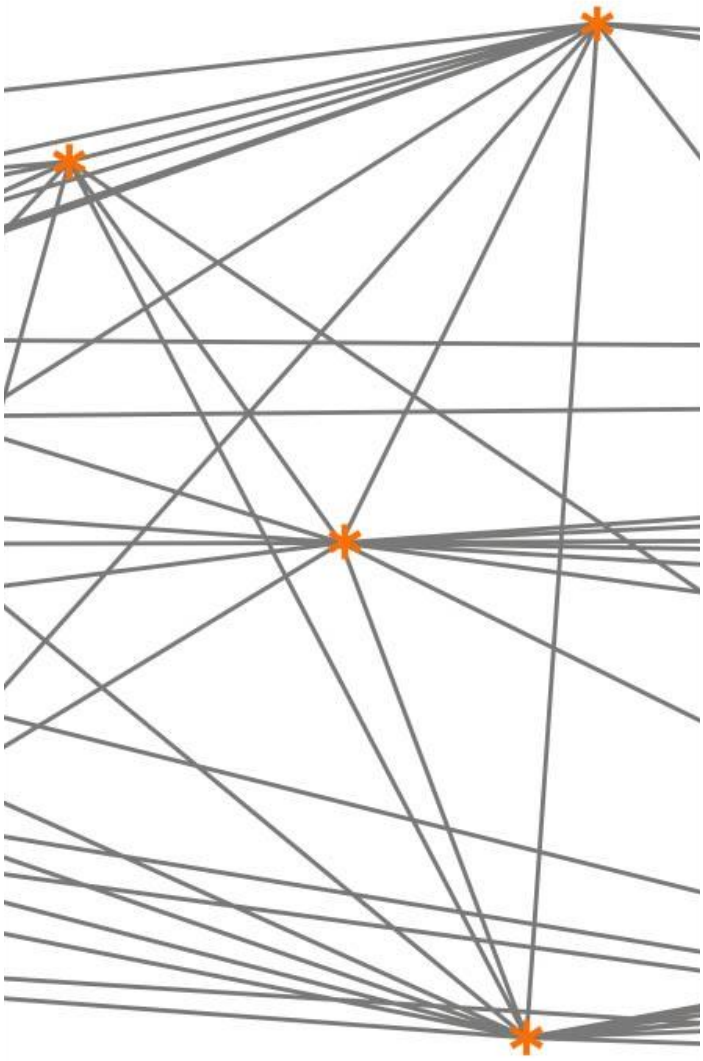
SHARE

Survey of Health, Ageing and Retirement in Europe

Scales and Multi-Item Indicators



Tabea Mehrbrodt
Stefan Gruber
Melanie Wagner

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Table of Contents

I. Mental health measures 3

1. EURO-D 3
2. CASP-12 5
3. Three-Item Loneliness Scale 7
4. Multi-Item Indicator Anxiety 8

II. Physical health measures 9

1. Global Activity Limitation Index (GALI) 9
2. Activities of Daily Living (ADL) 10
3. Instrumental Activities of Daily Living (IADL) 11
4. Self-perceived Health – US Version (SPHUS) and EU Version (SPHEU) 12
5. Multi-Item Indicator Pain 13
6. Body Mass Index (BMI) 14
7. Grip Strength (GS) 15
8. Walking Speed 16
9. Peak Flow 17
10. Chair Stand Test 18

III. Cognitive functioning measures 19

1. Temporal orientation 19
2. Numeracy 20
3. 10-words recall test 21
4. Verbal fluency 25

IV. Occupational measures 26

1. Effort-Reward Imbalance (ERI) questionnaire 26
2. International Standard Classification of Occupations (ISCO) 27
3. Statistical Classification of Economic Activities in the European Community (NACE) .. 30

V. Educational measures 33

1. International Standard Classification of Education (ISCED) 33

VI. Other 36

1. Multi-Item Indicator Residential Environment Quality 36

About this manual

The purpose of this manual is to provide an informative overview of all scales and item groups that are included in the questionnaire of Wave 1 to Wave 6 of the Survey of Health, Age and Retirement in Europe (SHARE). The manual covers literature based information on the definition and content of the respective scale or multi-item indicator and its operationalisation in SHARE. All scales and multi-item indicators are displayed in English according to the generic version of the SHARE questionnaire.

I. Mental health measures

1. EURO-D

Definition

The EURO-D scale (Prince et al., 1999) was originally developed in an effort to derive a common depression symptoms scale from various instruments on late-life depression used in different European countries. The resulting scale consists of the following items: depression, pessimism, suicidality, guilt, sleep, interest, irritability, appetite, fatigue, concentration (on reading or entertainment), enjoyment, and tearfulness.

Operationalisation in SHARE

SHARE provides the EURO-D variable (*eurod*) and the EURO-D caseness variable (*eurodcat*) as generated variables in the gv_health module. *eurod* is generated from questions in the mental health module (*mh002_ – mh017_*) as a composite index of the sixteen items. Please note that information in *mh005_/mh006_*, *mh008_/mh009_*, *mh011_/mh012_* and *mh014_/mh015_* is combined when generating *eurod* so that the list of 16 items in table 1 is reduced to 12 final items. The maximum score a respondent can get is 12 “very depressed” and the minimum score is 0 “not depressed”.

The attainment of a scale score of 4 or higher is categorized as “case of depression” and a scale score below 4 as “not depressed”. The generated variable *eurodcat* equals 1 if the scale score is 4 or higher.

Table 1: List of relevant EURO-D variables in the mental health module (mh)

Waves: 1, 2, 4, 5, 6	Question text	Response options*
MH002	In the last month, have you been sad or depressed?	1. Yes 5. No
MH003	What are your hopes for the future?	1. Any hopes mentioned 2. No hopes mentioned
MH004	In the last month, have you felt that you would rather be dead?	1. Any mention of suicidal feelings or wishing to be dead 2. No such feelings
MH005	Do you tend to blame yourself or feel guilty about anything?	1. Obvious excessive guilt or self blame 2. No such feelings 3. Mentions guilt or self blame, but it is unclear if these constitute obvious or excessive guilt or self-blame
MH006 (if MH005 = 3)	So, for what do you blame yourself?	1. Example(s) given constitute obvious excessive guilt or self-blame 2. Example(s) do not constitute obvious excessive guilt or self-blame, or it remains unclear if these constitute obvious or excessive guilt or self-blame
MH007	Have you had trouble sleeping recently?	1. Trouble with sleep or re cent change in pattern 2. No trouble sleeping
MH008	In the last month, what is your interest in things?	1. Less interest than usual mentioned 2. No mention of loss of interest 3. Non-specific or uncodeable response
MH009 (if MH008 = 3)	So, do you keep up your interests?	1. Yes 5. No
MH010	Have you been irritable recently?	1. Yes 5. No
MH011	What has your appetite been like?	1. Diminution in desire for food 2. No diminution in desire for food 3. Non-specific or uncodeable response
MH012 (if MH011 = 3)	So, have you been eating more or less than usual?	1. Less 2. More 3. Neither more nor less
MH013	In the last month, have you had too little energy to do the things you wanted to do?	1. Yes 5. No

Waves: 1, 2, 4, 5, 6	Question text	Response options*
MH014	How is your concentration? For example, can you concentrate on a television programme, film or radio programme?	1. Difficulty in concentrating on entertainment 2. No such difficulty mentioned
MH015	Can you concentrate on something you read?	1. Difficulty in concentrating on reading 2. No such difficulty mentioned
MH016	What have you enjoyed doing recently?	1. Fails to mention any enjoyable activity 2. Mentions ANY enjoyment from activity
MH017	In the last month, have you cried at all?	1. Yes 5. No

*Please note that in wave 5 the response options of these items differ from the other waves and thus from the values shown in table 1 (see the wave 5 questionnaire).

References

Prince, M. J., Reischies, F., Beekman, A. T. F., Fuhrer, R., Jonker, C., Kivela, S. L., Lawlor, B., Lobo A., Magnusson, H., Fichter, M. M., Van Oyen, H., Roelands, M., Skoog, I., Turrina, C. & Copeland, J. R. (1999). Development of the EURO-D scale – a European Union initiative to compare symptoms of depression in 14 European centres. *The British Journal of Psychiatry, 174*(4), 330-338.

2. CASP-12

Definition

The original CASP-19 scale (Hyde et al., 2003) is a theoretically grounded measure of quality of life in older age. CASP-12 is the revised 12-item version of CASP-19. The scale is composed of four subscales, the initials of which make up the acronym: control, autonomy, self-realization and pleasure. The 12 items which are presented as questions or statements to survey respondents are assessed on a four point Likert scale (“often”, “sometimes”, “rarely”, “never”). The resulting score is the sum of these 12 items, and ranges from the minimum of 12 to the maximum of 48. A high score indicates high quality of life. The literature does not provide an indication of a threshold which categorizes quality of life in “low” and “high”.

Operationalisation in SHARE

In Wave 1, the CASP-12 questions are part of the drop-off (self-completion of a paper-and-pencil questionnaire) leading to a higher share of missing data. In Wave 2, 3, 4, 5, and 6, the CASP-12 questions are part of the regular SHARE questionnaire. SHARE provides the CASP-12 variable (*casp*) as a generated variable in the gv_health module.

Table 2: List of relevant CASP variables in the drop-off questionnaire

Wave: 1	Question text	Subscale
q_2a	My age prevents me from doing the things I would like to.	Control
q_2b	I feel that what happens to me is out of my control.	Control
q_2c	I felt left out of things.	Control
q_2d	I can do the things that I want to do.	Autonomy
q_2e	Family responsibilities prevent me from doing what I want to do.	Autonomy
q_2f	Shortage of money stops me from doing the things I want to do.	Autonomy
q_2g	I look forward to each day.	Pleasure
q_2h	I feel that my life has meaning.	Pleasure
q_2i	On balance, I look back on my life with a sense of happiness.	Pleasure
q_2j	I feel full of energy these days.	Self-Realization
q_2k	I feel that life is full of opportunities.	Self-Realization
q_2l	I feel that the future looks good for me.	Self-Realization

Table 3: List of relevant CASP variables in the activities module (ac)

Waves: 2, 3, 4, 5, 6	Question text	Subscale
AC014	How often do you think your age prevents you from doing the things you would like to do?	Control
AC015	How often do you feel that what happens to you is out of your control?	Control
AC016	How often do you feel left out of things?	Control
AC017	How often do you think that you can do the things that you want to do?	Autonomy
AC018	How often do you think that family responsibilities prevent you from doing what you want to do?	Autonomy
AC019	How often do you think that shortage of money stops you from doing the things you want to do?	Autonomy
AC020	How often do you look forward to each day?	Pleasure
AC021	How often do you feel that your life has meaning?	Pleasure
AC022	How often, on balance, do you look back on your life with a sense of happiness?	Pleasure
AC023	How often do you feel full of energy these days?	Self-Realization
AC024	How often do you feel that life is full of opportunities?	Self-Realization
AC025	How often do you feel that the future looks good for you?	Self-Realization

References

Hyde, M., Wiggins, R. D., Higgs, P., & Blane, D. B. (2003). A measure of quality of life in early old age: the theory, development and properties of a needs satisfaction model (CASP-19). *Aging & mental health, 7*(3), 186-194.

Von dem Knesebeck, O., Hyde, M., Higgs, P., Kupfer, A., Siegrist, J.: Quality of Life and Well-Being. In: Börsch-Supan, A., Brugiavini, A., Jürges, H., Mackenbach, J., Siegrist, J., Weber, G. (2005). *Health, ageing and retirement in Europe – First results from the Survey of Health, Ageing and Retirement in Europe*. Mannheim: Mannheim Research Institute for the Economics of Aging (MEA).

3. Three-Item Loneliness Scale

Definition

The Three-Item Loneliness Scale (Hughes et al., 2004) is a short version of the R-UCLA Loneliness Scale (Russell et al., 1978). It measures indirect loneliness. The three items companionship, left out, and isolated are answered on a three point Likert scale ("often", "some of the time", "hardly ever or never"). The minimum of the resulting score is 3 ("not lonely") and the maximum is 9 ("very lonely"). The literature does not provide an indication of a threshold which categorizes "lonely" and "not lonely".

Operationalisation in SHARE

SHARE provides the generated Loneliness Scale variable (*loneliness*) as part of the gv_health module. The variable is a sum score based on *mh034_, mh035_* and mh036_ from the mental health module that ranges between the values 3 "Not lonely" and 9 "Very lonely".

Table 4: Three-Item Loneliness Scale

Waves: 5, 6	Question text
MH034	How much of the time do you feel you lack companionship?
MH035	How much of the time do you feel left out?
MH036	How much of the time do you feel isolated from others?

Additional information on the respondent's self-assessment of loneliness can be derived from an direct over-all item answered on the same three point Likert scale ("often", "some of the time", "hardly ever or never").

Table 5: Additional information on respondent's self-assessment

Waves: 5, 6	Question text
MH037	How much of the time do you feel lonely?

References

Russell, D., Peplau, L. A. & Ferguson M. L. (2010) Developing a measure of loneliness. *Journal of Personality Assessment*, *42*(3), 290-294.

Russel, D., Peplau, L. A. & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, *39*(3), 472-480.

Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, *66*(1), 20-40.

Hughes, M. E., Waite, L. J., Hawkley, L. C., & Cacioppo, J. T. (2004). A short scale for measuring loneliness in large surveys results from two population-based studies. *Research on Aging*, *26*(6), 655-672.

4. Multi-Item Indicator Anxiety

Definition

The Beck Anxiety Inventory (Beck et al., 1988) is used for measuring the severity of anxiety. The measure asks about common physiological and cognitive symptoms of anxiety that the respondent has had during the past week. The 21 questions are answered on a four point Likert scale ("never", "hardly ever", "some of the time", "most of the time"). A high result score indicates high anxiety.

Operationalisation in SHARE

Anxiety is measured by five items in SHARE. SHARE includes one item about psychological (MH023), two items about physiological (MH025, MH027) and two items about cognitive symptoms (MH024, MH026).

Table 6: Items measuring anxiety

Waves: 4, 5	Question text
MH023	I had fear of the worst happening.
MH024	I was nervous.
MH025	I felt my hands trembling.
MH026	I had a fear of dying.
MH027	I felt faint.

References

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*(6), 893.

II. Physical health measures

1. Global Activity Limitation Index (GALI)

Definition

The Global Activity Limitation Index[1] (GALI) has been developed as an indicator for comparing health expectancy and disability across Europe. It is a global single-item instrument (with optional additional questions) that measures long-standing activity limitations (six months or more) referring to general health problems and activities people usually do.

Operationalisation in SHARE

SHARE provides the generated variable *gali* as part of the gv_health module. The resulting categories are "limited" and "not limited". It is based on *ph005_*.

Table 7: Measure for GALI in SHARE

Waves: 1, 2, 4, 5, 6	Question text	Response options
PH005	For the past 6 months at least, to what extent have you been limited because of a health problem in activities people usually do?	1. Severely limited 2. Limited, but not severely 3. Not limited

References

Robine, J. M., & Jagger, C. (2003). Creating a coherent set of indicators to monitor health across Europe. *The European Journal of Public Health*, *13*(1), 6-14.

Van Oyen, H., Van der Heyden, J., Perenboom, R., & Jagger, C. (2006). Monitoring population disability: evaluation of a new Global Activity Limitation Indicator (GALI). *Sozial-und Präventivmedizin*, *51*(3), 153-161.

[1] Sometimes also referred to as "General Activity Limitation Index"

2. Activities of Daily Living (ADL)

Definition

The ADL index (Katz et al., 1963) describes the number of limitations with activities of daily living. It refers to people's everyday self-care activities such as dressing, walking, grooming, eating, transferring bed, and toileting, which are fundamental for maintaining independence.

Operationalisation in SHARE

The modified version used in SHARE includes six activities (Nicholas et al., 2003). Thus, the result score ranges from 0 to 6. The higher the index is, the more difficulties with these activities and the lower the mobility of the respondent.

SHARE provides ADL as a generated variable and also ADL2 which reclassifies ADL in two categories: 0 "no ADL limitations" and 1 "1+ ADL limitations" (see gv_health module).

Table 8: Measure of ADL in SHARE

Waves: 1, 2, 4, 5, 6	Question text	Response options
Part of PH049	Please look at card ^SHOWCARD_ID. Please tell me if you have any difficulty with these because of a physical, mental, emotional or memory problem. Exclude any difficulties you expect to last less than three months.	1. Dressing, including putting on shoes and socks 2. Walking across a room 3. Bathing or showering 4. Eating, such as cutting up your food 5. Getting in or out of bed 6. Using the toilet, including getting up or down 96. None of these

References

Katz, S., Ford, A. B., Moskowitz, R. W., Jackson, B. A., & Jaffe, M. W. (1963). Studies of illness in the aged: the index of ADL: a standardized measure of biological and psychosocial function. *Jama*, *185*(12), 914-919.

Steel, N., Huppert F. A., McWilliams B. & David Melzer (2003): *Physical and Cognitive Function*. In: Marmot, M., Banks, J., Blundell, R., Lessof C. & Nazroo J. (ed.) Health, wealth and lifestyles of the older population in England: ELSA 2002. London: Institute for Fiscal Studies. 249–271.

3. Instrumental Activities of Daily Living (IADL)

Definition

The IADL index (Lawton & Brody, 1969) describes the number of limitations with instrumental activities of everyday life.

Operationalisation in SHARE

The modified version used in SHARE includes seven activities (Nicholas et al., 2003). Thus, the score ranges from 0 to 7. The higher the index is, the more difficulties with these activities and the lower the mobility of the respondent. SHARE provides *iadl* and *iadl* 2 as generated variables in the gv_health module. The latter reclassifies *iadl* in two categories: 0 "no IADL limitations" and 1 "1+ IADL limitations".

Table 9: Measure of IADL in SHARE

Waves: 1, 2, 4, 5	**Question text**	**Response options**
Part of PH049	Please look at card ^SHOWCARD_ID. Please tell me if you have any difficulty with these because of a physical, mental, emotional or memory problem. Exclude any difficulties you expect to last less than three months.	7. Using a map to figure out how to get around in a strange place 8. Preparing a hot meal 9. Shopping for groceries 10. Making telephone calls 11. Taking medications 12. Doing work around the house or garden 13. Managing money, such as paying bills and keeping track of expenses 96. None of these
Wave: 6	**Question text**	**Response options**
Part of PH049	Please look at card ^SHOWCARD_ID. Please tell me if you have any difficulty with these because of a physical, mental, emotional or memory problem. Exclude any difficulties you expect to last less than three months.	7. Using a map to figure out how to get around in a strange place 8. Preparing a hot meal 9. Shopping for groceries 10. Making telephone calls 11. Taking medications 12. Doing work around the house or garden 13. Managing money, such as paying bills and keeping track of expenses 14. Leaving the house independently and accessing transportation services 15. Doing personal laundry 96. None of these

References

Lawton, M.P., & Brody, E.M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9(3), 179-186.

Nicholas, S., Huppert, F., McWilliams, B., & Melzer, D. (2003). Health, Wealth and Lifestyles of the Older Population in England: the 2002 English Longitudinal Study of Ageing.

4. Self-perceived Health – US Version (SPHUS) and EU Version (SPHEU)

Definition

sphus and *spheu* measure self-perceived health with a single item. Respondents rate their present general health on a five point Likert scale. The difference between the European and the US version is the range of response options. The answer categories in the European version (*spheu*) range between "very good" and "very poor". The answer categories in the US version (*sphus*), which are based on the SF-36 questionnaire (Ware and Gandek 1998), range between "excellent" and "poor".

Operationalisation in SHARE

In Wave 1, SHARE contains both versions. Respondents answered the respective question either at the beginning or at the end of the PH module. The generated variables *sphus* and *sphus2* as well as *spheu* and *spheu2* are stored in the gv_health module. *sphus2* and *spheu2* are dichotomised versions with 0 indicating "good or very good health" and 1 "less than good health". From Wave 2 onwards, SHARE contains only the US version. For a comparison between the European and the US version, please see Jürges et al. (2008).

Table 10: Measures of self-perceived health in SHARE

Wave: 1	Waves: 2, 4, 5, 6	Wave: 3	Question text	Response options
PH002 PH052			Would you say your health is...	1. Very good 2. Good 3. Fair 4. Bad 5. Very bad
PH003 PH053	PH003	sl_ph003	Would you say your health is…	1. Excellent 2. Very good 3. Good 4. Fair 5. Poor

References

Ware, J. E., & Gandek, B. (1998). Overview of the SF-36 health survey and the international quality of life assessment (IQOLA) project. *Journal of clinical epidemiology*, 51(11), 903-912.

Jürges, H., Avendano, M. & Mackenbach, J.P. (2008). Are different measures of self-rated health comparable? An assessment in five European countries. *Eur J Epidemiol* 23: 773-781.

5. Multi-Item Indicator Pain

Definition

Chronic pain is a public health concern that affects between 20 and 30 percent of the population of Western countries (Dansie and Turk 2013). Usually pain is regarded as chronic when it lasts or recurs for more than 3 to 6 months (Merskey and Bogduk 1994).

Operationalisation in SHARE

In SHARE, pain perception is measured by four items.

Table 11: Measures of pain perception in SHARE

Wave: 5	Wave: 6	Question text	Response options
PH084	PH084	Are you troubled with pain?	1. Yes 5. No
PH085	PH085	How bad is the pain most of the time? Is it…	1. Mild 3. Moderate 5. Severe
PH087	PH087	Look at card ^SHOWCARD_ID. In which parts of the body do you feel pain? [Code all that apply]	1. Back 2. Hips 3. Knees 4. Other joints 5. Mouth/Teeth 6. Other parts of the body, but not joints 7. All over
PH088		You have just told me that you are bothered by pain in your back, knees, hips or another joint. Have you been bothered for the past six months at least by any of these joint pains?	1. Yes 5. No

References

Dansie, E. J., & Turk, D. C. (2013). Assessment of patients with chronic pain. *British Journal of Anaesthesia*, 111(1), 19–25.

Merskey, H. & Bogduk, N. (1994) *Classification of chronic pain*. 2nd ed. Seattle: IASP Press.

6. Body Mass Index (BMI)

Definition

The Body Mass Index (Quetelet 1832) is a measure for evaluating body weight in relation to body height. It is defined as the mass divided by the square of the height, universally expressed in units of kg/m².

Operationalisation in SHARE

SHARE provides the generated variables *bmi* and *bmi2* (BMI categorised) in the gv_health module. The values of are derived from the variables *ph012_* (weight) and *ph013_* (height), and is based on the following formula: BMI = (*ph012_* / (*ph013_*)²) * 10000.

The *bmi2* variable classifies the variable BMI into the standard categories determined by the World Health Organization (WHO, 1995) "underweight" (< 18.5), "normal" (18.5-24.9), "overweight" (25-29.9) and "obese" (> 30).

Table 12: Relevant variables for BMI

Waves: 1, 2, 4, 5, 6	Question text	Response options
PH012	Approximately how much do you weigh?	Weight in kilos
PH013	How tall are you?	Length in centimetres

References

Quetelet, A. (1832). Recherches sur le poids de l'homme aux différents âges. *Nouveaux Memoires de l'Academie Royale des Sciences et Belles-Lettres de Bruxelles*, 1-83.

WHO (1995). Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee*. WHO Technical Report Series 854.* Geneva: World Health Organization.

7. Grip Strength (GS)

Definition

Grip strength predicts disability, morbidity, frailty and mortality (Andersen-Ranberg et al., 2009). It is used as an indicator for overall health and usually declines with age. Grip strength differs by gender, height and weight. Within SHARE, grip strength is measured by using a handheld dynamometer on each hand (Smedley, S Dynamometer, TTM, Tokyo, 100 kg). Two measurements are taken on each hand, alternating between the hands.

Operationalisation in SHARE

SHARE measures the grip strength twice for each hand. The *maxgrip* variable as generated variable is part of the gv_health module. It contains the maximum value of the grip strength measurements of both hands. The variable is only generated for respondents with two valid measures for each hand and if the two measures for one hand do not differ more than 20 kg.

Table 13: Measuring grip strength in SHARE

Waves: 1, 2, 3, 4, 5, 6	Question text	Response options
GS006	Left hand, first measurement.	Between 0 and 100, in kg
GS007	Left hand, second measurement.	Between 0 and 100, in kg
GS008	Right hand, first measurement.	Between 0 and 100, in kg
GS009	Right hand, second measurement.	Between 0 and 100, in kg

References

See Andersen-Ranberg, K., Petersen, I., Frederiksen, H., Mackenbach, J. P., & Christensen, K. (2009). Cross-national differences in grip strength among 50+ year-old Europeans: results from the SHARE study. *European Journal of Ageing*, *6*(3), 227-236.

8. Walking Speed

Definition

Walking speed and steadiness predicts disability and mortality (Zaninotto et al., 2013). It is used as an indicator for overall health and usually declines with age.

Operationalisation in SHARE

In SHARE Waves 1 and 2, walking speed was assessed by measuring the time (in seconds) it takes for a respondent to walk a distance of two and a half meters. Respondents who need more than 0.54 seconds and less than 30 seconds are included. Walking speed is measured twice per respondent and only among respondents aged 75 years or older.
SHARE provides *wspeed* and *wspeed2* as generated variables in the gv_health module. *wspeed* contains the average speed of the two tests. *wspeed2* reclassifies *wspeed* in two categories: 0 "walking speed > 0.4 meters/second" and 1 "walking speed ≤ 0.4 meters/second".

Table 14: Measures of walking speed in SHARE

Waves: 1, 2	Question text	Response options
WS010	Result of first trial	1. Completed successfully 2. Attempted but unable to complete 3. Stopped by the interviewer because of safety reasons 4. Not attempted, respondent felt it would be unsafe 5. Participant unable to understand instructions 6. Respondent refused
WS011	Time of the first walking speed test	Time recorded in seconds in two decimal places
WS012	Result of second trail	1. Completed successfully 2. Attempted but unable to complete 3. Stopped by the interviewer because of safety reasons 4. Not attempted, respondent felt it would be unsafe 5. Participant unable to understand instructions 6. Respondent refused
WS013	Time of second walking speed test	Time recorded in seconds in two decimal places

References

See Zaninotto, P., Sacker, A., & Head, J. (2013). Relationship between wealth and age trajectories of walking speed among older adults: evidence from the English Longitudinal Study of Ageing. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences (68),* 1525-1531.

9. Peak Flow

Definition

The peak expiratory flow test or "breathing test" measures the respondent's maximal expiratory air flow in litres per minute (Ayres & Turpin, 2013). The respondent's ability to breath out air is measured by a Mini-Wright peak flow meter (Wright, 1978), a small, hand-held device with a disposable mouthpiece placed on it. The respondents take a breath as deep as possible, place the mouthpiece of the peak flow meter in their mouth and blow out as hard and as fast as possible.

Operationalisation in SHARE

In SHARE, two measurements of the respondent's airflow are taken. The higher the value shown on the peak flow meter scale the less constricted are the respondent's airways. Please note that value 993 indicates that the respondent tried but was unable to execute the test and value 999 that the respondent chose not to participate (see table 15).

Table 15: Measuring expiratory lung capacity

Waves: 2, 4, 6	Question text	Response options
PF003	Value first measurement	30 – if less than 60 890 – if past last tick 993 – if respondent tried but was unable 999 – if respondent chose not to do it
PF004	Value second measurement	30 – if less than 60 890 – if past last tick 993 – if respondent tried but was unable 999 – if respondent chose not to do it

References

Ayres, J. G., & Turpin, P. J. (2013). *Peak flow measurement: an illustrated guide*. Springer.

Wright, B. M. (1978). A miniature Wright peak-flow meter. *British Medical Journal*, *2*(6152), 1627-1628.

10. Chair Stand Test

Definition

The chair stand test or "chair-rising test" measures strength and endurance in the lower body as well as speed and coordination. The performance in this test predicts mobility (Nevitt et al., 1989).

Operationalisation in SHARE

In SHARE, the chair stand test is measured one time per respondent. The respondents fold their arms across their chest and stand up from a sitting position on a chair and sit down again for five times. The time (in seconds) the respondents need to stand up for five times without using their hands, is measured by a stop watch. Please note that in wave 2 the chair stand test was only conducted for respondents aged 75 and below. In wave 5 all respondents – irrespective of age – were asked to perform the test.

Table 16: Chair stand measure in SHARE

Waves: 2, 5	Question text	Response options
CS008	Please stand up straight as quickly as you can, without stopping in between. After standing up each time, sit down and then stand up again. Keep your arms folded across your chest. I'll be timing you with a stopwatch. When I say "Ready, Stand" I will begin timing you.	0-60 – Time in seconds used for five stands 99 – if respondent failed to complete five stands in one minute

References

Nevitt, M. C., Cummings, S. R., Kidd, S., & Black, D. (1989). Risk factors for recurrent nonsyncopal falls: a prospective study. *Jama*, *261*(18), 2663-2668.

III. Cognitive functioning measures[2]

1. Temporal orientation

Definition

It reflects the respondents' orientation to date, month, year and day of week.

Operationalisation in SHARE

The respondents' orientation to date is measured by four items in SHARE. SHARE provides the variable *orienti* as generated variable in the gv_health module. It is based on *cf003_*, *cf004_*, *cf005_* and *cf006_*. The score ranges from 0 to 4: the higher the score, the better oriented the respondent is ranked.

Table 17: Measuring orientation to date, month, year and day of week

Waves: 1, 2, 4, 5, 6	Question text	Response options
CF003	First, I am going to ask about today's date. Which day of the month is it?	1. Given correctly 5. Given incorrectly/doesn't know
CF004	Which month is it?	1. Month given correctly 2. Month given incorrectly/doesn't know month
CF005	Which year is it?	1. Year given correctly 2. Year given incorrectly/doesn't know year
CF006	Can you tell me what day of the week it is?	1. Day of week given correctly 2. Day of week given incorrectly/doesn't know day

[2] Additional information on measures of cognitive functioning in SHARE is available in:
Dewey M.E. & Prince M.J.: *Cognitive Function*. In: Börsch-Supan, A., A. Brugiavini, H. Jürges, J. Mackenbach, J. Siegrist and G. Weber. (2005). *Health, ageing and retirement in Europe – First results from the Survey of Health, Ageing and Retirement in Europe.* Mannheim: Mannheim Research Institute for the Economics of Aging (MEA), pp. 118 - 125.

2. Numeracy

Definition

Numeracy is a measure of the respondents' mathematical performance.

Operationalisation in SHARE

The respondents' mathematical performance is measured by nine items in SHARE. Five items measure subtraction calculation skills and four items measure percentage calculation skills. The result score contains the number of correct answers and ranges from 0 to 5: the higher the score, the better the respondent's mathematical performance. For Wave 1, 2, 4 and 5, SHARE provides the variable *numeracy* as generated variable in the gv_health module containing a test for percentage calculation. For Wave 4 and 5, SHARE provides also the variable *numeracy2* as generated variable measuring mathematical performance via subtraction. In Wave 6, no longitudinal but only baseline respondents get the numeracy questions which leads to a higher share of missing data.

Table 18: Measuring mathematical performance: subtraction

Waves: 4, 5, 6	Question text	Response options
CF108	Now let's try some subtraction of numbers. One hundred minus 7 equals what?	Open answer
CF109	And 7 from that	Open answer
CF110	And 7 from that	Open answer
CF111	And 7 from that	Open answer
CF112	And 7 from that	Open answer

Table 19: Measuring mathematical performance: percentage

Waves: 1, 2, 4, 5, 6	Question text	Response options (not allowed to be read out by interviewer)
CF012	If the chance of getting a disease is 10 per cent, how many people out of 1,000 (one thousand) would be expected to get the disease?	1. 100 2. 10 3. 90 4. 900 97. Other answer
CF013	In a sale, a shop is selling all items at half price. Before the sale, a sofa costs 300 [currency]. How much will it cost in the sale?	1. 150 2. 600 97. Other answer
CF014	A second hand car dealer is selling a car for 6,000 [currency]. This is two-thirds of what it costs new. How much did the car cost new?	1. 9,000 2. 4,000 3. 8,000 4. 12,000 5. 18,000

		97. Other answer
CF015	Let's say you have 2000 [currency] in a savings account. The account earns ten per cent interest each year. How much would you have in the account at the end of two years?	1. 2420 2. 2020 3. 2040 4. 2100 5. 2200 6. 2400 97. Other answer

3. 10-words recall test

Definition

The 10-words recall test is used to assess cognitive impairment and dementia (Harris & Dowson, 1982). Recall tests are tests of memory performance in which the respondents are presented with stimuli that they are asked to remember after a delay time (Goldstein, 2011). The format of the 10-words recall test used in SHARE is based on the Telephone Interview of Cognitive Status-Modified (TICS-M) (Brandt et al., 1988).

Operationalisation in SHARE

The test consists of verbal registration and recall of a list of 10 words. The respondent listens to a list of words once and gets tested two times, once immediately after the encoding phase (first trial) and once after a delay time (delayed recall). The total scores of the two tests range from 0 to 10 and correspond to the number of words the respondent is able to recall.

In Waves 1 and 2, all respondents get the same list of words for verbal registration and recall. In Waves 4, 5 and 6, there are different lists of words which are randomized and assigned to the respondents. From Wave 4 onwards, SHARE provides the two 10-words list learning variables from the immediate recall (*cf008tot*) and the delayed recall (c*f016tot*) as generated variables in the gv_health module.

Table 20: Assessing cognitive impairment and dementia

Waves: 1, 2	Waves: 4, 5, 6	Question text	Response options
CF007	CF007	Now, I am going to read a list of words from my computer screen. We have purposely made the list long so it will be difficult for anyone to recall all the words. Most people recall just a few. Please listen carefully, as the set of words cannot be repeated. When I have finished, I will ask you to recall aloud as many of the words as you can, in any order. Is this clear?	1. Continue
CF008		Now please tell me all the words you can recall.	1. Butter 2. Arm 3. Letter 4. Queen 5. Ticket 6. Grass 7. Corner 8. Stone 9. Book 10. Stick 96. None of these
	CF104	Now please tell me all the words you can recall.	1. Hotel 2. River 3. Tree 4. Skin 5. Gold 6. Market 7. Paper 8. Child 9. King 10. Book 96. None of these
	CF105	Now please tell me all the words you can recall.	1. Sky 2. Ocean 3. Flag 4. Dollar 5. Wife 6. Machine 7. Home 8. Earth 9. College 10. Butter 96. None of these

Waves: 1, 2	Waves: 4, 5, 6	Question text	Response options
	CF106	Now please tell me all the words you can recall.	1. Woman 2. Rock 3. Blood 4. Corner 5. Shoes 6. Letter 7. Girl 8. House 9. Valley 10. Engine 96. None of these
	CF107	Now please tell me all the words you can recall.	1. Water 2. Church 3. Doctor 4. Palace 5. Fire 6. Garden 7. Sea 8. Village 9. Baby 10. Table 96. None of these
CF016		A little while ago, I read you a list of words and you repeated the ones you could remember. Please tell me any of the words that you can remember now?	1. Butter 2. Arm 3. Letter 4. Queen 5. Ticket 6. Grass 7. Corner 8. Stone 9. Book 10. Stick 96. None of these
	CF113	A little while ago, I read you a list of words and you repeated the ones you could remember. Please tell me any of the words that you can remember now?	1. Hotel 2. River 3. Tree 4. Skin 5. Gold 6. Market 7. Paper 8. Child 9. King 10. Book 96. None of these

Waves: 1, 2	Waves: 4, 5, 6	Question text	Response options
	CF114	A little while ago, I read you a list of words and you repeated the ones you could remember. Please tell me any of the words that you can remember now?	1. Sky 2. Ocean 3. Flag 4. Dollar 5. Wife 6. Machine 7. Home 8. Earth 9. College 10. Butter 96. None of these
	CF115	A little while ago, I read you a list of words and you repeated the ones you could remember. Please tell me any of the words that you can remember now?	1. Woman 2. Rock 3. Blood 4. Corner 5. Shoes 6. Letter 7. Girl 8. House 9. Valley 10. Engine 96. None of these
	CF116	A little while ago, I read you a list of words and you repeated the ones you could remember. Please tell me any of the words that you can remember now?	1. Water 2. Church 3. Doctor 4. Palace 5. Fire 6. Garden 7. Sea 8. Village 9. Baby 10. Table 96. None of these

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Goldstein, B. (2011). *Cognitive Psychology: Connecting Mind, Research, and Everyday Experience (3rd ed.).* Belmont, CA: Wadsworth.

Harris, S. J., & Dowson, J. H. (1982). Recall of a 10-word list in the assessment of dementia in the elderly. *The British Journal of Psychiatry*, *141*, 524-527.

4. Verbal fluency

Definition

Verbal fluency is a test of executive function and thereby an indicator of cognitive impairment, especially in old age (Rosen, 1980). “Animals” is the most popular semantic category due to the advantage that it is clear enough across languages and cultures (see Ardila et al., 2006; Henley, 1969). Thus, it is used in SHARE.

Operationalisation in SHARE

It is measured by one item in SHARE, the category or semantic verbal fluency test. Respondents have to say as many words as possible from a semantic category in 60 seconds. As performance measure the total number of correct words is counted and stored in variable *cf010_* .

Table 21: Measuring cognitive impairment

Waves: 1, 2, 4, 5, 6	Question text	Response options
CF009	Now I would like you to name as many different animals as you can think of. You have one minute to do this. Ready, go.	1. Continue
CF010	Verbal fluency score	0 - 100

References

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Henley, N. M. (1969). A psychological study of the semantics of animal terms. *Journal of Verbal Learning and Verbal Behaviour*, *8*(2), 176-184.

Rosen, W. G. (1980). Verbal fluency in aging and dementia. *Journal of Clinical and Experimental Neuropsychology*, *2*(2), 135-146.

IV. Occupational measures

1. Effort-Reward Imbalance (ERI) questionnaire

Definition

The Effort-Reward Imbalance Model (Siegrist, 1996) focuses on perceived reciprocity in working life and claims that an imbalance between costs and gains, i.e. high effort/ low reward, causes distress. The questionnaire developed on the basis of the ERI Model (Siegrist et al., 2004), measures the respondents' efforts and received rewards in the job context. To calculate the Effort-Reward ratio, the effort score is put in the numerator and the reward score in the denominator. This ratio is multiplied with a correction factor, adjusting for the different numbers of items of the two scales (effort/ reward * correction factor) (e.g. Hoven et al., 2015; Siegrist et al., 2014).

Operationalisation in SHARE

7 out of the 23 items were selected on the basis of psychometric properties and are presented in SHARE as statements which respondents assess on a four point Likert scale (from "strongly agree" to "strongly disagree").

Table 22: Measuring the respondents' efforts and received rewards in the job context

Waves: 1, 2, 4, 5, 6	Question text
EP027	My job is physically demanding.
EP028	I am under constant time pressure due to a heavy workload.
EP031	I receive adequate support in difficult situations.
EP032	I receive the recognition I deserve for my work.
EP033	Considering all my efforts and achievements, my salary is/ my earnings are adequate.
EP034	My job promotion prospects/ prospects for job advancement/ job promotion prospects are poor.
EP035	My job security is poor.

References

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Siegrist, J., Starke, D., Chandola, T., Godin, I., Marmot, M., Niedhammer, I., & Peter, R. (2004). The measurement of effort-reward imbalance at work: European comparisons. *Social Science & Medicine*, *58*(8), 1483-1499.

Siegrist, J., Li, J., & Montano, D. (2014). *Psychometric properties of the Effort-Reward Imbalance Questionnaire.* Department of Medical Sociology, Dusseldorf University, Germany.

2. International Standard Classification of Occupations (ISCO)

Definition

The International Standard Classification of Occupations (International Labour Organization, 2004) is a socio-economic classification system which organizes occupations into groups that allow for international comparisons. Adjusted and improved ISCO versions are adopted every few years.

Operationalisation in SHARE

In SHARE, ISCO-88 (adopted in 1988) and ISCO-08 (adopted in 2008) are used. In Wave 1, ISCO-88 is used to code respondents' answers about their first and second job, their last job, their former partner's job, their mother's job and their father's job. The answers are given on an open question format without response options and get encoded afterwards with a 4-digit using the major, sub-major, minor, and unit groups of the ISCO-88. In addition, there are codes for special values. SHARE provides the variables of the respondent's first job (isco_1job), the respondent's second job (isco_2job), the respondent's last job (isco_ljob), the former partner's job (isco_exp), the mother's job (isco_mo) and the father's job (isco_fa) as generated variables (see gv_isco module).
In Wave 2, 4 and 5, ISCO-88 is used to code respondents' answers about their first job and their last job using the ten major groups of the ISCO-88 as response options.
In Wave 3, ISCO-88 is used to code respondents' answers about their (first) job and the household's main breadwinner's job when the respondent was 10 years old using the ten major groups of the ISCO-88 as response options.
In Wave 6, ISCO-08 is used to code respondents' answers about their first job, their last job, their former partner's job, their mother's job and their father's job using the major, sub-major, minor, and unit groups. Thus, the answer is automatically encoded with a 4-digit code of the ISCO-08.

Table 23: Classification of respondents' job

Wave: 1	Question text
EP016_1	What is your main job called? Please give the exact name or title.
EP16_2	What is your secondary job called? Please give the exact name or title.
EP052	Last job – What was your job called? Please give the exact name or title.
DN025	What is the most recent job your ex-/late husband/wife had? Please give the exact description.
DN029_1	What is or was the last job your mother had? Please give the exact description.
DN029_2	What is or was the last job your father had? Please give the exact description.

Waves: 2, 4, 5	Question text	Response options
EP016	Current main job – Please look at card^ SHOWCARD_ID. What best describes this job?	1. Legislator, senior official or manager 2. Professional 3. Technician or associate professional 4. Clerk 5. Service worker and shop and market sales worker 6. Skilled agricultural or fishery worker 7. Craft and related trades worker 8. Plant and machine operator or assembler 9. Elementary occupation 10. Armed forces
EP052	Last job – Please look at card ^SHOWCARD_ID. What best describes this job?	1. Legislator, senior official or manager 2. Professional 3. Technician or associate professional 4. Clerk 5. Service worker and shop and market sales worker 6. Skilled agricultural or fishery worker 7. Craft and related trades worker 8. Plant and machine operator or assembler 9. Elementary occupation 10. Armed forces

Wave: 3	Question text	Response options
RE013	Please look at card ^SHOWCARD_ID. What best describes your job as _____?	1. Legislator, senior official or manager 2. Professional 3. Technician or associate professional 4. Clerk 5. Service worker and shop and market sales worker 6. Skilled agricultural or fishery worker 7. Craft and related trades worker 8. Plant and machine operator or assembler 9. Elementary occupation 10. Armed forces
CS009	Please look at card ^SHOWCARD_ID. What best describes the occupation of the household's main breadwinner when you were 10?	1. Legislator, senior official or manager 2. Professional 3. Technician or associate professional 4. Clerk 5. Service worker and shop and market sales worker 6. Skilled agricultural or fishery worker 7. Craft and related trades worker 8. Plant and machine operator or assembler 9. Elementary occupation 10. Armed forces

Wave: 6	Question text	Response options
EP616	Current main job – What is this job called? Please give the exact name or title.	JobCode
EP152	Last job – What is this job called? Please give the exact name or title.	JobCode
EX603	What is the most recent job your husband/ wife/ partner had?	JobCode
DN029_1	What was the job your mother/ father had when you were about 10 years old? Please give the exact name or title.	JobCode
DN029_2	What was the job your mother/ father had when you were about 10 years old? Please give the exact name or title.	JobCode

References

International Labour Organization (2004). *ISCO – International Standard Classification of Occupations.* Retrieved from http://www.ilo.org/public/english/bureau/stat/isco/intro.html

3. Statistical Classification of Economic Activities in the European Community (NACE)

Definition

The Statistical Classification of Economic Activities in the European Community, referred to as NACE (from the French term "Nomenclature statistique des activités économiques dans la Communauté européenne"), is the industry standard classification system used in the European Union.

Operationalisation in SHARE

In SHARE, the NACE Version 4 Rev. 1 1993 (EUROSTAT, 1996) is used in a modified, summarized form to code respondents' answers about the corresponding industry to their job. SHARE is using broader, fewer categories for the industry codes than NACE does and employs some additional general categories and categories for missing values.

NACE uses four hierarchical levels. Level 1 sections get identified by alphabetical letters, level 2 divisions by two-digit numerical codes, level 3 groups by three-digit numerical codes, and level 4 classes by four-digit numerical codes. The levels go from a specific description of the industry to a broad description of the industry numerically downwards.

In Wave 1, the modified NACE codes are used to classify the industry in which the respondent is pursuing his/ her profession. This is split into two string variables, depending on the respondent's employment status (employed or self-employed). The answers are given on an open question format without response options and get identified afterwards with a 2-digit or 4-digit numerical code. SHARE provides the information of the NACE code of the two respective string questions combined in one variable about the respondent's first job (nace_1job), second job (nace_2job) and last job (nace_ljob) as generated variables, and the corresponding English descriptions of the respective NACE codes (ind_1job, ind_2job and ind_ljob) (see gv_isco module).

In Wave 2, 4, 5 and 6, the modified NACE codes are used to classify the respondents' answers about the corresponding industries to their current main job and their last job using 14 broad sections as response options.

In Wave 3, the modified NACE codes are used to classify the respondents' answers about the corresponding industries to their jobs using 14 broad sections as response options.

Table 24: Classification of industries

Wave: 1	Question text
EP018_1	Employed, main job – What kind of business, industry or services do you work in (that is, what do they make or do at the place where you work)?
EP18_2	Employed, secondary job – What kind of business, industry or services do you work in (that is, what do they make or do at the place where you work)?
EP054	Employed, last job –

	What kind of business, industry or services did you work in (that is, what did they make or do at the place where you worked)?
EP023_1	Self-employed, main job – What kind of business or industry are you in (that is, what do you make or do at the place where you work)?
EP023_2	Self-employed, secondary job – What kind of business or industry are you in (that is, what do you make or do at the place where you work)?
EP060	Self-employed, last job – What kind of business or industry were you in (that is, what did you make or do at the place where you worked)?

Waves: 2, 4, 5, 6	**Question text**	**Response options**
EP018	Current main job – Please look at card ^SHOWCARD_ID. What kind of business, industry or services do you work in?	1. Agriculture, hunting, forestry, fishing 2. Mining and quarrying 3. Manufacturing 4. Electricity, gas and water supply 5. Construction 6. Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods 7. Hotels and restaurants 8. Transport, storage and communication 9. Financial intermediation 10. Real estate, renting and business activities 11. Public administration and defence; compulsory social security 12. Education 13. Health and social work 14. Other community, social and personal service activities
EP054	Last job – Please look at card ^SHOWCARD_ID. What kind of business, industry or services did you work in?	1. Agriculture, hunting, forestry, fishing 2. Mining and quarrying 3. Manufacturing 4. Electricity, gas and water supply 5. Construction 6. Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods 7. Hotels and restaurants 8. Transport, storage and

		communication 9. Financial intermediation 10. Real estate, renting and business activities 11. Public administration and defence; compulsory social security 12. Education 13. Health and social work 14. Other community, social and personal service activities

Wave: 3	**Question text**	**Response options**
RE014	Please look at card ^SHOWCARD_ID. What kind of business, industry or services were you working in as _____?	1. Agriculture, hunting, forestry, fishing 2. Mining and quarrying 3. Manufacturing 4. Electricity, gas and water supply 5. Construction 6. Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods 7. Hotels and restaurants 8. Transport, storage and communication 9. Financial intermediation 10. Real estate, renting and business activities 11. Public administration and defence; compulsory social security 12. Education 13. Health and social work 14. Other community, social and personal service activities

References

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V. Educational measures

1. International Standard Classification of Education (ISCED)

Definition

The International Standard Classification of Education (ISCED) is a statistical standard coding of education for international and national comparisons, maintained by the UNESCO. The ISCED is organized in hierarchical education levels. SHARE uses country specific codes based on the revised versions ISCED-97 (UNESCO, 2006) and ISCED-11 (UNESCO, 2012). Due to the importance of the duration criteria of educational programs for classification, SHARE also asks about years of education derived from the ISCED.

Operationalisation in SHARE

In Wave 1, the ISCED-97 is used to code the educational level of the respondent, the respondent's former spouse (divorced, widowed, living separated), up to four selected children of the respondent and the interviewer. The response options are country specific categories which are comparable across all SHARE countries. SHARE provides the variables about the education of the respondent (*isced1997_r*), the respondent's former spouse (*isced1997_sp*), the respondent's selected child 1 (*isced1997_c1*), the respondent's selected child 2 (*isced1997_c2*), the respondent's selected child 3 (*isced1997_c3*), the respondent's selected child 4 (isced1997_c4) and the interviewer (*isced1997_iv*) as generated variables in the gv_isced module. The duration of education is derived from the ISCED-97 coding of the aforementioned variables. SHARE provides the years of education of the respondent (*iscedy_r*), the respondent's former spouse (*iscedy_sp*), the respondent's selected child 1 (*iscedy_c1*), the respondent's selected child 2 (*iscedy_c2*), the respondent's selected child 3 (*iscedy_c3*), the respondent's selected child 4 (*iscedy_c4*) and of the interviewer (*iscedy_i*) as generated variables.

In Wave 2, the ISCED-97 is used to code the educational level of the respondent, the respondent's former spouse (divorced, widowed, living separated) and up to four selected children of the respondent. The response options are country specific categories which are comparable across all SHARE countries. Additionally, the years of education of the respondent and his/ her former spouse are asked. SHARE provides the variables about the education of the respondent (*isced1997_r*), the respondent's former spouse (*isced1997_sp*), the respondent's selected child 1 (*isced1997_c1*), the respondent's selected child 2 (*isced1997_c2*), the respondent's selected child 3 (*isced1997_c3*) and the respondent's selected child 4 (*isced1997_c4*) as generated variables in the gv_isced module.

In Wave 4, the ISCED-97 is used to code the educational level of the respondent, the respondent's former spouse (divorced, widowed, living separated) and all the children of the

respondent. The response options are country specific categories which are comparable across all SHARE countries. Additionally, the years of education of the respondent and his/ her former spouse are asked. SHARE provides the variables about the education of the respondent (*isced1997_r*), the respondent's former spouse (*isced1997_sp*) and all of the respondent's children 1-20 (*isced1997_c1-c20*) as generated variables (see gv_isced module).

In Wave 5 and 6, both ISCED versions, the ISCED-97 and the ISCED-11, are used to code the educational level of the respondent, the respondent's former spouse (divorced, widowed, living separated), all the children of the respondent, the respondent's father and the respondent's mother. The response options are country specific categories which are comparable across all SHARE countries. In Wave 5, additionally, the years of education of the respondent and his/ her former spouse are asked. In Wave 6, additionally, the years of education of the respondent are asked, and if the respondent has already participated once, he or she is asked if their child or any of their children obtained a new educational degree since the last interview and if so, which one.

SHARE provides the variables about the education of the respondent (*isced1997_r*; *isced_2011_r*), the respondent's former spouse (*isced1997_sp*; *isced2001_sp*), all of the respondent's children (*isced1997_c1-c18*; *isced2011_c1-c18*), the respondent's mother (*isced1997_m*; *isced2011_m*) and the respondent's father (*isced1997_f*; *isced2011_f*) as generated variables in the gv_isced module.

Table 25: Measuring education

Wave: 1	Waves: 2, 4	Wave: 5	Wave: 6	Question text
DN010	DN010	DN010	DN010	Please look at card ^SHOWCARD_ID. What is the highest school leaving certificate or school degree that you have obtained?
DN012	DN012	DN012	DN012	Please look at card ^SHOWCARD_ID. Which degrees of higher education or vocational training do you have?
DN021	DN021	DN021	DN021	Please look at card ^SHOWCARD_ID. What is the highest school certificate or degree that your ex-/ late husband/ wife has obtained?
DN023	DN023	DN023	DN023	Please look at card ^SHOWCARD_ID. Which degrees of higher education or vocational training does your ex-/ late husband/wife have?
		DN051_1	DN051_1	Please look at card ^SHOWCARD_ID. What is the highest school certificate or degree that your mother has obtained?

Wave: 1	Waves: 2, 4	Wave: 5	Wave: 6	Question text
		DN051_2	DN051_2	Please look at card ^SHOWCARD_ID. What is the highest school certificate or degree that your father has obtained?
		DN053_1	DN053_1	Please look at card ^SHOWCARD_ID. Which degrees of higher education or vocational training does your mother have?
		DN053_2	DN053_2	Please look at card ^SHOWCARD_ID. Which degrees of higher education or vocational training does your mother have?
CH017	CH017	CH017	CH017	Please look at card ^SHOWCARD_ID. What is the highest school leaving certificate or school degree _____ has obtained?
CH018	CH018	CH018	CH018	Please look at card ^SHOWCARD_ID. Which degrees of higher education or vocational training does _____ have?
			CH510	What is the highest school leaving certificate or school degree that _____ has obtained?
			CH513	Which degrees of higher education or vocational training has _____ obtained?
IV015				Interviewer – What is the highest school certificate or degree that you have obtained?
IV016				Interviewer – Which degrees of higher education or vocational training do you have?
	DN041	DN041	DN041	How many years have you been in full time education?
	EX102	EX102		How many years has your husband/ wife /partner been in full time education?

References

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VI. Other

1. Multi-Item Indicator Residential Environment Quality

Definition

The PREQ covers many different facets about respondents' perception of residential environment quality within their neighbourhoods (Bonaiuto et al., 1999; Bonaiuto et al., 2003). It compromises spatial aspects (e.g. architectural planning space, organization and accessibility of space), human aspects (e.g. social relations), functional aspects (e.g. public transportation), and contextual aspects (e.g. environmental health).

Operationalisation in SHARE

The respondents' perception of different aspects in their local area is measured by four items in Wave 5 and 6, and in Wave 5 additionally, the access to some basic services is measured by four items. The items are partially based on the multidimensional perceived residential environment quality (PREQ) questionnaire.

Table 26: Respondents' perception of residential environment quality

Wave: 5	Wave: 6	Question text	Response options
HH022	HH022	I really feel part of this area.	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
HH023	HH023	Vandalism or crime is a big problem in this area.	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
HH024	HH024	This area is kept very clean.	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
HH025	HH025	If I were in trouble, there are people in this area who would help me.	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
HH027		How easy is it to get to the nearest bank or cash point?	1. Very easy 2. Easy 3. Difficult 4. Very difficult
HH028		How easy is it to get to the nearest grocery shop or supermarket?	1. Very easy 2. Easy 3. Difficult 4. Very difficult
HH029		How easy is it to get to your general practitioner or the nearest health	1. Very easy 2. Easy

		centre?	3. Difficult 4. Very difficult
HH030		How easy is it to get to the nearest pharmacy?	1. Very easy 2. Easy 3. Difficult 4. Very difficult

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Responsible for database management and preparation of the releases:

Stephanie Stuck, Sabrina Zuber,
Markus Kotte, Fabio Franzese
Stefan Gruber, Tim Birkenbach

and all SHARE country team operators.

Contact: info@share-project.org