Documentation of generated variables in SHARE release 2.0.1

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1 Education: Overview and links to ISCED coding

Education is one of the most diverse international variables. For international comparisons a standard coding is required. SHARE uses the 1997 International Standard Classification of Education (ISCED-97), applying the procedure described in the following section.

See for details on ISCED coding:

1.1. General procedure for the application of the ISCED codes in SHARE

Each SHARE Country Team Leader received a copy of the book “Classifying Educational Programmes: Manual for ISCED-97 Implementation in OECD Countries” (1999 edition). Based on the guideline of the book, each Country Team Leader asked a local expert to map the following SHARE variables in the respective ISCED-97 code and years of education:

- **DN010_HighestEdu** HIGHEST EDUCATIONAL DEGREE OBTAINED: What is the highest school leaving certificate or school degree that you have obtained?
- **DN012_FurtherEdu** FURTHER EDUCATION: Which degrees of higher education or vocational training do you have?

The same applies to questions **DN021_** and **DN023_** which refer to the former spouse’s education. These questions are asked if the respondent is divorced, widowed or living separated from the spouse.

Also, the education of up to four selected children (see the “Short Guide to Release 2” file for details on how children were selected) is transferred into the ISCED Coding. This transfer is based on answers to questions **CH017_<i>** and **CH018_<i>**, where <i> refers to the selected child 1 to 4.

Finally, this procedure was applied to the interviewer’s level of education. It is derived from **IV015_** and **IV016_**.

If the respondent reported to have obtained more than one degree of higher education – for example DN012_ or DN023_, respectively – only the highest one is taken into consideration. Please be aware that

- the years of education are not asked directly but are derived from ISCED categories,
- ISCED code 6 was not asked in all countries.
Once all countries had provided their coding, a Stata program was built to generate the variables:

- **isced_r**: ISCED-97 coding of the respondent’s education
- **isced_sp**: ISCED-97 coding of the respondent’s former spouse’s education
- **isced_c1**: ISCED-97 coding of the education of the respondent’s selected child 1
- **isced_c2**: ISCED-97 coding of the education of the respondent’s selected child 2
- **isced_c3**: ISCED-97 coding of the education of the respondent’s selected child 3
- **isced_c4**: ISCED-97 coding of the education of the respondent’s selected child 4
- **isced_i**: ISCED-97 coding of the interviewer’s education
- **iscedy_r**: respondent’s years of education, derived from ISCED-97 coding
- **iscedy_sp**: respondent’s former spouse’s years of education, derived from ISCED-97 coding
- **iscedy_c1**: years of education of respondent’s selected child 1, derived from ISCED-97 coding
- **iscedy_c2**: years of education of respondent’s selected child 2, derived from ISCED-97 coding
- **iscedy_c3**: years of education of respondent’s selected child 3, derived from ISCED-97 coding
- **iscedy_c4**: years of education of respondent’s selected child 4, derived from ISCED-97 coding
- **iscedy_i**: interviewer’s years of education, derived from ISCED-97 coding

### 1.2. Country specific ISCED-97 codes (ISCED 97; years of education)

**Austria** (ISCED 97, years of education)

- **dn010_ & dn021_** (highest education)
  1) Volksschule (2;8)
  2) Hauptschule (2;8)
  3) Gymnasium (öffentlich) mit Matura (3;12)
  4) Gymnasium (privat) mit Matura (3;12)
  5) Berufsbildende Schule mit Matura (HAK, HTL,...) (3;13)
  6) Berufsbildende Schule ohne Matura (3;11)
  95) Noch kein Abschluss/noch in Ausbildung
  96) Kein Schulabschluss
  97) Anderer Schulabschluss (auch Ausland)

- **dn012_ & dn023_** (further education)
  1) Lehrabschlussprüfung (3;12)
  2) Meisterprüfung (5;14)
3) Fachakademie (Sozialakademie, Krankenpflegeausbildung, Pädagog. Ausbildung, ...) (5;15)
4) Fachhochschulabschluss (5;16)
5) Universität (5;17)
95) Noch in Ausbildung
96) Kein Berufsabschluss
97) Anderer Abschluss (auch Ausland)

**Belgium (ISCED-97; years of education)**

dn010_&dn021_ (highest education)
11) Lager onderwijs, Enseignement primaire (1;6)
12) Lager secundair onderwijs – kunst, Enseignement secondaire inférieur général (2;9)
13) Lager secundair onderwijs – algemeen, Enseignement secondaire inférieur artistique (2;9)
14) Lager secundair onderwijs – technisch, Enseignement secondaire inférieur technique (2;9)
15) Lager secundair onderwijs – beroeps, Enseignement secondaire inférieur professionnel (2;9)
16) Hoger secundair onderwijs – kunst, Enseignement secondaire supérieur général (3;12)
17) Hoger secundair onderwijs – algemeen, Enseignement secondaire supérieur artistique (3 ; 12)
18) Hoger secundair onderwijs – technisch, Enseignement secondaire supérieur technique (3; 12)
19) Hoger secundair onderwijs – beroeps, Enseignement secondaire supérieur professionnel (3; 12)

*Please note* that between the Flemish and the Dutch questionnaire categories 12 and 13 as well as 16 and 17 are switched against each other (general versus artistic). However, these categories still refer to the same ISCED code.

dn012_&dn023_ (further education)
11) Hoger onderwijs buiten de universiteit, korte type, Enseignement supérieur non-universitaire de type court (5;15)
12) Hoger onderwijs buiten de universiteit, lange type, Enseignement supérieur non-universitaire de type long (5;16)
13) Universiteit, Enseignement universitaire (5;16,5)

**Denmark (ISCED 97; years of education)**

dn010_&dn021_ (highest education)
1) 7. klasse eller kortere (2; 7)
2) 8. klasse eller kortere (2; 8)
3) 9. klasse, mellem skoleeksamen (2; 9)
4) 10. klasse, realeksamen (2; 10)
5) Studentereksamen eller HF (3; 12)
6) Højere Handelseksamen (HH, HF, HHX) eller højere teknisk eksamen (HTX) (3;12)
95) Går stadig skole (Still in school)
96) Ingen (None)
97) Anden skole (også skole I udlandet) (Other, abroad)

dn012_ &dn023_ (further education)
1) Specialarbejderuddannelse (3;10,5)
2) Laerlinge- elev eller EFG-uddannelse (3;14)
3) Anden faglig uddannelse på mindst 1 år (3;11)
4) Kort videregående uddannelse under 3 år (5;15)
5) Mellemlang videregående uddannelse på 3-4 år (5;16)
6) Lang videregående uddannelse over 4 år (5;17,5)
95) Er stadig under videregående eller faglig uddannelse
96) Ingen (None)
97) Anden erhvervsuddannelse (også eksamen/uddannelse I udlandet (Other, abroad)

France (ISCED 97; years of education)

dn010_ &dn021_ (highest education)
1) Certificat d’études primaires (CEP) (1;5)
2) Brevet des collèges, BEPC, brevet élémentaire (2;9)
3) CAP, BEP, ou diplôme de ce niveau (3;10.5)
4) Baccalauréat technologique ou professionnel (3;12)
5) Baccalauréat général (3; 12)
95) Encore scolarisé dans l’enseignement primaire ou secondaire
96) Aucun diplôme
97) Autre (incluant diplômes étrangers)

dn012_ &dn023_ (further education)
1) Diplôme de premier cycle universitaire (5;14)
2) BTS, DUT ou équivalent (5; 14)
3) Diplôme des professions sociales et de la santé de niveau Bac+2 (5;14)
4) Autre diplôme de niveau Bac+2 (5;14)
5) Diplôme de 2eme cycle universitaire (5;16)
6) Diplôme d’ingénieur, de grande école (5;18)
7) Diplôme de 3eme cycle universitaire (y compris médecine, pharmacie, dentaire), doctorat (6;20)
8) Autre diplôme de niveau supérieur à Bac+2 (5;17)
95) Encore en cours d’études supérieures ou professionnelles
96) Aucun
97) Autre (y compris formation à l’étranger)
Germany (ISCED 97; years of education)

dn010_&dn021_ (highest education)
1) Volks- oder Hauptschulabschluss; Klasse Polytechnische Oberschule (POS) (2A; 10)
2) Realschulabschluss; 10. Klasse POS (2A;10)
3) Fachhochschulreife (3A;12)
4) Abitur (3A;13)

dn012_&dn023_ (further education)
1) Lehre w/ISCED 2 (3B;13)
1) Lehre w/ISCED 3A (4A;16)
2) Berufsfachschule w/ISCED 2 (3B;13)
2) Berufsfachschule w/ISCED 3A (4A;16)
3) Fachschule (5B;16.5)
4) Fachhochschulabschluss (5A;17)
5) Hochschulabschluss (5A;18)

Greece (ISCED 97; years of education)

dn010_&dn021_ (highest education)
1) Δημοτικό (1;6)
2) Γυμνάσιο (3τάξιο) (2;9)
3) Γενικό ή Επαγγελματικό Λύκειο (ТЕЛ,ΤΕΕ,Πολυκλαδικό) ή 6τάξιο Γυμνάσιο (3;12)
4) ΙΕΚ (4; 12)
95) Ακόμη στο σχολείο (Still in school)
96) Κανένα (0;0)
97) Κάτι άλλο (ή στο εξωτερικό) (Other, abroad)

dn012_&dn023_ (further education)
1) (Διετής) νοσηλευτική σχολή (4;14)
2) ΤΕΙ (5;15.5)
3) ΑΕΙ, Ανώτατες στρατιωτικές (5;17)
4) Μεταπτυχιακά (MSC, MBA) (5;18)
5) Διδακτορικό PhD (6;20.5)
95) Ακόμη στην ανώτερη εκπαίδευση ή την επαγγελματική κατάρτιση (Still in school)
96) Κανένα (0;0)
97) Άλλο (Other, abroad)
### Israel (comparable to ISCED 97)

#### Hebrew

| 1 | תשמית לתכנית נמצאות שלמות ואשראיות | 1. לשמה התכנית נמצאות שלמות ואשראיות.
| 2 |_tweets נמצאות שלמות ואשראיות | 2. התכנית נמצאות שלמות ואשראיות.
| 3 |_tweets נמצאות שלמות ואשראיות | 3. התכנית נמצאות שלמות ואשראיות.
| 4 |_tweets נמצאות שלמות ואשראיות | 4. התכנית נמצאות שלמות ואשראיות.
| 5 |_tweets נמצאות שלמות ואשראיות | 5. התכנית נמצאות שלמות באגיון או גזע.
| 6 |_tweets נמצאות שלמות ואשראיות | 6. התכנית נמצאות שלמות ואשראיות.
| 7 |_tweets נמצאות שלמות ואשראיות | 7. התכנית נמצאות שלמות ואשראיות.
| 8 |_tweets נמצאות שלמות ואשראיות | 8. התכנית נמצאות שלמות ואשראיות.
| 0 | Tweets נמצאות שלמות ואשראיות | 0. Tweets נמצאות שלמות ואשראיות.

#### Arabic

| 1 | إعدادات | 1. إعدادات.
| 2 | ثانوية مهنية جزئية (لم ينهي الثانوية المهنية) | 2. ثانوية مهنية جزئية (لم ينهي الثانوية المهنية).
| 3 | ثانوية مهنية تامة، لكن بدون شهادة بجروت | 3. ثانوية مهنية تامة، لكن بدون شهادة بجروت.
| 4 | ثانوية مهنية تامة مع شهادة بجروت | 4. ثانوية مهنية تامة مع شهادة بجروت.
| 5 | ثانوية نظرية جزئية (لم ينهي الثانوية النظرية) | 5. ثانوية نظرية جزئية (لم ينهي الثانوية النظرية).
| 6 | ثانوية نظرية تامة، لكن بدون شهادة بجروت | 6. ثانوية نظرية تامة، لكن بدون شهادة بجروت.
| 7 | ثانوية نظرية تامة مع شهادة بجروت | 7. ثانوية نظرية تامة مع شهادة بجروت.
| 9 | لا توجد أية شهادة رسمية | 9. لا توجد أية شهادة رسمية.

#### Documentation of generated variables

| 1 | كلية عربية | 1. كلية عربية.
| 2 | كلية التمريض | 2. كلية التمريض.
| 3 | كلية الهندسة | 3. كلية الهندسة.
| 4 | جامعية تامة - شهادة لقب أول | 4. جامعية تامة - شهادة لقب أول.
| 5 | جامعية تامة - شهادة لقب ثاني أو أكثر (M أو أعلى) | 5. جامعية تامة - شهادة لقب ثاني أو أكثر (M أو أعلى).
| 6 | وجودة القرن من فترة دراسات التعليم العالي | 6. وجودة القرن من فترة دراسات التعليم العالي.
| 7 | لا يوجد لديه شهادة تعليم عالي | 7. لا يوجد لديه شهادة تعليم عالي.
| 8 | مصخر (يضم التعليم خارج البلاد) | 8. مصخر (يضم التعليم خارج البلاد).
**SHARE release 2.0.1, June 2007**

**Russian**

*dn010_&dn021_*  
*(highest education)*

1) Начальная школа  
2). Профессионально-техническое училище (не оконченное)  
3) Профессионально-техническое училище (без аттестата)  
4). Профессионально-техническое училище (с аттестатом)  
5) Общеобразовательная средняя школа (не оконченная)  
6) Общеобразовательная средняя школа (без аттестата)  
7) Общеобразовательная средняя школа (с аттестатом)  
8) Религиозная школа (без аттестата)  
9). Религиозная школа (с аттестатом)  
96) Нет формального образования  
97) Другой тип свидетельства (также и за границей)

**dn012_&dn023_*  
*(further education)*

1) Ешива  
2) Медицинское училище  
3) Техникум или колледж  
4) Институт или незаконченный университет  
5) Оконченный университет или аспирантура или докторантура  
95) Продолжает учебу в высшем или профессиональном учебном заведении.  
96) Нет формального образования  
97) Другие (также и за границей)

**Italy (ISCED-97; years of education)**

dn010_&dn021_*  
*(highest education)*

1) Esame di seconda elementare (1;2)  
2) Licenza elementare (1;5)  
3) Scuola media o avviamento professionale (2;8)  
4) Diploma ginnasiale (3;10)  
5) Diploma di scuola professionale, scuola magistrale o istituto d’arte (3 anni) (3; 11)  
6) Diploma di scuola magistrale o liceo artistico (4 anni) (3;12)  
7) Maturità liceale (classico, scientifico, linguistico, artistico) (3;13)  
8) Maturità tecnica, professionale o istituto d’arte (5 anni) (3;13)  
95) Nessun titolo ancora ottenuto / Va ancora a scuola  
96) Nessun titolo  
97) Altro titolo di studio non post-secondario (conseguito anche all'estero)
dn012_&dn023_ (further education)
1) Scuole di formazione paramediche (4;15)
2) Scuole di formazione professionale post-maturità (inclusi assistenti sociali) (4;14)
3) ISEF, accademie artistiche o conservatorio (5;17)
4) Università: laurea, laurea breve, diploma universitario, scuole dirette a fini speciali (5;17)
5) Università post-laurea: scuole di specializzazione, corsi di perfezionamento, dottorati di ricerca (6;22)
95) Frequenta attualmente un'istituzione post-secondaria o professionale
96) Nessuna
97) Altra istituzione post-secondaria o professionale (anche all'estero)

Netherlands (ISCED-97; years of education)

dn010_&dn021_ (highest education)
1) Basisonderwijs (1; 6)
2) VGLO of LAVO (2; 10)
3) Voortgezet (speciaal) onderwijs (b.v. MLK, VSO, LOM, MAVO of MULO) (2; 10)
4) HAVO, VWO, Atheneum, Gymnasium, HBS, MMS, Lyceum (3; 12)
5) Lager beroepsonderwijs (b.v. LTS, LEAO, Lagere Land- en Tuinbouwschool) (2;10)
6) Middelbaar beroepsonderwijs (b.v. MTS, MEAO, Middelbare Land- en Tuinbouwschool) (3;14)
7) Hoger beroepsonderwijs (b.v. HTS, HEAO, opleidingen MO-akten) (5; 15)
8) Hoger beroepsonderwijs 2e fase (b.v. accountant NIVRA, opleidingen MO-B-akten) (5;15)
9) Wetenschappelijk onderwijs (universiteit) (5;16)
10) Speciaal onderwijs (0;0)
11) Leerlingwezen (2;10)
95) Nog geen diploma / volgt nu onderwijs
96) Geen (0;0)
97) Andere opleiding

NOT RELEVANT: question was not in the questionnaire since highest and further education were jointly asked for in dn010&dn021
Spain (ISCED-97; years of education)

dn010_&dn021_ (highest education)
1) Enseñanza primaria, o primera etapa de la EGB, o equivalente (1;4.5)
2) Bachillerato elemental, EGB, Graduado escolar, o equivalente (2;8)
3) Bachillerato superior, BUP, o equivalente (3;10.5)
4) Pre-universitario o COU (3;11.5)
5) Estudios técnicos no superiores, FP, o equivalente (3;11.5)
95) Aún sin estudios no superiores/ cursando estudios no superiores
96) Ninguna.
97) Otro tipo (también en el extranjero).

dn012_&dn023_ (further education)
1) Magisterio, ATS, diplomado de Escuela universitaria, o equivalente.
   (5;15.5)
2) Aparejador, ingeniero técnico, o equivalente.(5;15.5)
3) Licenciado.(5;16.5)
4) Ingeniero superior, arquitecto, o equivalente.(5;17.5)
5) Otros estudios de tercer grado no universitarios.(5;13.5)
95) Aún sin estudios superiores/ cursando estudios superiores.
96) Ninguna.
97) Otra titulación (también en el extranjero)

Sweden (ISCED-97; years of education)

dn010_&dn021_ (highest education)
1) Folkskola (motsvarande) mindre än sex år (1;6)
2) Folkskola 6-8 år (1;7)
3) Folkskoleexamen och yrkesutbildning minst ett år (2;8)
4) Folkskola och läroverk åtta år (1; 8)
5) Avgångsbetyg från nioårig grundskola (2;9)
6) Realexamen (2;9)
7) Avgångsbetyg från grundskola eller realexamen, samt yrkesutbildning
   minst ett år (2;10)
95) (Still in School)
96) Ingen utbildning (No educ) (0,0)
97) Annan grundutbildning (även utomlands) Other

dn012_&dn023_ (further education)
1) Normalskolekompetens (flickskola) (3;12)
2) Tvåårigt gymnasium (3;11)
3) Tre- eller fyraårigt gymnasium (3;12)
4) Utbildning minst ett år utöver gymnasium eller flickskola, men EJ
   fullständig ögskoleexamen (4;13)
5) Examen från universitet/högskola efter minst tre års studier (5;15)
95) (Still in school)
96) Ingen gymnasial eller högre utbildning
   Annan utbildning (även utomlands)
Switzerland (ISCED-97; years of education)

dn010_&dn021_ (highest education)
6) Ecole primaire, Abschluss der Primarschule, Scuola elementare (1; 5)
7) Ecole secondaire, Sekundarschulabschluss, Certificato di studi (scuola media o ginnasio) (2;12)
Encore aux études, Noch keinen Abschluss / immer noch in der Schule, Studia ancora
(0;0) ...
...

dn012_&dn023_ (further education)
1) Ecole d’infirmières, Lehrabschluss/Krankenpflege-/Laborantenausbildung, Scuola per le professioni infermieristiche (3;15)
2) Maturité fédérale, Eidgenössische anerkannte Maturität / Lehrerseminar, Maturità liceale riconosciuta a livello federale (3;15)
3) Ecoles professionnelles supérieures (école de physiothérapie, école normale, hygiéniste dentaire, ESCA, ETS...), Abschluss von professionellen Hochschulen / Höhere Fachschulen, Technikum (Physiotherapeuten, HWV...), Maturità professionale e scuole professionali superiori (5;16)
5) Université (licence) / EPFL (diplôme), Universitätsabschluss / ETHZ-ETHL, Università o Polytechnico (5;17)
95) Encore aux études, Noch in beruflicher Ausbildung, Ancora agli studi
2 Health Variables

2.1. Overview of generated health variables

Regarding cognitive function (cf), mental health (mh), physical health (ph), behavioural risk (br), grip strength (gs) and walking speed (ws) the following variables were created:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>numeracy</td>
<td>numeracy score</td>
</tr>
<tr>
<td>orienti</td>
<td>orientation to date, month, year and day of week</td>
</tr>
<tr>
<td>eurodcat</td>
<td>EURO-D caseness</td>
</tr>
<tr>
<td>euro1-euro12</td>
<td>variables forming the EURO-D scale</td>
</tr>
<tr>
<td>gali</td>
<td>limitations with activities -gali</td>
</tr>
<tr>
<td>spheu</td>
<td>self-perceived health European version</td>
</tr>
<tr>
<td>sphus</td>
<td>self-perceived health US version</td>
</tr>
<tr>
<td>spheu2</td>
<td>spheu-less than good health</td>
</tr>
<tr>
<td>sphus2</td>
<td>sphus-less than very good health</td>
</tr>
<tr>
<td>chronic</td>
<td>number of chronic disease</td>
</tr>
<tr>
<td>chronic2</td>
<td>2+ chronic diseases</td>
</tr>
<tr>
<td>symptoms</td>
<td>number of symptoms</td>
</tr>
<tr>
<td>symptom2</td>
<td>2+ symptoms</td>
</tr>
<tr>
<td>bmi</td>
<td>body mass index (bmi)</td>
</tr>
<tr>
<td>bmi2</td>
<td>bmi categories</td>
</tr>
<tr>
<td>mobility</td>
<td>mobility, arm function and fine motor limitations</td>
</tr>
<tr>
<td>mobilit2</td>
<td>1+ mobility, arm function and fine motor limitations</td>
</tr>
<tr>
<td>mobilit3</td>
<td>3+ mobility, arm function and fine motor limitations</td>
</tr>
<tr>
<td>adl</td>
<td>number of limitations with activities of daily living (adl)</td>
</tr>
<tr>
<td>adl2</td>
<td>1+ adl limitations</td>
</tr>
<tr>
<td>iadl</td>
<td>of limitations with instrumental activities of daily living (iadl)</td>
</tr>
<tr>
<td>iadl2</td>
<td>iadl limitations no-yes</td>
</tr>
<tr>
<td>cusmoke</td>
<td>current smoking</td>
</tr>
<tr>
<td>drinkin2</td>
<td>drinking more than 2 glasses of alcohol almost every day</td>
</tr>
<tr>
<td>phactiv</td>
<td>physical inactivity</td>
</tr>
<tr>
<td>wspeed</td>
<td>walking speed</td>
</tr>
<tr>
<td>wspeed2</td>
<td>walking speed: cut-off point</td>
</tr>
<tr>
<td>maxgrip</td>
<td>maximum of grip strength measures</td>
</tr>
</tbody>
</table>
2.2. Cognitive function (cf) & mental health (mh)

by Michael Dewey

orienti orientation to date, month, year and day of week:
Orientation in time – the higher the better oriented (generated from cf003 - cf006)

numeracy numeracy score:
Mathematical performance - the higher the better (generated from cf012 - cf015)

eurod depression scale EURO-D:
The score on EURO-D – high is depressed (generated from mh002 – mh017)
eurodcat EURO-D caseness:
EURO-D caseness - 1 is a case

The following 12 variables forming the EURO-D scale:

euro1 depression
euro2 pessimism
euro3 suicidality
euro4 guilt
euro5 sleep
euro6 interest
euro7 irritability
euro8 appetite
euro9 fatigue
euro10 concentration
euro11 enjoyment
euro12 tearfulness

2.3. Physical health (ph) & behavioural risk (br)

by Mauricio Avendaño, Arja Aro & Johan Mackenbach

This paper documents the construction of new variables from the physical health (PH) and health behaviour (BR) modules, based on wave 1, release 2 of the SHARE data, last updated in June 2007.

We have made a selection of the most important variables from the physical health and health behaviour modules that we have created for data analysis. These variables are:
1. **GALI – Limitation with activities.**

This variable is based on variable ph005_, which has originally three categories: (1) severely limited; (2) limited, but not severely; & (3) not limited. The new variable aggregates the values that delimitate limitations, resulting in two categories: (0) not limited & (1) limited. The latter category includes severe and not severe limitations. The motivation to dichotomise this variable is the smaller numbers of severely limited when analysing data per country, gender and age groups.

2. **SPHEU (Self-perceived health European version)**

This variable is based on variables PH002_ & PH0053_. This variable puts together respondents that were initially randomised to answer the self-perceived health item either at the beginning or at the end of the physical health (PH) questionnaire survey.

3. **SPHUS (Self-perceived health US version)**

This variable is based on variables PH003_ & PH0052_. This variable puts together respondents that were initially randomised to answer the self-perceived health item either at the beginning or at the end of the PH questionnaire module.

4. **SPHEU2**

This variable dichotomises the European version of self-perceived health into two categories: (0) good or very good health & (1) less than good health.

5. **SPHUS2**

This variable dichotomises the US version of self-perceived health into two categories: (0) very good and excellent & (1) less than very good.

6. **CHRONIC (number of chronic diseases)**

This variable is based on items PH006_1 to PH006_16 and presents the number of chronic diseases reported by each individual.

7. **CHRONIC2**

This variable summarizes the variable ‘chronic’ into the following categories: (0) less than 2 chronic diseases & (1) 2 or more chronic diseases.

8. **SYMPTOMS (number of symptoms)**

This variable is based on items PH010_1 to PH010_13 and presents the number of symptoms reported by each individual.
9. SYMPTOM2
This variable summarizes the variable ‘symptoms’ into the following categories: (0) less than 2 symptoms & (1) 2 or more symptoms.

10. BMI (BODY MASS INDEX)
This variable is based on variables PH012_ (weight) and PH013_ (height), and is based on the following formula: BMI = (PH012_ / (PH013_)^2) * 10000. BMI is a continuous variable.

11. BMI2
This variable reclassifies the variable BMI into the standard categories of body mass index determined by the World Health Organisation. These categories are:

1. Underweight (below 18.5)
2. Normal (18.5 – 24.9)
3. Overweight (25 – 29.9)
4. Obese (30 or higher)

The value ‘9999997’ was created and set as a missing value. It corresponds to those values of BMI that are not likely to be correct, mostly because of a mistake either in measurement or entering of data on weight. 9999997 corresponds to values that are smaller than 12, because all weight values (in variable ph012_) for these subjects were unlikely to be true.

12. MOBILITY (number of limitations with mobility, arm function & fine motor function)
This variable is based on items PH048_1 to PH048_11. It corresponds to the number of limitations with mobility, arm function & fine motor function reported by each individual.

13. MOBILIT2
This variable re-categorises the variable ‘mobility’ into the following values: (0) No limitations & (1) one or more limitations with mobility, arm function & fine motor function.

14. MOBILIT3
This variable re-categorises the variable ‘mobility’ into the following values: (0) Less than three limitations & (1) three or more limitations with mobility, arm function & fine motor function.

15. ADL (number of limitations with activities of daily living)
This variable is based on items PH049_1 to PH049_14. It describes the number of limitations with activities of daily living (ADL). Six activities are included:

- Dressing, including putting on shoes and socks
- Walking across a room
- Bathing or showering
- Eating, such as cutting up your food
- Getting in and out of bed
- Using the toilet, including getting up or down

16. ADL2

This variable reclassifies the variable ‘ADL’ into two categories: (0) no ADL limitations and (1) one or more limitations with ADL.

17. IADL (number of limitations with instrumental activities of daily living)

This variable is based on items PH049_1 to PH049_14. It describes the number of limitations with instrumental activities of daily living reported by each individual. Seven activities are included:

- Using a map to figure out how to get around in a strange place
- Preparing a hot meal
- Shopping for groceries
- Making telephone calls
- Taking medications
- Doing work around the house or garden
- Managing money, such as paying bills and keeping track of expenses

18. IADL2

This variable reclassifies the variable ‘IADL’ into two categories: (0) no IADL limitations and (1) one or more limitations with IADL.

19. CUSMOKE (Current smoking)

This variable is based on variables br0021_ and br002_. It comprises information into the following categories: (1) current smoker; (2) reported in br001_ that had never smoked daily for at least one year; and (5) Former smoker (stopped smoking).
20. **DRINKIN2 (Drinking more than two glasses of alcohol almost every day or 5/6 days a week)**

This variable comprises information on drinking more than two glasses of any of the three main drinks surveyed almost every day or five/six days a week. It is constructed based on variables br011_, br012_ and br013_. This generated variable is the closest approximation to ‘more than the recommended levels of drinking’ available in SHARE.

21. **PHACTIV (Physical inactivity)**

This variable is constructed on the basis of variables br015_ and br016_ regarding levels of vigorous and moderate physical activity, respectively. Physical inactivity is defined as never or almost never engaging in neither moderate nor vigorous physical activity.

2.4. **Walking speed (ws)**

by Mauricio Avendaño, Arja Aro & Johan Mackenbach

22. **WSPEED (Walking Speed)**

This variable is based on variables ws011_ and ws013_, which were measured among individuals aged 76 years and older ONLY. Walking speed was measured twice, and the average speed of the two tests is taken. WSPEED indicates the value of walking speed, which is obtained by dividing the sums of the distances by the times of the two measurements. Individuals who need more than 0.54 seconds and fewer than 30 seconds are included.

23. **WSPEED2**

WSPEED2 offers a cut-off point for walking speed as used in previous studies, and can take two values: (1) walking speed is 0.4 meters/second or less; (0) walking speed is more than 0.4 meters/second.

2.5. **Grip strength (gs)**

by Karen Andersen-Ranberg and Inge Petersen

Maxgrip: Maximum of grip strength measures:
According to instructions two grip strength measurements on each hand were recorded with a dynamometer at the interview.
Valid measurements are defined as grip strength measurements, where the two measurements of one hand differ by less than 20 kg. If the difference was above (>20 kg) the measurements for that hand have been recoded as MISSING. If grip strength was only measured once on one hand, this measurement has also been recoded as MISSING. However, if there were two measurements on the other hand, these measurements have been included in this dataset. Grip strength measurements of zero ‘0’ or grip strength measurements above 100 kg (≥100 kg) have been recoded as MISSING.

The MAXGRIP is defined as the maximum grip strength measurement of both hands (2x2) or of one hand (1x2).

3 Housing & regional information

3.1. Housing

If the interview took place in the house of the respondents, the interviewer did not ask for the type of accommodation in the HO module. Instead, the interviewer filled in this kind of information in module IV him- or herself.

For user convenience, we created generated variables areabldg, typebldg, floorsbl, and nsteps, that combine the data from the HO module (HO036, HO37, HO042 and HO043) and from the IV module (IV009 to IV012). These information is stored for all responding household members (regardless whether they are housing respondents or not).

<table>
<thead>
<tr>
<th>Generated Variable</th>
<th>Description</th>
<th>Derived from</th>
</tr>
</thead>
<tbody>
<tr>
<td>areabldg</td>
<td>Area of Building</td>
<td>IV009_ HO037_</td>
</tr>
<tr>
<td>typebldg</td>
<td>Type of Building</td>
<td>IV010_ HO036_</td>
</tr>
<tr>
<td>floorsbl</td>
<td>Number of Floors of Building</td>
<td>IV011_ HO042_</td>
</tr>
<tr>
<td>nsteps</td>
<td>Number of Steps to Entrance</td>
<td>IV012_ HO043_</td>
</tr>
</tbody>
</table>

3.2. Regional information

The Nomenclature of Territorial Units for Statistics (NUTS) is used to indicate in which territorial unit the household is located. These variables are named nuts1, nuts2 and nuts3. Privacy legislation is considered. Not all NUTS levels are provided for every country.

See for details on NUTS:
4 Occupations and industries (ISCO and NACE coding)

4.1. Overview
SHARE asks respondents for their own, their former partner’s and their parents’ occupation. SHARE uses the current (1988) International Standard Classification of Occupations (ISCO-88) by the International Labour Organization (ILO) to organize jobs into groups and international comparisons. Corresponding industries are classified according to the NACE Codes (Version 4 Rev. 1 1993), created by the European Union.

The ISCO and NACE coding is based on these variables:

<table>
<thead>
<tr>
<th></th>
<th>ISCO</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respondent’s first job</strong></td>
<td>ep016_1</td>
<td>ep018_1 ep023_1</td>
</tr>
<tr>
<td><strong>Respondent’s second job</strong></td>
<td>ep016_2</td>
<td>ep018_2 ep023_2</td>
</tr>
<tr>
<td><strong>Respondent’s last job</strong></td>
<td>ep052_</td>
<td>ep054_ ep060_</td>
</tr>
<tr>
<td><strong>Former partner’s job</strong></td>
<td>dn025_</td>
<td></td>
</tr>
<tr>
<td><strong>Mother’s job</strong></td>
<td>dn029_1</td>
<td></td>
</tr>
<tr>
<td><strong>Father’s job</strong></td>
<td>dn029_2</td>
<td></td>
</tr>
</tbody>
</table>

4.2. ISCO coding
In general, the 4-digit ISCO88 is used.


In addition, the following codes are used for special values:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Does not apply</td>
</tr>
<tr>
<td>0003</td>
<td>Not employed</td>
</tr>
<tr>
<td>0004</td>
<td>Not codeable</td>
</tr>
<tr>
<td>0005</td>
<td>Getting education</td>
</tr>
<tr>
<td>0006</td>
<td>Housewife / Houseman</td>
</tr>
<tr>
<td>0007</td>
<td>Welfare support / pension / etc.</td>
</tr>
<tr>
<td>0008</td>
<td>Respondent does not know</td>
</tr>
<tr>
<td>0009</td>
<td>No answer</td>
</tr>
<tr>
<td>0100</td>
<td>Armed forces / military/ soldier</td>
</tr>
<tr>
<td>9999</td>
<td>Invalid answer</td>
</tr>
</tbody>
</table>

These codes are generated as isco_<*> with a corresponding English description as text_<*>. The following table shows the generated variables:
### 4.3. NACE coding

By building up broader groups (see table next page), SHARE uses fewer categories for the industry codes than NACE usually does (please see [http://www.top500.de/nace4-e.htm](http://www.top500.de/nace4-e.htm)).

Moreover, SHARE employs three new general categories and five categories for missing values:

<table>
<thead>
<tr>
<th>Additional General categories:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>86</td>
<td>Production, industry, factory without further specification</td>
</tr>
<tr>
<td>87</td>
<td>Services without further specification</td>
</tr>
<tr>
<td>88</td>
<td>Engineering without further specification</td>
</tr>
<tr>
<td>98</td>
<td>Soldiers; Military</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Categories for missing values:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Does not apply</td>
</tr>
<tr>
<td>76</td>
<td>Illegible</td>
</tr>
<tr>
<td>77</td>
<td>Refusal</td>
</tr>
<tr>
<td>78</td>
<td>Don’t know</td>
</tr>
<tr>
<td>79</td>
<td>No answer</td>
</tr>
</tbody>
</table>

**Please note** that the industry the interviewee is working in is asked in two different questions, depending on his employment status (which is stored in ep009_). If he is in his first job self-employed, it is in variable ep023_1. Else, it is in ep018_1. For the NACE codes however, this information is combined in a single variable named nace_1job. The same is true for the industry of the second job (ep023_2 / ep018_1) which is stored in nace_2job, and for the last job (ep054_/ep060_) in nace_ljob. The corresponding English descriptions are provided in ind_1job, ind_2job, and ind_ljob respectively.
Summarized NACE-Categories in SHARE:

<table>
<thead>
<tr>
<th>SHARE</th>
<th>NACE</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>01</td>
<td>Agriculture, hunting and related service activities</td>
</tr>
<tr>
<td></td>
<td>02</td>
<td>Forestry, logging and related service activities</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td>Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>Mining of coal and lignite; extraction of peat</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Mining of uranium and thorium ores</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Mining of metal ores</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Other mining and quarrying</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>Manufacture of food products and beverages</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Manufacture of tobacco products</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Manufacture of textiles</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Manufacture of wearing apparel; dressing and dyeing of fur</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>Manufacture of pulp, paper and paper products</td>
</tr>
<tr>
<td>22</td>
<td>22</td>
<td>Publishing, printing and reproduction of recorded media</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
<td>Manufacture of coke, refined petroleum products and nuclear fuel</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Manufacture of chemicals and chemical products</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Manufacture of rubber and plastic products</td>
</tr>
<tr>
<td>26</td>
<td>26</td>
<td>Manufacture of other non-metallic mineral products</td>
</tr>
<tr>
<td>27</td>
<td>27</td>
<td>Manufacture of basic metals</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Manufacture of fabricated metal products, except machinery and equipment</td>
</tr>
<tr>
<td>29</td>
<td>29</td>
<td>Manufacture of machinery and equipment n.e.c.</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>Manufacture of office machinery and computers</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>Manufacture of electrical machinery and apparatus n.e.c.</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>Manufacture of radio, television and communication equipment and apparatus</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>Manufacture of medical, precision and optical instruments, watches and clocks</td>
</tr>
<tr>
<td>34</td>
<td>34</td>
<td>Manufacture of motor vehicles, trailers and semi-trailers</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>Manufacture of other transport equipment</td>
</tr>
<tr>
<td>36</td>
<td>36</td>
<td>Manufacture of furniture; manufacturing n.e.c.</td>
</tr>
<tr>
<td>37</td>
<td>37</td>
<td>Recycling</td>
</tr>
<tr>
<td>SHARE</td>
<td>NACE</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>40</td>
<td>40</td>
<td>Electricity, gas, steam and hot water supply</td>
</tr>
<tr>
<td>41</td>
<td></td>
<td>Collection, purification and distribution of water</td>
</tr>
<tr>
<td>45</td>
<td>45</td>
<td>Construction</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
<td>Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel</td>
</tr>
<tr>
<td>51</td>
<td>51</td>
<td>Wholesale trade and commission trade, except of motor vehicles and motorcycles</td>
</tr>
<tr>
<td>52</td>
<td>52</td>
<td>Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods</td>
</tr>
<tr>
<td>55</td>
<td>55</td>
<td>Hotels and restaurants</td>
</tr>
<tr>
<td>60</td>
<td>60</td>
<td>Land transport; transport via pipelines</td>
</tr>
<tr>
<td>61</td>
<td></td>
<td>Water transport</td>
</tr>
<tr>
<td>62</td>
<td></td>
<td>Air transport</td>
</tr>
<tr>
<td>63</td>
<td></td>
<td>Supporting and auxiliary transport activities; activities of travel agencies</td>
</tr>
<tr>
<td>64</td>
<td></td>
<td>Post and telecommunications</td>
</tr>
<tr>
<td>65</td>
<td>65</td>
<td>Financial intermediation, except insurance and pension funding</td>
</tr>
<tr>
<td>66</td>
<td></td>
<td>Insurance and pension funding, except compulsory social security</td>
</tr>
<tr>
<td>67</td>
<td></td>
<td>Activities auxiliary to financial intermediation</td>
</tr>
<tr>
<td>70</td>
<td>70</td>
<td>Real estate activities</td>
</tr>
<tr>
<td>71</td>
<td></td>
<td>Renting of machinery and equipment without operator and of personal and household goods</td>
</tr>
<tr>
<td>72</td>
<td>72</td>
<td>Computer and related activities</td>
</tr>
<tr>
<td>73</td>
<td>73</td>
<td>Research and development</td>
</tr>
<tr>
<td>74</td>
<td>74</td>
<td>Other business activities</td>
</tr>
<tr>
<td>75</td>
<td>75</td>
<td>Public administration and defence; compulsory social security</td>
</tr>
<tr>
<td>80</td>
<td>80</td>
<td>Education</td>
</tr>
<tr>
<td>85</td>
<td>85</td>
<td>Health and social work</td>
</tr>
<tr>
<td>90</td>
<td>90</td>
<td>Sewage and refuse disposal, sanitation and similar activities</td>
</tr>
<tr>
<td>91</td>
<td>91</td>
<td>Activities of membership organization n.e.c.</td>
</tr>
<tr>
<td>92</td>
<td>92</td>
<td>Recreational, cultural and sporting activities</td>
</tr>
<tr>
<td>93</td>
<td>93</td>
<td>Other service activities</td>
</tr>
<tr>
<td>95</td>
<td>95</td>
<td>Private households with employed persons</td>
</tr>
<tr>
<td>99</td>
<td>99</td>
<td>Extra-territorial organizations and bodies</td>
</tr>
</tbody>
</table>
5 Social support & household composition variables

by Jim Ogg and Sylvie Renaut

The file ShareRel2_GV_SUPPORT* contains derived summary variables from coverscreen (CV) and the support (SP) module. Additionally, it provides the household composition variable **hhold_in**, the type of household at the individual level and in more detail the variable **hhold_i1**. This variable is calculated from information in the cv module.

5.2. Social support

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>nb_help</td>
<td>Number of different types of help received from outside the household (i.e. care, practical tasks and administrative tasks)</td>
</tr>
<tr>
<td>who_hlp1</td>
<td>Identity of helper from outside the household</td>
</tr>
<tr>
<td>who_hlp2</td>
<td>The identity of the carer in the household</td>
</tr>
<tr>
<td>n_help_gi</td>
<td>The total number of different types of help given outside the household (i.e. care, practical tasks and administrative tasks).</td>
</tr>
<tr>
<td>whom_gi1</td>
<td>The identity of the person helped outside the household</td>
</tr>
<tr>
<td>whom_gi2</td>
<td>The identity of the person cared for inside the household</td>
</tr>
</tbody>
</table>

5.2. Household composition

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>hhold_in</td>
<td>The household composition: the type of household (individual level). This is calculated from information in the file cv_r</td>
</tr>
<tr>
<td>hhold_i1</td>
<td>Detailed household composition: the type of household (individual level). This is calculated from information in the file cv_r</td>
</tr>
<tr>
<td>mother_i</td>
<td>Mother in household</td>
</tr>
<tr>
<td>father_i</td>
<td>Father in household</td>
</tr>
<tr>
<td>motlaw_i</td>
<td>Mother-in-law</td>
</tr>
<tr>
<td>fatlaw_i</td>
<td>Father-in-law</td>
</tr>
<tr>
<td>child_in</td>
<td>Child and/or child-in-law in household</td>
</tr>
<tr>
<td>gchild_i</td>
<td>Grandchild in household</td>
</tr>
<tr>
<td>family_i</td>
<td>Other relative in household</td>
</tr>
<tr>
<td>other_in</td>
<td>Other relative in household</td>
</tr>
<tr>
<td>apti_in</td>
<td>Great-grandchild in household</td>
</tr>
</tbody>
</table>