,b26mal17,b26mal18,b26mal19,
b26mal20,b26mal21,b26mal22,b26mal23,b26mal24) .
```

**this code is used to include as many individuals as possible but excludes those with enough missing values to potentially give them a 'high' malaise score.

```
count b26miss = b26mal01 b26mal02 b26mal03 b26mal04 b26mal05 b26mal06
b26mal07 b26mal08 b26mal09 b26mal10 b26mal11 b26mal12 b26mal13
b26mal14 b26mal15 b26mal16 b26mal17 b26mal18 b26mal19 b26mal20
b26mal21 b26mal22 b26mal23 b26mal24 (missing).
compute malmiss =b26mal + b26miss.
if (b26miss > 0 and b26mal <= 7 and malmiss >= 8) b26mal = -1.
if (b26miss = 24) b26mal = -2.
recode b26mal (0 thru 7 = 1) (8 thru highest = 2) (-2,-1= copy) into b26malg.
missing values b26mal b26malg (-1,-2).
variable labels b26mal 'bcs70 age 26: total Malaise score'.
variable labels b26malg 'bcs70 age 26: total Malaise score - grouped'.
value labels b26mal -1'incomplete info' -2'not stated any questions' .
value labels b26malg 1'0-7' 2'8+' -1'incomplete info' -2'not stated any questions'.
freq b26mal b26malg.
```

Age 30

```
COMPUTE b30mal = SUM(b30mal01,b30mal02,b30mal03,b30mal04,b30mal05,
b30mal06,b30mal07,b30mal08,b30mal09,b30mal10,b30mal11,b30mal12,
b30mal13,b30mal14,b30mal15,b30mal16,b30mal17,b30mal18,b30mal19,b30mal
20,b30mal21,b30mal22,b30mal23,b30mal24) .
```

**this code is used to include as many individuals as possible but excludes those with enough missing values to potentially give them a 'high' malaise score.

```
count b30miss = b30mal01 b30mal02 b30mal03 b30mal04 b30mal05 b30mal06
b30mal07 b30mal08 b30mal09 b30mal10 b30mal11 b30mal12 b30mal13
b30mal14 b30mal15 b30mal16 b30mal17 b30mal18 b30mal19 b30mal20
b30mal21 b30mal22 b30mal23 b30mal24 (missing).
compute malmiss =b30mal + b30miss.
if (b30miss > 0 and b30mal <= 6 and malmiss >= 7) b30mal = -1.
```

```

if (b30miss = 24) b30mal = -2.
recode b30mal (0 thru 7=1) (8 thru highest = 2) (-1=-1) (-2=-2) into b30malg.
missing values b30mal b30malg (-1,-2).
variable labels b30mal 'bcs70 age 30: total Malaise score'.
variable labels b30malg 'bcs70 age 30: total Malaise score - grouped'.
value labels b30mal -1'incomplete info' -2'not stated any questions'.
value labels b30malg 1'0-7' 2'8+' -1'incomplete info' -2'not stated any questions'

```

Age 34

```

COMPUTE b34mal = SUM(b34mal02,b34mal03,b34mal05,b34mal09,b34mal12,
b34mal14,b34mal16,b34mal20,b34mal21) .
missing values b34mal02 b34mal03 b34mal05 b34mal09 b34mal12 b34mal14
b34mal16 b34mal20 b34mal21 ( ).
do if (b34mal02 >= -1).
count b34mal = b34mal02 b34mal03 b34mal05 b34mal09 b34mal12 b34mal14
b34mal16 b34mal20 b34mal21 (1).

```

**this code is used to include as many individuals as possible but excludes those with enough missing values to potentially give them a 'high' malaise score.

```

count b34miss = b34mal02 b34mal03 b34mal05 b34mal09 b34mal12 b34mal14
b34mal16 b34mal20 b34mal21 (-1).
compute malmiss =b34mal + b34miss.
if (b34miss > 0 and b34mal <= 3 and malmiss >= 4) b34mal = -1.
if (b34miss = 9) b34mal = -2.
end if.
recode b34mal (0 thru 3=1) (4 thru highest = 2) (-1=-1) (-2=-2) into b34malg.
missing values b34mal b34malg (-1,-2).
variable labels b34mal 'bcs70 age 34: total Malaise score (9 questions)'.
variable labels b34malg 'bcs70 age 34: total Malaise score - grouped'.
value labels b34mal -1'incomplete info' -2'not stated any questions'.
value labels b34malg 1'0-3' 2'4+' -1'incomplete info' -2'not stated any questions' .

freq b34mal b34malg.

```

NCDS variables

Summary variables at age 23, 33 and 42 are constructed from 24 questions asked in the standard 'yes/no' format, where yes=1 and no=0. The cut-off point to indicate depression is a score of 8 plus.

Age 23

```
COMPUTE n23mal = SUM(n23mal01,n23mal02,n23mal03,n23mal04,n23mal05,
n23mal06,n23mal07,n23mal08,n23mal09,n23mal10,n23mal11,n23mal12,n23mal
13,n23mal14,n23mal15,n23mal16,n23mal17,n23mal18,n23mal19, n23mal20,
n23mal21,n23mal22,n23mal23,n23mal24) .
count n23miss = n23mal01 n23mal02 n23mal03 n23mal04 n23mal05 n23mal06
n23mal07 n23mal08 n23mal09 n23mal10 n23mal11 n23mal12 n23mal13
n23mal14 n23mal15 n23mal16
n23mal17 n23mal18 n23mal19 n23mal20 n23mal21 n23mal22 n23mal23
n23mal24 (missing).
compute malmiss =n23mal + n23miss.
```

**this code is used to include as many individuals as possible but excludes those with enough missing values to potentially give them a 'high' malaise score.

```
if (n23miss > 0 and n23mal <= 7 and malmiss >= 8) n23mal = -1.
recode n23mal (0 thru 7=1) (8 thru highest = 2) (-1=-1) into n23malg.
recode n23mal n23malg (sysmis = -2).
missing values n23mal n23malg (-1,-2).
variable labels n23mal 'ncds age 23: total Malaise score'.
variable labels n23malg 'ncds age 23: total Malaise score - grouped'.
value labels n23mal -1'incomplete info' -2'not stated any questions' .
value labels n23malg 1'0-7' 2'8+' -1'incomplete info' -2'not stated any questions'.
freq n23mal n23malg.
```

Age 33

```
COMPUTE n33mal = SUM(n33mal01,n33mal02,n33mal03,n33mal04,n33mal05,
n33mal06,n33mal07,n33mal08,n33mal09,n33mal10,n33mal11,n33mal12,n33mal
13,n33mal14,n33mal15,n33mal16,n33mal17,n33mal18,n33mal19,n33mal20,
n33mal21,n33mal22,n33mal23,n33mal24) .
count n33miss = n33mal01 n33mal02 n33mal03 n33mal04 n33mal05 n33mal06
n33mal07 n33mal08 n33mal09 n33mal10 n33mal11 n33mal12 n33mal13
n33mal14 n33mal15 n33mal16 n33mal17 n33mal18 n33mal19 n33mal20
n33mal21 n33mal22 n33mal23 n33mal24 (missing).
compute malmiss =n33mal + n33miss.
```

**this code is used to include as many individuals as possible but excludes those with enough missing values to potentially give them a 'high' malaise score.

```
if (n33miss > 0 and n33mal <= 7 and malmiss >= 8) n33mal = -1.
recode n33mal (0 thru 7=1) (8 thru highest = 2) (-1=-1) into n33malg.
```

```
recode n33mal n33malg (sysmis = -2).  
missing values n33mal n33malg (-1,-2).  
variable labels n33mal 'ncds age 33: total Malaise score'.  
variable labels n33malg 'ncds age 33: total Malaise score - grouped'.  
value labels n33mal -1'incomplete info' -2'not stated any questions' .  
value labels n33malg 1'0-7' 2'8+' -1'incomplete info' -2'not stated any questions'.  
freq n33mal n33malg.
```

Age 42

```
COMPUTE n42mal = SUM(n42mal01,n42mal02,n42mal03,n42mal04,n42mal05,  
n42mal06,n42mal07,n42mal08,n42mal09,n42mal10,n42mal11,n42mal12,  
n42mal13, n42mal14, n42mal15,n42mal16,n42mal17,n42mal18,n42mal19,  
n42mal20,n42mal21,n42mal22,n42mal23,n42mal24) .  
count n42miss = n42mal01 n42mal02 n42mal03 n42mal04 n42mal05 n42mal06  
n42mal07 n42mal08 n42mal09 n42mal10 n42mal11 n42mal12 n42mal13  
n42mal14 n42mal15 n42mal16 n42mal17 n42mal18 n42mal19 n42mal20  
n42mal21 n42mal22 n42mal23 n42mal24 (missing).  
compute malmiss =n42mal + n42miss.
```

**this code is used to include as many individuals as possible but excludes those with enough missing values to potentially give them a 'high' malaise score.

```
if (n42miss > 0 and n42mal <= 7 and malmiss >= 8) n42mal = -1.  
recode n42mal (0 thru 7=1) (8 thru highest = 2) (-1=-1) into n42malg.  
recode n42mal n42malg (sysmis = -2).  
missing values n42mal n42malg (-1,-2).  
variable labels n42mal 'ncds age 42: total Malaise score'.  
variable labels n42malg 'ncds age 42: total Malaise score - grouped'.  
value labels n42mal -1'incomplete info' -2'not stated any questions'.  
value labels n42malg 1'0-7' 2'8+' -1'incomplete info' -2'not stated any questions' .  
  
freq n42mal n42malg.
```