The Survey of Health, Aging, and Retirement in Europe – Methodology

September 2005

Edited by:

Axel Börsch-Supan (Coordinator) Hendrik Jürges

Authors:

Kirsten H. Alcser

Grant Benson

Axel Börsch-Supan

Agar Brugiavini

Dimitrios Christelis

Enrica Croda

Marcel Das

Guiseppe de Luca

Janet Harkness

Patrik Hesselius

Tullio Jappelli

Hendrik Jürges

Adriaan Kalwij

Marie-Louise Kemperman

Anders Klevmarken

Oliver Lipps

Omar Paccagnella

Mario Padula

Franco Perrachi

Roberta Rainato

Arthur van Soest

Bengt Swensson

Corrie Vis

Guglielmo Weber

Bas Weerman

Mannheim Research Institute for the Economics of Aging (MEA)

L13, 17

68131 Mannheim

Published by:

Mannheim Research Institute for the Economics of Aging (MEA)

L13, 17

68131 Mannheim

Tel: +49-621-181-1862

Fax: +49-621-181-1863

Internet: www.mea.uni-mannheim.de

The SHARE data collection has been primarily funded by the European Commission through the 5th framework programme (project QLK6-CT-2001-00360 in the thematic programme Quality of Life). Additional funding came from the US National Institute on Ageing (U01 AG09740-13S2, P01 AG005842, P01 AG08291, P30 AG12815, Y1-AG-4553-01 and OGHA 04-064). Data collection in Austria (through the Austrian Science Fund, FWF), Belgium (through the Belgian Science Policy Office) and Switzerland (through BBW/OFES/UFES) was nationally funded.

Printed by Strauss GmbH Robert Bosch Str. 6-8 69509 Mörlenbach

© Mannheim Research Institute for the Economics of Aging, 2005

ISBN 3-00-017215-7

Contents:

			page
1	Introduct Axel Börsco		5
2		RE Development Process b-Supan and Marie-Louise Kemperman	7
3		ng the Survey Instruments for SHARE s, Corrie Vis, and Bas Weerman	12
4	SHARE' Janet Hark	Translation Procedures and Translation Assessment	24
5		RE Sampling Procedures and Calibrated Designs Weights vmarken, Patrik Hesselius, and Bengt Swensson	28
6		RE Train-the-Trainer Program Alcser and Grant Benson	70
7		k and Survey Management in SHARE Luca and Oliver Lipps	75
8	Interview, Module, and Question Length in SHARE Hendrik Jürges		
9	Survey Participation in the First Wave of SHARE Guiseppe de Luca and Franco Peracchi		
10	Generated Income Variables in SHARE Release 1 Agar Brugiavini, Enrica Croda, Omar Paccagnella, Roberta Rainato, and Guglielmo Weber		
11	Generated Asset Variables in SHARE Release 1 Dimitrios Christelis, Tullio Jappelli, and Mario Padula		
12	Item Non-Response and Alternative Imputation Procedures Adriaan Kalwij and Arthur van Soest		
Арј	pendix A	SHARE Participants	151
App	pendix B	Paper Version of the SHARE CAPI Instrument	156
App	oendix C	Showcards	281
App	pendix D	Self-completion Questionnaire	321
App	pendix E	Translation Guidelines	337
App	pendix F	Model Specifications	342
App	oendix G	Contributors	352

1 Introduction

Axel Börsch-Supan

Understanding ageing and how it affects individuals in the diverse cultural settings of Europe is the main aim of SHARE, the Survey of Health, Ageing and Retirement in Europe. By July 31st 2005, SHARE has collected data on the individual life circumstances of 25,719 persons aged 50 and over in 11 European countries, ranging from Scandinavia to the Mediterranean. Release 1, published at the end of April 2005, makes 22,777 records available to the scientific community. Data collection in Israel is starting in the Fall of 2005. SHARE has made great efforts to deliver truly comparable data, so we can reliably study how differences in cultures, living conditions and policy approaches shape the quality of life of Europeans just before and after retirement. SHARE is planning to have a second data release in 2006.

The "SHARE First Results Book" (Börsch-Supan et al., 2005) documents what can be learned from the SHARE data on the health, economic and social living conditions of Europeans aged 50 and over. It collects some 40 articles written by those people who have designed SHARE. It is based on the very first data release ("Release 0") in November 2004.

This volume complements and adds methodological details to the "SHARE First Results Book". After this introduction, the next three chapters describe how the survey instrument was developed: Chapter 2 refers to the substantive contents, Chapter 3 to the electronic CAPI realisation, and Chapter 4 to the complex translation and adjudication process. Chapter 5 introduces the sampling frame and the weights used in the first release of the SHARE data. Chapters 6 and 7 describe the actual field work, first the extensive interviewer training and then the actual field work and sample management procedures. Chapters 8 and 9 discuss meta data from the survey (interview length and response rates), referring to Release 1 of the data that was published in April 2004. Finally, Chapters 10 through 12 describe what additional data has been generated from the raw data.

The extensive appendix to this volume contains materials used during survey development and fieldwork: the SHARE CAPI and self-completion questionnaire, showcards, translation guidelines, and the model contract with the survey agencies.

An enterprise like SHARE owes a great debt to many people. Foremost of those who deserve recognition are the participants in the study. They have given generously of their time in the SHARE interview. As editors and authors of this book, and particularly as researchers, we hope that participating in the interview has been of interest to them and that the value of this work is apparent - and, of course, that they will continue to participate in the study.

Special thanks go to those who have inspired SHARE. Arie Kapteyn, Mike Hurd, Jim Smith and Bob Willis have been instrumental to create the process that has led to the creation of SHARE, long before the current group of SHARE researchers have assembled to write grant proposals and to start the actual work.

We thank those who pay for SHARE. The SHARE data collection has been mainly funded by the European Commission through the 5th framework programme (project QLK6-CT-2001-00360 in the thematic programme "Quality of Life" programme area). We thank Maria Theofilatou and Kevin McCarthy for their continuing support of SHARE. The analytical work in this book has also been funded through the 5th framework programme, under the project name of AMANDA ("Advanced Multidisciplinary Analysis of New Data on Ageing", QLK6-CT-2002-002426). AMANDA will also support further behavioural analyses to be

based on the next releases of the SHARE and ELSA data sets. Substantial cofunding for add-ons such as the intensive training programme for SHARE interviewers came from the US National Institute on Ageing (U01-AG09740-13S2, P01-AG005842, P01-AG08291, P30-AG12815, Y1-AG455301 and OGHA 04-064). We thank Richard Suzman for his enduring support and intellectual input. Some SHARE countries also had some extent of national co-funding, and three countries – Austria (through the Austrian Science Fund, FWF), Belgium (through the Belgian Science Policy Administration) and Switzerland (through BBW/OFES/UFES) – were mainly nationally funded.

SHARE is large enterprise. About 150 researchers from at least 16 countries are currently involved in SHARE. SHARE has been on a very tight time and monetary budget. It has been the enthusiasm and the hard work of these many researchers that have made SHARE possible. Appendix A lists all participants in SHARE, organised by working groups and country teams.

The core of the SHARE day-to-day management took place at the Mannheim Research Institute for the Economics of Ageing (MEA) and at CentERdata. We thank Marcel Das, Karsten Hank, Hendrik Jürges, Oliver Lipps, Marie-Louise Kemperman, Stephanie Stuck, Corrie Vis and Bas Weerman for their work. They formed the backbone of the SHARE enterprise.

SHARE has greatly profited from external advice. SHARE's role models – HRS and ELSA – were represented in an advisory board with Michael Hurd, Jim Smith David Weir and Bob Willis (HRS) and James Banks, Carli Lessof, Michael Marmot and James Nazroo (ELSA). John Rust, Norbert Schwarz, Jon Skinner, Beth Soldo, Clemens Tesch-Römer formed a review board that carefully examined the SHARE survey instrument. Without their intellectual and practical advice, and their continuing encouragement and support, SHARE would not be where it is now.

SHARE also received much professional help. CentERdata at Tilburg designed a set of innovative software tools for SHARE; the Survey Research Center (SRC) of the University of Michigan at Ann Arbor developed a Train-the-Trainer programme; the Zentrum für Umfragen, Methoden und Analysen (ZUMA) at Mannheim provided us with professional help in survey organisation and survey translation. We always kept in close contact with the professional survey agencies – IMAS (AT), PSBH-University of Liège and PSBH-University of Antwerp (BE), MIS Trend (CH), Infas (DE), SFI Survey (DK), Demoscopia (ES), INSEE (FR), KAPA Research (GR), DOXA (IT), TNS NIPO (NL), Intervjubolaget (SE) and NatCen (UK) – and thank their representatives for a fruitful cooperation. We are also grateful to the Instituto Nacional de Estadistica (INE), the Spanish national statistics agency, for providing the gross sample. Special thanks go to Juana Porras.

SHARE underwent a thorough review of ethical standards by the University of Mannheim's internal review board (IRB). We thank Prof. Dagmar Stahlberg (chairperson), Prof. Walter Müller and Prof. Jochen Taupitz for their careful work.

Last but not least, we owe thanks to our book design and production team: Johannes Bayer and Daniel Kemptner formatted and designed this book. We thank them for their hard work.

2 The SHARE Development Process

Axel Börsch-Supan and Marie-Louise Kemperman

This chapter describes the development process – the iteration between questionnaire development and data collection. The chapter is structured according to the stages of this process. After the initial design stage, data has been collected in three stages. First, pilots were performed on the basis of small quota samples. Second, a full "dress-rehearsal" pre-test has been run. Based on these experiences the main survey – still designed to be a test survey for a future larger SHARE – was held in all participating countries from April 2004 to September 2004, with some additional data collection lasting until July 2005. The last stage is dissemination: the first public release of the preliminary data base took place in April 2005, and a final data release is planned for 2006.

2.1 The initial design stage

In the initial design stage, *eleven cross-national working groups* produced the survey instrument and initially eight, then *eleven country teams* implemented the actual survey. The cross-national working groups and the country teams together formed a *matrix* as depicted below. Their work was co-ordinated by a small core management group which decided on major design and procedural issues. In addition to the co-ordinator, it consisted of six members (Agar Brugiavini, Arie Kapteyn, Stefania Maggi, Sir Michael Marmot, James Nazroo, and Jean-Marie Robine).

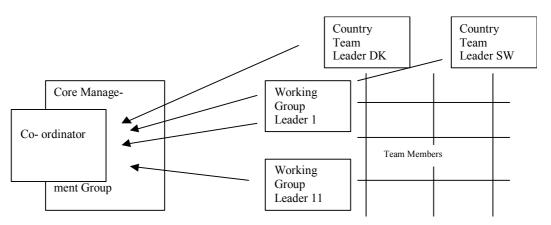


Figure 2.1: SHARE Management

The working groups consisted of specialists in their fields, see Appendix A. Their task was to design a draft questionnaire. Point of departure in January 2002 was the US Health and Retirement Study (HRS), the English Longitudinal Survey on Ageing (ELSA) and other survey instruments which have addressed questions relevant also for the SHARE agenda (in particular ageing-related surveys in Germany, Italy and Sweden). From this pool of questions, a first *English-language draft questionnaire* was constructed. The entire team met in plenary sessions during this process to test ideas, to ensure that the proposed questions are likely to be viable in all participating countries, and, most importantly, to find a compromise between a comprehensive coverage of the many health, economic and family issues relevant for SHARE and a reasonable questionnaire length (80 minutes). Three main criteria for inclusion had to be met: multidisciplinarity (every question must be of interest to more than one field), cross-nationality (every question must be applicable to all participating

countries), and longitudinality (every question must make sense in a long-term panel). Two more versions were created, until finally the fourth version of the questionnaire was ready in September 2002 for piloting in an English-speaking country. Researchers of HRS and ELSA gave advice throughout this first critical stage of the project, as they did through the entire development process. Their experience was a key source of information for this project.

Eleven country teams were responsible for the implementation of the project in each SHARE country. The country team leaders proposed the field agencies to be subcontracted and negotiated the contract together with the Mannheim coordinating team, they signed off the country- and language-specific survey instruments before they went into the field, and they were responsible for observing legal requirements such as safety and confidentiality regulations. Most country teams involved local advisors. The actual field work was carried out by professional survey agencies under the supervision of the country team leaders and the co-ordinating team at MEA. Survey agencies included IMAS (AT), PSBH - University of Liège and PSBH -University of Antwerp (BE), MIS Trend (CH), Infas (DE), SFI Survey (DK), Demoscopia (ES), INSEE (FR), KAPA Research (GR), DOXA (IT), TNS NIPO (NL), Intervjubolaget (SE) and NatCen (UK). In addition, we hired professional services from CentERdata at Tilburg which designed a set of innovative software tools and programmed all questionnaire versions as CAPI (Computer-Aided Personal Interview) survey instruments in the Blaise language (see Chapter 3); from the Survey Research Center (SRC) of the University of Michigan at Ann Arbor which developed the Train-the-Trainer programme (see Chapter 6); and from the Zentrum für Umfragen, Methoden und Analysen (ZUMA) at Mannheim which provided us with professional help in survey organisation and survey translation (see Chapter 4).

2.2 The pilot stage

Pilots tested critical aspects of this draft questionnaire during year 2002. We started with an English language pilot that was tested in the UK with the help of the National Centre for Social Research (NatCen, London) in September 2002. Some 80 British households (120 individuals) representative of our sample (age range 50-96) were interviewed. The debriefing of these pilot interviews was attended by the entire coordination team and a group of ELSA advisors. This pilot was a great success insofar as item non-response rates were low and the willingness to participate high. We attribute this success to great care in interviewer training and motivation, and the timeliness and relevance of the questions asked to economic and social policy. As a major innovation, we introduced the grip strength measure of physical health in a general-purpose social survey with great acceptance by the respondents. In the UK pilot, only 6 percent of all respondents (aged 50-96) and 12 percent of those above 80 were unable to take the test. This success convinced both HRS and ELSA to follow our approach in health measurement.

Small-scale cognitive interviews in Germany and Italy followed to test the electronic language management utility (LMU) and the translation procedures, see Chapters 3 and 4. Moreover, the questionnaire was cut down to 80 minutes length following the average interviewing times in the English-language pilot and the German and Italian interviews. In the meantime, country team leaders finalised their negotiations with the survey agencies along model contracts designed by the coordination team.

By the end of March 2003 this 5th version of the survey instrument was finalised and the second version of the LMU was released. The countries could then start to translate the 5th version of the instrument into all member languages. Meanwhile

CentERdata was working on an interface for the different sample management systems of the agencies which later was transformed in a genuine stand-alone case management system (CMS), see Chapter 3.

In the first half of May 2003, the translated versions of the questionnaire were tested, edited and corrected and then converted into a multilingual survey instrument in order to prepare the first "Train-The-Trainers" session (TTT 1), see Chapter 6, which was held in Venice at the end of May 2003. In collaboration with the Survey Research Center (SRC) at the University of Michigan in Ann Arbor, which designed the TTT programme (as well as training programmes for HRS interviewers), the MEA-team prepared a 134-page Interviewer Manual which was translated into all project members' languages for the purpose of their pilots.

Pilots were then conducted in all participating countries in June 2003. These pilot interviews aimed at cognitive testing to ensure that the questions are understood and answered as intended in each country. In all countries, about 50 households were interviewed. After a thorough local training session for the interviewers, which was attended by the country team leaders and their "operators" (themselves prepared through the TTT 1 meeting), the interviewers had one month to finish the interviews.

The pilot was well received by the respondents in the various countries and much feedback both from interviewers and respondents was collected and discussed at the debriefings in every country. The country team leaders, their operators and a representative of the co-ordination group attended the debriefings. As it turned out, however, the questionnaire was still about 15% longer than the envisaged 80 minutes.

In July and August, the data of the pilots were analysed as part of the AMANDA project. The results and analyses were discussed in September 2003 in a plenary meeting. The results of that meeting produced the 6th version of the English-language draft questionnaire, targeted to stay safely within the 80 minute limit.

In the period until October 2003, parallel work was done on improving details in the country specifics and on optimising content and text of the English-language version. In addition, test cases were developed and the entire instrument was thoroughly checked for routing errors. This was the basis for the English-language version 7. After that the LMU was updated with translations into the various member languages.

In November 2003 these translations were reviewed checked by outside referees, then adjudicated by the country team leaders. We spent much effort to ensure functional equivalence both in relation to the concepts and phrases deployed, see Chapter 4. In addition, a plenary conference with all working groups and country teams ensured cross-national equivalence.

In addition to the CAPI instrument, we also developed a self-completion ("drop off") questionnaire with additional questions that commanded special privacy. It was finalised during November 2003. Yet other pieces of material to be developed in English and then to be translated were the show cards accompanying the CAPI instrument, the interviewer manuals, pamphlets and letters introducing SHARE to the participants. End of November 2003, these materials and the LMU for version 7 was completed and the conversion into the CAPI instrument done.

2.3 The pre-test stage

The month of December 2003 was used for testing, remaining routing errors were corrected, resulting in yet another version, now the 8th. It formed the basis for the

second train the trainer session (TTT 2) mid December 2003 in Mannheim as a preparation for the pre-test at the beginning of 2004.

The *pre-test of SHARE* was held in January and February 2004 using genuine probability samples (n = 100 primary respondents per country plus their spouses) in all countries. The aim was to allow predictions to be made of the reliability and validity of the full questionnaire, including more "problematic" respondents than to be expected using a quota sample. In addition, this pre-test also tested the country-specific procedures to achieve a probability sample, and to test the survey and sample management.

By the end of February 2004, all pre-test data were converted into SPSS and STATA files and made available to the researchers in the project, debriefings were held, and an extensive statistical analysis of the pre-test data was performed in order to once more revise the questionnaire. In a plenary meeting in March 2004, results from these analyses were presented and changes were agreed upon for the final questionnaire.

At the beginning of April 2004, this almost final version of the questionnaire (version 9) was assembled in the English base version and then translated in all members languages. Also the drop off questionnaire was finalised and translated in all languages.

The translations were once again cross-checked along with the comments of the working groups provided input for a new round of fine-tuning of the national versions of the instrument. This resulted into the final version of the questionnaire. This 10th version was then the basis for the main data collection effort and subsequent data releases.

2.4 The main survey stage

The main survey stage consisted of a *medium-scale survey* of this final questionnaire (n = 1,500 primary respondents per country plus their spouses, totalling more than 25,000 respondents), beginning on April 24, 2004, and in most countries lasting through October 2004.

The survey stage began with a third train-the-trainers session (TTT 3), again in cooperation with SRC and sponsored by NIA. Much attention was paid to the techniques for gaining respondent co-operation and to the way to involve more representatives of the Oldest Old group. The documentation for the TTT programme was extended and improved, e.g. now also containing video examples of how to approach respondents.

During the field period, CAPI and CMS data was transferred to the co-ordination group and put on a secure website such that all team members and the survey agencies could analyse the data as it was collected, see Chapter 7. Logs of the number of households contacted and preliminary response and refusal rates were taken biweekly. Due to these real-time monitoring procedures, problems and errors could be detected early on, and consequences could be drawn still during field work.

Some countries which joined the SHARE process later than the original eight SHARE countries kept collecting data past September 2004. In addition, extra samples were taken in parallel to the main survey in order to collect a special drop-off with anchoring vignette questions designed to improve cross-national comparability. This additional data collection lasted until July 2005.

2.5 Data release

Aim of the main test survey is to deliver a prototype for the planned multi-year panel. It serves as a demonstration object to the European Commission in order to show the feasibility of running a strictly cross-nationally comparable survey, and to demonstrate its usefulness to the scientific community. SHARE therefore adapted an unusual early-data-release policy.

An interim data release for testing and checking ("Release 0") was provided mid November 2004 for confidential use of all SHARE and AMANDA researchers. These data were basis for the SHARE First Release Book. In the process of writing the papers for this book, data were cleaned, helpful new variables generated and missing data items imputed (see Chapters 10-12). These improvements were important for the first publicly accessible data. The release of this data base ("Release 1" scientific use file) took place end of April 2005 in Brussels in the presence of members from the European Commission and the US National Institute on Aging. Scientific use files are accessible to all researchers from academics and publicly financed research institutes. A final release ("release 2") is planned for 2006, coinciding with the end of the EU-sponsored AMANDA project.

3 Developing the Survey Instruments for SHARE

Marcel Das, Corrie Vis, and Bas Weerman

3.1 Introduction

When collecting data, researchers have a variety of interviewing modes to choose from, ranging from the more conventional paper and pencil questionnaire to rather new Internet based data collection methods. The choice for SHARE was made based on two main requirements: comparability with ELSA and HRS, and the respondents should be able to participate in some physical tests. These conditions limited the choices for SHARE to just one: Computer Assisted Personal Interviewing (CAPI). In this interviewing mode, an interviewer typically goes from door to door to conduct face-to-face interviews using a laptop computer on which the survey questionnaire is installed in digital form.

The actual fieldwork in SHARE was carried out by a different agency in each country. Although some agencies had more CAPI experience than others, all were accustomed to this method of data collection and in most cases the agencies had survey software readily available. However, for this complex and lengthy questionnaire it was not desirable to have a separate questionnaire in each and every participating country. Therefore, it was decided to use the same software package in each country to prevent country specific programming errors and problems. In addition, using one common software package reduced the time spent on programming and testing the survey.

It was decided to use the 'off-the-shelve' computer-assisted interviewing system tool called Blaise. Blaise is developed for the Windows operating system by Statistics Netherlands and has been designed for use in official statistics. It is available to National Statistical Institutes and related research institutes. Blaise is used for survey processing throughout the world; both the HRS and ELSA use this survey tool for their fieldwork.

The generic CAPI questionnaire as used in SHARE was directly implemented in Blaise, allowing each individual country involved to use exactly the same underlying structure of meta-data and routing. The only difference across countries was the language used in the question texts, enforcing the comparability of all country specific translations with a generic questionnaire containing the general routing of all instruments. Programming of the generic CAPI instrument as well as the country specific instruments was done centrally by CentERdata, a survey research institute situated at the campus of Tilburg University in The Netherlands. After several rounds of revisions of the generic instrument, the participating countries translated the question texts of their individual questionnaires using the Internet and a so-called Language Management Utility (LMU), developed by CentERdata. The translated question texts, interviewer instructions, answer categories, fill texts and other instrument texts (like error messages) from the (LMU) database were used to generate specific questionnaires for each country, based on the blueprint of the generic version.

To manage and co-ordinate the fieldwork, agencies make use of a (mostly computerised) management system, the so-called Case Management System (CMS). A CMS basically consists of a list of all households in the gross sample that should be contacted and interviewed, storing information like contact notes and appointments with respondents. It is also possible to enter area and case information in the system. When the CMS is expanded in order to support features like merging questionnaire

data and contact information for generating progress reports, a more general name is used: Sample Management System (SMS).

The initial idea was to give the agencies participating in SHARE complete freedom in using their own sample management system, with one restriction: the CMS or SMS should be able to communicate with the centrally provided CAPI instrument. This restriction turned out to be problematic for some countries, so it was then decided to make use of a centrally provided CMS. This lead to a very pleasant additional uniformity: not only the CAPI instrument was similar except for the language, but also the CMS was identical. Progress reports for monitoring the fieldwork were now based upon the same underlying management system. In the actual fieldwork most countries used the centrally provided CMS. Only three countries used their own system: France, Switzerland, and The Netherlands.

This chapter is subdivided as follows. In Section 3.2 the CAPI instrument is described in more detail, followed by the LMU in Section 3.3. The CMS and some tools that convert the CMS into a complete SMS are discussed in Section 3.4, followed by concluding remarks in Section 3.5.

3.2 CAPI instrument

As mentioned in the introduction it was decided to use Blaise as the interviewing system tool. For detailed information on Blaise we refer to the website of Statistics Netherlands (www.cbs.nl/en). In this section the CAPI instrument as developed for SHARE is described, but first we have a brief look at a Blaise instrument as it appears on the interviewer's laptop.

Share 2004 Questionnaire version 10					
Eorms An	nswer <u>H</u> elp				
		l 6. Has a doctor ever told	you that you had any	y of the conditions on this card? Please tell me the number or number:	
of the o	conditions.				
	00DE III -	T T I. D			
IWER:	CODE ALL	THAT APPLY			
		k including myocardial infa	•	\square 10 . Cancer or malignant tumour, including leukaemia or	
		ny other heart problem inc	luding congestive	lymphoma, but excluding minor skin cancers	
	t failure			\square 11. Stomach or duodenal ulcer, peptic ulcer	
□ 2. Hi	igh blood pro	essure or hypertension		☐ 12. Parkinson disease	
☐ 3. Hi	igh blood ch	olesterol		☐ 13. Cataracts	
□ 4. A	stroke or ce	erebral vascular disease		\square 14. Hip fracture or femoral fracture	
□ 5. Di	iabetes or h	igh blood sugar		□ 96. None	
	nronic lung d hysema	disease such as chronic br	onchitis or	\square 97. Other conditions, not yet mentioned	
□ 7. As	•				
	□ 8. Arthritis, including osteoarthritis, or rheumatism				
	9. Osteoporosis				
	p				
DN035 [DN03 1	a1	PH002_PH00		
DN036_1	_		PH003_PH00 3	а3	
DN037_1	_		PH004_PH00 5	a5	
DN038_[_	a1	PH005_PH00 2	a2	
PH001 F	_	a1	PH006 PH00		
PHOOI_F	-1100	a.i	PH006_PH00		
6/297	SHARE2004	40	1	Sec_PH.Health_B1.PH006_DocCond[1]	

Figure 3.1: Blaise screen layout

A Blaise windows application generally consists of a form with four panes: the info pane, the answer list pane, the restrictions pane, and the form pane. The info pane contains all the information of the current question, including the question text and interviewer instructions. The answer list pane displays all possible answers to the current question. The restrictions pane lists constraints on the answers, e.g. ranges that may be entered or the number of responses possible. Finally, the form pane displays previous and upcoming question names and numbers. The current question is highlighted in the form pane. Figure 3.1 shows the Blaise screen layout for a randomly chosen question from the SHARE questionnaire.

Let's now turn to the SHARE CAPI instrument in particular. The SHARE CAPI instrument consists of two separate components: the cover screen and the main questionnaire. The interview starts with a cover screen that provides an introduction to the study and contains the statement of confidentiality. The cover screen is used to provide a complete household listing and to determine and select individuals in the household who might be eligible for participation in the main questionnaire. The cover screen is completed by one person in each household (the reference person) only and lists a series of questions to determine the age and relationship of each of the household members living with the respondent. The main instrument is completed by each eligible individual in the household and is supplemented by a self-completion paper and pencil questionnaire, the so-called drop-off (DO) questionnaire.

After completing the cover screen, the main instrument is presented to all eligible persons. It consists of 20 modules; some modules are only presented to the household respondent, the financial respondent, or the family respondent. A complete overview of the modules is given in Table 3.1.

Table 3.1 Overview of all modules in the main instrument

1 abic	J.1 OVC	iview of an inoduces in the main instrument
1	CM	household demographics (main sections)
2	DN	demographics and networks
3	PH	physical health
4	BR	behavioural risk
5	CF	cognitive function
6	MH	mental health
7	HC	health care
8	EP	employment and pensions
9	GS	grip strength
10	WS	walking speed
11	CH	children
12	SP	social support
13	FΤ	financial transfers
14	НО	housing
15	HH	household income
16	CO	consumption
17	AS	assets
18	AC	activities
19	$\mathbf{E}\mathbf{X}$	expectations
20	IV	interviewer

In single respondent households, all modules of the main instrument (except for module IV, see below) are presented to the respondent. In multi-person households, however, each respondent receives a different set of questions. Financial questions (modules FT and AS) are asked to one person per couple only, unless the couple keeps their finances separate. The family respondent (the first person in a couple to start the main interview after completing the cover screen) is asked the questions in module CH and part of module SP (questions on help received). Finally, the household respondent – the person most capable of answering questions about the household members' housing situation, household income, and family consumption -

- answers questions in modules HO, HH, and CO. All other modules are presented to all eligible respondents in multi-person households, except for module IV. This module should be filled out by the interviewer at the end of each interview. For more details on the content of the different modules we refer to the SHARE First Results Book (Börsch-Supan et al. 2005).

The SHARE questionnaire contains a variety of answer types. If the respondent is allowed to give one answer only, radio buttons are used. When multiple answers may be selected, check boxes are displayed. For open-ended questions the interviewer should type in a full response, and a substantial number of questions ask for a numerical input.

Some questions have quite a few, or very detailed, answer categories for the respondent to consider before giving an answer. In such situations, without the visual presentation of the answer categories, the respondent might either not hear each option as it is read out by the interviewer, or he or she might forget one or more categories in the list. Throughout the instrument showcards are used to guide the respondent in their response options. The showcards are collected in a booklet that is handed out to the respondent at the start of the interview. Each showcard contains answer categories for a question in the interview that has many or complex response options. The answer categories provided on a showcard exactly match those on the computer screen.

Most of the questions requiring a numerical input refer to an amount. Although in a multi-country setting like SHARE, different countries have different currencies, conversion from one currency to another can be done easily after the fieldwork has been finished. However, at the time the CAPI instrument was being developed, many European countries started to use the Euro as their common currency. Respondents within these countries could have problems specifying amounts in this new currency (in particular the oldest-old). Several options were discussed. One option was to let the interviewer convert the pre-Euro currency to Euro using a calculator or the laptop, but this would lengthen the interview time considerably. Another option was to ask the respondent at the start of the interview whether he or she would like to respond in the pre-Euro currency or in Euro. The disadvantage of this was that all amounts should be given in the same currency whilst for some questions, like a gift or inheritance in the past, the pre-Euro currency would fit better than for other questions, like the value of the most recent rent payment of which the answer will most probably be given in Euro. It was therefore decided to offer the possibility of choosing the currency for each question where currency was involved. First, the instrument shows the question asking for a response in the local currency (Euro). When left empty, the same question pops up asking for the pre-Euro currency. If both questions are left unanswered, an error message pops up. In the public release of the data all amount questions are converted to Euro, whether the data come from a Euro or non-Euro country. Sweden, Denmark, and Switzerland did not have two instances to fill out amount questions since these countries do not use the Euro.

For almost all questions the respondent is allowed to answer 'Don't Know' (DK) or to refuse to answer the question (RF). Blaise provides special keys to register a DK or RF. When a DK or RF is given in most amount questions, an unfolding sequence of so-called bracket questions follows. Regardless of what currency the respondent uses, the follow-up questions will present both Euro and properly converted pre-Euro ranges. There are three possible entry points, and at the first question in the unfolding bracket sequence one of these three entry points is chosen randomly. It is then asked whether the amount is less, about, or more than the shown entry point. Depending on the answer to this first question, the sequence

stops or continues with a next bracket point. When a DK or RF is given in the unfolding bracket sequence, the sequence stops. The public release of the data has a variable summarising the whole sequence.

The module CF uses two non-standard questionnaire applications designed to ease the tasks of the interviewer. The first shows a timed reading of words to measure the recall ability of the respondent. The second involves a timed listing of animals. By including the timing in the application, there is no need for the interviewer to carry a stopwatch and the inter-respondent comparability is more standardised, hence having greater scientific validity. The applications are movies written in Flash and integrated in the Blaise application.

3.3 Language Management Utility

As already mentioned in the introduction, the set-up of the CAPI instrument was generic: the routing in the instrument was fixed, and only texts were changed from country to country. These texts were stored in a database, and in order to fill the database, CentERdata developed a so-called Language Management Utility (LMU). The LMU was not intended as a helping device for translators, but made the creation of country specific CAPI instruments possible in a very short period of time, parsing translated texts into a country specific instrument based on the blueprint of the generic version. Another program was developed to process a paper version of the individual country specific CAPI instruments, based upon the generic routing and the country specific texts in the LMU database.

The SHARE LMU could be accessed via the Internet. After entering a country specific username and password, the main screen was shown (see Figure 3.2 for a Swiss-German translator). For countries using more than one language in SHARE (Switzerland and Belgium) a dropdown menu with a language selection appeared. This dropdown menu was not visible for other countries.

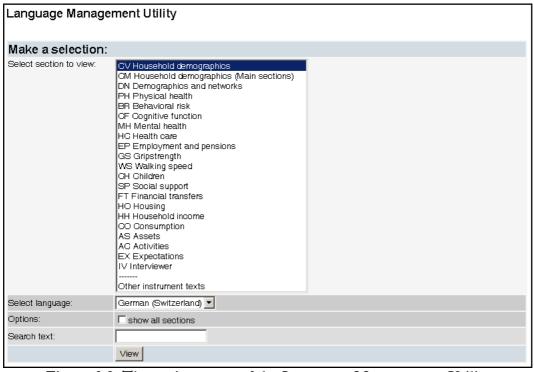


Figure 3.2: The main screen of the Language Management Utility (for a Swiss-German translator)

Once a translator had selected a module in the screen as shown in Figure 3.2 and had clicked on 'View', a listing of all questions in that particular module was shown. Here the translator could select a question to translate. For all questions the generic (English) text was shown first, followed by the translated text. At the end of the listing of all questions an option for viewing all questions for that module was given. This was in particular helpful when checking all translations. Standard answer categories (like 'yes'/'no') had to be translated only once.

The most difficult part of the translation process was caused by the use of fills. A fill is a dynamic text that will get its value from answers given earlier. A straightforward example is a fill for 'he'/'she'. Depending on the gender of, say, a partner, either the fill instance 'he' or 'she' is used in the question text. At first sight this seemed to be straightforward, but because of country specific grammar and syntax it became complicated. In later versions of the CAPI instrument generic fill texts used in multiple question texts were no longer used. Instead, each question had its own fills, using question-specific fill names. A second improvement in later versions was the inclusion of the generic rules for using the instances of a fill. The new fill architecture created more flexibility. Question specific fills were made available and translators were not forced to use all the fills provided. Countries with rather complicated grammar could even ask for additional fills while the translation process was running. A new fill did not affect other questions nor other countries that did not need this particular fill for their translation.

There are three types of fill texts: 1) a normal fill; 2) a link to a previous answer; 3) a non-editable fill. A normal fill replaces the fill name in a question text (or interviewer instruction) by one of the instances of the fill when the CAPI instrument is running. In the case of a fill type 'link to previous answer' the translator did not have to take care of the instance of the fill. The translation was only used in a paper version. An example is the month of birth. The CAPI instrument replaces the generic fill by the month of birth, and the paper version just displays what was translated between braces. For the generic case: '{month of birth}'. For a non-editable fill the same applies. An example of a non-editable fill is: '{local currency}'. This fill is automatically replaced in the CAPI instrument by the currency used in that particular country. Again, the translation was only used for the paper version.

There were only a few ways to bypass the generic blueprint of the questionnaire, introducing country specific routing. First, in a few (exceptional) cases the generic routing tested for a condition based on a variable containing a country specific code, affecting the generic routing. This was used in sections that differ quite a lot across countries, like e.g. the health care section. Second, country specific elements could be introduced by skipping irrelevant answer categories, and adding new country specific answer categories in the LMU. However, because of the generic set-up of these new answer categories, this never led to a different sequence of questions for one specific country.

There are several ways to improve the current version of the Language Management Utility. Although the instrument manages across countries, some additional features to manage within a country would be helpful. Listing all untranslated questions and listing all (textual) changes between several versions of the generic instrument are the most obvious ones. Although many translators have a decent Internet connection, the necessity of having such a connection also turned out to be troublesome for some translators. An offline version would be the solution, but this requires additional management and coordination utilities when several databases with translations are returned.

3.4 CMS and other tools

The CAPI instrument could be used 'stand alone'. Double clicking on the interview application offered the possibility to type in a valid sample identification number and brought the interviewer to the questionnaire for that particular id number. Another way was to pass the id number directly to the instrument by adding it as a parameter to the executable. In this way the centrally provided CAPI instrument could be integrated in country specific management systems.

The major disadvantage of using the CAPI instrument without a management system was the requirement of typing in the sample id number. Table 3.2 shows the set-up of the sample id numbers as used in SHARE. Since this number consists of 15 digits, making a manual error was a probability. Previous experiences in comparable studies show that after finishing the fieldwork a substantial number of records could not be matched with the contact information.

Table 3.2 Set up of the sample identification numbers as used in SHARE

Digit position	Description	SHARE main test
1-2	country code	11 = Austria
		 24 = Belgium – Flemish
3-5	wave indication	042 : referring to 2004, second test (041 was used for the pretest in 2004)
6-11	household identifier	e.g. 000701
12-13	longitudinal household indicator	00
14-15	respondent id number	00 : coverscreen interview01 : first eligible person02 : second eligible person, etc.

The integration of the centrally provided CAPI instrument with the agency specific sample management system turned out to be problematic in some countries. In addition, some information about the progress of the fieldwork (required by the central management team) could not be extracted from the agencies' management systems and required additional programming. CentERdata developed a centrally provided case management system (CMS), used by all countries except for France, Switzerland, and The Netherlands.

Contact information was stored in an Access database. The CMS interface communicated with this database file. It basically consisted of a list of all households in the gross sample that should be visited by the interviewer. Contact notes and registrations, appointments with respondents, and area and case information could be entered in the system. Figure 3.3 shows the SHARE CMS entry screen.

The main screen shows details on the different sample id numbers: name and telephone number, the status, the number of contact attempts so far, whether the household had been contacted at all, whether the household was reluctant to be interviewed, and if an appointment was made, with the date and time of that appointment. The CMS menu offered several options like changing the properties of the sample id number (name, address, telephone number etc.) or setting a filter on the database to show incomplete cases only.

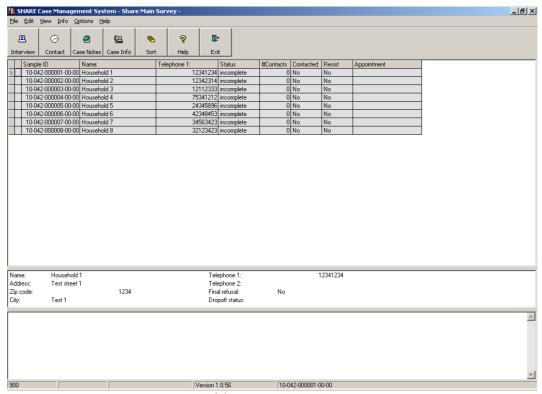


Figure 3.3 The SHARE CMS entry screen

When the reference respondent was ready to give information about the household, the interviewer could select the corresponding household and click on the 'Interview' button. The cover screen interview was then started. Once the cover screen was completed, the household status in the CMS changed to 'complete' and new sample lines for the eligible individuals living in the household were generated, showing their individual id numbers below the household sample id number, which was marked in white.

In case the reference respondent was not ready for an interview, contact information could be registered. Figure 3.4 shows the contact registration screen. When clicking on the line of a household in the CMS entry screen, the contact attempts were displayed at the bottom of the entry screen (below the respondent's address and telephone number).

The 'Mode' had three contact status options:

- 1. Telephone (remote)
- 2. In person (face-to-face, intercom, open/closed door)
- 3. Other (mail, fax etc.)

In case a contact with no resistance was registered and an appointment was made, the button 'set appointment date/time' was enabled and the program then allowed the interviewer to register an appointment. After a first face-to-face contact (either by entering contact information or by starting the cover screen) a window popped up in which some area information was asked. This information is important for a thorough non-response analysis, including those households not willing to participate in the study.

From time to time the interviewer sent the interview data to the agency for further processing. Several options were available. The interviewer could send the data files to the agency by e-mail or by FTP. The possibility of saving the data as a file and send the data by regular mail was also offered.

📶 Contact Regi	stration X
Mode:	- Make a selection
Date:	7 - 6 -2004
Time:	10:52
Specifics:	
Contact status	(Select only one category)
Failure:	Make a selection
Contact:	Make a selection
Non sample:	Make a selection
Appointment:	set appointment date/time
	<u>O</u> K <u>C</u> ancel

Figure 3.4 The contact registration screen in the SHARE CMS

All menu options, button captions, and other texts could be directly translated in a language file and several Access tables. This resulted in a country specific CMS. Quite a number of settings could be changed in an initialisation file that was used by the CMS executable. The number of interviewers and their id numbers and passwords could be changed, the e-mail address or FTP server for data uploads could be set, and it was possible to distribute a large database over multiple interviewers. When a flag in the initialisation file was set to 'true', the CMS only showed records that matched the id of the interviewer who had logged in.

Only the system administrator could change settings in the initialisation file. Furthermore, some additional options were available when the system administrator logged in to the CMS using the administrator username and password. The administrator was able to clear cover screen and main instrument data, to add new records to the initial database, and to update the CAPI instrument on the interviewer's laptop. Clearly, these options were only added for dealing with problematic situations during the fieldwork.

During the pre-test in the beginning of 2004 only the CMS as described above was available, generating quite a lot of (manual) work before the agency could sent the data to the central processing and co-ordination team. This work included:

- storing all zip data files returned by the interviewer on the agency's server;
- taking out all individual Access data files;
- combining all individual Access data files to one file for the co-ordination team for the use of monitoring the fieldwork;
- taking out all Blaise data files for further processing by CentERdata;
- sending the files to both CentERdata and the co-ordination team.

Since the number of interviewers in the main test was substantial, the above steps would have implied an enormous amount of work. Therefore, an easy-to-use

'combine and distribute' tool (CDT) was developed by CentERdata. This tool was an add-on to the CMS and could be used only by those agencies using the centrally provided management system. Figure 3.5 shows the interface of the CDT.

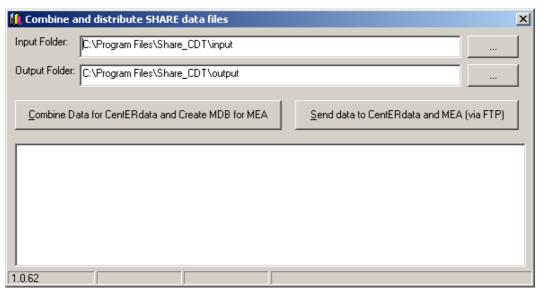


Figure 3.5 The interface of the 'Combine and Distribute' tool

In the CDT, the user could choose between four buttons. The two buttons displayed at the right hand side (with the dots) are the usual buttons for selecting a folder. The input folder in which the zipped data files from the different interviewers were stored could be set, as well as the output folder. Clicking on the left (lengthy) button combined and distributed the files, and saved as many zip files as there were interviewers (or laptops) in the selected output folders, as well as one zip file containing the merged Access file for the co-ordination team. After this step all files were ready to be sent out to CentERdata (using FTP), by clicking the right (lengthy) button.

The combined Access file contained important information for monitoring the fieldwork. The uniformity of the centrally provided CMS yielded the opportunity for developing a common tool allowing a brief report with some key statistics on the status of the fieldwork to be generated. Such a 'generate report' tool (GRT) was developed by CentERdata and provided to the central co-ordination team as well as all agencies using the SHARE CMS. The interface is quite similar to that of the CDT. The input for the GRT consisted of the merged Access database. The output was a text file containing the information as displayed in Table 3.3.

Table 3.3 Output of the 'Generate Report' tool

Variable	Description
Gross	size of gross sample
NoCont	addresses where no contact is attempted as yet
HHok	households with at least one completed individual interview
Iok	completed individual interviews
FinRef	total household final refusals
NonSamp	non-sample/non-interview households
DO	completed drop-offs
HHok/(Gross-NonSamp)	household response rate
HHok/(HHok+FinRef)	cooperation rate
HHok/Gross	completion rate
DO/Iok	drop-off response rate

All data that came back from the field was processed by CentERdata, and converted to SPSS and STATA data files. These files were put on a secured website. The so-called keystroke files – files that register all keystroke activity during the fieldwork – are the basis for additional files containing information about times spent on different modules, and the interview in total (see Chapter 8).

Integration of the tools into the CMS resulted in a first version of a sample management system (SMS). More features could be added, like the whole administration of the sample, procedures for distributing the gross sample over the different interviews, a common structure for the data files returned by interviewers on the agency's server, and tools for converting the Blaise files to SPSS or STATA files at the agency's office.

3.5 Concluding remarks

A prestigious and complex project as SHARE asks on one hand for clear criteria and severe guidelines for the development process and on the other hand for flexibility. During the development process CentERdata created several instruments to facilitate the collection of a unique dataset and supported the interaction between the co-ordinators of the project, the scientists in the different countries, the translators and the agencies for the fieldwork.

The generic setup as chosen in SHARE turned out to be successful in the sense that a rather lengthy questionnaire in a multi-country setting was fielded in a very short period of developing and processing time. Due to the centrally provided instruments uniformity was guaranteed.

For future waves there are several aspects of the instruments that could or even should be improved. The CAPI instrument would benefit from the inclusion of (more) interviewer instructions. In case the respondent needs clarifications on words in a question, or even on the entire question, a well-structured list of additional explanations could be integrated in the instrument. When using links the respondent is not disturbed by any additional wording he is aware of, but for those respondents who need clarification, clicking on the link would present a pop-up with some extra information which could be read by the interviewer. Other severe shortcomings are the restrictions introduced by Blaise.

Because of the huge number of researchers involved the process that leads from a first version of the CAPI instrument to the final one could be improved by well-defined testing procedures. Tools are to be developed to make this part more efficient. Examples are a bug recorder, a re-player of an interview, a preload system that can help to go through different scenarios, etc.

To build the first generic version, questions from an English paper and pencil questionnaire were entered into the LMU. During the translation process the interaction between users (translators and country teams) and programmers led to fruitful improvements of the LMU. The current version of the LMU would benefit from some sort of version control.

The additional tools that turned the CMS into an SMS should be integrated, and more features with respect to the management of the fieldwork could be added. Errors and bugs that had to be repaired afterwards could be prevented by introducing more automatic checks.

Continuous interaction between users, co-ordinators and programmers have resulted in a number of instruments that formed the basis for a well-organised data collection phase in the first wave of SHARE. A lot has been learned, and it will be a challenge to update the instruments for future waves in an even better direction.

References

Börsch-Supan, A., et al. 2005. Health, Ageing and Retirement in Europe. First Results from the Survey of Health, Ageing and Retirement in Europe. Mannheim Research Institute for the Economics of Aging (MEA). Mannheim.

4 SHARE Translation Procedures and Translation Assessment

Janet Harkness

4.1 Introduction

It is useful to remember that quality translation procedures amount to only a small part of the total cost of a survey while they can contribute crucially to the quality of the final product, the data. Poor translation, on the other hand, robs researchers of the chance to ask the questions they intend. Translation procedures and translation assessment are thus crucial components of any cross-national survey development process.

In SHARE, each participating country organised its own translation effort. Knowing that the costs and the effort called for in survey translation are often underestimated, the central Co-ordinator initiated the following activities to support the individual translation efforts:

- (1) SHARE countries were provided with guidelines outlining how to go about hiring translators, testing translators, organising the translation, and, in particular, on producing, reviewing and assessing their translations. The team translation model advocated for SHARE followed, in simplified form, that used in the European Social Survey (see ESS documents at http://www.europeansocialsurvey.org). In the European Social Survey, the translation guidelines are closely linked to procedural specifications that participating countries must meet. This was not the case in SHARE; participants were offered the guidelines as recommendations. Ultimately each country decided on its own procedures.
- (2) The Co-ordinator commissioned professional appraisals of selected questions from two drafts of SHARE translations. Both appraisals were made before the pre-test in January/February 2004. In this way, SHARE countries could be provided with feedback to help them improve their translations. The appraisals were made by a group of translators not involved in the SHARE project, each working in their language of first expertise. The translators commented in detail on questions selected from each module of the SHARE questionnaire and also submitted a brief general appraisal of each translation draft, pointing out areas where improvements could be made.
- (3) The Co-ordinator commissioned an expert in survey translation to advise SHARE participants on any translation queries they might have.

Brief details of each support activity are outlined below. Documents providing more details on the translation guidelines and the appraisals are listed in Appendix E to this volume.

4.2 Guidelines and recommendations: SHARE Translation and the TRAPD framework

The TRAPD translation protocol is a team translation model. Team approaches to survey translation and assessment have been found to provide a richer source of options to choose from for translating items, and a balanced critique of versions (Guillemin et al., 1993; Acquadro et al., 1996; McKay et al., 1996; Harkness and Schoua-Glusberg, 1998). Translators produce the first draft of a translation, then meet with other members of the team to discuss and refine the translation. The team can be thought of as a group with different talents and functions, bringing together

the mix of skills and disciplinary expertise needed to produce an optimal version. Key members of the team need to have the cultural and linguistic knowledge required to translate appropriately in the required varieties of the target language. Collectively, members of the team also supply knowledge of the study, of questionnaire design, and of fielding processes.

TRAPD is an acronym for Translation, Review, Adjudication, Pretesting and Documentation, the five interrelated procedures recommended as the framework for SHARE translation and assessment (cf. Harkness, 2003, Harkness, Pennell and Schoua-Glusberg 2004). Following current best practice, these are basic procedures involved in producing a final version of a questionnaire (cf. ESS translation guidelines and the US Bureau of Census Translation Guidelines 2004 at http://www.fcsm.gov/03papers/delaPuente_Final.pdf). All or some of the procedures may need to be repeated at different stages. For example, early pretesting and debriefing sessions with fielding staff and respondents may lead to translation revisions; these revisions then call for further testing of the new version.

Three different sets of people are required in the team to produce the final version of a translated questionnaire: translators, a reviewer, and an adjudicator. There is general agreement on the skills and functions required for each role. The translators require to be skilled practitioners who have received training on translating questionnaires. *Translators* generally translate out of the source language into their strongest language. (In most cases this is a person's 'first' language.) *Reviewers* have at least as good translation skills as the translators but are familiar with questionnaire design principles, as well as the study design and topic. One reviewing person with linguistic expertise, experience in translating, and survey knowledge is generally sufficient. If one individual with these three areas of expertise is not available, two can cover the different perspectives. *Adjudicators* make the final decisions about which translation options to adopt. They understand the research subject, know about the survey design, and, if not proficient in the languages involved, must be aided by a consultant who is.

The TRAPD team approach was developed a deliberate strategy to:

- a) counteract the subjective nature of translation and text-based translation assessment procedures;
- b) provide surveys such as SHARE with an approach which is qualitatively better than some others (such as the much-cited 'back translation' approach) but is not more expensive or more complicated;
- c) accommodate the different thematic areas covered in complex questionnaires such as that of SHARE;
- d) include documentation steps which makes adjudication decisions easier and which can provide information needed for secondary analysis;
- e) allow considered but parsimonious production of translations which share a language with another country.

Those responsible in each country for supervising SHARE translations were asked to identify suitable people for the preparation of translation drafts and for the evaluation and refinement of the translations. A template was proposed to enable the translation and assessment team to document decisions taken as part of the translation and review process.

4.3 Professional Review of Selected Questions from SHARE Draft Translations

The Co-ordinator commissioned an expert consultant to organise two appraisals of questions from each SHARE module in each country. In the end, all but the Dutch

questionnaires were appraised. As it was, Dutch translations came under considerable scrutiny from CentERdata colleagues located in Tilburg.

Professional translators and, in particular, teachers of translation were selected to review the drafts. They were asked to identify weaknesses and make recommendations for improvement, as outlined below. The first appraisal was of participants' first drafts, the second appraisal was of a later draft prior to the dress rehearsal pre-test. Since countries worked at different speeds in providing and updating translation drafts, the actual version reviewed in the second round of appraisals varied across countries.

Appraisers received two detailed briefing documents, one for each appraisal undertaken. Appraisal work of this kind is rare. To counteract any possible reluctance appraisers might have to criticise fellow translators, the briefings emphasised the prophylactic nature of the project. Care was taken to make clear to the appraisers that their careful critique would help the translators to improve and would contribute to the ultimate success of the project.

The appraisers were given a key to follow in coding errors or problems they found. If, in working through the selected questions, they found consistent weakness, they were asked to contact the translation co-ordinator immediately, before they finished the appraisal. In this way, a country could be given "red alert" feedback if required. In addition, unnecessary expense could be avoided for review of a translation of markedly poor quality. However, this situation did not arise in the SHARE appraisals.

SHARE's translation consultant co-ordinated the appraisal effort – organising the selection of questions on both a theory-driven and praxis-oriented basis, providing the evaluators with generic briefing materials and co-ordinating the to-and-fro of material to be appraised and appraisal reports between the Co-ordinator's office and the evaluators. A team of three translation experts (Janet Harkness, Hans Hönig, Paul Kussmaul) individually selected questions from each section of the SHARE questionnaire, focusing on those they considered potentially problematic for translation. At a group meeting, the three agreed on which to select for external appraisal from among their three individual selections.

Reviewing translators received the questions for review in a template which 1) aligned the English alongside the translation and 2) allowed the reviewers to enter comments directly next to the question or phrase on which they were commenting. Feedback from the appraisals was in general welcomed by SHARE participants.

The appraisals were unusual in several respects. As said, extra appraisals of translation quality are not common in survey research. In addition, the appraisals conducted for SHARE were made ahead of finalising the questionnaire. Feedback provided by the appraisers could be used by participants to improve their translations but could also be used to inform the design of the source questionnaire.

4.4 Expert consultation

The Co-ordinator commissioned an expert in survey translation to provide both the guidelines tailored to SHARE's needs and budget, as described under section 1, to arrange and co-ordinate the translation appraisals, and to advise SHARE participants on translation queries they might have. The written materials made available to SHARE participants were preceded by a presentation at a SHARE workshop in early 2003. At this meeting, the principles of the TRAPD translation procedures and recommendations for selection and training of translators were outlined and SHARE participants had the opportunity to ask questions first hand. In the wake of first appraisal feedback, a number of countries consulted with the expert

at length on translation issues and on harmonisation procedures between countries sharing a language.

4.5 Lessons learned

Undoubtedly, the pre-test-and-pilot design of the SHARE study, coupled with the translation guidelines and the external appraisals, provided the SHARE project with a rare opportunity to refine and correct the source questionnaire and the translated versions. Having a translation consultant available for the project meant that researchers unfamiliar with survey translation could draw on specialist advice. The appraisal of draft translations by experienced external translators was invaluable in revealing areas where improvement was needed in time for changes to be made. Future waves of SHARE could profit from making the guidelines for translation production and review required procedures, rather than recommended procedures.

Lessons were learned through difficulties, too. Translators sometimes had problems using the Language Management Utility needed to facilitate the multi-language programming of the SHARE questionnaire. Middle term, such tools need to be developed or extended so that they can accommodate translator's needs - translation, version changes, and version tracking - while also facilitating programming needs. Indeed, ISR, University of Michigan and ZUMA, Mannheim, both involved in consulting SHARE, are currently deliberating on developing such tools.

References

- Acquadro, C., Jambon, B., Ellis, D., and Marquis, P. 1996, "Language and Translation Issues," in B. Spilker (ed.), *Quality Life and Pharmacoeconomics in Clinical Trials*, 2nd edition, Philadelphia: Lippincott-Raven.
- Guillemin, F., Bombardier, C. and Beaton, D. 1993, "Cross-Cultural Adaptation of Health-Related Quality of Life Measures: Literature Review and Proposed Guidelines," *Journal of Clinical Epidemiology* 46.
- Harkness, J. 2003, "Questionnaire Translation," in J. Harkness, F. J. R. van de Vijver and P. Ph. Mohler (eds.), *Cross-Cultural Survey Methods*, New York: Wiley.
- Harkness, J., Pennell, B.-E. and Schoua-Glusberg, A. (2004) "Questionnaire Translation and Assessment", in: Presser, S., Rothgeb, J., Couper, M., Lessler, J., Martin, J. and Singer, E. (eds.), *Methods for Testing and Evaluating Survey Questionnaires*, New Jersey: John Wiley and Sons.
- Harkness, J. and Schoua-Glusberg, A. 1998, "Questionnaires in Translation," in J. Harkness (ed.), ZUMA-Nachrichten Spezial No. 3. Cross-Cultural Survey Equivalence, Mannheim: ZUMA.
- McKay, R., Breslow, M., Sangster, R., Gabbard, S., Reynolds, R., Nakamoto, J. and Tarnai, J. 1996, "Translating Survey Questionnaires: Lessons Learned," *New Directions for Evaluation* 70.

5 The SHARE Sampling Procedures and Calibrated Design Weights

N. Anders Klevmarken, Bengt Swensson, and Patrik Hesselius

5.1 Introduction

Only a probability sample provides a theoretical basis, which allows us to infer objectively from the sample to the finite population of Europeans 50+ or to subgroups thereof. It can be argued that a sample that is not a probability sample can be used in an inference to a model defined data generating process, but this inference then becomes completely model dependent. The user must be convinced by the analyst that the model is realistic and that data can be used for this purpose. This kind of rhetoric becomes much easier if the sample is a probability sample. The first and basic requirement of the sampling design of each participating country is thus that it should produce a probability sample.

The choice of a sampling design within this class is ideally an attempt to optimise a target function that balances the properties of estimators in terms of bias and efficiency and the cost of carrying out a survey. Usually this is an optimisation under institutional side constraints for instance determined by available sampling frames or by the capacity of field operators. In this report we will review the general principles of sample survey design that were suggested at the outset of the project given its general purpose and what was actually accomplished and, finally, we suggest a few lessons that can be learned for the future.

This document reports on the sampling design of the main SHARE wave of data collection in 2004 as well as on the so called vignette samples, additional samples that were drawn in some countries. In most countries, but not in all, the design of the vignette samples was the same as the main sample design.

5.2 Principles, considerations and requirements.

5.2.1 Reasons for a simple design

SHARE is a general purpose survey that will be used both for inference to finite populations as well as for inference to model defined data generating processes. Individuals as well as households will constitute units of analysis. The general purpose character of SHARE makes it difficult to optimise its design towards any particular type of inference. A few observations are in place, however:

- A simple robust design without extreme differences in samplings weights is preferable to a more complex design. A design that gives a self weighted sample has great advantages for analysis.¹
- Stratification and clustering should not be done according to variables/dimensions that can become (strongly correlated with) dependent or endogenous variables in a model-based analysis.
- If future uses of data will involve focus on certain subpopulations and there are specific requirements as to the precision of estimates for these subpopulations, this could imply constraints as to a minimum sample size for these subpopulations. For instance, if the target statistic is the mean income of a certain age group, simple random sampling from this age group will give

_

¹ The self weighted feature will, however, become destroyed by nonresponse, unless it is compensated by imputations.

the variance of the mean estimator S^2/n , where S^2 is the population (age group) variance and n the sample size. Given the population variance a required efficiency (length of confidence intervals) implies a certain sample size from the subpopulation. Note that with the mean as the target population parameter, efficiency is independent of population size. A larger population will then not need a larger sample.

- A two- or multistage clustered sample will in general give less efficient estimates than a design without cluster effects, but it might give smaller field costs.
- There are other considerations than efficiency. For instance, an imperfect sampling frame or excessive nonresponse might result in systematic errors that are difficult to compensate once the survey is completed. In an overall evaluation one might thus find it optimal to reduce the sample size and allocate more resources to preventive measures (like interviewer training, marketing activities etc.) and to nonresponse follow up. Note that an increased sample size can never compensate for the bias created by selective nonresponse.

SHARE is planned to become a panel survey. Although we will certainly like to get good estimates of cross-sectional means, totals and distributions, the focus in a panel survey is on 'change' and in particular on change as the sample members age. This suggests that efficiency measures should be targeted on longitudinal change measures rather than on cross-sectional measures.

The panel design of SHARE also implies that any "oversampling" today will have consequences for tomorrow. As the panel ages oversampling will progress in age. An initial oversampling of a certain age group will 10 years later result in oversampling of people that are 10 years older. This may or may not be desirable. There is also normal population mobility in other dimensions than age that might imply future oversampling with properties that are unknown today. Given these considerations and the arguments in favour of a self-weighted sample it was decided not to oversample any particular group.

After a panel has been running for a few years the producers of a panel survey usually meet the question whether the panel still is "representative" of the population. One interpretation of this question is whether the panel sample can be used for inference to the current final population although the sample was originally drawn a few years ago. This is an issue of attrition, the rules adopted to follow sample members as the panel ages and appropriate sampling weights. Even if one disregards the problem of attrition the derivation of sampling weights usually involves more or less arbitrary assumptions, because one does not know exactly how the originally sampled population of households has transformed into the current population. Assume for example that a household with a single man has been selected in year t. In t+1 he is married. This household could have been selected to belong to the t+1 sample in two ways, either through the husband or through the wife. The probability for this event is the probability to select either the becoming husband or the becoming wife in year t. If the sampling design is such that the primary selection unit is the individual and the probability to select an individual is the same for everyone then it is not difficult to compute the probability to get either of the two.3 However, if a more complex design was used and one would need to

² The sample is assumed small compared to the population size.

³ In practice one will probably approximate the probability to get both individuals to zero.

know to which stratum, cluster etc each individual belonged in year t, that information might not be available in t+1 for those who were not included in the original sample of year t. One would then have to replace the missing information with assumptions. The more complex sample design the more assumptions and difficulties in getting "approximately correct" weights. Changes in household composition will not only influence the household weights, but depending on what rules are followed to select respondents for interview within a household, also individual sampling weights might need adjustments. This is thus another strong reason to choose a simple self-weighted design such that one only has to supplement with new cohorts that have passed the age of 50 and with recent immigrants.

5.2.2 Target population

The target population of SHARE is defined both in terms of households and in terms of individuals. The population of households is defined as "All households with at least one member born in 1954 or earlier, speaking the official language of the country⁴ and not living abroad or in an institution such as a prison during the duration of the field work." Given the general purpose of SHARE and that the prevalence of institutions for elderly differs between European countries it was desirable to include individuals living in institutions for elderly in the target population. In some countries this became possible in others not. This is detailed in the Appendix.⁵

The <u>target population of individuals</u> is defined as "All individuals born in 1954 or earlier, speaking the official language of the country⁶ and not living abroad or in an institution such as a prison during the duration of the field work, *and their spouses/partners independent of age.* The remark above as to people living in institutions for elderly applies here as well.

5.2.3 Sampling frames

Appropriate sampling frames for individuals, dwellings or households were not available in all countries and there were thus constraints on what kind of sample survey design we could choose depending on what was available in each country. In most countries there are registers of individuals that will permit stratification by age. In some countries these registers are administered at a regional level, Germany and The Netherlands are two examples. In these cases we needed a two- or multi-stage design in which regions were sampled first and then individuals selected within regions. In some countries we could only get access to population registers if we cooperated with the national statistical office. This became possible in France and Spain, for instance, while in other countries the national statistical office was not interested, put too stringent proprietary constraints on the sample (The Netherlands) or was too expensive (Sweden). The choice of sampling frame and then also the sampling design thus became dependent on the choice of field operator. This also had the unfortunate consequence that very little auxiliary data were available in the frames in most countries. At best there were basic demographic data such as year of birth, gender and municipality but in some countries the frames did not even include year of birth. In three countries, Austria, Greece and Switzerland, pre-screening in the field for eligible sample participants became necessary. Only exceptionally it

-

⁴ In Switzerland there are three languages. German, French and Italian.

⁵ In one country, Germany, the target population was defined in terms of people born in 1953 or earlier.

⁶ In Switzerland there are three languages. German, French and Italian.

became possible to identify people in institutions (homes for elderly) in the sampling frame. What applies to each country is detailed in the Appendix.

5.2.4 A working group of sampling experts

A working group of international experts with an advisory capacity for the sample survey design was set up in the beginning of the project. It produced several discussion memos for various SHARE meetings. In addition, national teams were advised on sampling issues. The role of the sampling group was only advisory, while the final decisions about the sampling design were taken at the national level, jointly with the field agency. The choice of field agency to a large extent determined the sampling design, because access to sampling frames was constrained by this choice, and the field agency had to work with a more or less given group of interviewers.

5.2.5 Sampling errors vs. non-sampling-errors and the allocation of resources

In the initial stage of the SHARE project we did not only discuss the importance of probability sampling but also the relative efficiency of alternative designs. The motive for this was a desire to allocate resources such that the precision of country specific estimates of key parameters would be approximately the same, or alternatively that the contribution to the variance of an EU-wide estimate from each country should be optimised such that the total variance would be as small as possible. Because the sampling in one country is completely independent of the sampling in another, one can look upon each participating country as a stratum in the universe of participating countries. It then follows from standard sampling theory that the optimal number of sampling units allocated to a given country is an increasing function of the variance of the estimate of a key parameter and a decreasing function of the marginal cost of collecting another interview from that country. The higher population variance of the key variable of interest and the less efficient sample survey design the higher the variance of a parameter estimate in general becomes. Multi-stage designs with clustering is often less efficient than simple random sampling or stratified simple random sampling. Such complex designs may lead to widely different design probabilities and to clustering effects both of which tend to increase the variance of conventional estimators. From previous studies we know that, for instance, the variance of incomes and wealth is much smaller in the North European countries than in the South European countries. Furthermore, good sampling frames based on registers that permit simple and efficient designs are more easily accessed in the North than in the South, and the marginal cost of obtaining another interview is higher in the North than in the South. All this taken together suggests that relatively more resources should be allocated to the South European countries than to the North European.

However, there are also other considerations. In a general purpose survey like SHARE it is not easy to single out one or a few key parameters of interest to which an allocation of resources could be done. Considering the future longitudinal plans for SHARE one could argue that the relevant variance measures are related to changes in, for instance, incomes and wealth, not to their levels, and we know much less about national differences in the variance of these changes. This kind of argument could be taken even further. A longitudinal study is a tool that makes the scientist and policy maker prepared to study the effects of future events and policy changes of which we know very little today. Because we don't know in which countries these future events will take place it is important that SHARE now is designed such that every country is given a good (an equally good) basis for a longitudinal study. Even if a comparative European perspective is dominating in

SHARE it is also important to have such a large sample in each country that country specific estimates become meaningful.

There are also non-sampling errors that probably are equally or even more important. To these belong over- and undercoverage of the sampling frame, mistakes and errors in the field, and in particular non-response. The problem with these errors is not only that they decrease the effective sample size and for this reason increase the variance of estimates, but primarily that they usually introduce systematic errors, bias. The frame quality is better in the North than in the South. We also have past experiences of national differences in non-response. The response rate is sometimes higher in the North than in the South but we don't know much about the reasons for national differences in response rates and it is difficult to draw conclusions from other studies to such a demanding study as SHARE.

Considering all aspects of SHARE no attempts have been made to estimate design effects in advance. Resources have been split between countries in such a way that all countries would get the same number of interviewed households (1500)⁷. In this allocation an anticipated response rate of 60% was used for all countries with the exception of Denmark and Sweden for which the rate 75% was applied.

The most important requirement on the national sampling designs was thus that the resulting sample must be a probability sample.

5.2 General characterization of the sampling procedures

The survey sampling designs used in SHARE can be grouped into the three groups displayed in Table 1.

Table 1 Type of survey sample design and frame by country

Table 1 Type of survey sample design and frame by	Country
Sample design type	Country
(Stratified) simple random sampling from national population registers	Denmark, Sweden
Multi-stage sampling using regional/local population registers	Germany, Italy, Spain, The Netherlands
Single or multi-stage sampling using telephone directories followed by screening in the field	Austria, Greece, Switzerland

Another way of describing the national sample designs is by the (final) unit of selection, an individual or a household. This distinction has the practical implication for countries that selected individuals that any frame information only applied to the individual while there was no frame data for the household. For instance there was no frame data on the number of eligible individuals in the household, and this implied that it was impossible to compute design probabilities for households and individuals that were in the sample but did not respond. For the five countries that used a design with this property the information about the number of eligible household members came from the survey.

_

⁷ In Sweden the target was set to 2263 households using supplementary national funding and in Switzerland, which is not covered by the EU contract, still another target.

Table 2 Final units of selection

Unit	Country
Individual	Germany, Italy, The Netherlands, Spain, Sweden
Household ⁸	Austria, Denmark, Greece, Switzerland

Still another way to describe the designs used is if they generate proper probability samples or if assumptions about the universe and/or the properties of the random procedure are needed to compute design probabilities. A probability sample is defined in the following way: It is a sample drawn from a universe by a well documented random procedure such that every elementary unit of the universe has a nonzero probability of being selected, and that an inclusion probability (design probability) can be computed for every unit in the sample without using any auxiliary assumptions about the nature of the universe or the properties of the random procedure.

There are in particular two issues of concern. First, the problem mentioned above, in countries that use individuals and not households as elementary selection units one will, for practically all units, only be able to compute design probabilities for responding units of the sample, not for the non-responding share. Second, in countries which use a multi-stage design and depend on the co-operation of local authorities units in the primary sampling stages, such as whole municipalities, may have to be dropped or replaced. Table 3 is an attempt to group the national designs in this dimension.

Table 3 Probability sample or not?

•	Design probabilitie	Design probabilities can be computed for		
making	whole sample	responding share		
no assumptions	Denmark, Greece, Switzerland	Sweden		
supplementary	Austria	Germany, Italy,		
assumptions		The Netherlands, Spain		

The problem with the Austrian design is that the first stage units were selected in areas where the field agency had interviewers. It is unclear if this is a probability sample at all. Also in the second stage, selection of telephone numbers, there is a problem. To compute proper inclusion probabilities we need to know how many business telephone numbers precede each household number, but we do not have this information. In Germany there were no accurate data on the size of all primary selection units (municipalities), and the German team did not fully control the selection of individuals in the second stage. In Italy 15 of 93 municipalities did not co-operate and were replaced by other municipalities from the same stratum. In The Netherlands six of twenty selected municipalities did not co-operate and had to be replaced by six new municipalities. To compute inclusion probabilities we then need assumptions about the sampling frame (universe). Furthermore, the Dutch team did not fully control the selection of individuals at the municipal level. Spain used systematic sampling in the second stage, selection of individuals, and needs the assumption that the list of individuals is in random order to be able to compute design probabilities for the household.

8 Countries using a telephone directory as a frame and screening for eligible households are

included here

The Swiss have targeted a certain number of eligible households and when they found that they did not reach the target they added reserve samples of the same design as the main sample. The classification of Switzerland above is based on the not necessarily innocuous assumption that the reserve sample can be seen just as an extension of the main sample. The classification of Greece is based on the information that the share of households with multiple telephone numbers is very small in this country.

Another important property of a sampling design is if it is "measurable", i.e. if the design "allows the computation, from the sample itself, of valid estimates or approximations of its sampling variability" (Kish 1965, p.23). For instance, systematic sampling is not measurable. To obtain variance estimators additional assumptions are needed. In our case Denmark, Sweden and Switzerland have used measurable designs.

5.3 Compensation for non-response

5.3.1 Reweighting to compensate for unit nonresponse

The SHARE surveys have both unit and item non-response. The discussion below is limited to unit non-response. There are several well known approaches to compensate for unit nonresponse using reweighting, with keywords such as calibration, e.g. post stratification, and response modelling. These methods are primarily designed for inference to a finite population. In a model dependent inference to a "super population" reweighting might be useful as well, depending on the nature of the model and the properties of nonresponse. In this case an alternative approach is joint modelling and estimation of the subject matter process and the response process. In principle, the preferred method of compensation will depend on the particular application at hand, and there is no universally best method. As a service to the data users we have computed calibrated weights that to some extent compensate for unit nonresponse. Every user should, however, decide if these weights are good for the purpose at hand.

The data release 1 files include three different kinds of weights: design weights, calibrated household weights and calibrated weights for individuals. In countries with so called vignette samples each weight exists in three variants: For the main sample, the vignette sample and for the two combined.¹⁰ The following list explains this,

wgtMDH	Design weight for the main sample
wgtVDH	Design weight for the vignette sample
wgtADH	Design weight for the two samples jointly
wgtMCH	Calibrated household weight for the main sample
wgtVCH	Calibrated household weight for the vignette sample
wgtACH	Calibrated household weight for the two samples jointly
wgtMCI	Calibrated individual weight for the main sample
wgtVCI	Calibrated individual weight for the vignette sample
wgtACI	Calibrated individual weight for the two samples jointly

By the design of SHARE, the probability of including any of the eligible individuals in a household is the same as the probability of including the household. Thus, the

-

of the main sample.

⁹ Kish. L. Survey Sampling, John Wiley & Sons 1965, p. 23

¹⁰ In Sweden there is also a sample supplementary to the main sample. It was treated as part

design weight is the same for the household as for any eligible individual of the household.

The calibrated weights were obtained by adjusting the design weights. The adjustment factors were obtained in a "calibration" to known population totals. In most countries we have calibrated against the total national population by age group and gender. In two countries more information was used. Additional details can be found in the appendix. This procedure will, for a given household, give a calibrated household weight that differs from the calibrated individual weights.

Calibrated individual weights have been computed for responding 50+ individuals for whom we have complete information about age and gender. There are thus a few individuals with missing weights. A variable flags this and indicates reason for the missing value. No calibrated weights have been computed for individuals who are included in the cover screen but dropped out from the interview. Please also note that the calibrated weights do not compensate for any additional nonresponse in the drop-offs. Spouses less than 50 have no individual calibrated weight (missing value) because we have nothing to calibrate against (and it is really unclear what kind of calibration is desired). For countries that do not include people living in institutions in their sampling frames there is a potential problem in calibrating against population totals that include these people. (This does not apply to Switzerland where the calibration totals do not include people in institutions.)

In countries that have primarily sampled individuals and not households there is no frame information about non-responding households except for any information about the designated individual who leads to the household. It may or may not be a good idea to use this information to compensate for the loss of the entire household. An alternative approach for these countries is to get a "clean sample" of designated individuals (who in general will have an inclusion probability different from the inclusion probability of the household) and use the frame data for them to compensate for nonresponse. That will give a sample that can be used for inference to the population of <u>individuals</u> born in 1954 or earlier.

List of flag variables:

nowh_amh Flag, no weights due to missing birth year(s) for HH

nowh_or Flag, no weights, other reason

nowi_amr Flag, no individual weights due to missing age of respondent

nowi_ne Flag, no individual weights due to non-eligible respondent (born after

1954)

5.3.2 More about the calibration methodology

As already noted there is very little information in the sampling frames that can be used for unit nonresponse compensation; in some countries only age and gender, in others no auxiliary information at all. This implies that any compensation will have to rely on information from sources other than the sampling frames such as population censuses. This is unfortunate because we cannot be sure that these external sources exactly cover the SHARE population and use the same definitions of units. We have then used population statistics that applied to a date as close as possible to the time of the field work. In two countries we did not only calibrate to the age distribution by gender, but also to a marginal distribution of population totals by geographical areas. The general principle behind calibration for nonresponse is simple. Let U be a population of N elements (individuals or households) and let k be one of its elements with associated design weight W_k . Out of a sample s, a responding subset r furnishes useful study variable observations. Now, suppose that we for a set of x

variables have access to population figures $X_1 = \sum_U x_{1k}$, ..., $X_J = \sum_U x_{Jk}$, in column vector form $\mathbf{X} = (X_1, ..., X_J)'$. Finally, suppose that we, for each element k in the response set, have collected data $\mathbf{x}_k = (x_{1k}, ..., x_{Jk})'$. Calibrated weights are now given by

$$w_{k,cal} = w_k v_k$$

where

$$v_k = 1 + \left(\mathbf{X} - \sum_r w_k \mathbf{x}_k\right)' \left(\sum_r w_k \mathbf{x}_k \mathbf{x}_k'\right)^{-1} \mathbf{x}_k$$

In most SHARE countries we have calibrated against the population totals of four age groups by two genders. The \mathbf{X} vector will then include eight population totals, and the \mathbf{x}_k vectors will have one unit entry and seven zero entries. Household weights are obtained when there is a \mathbf{x}_k vector for each household and the summation in the expression above extends over all households, while individual weights are obtained when there is a \mathbf{x}_k vector for each individual and the summation extends over all individuals. More detailed information about the particular calibration vectors used in each country is given in the Appendix. For general references to the calibration methodology see Deville and Särndal (1992) and Lundström and Särndal (2001).

Please note that the weights are designed to be used in the estimation of population totals. The sum of the weights is in itself an estimate of the size of the population. A mean can thus be estimated by just normalizing the weights to 1. Also note that if the weights are very different one single observation can easily have a large influence on an estimate. The Italian design in particular is extreme in this sense.

5.4 On the computation of variances

The variances of design based estimates of finite population statistics depend in general on the whole design and not only on the weights. Some computer packages (like STATA) have routines that compute proper estimates for certain standard designs. They need as input data the primary (secondary) selection unit and stratum a sample member belongs to. Due to privacy legislation we have not been able to include these data in the released files. It is thus currently not possible to compute proper variances. We expect to solve this problem later this fall.¹¹

5.5 Did we reach our targets?

All countries but one attempted proper probability sampling. Due to institutional constraints, however, several countries had to use second-best frames and complex sampling designs. As a result non-response problems were built into the design already before an interviewer had attempted to gain the co-operation of the respondent. To get around these problems one has to make more or less plausible assumptions about the universe. Only three or four countries were able to avoid these problems.

Unit non-response was expected to become a severe problem in such a demanding study like SHARE and with its target population 50+. The results from the fieldwork confirms this, and much work will have to go into an analysis of the

¹¹ A possible very temporary fix-up is to carry on as if we in every country had a single stage random sample with unequal sampling probabilities

reasons for nonresponse to suggest what design measures can be taken to improve on the response rate.

5.6 Lessons for the future

The fact that in many European countries there either exist no national sampling frame or access to a national sampling frame is blocked is a serious obstacle to empirical research since second-best solutions are expensive, yield less efficient estimates than otherwise possible, and may also increase any systematic errors. Each country should have a national sampling frame that is accessible at least for recognized research purposes and statistical purposes but preferably also for the purposes of commercial market surveys. Eurostat should be asked to co-ordinate contents, maintenance and access. These sampling frames would hardly become a threat to personal integrity because they need not include more data than name, address and basic demographics, data that anyway are available through other sources.

A good sampling design is instrumental for a successful survey. It is important that the project includes sampling experts that can contribute to the specification of the properties of a desirable design in the formulation of calls for tender and later on take decisions about design issues.

As Chapter 9 shows, nonresponse remains a major problem, both prior to the field work and during the field work. In countries where first stage units did not cooperate one could think of developing alternative second-best strategies for handling these problems, for instance by using imputations. Nonresponse in the field is an equally difficult problem. Finding the best allocation of resources between questionnaire development (including length), sample size and response supporting activities in future waves of SHARE remains an important task.

References

Kish, L. (1965). Survey Sampling, John Wiley & Sons.

Deville, J-C and C-E. Särndal (1992): "Calibration Estimators in Survey Sampling", *Journal of the American Statistical Association*, 82, No. 418.

Lundström, S. and and C-E Särndal (2001): Estimation in the presence of Nonresponse and Frame Imperfections, Statistics Sweden.

Appendix. Country by country documentation.

- 1. Austria
- 2. Denmark
- 3. France
- 4. Germany
- 5. Greece
- 6. Italy
- 7. The Netherlands
- 8. Spain
- 9. Sweden
- 10. Switzerland

Austria

Country: Survey Institute: Survey design contact: IMAS International GmbH Susanne Kirchner/Doris Eyett

Target population,	All households with at least one German speaking member
Population coverage	born in 1954 or earlier. All German speaking residents born
1 opulation coverage	
	in 1954 or earlier and their spouses/partners at the time of
	the interview.
	The target population does <u>not</u> include individuals living in
	institutions for elderly, in prisons and similar institutions.

Sampling frame	Stage 1: List of municipalities and political districts in areas
	where IMAS has interviewers.
	Stage 2: CD-ROM of all telephone numbers
Frame problems	The CD-ROM contains all registered telephone numbers in
	Austria, including business numbers.
Auxiliary frame data	Municipality (stratified by three sizes: under 5.000
that can be used by	inhabitants, over 5.000 inhabitants and capitals).
SHARE	

Sampling design	Three-stage sampling.
	Stage 1: Selection of municipalities.
	Sample stratified by the combination of nine regions and
	three population size groups. From each stratum
	municipalities were drawn in regions where the IMAS
	interviewers are located.
	Stage 2: Selection of telephone numbers
	From each selected municipality the total number of
	telephone numbers M _{ct} was obtained and m _{ct} drawn by
	systematic sampling with a random start. If a business
	number was obtained the next private number on the list
	was selected.
	Stage 3: Screening for age-eligibility
	Every number obtained from stage 2 was called to find out if
	someone born in 1954 or earlier belonged to the household
	connected to the telephone number. All age-eligible
	households were included in the sample.

Selection probabilities	Because the Austrian sample is not a true probability sample no proper selection probabilities and design weights can be computed. In data release 1 design weights were computed as if simple random sampling had been used.
	Assumed simple random sampling of households: Gross sample size $(n) = 2554$ Population of households in the frame $(N) = 2597837$ Probability to select individual i in household $h = P_{ih}$ Probability to select household $h = P_h$ By the design, $P_{ih} = P_h = \frac{n}{N}$
Design weights	$W_{ib} = W_b = \frac{1}{P_b}$

Vignettes	None
Calibration	The calibration vector contains 8 different gender and age
information	groups:
	Men born: -1924, 1925-1934, 1935-1944, 1945-1954
	Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The calibration vector of population totals (in the above presented order): (75715, 234598, 367021, 473258, 180821, 368935, 409785, 487704)

Country: Survey Institute: Survey design contact: Denmark

Socialforskningsinstitutet (SFI)

Hans Bay

Target population,	All households with at least one Danish speaking member
Population coverage	born in 1954 or earlier. All Danish speaking residents born
	in 1954 or earlier and their spouses/partners at the time of
	the interview.
	The target population includes individuals living in
	institutions for elderly, but not individuals living in prisons
	and similar institutions.

Sampling frame	Family (household) register created by Statistics Denmark
	from their CPR, including all households with at least one
	household member born in 1954 or earlier.
	There are three main types of families: Couples, Singles and
	Children who do not live with a parent. There are four types
	of couples: Married, Registered partners, Cohabiting partners
	with a common child, and Cohabiting partners with no
	common child and an age difference of less than 15 years.
	To each family there is an address attached.
Frame problems	
Auxiliary frame data	Age, gender, marital status, country of birth, citizenship
that can be used by	
SHARE	

Sampling design	Simple random sampling of households.
	Gross sample size: $n = 1932$
	Population of households in the frame: $N = 1360605$
Selection	Probability to select individual i in household $h = P_{ib}$
probabilities	Probability to select household $h = P_b$
	By the design,
	$P_{ib} = P_b = \frac{n}{N}$
Design weights	$W_{ib} = W_b = \frac{1}{P_b}$

Vignettes None

Calibration	The calibration vector contains 8 different gender and age
information	groups:
	Men born: -1924, 1925-1934, 1935-1944, 1945-1954
	Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The region of the households is also used for calibration in
	addition to gender/age. The marginal population distribution
	on the sixteen Amts (counties) is added to the calibration
	vector.
	The calibration vector of population totals (in the above
	presented order):
	(73244, 155404, 261756, 380454, 145112, 195057, 273755,
	375926, 130641, 31427, 221992, 136105, 82753, 109783,
	105672, 18423, 170941, 92896, 76772, 120527, 93734,
	210042, 83425)
	The last amt is excluded in the calculation due to the
	problem with over specification.

France

Country: Survey Institute: Institut National de la Statistique et des Etudes

Economiques (INSEE)
Pascal Ardilly (INSEE) Survey design contact:

Target population,	All individuals older than 50 years at the time of the
Population coverage	interview.
	The target population does not include individuals living in
	institutions.
	The sample was drawn in 6 regions, NOT from the overall
	national territory. In the selected regions are NOT covered:
	all people in the target population living, at the time of the
	interview, in dwellings which were occupied in March 1999
	and as a main dwelling, only by individuals born in 1935 or
	after (justification: double sampling, with elimination of any
	dwelling in this category during the phase 2).

Sampling frame	List of all dwellings in a master sample (about 2 millions of dwellings for the national territory) which is a subsample of the 1999 census + list of "new dwellings" (built after the 1999 census in the counties of the master sample - about 15
Frame problems	000 dwellings were added each year for the national territory)
Auxiliary frame data	
that can be used by SHARE	

Sampling design	The design is tied to a master sample. The master sample is a
	stratified one- or two-stage sample of dwellings from the
	census files. Strata are groups of regions crossed by degree
	of urbanization. We distinguish 4 urban groups: rural
	counties (grouped in primary units - PU), urban units (=PU)
	with less than 20000 inhabitants, urban units (=PU) with
	more than 20000 inhabitants but less than 100000
	inhabitants, and urban units with more than 100000
	inhabitants. Except for urban units larger than 100000, a
	balanced sample of primary units has been drawn with pps
	sampling (for balance, we used the variables income, sex and
	age). In rural units and small urban units, the master sample
	is the union of all dwellings in the PU. In each urban unit
	with more than 20000 inhabitants, we drew a second stage
	sample of districts (by another balanced sampling design).
	The master sample is the union of all dwellings in those
	districts. The largest units (more than 100000 inhabitants)
	are exhaustively retained. Each urban unit is in fact a stratum
	in which we draw districts.

Selection	For a given survey, there are additional stages (1 or 2). In
probabilities	rural strata, we drew in each PU a sample of counties, with a
	pps systematic sampling. The sample size of counties
	depends on the number of households to be interviewed.
	Then, in a given county, we stratified the sample of dwellings
	according to status (3 strata: main dwellings, secondary
	dwellings and unoccupied dwellings - but in urban units,
	unoccupied and main dwellings are comparable) and used a
	systematic sampling with equal probabilities in each stratum.
	The final allocation is worked out so that the global
	probability of selection is controlled. In urban units, it is the
	same process but with just one stage less because all counties are retained.
	For rural strata and for a dwelling's given status h the
	overall sampling probability is f_b . It is the product of the
	PU probability, the county probability (pps sampling for
	each stage, the size is the number of main dwellings in the
	unit concerned) and the final sampling fraction in the county
	for the status h .
	For small and medium size urban units the overall sampling
	probability is f_h . It is the product of the PU probability (pps
	sampling, the size is the number of main dwellings in the
	unit) and the final sampling fraction in the PU for the
	$\operatorname{status} h$.
	For largest units: the overall sampling probability for a given
	status is the sampling fraction in the stratum corresponding
	to this status.
	(A complete account for how INSEE derived the French
D 1 11	selection probabilities is not yet available.)
Design weights	Finally, we get 4 weights:
	- Main dwelling or unoccupied dwelling in a urban unit: 4
	165
	- Secondary dwelling: 4 x 4 165 = 16 660
	- Unoccupied dwelling in a rural county: 2 x 4 165 = 8 330
	- New dwelling: 4 014

Vignettes	None
Calibration	The calibration vector contains 8 different gender and age
information	groups:
	Men born: -1924, 1925-1934, 1935-1944, 1945-1954
	Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The calibration vector of population totals (in the above presented order):
	(859736, 1947997, 2481128, 3849904, 1759625, 2653107, 2717079, 3937194)

Country: Germany Survey Institute: Institut fűr

Survey Institute: Institut für angewandte Sozialwissenschaft GmbH

(Infas)

Survey design contact: Reiner Gilberg/Karsten Hank

Target population,	All households with at least one German speaking member
	born in 195 <u>3</u> or earlier. All German speaking residents born
	in 1953 or earlier and their spouses/partners at the time of
	the interview.
	The target population includes individuals living in
	institutions for elderly, but not individuals living in prisons
	and similar institutions.

Sampling frame	Stage 1: List of all 13416 German municipalities
	Stage 2: Municipal population and address lists listing
	addresses of people born in 1953 or earlier.
Frame problems	Population figures used in the first sampling stage date from
	2001-12-31. All municipalities do not have information
	about the exact number of addresses. For some
	municipalities the number of addresses has been estimated.
	The number of eligible members of a household is not
	known from the frame.
Auxiliary frame data	For selected individuals sex, age and in some municipalities
that can be used by	nationality. For households only regional indicators.
SHARE	

Sampling design	Two-stage sampling.
	Stage 1: All municipalities are cross classified by district
	("Kreise") and size (10 groups). From each non-empty
	combination with the exception of the big cities Berlin,
	Hamburg and Munich one municipality was chosen. In the
	big cities there were 4, 2 and 2 "sample points" selected. The
	municipalities were selected with probabilities proportional
	to the population size 50+. The three big cities were selected
	with certainty.
	Stage 2:
	With the exception of the three large cities, approximately 80
	individuals were selected from each municipality by
	systematic sampling with a random start. For the main study
	27 of these were selected by simple random sampling
	without replacement. In Hamburg and Munich twice as
	many were selected and in Berlin four times as many.
Selection	Let the set of all $M(=13416)$ municipalities be
probabilities	$U_M = \{1,, m,, M\}$ and let x_m denote the size of the
	residential population of municipality <i>m</i> born in 1953 or
	earlier as of the 31st of December and let
	$X = \sum_{1}^{M} x_{m} = 28821099.$
	In the first sampling stage all municipalities were classified by
	two variables: "district-local community size" (10 categories,

here denoted b = 1,2,...,B) and "Kreise" (439 categories, here indexed k = 1,2,...,K). Let U_{bk} denote the part of the community population that falls in cell (b,k), let $X_{bk} = \sum_{U_{bk}} x_m$ and let M_{bk} denote the number of municipalities in U_{bk} .

Note. Many $U_{bk} = \emptyset$, i.e. there are no municipalities in cell (b,k), hence $X_{bk} = M_{bk} = 0$ in these cases.

Stage 1

The selection of municipalities in the first stages was done in two phases.

Phase 1. Let $P_{bk} = X_{bk} / X$, $P_{b\bullet} = \sum_{k=1}^{K} P_{bk}$, $P_{\bullet k} = \sum_{b=1}^{B} P_{bk}$ and $n_{bk}^* = 105P_{bk} = [n_{bk}^*] + c_{bk}$ (where $[n_{bk}^*]$ is the integer part of n_{bk}^* and $0 \le c_{bk} < 1$) so that $n_{\bullet \bullet}^* = \sum_{b=1}^{B} \sum_{k=1}^{K} n_{bk}^* = 105$ is the total number of desired "sample points". To round n_{bk}^* to an integer n_{bk} (= $[n_{bk}^*]$ or $[n_{bk}^*] + 1$) "optimized controlled rounding" was used, which results in integers n_{bk} (random numbers with expectation $n_{bk}^* = 105P_{bk}$).

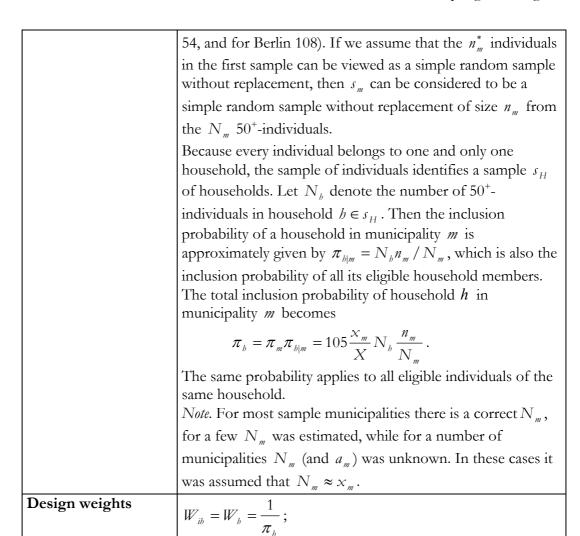
Note. If $[n_{bk}^*]$ is selected with probability $(1 - c_{bk})$ and $[n_{bk}^*] + 1$ with probability c_{bk} , then

$$E(n_{bk}) = (1 - c_{bk})[n_{bk}^*] + c_{bk}([n_{bk}^*] + 1)$$
$$= [n_{bk}^*] + c_{bk} = n_{bk}^* = 105P_{bk}.$$

For every non-empty U_{bk} this procedure results in an integer n_{bk} , which in most cases when $n_{bk} > 0$ is 1 - except for Berlin (4), Hamburg and Munich (2 each). Phase 2. From every U_{bk} with $n_{bk} = 1$ a municipality is selected, say m, with probability x_m / X_{bk} . The probability that municipality $m \in U_{bk}$ will be selected is given by $\pi_m = 105P_{bk} \cdot x_m / X_{bk} = 105x_m / X$. Berlin, Hamburg and Munich all have the selection probability $\pi_m = 1$.

Stage 2

Let s_M denote the sample of municipalities. For every $m \in s_M$ there is a sampling interval a_m such that it gives n_m^* individuals (in most municipalities about 80, in Hamburg and Munich 162 individuals, and in Berlin 324) in a systematic sample with a random start from a list of N_m 50⁺- individuals. From these n_m^* individuals a simple random sample (s_m) of size n_m was drawn without replacement. (For most municipalities $n_m = 27$, for Hamburg and Munich



The vignettes have been sampled in the same way as the main sample, with the only difference that the sample size (n_m^r) was for most municipalities 9, for Hamburg and Munich 18, and for Berlin 36. The samples were taken from the same systematic sample lists as the main samples were drawn from, with exclusion of the ones already drawn for the main sample.

Then the inclusion probability of a household in municipality m is approximately given by $\pi_{b|m}^{"} = N_b n_m^{"} / N_m$, which is also the inclusion probability of all its eligible household members.

The total inclusion probability of household h in municipality m becomes

$$\pi_b^v = \pi_m \pi_{b|m}^v = 105 \frac{x_m}{X} N_b \frac{n_m^v}{N_m}.$$

The same probability applies to all eligible individuals of the same household.

The vignette sample design weights are given by

$$W_{ib}^{v} = W_{b}^{v} = \frac{1}{\pi_{b}^{v}}$$

Joint sample weights	,
(main + vignette)	

The main and the vignette samples were treated as drawn simultaneously. Thus, the sample size (n_m^j) for municipality m became $n_m^j = n_m + n_m^v$.

Then the inclusion probability of a household in municipality m is approximately given by $\pi_{b|m}^{j} = N_b(n_m + n_m^v)/N_m$, which is also the inclusion probability of all its eligible household members.

The total inclusion probability of household h in municipality m becomes

$$\pi_b^j = \pi_m \pi_{b|m}^j = 105 \frac{x_m}{X} N_b \frac{(n_m + n_m^r)}{N_m}.$$

The same probability applies to all eligible individuals of the same household.

The joint sample design weights are given by

$$W_{ib}^{j} = W_{b}^{j} = \frac{1}{\pi_{b}^{j}}$$

Calibration information

The calibration vector contains 8 different gender and age groups:

Men born: -1924, 1925-1934, 1935-1944, 1945-1954 Women born: -1924, 1925-1934, 1935-1944, 1945-1954

The calibration vector of population totals (in the above presented order):

(915408, 2620976, 4982284, 4962198, 2448599, 3816712, 5318408, 4924473)

Country: Survey Institute: Survey design contact: Greece

Kapa Research Tasos Georgiadis/Clive Richardson

Target population,	All households with at least one Greek speaking member
Population coverage	born in 1954 or earlier. All Greek speaking residents born in
	1954 or earlier and their spouses/partners at the time of the
	interview.
	The target population includes individuals living in
	institutions for elderly, but not individuals living in prisons
	and similar institutions.

Sampling frame	Stage 1: List of all 54 Greek prefectures (Nomos)
	Stage 2: For each prefecture a computerized telephone
	directory for private subscribers
Frame problems	A few business telephone numbers might be included in the
	household directory. 2% of the households have more than
	one telephone number. In the pilot study done in December
	2003 Kapa-Reseach found that 1% hade two numbers and
	1% had three.
	The telephone directories include no information about the
	age of the household members.
	The household telephone directories do not include numbers
	to homes for elderly.
Auxiliary frame data	·
that can be used by	
SHARE	

Sampling design	Stratified two-stage sampling.
	Stage 1: Selection of telephone numbers.
	Each Nomo is a stratum. From each of them n_t^* telephone
	numbers are selected by simple random sampling without replacement. (The list of telephone numbers was sorted in
	random order and the sample of n_i^* numbers was selected
	systematically with a fixed interval from a random start.) Stage 2: Screening of households 50+.
	The screening was done by the interviewers who attempted
	to contact all n_i^* addresses. All age-eligible households were
	to become interviewed.

Selection probabilities	$P_{ib} = P_b = \frac{n_t^*}{N_t}$
	Where: N_t = total number of telephone numbers of
	Nomos t.
	A few households might have more than one telephone
	number and their selection probabilities would thus become
	proportional to the household's number of telephone
	numbers. The number of households with more than one
	telephone number is, however, small and no data about the
	number of telephone numbers were collected in the SHARE
	survey. The design weights have thus been computed as if all
	households only had one number each.
Design weights	$W_{ib} = W_b = 1/P_b$

Vignettes	None
Calibration	The calibration vector contains 8 different gender and age
information	groups:
	Men born: -1924, 1925-1934, 1935-1944, 1945-1954
	Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The calibration vector of population totals (in the above presented order):
	(143432,389643,591322,610717,228802,495402,655329,627472)

Country: Italy **Survey Institute:** Doxa

Omar Paccagnella/Russel Bowater Survey design contact:

Target population,	All households with at least one Italian speaking member
Population coverage	born in 1954 or earlier. All Italian speaking residents born in
	1954 or earlier and their spouses/partners at the time of the
	interview.
	The target population does not include individuals living in
	institutions for elderly, nor in prisons and similar institutions.
Sampling frame	Stage 1: List of all Italian municipalities
	Stage 2: List of electoral divisions/"collegi" from the Italian
	Ministry of Interior
	Stage 3: Gender specific municipal electoral registers
Frame problems	The electoral registers do not cover people in institutions

reside at their old address, and the hospital/home is in the same municipality), nationals who have lost their voting rights (convicted criminals) and non-citizens. The latter group can be estimated to about 5% of the total population, but a large share is below 50 years of age. The electoral lists include all age groups eligible for voting. No pre-screening of age-eligible people was possible. Thus people born after 1954 will have a nonzero selection probability.

such as hospitals and nursing homes (unless they officially

Auxiliary frame data
that can be used by
SHARE

Gender, year of birth.

Sampling design	Three-stage sampling.
	Stage 1: Selection of municipalities.
	Municipalities were stratified by population size 50+ as of
	2001-01-01 and by geographical location. The 11 largest municipalities were selected with probability one. From all other strata n_{mt} municipalities were selected with simple
	random sampling without replacement from N_{mt} units.
	Stage 2: Selection of electoral divisions within municipalities. Simple random sampling without replacement of $n_{d mt}$
	divisions/collegi from $N_{{\scriptscriptstyle d mt}}$ units.
	Stage 3: 2-phase sampling of individuals within divisions/collegi.
	The electoral lists come stratified by gender. In the first phase 30 males and 30 females were selected. Non-age-
	eligibles were deleted and in the second phase 3 males and 4
	females were selected. In both phases simple random sampling was used.
Selection	Stage 1:
probabilities	From stratum t (1,2,, T = 15) a simple random (without

replacement) sample of n_{mt} municipalities was drawn from N_{mt} municipalities. Hence, the 1st stage inclusion probabilities are given by $P_{mt} = n_{mt} / N_{mt}$ (= 1 for all large strata). All n_{mt} and N_{mt} are known to us, which means that all P_{mt} can be calculated.

Note, however, that some municipalities in the sample couldn't participate. Such a municipality was replaced by a "reserve" municipality (two "reserve" municipalities were randomly drawn for each "regular" municipality). This means that the 1st stage nonresponse problem is "solved" by substitution. The inferential effect is unknown.

Stage 2:

A municipality m (in stratum t) consists of $N_{d|mt}$ (electoral) divisions. From these $N_{d|mt}$ municipalities a simple random (without replacement) sample of size $n_{d|mt}$ was selected according to the following rule:

- If $N_{d|mt} \ge 4$, the sample size is $n_{d|mt} = 4$.
- If $N_{d|mt} = 3$, the sample size is $n_{d|mt} = 2$.
- If $N_{d|mt} \le 2$, the sample size is $n_{d|mt} = N_{d|mt}$.

Now, the (conditional) 2^{nd} stage prob. are given by $P_{d|mt} = n_{d|mt} / N_{d|mt}$ (= 1 if $N_{d|mt} \le 2$). Hence, if we for every municipality m in the first stage sample have access to $n_{d|mt}$ and $N_{d|mt}$, all $P_{d|mt}$ can be calculated.

Stage 3

To avoid too much unwieldy notation we will here consider a specific division/collegi d (in municipal m) selected for the survey and suppress the subindex for d (and for m). This note only considers the problem of determining design weights useful for inference from the sample of households (and their eligible individuals) selected for the survey to the division/collegi population level. Furthermore, full response is assumed.

Let N_E denote the number of individuals in the electoral list. The list is split into two sublists, one for females consisting of $N_{E\!F}$ individuals (out of which an unknown number N_F^+ are 50+), one for males consisting of $N_{E\!M}$ individuals (out of which an unknown number N_M^+ are 50+).

The population of individuals of interest (U) consists of all 50^+ individuals (with the exception of a small number of people in institutions etc) in the frame (in the sequel we assume that the frame is perfect with respect to coverage) plus all 50^- individuals in households with at least one 50^+ individual.

Let N^+ (= $N_F^+ + N_M^+$) denote the number of 50⁺ individuals

in the frame and N^- the number of 50^{-} individuals. Let $N=N^++N^-$ and let the individuals be labelled

1,2,...,
$$i$$
,..., N , i.e. $U = (1,2,...,i,...,N) = U^+ \cup U^-$.

The population of households of interest (U_H) consists of all households with at least one 50^+ individual.

Let $\,N_{\scriptscriptstyle H}\,$ denote the number of households, labelled

$$1,2,...,h,...,N_H$$
, i.e. $U_H = \{1,2,...,h,...,N_H\}$. Let

 $N_{\scriptscriptstyle b} = N_{\scriptscriptstyle b}^{\scriptscriptstyle +} + N_{\scriptscriptstyle b}^{\scriptscriptstyle -}$ denote the number of eligible individuals in

household b , where N_b^+ is the number of 50^+ and N_b^- the number of 50° . Then

$$N^{\scriptscriptstyle +} = \sum_{U_b} N_b^{\scriptscriptstyle +}$$
 , $N^{\scriptscriptstyle -} = \sum_{U_b} N_b^{\scriptscriptstyle -}$, $N = \sum_{U_b} N_b^{\scriptscriptstyle -}$

Finally, let N_{bF}^+ denote the number of 50^+ females in household h and N_{bM}^+ the corresponding male number.

Hence $N_h^+ = N_{bF}^+ + N_{bM}^+$.

The adopted 3rd stage sampling design is stratified two-phase sampling (where subindex *a* is used to indicate first-phase samples).

In phase one a stratified simple (without replacement) random sample of individuals (S_{aE}) is drawn as follows:

A. For households in municipalities where the number of districts in the sample $(n_{d|mt})$ is 4.

Stratum 1: From the female list a simple (without replacement) random sample (s_{aEF}) of size n_{EF} (= 30) is drawn from the N_{EF} women in the list.

Stratum 2: From the male list a simple (without replacement) random sample (s_{aEM}) of size n_{EM} (= 30) is drawn from the N_{EM} men in the list.

The first-phase sampling generates a sample of individuals $s_{aE} = s_{aEF} \cup s_{aEM}$ and a corresponding (although unidentified) sample of households s_{aH} .

Consider a specific household h, where

$$N_{b} = N_{bF}^{+} + N_{bM}^{+} + N_{b}^{-}.$$

The numbers N_{bF}^+ and N_{bM}^+ are unknown at the present, but will eventually (for households selected for the survey) become known, viz. when the second phase samples of 50^+ individuals have been drawn and the corresponding households have been identified and contacted. Second-phase sampling. Consider the actually realized first-phase

sample $s_{aE} = s_{aEF} \cup s_{aEM}$. Let n_{EF}^+ be the number of 50^+ women and n_{EM}^+ be the number of 50^+ men. (Here, and in the rest of this note, it is assumed that the probability that $n_{EF}^+ < 4$, as well as the probability that $n_{EM}^+ < 3$, is

negligible.)

Now, a simple random (without replacement) sample s_F^+ of size n_F^+ women is drawn from the n_{EF}^+ women in the first-phase sample, and simple random (without replacement) sample s_M^+ of size n_M^+ men is drawn from the n_{EM}^+ men in the first-phase sample.

Consider a specific household h. Let $a_{bF}^+ \le n_{bF}^+$ be the number of women in s_F^+ and let $a_{bM}^+ \le n_{bM}^+$ be the number of men in s_M^+ . Unless $a_{bF}^+ = a_{bM}^+ = 0$, household h will be selected for the survey.

By contacting each of the $n_F^+ + n_M^+$ persons in the second phase sample household h will be identified, and data on age, gender and name is collected, which gives the household h figures N_{bF}^+ and N_{bM}^+ (and N_b^-).

For the computation of P_b^* (the inclusion probability of household b) note that a_{bF}^+ , n_{bF}^+ , n_{EF}^+ and a_{bM}^+ , n_{bM}^+ , n_{EM}^+ all are random numbers.

Now

$$P_b^* = \Pr[(a_{bF}^+ > 0) \cup (a_{bM}^+ > 0)]$$

= 1 - \Pr[(a_{bF}^+ = 0) \cap (a_{bM}^+ = 0)]
= 1 - \Pr(a_{bF}^+ = 0) \Pr(a_{bM}^+ = 0)

Furthermore

$$Pr(a_{bF}^{+} = 0) = \sum_{n_{bF}^{+}=0}^{N_{bF}^{+}} Pr(n_{bF}^{+}) Pr(a_{bF}^{+} = 0 \mid n_{bF}^{+})$$

$$= Pr(n_{bF}^{+} = 0) Pr(a_{bF}^{+} = 0 \mid n_{bF}^{+} = 0) +$$

$$Pr(n_{bF}^{+} = 1) Pr(a_{bF}^{+} = 0 \mid n_{bF}^{+} = 1) +$$

$$Pr(n_{bF}^{+} = 2) Pr(a_{bF}^{+} = 0 \mid n_{bF}^{+} = 2) +$$

$$+ \dots +$$

$$Pr(n_{bF}^{+} = N_{bF}^{+}) Pr(a_{bF}^{+} = 0 \mid n_{bF}^{+} = N_{bF}^{+})$$

where

$$\Pr(n_{bF}^{+}) = \frac{\binom{N_{bF}^{+}}{n_{bF}^{+}} \binom{N_{EF} - N_{bF}^{+}}{n_{EF} - n_{bF}^{+}}}{\binom{N_{EF}}{n_{EF}}}.$$

	and
	$\Pr(a_{bF}^{+} = 0 \mid n_{bF}^{+}) = \frac{\binom{n_{bF}^{+}}{0} \binom{n_{EF}^{+} - n_{bF}^{+}}{n_{F}^{+}}}{\binom{n_{EF}^{+}}{n_{F}^{+}}}.$
	Replacing F by M above gives $Pr(a_{bM}^+ = 0)$.
	The design weight for household h , and for each of its
	eligible members, is now given by $1/P_b$, $(P_b = P_{mt}P_{d mt}P_b^*)$.
	Hence, we can compute the design weight for each household h in the finally realized sample of households s_H . B. For households in municipalities where the number of districts in the sample $(n_{d mt})$ is 1 or 2.
	1. From a municipality with only 1 electoral division in the sample, we have simple random sampling of size n_{EF} (= 120) and of size n_{EM} (= 120) in the first-phase, simple
	random sampling of size $n_F^+ = 16$ and of size $n_M^+ = 12$ in the second phase.
	2. From a municipality with only 2 electoral divisions in the sample, we have for each of the two districts simple random sampling of size n_{EF} (= 60) and of size n_{EM} (= 60) in the
	first phase, simple random sampling of size n_F^+ and of size
	$n_M^+ = 6$ in the second phase.
Design weights	For a household h , in district d , in municipality m , in stratum t , the design weight is given by
	$W_{ib} = W_b = \frac{N_{mt}}{n_{mt}} \frac{N_{d mt}}{n_{d mt}} \frac{1}{P_b^*}$

Vignettes	The vignette sample was obtained jointly with the main
	sample and has the same 1 st and 2 nd stage sampling design.
	Now, for a given municipality <i>m</i> and a specific district <i>d</i> ,
	consider the $n_{mdEF}^+ - n_{mdF}^+$ women <i>not</i> selected for the 3 rd
	stage second phase main sample in district d. Collectively,
	over all selected districts in municipality m, the
	$\sum_{d} (n_{mdEF}^+ - n_{mdF}^+)$ women define a sample from which a
	vignette sample of size 5 was selected by simple random
	sampling. In the same manner a sample of 4 men was
	selected. Household h was then identified, and its selection
	probability P_b^r was determined by applying the same type of
	algorithm as used for the main sample.

Joint sample weights	The joint probability of being selected either into the main
(main + vignette)	sample or the vignette sample is given by
	$P_{ib}^{j} = P_{b}^{j} = 1 - (1 - P_{b})(1 - P_{b}^{v})$
	The joint sample design weights are given by
	$W_{ib}^{\ j} = W_b^{\ j} = 1/P_b^{\ j}$

Calibration information

The calibration vector contains 8 different gender and age groups:

Men born: -1924, 1925-1934, 1935-1944, 1945-1954 Women born: -1924, 1925-1934, 1935-1944, 1945-1954 The region of the households is also used for calibration in addition to age/gender. The marginal population distribution on the following areas was added to the calibration vector.

Large city / North-west

Large city / North-east

Large city / Central

Large city / South

Large city / Islands

Medium city / North-west

Medium city / North-east

Medium city / Central

Medium city / South

Medium city / Islands

Small city / North-west

Small city / North-east

Small city / Central

Small city / South

Small city / Islands

The calibration vector of population totals (in the above presented order):

(866689, 2175342, 3085674, 3545175, 1778326, 2970594, 3457147, 3685896, 1214330, 299240, 1163088, 446115, 330759, 1023566, 1198365, 1111677, 1098423, 494726, 3815348, 2757903, 2110180, 3063880, 1437243)

The last geographical area is excluded in the calculations to avoid over specification.

Country: Survey Institute: Survey design contact: The Netherlands

TNS NIPO

Adriaan S. Kalwij/Rob Alessie

Target population,	All households with at least one Dutch speaking member
Population coverage	born in 1954 or earlier. All Dutch speaking residents born in
	1954 or earlier and their spouses/partners at the time of the
	interview.
	The target population includes individuals living in
	institutions for elderly, but not in prisons and similar
	institutions.

Sampling frame	Stage 1: List of all 489 Dutch municipalities
	Stage 2: Local population registers for each selected
	municipality
Frame problems	The local population registers include people living in
	institutions.
	No frame information about household size.
Auxiliary frame data	Gender, year and date of birth
that can be used by	
SHARE	

Sampling design	Two-stage sampling.
	Stage 1: Selection of municipalities.
	Systematic sample with a random start of 30 municipalities.
	Probabilities proportional to population born in 1954 or
	earlier (using 2003 population statistics). The 20 first selected
	municipalities were used in the main sample. The last 10
	municipalities were kept as a reserve if municipalities would
	refuse to co-operate. In fact 6 municipalities did refuse and
	they were replaced by the first 6 on the reserve list.
	Stage 2: Selection of households
	Each municipality was instructed to:
	- select all persons born in 1954 or before from their
	population register.
	- randomly select 850 persons
	- indicate if this person lives in an institution (and what
	kind)
	- note if the same household has been selected more than
	once
	140 individuals were randomly selected from the list
	provided by the municipality.

Selection	Stage 1:
probabilities	The first stage inclusion probabilities for the originally
	selected 20 municipalities are
	$P_{m} = N_{m} / (N/M)$
	where N_m = population of m born 1954 or earlier,
	N = total population of Holland born 1954 or earlier (5.155.464),
	M = number of municipalities selected (20).
	In fact, 6 of the 20 municipalities did not co-operate and
	were replaced by six municipalities from the reserve list. No design probabilities can be computed for these six
	municipalities. It is not obvious how one should handle thi
	kind of nonresponse. One alternative is just to drop the six
	municipalities and not use any replacement, another is to
	match each missing municipality with one on the reserve li
	but keep the design probability of the original municipality
	and a third is to assume that the actually used sample of
	twenty municipalities can be seen as a random sample. The
	inference properties of all three alternatives are, however,
	unknown.
	Stage 2: Using the assumption that individuals were selected with
	simple random sampling without replacement the second stage conditional inclusion probability of individual <i>i</i> in municipal <i>m</i> is
	$P_{i m} = n_m / N_m^*$
	Where N_m^* is the population size of people born in 1954 of
	earlier from the register of municipal m , and $n_m = 140$ the
	number of individuals selected. Because the population siz
	of each municipality at stage 2 (N_m^*) was not recorded, it
	was assumed equal to the population size at stage 1,
	$(N_m^* = N_m).$
	Taking household size into account, the total inclusion
	probability for individuals and households in the twenty originally drawn municipalities becomes
	$P_{ib} = P_b \approx 1 - (1 - P_m P_{i m})^{n_b} = 1 - \left[1 - \frac{n_m}{(N/M)}\right]^{n_b}$

Design weights

for responding households $W_{ib} = W_b = 1/P_b$

household b.

where n_h is the number of age-eligible members of

Note: The total inclusion probability can only be computed

	best 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Vignettes	The vignettes were selected in the same way as the main
	sample was selected. The number of selected vignettes in
	each municipality (n_m^v) varies between 37 and 38.
	The vignette inclusion probability for individuals and households therefore becomes
	$P_{ib}^{\nu} = P_{b}^{\nu} \approx 1 - (1 - P_{m} P_{i m}^{\nu})^{n_{b}} = 1 - \left[1 - \frac{n_{m}^{\nu}}{(N/M)}\right]^{n_{b}}$
	Note: The total vignette inclusion probability can only be
	computed for responding households
	The vignette sample design weights are given by
	$W_{ib}^{} = W_b^{} = 1/P_b^{}$
Joint sample weights	As both the main sample and the vignette sample were
(main + vignette)	obtained equally and simultaneously, the probability to be
	included in the joint sample can be calculated using the
	sample size equal to the sum of the main and vignette
	sample size. This gives
	$P_{ib}^{j} = P_{b}^{j} \approx 1 - (1 - P_{m} P_{i m}^{j})^{n_{b}} = 1 - \left[1 - \frac{n_{m} + n_{m}^{v}}{(N/M)}\right]^{n_{b}}$
	The joint sample design weights are given by
	$W_{ib}^{\ j} = W_b^{\ j} = 1/P_b^{\ j}$

Calibration	The calibration vector contains 8 different gender and age
information	groups: Men born: -1924, 1925-1934, 1935-1944, 1945-1954 Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The calibration vector of population totals (in the above presented order): (175881, 445901, 718932, 1112518, 382417, 583747, 739862, 1085858)

Country: Survey Institute:

Spain
DEMOSCOPIA/National Statistical Bureau

Survey design contact: Maite Martinez-Granado

Target population,	All households with at least one Spanish speaking member
Population coverage	born in 1954 or earlier. All Spanish speaking residents born
	in 1954 or earlier and their spouses/partners at the time of
	the interview.
	The target population includes individuals living in
	institutions for elderly, but not those in prisons and similar
	institutions.

0 11 0	
Sampling frame	Stage 1: List of all census districts by municipality (in total
	some 33000).
	Stage 2: Population register (of individuals born in 1954 or
	earlier) based on census and municipal registers managed by
	the National Statistical Office (INE)
Frame problems	Dwellings with more than 20 individuals are removed from
	the frame, so prisons and similar institutions do not appear.
	Small institutions for the elderly could be on the list.
	No information about the number of household members in
	the frame.
Auxiliary frame data	Province, gender and year of birth.
that can be used by	
SHARE	

Sampling design	Two-stage sampling.
	Stage 1: Selection of census districts.
	Stratified sample of census districts using within each
	stratum systematic sampling with a random start and
	inclusion probabilities proportional to the total population of
	the census section.
	Stage 2: Selection of individuals
	Systematic sampling with a random start of 11 individuals
	from each census district.

Selection probabilities	Stage 1. $P_{c t} = \frac{N_{ct}}{N_{t} / n_{t}}$;				
	Stage 2. $P_{i d} = \frac{1}{N_{d} / n_{d}}$;				
	Taking the number of age-eligible household members into account and using the additional assumption that the list of individuals was in random order, the unconditional inclusion probabilities then become,				
	$P_{b} = P_{i} \approx 1 - (1 - P_{c t} P_{i ct})^{m_{cht}}$				
	where $N_t = \text{Size of stratum } t$,				
	N_{d} = Size of census district c in stratum t				
	$n_t = \text{number of selected census districts from}$				
	stratum <i>t</i>				
	n_{ct} = number of selected individuals in census				
	district c in stratum t ($n_{ct} = 11$ for all c , t)				
	m_{bd} = number of age-eligible household members in				
	household h , census district c and stratum t				
	Note: Inclusion probabilities can only be computed for				
	responding households.				
Design weights	$W_{ib} = W_b = 1/P_b$				

The vignette sampling scheme was the same as for the main sample. Within each stratum a number of census districts were sampled as purely vignette districts, which gives the unconditional inclusion probability

$$P_{b}^{v} = P_{i}^{v} \approx 1 - (1 - P_{c|t}^{v} P_{i|ct})^{m_{obs}}$$
where
$$P_{c|t}^{v} = \frac{N_{ct}}{N_{t} / n_{t}^{v}}$$

 $n_t^r =$ number of selected census districts for the vignette sample from stratum t

The vignette sample design weights are given by $W_{ib}^{v} = W_{b}^{v} = 1/P_{b}^{v}$

By simply treating the sampled census districts within each stratum for both the main and vignette samples as drawn simultaneously gives the joint unconditional inclusion probability

$$P_{b}^{j} = P_{i}^{j} \approx 1 - (1 - P_{c|t}^{j} P_{i|ct})^{m_{cht}}$$

where
$$P_{c|t}^{j} = \frac{N_{ct}}{N_{t}/(n_{t} + n_{t}^{v})}$$

The joint sample design weights are given by $W_{ib}^{\ j}=W_b^{\ j}=1/P_b^{\ j}$

Calibration	The calibration vector contains 8 different gender and age
information	groups:
	Men born: -1924, 1925-1934, 1935-1944, 1945-1954
	Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The calibration vector of population totals (in the above presented order):
	(704626,1587331,1911177,2473118,1317969,2007905,2088225,
	2521391)

Country: Survey Institute: Survey design contact: Sweden

Intervjubolaget Patrik Hesselius/Anders Klevmarken/Bengt Swensson

Target population,	All households with at least one Swedish speaking member
Population coverage	born in 1954 or earlier. All Swedish speaking residents born
	in 1954 or earlier and their spouses/partners at the time of
	the interview.
	The target population includes individuals living in
	institutions for elderly, but not those who live in prisons and
	similar institutions.

Sampling frame	The population register NAVET of the Swedish tax			
	authority (Skatteverket). The frame includes all registered			
	residents (folkbokförda) as of 2004-03-19 born in 1954 or			
	earlier, but not those who have a protected and secret			
	identity and address. (Less than 0.1 per cent of the			
	population total belongs to this latter category.)			
Frame problems	The address on which an individual is registered is not			
	always the address where the person lives. For instance,			
	there are immigrants that <i>de facto</i> have returned to their home			
	countries but who are still registered as residents of Sweden.			
	There are also people who because of bad health live			
	somewhere else than in their old home at their registered			
	address.			
	The sampling frame does not include telephone numbers.			
	They have to be found using various directories. No frame			
	information about household size.			
Auxiliary frame data	Gender, year of birth, marital status, number of children, if			
that can be used by	immigrant and country of immigration			
SHARE				

Campalina dasian	TC:1-	1		41		1 / .	1 -
Sampling design	First, a sample was drawn to form the main sample (sample A). After some time, a supplement sample was drawn						
	′	e time, a	a supple	ment sa	mple wa	s drawn	l
	(sample B).						
	For each sample, stratified sampling with simple random sampling of individuals within strata was used. Stratification						om
							ication
	was done by g						
		,					
	Sample A. Pop	nulation	total an	d campl	la siza b	g et r otur	m
	Sample 11. 1 of		size (n_t^A)	id sampi		ion size (I	
	Year of birth	Males	Females	All	Males	Females	All
	-1924	180	321	501	190899	332732	523621
	1925-34	282	349	631	305566	371740	677308
	1935-44 1945-54	436 573	447 562	883 1135	474540	480459	954999
	All	1471	1679	3150	619897 1590894	609789 1794720	1229686 3385614
	1111	11/1	10//	3100	10,000,	1171120	3300011
	Sample B. Pop	nulation	total an	d sampl	le size h	getratur	n
	Sample D. Pop		size (n_t^B)	ы зашрі		ion size (I	
	Year of birth	Males	Females	All	Males	Females	N_t).
	-1924	54	93	147	180175	317445	497620
	1925-34	86	104	190	300399	367831	668230
	1935-44	133	135	268	471762	478737 609122	950499
	1945-54 All	174 447	171 503	950	618553 1570889	1773135	1227675 3344024
	7111	117	303	750	15/0007	1775155	3311021
Selection	Treating same	10 A an	d comple	n R indo	nondont	ly violde	, th o
	Treating samp	пе л апо	a sample	e D ilide	pendem	iy yielus	s the
probabilities	following:						
	$P_{ih}^{X} = Probabi$	ility to s	elect ind	lividual	i in hou	isehold	h in
	P_{ib}^{X} = Probability to select individual i in household b in sample $X = (A, B)$.						
	_	`			7 .		
	P_b^X = Probability to select household b in sample $X = (A, B)$.						
	Recognizing th	hat st r at	a are lar	oe that	househo	old men	hers
	Recognizing that strata are large, that household members can belong to different strata, and that every individual in a household has the same inclusion probability as its household, $P_{ib}^{X} = P_{b}^{X} = 1 - \prod_{i=1}^{N_{b}} (1 - \frac{n_{t(i)}^{X}}{N_{t(i)}^{X}})$ where N_{h} is the number of age eligible household members. Please note that stratum t is a function of i .						
							embers.
	The joint prob					to sama	la A or
	, ±	•	_			ю зашр	1C /1 OI
	sample B can	-		-	_		
	$P_{ib} =$	$P_{b} = 1 -$	$-(1-P_b^2)$	$(1 - P_i)$	$_{b}^{B}$).		
				*			
Design weights	1	 1					
Pesign weights	$W_{ii} = W_{i} = -1$	_;					
Design weights	$W_{ib} = W_b = \frac{1}{P}$	_; ,					

Vignettes	Vignettes were sampled using a stratified two-stage sampling design. Primary sampling units – work regions (a-regions) – were stratified into 5 strata. The three largest regions (the three largest cities) formed three separate strata, and hence were included with probability 1. From the fourth stratum (the southern part of Sweden) 9 of 48 work regions were randomly selected, while 4 of 19 work regions were selected					
	in the fifth stratum (the northern part of Sweden). Within each selected region r a random sample of n_r^{ν} individuals born 1954 or earlier was selected. All regions within each					
	stratum has the same sample size (n_r^v) :					
	Stockholm: 107 Gothenburg: 53					
	Malmö: 34 Southern Sweden: 34 (9x34 individuals in all)					
	Northern Sweden: 25 (4x25 individuals in all)					
	The inclusion probability is the same for the individual and the household and is given by					
	$P_{ib}^{"} = P_b^{"} \approx 1 - \left(1 - \frac{n_s}{N_s} \frac{n_r^{"}}{N_r}\right)^{n_b} \approx n_b \frac{n_s}{N_s} \frac{n_r^{"}}{N_r}$					
	where n_s = Number of regions selected in stratum s					
	N_s = Total number of regions in stratum s					
	N_r = Total number of individuals born 1954 or					
	earlier in region r					
	n_b = Number of individuals born 1954 or earlier					
	in household <i>b</i>					
	The vignette sample design weights are given by $W_{ib}^{r} = W_{b}^{r} = 1/P_{b}^{r}$					
Joint sample weights	$w_{ib} - w_{b} - 1/T_{b}$ The joint probability of being selected either into the main					
(main + vignette)	sample or the vignette sample is given by					
	$P_{ib}^{j} = P_{b}^{j} = 1 - (1 - P_{b})(1 - P_{b}^{r})$					
	The joint sample design weights are given by					
	$W_{ib}^{\ j} = W_b^{\ j} = 1/P_b^{\ j}$					

Calibration	The calibration vector contains 8 different gender and age
information	groups:
	Men born: -1924, 1925-1934, 1935-1944, 1945-1954
	Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The calibration vector of population totals (in the above presented order):
	(190899,305566,474540,619897,322732,371740,480459,609789)

Country: Survey Institute: Survey design contact: Switzerland

M.I.S-Trend, Lausanne

Eric Graf, Swiss Federal Statistical Office

Target population,	All households with at least one French, German or Italian
Population coverage	speaking member born in 1954 or earlier. All French,
	German or Italian speaking residents born in 1954 or earlier
	and their spouses/partners at the time of the interview.
	The target population does <u>not</u> include individuals living in
	institutions for elderly, in prisons and similar institutions.

Sampling frame	Telephone directory of Switzerland.
Frame problems	Over / Under coverage
•	1. If 100% represents the private economic households who live permanently in Switzerland, about 1.5% of these have no telephone; therefore they cannot be reached by our SHARE-study.
	2. From the 98.5% of private households who can be reached by telephone, 8% cannot be reached by our SHARE-study because the telephone frame contains only subscribed telephone numbers (since 1999 Swiss people are not obliged anymore to subscribe their telephone number in the phone directory).
	3. The telephone frame includes about 4% of numbers which lead to business enterprises, institutions, organizations.
	4. The telephone frame includes also numbers which lead to non-age-eligible households, the percentage of these will be known at the end of the study.
	5. A given household can be linked to more than one telephone number (Ti).
Auxiliary frame data	None
that can be used by SHARE	

Sampling design

Stratified random sampling of telephone numbers followed by screening for eligibility by the interviewer.

There were three strata determined by the dominating language of the region: CH-German, CH- French and CH- Italian, the population shares of which are approximately 73, 22 and 5%. Each stratum was treated independently of the other two. The following description thus applies to each of the three strata.

- 1. A telephone directory containing N_F numbers is used as sampling frame.
- 2. A simple random without replacement sample of size n_F is drawn from the directory.
- 3. To each telephone number in the sample belongs an address. Note that more than one telephone number in the sample may be associated with a given address. This gives a sample s_{add} of addresses of size $n_{add} < n_F$.
- 4. By matching the n_{add} addresses against the directory the number of telephone numbers associated with each address is determined. If there are T numbers that correspond to a particular address, the inclusion probability for that address equals (with negligible approximation error) $T \cdot n_F / N_F$.
- 5. The n_{add} addresses correspond to different entities: eh: eligible households a set s_{eh} of size n_{eh} n eh: non-eligible households a set s_{n-eh} of size n_{n-eh} inv: invalid addresses (incl. businesses) a set s_{inv} of size n_{inv}
- 6. All invalid addresses are identified, i.e. s_{inv} and n_{inv} are known.
- 7. The two subsets s_{eb} and s_{n-eb} of the remaining set consisting of households, $s_{bb} = s_{eb} \cup s_{n-eb}$ of size $n_{bb} = n_{eb} + n_{n-eb}$, cannot be identified prior to the field work.
- 8. The interviewers try to contact the households in s_{hh} , with the following set result:

 r_{eb} : responding eligible households, size m_{eb} \widetilde{r}_{eb} : non-responding, but identified as eligible, households, size \widetilde{m}_{eb} r_{n-eb} : identified non-eligible households, size m_{n-eb} s_{nbb} : unidentified households, size n_{nbb} . $(s_{nbb} = s_{neb} \cup s_{nn-eb} \text{ and } n_{nbb} = n_{neb} + n_{nn-eb} \text{ but we do not know the composition.})$

We have $s_{bb} = r_{eb} \cup \widetilde{r}_{eb} \cup r_{n-eb} \cup s_{ubb}$ and

	$n_{bb} = m_{eb} + \widetilde{m}_{eb} + m_{n-eb} + n_{ubb}$
	9. Now the survey situation is even more complex than
	described as above. The reason is that a rule is set up
	for the number of completed interviews to be reached
	as follows:
	a. Let ε be the number of completed interviews to be reached.
	b. If (the random number) $m_{eb} \ge c$, the field
	work ends.
	c. If $m_{eb} < c$, a simple random sample of size
	n_{F1} telephone numbers is selected from
	$N_F - n_F$. (The sample, "reserve" sample,
	was drawn at the same time as the original sample.) This new sample is treated in the same manner as the original sample, which gives another $m_{\phi h}$ responding eligible
	households. d. If $m_{eh} + m_{eh1} \ge c$, the field work ends.
	e. If $m_{eb} + m_{eb1} < c$, another simple random
	sample of size n_{F2} telephone numbers is
	selected from $N_F - n_F - n_{F1}$.
Selection	Based on items 1-8 above and disregarding 9, a household
probabilities	$i \in s_{eb}$ has the inclusion probability $P(i \in s_{eb}) = T_i \cdot n_F / N_F$
	and the design weight $d_i = 1/P(i \in s_{eb})$. Hence, if there
	were no unit nonresponse (and no item nonresponse), a household population total for a study variable <i>y</i> could then
	have been unbiasedly estimated by $\sum_{i} d_i y_i$.
	However, considering item 9 the total number of selected
	telephone numbers $n_F^* = n_F + n_{F1} + n_{F2} + \dots$ is random.
	Possibly, one might condition on the actually achieved size
	n_F^* , and act as above according to 1-8. However, the
	response probabilities may differ for the different samples, in
	which case this fact should be taken account of in the
	response modelling.
	Note: The properties of nonresponse in Switzerland differ from that in most other countries in one respect, namely that
	we don't know if a nonresponding household belongs to the
	target population or not.
Design weights	$W_{ib} = W_b = \frac{N_F}{n_F^* T_b}$; for individual <i>i</i> in household <i>b</i> .
	$\mu_{F^{1}_{h}}$

Vignettes	None
Calibration	The calibration vector contains 8 different gender and age
information	groups:
	Men born: -1924, 1925-1934, 1935-1944, 1945-1954
	Women born: -1924, 1925-1934, 1935-1944, 1945-1954
	The calibration vector of population totals does not include people in institutions. It is (in the above presented order): (88974,209463,323209,469835,155290,283719,354330,470990)

6 The SHARE Train-the-Trainer Program

Kirsten H. Alcser and Grant Benson

6.1 The SHARE Training Model

SHARE contracted with the Survey Research Center (SRC) at the University of Michigan's Institute for Social Research for the development of the SHARE training program and interviewer project manual to be used in the training of interviewers. The purpose was to ensure cross-national comparability within SHARE as well as comparability with the U.S. Health and Retirement Study (HRS) conducted by SRC.

SRC has conducted survey research for over fifty years and is the oldest and largest academic-based survey research institution in the U.S. SRC trains all of its interviewers itself and has developed a reputation for excellence in training as well as in quality control procedures. SHARE emphasised interviewer training and process documentation to ensure consistent, high data quality.

SHARE utilised a train-the-trainer (TTT) program approach to facilitate decentralised training in the member countries. Thus, SRC created a training program for use by country level trainers and provided training for the trainers. The TTT program was scripted for ease of use and consistent cross-national implementation in subsequent training sessions by local survey agencies. The TTT program also provided specific training resources, including an Interviewer Project Manual; a Facilitator Guide with power point slides and training scripts; a CD-based training on gaining respondent cooperation; and training videos to illustrate (a) the correct interpretation and recording of call attempts, and (b) the administration of physical measurements. SRC furthermore collaborated with CentERdata of the Netherlands in the development of a computer-based tutorial on the SHARE case management system (CMS) and worked with the Mannheim Institute for the Economics of Ageing (MEA) on development and implementation of training evaluation protocols and sample management monitoring.

The SHARE TTT program trained trainers as if they were the interviewers. First, this afforded the trainers a better appreciation of interviewer needs and difficulties and, thus, allowed them the opportunity to strengthen their own training in areas anticipated to require additional training. Second, this was the best way for trainers to familiarise themselves with the SHARE survey requirements. Finally, the optimal goal of this approach was to ensure standard interviewer behaviour across all member countries to increase comparability of data collected for SHARE.

6.2 SHARE Training

6.2.1 The Trainees

Each country sent 2-3 trainers from the participating survey agency to each TTT session. In addition, the Country Team Leader (CTL) and his or her Operator participated, both to provide support and motivation and to familiarise themselves with the expectations for interviewers and the SHARE field work norms. The TTT training was conducted in English, and the translation of the training materials was the responsibility of the survey agencies with input from CTLs or Operators as needed.

6.2.2 TTT Development

SHARE conducted a total of three Train-the-Trainer sessions. The first was in preparation for the pilot study and took place in May 2003. This was a two-day,

comprehensive training covering all major aspects of general interviewing techniques, study specific procedures, and survey administration. The second TTT built upon the pilot training and was conducted in December 2003 in preparation for the pretest. This was a day-and-a-half training focusing on changes to study protocols and instrument changes. The final TTT took place in April 2004 and was a one-day training focusing on two key points: Gaining respondent cooperation and developing an agenda for a full, two-day local interviewer training for the main survey.

Each Train-the-Trainer session included an updated, complete Interviewer Project Manual, a scripted training, and specific guidelines for procedures that interviewers must follow in each country to ensure cross-national comparability of the results. Local survey agency trainers evaluated each TTT in writing, assessing whether it prepared them adequately for local training sessions, whether the materials were helpful, and where the training could be improved. The feedback from the pilot and pretest trainings were used to develop the agenda for the final SHARE interviewer training in participating countries.

6.2.3 Length of Training

The initial and most complete training was provided in preparation for the SHARE pilot (May 2003). It contained a separate section on General Interviewer Techniques (GIT). GIT is provided to all new interviewers at SRC before they receive specific training on the study that they will be working on. This training includes standardised question-asking, probing and feedback conventions, and collecting process data information, including when contact was attempted and what the result of each contact attempt was. The purpose of including a GIT component in this training was to establish a baseline against which all subsequent training would take place. Indeed, feedback on the training revealed significant variability among survey agencies, with about half of the agencies insisting that this was common practice and did not require repeating, while the other half of the agencies expressed appreciation for receiving general guidelines for survey implementation. Subsequent SHARE training omitted a separate section on GIT but integrated into the study-specific training those elements of GIT that minimally must be carried out by interviewers to ensure consistent, high quality data collection.

The training sessions for both the SHARE pretest (December 2003) and the main SHARE data collection (April 2004) were shorter. These two training sessions were, therefore, not complete training sessions but supplemental training in areas not covered in the pilot training session (e.g. the CMS, the self-completion questionnaire) or a demonstration of refinements to certain protocols, e.g. the grip strength and walking speed tests, cognitive tests, and proxy interviewing.

Some survey agencies were reluctant to plan for two days of training for a variety of reasons, primary among them being cost and break with traditional approaches. However, after evaluating comparability of survey administration and interviewer feedback from the pilot and pretest, it was decided that the complexity of the SHARE project warranted a more comprehensive training. As a result, most countries did schedule a two-day training of interviewers who would be working on the SHARE project.

6.2.4 Content of Training

A proto-type agenda for a two-day training was developed covering all essential topics of a SHARE training program. Table 6.1 below lists each topic and a brief note describing its purpose, as well as time assigned to training on that topic. The

result is a comprehensive training plan requiring a total of 12.5 hours of training net of breaks to be inserted as needed throughout each day.

A key reference source was the SHARE Interviewer Project Manual. This manual supplemented the two day training by providing a comprehensive reference to all of the SHARE protocols, including those GIT conventions minimally required by SHARE. In addition, it was important that agencies either emulate the complete mock respondent interview created by SRC or create their own. This mock covered situations that deliberately exposed the interviewers to difficult areas of the instrument.

A favourite and very helpful tool used in the Train-the-Trainer program and recommended for individual agency training sessions was the use of the Question Cards. These cards were made available throughout training for trainees to write questions that could not be accommodated on the spot due to intensity of training. During breaks and at the end of the day, these questions would be shared with the entire group and answers provided so that everyone received the same information.

6.3 Summary

The SHARE Train-the-Trainer program was created with the following purpose in mind:

- > to ensure consistency across survey agencies
- > to obtain results that are generalizable
- > to obtain results that are comparable.

The SHARE TTT was an iterative process, starting from the SRC training model but adapted to the European situation through active participation and feedback from country level trainers. Specific guidelines and conventions deemed necessary for the cross-national survey were maintained, enabling the analysis of results across the European member countries.

Acknowledgements

The authors wish to thank the following persons and groups for their contributions to the development of the Train-The-Trainer Program created specifically for SHARE: Beth-Ellen Pennel, Nicole Kirgis, Shonda Kruger Ndiaye at the Survey Research Center, the Country Team Leaders and survey agencies in the SHARE member countries.

Table 6.1 SHARE Two-Day Main Survey Model Agenda

Topic	Purpose	Length
DAY 1:		(Minutes)
Introductions, welcome, logistics	Setting the stage for this intense training	15
SHARE project and questionnaire overview	Goals of the project	45
Laptop overview and instrument installation check	Familiarising interviewers with the laptop	30
Overview of Case Management System	How to operate the SHARE electronic case management system, assigning result codes, entering Call Notes Introduce non-contact mock scenarios to test results	75
Overview of the Blaise program	Blaise components, including location on computer screens of question text, response options, data entry, interviewer instructions	45
SHARE questionnaire walk- through (scripted mock scenario recommended): First half session	Special Blaise application features (e.g. using keys vs. mouse, entering a remark) Use of show cards Identification of sections that do not permit proxy administration Special coding conventions used in the Mental Health section	150

Table 6.1 (continued) S Topic	SHARE Two-Day Main Survey Model A Purpose	Length (Minutes)
DAY 2:		,
Question and Answer period	Answer questions from interviewers	15
SHARE questionnaire walk- through (scripted mock scenario recommended): Second half session	Physical measurements (include videos of Grip Strength and Walking Speed measurements) Use of Interviewer Recording Booklet Coding conventions used in the Assets/Consumption sections (e.g. unfolding brackets; the handling of preor non-Euro currency data) Self-completion questionnaire and procedures	120
Proxy interviews	When and how to do them	45
Importance of response rates	Explain the importance of working the sample completely to decrease non-response; importance of representativeness in the random sample	30
Approaching the household	Emphasise professionalism and readiness to prove legitimacy Provide guidance in how to identify best time for initial and all contact attempts	60
Practice using the Case Management System	Using scripted mock scenarios, enter contact attempts on several sample lines and review resulting optimal interviewer strategies	60
Gaining respondent cooperation	Review the eight concerns that interviewers are likely to encounter Practice quick answer to several concerns Refer to CD on "Gaining Cooperation", which contains video clips, scripts and self-tests	60
Total time in training (excluding breaks):	Day 1: 6 hours; Day 2: 6.5 hours	Grand Total: 12.5 hours

7 Fieldwork and Survey Management in SHARE

Giuseppe de Luca and Oliver Lipps

7.1 Introduction

SHARE is designed to be a genuine cross-national survey. The common interview mode, questionnaire design, effort devoted to the translation of the questionnaire, and finally the standardisation of the fieldwork procedures across countries – including, wherever possible, a common electronic case management system – were the most important design tools used in SHARE in order to ensure a strict crossnational comparability and high quality of the data.

This chapter describes the main fieldwork procedures and survey design characteristics adopted by SHARE. They have been designed and implemented in close cooperation between the Mannheim Research Institute for the Economics of Ageing (MEA) and CentERdata at the University of Tilburg, with help of the Centre for Survey Research and Methodology (ZUMA) in Mannheim and the Survey Research Center (SRC) at the University of Michigan in Ann Arbor.

In order to achieve high data quality, professional survey agencies have been selected in all participating countries. Agencies were subject to a common set of requirements designed by the SHARE co-ordinating team in order to minimise the occurrence of nonsampling errors (like unit and item nonresponse). Examples of the common protocols are the length of the fieldwork period, the use of advance and follow-up letters, and the set-up of general rules for the management of the fieldwork. Basic fieldwork procedures were then administrated by the survey agencies according to their own established protocols.

7.2 The fieldwork period

During its first wave, SHARE was conducted in eleven European countries (Austria, Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden and Switzerland). In several countries, the sample consists of two parts: the "core sample" and the "vignette sample". In the vignette samples, a part of the self-completion questionnaire was replaced by a section with anchoring vignettes.

Table 7.1: SHARE field periods

Country	Core Sample	Vignette Sample	Supplementary Sample
Austria	May-Oct 2004		
Belgium	Jan-Jul 2005	Jan-Jul 2005	
Denmark	May-Oct 2004		
France	Oct-Nov 2004	Jun-Jul 2005	
Germany	May-Oct 2004	May-Oct 2004	
Greece	May-Oct 2004	Jan-Mar 2005	
Italy	May-Oct 2004	Aug-Dec 2004	
Netherlands	May-Oct 2004	Aug-Dec 2004	
Spain	May-Oct 2004	Nov-Dec 2004	
Sweden	May-Dec 2004	Nov-Dec 2004	Nov-Dec 2004
Switzerland	May-Oct 2004		

The fieldwork period of the *core sample*, which represents the original part of the SHARE sample, lasted about 6 months (between May and October 2004) in most of the SHARE countries (see Table 7.1 for on overview). The exceptions are Belgium, France, and Sweden. In Sweden, the fieldwork period lasted 2 additional months

(between May and December 2004) because of a larger number of projected interviews than in the other countries. In Belgium, financial reasons did not permit starting the fieldwork period before November 2004. It is expected to end in July 2005.

A vignette sample was added in eight countries (all SHARE countries except Austria, Denmark and Switzerland). For this part of the sample, the data collection period varied considerably across countries. In Germany, for example, the vignette sample was fielded during the main survey period together with the core sample. In Italy and Netherlands, it was fielded between August and December 2004. In Greece, Spain and Sweden, it was fielded after the end of the main field period. In France and Belgium, the vignette sample was still in the field in June 2005.

7.3 Advance, follow-up and thank-you letters

Before any other contact attempt, SHARE mailed an *advance letter* to each household in the gross sample. The main purpose of the advance letter was to inform the respondents of upcoming calls or visits by an interviewer, to communicate the nature of, and the motivation for, the study, to explain the importance of participating, and to address the respondent's potential concerns about data confidentiality. Together with the advance letter the respondents received a coloured brochure that explained the aims and objectives of SHARE and stressed the importance of participation of each selected household.

After the initial contact with the household, respondents who showed a general reluctance to participate received a *follow-up letter*. Follow-up letters were mainly designed to reiterate the importance of cooperating with the survey request and the adherence to the data protection laws. In Sweden, the follow-up letter had the outside text "Support Swedish research and get a free Bingo ticket" and included another lottery ticket (worth €4), which proved to be a successful approach.

After the interview, a *thank-you letter* was mailed out to each respondent in order to increase the propensity to participate in future waves of the survey. Standardised versions of the advance, follow-up and thank-you letters were provided by the SHARE co-ordinating team to be used in all participating countries, then translated and, in some cases, adapted to local customs.

7.4 Incentive schemes

Two types of incentive schemes were adopted in SHARE. In most of the SHARE countries, *incentives for respondents* were distributed in order to gain their cooperation. Because of different cultures and experiences of the survey agencies, different types of incentives were used in each country. In several countries, individuals received a small gift before completing the interview (e.g. a lottery ticket in Sweden, a box with a set of ball-pens in Germany, a sweet in Austria, a voucher for a department store in Spain). In other countries, incentives were given at the end of the interview (15 Euro per completed household in the Netherlands). Denmark was the only country in which incentives were considered inappropriate.

In addition, most countries implemented incentive schemes for interviewers in order to increase interviewers' motivation. In households with more than one eligible person, interviewers received more money for the first respondent. Such a payment system accounts for the higher effort which is normally needed to make the first interview. In Austria, Italy and Switzerland, special premiums were also paid on the basis of the interviewer level response rate. Each survey agency fixed its own threshold response rate. Once the target response rate was reached, interviewers

received higher payments for additional interviews. In Sweden, gifts (records, books, etc.) were also used as encouragement to hard working interviewers.

Finally, an extension to the contract with the survey agencies contained *incentives for* the survey agency to reach the target response rate. Interviews in excess of the target response rates were paid better, while not reaching the target response rate precipitated a contractual penalty.

7.5 Other fieldwork requirements

A set of additional fieldwork requirements was designed in order to increase the response rates. First, a minimum number of contact attempts (five) was set, of which at least two had to be in person at the respondent's address, before a household was allowed to be considered non-respondent. In person and telephone contact attempts were required to be done at varying times of the day and days of the week. Such fieldwork rules were mainly designed to obtain high contact rates. Second, participation enhancing strategies were required to be attempted for all respondents who showed reluctance to participate to the survey. Refusal conversion strategies were: additional follow-up letters, switching to more experienced interviewers and switching to other contact modes. Third, survey agencies were required to make sure that an appropriate number of interviewers were available in a sufficient regional spread. Furthermore, interviewers working for SHARE were required to have extensive face-to-face experience.

7.6 Interview mode

The mode of the data collection is one of the main survey design characteristics which may affect the quality of the data collected in a survey. Among other things, interview mode may impact survey participation, item nonresponse and reporting errors. The interview mode adopted in SHARE was Computer Assisted Personal Interview (CAPI), supplemented by a self-administered paper and pencil questionnaire ("drop off").

The CAPI interview, which is known to be one of the most effective interview modes, represents the largest part of the SHARE interview. On average, it took about 80 minutes for a one-person household and about 120 minutes for a two-person household, see Chapter 8.

The self-administrated paper and pencil questionnaire was used to ask more sensitive questions, like questions on social and psychological well-being, health-care, religiosity and political affiliation. As a common rule, the self-administrated questionnaire was handed to each eligible respondent only after the CAPI interview was completed. The interviewee could then choose whether to return the questionnaire to the interviewer right away, or send it back to the survey agency by mail using a pre-stamped envelope. The first collection model was strongly preferred and also mostly used. In the case of two or more interviews in the same household, the earlier respondents filled out the self-administrated paper and pencil questionnaire while the later respondents were interviewed by CAPI.

All respondents in the core sample received the same version of the questionnaire. Respondents in the vignette sample received one of two different versions of the vignette questionnaire, which were randomised by interviewer.

7.7 Proxy interviews

Proxy interviewing means that, under particular circumstances, a sample respondent is allowed to be assisted by a proxy respondent to complete the interview. Typically, a proxy respondent is a person who is knowledgeable about the

sample respondent's situation regarding the area covered in the questionnaire, such as a spouse, an adult child, or any other family member.

In SHARE, proxy interviews were allowed when problems of physical or mental health limitation of a selected respondent affected the propensity to participate to the survey or the reliability of the data collected during the interview. Examples of the conditions under which proxy interviewing was allowed were: hearing loss, speaking problems, Alzheimer's disease and difficulty in concentrating for the interview time period needed for SHARE.¹

SHARE allowed two types of proxy reporting. If a respondent was merely helped by a proxy, the interview is referred to as a "partly proxy" interview. If the proxy answers the entire questionnaire in lieu of the respondent, the interview is referred to as a "fully proxy" interview. Proxy interviews skipped six modules of the CAPI interview: Cognitive Function, Mental Health, Grip Strength, Walking Speed, Activities and Expectations since the information required in these modules is based on personal abilities, cognitive and physical measures, or personal judgment. For all other modules of the questionnaire, interviewers recorded at the end of each module whether it was completed by a respondent only, by a partly proxy or by a fully proxy.

On average, 94 percent of the SHARE interviews have been conducted with the selected respondent, 4 percent were conducted as a "partly proxy" interview, and 2 percent were "fully proxy" interviews. As expected, the percentage of interviews with some extent of proxy reporting was considerably higher for the oldest-old age group (17 percent) and the respondents with a poor self-reported health (22 percent).

7.8 Case management

All survey agencies were required to use an electronic sample management system (SMS) in order to facilitate the management and the coordination of the fieldwork procedures. An SMS is an electronic tool designed to automatically store and link different sources of information that are useful for the organisation and the documentation of the fieldwork. Since in many countries survey agencies still relied on paper records, a common "Case Management System" (CMS) was developed by CentERdata. Most other survey agencies with their own proprietary sample management system decided on a hybrid solution: employing the SHARE CMS for case management in addition to their own systems for interviewer management. France, the Netherlands and Switzerland were the only countries in which survey agencies used exclusively their own electronic systems.

The SHARE CMS started with a list of households to be approached by each interviewer, together with sampling frame information that could be used to locate each unit (like address and/or telephone number). The SHARE CMS interacted with the main SHARE CAPI instrument and determined automatically those household members that were interview-eligible, and whether or not eligible household members had already been interviewed. This greatly facilitated the screening of the respondents' eligibility and the management of appointments and interrupted interviews. The CMS also allowed interviewers to record the history of all contact attempts made to a household. Given the large number of sample units assigned to each interviewer (42 on average), call records data allowed the interviewers to tailor how to approach each household. The CMS also enforced appropriate calling and follow-up strategies to maximise response rates. Call records data were also used to manage refusal conversion strategies, especially when addresses were transferred from one interviewer to another.

-

¹ See the SHARE Interviewer project manual for more details.

7.9 Fieldwork monitoring

The SHARE CMS provided valuable information to monitor the progress of the survey in real-time. Specifically, the CMS delivered information on the mode, the date, the time and the result code of each contact attempt. Such information allowed the SHARE co-ordinating team to conduct a very effective fieldwork monitoring during the entire fieldwork period of the pre-test and the main survey. Every two weeks, at pre-specified dates, the survey agencies sent their updated CAPI and CMS data electronically to CentERdata, where the data were processed and made available to the country team leaders and the SHARE co-ordinating team.

These data were used to produce bi-weekly reports which depicted the discrepancies between actual and projected status of some key indicators such as the number of households already contacted, the number of interviewers actively working on SHARE, the number of achieved interviews, response rates and the main reasons for non-contact and non-interview. The main purpose of collecting this information was to identify possible problems in the field and their possible reasons early in the process. Strategies to cope with these problems were then discussed between the coordinating team and the country team leaders, who then contacted the survey agencies. The fieldwork monitoring system permitted the implementation of remedies without unnecessary delay.

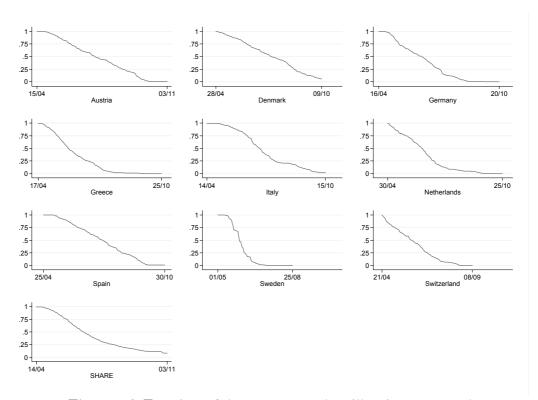


Figure 7.1: Fraction of the gross sample still to be contacted

Figures 7.1 through 7.3 show – by way of example – three indicators of fieldwork progress plotted against the field time: the fraction of the gross sample that still needs to be contacted, the cumulative number of interviewers employed in the interviewing process, and finally the number of completed interviews.²

79

² This analysis is based on Release 0 data without a completed coverage of Belgium, France and the vignette samples. These samples were therefore excluded from the figures.

First contacts were made in mid April 2004. In some countries, addresses were contacted very steadily throughout the field period (e.g. Denmark) while other countries contacted the households in a single big effort (e.g. Sweden). Delays in contacting are evident from these figures; they sparked inquiries by the coordination team and the country team leaders.

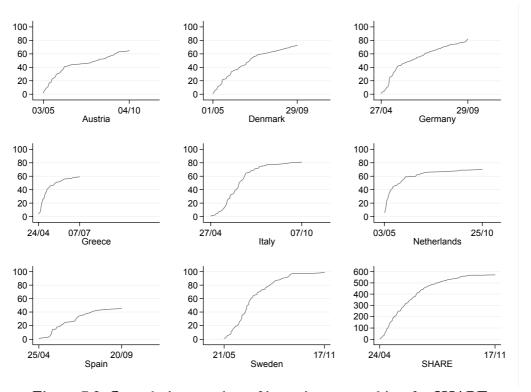


Figure 7.2: Cumulative number of interviewers working for SHARE

Figure 7.2 shows the cumulative number of interviewers involved in SHARE. At the end of the field work, almost 600 interviewers had been involved. The Spanish agency hired much fewer interviewers than the Swedish agency. Partially this was due to the larger sample in Sweden, see below; it also resulted in a higher work load for the Spanish interviewers. In Greece, almost all field work had to be finished before the beginning of the Olympic Games in July 2004. In some countries, the coordination team and the country team leaders insisted in hiring extra interviewers because of sluggish progress, this action is visible e.g. in Austria and Sweden.

Figure 7.3 finally depicts the core outcome of the survey, the number of completed interviews. SHARE aimed to reach a target of 1500 completed household interviews in each country, except for Switzerland, Denmark and Sweden, where the target numbers of household interviews were equal to 1000, 1200 and 2260, respectively. Based on these targets and the start and duration of the fieldwork, a projected number of completed household interviews was computed, assuming a linear development process. Figure 7.3 depicts the evolution of the projected and the actually achieved number of completed household interviews over the fieldwork period.

Taken all countries together and excluding the vignette samples and the core samples of Belgium and France, SHARE succeeded in interviewing slightly more than 90 percent of the overall target. Since the relatively short fieldwork period could not be extended for various logistic and financial reasons, SHARE therefore ended

up with slightly fewer interviews than originally planned. As a consequence, SHARE will have a substantially longer field period in the second wave planned for 2006.

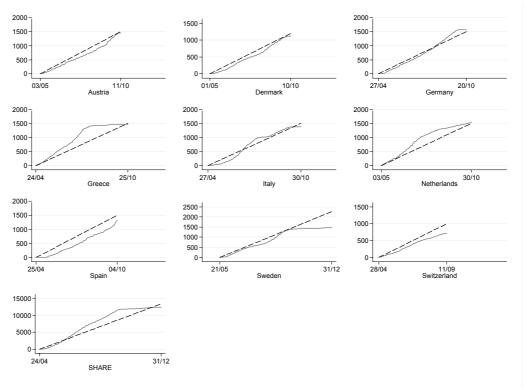


Figure 7.3: Achieved and projected number of completed household interviews

Figure 7.3 also shows the wide variation by country. The Greek team succeeded nicely in finishing their survey before the Olympic Games. The additional hiring of interviewers in Austria was a successful intervention. In Sweden, a similar intervention failed since refusal rates increased at the end of the fieldwork period. Germany and the Netherlands were able to exceed the targeted number of interviews, while Spain, Sweden and Switzerland ended substantially below their targets. For those countries, the number of completed household interviews has been constantly lower than the corresponding projection. This was a clear signal of difficulties in getting contact and/or gaining respondents' cooperation. Since November 2004, a supplementary sample of 950 households was fielded in Sweden in order to increase the low number of interviews. Overall, this fieldwork strategy was quite successful. With the supplementary sample, it was possible to reach a final interview-to-target ratio of 82 percent.

8 Interview, Module, and Question Length in SHARE

Hendrik Jürges

8.1 Introduction

The length of an interview is a major concern in survey research in several respects. First, respondent compliance is generally better for short rather than long interviews. One of the main reasons given by respondents for lack of participation is that they do not have time, and one of the first questions about the interview asked by respondents is "how long does it take?". Second, longer surveys are more expensive than shorter surveys, because they are more tedious to be programmed and tested and because they use more of the interviewers' time.

Despite these concerns, the SHARE interview is long. Considering the breadth of the topics involved in ageing, there was no way to make SHARE a short interview. Following experiences from HRS and ELSA, we decided to set a target average of 80 minutes for a single household interview and a target of 120 minutes for a couple interview. As is shown below, we actually came quite close to that target in most countries. However, this target was not easy to reach. Between each preparatory step (UK Pilot, All-country Pilot, and Pretest, see Chapter 2), the instrument was shortened by a considerable margin by eliminating a large number of questions across all fields and disciplines.

8.2 Measuring interview length using Blaise audit trails

There are two ways at our disposal to measure interview length in SHARE. One way involves the use of conventional timestamps, recording the system time of the laptop at the beginning and end of each module. A second way is to use data from Blaise audit trail files, in everyday language called "keystroke files". In these files, Blaise records for each interview each single keystroke made by the interviewer together with the exact time when it was made. With the help of these files it is not only possible to reconstruct the course of entire interviews, it is also possible to analyse the time interviewers spend on each single question. For the purpose of the present analysis, the Blaise audit trail data was converted by CentERdata to Stata and SPSS files containing the length in seconds spend on each questions asked in SHARE 2004. The data are not yet available with release 1 but we intend to make available in future releases. As is illustrated below, they will provide potentially interesting data for researchers interested in survey methodology.

Besides the unprecedented amount of detail provided by Blaise audit trails, the keystroke files also have the advantage of allowing a more precise measurement of overall interview length. In case of computer breakdown, only single questions instead of whole modules or even interviews have missing or corrupt time stamps. Keystroke files also provide a valuable diagnostic tool. First, they allow to identify questions which take an unusual long time to be answered. This can provide hard evidence for potential difficulties respondents face when answering particular questions. Second, they allow to detect questions or interviews in which interviewers have not followed protocol.

It should be noted that interviewers and respondents sometimes report considerably longer interview lengths than what is measured by the keystroke data. There are several reasons for this divergence. First, interview time felt might be different from actual time spend. Second, and more importantly, the keystroke files

do only measure the actual interview length, which does not include time spent on gaining entrance in the respondent's home, setting up the computer, closing down the computer, suspending the interview, etc. Third, we do not measure the time to complete the drop-off questionnaire. Although SHARE did require interviewers to assist respondents only when they had difficulty completing the drop-off, interviewers often waited at the respondents' homes to collect the completed drop-off. Evidence from the pilots suggests that this adds another 15 to 20 minutes to the average interview length.

8.3 Total interview length

The distribution of total interview length by number of person interviews in a household is shown in Table 8.1. The overall average length was 66.6 minutes in a single respondent household and 109.9 minutes in a multi-respondent household (two, three, and four respondent interviews are collapsed into one category; three and four respondent interviews were actually very rare). The overall average is thus below our target of 80 and 120 minutes, respectively. Table 8.1 also shows that there is considerable divergence both within and between countries. In France, Greece, and Switzerland, we were actually very close to our target. The shortest interviews were made in Austria, Spain, and Italy. In fact, more than one fourth of all single-respondent interviews in these countries were shorter than 40 minutes, i.e. shorter than half of our target time. The longest interviews were conducted in Denmark and Sweden. Nearly 25 percent of all single-respondent interviews took more than 100 minutes in these two countries.

Table 8.1 Household interview length in minutes, by country and number of interviews

		Single In	terviews		Multiple Interviews					
Country	Mean	Q25 I	Q25 Median		Mean	Q25	Median	Q75		
Austria	47.9	31.8	44.4	61.8	74.6	52.7	68.5	92.3		
Switzerland	77.7	58.3	72.2	94.3	121.0	88.5	115.8	148.6		
Germany	63.3	49.5	60.7	75.2	105.0	83.3	104.1	122.2		
Denmark	84.8	70.2	83.9	97.9	141.5	119.3	140.1	163.9		
Spain	47.1	34.3	45.0	57.6	81.7	58.9	79.5	101.0		
France	77.3	62.0	76.8	91.6	120.9	94.7	119.7	142.0		
Greece	77.7	61.3	75.3	91.5	121.0	94.6	120.2	142.1		
Netherlands	69.9	53.4	68.5	85.7	110.4	85.2	106.1	132.9		
Italy	53.4	39.9	51.4	64.8	88.5	67.7	83.6	106.5		
Sweden	84.9	64.3	78.8	99.8	133.1	105.1	127.5	155.3		
Total	66.6	47.4	64.1	82.9	109.9	81.7	106.7	134.2		

In the following table, we show how interview length varies with respondent age. In a multi-respondent household, age is defined as the age of the primary respondent, or where no primary respondent is defined (such as in France), the age of the first respondent. The overall pattern for all types of households is slightly U-shaped. For instance, interviews in multiple respondent households in the youngest age group (50-54) and in the oldest age group (80 and over) lasted on average 7 to 8 minutes longer than interviews in the middle age groups (60 to 69). We see the result of two counteracting forces: At younger ages, in particular when still working, respondents go through detailed questions in the employment and pensions module, but take less time on health questions. Older respondents take more time on health questions.

Moreover, the lower age limit for completing the walking speed test was 75 years, adding a little less than 3 minutes on average to each individual interview.

Table 8.2 Household interview length in minutes, by age group and number of interviews

Age Group	Single respondents	Multiple respondents
50-54	66.2	115.4
55-59	68.8	111.3
60-64	65.1	106.9
65-69	64.6	107.2
70-74	64.4	109.0
75-79	68.2	110.4
80+	70.0	114.8

8.4 Module length

The average length of each SHARE 2004 module is shown, by country, in Table 8.3. The longest module overall is Employment & Pensions (EP). The module took on average 8.9 minutes to complete, again with considerable variation across countries. Danes needed on average 14.5 minutes, while Spaniards only needed 5.2 minutes (note, however, that these differences are unconditional, ie. differences in labour force participation are not controlled for). The second longest module was Physical Health (PH) with on average 6.9 minutes. Cross-national variation is smaller than in the EP module. It took Austrians only 4.8 minutes to complete this module, whereas Greek respondents needed on average 8.6 minutes.

Table 8.3 Module length in minutes, by country

Module	AT	СН	DE	DK	ES	FR	GR	IT	NL	SE	Total
Coverscreen	2.2	1.0	2.5	2.7	2.6	1.6	4.1	2.3	2.7	2.8	2.4
Cover- Main	0.3	0.6	0.4	0.6	0.2	0.7	0.7	0.2	0.5	0.4	0.4
Demographics	2.6	4.3	3.3	3.9	2.5	3.5	4.1	2.7	2.9	3.9	3.3
Physical Health	4.8	6.9	6.6	8.3	5.9	7.7	8.6	6.3	6.1	8.1	6.9
Behavioral Risks	1.3	2.4	1.9	3.0	1.2	2.4	2.4	1.3	2.1	2.9	2.1
Cognitive Function	4.8	7.4	6.3	7.3	5.1	6.6	7.3	5.7	6.6	6.9	6.3
Mental Health	1.9	3.3	2.8	3.3	2.3	3.6	3.5	2.8	2.8	3.5	3.0
Health Care Use	3.3	5.5	4.7	5.6	3.4	6.5	5.8	3.8	5.7	5.1	4.9
Employment/Pens.	5.9	11.5	8.3	14.5	5.2	10.0	8.9	6.0	8.8	12.3	8.9
Grip Strength	1.3	2.4	2.0	2.5	1.6	2.1	2.5	1.8	2.2	2.3	2.0
Walking Speed	1.6	3.4	2.2	3.6	2.2	3.6	3.1	2.1	3.2	2.5	2.6
Children	3.5	4.9	3.9	5.8	3.9	4.8	4.1	3.5	5.0	5.9	4.5
Social Support	1.3	2.2	1.9	3.0	1.2	2.2	2.1	1.4	2.2	2.6	2.0
Financial Transfers	1.3	2.3	2.0	2.2	1.0	2.1	2.6	1.3	1.6	2.5	1.8
Housing	2.2	3.6	2.7	4.1	2.6	3.7	3.6	2.5	3.2	3.9	3.2
Household Income	0.6	0.7	0.7	0.8	0.5	0.8	0.8	0.6	0.6	0.7	0.7
Consumption	2.0	3.5	2.7	3.7	1.9	4.2	2.6	2.4	3.8	5.0	3.2
Assets	2.2	3.4	3.2	4.8	1.7	4.4	2.7	1.8	3.3	5.9	3.3
Activities	1.0	1.9	1.2	2.1	0.5	1.5	1.3	0.7	1.6	2.1	1.4
Expectations	2.6	5.3	4.2	4.6	2.8	5.1	4.7	3.6	4.3	4.9	4.1
Interviewer	1.0	1.7	1.1	1.5	1.3	1.8	1.4	1.5	1.2	1.2	1.3

The shortest module was CM (Coverscreen (Main); 0.4 minutes), a module that sets up the structure of the interview in multi-respondent household by determining who is the financial, family, and housing respondent. The module also sets a couple of parameters internally for all households (not visible to the interviewer), such as the interview country and whether pre-Euro options are called for amount questions.

There is another module shorter than one minute, which is Household Income (HH), consisting of a few questions regarding the income of household members who were not part of the interview.

An initial concern was the length of the physical measurements, grip strength (GS) and walking speed (WS). Most professional interviewers are not used to make such measurements and great care was taken to train them properly on protocols. As it turned out, measurements were indeed feasible and added little to the overall respondent burden (in fact, respondents and interviewers often expressed relief about the fact that the strenuous question-answer routine was interrupted). The grip strength test took on average 2 minutes to be completed and gait speed was completed in 2.6 minutes on average.

Table 8.4 Length of PH (physical health) module in minutes, by self-reported health and country

		Self-reported health										
Country	Very good	Good	Fair	Poor	Very Poor							
Austria	3.4	4.5	5.6	6.2	7.0							
Switzerland	5.7	6.5	9.5	10.9	10.8							
Germany	5.0	5.9	7.5	7.7	9.0							
Denmark	6.3	7.8	10.1	11.4	12.5							
Spain	4.0	4.8	6.7	7.5	7.9							
France	5.5	7.0	9.3	9.9	11.1							
Greece	6.9	8.7	9.2	9.9	10.0							
Italy	4.7	5.4	6.9	8.2	8.7							
Netherlands	4.7	5.7	7.6	8.6	8.4							
Sweden	5.8	7.7	9.5	10.8	12.6							
Total	5.4	6.3	7.9	8.7	9.7							

Above, we saw that total interview length is U-shaped in age. One reason is that older respondents need more time to answer health questions. Table 8.4 shows the length of the physical health module by self-reported health status. Respondents who report to be in very good health need on average 5.4 minutes to complete this module – again with some cross-national variation. In contrast, respondents in very poor health needed nearly 10 minutes to complete the module.

8.5 Question length

When researchers design a new questionnaire, they estimate the length of the interview by rule of thumb: on average four answers (or "ticks") fit in one minute. In fact, this rule of thumb proved to be quite accurate, and it has given us valuable guidance during the development process. Table 8.5 shows the question length in SHARE, by module. Overall, the keystroke data contain information on more than 6 million questions asked. Across all modules, the average length of a question was 13 seconds, or put the other way around, we asked 4.6 questions per minute.

The average question length in a module also gives some indication of the difficulty of a module, because difficult questions need more time to be asked (and answered, for that matter). The shortest average tick length is found in the Interviewer Observations module (6.2 seconds). In this module, interviewers record observations during the interview, e.g. respondents' willingness to cooperate or interference of third persons. This module does not involve the respondent, so that tick length in this module measures the time to read and answer a question without a respondent, providing some lower bound for the question length in a personal interview.

Table 8.5 Average Tick Length in Seconds, by Module

Module	Mean	StdDev	N
Coverscreen	8.8	17.4	305,876
Cover-to-Main	14.1	20.4	17,744
Demographics	9.3	12.8	475,039
Physical Health	16.0	22.0	580,518
Behavioral Risks	13.2	13.8	209,196
Cognitive Function	21.8	27.8	388,111
Mental Health	10.8	10.9	356,340
Health Care Use	14.2	19.2	454,659
Employment	12.9	16.8	910,314
Grip Strength	16.1	32.4	168,356
Walking Speed	17.8	41.1	40,359
Children	9.4	10.1	454,046
Social Support	12.0	12.0	219,081
Financial Transfers	11.5	12.1	157,192
Housing	11.5	14.1	251,214
Household Income	11.3	15.4	52,633
Consumption	23.5	33.6	123,373
Assets	14.3	15.8	128,683
Activities	13.6	17.8	240,381
Expectations	14.9	24.0	368,697
Interviewer Observations	6.2	10.9	280,582
Total	13.0	19.1	6,182,394

Table 8.6 lists the 15 questions with the longest average length. The longest questions were CF010 and CF008. This was to be expected because of the nature of the questions. CF010 is the verbal fluency test. The Blaise application gives each respondent exactly 60 seconds to name as many different animals as possible, setting a lower physical limit of one minute to the question length. CF008 is the question that asks respondents to recall as many words as possible from a list of ten words. Here, interviewers were instructed to allow up to one minute for recall.

Table 8.6 Distribution of tick times - the 15 longest questions

Question	Mean	Q10	Q25	Q50	Q75	Q90	N
CF010	80	68	70	74	82	96	21,912
CF008	74	43	54	68	87	111	21,952
CO005	51	6	13	32	64	112	15,630
PH006	49	13	24	39	62	95	22,305
GS001	49	4	9	26	74	127	22,243
PH048	48	11	22	40	65	96	22,294
CF016	46	15	27	42	59	81	21,936
CO002	41	10	19	33	52	81	15,607
PH010	41	11	20	33	52	82	22,302
HC002	39	12	20	31	48	73	22,260
EP078	39	6	12	23	46	88	17,963
GS006	36	4	5	15	51	101	20,350
CV001	35	2	3	11	53	86	19,140
PH011	34	7	13	25	44	72	22,298
EX024	31	2	3	16	39	73	22,217

Another question that took long to be answered was CO005 (51 seconds on average): "Please look at card 31. Thinking about the last 12 months: about how much did your household spend in a typical month on all goods and services, including groceries, eating out, telephone and everything else?" This sometimes called "one-shot consumption question" obviously placed a large burden on many respondents. Roughly half of them needed more than half a minute, and one quarter even needed a minute or more to think about the question and answer to it. However, as remarkable as the average length is the wide dispersion. The fastest 10 percent needed 6 seconds or less (possibly including a considerable proportion of "don't know").

As a final example, it took respondents on average 49 seconds to answer PH006. Again, this is not surprising. PH006 asks for diagnosed diseases to be chosen from a list of 14 different conditions.

8.6 Summary

This chapter gives some basic assessment of the net length of a typical SHARE interview. The overall average was 67 minutes for a single-respondent household and 110 minutes for a multi-respondent household. Despite the complexity of the survey instrument, we managed to keep respondent burden within reasonable limits. During the development process of SHARE, considerable effort has been made to stay within these limits. In fact, the first questionnaire draft tested in the UK in September 2002 took about 100 and 150 minutes, respectively, despite the fact that we randomly dropped a few modules from each interview. The necessary redesign of the questionnaire that followed was considered painful by most of the researchers involved. Each of them saw exciting questions being taken away from the questionnaire. However, they also often cleverly restructured their respective modules, leading to the rather lean and focused final version of the survey instrument.

The chapter also demonstrated the use of some particularly valuable information recorded by the Blaise CAPI instruments: audit trail files. With the help of these files it is possible to analyse modules and even single question in great detail, for instance by using the time needed to answer individual questions as an objective measure of their difficulty. This provides valuable complementary information to the interviewer reports at debriefings.

9 Survey Participation in the First Wave of SHARE

Giuseppe De Luca and Franco Peracchi

9.1 Introduction

This chapter describes the patterns of survey participation in the first wave of SHARE. We use the term survey participation to describe how many households and individuals of the initial gross sample (or issued sample) delivered completed interviews, how many were found to be ineligible and how many did not respond. There are at least two reasons for studying survey participation. First, because of ineligibility and non-response, a larger gross sample size and higher survey costs are necessary to achieve a target number of interviews. In addition, as discussed at length in the survey literature, non-response is one of the main sources of non-sampling error (Lessler & Kalsbeek 1992). Even if response rates alone are not sufficient to evaluate the impact of non-response error, they contain information that is crucial in order to understand the sources of non-response bias and to assess the overall quality of the data.

As described in the introduction to this volume, data collection was continuing after the first and preliminary release of the SHARE data ("Release 1"), and some post-processing was still going on when this methodology volume went to press. After presenting the definitions used to compute eligibility and response rates, this chapter therefore summarizes the response rates as they were reported when this methodology volume went to press. The paper then employs the much smaller core sample of Release 1 to analyze the participation process in detail. This analysis does not include Belgium, the Swedish supplementary sample, the vignette samples and households whose identification numbers had to be manually matched because of inconsistencies between the CAPI instrument and the sample management system. A future version of this paper will provide an analysis of the participation process for the overall SHARE sample.

The remainder of the paper is organized as follow. Section 9.2 defines the target population of SHARE, and discusses issues related to the assessment of the eligibility criteria. Section 9.3 presents the almost final response rates of SHARE and compares them with other European surveys. Section 9.4 presents the results of the screening phase in Austria, France, Greece and Switzerland. Section 9.5 describes the categories used to get a final classification of the sample units. Section 9.6 and 9.7 analyze, respectively, household-level and individual-level survey participation. Finally, Section 9.8 summarizes the main results and offers some conclusions.

9.2 Target population and eligibility criteria

In each country, the target population consists of all people living in residential households who have 50 years of age or more, plus their (possibly younger) partners. The target population is further restricted by a number of additional eligibility criteria, which exclude people who currently do not reside at the sampled address

on the remaining 19,182 completed interviews belonging to the original core sample.

88

¹ As mentioned above, such figures do not include Belgium, the Swedish supplementary sample and the vignette samples. To avoid any misunderstanding, we report in Table 9.A.1 a breakdown of the differences between the number of cases adopted in this analysis and the number of cases available in the Release 1 of the SHARE dataset. In Release 1, we have 22,177 records, of which 2,722 are part of the vignette sample, 527 are part of the Swedish supplementary sample and 346 are counted as incomplete interviews. Our analysis focuses

(e.g. because it is a seasonal or vacation residence), or are physically or mentally unable to participate, or died before the starting of the field period, or are unable to speak the specific language of the national questionnaire. These people will be referred to as "nonsample persons". Households where all members are nonsample persons will be referred to as "nonsample households". SHARE also considers as nonsample all originally selected sample units that could not be located because of errors in the sampling frame (demolished or non-residential buildings, and addresses not existing for other reasons). The target population is then redefined implicitly according to these definitions of nonsample.

The way in which eligibility of a sampled household is determined depends on two conditions: "age-eligibility" (that is, whether or not the household contains at least one person who is 50+) and other eligibility criteria. In principle, age-eligibility may be determined after the Coverscreen (CV) section has been completed.² In practice, the CV is often incomplete for several nonresponding households (i.e. households that were not contacted or refused to complete the CV) and so the information collected in this section does not allow to assess the age-eligibility status of all sampled households. This problem, which is common to all countries, has different solutions depending on the nature of the sampling frame adopted. In one group of countries (Denmark, Germany, Italy, Netherlands, Spain, and Sweden), the sampling frame contains information on the age of the sampled household member. For this first group of countries (or group A), age-eligibility is determined directly from the information provided by the sampling frame. In another group of countries, the sampling frame is a telephone directory (like in Austria, Greece, and Switzerland) or a register of dwellings (like in France), which does not contain any information on age. For this second group of countries (or group B), a screening phase is required in order to assess the age-eligibility status of the sampled households. For both groups of countries, the other eligibility criteria are instead determined through the information provided by the interviewers on the nonsample categories described above. In our detailed analysis, Section 9.4 describes the pre-screening phase for the four countries in group B, whereas Section 9.5 analyzes the overall participation process taking this preliminary step into account. First, however, we present the summary results as they were reported by the survey agencies in July 2005.

9.3 Final response rates

The overall response rate among the ten SHARE countries in which data collection took place in 2004 was 61.8 percent. It reflects the reporting stage as of July 2005. The response rate may slightly increase once all records have been matched.

Table 9.1 splits the overall response rate up by country and compares it with other cross-national surveys. These surveys include two official Europe-wide national surveys conducted by Eurostat (the European Community Household Panel, ECHP, and the European Labour Force Survey, EU-LFP) and five cross-national surveys run by scientists (such as the European Social Survey, ESS, the European Value Study, EVS, the European Election Study, EES, and the International Social Survey Project, ISSP). The overall response rate of SHARE is only slightly lower than the response rate of the two official Eurostat surveys but it is substantially higher than the response rate of the five other scientific surveys.

-

² The CV section is usually completed by one adult person in the household (household informant), who is asked to provide the name, gender, age, marital status and relationship to the informant of each household member. Once the CV is completed, the eligibility status of each person in the household is automatically determined.

The SHARE response rate was lowest in Switzerland (37.6 percent) and highest in France (73.6 percent). Switzerland is well known for a low response rate – this is also reflected in the response rate of the other surveys reported in Table 9.1. The survey operation of SHARE in France was conducted by INSEE, the official statistical agency of France. Elsewhere in SHARE, survey agencies were private companies. INSEE also conducted the first wave of the ECHP with a high response rate, while the other scientific surveys (EVS, EES and ISSP) were conducted by private survey agencies in France.

Compared to the other surveys, SHARE did particularly well in Germany and the Netherlands. It failed to reach the 60 percent target in Italy, Spain and Sweden (group A countries) as well as in Austria and Switzerland (group B countries). Except for Austria, however, response rates for these countries were also low in the other surveys.

Table 9.1 Response rate of SHARE and other European surveys

	-		Official Eurostat surveys		Scie	•			
	SHARE	ECHP	LFS	ESS	ESS	EVS	EES	ISSP	
	2004	1994	1996	2002	2004	99-00	1999	2002	Avg.
Denmark	63.2	62	75	68	65.1	57	59	66.1	64.6
Germany*	63.4	47	(a)	57	50.0	42	49	42.7	47.9
Italy*	55.1	(a)	-	44	-	68	-	-	56.0
Netherlands	61.3	(a)	59	68	-	40	30	46.6	48.7
Spain*	53.3	67	(a)	53	54.8	24	-	(a)	49.7
Sweden*	50.2	-	(a)	69	65.8	41	31	57.2	52.8
Austria*	58.1				62.4	77	49	63.9	63.1
France	73.6	79	(a)	-	-	42	44	20.3	46.3
Greece	61.4	(a)	-	80	78.8	82	28	-	67.2
Switzerland	37.6	-	-	34	46.9	-	-	32.8	37.9
Weighted									
Average	61.8	62.0	63.2	55.6	54.9	46.4	43.9	36.7	50.8

Notes: (a) no pre-screening response rate reported, (-) country not in sample

ECHP: European Community Household Panel; EU-LFS: European Labour Force Survey; ESS: European Social Survey; EVS: European Values Study; EES: European Election Study; ISSP: International Social Survey Project

There is no directly comparable response rate of ELSA, the English Longitudinal Study on Ageing, which is very close in contents to SHARE, since the sample of ELSA was based on those who were successfully interviewed in the Health Survey of England. The US Health and Retirement Study (HRS) has experienced a much higher, but declining response rate. For the initial cohort of HRS in 1992, a response rate of 82% could be achieved, while the samples drawn in 1998 and 2004 had response rates of 70 and 69 percent, respectively.

9.4 Detailed analysis: The screening phase

In order to better understand the stages of the entire response process, we now use the detailed data that was available at the time of SHARE Release 1. Our detailed analysis of the response process covers 13,268 households and 19,182 individuals in ten European countries (Austria, Denmark, France, Germany, Greece, Italy, Netherlands, Spain, Sweden and Switzerland).³

³ As mentioned above, such figures do not include Belgium, the Swedish supplementary sample and the vignette samples. To avoid any misunderstanding, we report in Table 9.A.1 a breakdown of the differences between the number of cases adopted in this analysis and the

Table 9.2 summarizes the results of the screening phase for the countries in group B. We identify three categories: eligible households, ineligible households, and households of unknown eligibility.

Table 9.2 Results of the screening phase

Country	Gross sample		Eligible Ineligible		ble	Unkno Eligibil		Post-screening sample		
	N	%	N	%	N	%	N	%	N	%
Austria	7,509	100	3,651	49	3,199	42	659	9	2,554	70
France	3,084	100	1,213	39	1,149	37	722	24	1,213	100
Greece	4,208	100	2,161	51	1,546	37	501	12	2,161	100
Switzerland	4,118	100	1,615	39	1,914	46	589	14	1,615	100
Total	18,919	100	8,640	46	7,808	41	2.471	13	7,543	87

Eligible households consist of cases in which a residential household exists at the sampled address or telephone number, and at least one of its members is age-eligible. The percentage of eligible households is equal to 39 percent in Switzerland and France, 49 percent in Austria and 51 percent in Greece. These differences may reflect both differences in the quality of the sampling frames and different age structures of the national populations. Notice that, unlike in France, Greece and Switzerland, in Austria the gross sample has been screened before starting the fieldwork, and only 70 percent of the eligible households have been randomly selected into the post-screening sample to reach the target number of 1,500 household interviews.⁴

Ineligible cases include residential households with no age-eligible member and additional cases of ineligibility due to problems with the address or phone number (that is, empty building, not existing address, wrong number or fax line), language barriers and non-residential buildings. On average, they represent 41 percent of the gross sample and, as shown in Table 9.3, age-ineligibility is the main reason for ineligibility (83 percent).

Table 9.3 Ineligible during the screening

20020 710		~	6			<u> </u>						
Country	Ineligi	Ineligible Age ineligible			Proble with phone addre	n e/	Language barrier		Not residential phone/ address		Physically or mentally impaired	
	N	%	N	%	N	%	N	%	N	%	N	%
Austria	3,199	100	3,003	94	118	4	29	1	49	2	0	0
France	1,149	100	765	67	337	29	0	0	47	4	0	0
Greece	1,546	100	1,017	66	300	19	73	5	140	9	16	1
Switzerland	1,914	100	1,697	89	84	4	56	3	73	4	4	0
Total	7,808	100	6,482	83	839	11	158	2	309	4	20	0

Finally, unknown eligibility includes both cases where no contact attempt was made during the fieldwork period and cases where eligibility is unknown because of non-response during the screening phase. On average, households with unknown

number of cases available in the Release 1 of the SHARE dataset. In Release 1, we have 22,177 records, of which 2,722 are part of the vignette sample, 527 are part of the Swedish supplementary sample and 346 are counted as incomplete interviews. Our analysis focuses on the remaining 19,182 completed interviews belonging to the original core sample.

⁴ In the following, we ignore the random exclusion of these eligible units, and assume that the gross sample in Austria is formed by 7,509 - (3,651 - 2,554) = 6,412 units.

eligibility represent 13 percent of the gross sample, and they occur solely because of non-response. Table 9.4 further investigates the different sources of non-response occurred during the screening phase. In Austria and Greece, the main reason for non-response is noncontact (100 and 88 percent respectively), whereas in France and Switzerland is refusal (79 and 50 percent respectively).

Table 9.4 Unknown eligibility during the screening

	Unk	nown	No co	ntact			N	lon-res _l	ponse			
Country		gibility		npted	F	Total		Non- contact		Refusal		her
	N	%	N	%	N	%	N	%	N	%	N	%
Austria	659	100	0	0	659	100	659	100	0	0	0	0
France	722	100	26	4	696	96	89	12	570	79	37	5
Greece	501	100	2	0	499	100	441	88	58	12	0	0
Switzerland	589	100	0	0	589	100	211	36	295	50	83	14
Total	2,471	100	28	1	2,443	99	1,400	57	923	37	120	5

Table 9.5 exploits the information obtained during the screening phase to classify eligible households by the number of eligible respondents. Excluding 24 households in France and 253 households in Greece for which this information is unavailable, the average number of eligible persons is equal to 1.48 in Austria, 1.60 in France, 1.57 in Greece and 1.54 in Switzerland. As showed later in Section 9.6, this information allows us to investigate how individual response rate is affected by the assumptions made on the number of eligible persons for households with incomplete CV.

Table 9.5 Breakdown of the post-screening sample of eligible households by eligible persons

	by chg	ibic pc	130113						
_		Househ	olds by	eligible	e indivi	iduals		Total	Average
Country	1	2	2	1	_		DK	number of	number of
	1	2	3	4	5	O	DK	eligibles	eligibles
Austria	1,390	1112	46	4	1	1	0	3,779	1.480
France	490	686	13	0	0	0	24	1,900	1.599
Greece	834	1059	18	0	0	0	251	3,006	1.573
Switzerland	749	858	3	5	0	0	0	2,498	1.543

9.5 Final classification of the sample units

The American Association for Public Opinion Research provides specific guidelines for the final classification of the sample units, which represents the basis for the calculation of response rates (AAPOR 2000). Following these guidelines, we use the data from the SHARE Case Management System (CMS) to classify the gross sample of each country into three main categories: (i) eligible households, (ii) ineligible households, and (iii) households of unknown eligibility. The CMS data contain call history information that allows to classify the outcome of each call attempt into exhaustive and mutually exclusive categories. Table 9.A.2 lists the detailed categories and the final CMS codes used for both groups of countries (A and B).⁵ We also report a separate list of codes for Switzerland, where a different CMS has been adopted during the data collection process.

_

⁵ For France, CMS data are not available and the following analyses are based on aggregate numbers provided by the survey agency INSEE.

Table 9.6 Gross sample by eligibility status

Country	Gross sample		Eligib	Eligible		ble	Unknown Eligibility	
	N	%	N	%	N	%	N	%
Denmark	1,932	100	1,749	91	71	4	112	6
Germany	2,835	100	2,583	91	237	8	15	1
Italy	2,798	100	2,523	90	247	9	28	1
Netherlands	2,800	100	2,514	90	283	10	3	0
Spain	2,849	100	2,619	92	206	7	24	1
Sweden	3,150	100	3,032	96	118	4	0	0
Austria	6,412	100	2,540	40	3,213	50	659	10
France	3,084	100	1,213	39	1,149	37	722	23
Greece	4,208	100	2,161	51	1,546	37	501	12
Switzerland	4,118	100	1,615	39	1,914	46	589	14
Total	34,186	100	22,549	66	8,984	26	2,653	8

Table 9.6 shows the results of this classification. In each country, the size of the gross sample has been determined as a function of both the target number of interviews and the predetermined minimum eligibility and response rates. Averaging across countries, 66 percent of the households in the gross sample are eligible, 26 percent are ineligible, and 8 percent are with undetermined eligibility. However, the relative importance of these three components varies substantially between the two groups of countries, reflecting the different probability of sampling an eligible unit under the two types of sampling frame.

Table 9.7 Completed household interviews and target number of interviews

Country	Eligible	Eligible not interviewed	Completed interviews	Target interviews	Percentage of the target
Denmark	1,749	576	1,173	1,200	980
Germany	2,583	1,020	1,563	1,500	1,040
Italy	2,523	1,136	1,387	1,500	920
Netherlands	2,514	970	1,544	1,500	1,030
Spain	2,619	1,295	1,324	1,500	880
Sweden	3,032	1,558	1,474	2,263	650
Austria	2,540	1,087	1,453	1,500	970
France	1,213	47	1,166	1,200	970
Greece	2,161	685	1,476	1,500	980
Switzerland	1,615	907	708	1,000	710
Total	22,549	9,281	13,268	14,663	900

As shown in Table 9.7, the set of eligible households consists of households with completed interview and households not interviewed. A household interview is considered as completed if at least one eligible person responds all modules of the questionnaire, either in person or by proxy. Households not interviewed consist of four broad non-response categories: noncontact, refusal, interrupted interview, and other non-interview. Overall, SHARE succeeds in interviewing 13,268 households, with a minimum of 708 interviews in Switzerland and a maximum of 1,563 in Germany. The ratio of the number of interviews to the country specific target is highest in Germany and Netherlands (104 and 103 percent respectively) and lowest in Sweden and Switzerland (65 and 71 percent respectively).

Table 9.8 Eligible households not interviewed by non-response reason

	Е	ligible					Interr	ınted	(Other
Conntan		not	Nonco	ontact	R	efusal		rview		non-
Country	interv	iewed					11110	iview	inter	view
	N	%	N	%	N	%	N	%	N	%
Denmark	576	100	56	10	462	80	46	8	12	2
Germany	1020	100	114	11	830	81	58	6	18	2
Italy	1136	100	173	15	876	77	40	4	47	4
Netherlands	970	100	127	13	791	82	21	2	31	3
Spain	1295	100	327	25	846	65	110	8	12	1
Sweden	1558	100	183	12	1172	75	52	3	151	10
Austria	1087	100	85	8	915	84	80	7	7	1
France	47	100	-	_	45	96	2	4	0	0
Greece	685	100	-	-	625	91	43	6	17	2
Switzerland	907	100	-	-	802	88	8	1	97	11
Total	9281	100	1065	11	7364	79	460	5	392	4

Note: - Category does not apply.

Table 9.8 analyzes the reasons for non-response of eligible households that have not been interviewed. It should be noted that, in country group B, noncontact can only arise in Austria, because in France, Greece and Switzerland the sample has been screened during the fieldwork and so failure to contact a sample unit leads to unknown eligibility. The percentage of eligible households that have not being interviewed because of noncontact ranges between 8 percent in Austria and 25 percent in Spain, and is equal to 11 percent on average. Like most household surveys, refusal to participate is the main reason of non-response for all countries (79 percent), while the percentages of interrupted interviews and households not-interviewed for other reasons are relatively unimportant (5 and 4 percent respectively).

Due to differences in the sampling frames, the definitions of ineligible households and households with unknown eligibility vary in the two groups of countries. For the countries in group A, ineligible households are those where all members are nonsample (see Section 9.1), whereas households with unknown eligibility are those with no contact attempt made. For the countries in group B, instead, ineligible households and households with unknown eligibility correspond to the categories identified in the screening phase (see Section 9.3). For all countries, we also classify as ineligible those households that, once the CV has been completed, contain no eligible person. Tables 9.9 and 9.10 analyze separately the reasons for ineligibility in the two groups of countries. In group A, ineligible households represent on average 7 percent of the gross sample, and ineligibility mainly occurs because of problems of physical and mental health. In group B, ineligibility represents instead 43 percent of the gross sample, and only few households (14 in Austria and 1 in Greece) have been reclassified as ineligible because, once the CV has been completed, they contain no eligible respondent.

Table 9.9 Ineligible households by ineligibility reasons (country group A)

	Inelig	gible	Occ res	side		lent	Langu barr		Add	Bad ress	Physic /ment	tally		age jible
Country	N	%	N	%	decea N	seu %	N	%	N	%	ımpa: N	%	N	<u>Cv</u>
Denmark	71	100	5	7	12	17	3	4	1	1	30	42	20	28
Germany	237	100	21	9	23	10	25	11	78	33	80	34	10	4
Italy	247	100	103	42	24	10	0	0	41	17	77	31	2	1
Netherlands	283	100	39	14	21	7	39	14	10	4	166	59	8	3
Spain	206	100	87	42	30	15	22	11	40	19	21	10	6	3
Sweden	118	100	14	12	18	15	63	53	1	1	16	14	6	5
Total	1,162	100	269	23	128	11	152	13	171	15	390	34	52	4

Table 9.10 Ineligible households by ineligibility reasons (country group B)

Country	Ineligib	le	Ineligible d screenii	0	Ineligible afte	Ineligible after CV		
	N	%	N	%	N	%		
Austria	3,213	100	3,199	100	14	0		
France	1,149	100	1,149	100	0	0		
Greece	1,546	100	1,545	100	1	0		
Switzerland	1,914	100	1,914	100	0	0		
Total	7,822	100	7,807	100	15	0		

9.6 Household level survey participation

This section provides a brief description of the participation process at the household level, which we model as the outcome of three sequential events: eligibility, contact given eligibility, and cooperation given eligibility and contact. We define the eligibility rate as the proportion of households in the gross sample that are eligible, and the response rate as the proportion of eligible household that respond. The product of the eligibility rate and the response rate is equal to the participation rate (or completion rate). The response rate is further decomposed as the product of the contact rate (the proportion of eligible households that were contacted) and the cooperation rate (the proportion of contacted households that responded). We also report the proportion of eligible households with a refusal or with an interrupted interview (refusal rate), and the proportion of eligible households for which an interview could not be obtained for reason different from noncontact, refusal and interrupted interview (other non-interview rate).

There are several ways in which these rates may be computed, depending on how the cases of unknown eligibility are handled. Cases of unknown eligibility could be considered as entirely eligible, as entirely ineligible, or as partially eligible. Here, we proceed by assuming that only a fraction p of households with unknown eligibility are in fact eligible. For each country, we estimate p by the fraction of eligible households among the cases with known eligibility, which corresponds to assuming that the fraction of eligible households does not depend on whether the eligibility status is known or not.

95

⁶ Explicit formulas of these outcome rates are presented in the Appendix.

Table 9.11 Household eligibility, response and participation rate

		0 1, 1			
Country	Gross	Total eligible	Hhds	Eligibility	Response
Country	Sample	hhds(1)	i'viewed	rate	rate
Denmark	1,932	1,857	1,173	.96	.63
Germany	2,835	2,597	1,563	.92	.60
Italy	2,798	2,549	1,387	.91	.54
Netherlands	2,800	2,517	1,544	.90	.61
Spain	2,849	2,641	1,324	.93	.50
Sweden	3,150	3,032	1,474	.96	.49
Austria	6,412	2,831	1,453	.44	.51
France	3,084	1,584	1,166	.51	.74
Greece	4,208	2,453	1,476	.58	.60
Switzerland	4,118	1,885	708	.46	.38
Total	34,186	23,946	13,268	.70	.55

Note: (1) Numbers approximated to the integer part.

Table 9.11 shows the estimated number of eligible households, and the corresponding household participation, eligibility and response rates. As discussed in the previous section, while eligibility rates are not directly comparable in the two groups of countries, response rates can instead be compared because they are computed conditional on eligibility. The unweighted household response rate ranges between a minimum of 38 percent in Switzerland and a maximum of 74 percent in France, and is equal to 55 percent on average.

Table 9.12 Household response rate by non-response reasons

Country	Response Rate	Contact Rate	Cooperation rate	Refusal Rate	Other non- interview rate
Denmark	.63	.91	.69	.27	.01
Germany	.60	.95	.63	.34	.01
Italy	.54	.92	.59	.36	.02
Netherlands	.61	.95	.64	.33	.01
Spain	.50	.87	.58	.36	.01
Sweden	.49	.94	.52	.40	.05
Austria	.51	.87	.59	.35	.00
France	.74	.96	.76	.21	.01
Greece	.60	.90	.67	.29	.01
Switzerland	.38	.95	.40	.50	.07
Total	.55	.92	.60	.35	.02

Focusing attention on the reasons for household non-response, the average contact and cooperation rates are 92 and 60 percent respectively. Refusal to participate to the survey is the main reason for non-response (35 percent), although in some countries a non negligible fraction of non-response is also due to noncontact (13 percent in Austria and Spain) and other non-interview reasons (5 percent in Sweden).

9.7 Individual level survey participation

Another way of looking at survey participation is to study the response behavior of eligible individuals. This requires restricting the sample to the set of eligible households, and defining the response rate as the proportion of eligible individuals that actually responded.

Once again, several definitions of individual response rates are possible depending on how we treat households with unknown eligibility. In addition, we now have to determine the number of eligible individuals in households with an incomplete CV. These households may in fact contain eligible individuals, and different assumptions made about their number directly affect the denominator of the response rate.

If households with known eligibility are divided into those with complete and incomplete CV (H_1 and H_2 respectively), and we further assume that only a fraction p of the households with unknown eligibility are in fact eligible, then the number of eligible individuals is given by

$$n = \overline{n}_1 H_1 + \overline{n}_2 (H_2 + pUE),$$

where \overline{n}_1 is the average number of eligible persons in H_1 and \overline{n}_2 is the average number of eligible persons in $(H_2 + pUE)$. Because \overline{n}_2 is unknown, an estimate is needed. In this paper, we assume that, in each country, the average number of eligible persons in $(H_2 + pUE)$ is the same as in H_1 , and so that the total number of eligible persons is estimated by

$$\hat{n} = \overline{n}_1 H_1 + \overline{n}_1 (H_2 + pUE).$$

Table 9.13 shows the implications of this assumption. The average number \overline{n}_1 of eligible persons in H_1 ranges between a minimum of 1.54 in Austria and a maximum of 1.86 in Spain. This variability is likely to reflect differences in the sociodemographic structures of the national populations.

Table 9.13 Households with completed CV and mean number of eligible individuals

11	idividuals				
Country	Eligible households	H_1	H_2	\overline{n}_1	\overline{n}_2^*
Denmark	1,749	1,150	599	1.55	_
Germany	2,583	1,575	1,008	1.72	-
Italy	2,523	1,394	1,129	1.81	-
Netherlands	2,514	1,567	947	1.72	-
Spain	2,619	1,353	1,266	1.86	-
Sweden	3,032	1,517	1,515	1.69	-
Austria	2,540	1,473	1,067	1.54	1.46
France	1,213	1,189	24	1.60	1.60
Greece	2,161	1,501	660	1.57	1.69
Switzerland	1,615	1,450	165	1.58	1.22
Total	22,549	14,169	8,380	1.66	1.49

Note: - Category does not apply.

Using the information available from the screening phase for the countries of group B (see Table 9.5), we can compare these figures to the average number of eligible individuals in H_2 . The differences are not always in the same direction, and the largest difference amounts to 0.36 in Switzerland.⁷ The small differences between the average numbers of eligible individuals in the two sets, H_1 and H_2 suggest that our assumption has negligible effects on computed response rate (at most 2

⁷ Among other things, the average proportion of eligible people in Switzerland is likely to be affected by the few number of households in H_2 .

percent).⁸ Table 9.14 shows that the individual response rate ranges between a minimum of 33 percent in Switzerland and a maximum of 69 percent in France, and is equal to 48 percent on average. This cross countries variation in the individual response rate reflects differences in both the household response rates and the sociodemographic structures of the national populations.

Table 9.14 Individual response rate

Total eligible	Total eligible	Individuals	Response
households	individuals(1)	interviewed	rate
1,857	2,872	1,699	.59
2,597	4,478	2,350	.52
2,549	4,603	2,023	.44
2,517	4,338	2,350	.54
2,641	4,900	1,813	.37
3,032	5,121	2,116	.41
2,831	4,347	1,957	.45
1,584	2,533	1,746	.69
2,453	3,845	2,131	.55
1,885	2,979	997	.33
23,946	40,016	19.182	.48
	households 1,857 2,597 2,549 2,517 2,641 3,032 2,831 1,584 2,453	households individuals(1) 1,857 2,872 2,597 4,478 2,549 4,603 2,517 4,338 2,641 4,900 3,032 5,121 2,831 4,347 1,584 2,533 2,453 3,845 1,885 2,979	households individuals(1) interviewed 1,857 2,872 1,699 2,597 4,478 2,350 2,549 4,603 2,023 2,517 4,338 2,350 2,641 4,900 1,813 3,032 5,121 2,116 2,831 4,347 1,957 1,584 2,533 1,746 2,453 3,845 2,131 1,885 2,979 997

Note: (1) Numbers approximated to the integer part.

Following an approach similar to that adopted before, we can also impose assumptions on the number of eligible persons conditional on observed characteristics, and compute in this way individual response rates by subgroups of the target population. For example, to compute the response rate by gender, we assume that the mean number of eligible males and females in $(H_2 + pUE)$ is the same as in H_1 , that is, $\overline{n}_2^M = \overline{n}_1^M$ and $\overline{n}_2^F = \overline{n}_1^F$. Tables 9.15, 9.16, and 9.17 show respectively the estimated numbers of eligible individuals, the numbers of completed interviews and the corresponding individual response rates by gender and age group.¹⁰ A small number of units with missing information on gender and age have been excluded from the analysis. This preliminary analysis reveals only small differences in the patterns of non-response by gender and age group. The largest difference in response rates between males and females occurs in Spain (34 and 40 percent respectively), while the largest variation in response rates by age group occurs in Italy where the overall response rate falls from 44 percent to 38 percent in the oldest old age class. Future analyses should investigate the statistical significance of these differences.

Because the aim of SHARE is to interview all eligible household members, another important issue is evaluating individual response rates within responding households.

where \overline{n}_2^* denote the average number of eligible persons in H_2 . Although this second assumption is weaker than the first, it can only be used for the countries of group B. Thus, because of the results are not directly comparable in the two groups of countries and the differences are negligible, we only employ the first definition to compare individual response rate across countries.

98

⁸ For the countries of group B, we may assume the average number of eligible persons is the same in $(H_2 + pUE)$ and H_2 , and so that the number of eligible persons is estimated by $\hat{n} = \overline{n}_1 H_1 + \overline{n}_2^* (H_2 + pUE)$,

⁹ This information is still not available for France.

¹⁰ This information is still not available for France.

In this case, we confine attention to households with at least one completed individual interview, and define the within household response rate as the ratio between the number of responding individuals and the number of eligible persons in these households. The within-household response rate is high in general (86 percent), which again suggests that most of non-response occurs at the household level, and response behaviour of individuals belonging to the same household are strongly and positively related.

Table 9.19 further investigates the response rate for the drop-off questionnaire. The drop-off is a self-administered paper and pencil questionnaire used in SHARE to ask questions that may be particularly sensitive for the respondent (like questions on social and psychological well-being, health-care, religiosity and political affiliation). As a fieldwork rule, the drop-off questionnaire was delivered to each eligible respondent only after the CAPI interview was completed. Therefore, the base of eligible cases to be used as denominator of the drop-off response rate is the number of individuals with completed interview. Drop-off response rates range between a minimum of 70 percent in Sweden and a maximum of 93 percent in Greece. However, because of a delay in drop-off data entry, results of the drop-off response rates are only preliminary.

Table 9.15 Eligible individuals by gender and age class

1 4010 7:10	Lingible .	111411144	wie by ge	iidei uiit	a uge cia	,,,		
		Gender(1))		Age - o	class ⁽¹⁾		
Country	Male	Female	Missing	(59]	[60-79]	[80)	Missing	Total
Denmark	1,296	1,574	2	1,256	1,317	297	2	2,872
Germany	2,068	2,410	0	1,616	2,537	313	12	4,478
Italy	2,095	2,508	0	1,569	2,668	364	2	4,603
Netherlands	2,030	2,303	5	1,953	2,038	331	16	4,338
Spain	2,216	2,682	2	1,629	2,594	650	27	4,900
Sweden	2,393	2,726	2	1,959	2,624	536	2	5,121
Austria	1,774	2,567	6	1,489	2,491	361	6	4,347
France	0	0	2,533	0	0	0	2,533	2,533
Greece	1,631	2,214	0	1,623	1,833	379	10	3,845
Switzerland	1,322	1,654	3	1,168	1,366	312	133	2,979
Total	16,825	20,638	2,553	14,262	19,468	3,543	2,743	40,016

Note: Age and gender of non-interviewed eligibles not known in France. (1) Numbers approximated to the integer part.

Table 9.16 Completed individual interviews by gender and age class

	I							
		Gender ⁽¹⁾			Age - o	class ⁽¹⁾		
Country	Male	Female	Missing	(59]	[60-79]	[80)	Missing	Total
Denmark	766	933	0	734	788	177	0	1,699
Germany	1,091	1,259	0	822	1,353	170	5	2,350
Italy	898	1,125	0	681	1,205	137	0	2,023
Netherlands	1,077	1,273	0	1,028	1,130	190	2	2,350
Spain	749	1,064	0	571	1,001	239	2	1,813
Sweden	974	1,141	1	779	1,105	231	1	2,116
Austria	811	1,143	3	635	1,144	175	3	1,957
France	752	994	0	755	819	172	0	1,746
Greece	897	1,234	0	899	1,017	212	3	2,131
Switzerland	457	540	0	389	493	102	13	997
Total	8,472	10,706	4	7,293	10,055	1805	29	19,182

Table 9.17 Individual response rate by gender and age class

	Geno	der	•	Age – class		
Country	Male	Female	(59]	[60-79]	[80)	Total
Denmark	.59	.59	.58	.60	.60	.59
Germany	.53	.52	.51	.53	.54	.52
Italy	.43	.45	.43	.45	.38	.44
Netherlands	.53	.55	.53	.55	.57	.54
Spain	.34	.40	.35	.39	.37	.37
Sweden	.41	.42	.40	.42	.43	.41
Austria	.46	.45	.43	.46	.48	.45
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Greece	.55	.56	.55	.56	.56	.55
Switzerland	.35	.33	.33	.36	.33	.33
Total	.46	.47	.46	.47	.46	.47

Table 9.18 Within household response rate

	Households	Eligible	Individuals	Within
Country	interviewed	individuals	interviewed	household
	interviewed	marviduais	interviewed	response rate
Denmark	1,173	1,832	1,699	.93
Germany	1,563	2,725	2,350	.86
Italy	1,387	2,541	2,023	.80
Netherlands	1,544	2,676	2,350	.88
Spain	1,324	2,458	1,813	.74
Sweden	1,474	2,493	2,116	.85
Austria	1,453	2,241	1,957	.87
France	1,166	1,870	1,746	.93
Greece	1,476	2,322	2,131	.92
Switzerland	708	1,147	997	.87
Total	13,268	22,305	19,182	.86

Table 9.19 Drop-off response rate

C	Individuals	Completed	Drop-off
Country	interviewed	drop-off	response rate
Denmark	1,699	1,263	.74
Germany	2,350	1,921	.82
Italy	2,023	1,560	.77
Netherlands	2,350	2,092	.89
Spain	1,813	1,566	.86
Sweden	2,116	1,486	.70
Austria	1,957	1,762	.90
France	1,746	1,241	.71
Greece	2,131	1,973	.93
Switzerland	997	730	.73
Total	19,182	15,594	.81

Note: Results are still preliminary

9.8 Conclusions

Survey participation may be viewed as the result of a sequential process involving eligibility, contact of the eligible units, and response by the contacted units. For the first wave of SHARE, the analysis of survey participation depends crucially on whether or not the sampling frame contains preliminary information on the eligibility status of the sample units. Countries that use a telephone directory (like Austria, Greece and Switzerland) or a register of dwellings (like in France) as sampling frame have a higher probability of selecting ineligible sample units. However, once the effects of the different frames on eligibility rates are taken into account, one can compare response rates across all countries involved in the project.

The weighted average of household response rates across the ten SHARE countries in which data collection took place in 2004 is 61.8 percent. France has the highest response rates (74 percent), Switzerland the lowest (38 percent). The overall response rate of SHARE is only slightly lower than the response rate of the two official Europe-wide surveys conducted by Eurostat (62 and 63.2 percent for the first waves of the ECHP and the EU-LFS) while it is substantially higher than the response rates achieved by other cross-national scientific surveys in Europe. Response rates in the United States tend to be higher than in Europe: the overall response rate of SHARE is about 7 percentage points lower than the response rate in the latest cohort drawn by the HRS in 2004.

Focusing attention on the reasons for household non-response, refusal to participate to the survey is the main reason (35 percent), although in some countries a non negligible fraction of non-response is also due to noncontact (13 percent in Spain) and other non-interview reasons (5 percent in Sweden). An analysis of individual response rates and within-household response rates suggests that most of non-response in SHARE occurs at the household level, and that the response behavior of individuals within a household is strongly and positively related. Preliminary response analysis by subgroup of the target population reveals only small differences in the patterns of survey participation by gender and age group.

Overall, non-response errors in the SHARE core sample may represent an important source of nonsampling error. However, because non-response bias also depends on how much respondents and nonrespondents differ with respect to the variables of interest, further investigation is needed in order to understand whether the sample selection caused by unit non-response may be a serious source of bias.

References

American Association for Public Opinion Research (2000) Standard Definitions: Final Disposition of Case Code and Outcome Rate for Survey. Ann Arbor, MI: AAPOR.

Lessler, J., and Kalsbeek, W. (1992) Nonsampling Error in Survey. New York: John Wiley & Sons.

Appendix

Table 9.A.1 Differences between records in Release 1 and Core sample.

Countries	Total	Interviews	Interviews completed		
Country	records release 1	incomplete	Vignette	Supplement	Core
Denmark	1,732	33	0	0	1,699
Germany	3,020	21	649	0	2,350
Italy	2,559	23	513	0	2,023
Netherlands	3,000	56	594	0	2,350
Spain	2,419	46	560	0	1,813
Sweden	3,067	18	406	527	2,116
Austria	1,986	29	0	0	1,957
France	1,842	96	0	0	1,746
Greece	2,142	11	0	0	2,131
Switzerland	1,010	13	0	0	997
Total	22,777	346	2,722	527	19,182

Table 9.A.2 Detailed and final CMS codes by country

Group A	Group B	Switzerland ⁽¹⁾	Final Code	
Eligible	Eligible	Eligible	E	
Completed interview	Completed interview	Completed interview	CI	
Not Interviewed	Not Interviewed	Not Interviewed	NI	
Noncontact	Noncontact (2)		NC	
Answering machine	Answering machine			
No message left	No message left			
Message left	Message left			
Phone number wrong	_			
No answer	No answer			
Ring no answer	Ring no answer			
Phone busy	Phone busy			
No one at home	No one at home			
Locked building / Gate community	Locked building - Gate community			
Other non contact	Other non contact			
Respondent not known at address	Respondent not known at address			
Mail returned	Mail returned			
Final non contact	Final non contact			
Other non contact	Other non contact			
Refusal	Refusal	Refusal	R	
Refusal: to busy / no time	Refusal: to busy / no time			
Refusal: not interested / against survey	Refusal: not interested / against survey			
Refusal: other	Refusal: other	Final refusal: by respondent		
Contact initial refusal	Contact initial refusal			
Interrupted interview	Interrupted interview	Interrupted interview	II	
Appointment made	Appointment made			
No appointment made	No appointment made			
Other non-interview	Other non-interview	Other non-interview	O	
Ineligible	Ineligible®	Ineligible	NE	
Respondent deceased	Phone number wrong (S)	Phone number wrong (S)		
Language barriers	Language barriers (S)	Language barriers (S)		
Occupants reside elsewhere	No age eligible individual (S)	Non-Sample: 50 - (S)		
Bad / not existing address	Not residential phone number (S)	Non-Sample: sample line improper (S)		
Physically or mentally impaired	Physically or mentally impaired	Physically or mentally impaired		
No eligible respondent after CV	No eligible respondent after CV			

Table 9.A.2 Detailed and final CMS codes by country (continue)

Group A	Group B	Switzerland	Final Code
Unknown Eligibility	Unknown Eligibility®	Unknown Eligibility	UE
No contact attempted	No contact attempted (S)	No contact attempted (S)	UE _{NCA}
	Non-response (S)	Non-response (S)	UE_{NR}
	Noncontact (S) (4)	Noncontact (S)	UE_{NC}
		Answering machine	
		No message left	
		Message left	
		No answer	
		Ring no answer	
		Phone busy	
		No one at home	
		Other non contact	
		Non contactable during fieldwork	
		Other non contact	
	Refusal (S) (5)	Contact initial reluctance: by informant (S)	UE_R
	Other (S) (6)	Other (S) (6)	$U\!E_o$

Note: Country group A: Denmark, Germany, Italy, Netherlands, Spain and Sweden. Country group B: Austria, Greece and Switzerland. CMS data are not available in France.

CMS data are not available in France.

(-) category does not apply

(1) Switzerland used a different Sample Management System.

(2) Noncontact for the eligible part of the sample can only apply in Austria, but not in France, Greece, Belgium and Switzerland.

(3) Call level data are not available in Austria for the ineligible cases and the cases with unknown eligibility.

Results are in these cases based on the aggregate number provided by the survey agency.

(4) Same sub-categories as "Eligible, Not interviewed, Noncontact".

(5) Same sub-categories as "Eligible, Not interviewed, Refusal".

(6) Same sub-categories as "Eligible, Not interviewed, Other non-interview".

Table 9.A.3 Outcome rate formulas

Table 7.11.5 Outcome late formulas	
Participation rate	$\frac{CI}{GS}$
Estimated proportion of eligible household	$p = \frac{E}{E + NE}$
Eligibility rate	$\frac{E + p \cdot UE}{GS}$
Household response rate	$\frac{CI}{E + p \cdot UE}$
Contact rate	$\frac{(CI + R + II + O) + p(UE_R + UE_O)}{E + p \cdot UE}$
Cooperation rate	$\frac{CI}{(CI + R + II + O) + p(UE_R + UE_O)}$
Refusal Rate	$\frac{(R+II) + pUE_R}{E + p \cdot UE}$
Other non-interview rate	$\frac{O + pUE_o}{E + p \cdot UE}$
Individual response rate	$\frac{CI}{\overline{n}_1(E+p\cdot UE)}$

10 Generated Income Variables in SHARE Release 1

Agar Brugiavini, Enrica Croda, Omar Paccagnella, Roberta Rainato, and Guglielmo Weber

10.1 Introduction

This chapter documents the construction of *gross total annual income variables for 2003* in SHARE Release 1, at the individual as well as at the household level.¹

Let:

 Y_{DIP} gross individual income from employment Y_{IND} gross individual income from self-employment

Y_{PENS} gross individual income from pension

Y_{REG} gross individual income from private regular transfers (e.g. alimony...)

Y_L gross individual income from long term care

 Y_{BEN} sum of the gross incomes of other household members and other benefits Y_{AS} capital assets income (income from bank accounts, from bonds, from stocks or shares and from mutual funds

rent payments received, plus imputed rents

we define:

 Y_{HO}

 Y_{Ri} = $Y_{DIP} + Y_{IND} + Y_{PENS} + Y_{REG} + Y_{L}$

 $Y_{HH} = \sum_{i} Y_{Ri} + Y_{BEN} + Y_{AS} + Y_{HO}$

where

 Y_{Ri} gross total individual income of respondent I

Y_{HH} gross total household income.

The generated variables are provided in a Stata data set **sharerel1_gv_inc.dta**, containing individual and household income information for each respondent. More precisely, in order to allow users to rely on multiple imputations, we provide 5 different final output data sets **sharerel1_gv_incj.dta** (j = 1,...5). Section 10.6 for a brief discussion of multiple imputations.

10.2 Data availability and problems

10.2.1 General

We have chosen not to eliminate unusual values and possible outliers in the original data. The only exceptions to this rule are pension amounts in the Netherlands, where the Country Team deemed it necessary to transform the original data before using them in our programs (see Section 10.2.4 for details).

¹ Stata programs available upon request.

10.2.2 Availability

The SHARE questionnaire contains income-related questions in different modules. Income variables can be found in the employment and pensions module (EP), the household income module (HH), the housing module (HO), and the assets module (AS).

Questions may refer to different time frames. Employment and self-employment income amounts are asked directly as approximate yearly amounts. In contrast, the annual amount of income received from a specific pension or a specific regular payment needs to be calculated from 3 variables: average payment in 2003, the period covered by the payment, and the number of months in which the respondent has received that income payment in 2003. Lastly, long term care insurance income is asked as monthly amount. The income amount information available in each module is the following.

Module EP provides:

- o gross annual income from employment in 2003
- o gross annual earnings from self-employment in 2003
- o gross income from pension, average amount of a typical payment in 2003
- o gross income from regular transfers, average amount of a typical payment in 2003
- o gross monthly income from long term care insurance

Module HH provides:

- o gross annual income from other household members in 2003
- o gross annual household payments (poverty relief, child benefits, ...) in 2003

Module HO provides:

- o gross annual income or rent from secondary home
- o amount still to pay on mortgage and loans, net of interest
- o self-reported value of the house for home-owners

Module AS provides:

- gross annual interest from bank accounts, transaction accounts or saving accounts
- o gross annual interest from government or corporate bonds
- o gross annual dividend from stocks or shares
- gross annual interest or dividend from mutual funds or managed investment accounts

Note that some questions refer to the net rather than the gross value.

10.2.3 Euro and pre-Euro amounts

We express monetary amounts in Euro.

Non-Euro countries (Switzerland, Denmark and Sweden), however, report amounts in local currency. We convert these amounts into Euro by applying the exchange rates listed in Table 10.1.

Table 10.1 Exchange rates

Country	Currency	Old currency	Exchange rate
			(x to the Euro)
Austria	Euro	Austrian Schilling	13.7603
Germany	Euro	German Mark	1.95583
Sweden	Swedish Krona	-	9.1803
Netherlands	Euro	Dutch Guilder	2.20371
Spain	Euro	Spanish Peseta	166.386
Italy	Euro	Italian Lira	1936.27
France	Euro	French Franc	6.55957
Denmark	Danish Kroner	-	7.4388
Greece	Euro	Greek Dracma	340.75
Switzerland	Franc	-	1.5342

For Euro countries, if the answer to the Euro amount question is missing, but there is a non-missing value for the pre-Euro amount question, we use the latter (and convert the amount in Euro, see Chapter 3 for a description of the pre-Euro option in the survey instrument). For all countries, if the answer to the Euro amount question is "Don't Know" or "Refuse", we try to recover a value using the information available in the unfolding brackets.

10.2.4 Special procedures for particular variables

Some variables require special procedures

o Pension amounts

The annual amount of pension received is obtained using information from 3 variables: one amount variable (the average payment in 2003) and two frequency variables (the period covered by the payment, and number of months in which the respondent has received the payment in 2003)

To recover "invalid" ("Don't Know", "Refuse" or ".") values, we use conditional hot-decking for amount variables, and linear regressions for frequency variables.

O Amount variables in module HO We follow a strategy similar to the one described for pension amounts.

o Private Regular Payments

The annual amount of private regular payments is also obtained using information from 3 variables, one amount variable and two frequency variables. However, in this case, we follow a different strategy. First, we use hot-deck to recover "invalid" amount values. Next, we put to 0 the invalid values of the frequency variables.

- O Amount variables in modules AS and HH
 We follow a strategy similar to the one described for pension amounts.
- We have decided to impute rents for home-owners because they may represent a large fraction of resources at old age. We use information on self-reported house value and residual mortgage repayments derived from module HO. The interest rate of the imputed rents is fixed to 4% for all countries.

o Public pensions

In the Netherlands public pensions are received by all elderly individuals. In the case of couples in which both spouses don't work anymore, household-heads collect public pension both for themselves and for their spouses. Basically, public pensions in the Netherlands seem to represent household income rather than individual income. In contrast, Dutch occupational pensions are person-specific and are considered by the respondents as private pensions.

10.3 Imputations

We perform two types of imputations: imputations on amount variables, using the unfolding brackets (UBs) information and the hot-deck method, and imputations on frequency variables, using regression methods.

10.3.1 Unfolding brackets

The three bracket cut-off values (v1,v2,v3) define 9 intervals (INT1,...INT9), depicted in Figure 10.1.

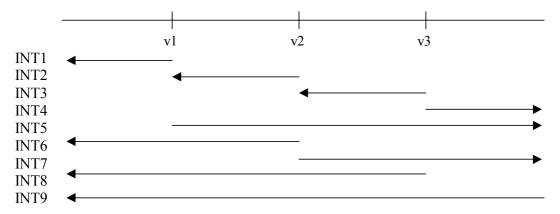


Figure 10.1: UB-defined intervals

The SHARE UB design is quite successful at recovering information for those respondents who were unwilling to answer or didn't know the exact answer.² Consider public old-age pension amount, for instance. Table 10.2 shows that 86.4% of the 8,602 respondents who report receiving income from public old-age pension, provide a 'valid/exact/continuous' answer to the amount question. More than half of the initial non-respondent complete the UB sequence, accounting for 8.3% of the recipients. Another 5.2% of the recipients enter the UB sequence and may give us some information so that we can narrow down the range in which their public old age income falls.

10.3.2 Imputation of amount variables: conditional hot-deck

We use the conditional hot-deck procedure to produce imputations for those cases in which respondents "Refuse" to answer or answer "Don't Know" to an amount question in modules EP, HO, AS and HH, and the associated UBs provide enough information to identify an interval. For this purpose, in the programming the "Refuse" or "Don't Know" cases for the Euro amounts (usually coded as 8e20 or 9e20), are considered as 'missing'.

² Chapter 12 provides a comparison of SHARE to ELSA and HRS for several variables.

Table 10.2 Public old age pension amount, percentage of recipients answering amount question or related UB sequence

Country	continuous amount	complete UB	incomplete UB	Total
		sequence	sequence	
AT	85.57	7.88	6.55	100
DE	84.25	8.38	7.37	100
SE	90.27	6.80	2.93	100
NL	82.89	11.18	5.92	100
ES	83.66	10.80	5.54	100
IT	87.71	10.63	1.67	100
FR	87.34	7.46	5.21	100
DK	85.93	9.09	4.97	100
GR	86.33	7.58	6.09	100
СН	94.8	2.26	2.94	100
All	86.43	8.32	5.24	100

The conditional hot-deck we implement is quite simple. We impute only the amount variable (and not the associated "ownership" variable that provides information regarding whether that income, pension or benefit was received), and we impute only one variable at a time. In the intervals 1 through 8, we stratify only by country. In contrast, in interval 9, we use a richer set of conditioning variables depending on the variable being imputed. Specifically, we stratify by country, gender and education for the imputation of employment incomes, by country, gender and age for pension incomes, and, lastly, by country and age for incomes from regular payments.³

For module HO, we use the imputed values for the two variables the self-reported house value and the residual mortgage provided by the Assets Working Group.

For module AS, we perform hot-deck imputations for the intervals INT1-INT8, and for INT9 we impute asset income as 2.5% of the associated imputed stock variable (using the imputations described in Chapter 11 of this Volume).

We perform one round of imputations for each variable. However, we do provide multiple imputations, obtained by running the whole income programs package multiple times.

10.3.3 Imputations for frequencies: regression method

For the imputation of relevant frequencies, we resort to linear regression techniques. In particular, we use the linear regression only for the frequencies of pensions received. The explanatory variables in these regressions are: age, gender, and indicators for whether the associated amount variable belong to the 1st, 2nd and 3rd quartile. The estimated coefficients for each frequency variable are produced separately by country.

³ Note that the hot-deck in a (conditioning variables, interval)-cell cannot be performed if there are no "donors" in that cell. In addition, the hot-deck is based on randomisation and repeating the procedure on exactly the same sample may give (slightly) different outcomes.

10.4 Naming conventions

10.4.1 General

Let X be an original variable and Y denote an aggregate variable derived from X. We use the following naming convention. YE denotes an amount variable possibly imputed and expressed in Euro. YP denotes the PPP-adjustment of YE, where we used the current OECD purchasing power parity, provided by Christelis, Jappelli and Padula (see Chapter 11 in this volume). Finally, YF denotes a flag variable indicating the nature of the imputations performed on the specific case.

10.4.2 Flag variables

We generate different types of flag variables, depending on the characteristics of the variables they are associated with.

A. Labels of the flag variables of an amount variable (e.g. earnings or pensions) that follows an ownership question and for which unfolding bracket sequence is possible

- 1 *valid response:* The respondent provides a valid response (in Euro or non-Euro).
- 2 *complete bracket:* The respondent answers 'refuse' or 'don't know' on the amount-question, enters the unfolding bracket sequence and follows it until the end. We include here answers of the 'about' category.
- *incomplete bracket:* The respondent answers 'refuse' or 'don't know' on the amount-question, enters the unfolding bracket sequence and at least provides a valid answer to the first question but does not finish this sequence for some reason. At some point in the sequence the respondent answers 'refuse' or 'don't know'.
- 5 *no value/bracket:* The respondent answers 'refuse' or 'don't know' on the amount-question, enters the unfolding bracket sequence but does no provide a valid answer to the first question and does not finish this sequence for some reason.
- 6 *no ownership:* This respondent is not asked the amount question. The respondent answers in a previous question that he or she does not own this item or has no such source of income.
- 7 rf/dk ownership: This respondent is not asked the amount question. The respondent answers in a previous question on ownership 'refuse' or 'don't know'.
- 9 no respondent for this module: The questionnaire identifies the household, housing and financial respondent. If this household, housing and financial respondent does not answer the specific CAPI-module (e.g. a financial respondent does not answer the AS module), this flag is up.

B. Labels of the flag variables for an amount variable (e.g. long term care) without unfolding brackets and for frequency variables

- 1 *valid response:* The respondent provides a valid response (in Euro or non-Euro).
- 5 *rf/dk:* The respondent answers 'refuse' or 'don't know' or no valid value "dot, missing".
- 6 *no ownership:* This respondent is not asked the amount question. The respondent answers in a previous question that he or she does not own this item or has no such source of income.
- 7 rf/dk ownership: This respondent is not asked the amount question. The

- respondent answers in a previous question on ownership 'refuse' or 'don't know'.
- 9 *no respondent for this module:* The questionnaire identifies the household, housing and financial respondent. If this household, housing and financial respondent does not answer the specific CAPI-module, this flag is up.
- 12 *does not apply to the country:* The specific question is not asked to respondents of that country (used only for long term care).

C. Labels of the flag variables of a composed amount variable (e.g. household income)

- 0 does not apply⁴
- 1 *no imputations:* The respondent provides valid responses to all questions on which this composed variable is based. Hence no imputations are needed.
- 5 *some imputations:* The respondent does not provide valid responses to all questions on which this composed variable is based and some imputations are needed to construct this variable.
- 11 *imputation failed:* The hot-deck procedure may fail it happens very rarely because there are no donors that can be used for that specific interval

10.5 Final output: list of variables in sharerel1_gv_inc.dta⁵

The names of the final variables provided are listed below. As mentioned above, the suffix e indicates that a variable is expressed in Euro (after conversion from original non-Euro values where applicable). The suffix p denotes a conversion of the Euro amount to an amount adjusted to reflect the differences in the price levels between countries. The suffix f denotes the flag variable associated to a specific variable.

The file **sharerel1_gv_inc.dta** contains individual and household income information for each respondent.

The gross annual individual income is delivered in variable yre (in Euro) and in variable yrp (in PPP-adjusted Euro). The gross annual household income is delivered in variable yhhe (in Euro) and in variable yhhp (in PPP-adjusted Euro).

We provide also relevant income components that were constructed and aggregated to obtain total income measures. Some of these income components are country-specific. Hence, we assign them generic names and labels. In particular, this is the case with ypensk (k = 1,...11) and $yreg_k$ (k = 1,...5). The reader is referred to the SHARE web-site for further documentation on these variables.

IDs

sampid2 HOUSEHOLD ID

cvid COVERSCREEN ID OF RESPONDENT

country Country

Individual level variables

yre gross annual individual income in Euro yinde gross annual self-employment income in Euro ydipe gross annual employment income in Euro yle gross annual long term care in Euro

penske gross annual country specific pension income k in Euro, k = 1 to 11

⁴ The amount question is asked only if the respondent answer "yes" to the associated ownership question. "Does not apply" in this context means that the associated ownership variable is not "yes".

⁵ Notice that we provide 5 different final output data sets sharerel1_gv_incj.dta (j = 1,...5). See Section 10.6 below for further details.

Generated Income Variables

yreg_ke gross annual country specific regular payment k in Euro, k = 1 to 5

yrp gross annual individual income PPP-adjusted (Euro) yindp gross annual self-employment income PPP-adjusted (Euro) ydipp gross annual employment income PPP-adjusted (Euro) ylp gross annual long term care PPP-adjusted (Euro)

ypenskp gross annual country specific pension income k PPP-adjusted (Euro), k = 1 to 11 gross annual country specific regular payment k PPP-adjusted (Euro), k = 1 to 5

irf flag for the gross annual individual income amount iindf flag for the gross annual self-employment income amount idipf flag for the gross annual employment income amount ilf flag for the gross annual long term care amount

ipkf flag for the gross annual country specific pension income k amount, k = 1 to 11 Iregkf flag for the gross annual country specific regular payment k amount, k = 1 to 5

Household level variables

yhhe gross annual household income in Euro

yhie income from other household members in Euro

yothe other household benefits in Euro yrente rent value at household level in Euro

yirente imputed rent value at household level in Euro bank account at household level in Euro

ybonde government or corporate bonds at household level in Euro

ystoce stocks or shares at household level in Euro yfunde mutual funds at household level in Euro

yhhp gross annual household income PPP-adjusted (Euro)

yhip Income from other household members PPP-adjusted (Euro)

yothp other household benefits PPP-adjusted (Euro)
yrentp rent value at household level PPP-adjusted (Euro)
yirentp imputed rent value at household level PPP-adjusted (Euro)
ybaccp bank account at household level PPP-adjusted (Euro)

ybondp government or corporate bonds at household level PPP-adjusted (Euro)

ystocp stocks or shares at household level PPP-adjusted (Euro) yfundp mutual funds at household level PPP-adjusted (Euro)

ihhf flag for the gross annual household income ihif flag for the income from other household members

iothf flag for other household benefits irentf flag for the rent value at household level

iirentf flag for the imputed rent value at household level ibaccf flag for the bank account at household level

ibondf flag for the government or corporate bonds at household level

istocf flag for the stocks or shares at household level ifundf flag for the mutual funds at household level

10.6 Multiple imputations in the generated income programs package

The income programs package discussed here performs only one round of imputations for each variable using country-specific univariate conditional hot-deck as imputation method for amount variables and linear regressions as imputation method for frequency variables. However, we do provide multiple imputations, constructed as follows. We set the number of replications M to 5, and we provide 5 different final output data sets, **sharerell_gv_incj.dta** (j = 1,...5), each obtained running the income programs package using a different (imputed) assets data set as input and a different seed for the randomization in the hot-deck procedure. In particular, in addition to the original SHARE 2004 data,

- o sharerel1_gv_inc1.dta uses sharerel1_gv_as1 and seed = 123456789 (Stata's default)
- sharerel1_gv_inc2.dta uses sharerel1_gv_as2 and seed = 1000
- o sharerel1_gv_inc3.dta uses sharerel1_gv_as3 and seed = 10000
- o sharerel1_gv_inc4.dta uses sharerel1_gv_as4 and seed = 100000
- o sharerel1_gv_inc5.dta uses sharerel1_gv_as5 and seed = 1000000

The reader is referred to Chapter 11 for details on the assets datasets **sharerel1_gv_asj.dta** (j = 1,...5), and on the use of multiple imputations in estimation.

Acknowledgements

We are grateful to Dimitris Christelis and Adriaan Kalwij for helpful discussions.

11 Generated Asset Variables in SHARE Release 1

Dimitrios Christelis, Tullio Jappelli, and Mario Padula

11.1 Introduction

This chapter describes the construction of the wealth-related variables in SHARE, namely their definition and naming, the purchasing power adjustment, the imputation procedures used, and the structure of the program that performs these calculations.

11.2 Definitions

11.2.1. Amounts

First, the following individual-level magnitudes are generated (the question names to which they correspond are in parentheses):

- i) Value of the primary residence.
- ii) Value of the mortgage.
- iii) Value of other real estate.
- iv) Value of bank accounts. When the value of this variable is initially negative, it is set to zero and the negative part is added to the financial liabilities.
- v) Value of government and corporate bond holdings.
- vi) Value of stock holdings.
- vii) Value of mutual fund holdings.
- viii) Value of individual retirement accounts.
- ix) Value of the contractual savings for housing.
- x) Value of life insurance policies.
- xi) Value of owned business, including the non-owned part of it.
- xii) Owned share of own business.
- xiii) Value of owned cars.
- xiv) Value of financial liabilities plus the negative bank account balances.

By multiplying xi) by xii) above one obtains:

xv) Value of owned share of own business.

In addition, we impute the value of risky assets, which we define to be direct stock holdings, and the percentage of holdings in mutual funds and individual retirement accounts that are invested in stocks. We cannot directly observe the latter two quantities. We have however questions for both mutual funds and individual retirement accounts, which give information on whether the amount invested is mostly in stocks, roughly equally in stocks and bonds or mostly in bonds. We impute respectively to these three possible answers the following percentages of investment in stocks: 75%, 50% and 25%. Using this imputation we construct:

xvi) Value of holdings of risky financial assets.

At a second stage, the individual-level variables i, ii, iii, iv, v, vi, vii, viii, ix, x, xiii, xiv, xv and xvi defined above are summed over all household members in order to

generate the corresponding household-level variables. In addition we generate the following household-level aggregates:

- xvii) Real assets are defined as the sum of the value of the primary residence net of the mortgage, the value of other real estate, the owned share of own business and the owned cars.
- xviii) Gross financial assets are equal to the sum of the values of bank accounts, government and corporate bonds, stocks, mutual funds, individual retirement accounts, contractual savings for housing and life insurance policies owned by the household.
- xix) Net financial assets are equal to gross financial assets minus financial liabilities.
- xx) Risky financial assets are equal to sum of direct stockholding and the imputed share of mutual funds and individual retirement accounts invested in stocks.
- xxi) Net worth is equal to the sum of real and net financial assets

There are some deviations in the definitions of some assets across countries. Individual retirement accounts are not included for the Netherlands, whereas in Austria a different kind of retirement accounts is reported, called *Prämiengeförderte Zukunftsvorsorge*, which are state-run. In addition, there are two kinds of life insurance in France: (a) Life insurance that is an annuity paid as long as the policy holder remains alive, which is counted as part of the individual retirement accounts; (b) Life insurance that is paid to survivors in case of death of the policy holder, which is counted as part of life insurance holdings.

11.2.2 Flag variables

In addition to generating the variables for the wealth-related items, we need to generate their corresponding flag variables, which contain information about how the amount variables were constructed. For individual-level variables the flag variable takes the following values:

- 1 Continuous answer: the respondent answered with a positive or negative value to the amount question, and there was no need to amend her answer in any respect.
- 2 Complete bracket: the respondent did not want or did not know how to answer the amount question, but then entered into the unfolding bracket procedure and successfully completed it.
- 3 *Incomplete bracket*: the respondent did not want or did not know how to answer the amount question, entered into the unfolding bracket procedure but did not complete it.
- 5 Refusal to start the bracket sequence: the respondent did not want or did not know how to answer the amount question, and again refused or did not know how to answer the first unfolding bracket question.
- 6 No ownership: the respondent does not own the item.
- Refusal/Don't know on ownership question: the respondent refused or did not know how to answer the question on ownership that precedes the amount question for each item.
- 9 *Is not a financial respondent*: the respondent is not the designated financial respondent for the household and does not report any amount for the item.

Negative values, 0s, implausibly low positive values, wrong currency answers, very high outliers: this broad category includes cases for which it was decided that the values were so implausible as to be a result of some mistake or an alternative form of refusal to answer the question. For these cases we used imputation to fill in the values.

The flag variable takes the following values for household-level variables:

- 0 Doesn't own the item: no household member owns the item in question.
- 1 *No imputation*: there has been no imputation done for any household member for the item in question.
- 5 Some imputations: there has been imputation for at least one household member for the item in question or, in case of a composite item, for at least one of its constituent parts.
- 9 No housing/asset/liability module respondent: there is no respondent for the particular household in the housing/asset/liability module of the survey, but imputation is still performed.

Some clarifications are needed for the last value of the flag variable for individuals. We treated negative values as implausible, with the exception of bank accounts and the value of own business. The balance of the former can be negative because of overdrafts for example, and the latter's value can be negative when the assets of the business are less than its liabilities.

There are some cases for which the amount is stated to be zero, while the ownership variable is positive. This might be an indication of refusal to answer the amount question, without going into the unfolding brackets procedure. We consider these cases to be missing and we impute them.

For countries that have adopted the Euro as their currency (i.e. Austria, Belgium, France, Germany, Greece, Italy, Netherlands, Spain), the respondent can give an answer to an amount question either in Euro or in pre-Euro currency. Unfortunately, some answers in pre-Euro currency are entered by mistake as an answer in Euro and vice-versa. This mistake can be detected only for countries for which the Euro conversion exchange rate is very high, namely Italy (exchange rate equal to 1936.27), Greece (340.75), Spain (166.39), and possibly Austria (13.76), Sweden (9.18), Denmark (7.44) and France (6.56), and for answers with unusually high values in Euro or for unusually low values in local currency. In determining whether an answer is entered in the wrong currency column we also take into account whether the respondent has answered other questions in pre-Euro currency. When the answer is deemed to be entered in the wrong currency, we divide or multiply by the exchange rate.

Finally, after correcting for a wrong currency entry, we are still left with some implausibly high outliers. The thresholds above which a value is considered to be a high outlier are: 15,000,000 for the primary residence, the mortgage, other real estate, bank accounts, stocks and mutual funds, 10,000,000 for bonds and financial liabilities, 5,000,000 for individual retirement accounts, contractual savings, life insurance holdings and cars and 50,000,000 for the value of an own business. We set the values above those thresholds to missing and impute them, conditional on being on the highest bracket.

11.2.3 Top coding

Swedish data has been top-coded (i.e. values have been modified to equal a maximum level if they originally supersede it) due to legal constraints, according to the Swedish Secrecy Act. The variables that are subject to top-coding are:

- 1) Value of the primary residence, with a top-coding threshold of 9,000,000 SEK or 1,000,000 Euro
- 2) Value of other real estate, with a top-coding threshold of 25,000,000 SEK or 2,750,000 Euro
- 3) Household net worth, with a top-coding threshold of 15,000,00 Euro.

Variables hnetwv_p (household net worth in Euro with adjustment for purchasing power parity), hrav_e and hrav_p (household value of real assets, in Euro and purchasing power parity-adjusted Euro respectively) are calculated obeying the aforementioned top-coding constraints.

11.3 Variable names

In the table below one can find the names of the variables that are generated by the asset working group. The suffix _e signifies that the answer is in Euro (after conversion from an original non-Euro currency answer where applicable) while the suffix _p denotes a conversion of the amount in Euro to an amount adjusted to reflect the differences in the price levels between countries. This adjustment is made using purchasing power parities (PPP) provided by the Organization for Economic Co-operation and Development (OECD) and is described in Section 11.4 below. The suffix _f denotes the flag variable corresponding to a particular item and the prefix h signifies that the variable is computed at the household level.

Dataset indexing variable

implicat Indexes each dataset generated by multiple imputation (see Section 11.5.4 below)

Individual-level variables

homev_e	Value of the house, not PPP-adjusted (Euro)
mortv_e	Value of the mortgage, not PPP-adjusted (Euro)
oresv_e	Value of other real estate, not PPP-adjusted (Euro)
baccv_e	Value of bank accounts, not PPP-adjusted (Euro)
bondv_e	Value of bonds, not PPP-adjusted (Euro)
stocv_e	Value of stocks, not PPP-adjusted (Euro)
mutfv_e	Value of mutual funds, not PPP-adjusted (Euro)
irav_e	Value of individual retirement accounts, not PPP-adjusted (Euro)
contv_e	Value of contractual savings for housing, not PPP-adjusted (Euro)
linsv_e	Value of life insurance, not PPP-adjusted (Euro)
gbusv_e	Value of own business (not the owned share thereof), not PPP-adjusted (Euro)
sbusval	Owned share of own business (percentage points)
ownbv_e	Value of the owned share of own business, not PPP-adjusted (Euro)
carv_e	Value of cars, not PPP-adjusted (Euro)
liabv_e	Value of financial liabilities, not PPP-adjusted (Euro)
riskv_e	Value of risky financial assets, not PPP-adjusted (Euro)
homev_p	Value of the house, PPP-adjusted (Euro)
mortv_p	Value of the mortgage, PPP-adjusted (Euro)
oresv_p	Value of other real estate, PPP-adjusted (Euro)
baccv_p	Value of bank accounts, PPP-adjusted (Euro)
bondv_p	Value of bonds, PPP-adjusted (Euro)
stocv_p	Value of stocks, PPP-adjusted (Euro)
mutfv_p	Value of mutual funds, PPP-adjusted (Euro)
irav_p	Value of individual retirement accounts, PPP-adjusted (Euro)
contv_p	Value of contractual savings for housing, PPP-adjusted (Euro)

Generated Asset Variables

Value of life insurance, PPP-adjusted (Euro) linsv_p

gbusv_p Value of own business (not the owned share thereof), PPP-adjusted (Euro)

ownbv_p Value of the owned share of own business, PPP-adjusted (Euro)

Value of cars, PPP-adjusted (Euro) carv_p

Value of financial liabilities, PPP-adjusted (Euro) liabv_p Value of risky financial assets, PPP-adjusted (Euro) riskv_p

Flag for the value of the house homev_f Flag for the value of the mortgage mortv_f Flag for the value of other real estate oresv_f Flag for the value of bank accounts baccv_f Flag for the value of bonds bondv_f Flag for the value of stocks stocv_f

Flag for the value of mutual funds irav_f Flag for the value of individual retirement accounts Flag for the value of contractual savings for housing contv_f

 $linsv_f$ Flag for the value of life insurance

Flag for the value of own business (not the owned share thereof) gbusv_f

Flag for the owned share of own business sbusv_f

 $carv_f$ Flag for the value of cars

Flag for the value of financial liabilities liabv_f Flag for the value of risky financial assets riskv_f

Household-level variables

mutfv_f

Value of the house, not PPP-adjusted (Euro) hhomev e Value of the mortgage, not PPP-adjusted (Euro) hmortv e Value of other real estate, not PPP-adjusted (Euro) horesv e Value of bank accounts, not PPP-adjusted (Euro) hbaccv e Value of bonds, not PPP-adjusted (Euro) hbondv e Value of stocks, not PPP-adjusted (Euro) hstocv e

Value of mutual funds, not PPP-adjusted (Euro) hmutfv e Value of individual retirement accounts, not PPP-adjusted (Euro) hirav e Value of contractual savings for housing, not PPP-adjusted (Euro) hcontv e

Value of life insurance, not PPP-adjusted (Euro) hlinsv e

hownby e Value of the owned share of own business, not PPP-adjusted (Euro)

hcarv e Value of cars, not PPP-adjusted (Euro)

hliabv e Value of financial liabilities, not PPP-adjusted (Euro) Value of real assets, not PPP-adjusted (Euro) hrav_e

Value of gross financial assets, not PPP-adjusted (Euro) hgfinv e Value of net financial assets, not PPP-adjusted (Euro) hnfinv e hrisk e Value of risky financial assets, not PPP-adjusted (Euro)

Net Worth, not PPP-adjusted (Euro) hnetwv e hhomev_p Value of the house, PPP-adjusted (Euro) hmortv_p Value of the mortgage, PPP-adjusted (Euro) horesv p Value of other real estate, PPP-adjusted (Euro) hbaccv p Value of bank accounts, PPP-adjusted (Euro) hbondv_p Value of bonds, PPP-adjusted (Euro)

hstocv p Value of stocks, PPP-adjusted (Euro) hmutfv_p Value of mutual funds, PPP-adjusted (Euro)

hirav_p Value of individual retirement accounts, PPP-adjusted (Euro) hcontv_p Value of contractual savings for housing, PPP-adjusted (Euro)

hlinsv_p Value of life insurance, PPP-adjusted (Euro)

hownbv_p Value of the owned share of own business, PPP-adjusted (Euro)

hcarv_p Value of cars, PPP-adjusted (Euro)

hliabv_p Value of financial liabilities, PPP-adjusted (Euro)

Value of real assets, PPP-adjusted (Euro) hrav_p

hgfinv_p Value of gross financial assets, PPP-adjusted (Euro) hnfinv_p Value of net financial assets, PPP-adjusted (Euro) Value of risky financial assets, PPP-adjusted (Euro) hriskfv_p

Net Worth, PPP-adjusted (Euro) hnetwv_p hhomev f Flag for the value of the house hmortv_f Flag for the value of the mortgage

horesv_f	Flag for the value of other real estate
hbaccv_f	Flag for the value of bank accounts
hbondv_f	Flag for the value of bonds
hstocv_f	Flag for the value of stocks
hmutfv_f	Flag for the value of mutual funds
hirav_f	Flag for the value of individual retirement accounts
hcontv_f	Flag for the value of contractual savings for housing
hlinsv_f	Flag for the value of life insurance
hownbv_f	Flag for the value of the owned share of own business
hcarv_f	Flag for the value of cars
hliabv_f	Flag for the value of financial liabilities
hrav_f	Flag for the value of real assets
hgfinv_f	Flag for the value of gross financial assets
hnfinv_f	Flag for the value of net financial assets
hriskv_f	Flag for the value of risky financial assets
hnetwv_f	Flag for the net worth

11.4 Calculation of Purchasing Power Parities

The PPP adjustment is performed to correct for price level differences across countries. It is performed after all amounts are already expressed in Euro, and thus one needs only the relative price levels of the different countries in order to calculate the PPP-adjusted amounts. Data for price levels of the SHARE countries are taken from the OECD (found at www.oecd.org/dataoecd/48/18/18598721.pdf, dated July 2004). The PPP adjustment is made by dividing the individual country prices by the average of the 11 SHARE countries (i.e. including Belgium). This average is computed using as weight the second quarter 2004 nominal private consumption divided by the price level of each country (in order to remove the differential price effect).

It has to be noted that even after adjusting for differences in prices, the values of economic variables are still nominal since they correspond to a basket of goods valued at the same but still current prices. Thus, to compute the PPP-adjusted values one divides the nominal values in Euro by the following relative price ratios:

Country	Prices relative to SHARE-11
Austria	0.9918
Belgium	1.0013
Denmark	1.2658
France	1.0296
Germany	1.0296
Greece	0.8501
Italy	0.9446
Netherlands	1.0202
Spain	0.8501
Sweden	1.1241
Switzerland	1.3602

11.5 Imputation

Answers to the SHARE asset questions often result in values that require imputation. A breakdown by country and item of the percentage of observations that require imputation is shown in Table 11.A.10. Imputation is performed using an imputation package in Stata called hotdeck, which is based on the approximate Bayesian bootstrap defined in Rubin and Schenker (1986). This procedure requires classifying the non-missing observations in cells defined by one or more classificatory variables, and from these cells bootstrap samples are drawn. These samples are used to impute the missing observations in each cell. The hot deck is performed for one variable with missing values at a time. In choosing the number of variables to define

the cells we face a trade-off. The higher their number is, the better the match between the missing and the non-missing observations, but the smaller the number of observations with non-missing values within the cell. We use multiple imputation during which the hot deck procedure creates five different values for each missing one. This is done by drawing five samples with replacement from the cells of non-missing observations. Further details are given in Section 11.5.4.

11.5.1 Imputation of Ownership Variables

Each question about the amount of an item is preceded by a corresponding question about whether this item is owned or not. The ownership questions corresponding to each asset are:

- i) Primary residence.
- ii) Mortgage.
- iii) Other Real Estate.
- iv) Bank accounts, bonds, stocks, mutual funds, respondent's individual retirement account, contractual savings for housing, life insurance.
- v) Individual retirement account of the respondent and his/her spouse.
- vi) Own business.
- vii) Cars.
- viii) Financial Liabilities.

If an individual gives a response of don't know or refuses to answer the ownership question, then ownership is imputed. In addition there are households in which no individual gives any response for the housing, financial assets or financial liabilities module. In that case ownership is imputed for the designated household head. The imputation is done using country and age as classificatory variables for the hot deck procedure.

11.5.2 Imputation of Amount Variables

Once the ownership question has an original or imputed positive value, the amount is imputed in the following cases:

- a) When the ownership is imputed and the result is positive (flag variable equals 7).
- b) When the individual gives a response of don't know/refusal and either does not start the unfolding brackets procedure (flag variable equals 5), or does not complete it (flag variable equals 3), or completes it without giving a specific amount as an approximate answer (flag variable equals 2, which is however the value also if the approximate amount is given during the unfolding bracket procedure).
- c) When the original answer is an illegitimate negative value, a zero while the ownership answer is positive, an implausibly low positive value, a wrong currency answer or a very high outlier (flag variable equals 10).

In the end we divided the variables into three groups according to the criteria by which the cell classification for imputation was made (all imputations were made separately for each country):

a) Housing, bank accounts and cars. These variables contained numerous positive non-missing values, reflecting the wide ownership of the corresponding assets. In

- the case in which we did not know the bracket value we used age as an additional variable. When we knew the bracket value, we used it together with age.
- b) Mortgage. We needed to link the value of the mortgage to the value of the underlying house, in order to avoid as much as possible the case where the imputed value of the mortgage was greater than the value of the house. Thus, when we did not know the bracket value of the mortgage, we used the bracket value of the house as a classificatory variable; when we knew the bracket value of the mortgage we used it for the imputation. We left out the bracket value of the house because its inclusion would have made the cells too thin.
- c) Other real estate, bonds, stocks, mutual funds, individual retirement accounts, contractual savings for housing, life insurance, own business and owned share thereof and financial liabilities. These variables exhibited relatively few positive non-missing values. We used age to define the imputation cells when we did not know the bracket value, while we used the bracket value for their definition when we knew it.

Following convention, we use a male as the household head, provided his record is in the first two observations of a given household, since typically these are the lines where members of a couple or primary respondents are listed. If there's no male listed in the first two observations, we pick the first female listed as head. Having designated the household head, we had to decide whether to use the individual's or the household head's information (e.g. age) in order to classify each missing value into cells. Using the individual's characteristics assumes that s/he plays the most significant part in determining the value of (a potentially household-level) variable. On the other hand, the head's information can be more useful in cases where the head does not respond and the answer is provided by someone else purely for convenience reasons. If the household head responds, then each individual has his/her missing values imputed using his/her information. If the head does not respond then the first respondent with missing values is assigned the head's information, while any further respondents' answers are imputed using their own information.

11.5.3 Imputation of Indirect Stockholding

As already mentioned in Section 11.2.1 we need to determine what part of mutual funds and individual retirement accounts are invested in stocks, and to this effect we use the information stemming from the questions on whether the investment is mostly in stocks, roughly equally in stocks and and bonds, or mostly in bonds. When these two variables have missing values we impute them using hot deck by country and age.

11.5.4 Multiple Imputation

We generate five values for each missing one by running the same program five different times using a different seed to perform the hot deck imputation in each run of the program. Thus we generate five different implicate datasets which have identical values when these were not originally missing and potentially five different values for the missing cases. The five datasets are indexed by the variable implicat which takes the value 1 for the first dataset, 2 for the second and so on.

It is fundamental to always take into account the fact that we have five different datasets when performing any kind of analysis. This means that one should not use just one of the five datasets nor one should concatenate all five and treat them as one. Rather, one should perform the analysis on each dataset separately and then

combine the results from all five datasets using the results of Rubin (1987); see also Little and Rubin (2002) for a recent survey.

Let m=1,...,M index the imputation run (with M in our case equal to 5) and let $\hat{\beta}_m$ be our estimate of interest (e.g. sample median, regression coefficient etc.) from the mth implicate dataset. Then the estimate using all M implicate datasets is just the average of the M separate estimates, i.e.

$$\overline{\beta}_M = \frac{1}{M} \cdot \sum_{m=1}^M \hat{\beta}_m .$$

Results from the application of the averaging across the five implicate datasets can be found in Tables A.1-A.9, which display various asset-related economic magnitudes. The variance of this estimate consists of two parts. Let V_m be the variance estimated from the mth implicate dataset. Then the first magnitude one needs to compute is the average of all M variances, which constitutes the within-imputation variance, i.e.

$$WV_{M} = \frac{1}{M} \cdot \sum_{m=1}^{M} V_{m}$$

The second magnitude one needs to compute is the between-imputation variance, which is given by:

$$BV_{M} = \frac{1}{M-1} \cdot \sum_{m=1}^{M} \left(\hat{\beta}_{m} - \hat{\beta}_{M} \right)^{2}$$

Then the total variance of the estimate is equal to:

$$V_{\scriptscriptstyle M} = W \, V_{\scriptscriptstyle M} + \frac{M+1}{M} \cdot B \, V_{\scriptscriptstyle M}$$

As Little and Rubin (2002) point out, the second term in the above equation represents the share of the total variance due to missing values. One can perform a usual t-test of significance employing the following formula to compute the degrees of freedom n equal to:

$$n = (M-1) \cdot \left(1 + \frac{1}{M+1} \cdot \frac{WV_m}{BV_m}\right)^2$$

The package hotdeck in Stata has an option that allows the user to execute many commands using the generated implicate datasets and to combine the results according to the aforementioned rules. In addition, there are 2 other Stata packages, st0042 and st0067, which can be downloaded from the Internet and perform regression-based analysis using multiple imputation. Furthermore, we provide two additional Stata programs that show how multiple imputation calculations are done and that can be easily modified in order to calculate additional magnitudes of interest:

- a) mi-trial-descr.do: calculates means and medians.
- b) mi-trial-ols.do: performs an OLS regression and calculates coefficients, standard errors, t-statistics, p-values, adjusted R squared, F-test, rmse, log likelihood and likelihood ratio test.

Multiple imputation can also be performed in SAS using PROC MI and PROC MIANALYZE, and also in R and S-plus. SPSS version 12 has some problems with performing missing data analysis, as documented in von Hippel (2004). More information on multiple imputation can be found in the following sites:

www.stat.psu.edu/~jls/misoftwa.html www.multiple-imputation.com www.herc.research.med.va.gov/FAQ_I9.htm

11.6 Brief Description of the Program that generates the Asset Variables

The program is called Assets.do¹ and is programmed in Stata. It needs one additional package to run, called hotdeck, which can be downloaded from the Internet by executing the command "net install hotdeck". The program broadly consists of the following parts:

- 1) The data files are read. These are the three module files, _cm, _ho and _as for all countries (except Belgium for which data are not presently available).
- 2) Head status is determined.
- 3) The ownership and amount variables are defined, and the missing observations are recorded. Flag variables are also defined. All these calculations are done using the criteria described in Section 11.2.
- 4) Imputation of ownership (see Section 11.5).
- 5) Imputation of amount (see Section 11.5).
- 6) Imputation of indirect stockholding (see Section 11.5).
- 7) Definition of household-level variables and of aggregates (see Section 11.2).

Acknowledgements

We are grateful to Stephanie Stuck for her assistance and suggestions.

References

Little, R.J.A. and D.B.Rubin (2002), "Statistical Analysis with Missing Data", New York: Wiley, 2nd

Rubin, D.B. (1987), "Multiple Imputation for Nonresponse in Surveys", New York: Wiley.

Rubin, D.B and N. Schenker (1986), "Multiple Imputation for Interval Estimation from Simple Random Samples with Ignorable Non-response", *Journal of the American Statistical Association*, 81, 366-74

von Hippel, Paul T. (2004), Biases in SPSS 12.0 Missing Value Analysis, *The American Statistician*, 58, 160-64.

_

¹ This program, together with the two aforementioned programs mi-trial.descr.do and mi-trial-ols.do can be obtained from the corresponding author on an "as-is" basis upon request. They are distributed in the hope that they will be useful, but without warranties of any kind. All original material is provided under a Creative Commons Attribution-ShareAlike license.

Table 11.A.1 Median net worth and gross financial assets, with and without PPP adjustment

	Net W	orth	Gross Finan	Gross Financial Assets				
Country		Not PPP-	•	Not PPP-	Households (unweighted)			
	PPP-adjusted	adjusted	PPP-adjusted	adjusted				
SE	90.6	101.9	22.4	25.2	2,140			
DK	101.6	128.5	21.1	26.7	1,178			
DE	95.8	98.6	16.6	17.1	1,995			
NL	135.1	137.9	18.5	18.8	1,933			
FR	165.6	170.5	13.3	13.7	1,176			
CH	182.9	248.8	39.8	54.1	703			
AT	106.2	105.3	6.1	6.0	1,461			
IT	159.2	150.4	2.4	2.3	1,773			
ES	160.1	136.1	2.3	1.9	1,744			
GR	112.1	95.3	2.4	2.0	1,470			

Note: The table shows median household net worth and gross financial assets with and without adjusting for the differences in the purchasing power of money across countries. Amounts are expressed in thousand euro.

Table 11.A.2 Median net worth, by country and age group

Age	SE	DK	DE	NL	FR	СН	AT	IT	ES	GR
<55	82.3	117.8	113.0	195.2	181.0	151.1	166.1	160.2	140.2	148.5
55-59	107.7	125.0	153.5	204.4	204.5	257.2	116.2	204.4	163.0	167.7
60-64	139.9	145.3	128.8	173.5	168.0	250.4	132.1	200.1	132.2	135.9
65-69	126.2	112.3	118.7	83.1	167.3	185.6	110.5	154.4	152.3	105.1
70-74	86.2	71.4	61.3	76.8	169.7	186.1	76.2	141.8	116.0	88.9
75-79	70.4	75.4	102.6	50.9	156.3	100.5	73.4	133.1	123.9	96.8
80-84	54.0	44.6	21.6	32.5	125.6	168.7	26.0	63.3	92.8	70.3
85+	42.6	38.6	5.2	9.6	95.2	81.7	6.6	10.8	103.3	48.9

Note: Amounts are expressed in thousand PPP-adjusted euro.

Table 11.A.3 Median gross financial assets, by country and age group

Age	SE	DK	DE	NL	FR	СН	AT	IT	ES	GR
< 55	22.8	29.9	30.4	35.3	13.1	35.4	15.6	2.9	3.8	4.8
55-59	28.2	37.1	34.5	29.1	20.6	56.1	8.6	5.3	2.9	3.5
60-64	41.6	29.1	21.0	22.9	13.1	52.9	7.4	4.7	2.9	3.5
65-69	30.8	22.8	18.3	14.5	14.9	42.0	7.2	2.1	1.8	2.4
70-74	21.5	14.3	9.4	9.4	11.5	31.1	4.7	3.0	1.0	1.1
75-79	13.7	11.6	11.1	13.0	14.3	25.4	3.0	0.9	1.3	1.1
80-84	14.0	4.9	9.7	6.3	9.5	41.2	3.4	0.0	1.0	0.0
85+	12.5	5.9	3.1	6.1	8.1	28.8	0.0	0.0	2.1	0.0

Note: Amounts are expressed in thousand PPP-adjusted euro.

Table 11.A.4 Median net housing wealth, by country and age group

Age	SE	DK	DE	NL	FR	СН	AT	IT	ES	GR
<55	42.4	62.8	1.9	108.4	135.2	0.0	98.8	120.1	139.8	90.0
55-59	42.8	58.4	69.7	131.1	136.3	89.1	70.6	155.6	141.2	105.4
60-64	53.7	75.4	71.9	113.1	130.0	80.0	92.8	156.7	123.8	79.1
65-69	58.3	55.4	71.4	0.0	116.2	81.5	78.6	108.0	135.6	70.6
70-74	41.6	41.0	0.0	0.0	132.7	10.1	45.4	105.9	122.3	70.6
75-79	29.4	45.1	69.9	0.0	101.7	0.0	52.4	106.9	124.7	70.3
80-84	13.7	0.0	0.0	0.0	73.0	4.0	0.0	53.3	105.9	53.2
85+	0.0	0.0	0.0	0.0	53.0	0.0	0.0	0.0	111.1	35.3

Note: Amounts are expressed in thousand PPP-adjusted euro.

Table 11.A.5 Average share of risky financial assets, by country and age group

Age	SE	DK	DE	NL	FR	СН	AT	IΤ	ES	GR
<55	33.1	17.5	11.4	12.5	23.4	19.4	4.0	11.3	12.9	20.0
55-59	44.7	17.9	22.6	13.7	22.2	36.1	6.6	17.0	12.6	12.0
60-64	43.6	11.8	16.5	21.2	21.6	30.2	7.1	10.6	14.7	13.3
65-69	52.7	21.1	17.8	19.7	27.2	30.8	14.4	23.8	10.2	14.5
70-74	36.6	21.6	16.9	22.3	24.1	27.1	14.0	9.9	7.2	16.4
75-79	52.2	27.8	9.8	28.5	28.3	28.4	0.6	27.3	1.5	11.7
80-84	38.7	18.2	10.4	20.6	16.4	22.3	0.3	3.5	1.1	1.6
85+	39.7	13.6	4.3	24.3	17.3	7.1	0.0	10.7	1.4	1.2

Note: The share is computed as the ratio of total risky assets to total gross financial assets. Amounts are expressed in percentages.

Table 11.A.6 Percentiles of net worth, real assets, and net financial assets

Country	N	Net Worth			Net Financial Assets			eal Asse	Number of	
	25th	50th	75th	25th	50th	75th	25th	50th	75th	Households (unweighted)
SE	24.0	90.6	203.4	0.4	15.3	50.7	9.7	63.5	148.3	2,140
DK	19.3	101.6	232.5	0.0	13.3	62.5	5.3	73.7	164.6	1,178
DE	14.2	95.8	260.6	2.0	14.6	48.6	0.7	50.0	206.1	1,995
NL	12.1	135.1	319.3	2.0	16.3	64.9	1.0	81.4	237.8	1,933
FR	56.7	165.6	328.4	0.9	9.5	41.4	31.3	147.4	284.0	1,176
CH	38.7	182.9	401.4	7.3	38.1	112.3	2.3	103.2	285.8	703
AT	11.2	106.2	239.2	0.0	5.0	24.7	1.7	86.0	206.7	1,461
IT	34.1	159.2	313.1	0.0	2.1	16.7	23.0	146.7	281.4	1,773
ES	73.4	160.1	294.8	0.0	1.7	11.6	70.6	146.3	272.3	1,744
GR	52.9	112.1	208.9	0.0	1.8	11.8	46.8	105.0	194.6	1,4 70

Note: Amounts are expressed in thousand PPP-adjusted euro.

Table 11.A.7 Percentage of household ownership of real assets and mortgages

Country	Primary Residence	Mortgage	Other Real Estate	Own Business	Cars	Number of Households (unweighted)
SE	72.8	43.6	33.2	13.9	78.2	2,140
DK	74.2	49.5	17.9	10.9	74.5	1,178
DE	54.2	15.6	11.1	6.7	73.0	1,995
NL	58.5	46.6	6.1	6.7	76.3	1,933
FR	77.1	13.5	25.8	6.6	82.0	1,176
CH	58.7	48.5	21.7	11.7	78.2	703
AT	60.8	9.9	12.2	4.6	69.8	1,461
IT	75.4	5.8	18.4	6.8	72.9	1,773
ES	86.6	9.2	22.2	7.0	53.5	1,744
GR	85.2	6.1	41.9	7.6	55.6	1,470

Table 11.A.8 Percentage of household ownership of financial assets and liabilities

Country	Bank Accounts	Bonds	Stocks	Mutual Funds	IRAs	Contractual Savings	Life Insurance	Financial Liabilities	Number of Households (unweighted)
SE	88.1	17.8	40.7	55.6	40.2	1.6	25.4	36.8	2,140
DK	80.9	26.0	36.4	14.2	41.1	0.9	24.2	37.5	1,178
DE	88.1	12.5	14.2	14.6	6.8	21.8	31.0	15.9	1,995
NL	92.0	5.3	17.4	13.4	0.0	10.8	27.5	12.8	1,933
FR	91.3	6.3	16.9	20.9	30.0	29.8	14.4	27.3	1,176
CH	88.7	16.7	26.9	16.9	6.1	0.6	23.0	8.8	703
AT	72.9	7.3	5.7	5.6	0.0	43.0	25.3	14.6	1,461
IT	56.7	9.3	3.8	6.3	1.3	0.0	5.2	12.0	1,773
ES	78.9	0.3	4.0	3.2	7.5	0.5	4.9	14.5	1,744
GR	55.9	1.1	5.3	2.3	3.8	0.0	2.2	14.7	1,470

Table 11.A.9 Average share of risky financial assets by country and gross financial wealth quartile

		1								
Wealth Quartile	SE	DK	DE	NL	FR	СН	АТ	IT	ES	GR
1	21.5	6.7	1.6	1.6	2.1	2.4	0.0	(1)	0.0	(1)
2	28.6	18.0	2.9	5.3	11.1	6.7	1.4	0.6	0.5	4.1
3	33.7	19.9	7.8	9.3	18.6	13.5	2.8	2.2	4.8	4.7
4	43.6	16.5	18.0	20.2	23.4	32.8	8.1	16.5	7.1	15.7

Notes:

The share is computed as the ratio of total risky assets to total gross financial assets. Amounts are expressed in percentages.

⁽¹⁾ There are no holdings of gross financial assets in this quartile

Financial Liabilities 3.7 5.1 3.0 4.0 Cars 17.4 8.6 14.9 12.8 12.0 14.0 15.1 Share of Business Own Business Value of Own 2.9 4.1 al Savings Insurance Life 14.6 13.5 11.1 13.8 9.1 5.3 6.8 Contractu 6.5 12.4 6.5 11.4 2.9 4.3 3.4 Table 11.A.10 Observations that require amount imputation as a percentage of all observations IRAs 18.1 8.5 Mutual Funds 10.7 Stocks 12.0 7.5 9.1 7.1 8.4 3.6 Bonds 10.3 3.8 7.0 9.1 4.6 5.9 4.3 6.1 Accounts Bank 33.0 27.6 33.4 32.7 29.8 27.5 43.9 Estate Other Real 6.2 0.9 Mortgage 12.3 11.3 4.0 Primary Country Residence 11.9 20.9 5.55.110.6 12.1 16.1 DK DE Z E CHAT

Note: No sampling weights used. Numbers represent percentage points and refer to individuals.

12 Item Non-Response and Alternative Imputation **Procedures**

Adriaan Kalwij and Arthur van Soest

12.1 Introduction

As common in household surveys, respondents sometimes responded to questions with "I don't know" (DK, don't know) or "I'd rather not say" (RF, refuse). This is called item non-response. For the large majority of the variables in SHARE, item non-response is not a substantial problem, since the percentage of DK's or RF's is quite small. For example, there is hardly any item non-response in physical or mental health variables, in well-being, labour force status and job satisfaction, or in basic demographics and information on children. Somewhat larger item non-response rates are found for qualitative questions on pension entitlements, expectations, asset ownership or the nature of the assets.

The questions that suffer substantially from item non-response are on amounts of income, expenditure, or values of assets. In this respect, SHARE does not differ much from comparable surveys like ELSA (English Longitudinal Survey of Aging) or HRS (Health and Retirement Study) in the U.S. For example, owners of stocks and shares are asked the total value of their (household's) stocks and shares. In SHARE Release 1, 28.0% of the owners answer DK of RF, compared to 35.0% in HRS wave 2002. Respondents answering DK or RF are asked a number of subsequent questions on whether the amount is larger than, smaller than, or about equal to a given amount. This so-called unfolding bracket design has already been used in HRS 1992 and has proved to be an effective way to collect categorical information on the initial item non-respondents. For example, with bracket questions on the amounts 25,000, 50,000 and 100,000 euros, for those who go through all the bracket questions, we know whether the amount is less than 25,000, about 25,000, between 25,000 and 50,000, about 50,000, etc. Like in HRS, a large fraction of initial item non-respondents appear to be willing to answer the bracket questions. For examples, for stocks and shares, 46.1% of initial non-respondents in SHARE complete the brackets, compared to 41.2% in HRS. For 15.1% of all owners in SHARE, there is no information on the amount at all, compared to 18.6% in HRS. Thus SHARE compares favorably to HRS in this respect, something that is generally also found for other amount-related questions.

For studies that use income or income components, wealth or wealth components, etc., as one of the right-hand variables, missing information on one of these variables is a problem. Deleting observations with missing information is often an unattractive option for two reasons. The first reason is that a smaller sample size results in an efficiency loss. The second reason is that deleting missing data may yield biased inference when item non-response is related to the variable of interest. For instance, item non-response may be related to the same factors that drive income or health of the respondent and deleting missing data would then lead to a selective sample. Therefore, instead of deleting missing data, the missing values are replaced by imputed values, i.e., observed values of other respondents that are similar to the respondent considered in certain relevant aspects.

The underlying assumption is that values are missing at random (MAR) conditional on the set of variables used to determine which respondents are similar to the

¹ The comparison is made with the HRS asset category 'shares of stocks and stock mutual funds'

respondent with the missing value. See, for example, Little and Rubin (1987). If Y is the variable of interest (such as household income; Y is sometimes observed and sometimes missing), and X is a vector of (always observed) conditioning variables, then the MAR assumption says:

(MAR)
$$P(Y \text{ is observed} | X, Y) = P(Y \text{ is observed} | X)$$

This is an alternative for the assumption that Y is missing "completely at random," stating that

(CMAR)
$$P(Y \text{ is observed} | Y) = P(Y \text{ is observed})$$

CMAR states that whether Y is observed is independent of the level of Y. This is implausible as soon as there are factors that drive Y as well as the probability that respondents report Y. For example, if the high educated are more knowledgeable about their own income than the low educated and thus more often report their income, then the probability that Y is observed is positively related to the income level. In this case CMAR is not satisfied. If education level is included in X and if all other variables that jointly affect Y and the probability that the respondent reports Y are also included, MAR will still be satisfied.

Users of the SHARE data may look at relations between variables such as, for instance, (labour or pension or total) income and consumption, food consumption and total consumption, income and asset amounts, health care expenditures and income. It is important to adequately respect this type of relations when imputing the missing data. For example, independent imputations of missing consumption and income values will bias the correlation between these variables downwards. This section describes an imputation procedure, that annihilates this bias by taking into account the correlation between variables when imputing missing values, and presents some results from applying a first version of this procedure. A more refined version of this imputation procedure will be applied to the final release of the SHARE data.²

Many variables in SHARE have missing values and it is infeasible to account for the complete correlation structure between all of them. For this reason we propose a two-stage imputation procedure. We distinguish a core set of ten variables. The first stage of the procedure is concerned with the imputations of the variables in this core set, hereby accounting for the correlation structure within the core set. Given the imputations for the core set of ten variables, at the second stage imputations for additional variables will be done using the imputed core set variables as conditioning variables, either independently or taking account of, for example, correlations in subgroups.

Section 12.2 provides detailed information on the core variables. Imputing these forms the first stage of the imputation procedure. In the second stage, all other variables that suffer from item non-response are imputed, making use of the imputed values of the core-variables. Section 12.3 describes the two-stage imputation procedure in detail. For the core variables, we compare the density functions of the observed values with the density functions of the imputed values. In addition Section 12.4 illustrates to which extent the imputation procedure is capable to take correlations into account. For this purpose we present an analysis of the association between the health status of the respondent and household wealth and income.

² For logistic reasons, the preliminary release 1 version had to use a much simpler imputation procedure than the one described here, see Section 12.3 below.

12.2 The core variables

The core variables are chosen such that they cover the main modules of the SHARE questionnaire that involve financial questions. The variables we selected are on income, expenditures, assets, housing and health care expenditures. The core set of ten variables consists of the following variables in these modules which we considered the most important in their module of the questionnaire:

- A. Employment income in 2003 (ep205)
- B. Self-employment income in 2003 (ep207)
- C. Public pension income per month (ep078_1)
- D. Private occupational pension income per month (ep078_8)
- E. Food expenditures per month (co002)
- F. Value of savings and checking accounts (at the end of 2003) (as003)
- G. Value of stocks and shares (at the end of 2003) (as011)
- H. Value of the house (for homeowners) (ho024)
- I. Housing rent (for renters) (ho005)
- J. Out-of-pocket outpatient health care expenditures over the last 12 months (hc047)

In parentheses we list the exact naming of the variable in the SHARE questionnaire and raw dataset. The variables A, B, C and D represent the most important income sources for the non-retired (A and B) and retired (C and D). Other income sources are typically much less important in terms of numbers of respondents who receive such incomes or income amounts. Food expenditure is a category with few zeros and does not suffer from underreporting which seems to affect the quality of the answers on the question about total consumption expenditures. Savings and checking accounts and stocks and shares are the two financial assets with the largest ownership rates, and housing is by far the most important non-financial asset, with high ownership rates in most countries, but also with much higher values than for any other financial or non-financial asset. For renters, housing rent is a large share of the household budget. The amount of out-of-pocket outpatient health care expenditures is asked of all respondents.

For every variable A to J a corresponding flag variable can be created informing about whether or not the respondent was given the questions (we refer to this as *participation*) and, if so, the kind of response to the questions (a valid response, RF etc.). The type of item response can be summarized with nine different categories and we use the following general numbering and naming convention for all ten flag variables, corresponding to the ten variables in the core set:

- 1 *Continuous value*: The response is an amount in euro or non-euro currency. The amount can be zero or negative.
- 2 *Complete Bracket*: The response to the amount-question is RF or DK and there is a complete response on the unfolding bracket questions
- 3 Incomplete Bracket: The response to the amount-question is RF or DK and subsequently there is an incomplete response on the unfolding bracket questions. There is at least a valid answer to the first bracketing question but for unknown reason the sequence has not been completed.

- 4 *No period:* There is a valid response on the amount question but no valid response on the follow-up question concerning the period of payment; this can occur for questions where an (income) amount is asked first, followed by a question on the period that amount refers to.
- 5 No value/bracket: The response to the amount-question is RF or DK and there is no response on any of the following unfolding bracket questions. If the first bracket question is answered with DK or RF then no further bracket questions are asked.
- 6 *No participation:* The response to a previous question shows no ownership of this item or no such source of income. This respondent is not asked the amount question.
- 7 *RF/DK participation:* The response to a previous question on participation is RF or DK. This respondent is not asked the amount question
- 9 No respondent for this module: If the relevant respondent does not provide any answers for this CAPI-module. The questionnaire identifies the household, housing and financial respondent.

One important difference with the imputations carried out by RAND for their user-friendly version of the HRS data, is that we consider a response 'about' to one of the bracket questions as a category 2 response, i.e. complete bracket, and not as a category 1 response (continuous value), as the RAND-HRS does. In line with the RAND-HRS, we also impute for the missing value the 'about' amount. Tables 12.1 to 12.10 show the response behavior for the ten core variables. (All Tables and Figures can be found at the end of this chapter). Not all categories listed above are relevant for all variables. For instance, the question on food expenditures does not allow for unfolding brackets, hence the categories 2 and 3 do not occur. The same question predefines the period equal to one month, hence category 4 does not occur. Finally, for this question, no participation is not an issue since this question is asked to all households, hence categories 6 and 7 do not occur.

Tables 12.1 to 12.10 show that the item non-response is relatively high for the asset questions on the amount in checking and savings accounts (Table 12.6) and the amount in stocks and shares (Table 12.7). Based on an index of the average percentage of RF's or DK's (see Appendix) for the ten core variables, one may infer that there is considerable variation in item non-response across countries; in Spain and France the item non-response is roughly speaking two to three times higher compared to the item non-response in Sweden and Denmark, with the remaining countries in between. The range is from 4.5% in Sweden to 13.6% in France. A cautionary remark on this is that these percentages depend on the choice of core variables and another set of core variables may produce a somewhat different ordering.³

Examining in more detail the item non-response rates show that about 84% of the respondents who are employed provide a continuous answer on the question how much they earned in employment in 2003 (Table 12.1). Of the 16% item non-responders, about half complete the unfolding brackets sequence. The item non-response for self-employed earnings is somewhat larger for all countries, 32% on average and half of these complete the unfolding brackets sequence (Table 12.2). Item non-response for public old age pension is on average across countries 5.2%-points of the 37.7% who report to receive this. RF or DK on participation, hence on whether or not receive public old age pension is very low (0.3%, Table 12.3). 3.1%-

131

³ It also depends on ownership rates, since those who report to be non-owners are by construction counted as respondents to the amount question.

points out of the 5.2%-points RF's or DK's complete the unfolding brackets sequence. A similar pattern on item non-response we observe for private old age pension, albeit that participation is much lower; in countries such as Greece and Spain private old age pension is almost never mentioned as a source of pension income (Table 12.4). Table 12.5 shows that on average 12.1% of the household do not provide a continuous answer to the question concerning monthly food expenditures. This question has no follow up bracketing sequence for the RF's and DK's answers. Tables 6 and 7 show that a relatively high proportion answers RF or DK on asset ownership (2.7% on average). Table 12.6 shows that item non-response accounts for 27.6%-points of the 76.4% of households who report to have a savings or checking account. Of these households 15.0%-points complete the unfolding brackets sequence. As reported above, also for this question there is considerable variation across countries in item non-response. Noteworthy as well is the variation across countries in participation, i.e. ownership of checking and savings accounts. On average 16.0% of the households report to own stocks or shares, 11.5%-points of these provide a continuous response and 2.1%-points complete the unfolding brackets sequence (Table 12.7). Table 12.8 shows that home ownership varies considerable across countries and is on average equal to 68.0% and most homeowners (63.6%-points) report a continuous value or complete the unfolding brackets sequence. 25.5% of the housing respondents report to rent their home and most of them (24.5%-points) report a continuous value (Table 12.9). Table 12.10 shows that 95.9% of the respondents report a continuous value on out of pocket health care expenditures, including zero expenditure, and 2%-points of the nonresponders complete the unfolding brackets sequence.

12.3 A two-stage multivariate imputation procedure

Many different imputation methods exists to deal with missing data resulting from item non-response, see, for example, Little and Rubin (1987) and Spiess and Goebel (2004). A popular method, used also in the RAND-HRS, is the so-called hotdeck method and is available in many software packages such as STATA. Hotdeck is a nonparametric method that (under the MAR assumption in Section 12.1) works well if only few conditioning variables are used. This is the approach followed for release 1 of the SHARE data (see Chapters 10 and 11).

For the final release of the SHARE data, we suggest a regression based multivariate imputation method. The main reason is that we want to condition on more than just a few variables, both since this makes the MAR assumption more plausible and since we want to retain the correlation structure between the core set of variables as much as possible.

Because there are many variables that need imputations, the method is implemented in two stages. As discussed in the previous section, the amount variables are flagged and the SHARE data includes the amount variable including the imputed values and a corresponding flag variable to identify the type of original response.

The two-stage procedure is as follows. Imputations are first done recursively for the set of ten core variables described in the previous section. The recursive procedure guarantees that imputations preserve the correlation structure of these variables, as discussed above. For example, respondents with missing food consumption but with high (observed or imputed) earnings, were assigned an observed (probably relatively high) food consumption amount of another respondent with similarly high earnings but with observed food consumption. This recursive procedure, or multivariate imputation procedure, can involve two rounds where in

the second round one uses as well the imputed values of covariates obtained in the first round. This recursive procedure essentially requires only univariate imputation techniques. Here we follow the procedure of Hoynes, Hurd and Chand (1998). They propose a regression-based approach and exploit the response to the unfolding brackets questions that follows a RF or DK response on the main question. Below we explain this procedure in detail. In the second stage of the imputation procedure univariate imputations are carried out for the remaining variables where the imputed core variables are used as covariates. The second stage may as well use a recursive procedure on a second set of variables, accounting for correlations between this set of variables. For example, the set of asset related variables. Below we focus on the first stage of the SHARE imputation procedure.

The imputation procedure requires some prior ordering of the core variables. To reduce the dimensionality problems of the imputations, we will only use total income when imputing non-income variables. Therefore, we first consider the four income variables. We order the ten core variables as follows, introducing a shorthand notation: employment income Y1, self-employment income Y2, public old age pension income Y3, private occupational old age pension income Y4, consumption C, savings S1, stocks S2, home value H, rent R and out of pocket health care expenditures E. The steps that make up the first stage of the imputation procedure are as follows:

1. Impute Y1 using basic socio-economic characteristics (age, gender, education, marital status, household size, country), characteristics of the partner, if present, observed values of other nine core variables, and dummy variables indicating participation, missing values and bracket answers on other core variables.

This guarantees, for example, that someone with missing employment income will get a higher imputed employment income value if he/she reports a higher asset amount. This under the assumption these two are positively correlated. Similarly we impute values for missing values for Y2, Y3 and Y4. These imputations are carried out on an individual level. In imputing Y2, we also use the imputed values of Y1 whenever Y1 is missing; for imputing Y3, we use imputed values of Y1 and/or Y2 if these are missing, etc. This implies that correlations between income sources will be taken into account in multivariate imputations, similar as in Spies and Goebel (2004). Next we construct household income Y by adding Y1, Y2, Y3 and Y4 of all household members. The imputation of household food expenditures C is as follows:

2. Impute C using basic socio-economic characteristics, as under point 1, observed values of S1, S2, H, R and E, and dummy variables for participation, missing values and bracket values of S1, S2, H, R and E, and observed as well as imputed values of Y.

This guarantees that those for whom Y and C are both missing get imputed values that mimic any positive correlation that may exist between C and Y. Next we turn to the two asset amounts:

⁴ Clearly Y is not total household income since there are many more income components that are also asked about in SHARE. How total personal and household income are defined is discussed in the contribution of Brugiavini et al. to this volume.

- 3. Impute S1 using basic socio-economic characteristics, observed values of S2, H, R and E, dummy variables for participation, missing values and bracket values of S2, H, R and E, and observed as well as imputed values of Y and C.
- 4. Impute S2 using basic socio-economic characteristics, observed values of H, R and E, dummy variables for participation, missing values and bracket values of H, R and E, observed as well as imputed values of Y, C and S1, and variables indicating whether these variables were imputed or not. Next we turn to the home value and house rent response:
- 5. We impute H using basic socio-economic characteristics and additional information on the type of housing (apartment, semidetached etc.), observed values of R and E, dummy variables for participation, missing values and bracket values of R and E, and observed as well as imputed values of Y, C, S1 and S2, including dummy variables for participation.
- 6. We impute R using basic socio-economic characteristics and additional information on the type of housing, observed values of E, missing values and bracket values of E, and observed as well as imputed values of Y, C, S1, S2 and H, including dummy variables for participation.
- 7. In the last step we impute E using basic socio-economic characteristics, dummy variables for participation, missing values and bracket values and observed as well as imputed values of Y, C, S1, S2, H and R, including dummy variables for participation.

This multivariate imputation procedure thus essentially consists of a number of consecutive univariate imputation steps. For the univariate imputation procedures that are needed in each step described above we closely follow the work of Hoynes, Hurd and Chand (1998). We refer to their study for details and examples using HRS data. This procedure basically consists of the following three steps:

- Impute missing participation (flag-category 9 for type of item response) on the basis of a probit equation and a simulated error term.
- Impute brackets for full non-respondents on the amount question (participants and imputed participants) using an ordered probit model estimated on the sample of observed outcomes of the unfolding brackets sequence and a simulated error term.
- Impute values for bracket respondents or for those with imputed brackets, using regression based nearest neighbor.

This approach is parametric in all steps. Since we want to include at least all core variables as covariates, the curse of dimensionality makes a non-parametric approach infeasible. Flexibility can be achieved by adding interaction terms; if everything is interacted with country dummies, for example, we essentially get imputations by country. Model selection procedures can be used to find the most appropriate degree of flexibility.

The reason for imputing bracket responses for full non-respondents instead of directly imputing a continuous value is, as argued by Hoynes et al. 1998, that full non-respondents are more similar to bracket respondents than to those who give an open-ended answer (continuous value). In his comment to the Hoynes et al. (1998)

study, James P. Smith criticizes the sensitivity to a few extreme observations with an open-ended answer. To prevent this, he suggests imputation without replacement in step 3 instead of with replacement. This only works if the number of open-ended responses is large enough, which is not a problem for the core variables considered here but may be a problem for some of the non-core asset categories, for example. We experienced sensitivity of the imputations to outliers in step 2 when running the regressions by bracket category. We therefore exclude extreme outliers from the imputation procedure. These outliers themselves are left untouched.

For the participation imputations, the error term is simulated and added to the systematic part before deciding whether a zero or one has to be assigned. Thus the unsystematic part is incorporated in the imputations. A similar approach is taken in the second step. In the third step, this is achieved in another manner, namely by using nearest neighbour — an actual value is assigned, already containing an unsystematic part. Thus this imputation procedure does not only generate imputations with a correct mean, but also with a correct variance.

The socio-economic variables that are in principle included in the imputation procedures are country dummies, household size, gender, marital status and educational attainment, age and age squared of the respondent and his or her spouse when present.

Figures 12.1 to 12.10 compare for the ten core variables the density function of the observed values with the density functions of the imputed values. In many cases, there are substantial differences between the distribution of imputed values and the distribution of observed values. This suggests that values are typically not missing "completely at random" (CMAR), since then the distributions should be similar. The weaker assumption that missing values are missing at random (MAR) may still be valid.

12.4 Health, Income and Wealth

As an illustration of whether or not the imputations change the conclusions of an issue of interest to SHARE researchers, we present an analysis of the association between the health status of the respondent and household wealth and income. A positive association between health and wealth has been documented in many previous studies (see, e.g., Smith, 1999, and Adams, Hurd, McFadden, Merrill and Ribeiro, 2003). We consider two measures of health: a subjective assessment of general health, used as a summary measure of health in a large number of studies (e.g., Contoyannis and Jones, 2004), and an objective measurement of grip strength, which is known to be correlated with mental as well as physical health conditions (see, for example, Christensen, Mackinnon, Korten and Jorm, 2001). In the analysis we use two samples. The first sample includes all observations and the second sample includes only the observations for which no imputations have been made in any of the explanatory variables (i.e., in either the income or the wealth core variables).

In this particular example, household income is the sum of the four individual-level components mentioned above, i.e. the variable Y aggregated on a household level, and household wealth is the sum of savings S1, stocks S2, and home value H. About 43% of the observations required imputations for one or more of the income and wealth variables. About 30% of the observations have zero household income. We set income or wealth equal to one when the value is less than or equal than zero so

135

⁵ The detection of extreme outliers is an empirical issue and has to be done for each variable separately, i.e. there is no general rule. For instance, for the value of checking and savings account we excluded the top 0.1% of the distribution from the imputation procedure.

that we can use logarithmic transformations of income and wealth in the empirical analysis. About 1% of the respondents do not provide a valid answer to the subjective question on general health and for about 9% of the respondents we have no measure of the grip strength. These 9% refused or were unable to carry out this test. In the analysis we use respondents that report responses to both these measures of health.

The SHARE questionnaire asks the respondent "Would you say your health is.." with the following five response categories:⁶

- 1. poor
- 2. fair
- 3. good
- 4. very good
- 5. excellent

This question is asked to all respondents either in the beginning or at the end of the physical health module, questions *ph003* and *ph052*, respectively. The assignment to either *ph003* or *ph052* is done randomly. The distribution of the responses is given in Table 12.11 (panel A) for each country. On average 11% report to be in excellent health and there are substantial differences across countries.

We associate the response to the self-assessed health status to (equivalised) household income and wealth, and in addition control for age, gender, educational attainment and whether the health status is asked in the beginning or at the end of the health module. Country specific dummy variables are included to capture cross-country differences. We employ an ordered probit model. Table 12.12 reports on the marginal effects of the covariates on the probability of reporting to be in 'excellent' health.

Although the signs of the effects are always the same for the samples with and without imputed income and wealth values, the magnitudes and significance levels differ. Effects of income and wealth are smaller in the model with imputed values than in the other model. Educational effects are slightly smaller if observations with imputed values are included. Partner's education effects are substantially smaller in the model with imputed values, though they remain significant and positive. Country differences also seem somewhat different in the model with imputed values than if observations with imputed values are discarded. For example, in the model with imputed values, Austria is significantly different from Italy and this is not the case if observations with missing values are discarded.

SHARE includes two objective physical health measurements, grip strength and walking speed. Since walking speed is only measured for a specific subgroup, we focus on grip strength. The handgrip test is performed twice for both hands (if possible). We take the maximum of the four outcomes. The distribution of the maximum handgrip measurement is reported in Table 12.11 (panel B) for each country.

Table 12.13 reports the effects of income and wealth and other socio-economic characteristics on grip strength. Differences between the estimates including and not including the observations with imputed wealth and/or income variables are much smaller than for self-assessed health and the wealth effect becomes even stronger when including the imputed observations. We see some shifts in the country differences, but they are not substantial.

-

⁶ We reversed the ordering as used in the questionnaire to enhance the interpretation of our results.

Acknowledgements

The authors are grateful to David Weir for useful comments.

References

- Adams, P., Hurd, M.D., McFadden, D., Merrill, A. and T. Ribiero (2003), Healthy, Wealthy and Wise? Tests for Direct Causal Paths between Health and Socioeconomic Status, *Journal of Econometrics*, 112, 3-56.
- Borsch-Supan, A., Brugiavini, A., Jurges, H., Mackenbach, J., Siegrist, J. And G. Weber (2005). *Health Ageing and Retirement in Europe: First Results from the Survey of Health, Ageing and Retirement in Europe.* MEA Manheim.
- Christensen, Helen; Mackinnon, Andrew J.; Korten, Ailsa; Jorm, Anthony (2001), The "Common Cause Hypothesis" of Cognitive Aging: Evidence for Not Only a Common Factor but Also Specific Associations of Age With Vision and Grip Strength in a Cross-Sectional Analysis, *Psychology and Aging*, 16(4), 588-599.
- Contoyannis, P. and A.M. Jones (2004), Socio-economic status, health and lifestyle, *Journal of Health Economics*, 23, 965-995.
- Hoynes, Hilary, Michael Hurd and Harish Chand (1998), "Household Wealth of the Elderly under Alternative Imputation Procedures" in David Wise (ed.), *Inquiries of Economics of Aging*, The University of Chicago Press, Chicago, pp. 229-257.
- Little, Roderick J.A. and Donald B. Rubin (1987), *Statistical analysis with missing data*, Wiley, New York Smith, J.P. (1999), Healthy Bodies and Thick Wallets: The Dual Relation between Health and Economic Status, *Journal of Economic Perspectives*, 13:2, 145-166.
- Spiess, Martin, and Jan Goebel (2004), "A Comparison of Different Imputations Rules" in *Spektrum Bundesstatistik*, Statistisches Bundesamt, Bd. 25, pp. 293-316.

Tables and Figures

Table 12.1 Employment income in 2003 (ep205)

	P	J		(-1	- ,		
	1.	2	3	5	6	7	
	continuous	complete	incomplete	no value or	No partici-	rf/dk partici-	
Country	value	bracket	bracket	bracket	pation	pation	Total
Austria	17.1	1.3	0.2	2.1	77.6	1.7	100.0
Germany	28.1	3.8	0.3	4.9	61.9	1.1	100.0
Sweden	43.2	1.1	0.1	0.5	54.4	0.8	100.0
Netherlands	29.5	3.3	0.2	2.3	63.0	1.8	100.0
Spain	17.0	5.1	0.1	2.4	73.5	1.8	100.0
Italy	13.4	2.2	0.0	0.7	82.7	0.9	100.0
France	28.2	2.4	0.1	1.9	62.1	5.3	100.0
Denmark	44.5	1.0	0.1	0.8	51.7	2.0	100.0
Greece	20.7	3.1	0.4	4.5	70.1	1.2	100.0
Switzerland	31.2	3.6	0.3	2.7	60.3	2.0	100.0
All countries	27.2	2.7	0.2	2.3	65.9	1.7	100.0

Table 12.2 Self-employment income in 2003 (ep207)

_ 0.010 1	0011			(-	P,		
	1.	2	3	5	6	7	
	continuous	complete	incomplete	no value or	No partici-	rf/dk partici-	
Country	value	bracket	bracket	bracket	pation	pation	Total
Austria	2.5	1.1	0.0	0.9	93.9	1.6	100.0
Germany	3.9	1.2	0.1	1.6	92.1	1.2	100.0
Sweden	7.8	0.3	0.0	0.3	90.7	0.9	100.0
Netherlands	3.4	1.0	0.1	1.2	92.6	1.8	100.0
Spain	3.6	1.3	0.0	1.4	91.8	1.9	100.0
Italy	5.4	2.2	0.1	0.9	90.5	0.9	100.0
France	2.3	0.8	0.0	0.4	91.3	5.3	100.0
Denmark	6.9	0.6	0.1	0.9	89.4	2.1	100.0
Greece	4.5	0.7	0.1	2.3	91.3	1.2	100.0
Switzerland	10.1	1.5	0.1	1.1	85.4	1.9	100.0
All countries	4.8	1.1	0.1	1.1	91.3	1.7	100.0

Table 12.3 Public pension income per month (*ep078_1*)

	1	2	3	4	5	6	7	
						no	rf/dk	
_	continuous	complete	incomplete		no value or	partic-	partici-	
Country	value	bracket	bracket	no period	bracket	pation	pation	Total
Austria	45.2	4.1	0.2	0.3	3.2	46.9	0.1	100.0
Germany	38.9	3.9	0.7	0.4	2.5	52.9	0.8	100.0
Sweden	38.0	2.9	0.2	0.3	0.9	57.4	0.4	100.0
Netherlands	29.4	3.9	0.4	0.2	1.7	64.5	0.0	100.0
Spain	23.8	3.1	0.0	1.0	1.2	70.9	0.0	100.0
Italy	16.5	2.0	0.1	0.0	0.2	81.2	0.0	100.0
France	40.1	3.4	0.2	0.7	1.5	54.0	0.2	100.0
Denmark	28.8	3.1	0.1	0.9	0.8	66.0	0.4	100.0
Greece	29.5	2.6	0.2	1.1	1.1	65.3	0.2	100.0
Switzerland	40.9	1.0	0.0	0.7	1.2	55.6	0.6	100.0
All countries	32.5	3.1	0.2	0.5	1.4	62.0	0.3	100.0

Table 12.4 Private occupational pension income per month (ep078_8)

	1	2	3	4	5	6	7	
						no	rf/dk	
_	continuous	complete	incomplete		no value or	partic-	partici-	
Country	value	bracket	bracket	no period	bracket	pation	pation	Total
Austria	1.8	0.4	0.0	0.1	0.1	97.6	0.1	100.0
Germany	8.0	0.6	0.1	0.1	0.6	89.9	0.8	100.0
Sweden	6.2	0.4	0.0	0.0	0.4	92.6	0.4	100.0
Netherlands	14.7	2.4	0.1	0.2	1.5	81.1	0.0	100.0
Spain	0.3	0.1	0.0	0.0	0.0	99.6	0.0	100.0
Italy	1.5	0.5	0.0	0.0	0.1	97.8	0.0	100.0
France	23.5	3.1	0.2	0.5	1.9	70.7	0.2	100.0
Denmark	10.2	0.8	0.0	0.4	0.4	87.9	0.4	100.0
Greece	0.3	0.0	0.0	0.0	0.0	99.5	0.2	100.0
Switzerland	13.9	0.9	0.2	1.0	0.8	82.7	0.6	100.0
All countries	7.5	0.9	0.1	0.2	0.6	90.6	0.3	100.0

Table 12.5 Food expenditures per month (co002)

	<u> </u>		,	
Country	1.continuous value	5. rf/dk.	9. No respondent	Total
Austria	89.4	10.5	0.1	100.0
Germany	89.6	9.1	1.3	100.0
Sweden	94.8	4.6	0.7	100.0
Netherlands	89.8	9.9	0.3	100.0
Spain	81.2	16.7	2.2	100.0
Italy	83.9	15.6	0.6	100.0
France	77.4	22.4	0.3	100.0
Denmark	82.7	17.0	0.3	100.0
Greece	91.7	8.1	0.1	100.0
Switzerland	84.3	14.2	1.6	100.0
All countries	87.2	12.1	0.7	100.0

Table 12.6 Value of savings and checking accounts (at the end of 2003) (as003)

	1	2	3	5	6	7	9	
						rf/dk		
	continuous	complete	incomplete	no value or	No partici-	partici-	No	
Country	value	bracket	bracket	bracket	pation	pation	respondent	Total
Austria	42.8	10.3	0.6	17.3	27.4	1.4	0.25	100.0
Germany	52.7	15.3	1.0	15.3	9.3	5.2	1.23	100.0
Sweden	73.7	8.9	0.6	4.4	11.2	1.0	0.16	100.0
Netherlands	61.7	12.8	1.2	12.7	9.1	1.9	0.53	100.0
Spain	34.6	24.8	0.5	15.8	20.8	1.4	2.11	100.0
Italy	27.7	19.0	0.7	8.2	41.5	2.5	0.55	100.0
France	46.9	25.4	1.3	12.2	10.8	3.4	0.16	100.0
Denmark	62.0	8.7	0.5	6.0	21.1	1.7	0.17	100.0
Greece	26.8	10.3	0.8	15.1	42.5	4.1	0.23	100.0
Switzerland	50.0	16.9	1.7	12.9	12.0	6.4	0.1	100.0
All countries	48.8	15.0	0.8	11.8	20.2	2.7	0.61	100.0

Table 12.7 Value of stocks and shares (as011)

	1	2	3	5	6	7 rf/dk	9	
	continuous	complete	incomplete	no value or	No partici-	partici-	No	
Country	value	bracket	bracket	bracket	pation	pation	respondent	Total
Austria	2.5	1.0	0.0	1.6	93.3	1.4	0.25	100.0
Germany	8.8	1.5	0.1	3.8	79.5	5.2	1.23	100.0
Sweden	34.1	4.9	0.3	2.5	57.1	1.0	0.16	100.0
Netherlands	11.4	2.4	0.2	2.5	81.0	1.9	0.53	100.0
Spain	2.0	1.0	0.0	0.4	93.1	1.4	2.11	100.0
Italy	2.0	0.6	0.0	0.7	93.6	2.5	0.55	100.0
France	8.3	3.4	0.2	3.3	81.3	3.4	0.16	100.0
Denmark	25.8	2.4	0.4	3.6	65.9	1.7	0.17	100.0
Greece	3.2	0.6	0.1	1.4	90.5	4.1	0.23	100.0
Switzerland	15.3	3.0	0.1	4.4	70.8	6.4	0.1	100.0
All countries	11.5	2.1	0.1	2.3	80.7	2.7	0.61	100.0

Table 12.8 Value of the house (for homeowners) (b0024)

	1	2	3	5	6	7	9	
						rf/dk		
	continuous	complete	incomplete	no value or	No partici-	partici-	No	
Country	value	bracket	bracket	bracket	pation	pation	respondent	Total
Austria	45.2	8.6	0.5	5.9	39.1	0.6	0.1	100.0
Germany	41.9	9.2	1.0	3.4	42.9	0.4	1.26	100.0
Sweden	56.5	3.2	0.1	1.0	38.1	0.6	0.65	100.0
Netherlands	55.7	3.1	0.2	0.7	38.4	1.6	0.27	100.0
Spain	56.4	21.4	0.4	6.6	12.1	1.0	2.15	100.0
Italy	52.4	20.6	0.7	4.5	20.2	1.2	0.55	100.0
France	51.6	15.3	2.0	5.4	23.3	2.2	0.27	100.0
Denmark	64.9	1.6	0.2	1.0	31.1	0.9	0.29	100.0
Greece	61.6	15.2	0.5	7.7	14.9	0.0	0.14	100.0
Switzerland	42.8	7.8	0.5	3.5	41.8	2.1	1.58	100.0
All countries	53.1	10.5	0.6	3.8	30.3	1.0	0.72	100.0

Table 12.9 Rent (housing) (*bo005*)

	1	2	3	4	5	6	7	9	
							rf/dk		
C .	continuous	complete	incomplete			No partici-	partici-	No	
Country	value	bracket	bracket	no period	bracket	pation	pation	respondent	Total
Austria	27.4	0.7	0.1	0.1	1.0	69.8	0.9	0.1	100.0
Germany	34.6	0.7	0.2	0.1	0.9	62.1	0.3	1.3	100.0
Sweden	37.2	0.1	0.0	0.2	0.1	61.3	0.6	0.7	100.0
Netherlands	34.8	0.3	0.0	0.3	0.4	62.4	1.5	0.3	100.0
Spain	5.0	0.1	0.0	0.0	0.2	91.6	0.9	2.1	100.0
Italy	11.5	0.3	0.0	0.0	0.1	86.8	0.8	0.6	100.0
France	19.1	0.1	0.0	0.1	0.2	78.5	1.9	0.3	100.0
Denmark	28.4	0.8	0.1	0.5	0.5	68.5	1.0	0.3	100.0
Greece	8.4	0.1	0.0	0.0	0.3	91.0	0.0	0.1	100.0
Switzerland	36.1	1.1	0.2	0.0	0.5	58.6	1.9	1.6	100.0
	245	0.4	0.4	0.4	0.4	50 0	0.0	o =	400.0
All countries	24.5	0.4	0.1	0.1	0.4	73.0	0.9	0.7	100.0

Table 12.10 Out-of-pocket health care expenditures (bc047)

	1.continuous	2.complete	3.incomplete	5.no value or	9. No	
Country	value	bracket	bracket	bracket	respondent	Total
Austria	96.9	1.1	0.0	0.6	1.41	100.0
Germany	95.4	3.2	0.1	0.7	0.66	100.0
Sweden	98.1	0.8	0.0	0.6	0.52	100.0
Netherlands	95.4	2.0	0.0	0.9	1.6	100.0
Spain	96.5	1.2	0.0	0.5	1.74	100.0
Italy	96.9	1.5	0.2	0.6	0.78	100.0
France	88.5	5.8	0.0	0.8	4.89	100.0
Denmark	97.1	0.5	0.0	0.7	1.79	100.0
Greece	96.6	2.0	0.1	0.8	0.51	100.0
Switzerland	96.1	1.8	0.1	1.0	0.99	100.0
All						
countries	95.9	2.0	0.1	0.7	1.39	100.0

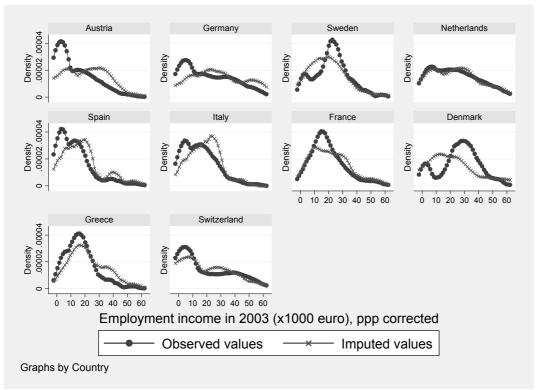


Figure 12.1

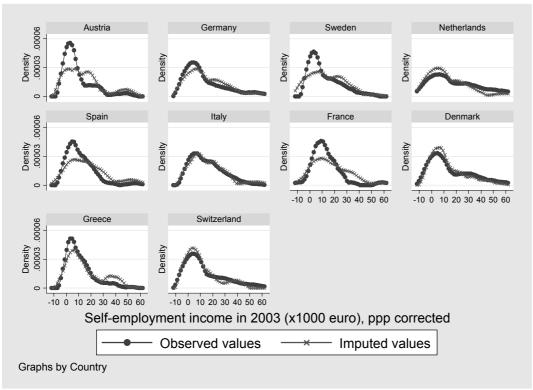


Figure 12.2

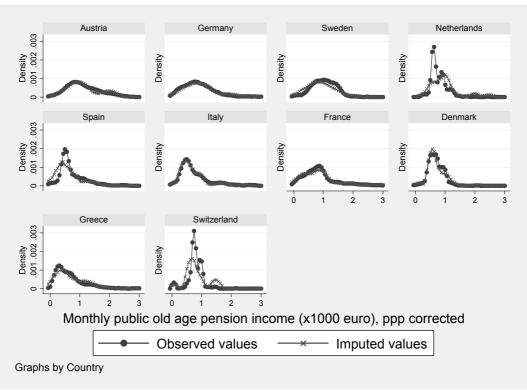


Figure 12.3

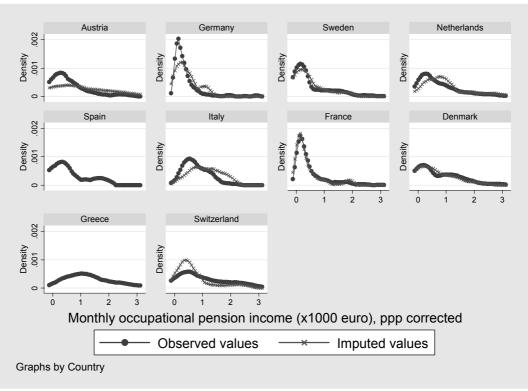


Figure 12.4

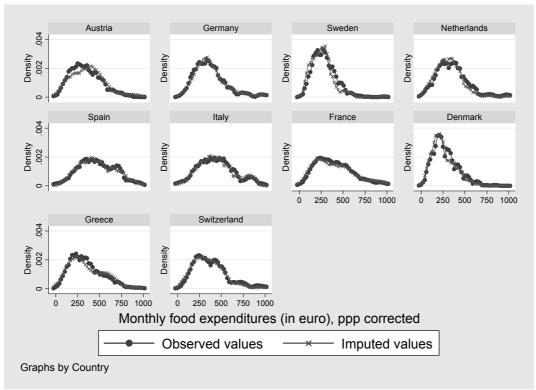


Figure 12.5

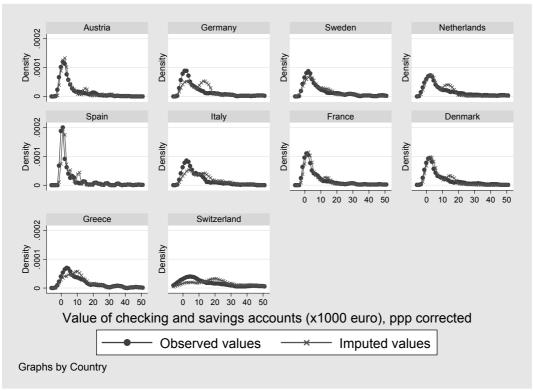


Figure 12.6

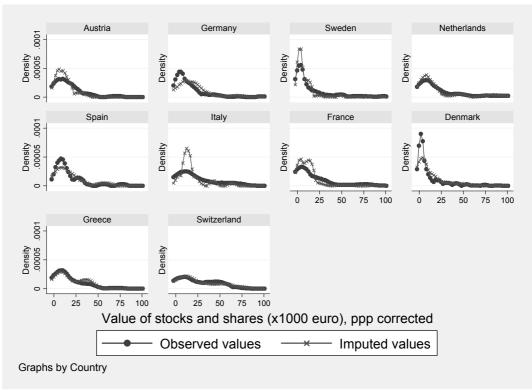


Figure 12.7

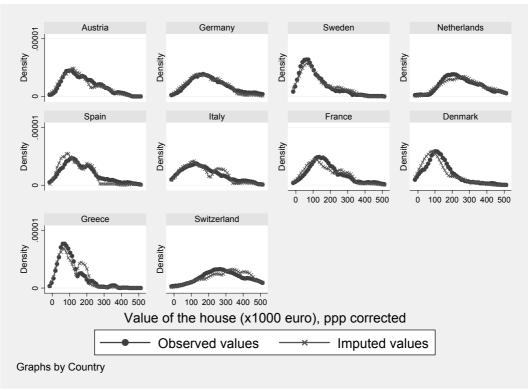


Figure 12.8

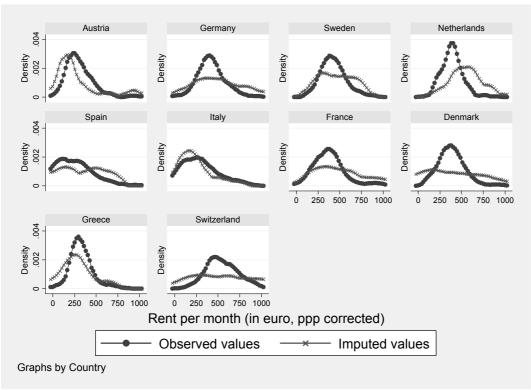


Figure 12.9

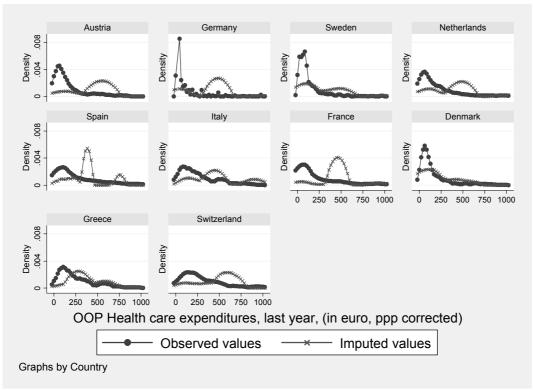


Figure 12.10

Table 12.11 Descriptive statistics

Panel A	Panel A Self-assessed health status (cells: %)						
Country	N	poor	fair	good	very good	excellent	Total
Austria	1676	4.5	20.2	38.6	26.3	10.4	100
Germany	2724	6.2	28.6	42.1	18.2	5.0	100
Sweden	2828	2.4	7.2	42.5	26.3	21.6	100
Netherlands	2752	3.3	21.1	43.7	18.6	13.2	100
Spain	2206	9.3	31.7	39.4	15.8	3.8	100
Italy	2270	7.8	30.0	41.9	13.9	6.4	100
France	1589	7.3	22.6	46.3	16.0	7.9	100
Denmark	1619	5.6	18.7	25.0	29.6	21.1	100
Greece	1885	4.4	22.3	36.0	29.1	8.3	100
Switzerland	951	2.6	12.7	41.4	28.1	15.1	100
Total	20500	5.4	21.9	40.1	21.5	11.1	100

Panel B	anel B Distribution statistics of maximum handgrip strength				
Country	N	Mean	10th percentile	median	90th percentile
Austria	1676	36.4	22	35	53
Germany	2724	37.2	23	35	55
Sweden	2828	35.6	21	34	53
Netherlands	2752	36.5	22	35	53
Spain	2206	28.5	15	27	45
Italy	2270	31.4	18	30	48
France	1589	33.4	20	31	51
Denmark	1619	36.3	21	35	55
Greece	1885	32.7	20	30	50
Switzerland	951	35.1	21	33	51
Total	20500	34.4	20	33	52

Table 12.12 Self-reported health status, wealth and income

Marginal effect on the probability (in %) of	of being in e	xcellent healt	h		
	All observations		Exclude imputations		
Number of observations	20	500	117	11746	
Explanatory variable	Marginal effect	Standard error	Marginal effect	Standard error	
Question is at the end	1.39	0.24	1.88	0.34	
Austria	0.00	0.21	0.00	0.51	
Germany	-5.28	0.35	-5.42	0.53	
Sweden	9.09	0.81	10.14	1.07	
Netherlands	-0.33	0.51	0.25	0.76	
Spain	-3.34	0.46	-3.09	0.75	
Italy	-2.15	0.50	-1.40	0.80	
France	-2.96	0.47	-2.49	0.78	
Denmark	2.90	0.71	2.93	0.93	
Greece	1.11	0.64	0.97	0.93	
Switzerland	4.27	0.90	5.01	1.36	
ln(household size)	-0.27	0.41	0.11	0.61	
married	-1.51	5.03	-5.78	8.39	
female	-0.98	0.26	-1.52	0.38	
age/10	-6.32	1.37	-7.89	1.99	
age/10 squared	0.23	0.10	0.33	0.15	
ln(household income)	0.47	0.04	0.59	0.05	
In(household wealth)	0.39	0.03	0.48	0.04	
Education level 2, ISCED 2,3	3.75	0.34	4.29	0.50	
Education level 3, ISCED 4,5,6	8.04	0.57	9.28	0.82	
partner, age / 10 -> also multiply					
estimates by 10	0.16	0.15	0.25	0.22	
partner, age /10 squared	0.00	0.00	0.00	0.00	
Partner, Education level unknown	1.82	0.45	2.27	0.71	
Partner, Education level 2, ISCED 2,3	0.94	0.42	1.36	0.62	
Partner, Education level 3, ISCED 4,5,6	2.69	0.59	4.12	0.87	
Pseudo R-squared	0.0	067	0.0	071	

Table 12.13 Measured health status (handgrip strength), wealth and income

Table 12.13 Measured health status	s (handgrip	strength)	, wealth ar	id income		
Percentage change in the handgrip strength measurement						
	All obse	All observations		Exclude imputations		
Number of observations	205	500	11746			
		Standard		Standard		
	Estimate	error	Estimate	error		
Explanatory variables						
Austria	0.00		0.00			
Germany	-1.40	0.81	-1.65	1.05		
Sweden	-3.97	0.83	-3.69	1.02		
Netherlands	-3.27	0.82	-3.26	1.03		
Spain	-21.91	0.93	-20.30	1.27		
Italy	-15.03	0.91	-15.70	1.19		
France	-9.16	0.95	-10.13	1.27		
Denmark	-3.56	0.91	-3.24	1.09		
Greece	-10.69	0.92	-10.52	1.20		
Switzerland	-4.62	1.07	-3.06	1.42		
ln(household size)	-0.22	0.63	0.23	0.82		
married	2.23	0.73	1.56	1.00		
female	-48.82	0.38	-49.04	0.48		
age/10	17.63	1.95	19.44	2.52		
age/10 squared	-2.40	0.15	-2.53	0.19		
ln(household income)	0.41	0.05	0.50	0.07		
ln(household wealth)	0.53	0.05	0.48	0.06		
Education level 2, ISCED 2,3	2.83	0.52	3.04	0.67		
Education level 3, ISCED 4,5,6	1.60	0.64	1.30	0.81		
Partner, Education level unknown	2.30	0.68	2.06	0.92		
Partner, Education level 2, ISCED 2,3	1.51	0.63	1.13	0.81		
Partner, Education level 3, ISCED 4,5,6	1.75	0.78	1.38	0.98		
	361.5	6.6	356.4	8.4		
P. conserved	0.5	573	0.5	581		
R-squared	0.3))	0.5	001		

Appendix

Average % item non-response, unconditional,			
based on the ten core variables (A-J)			
Austria	8.1		
Germany	10.1		
Sweden	4.5		
Netherlands	7.9		
Spain	11.4		
Italy	9.1		
France	13.6		
Denmark	6.4		
Greece	9.0		
Switzerland	10.6		
All countries	8.8		

Appendix A – SHARE Participants

A.1 Co-ordination and management

Project Co-ordination (MEA)

Axel Börsch-Supan (co-ordinator)
Jorge Gonzales-Chapela
Hendrik Jürges
Marie-Louise Kemperman
Guiseppe de Luca
Oliver Lipps
Franco Mariuzzo
Stephanie Stuck

CentERdata

Marcel Das Maarten Brouwer Josette Jansen Marius de Pijper Corrie Vis Bas Weerman

Core Group

James Banks
Axel Börsch-Supan
Agar Brugiavini
Arie Kapteyn
Stefania Maggi
Michael Marmot
James Nazroo
Jean-Marie Robine

Advisory Groups:

Health and Retirement Study Mike Hurd

Jim Smith David Weir Bob Willis

National Centre for Social Research

Lisa Calderwood Laura Conway Carli Lessof

Survey Research Center Kirsten Alcser

Grant Benson Nicole Kirgis

Shonda Krueger-Ndiaye

Beth-Ellen Pennell

Zentrum für Umfragen, Methoden und Analysen Peter Mohler Janet Harkness Achim Koch

Questionnaire Reviewers

John Rust

Norbert Schwarz Jonathan Skinner

Beth Soldo

Clemens Tesch-Römer

A.2 Working Groups

Working Group on Physical Health

Johan Mackenbach (leader)

Arja R. Aro

Mauricio Avendano Hermann Brenner

Cooman Looman

Caspar Looman James Nazroo

Anastas Philalithis

Giuseppe Costa

Catherine Sermet

Brigitte Santos-Eggimann

Working Group on Mental Health and Psychological Status

Martin Prince (leader)

Aartjan Beekman

Sube Banerjee

Christophe Büla

John Copeland

Michael Dewey

Felicia Huppert

Raimundo Mateos

Carlos de Mendonça Lima

Friedel Reischies

Karen Ritchie

Marc Roelands

Ingmar Skoog

Robert Stewart

Magda Tsolaki

Cesare Turrina

Johannes Wancata

Working Group on the Oldest Old

Kaare Christensen (leader)

Karen Andersen-Ranberg

Henrik Frederiksen

Inge Petersen

Jean-Marie Robine

Working Group on Well-being and Social Productivity

Johannes Siegrist (leader)

David Blane

Andrew Clark

Martin Hyde

Olaf von dem Knesebeck

Alexandra Kupfer

Michael Marmot

James Nazroo

Working Group on Labour Force Participation, Earnings and

Pension Claims

Agar Brugiavini (leader)

James Banks

Didier Blanchet

Monika Bütler

Lisa Calderwood

Lisa Callegaro

Enrica Croda

Ellica Cioda

Alain Jousten

Antigone Lyberaki

Franco Mariuzzo

Pedro Mira

Morten Palme

Roberta Rainato

Anette Reil-Held

Johannes Siegriest

Arthur van Soest

Annika Sunden

Platon Tinios

Working Group on Consumption

Martin Browning

Thomas Crossley

Guglielmo Weber

Working Groups on Assets and Expectations

Tullio Jappeli (leader) Luigi Guiso (leader) Luc Arrondel James Banks Olympia Bover Axel Börsch-Supan Martin Browning Monika Bütler Dimitrios Christelis Michalis Haliassos

Mike Hurd Anders Klevmarken Antigone Lyberaki Mario Padula Miquel Pellicer Andrea Tiseno Guglielmo Weber Arthur van Soest Guglielmo Weber

Bob Willis Joachim Winter

Workings Group on Family and Social Networks and Intergenerational Transfers

Claudine Attias-Donfut (leader)

Martin Kohli (leader)
Marco Albertini
Kristian Bolin
Michael Bromba
Kostas Gounis
Hendrik Jürges
Kees Knipscheer
Harald Künemund
Howie Litwin
Jörg Lüdicke
Antigone Lyberaki
Raffaele Miniaci
Jan Nelissen
Jim Ogg
Elizabeth Thomson

Ernesto Villanueva

Eric Widmer

Tanja Zähle

Working Group on Health Care Systems and Health Service Utilisation

Brigitte Santos-Eggimann (leader)

Sarah Cornaz

Pierre-Yves Geoffard

Alberto Holly Julien Junod José M. Labeaga Bjorn Lindgren Gijsbert van Lomwel

David Meltzer
David Melzer
Connie Nielsen
Sergio Perelman
Anastas Philalithis
Dominique Polton
Vincenzo Rebba
Udo Schneider
Nicholas Steel
Volker Ulrich

Rudolf Winter-Ebmer

Working Groups on Response Analysis and Data Validation

Franco Peracchi (leader) Arthur van Soest (leader)

Vincenzo Atella
Francesco Bartolucci
Marco Bonetti
Paul Dourgnon
Luigi Guiso
Alberto Holly
Adriaan Kalwij
Anders Klevmarken
José M. Labeaga
Oliver Lipps
Guiseppe de Luca
Sixten Lundström
Clive Richardson

Nicola Torelli Karel van den Bosch

Frank Vella Joachim Winter Tarik Yalcin

Working Group on Sampling and Weighting

Anders Klevmarken (leader)

Bengt Swensson Patrik Hesselius

A.3 Country Teams

Country teams consists of a country team leader, in almost all cases assisted by one or more "operators" who were responsible for the day-to-day management of the survey (listed below), and by other researchers. Working group members from the respective country, who helped to design the survey, are listed under the respective working group.

Austrian Country Team

Rudolf Winter-Ebmer (leader)

Johann Brunner Cornelia Riess Susanne Kirchner

Alexia Fürnkranz-Prskawetz

Thomas Url
Johannes Wancata
Wolfgang Lutz
Richard Gisser
Judith Glück
Gustav Feichtinger
Gerhard Schwarz
August Österle
Xaver Remsing
Karina Imböck

Belgian Country Team

Sergio Perelman (leader) Karel van den Bosch (leader) Christelle Bay Pierre Pestieau Eric Bonsang

Erik Schokkaert Carine Van de Voorde

Natascha Van Mechelen

Peter Slock

Camille Vanderhoeft

French Country Team

Didier Blanchet (leader) Thierry Magnac (leader) Paul Dourgnon Pascale Pollet

Greek Country Team

Antigone Lyberaki (Leader) Platon Tinios George Papadoudis

Swiss Country Team

Alberto Holly (leader)

Tarik Yalcin Pascal Paschoud

Eric Graf Philippe Eichenberger

Lam Nguyen

Hélène Chevrou-Severac

Karine Lamiraud Thomas Lufkin Mohamed Benkassmi Jimena Marazzi Isabelle Chappuis

Olivia Huguenin-Popa

Yves Flückiger Gabrielle Antille Ramses Abul Naga

German Country Team

Axel Börsch-Supan (leader)

Karsten Hank

Danish Country Team

Martin Browning (leader) Connie Nielsen

Edith Madsen

Spanish Country Team

Manuel Arellano (leader) Maite Martinez

Pedro Mira Angeles Conde

Angeles Conde Sergi Jiménez

José Repullo

Juana Casas

Dutch Country Team

Arthur van Soest (leader) Rob Alessie

Adriaan Kalwij

Italian Country Team

Guglielmo Weber (leader) Omar Paccagnella Nadia Minicuci Paola Siviero Russel Bowater

Swedish Country Team

Anders Klevmarken (leader) Daniel Hallberg Patrik Hesselius Marten Palme Ingmar Skoog Annika Sunden

Appendix B: Paper Version of the SHARE CAPI Instrument

SHARE 2004 version 10 (manually edited April 2005)

Preface

This generic paper version of the SHARE-questionnaire is edited manually. Therefore it is more 'user-friendly' than the automatically generated paper versions for each of the participating countries.

At the beginning of the interview, one respondent per household is asked to answer the Coverscreen module (CV), which contains basic questions referring to the household level. The subsequent modules of the questionnaire refer to the individual (i.e. respondent) level; they form the main SHARE 2004 Questionnaire version 10. This main part is asked of all eligible individuals in a household, who have been identified in the Coverscreen Module. However, some modules concerning the household rather than the individual are only answered by the designated financial, family, or housing respondent.

All *variable names* in this paper version are highlighted using bold characters and are followed by the variable label (e.g. **CV004_** FIRST NAME RESPONDENT). In general, the variable names and labels in this paper version of the questionnaire are similar to the variable names and labels used in the data set.

Local currencies and pre-Euro currency variables are converted into Euro values in the data set and stored with the separation identifier '_' in the variable name replaced by 'e'. For unfolding bracket variables '_' is replaced by 'ub' and bracket values are stored in variables using 'v' instead of '_'.

Dummy variables have been generated for each option of a multiple answer question, with 'd' instead of the separator '_'. The number of the answer category is indicated by the last number of the respective dummy variable's name.

All conditions (IF STATEMENTS) are in capital letters and italics. The pipelines on the left hand side provide information about the number of applying conditions.

Please consult the SHARE data dissemination site for more detailed information on the construction of the data set, the definition of variables, etc.

CV001_ INTRODUCTION QUESTION 1

This study explores the health, life style and financial situation of households with members who are aged 50 and over. Persons of this age are becoming an ever more important part of the population, here in Britain and also in most other European countries. This affects our pensions, the provision of health care, and many other aspects of our public and private lives. By participating in this study, you help us to better understand the consequences for our health, our life styles and our future economic situation. This interview is voluntary and confidential. If we should come to any question you don't want to answer, just let me know and I will go on to the next question. The answers that you give will be kept confidential and will be used only for research purposes.

1. Continue

CV002 ANY ELIGIBLE

First, I would like to ask if there are any persons born 1954 or earlier living in this household?

IWER: A HOUSEHOLD CONSISTS OF ALL PERSONS - WHO LIVE IN THE SAME DWELLING (USING THE SAME ENTRANCE DOOR) AND- WHO HAVE A COMMON HOUSEKEEPING BUDGET OR USUALLY HAVE THEIR MEALS TOGETHER. EXCEPTIONS: LODGERS (PERSONS WHO SUBLET) ARE NOT CONSIDERED MEMBERS OF THE HOUSEHOLD, EVEN THOUGH THEY MAY OCCASIONALLY HAVE DINNER WITH THE HOST. CHILDREN LIVING TOGETHER WITH THEIR PARENTS AT THE PARENTS? ADDRESS, OR PARENTS LIVING TOGETHER WITH THEIR CHILDREN AT THE CHILDREN'S ADDRESS WILL BE CONSIDERED MEMBERS OF THE HOUSEHOLD WHETHER OR NOT THEY HAVE A COMMON HOUSEKEEPING BUDGETS FOR MEALS.

1. Yes

5. No

 $IF\ CV002_(ANY\ ELIGIBLE) = 1.\ Yes\ OR\ CV002_(ANY\ ELIGIBLE) = DONTKNOW$

CV003_ INTRODUCTION QUESTION 2

In order to determine who is eligible to be interviewed, I need to ask a few questions about each household member, like name, sex, and date of birth. Let's start with you.

1. Continue

CV004_ FIRST NAME RESPONDENT

Please give me your first name.

IWER: HERE WE DO NOT NEED THE REAL NAME OF THE RESPONDENT, JUST SOME NAME TO ADDRESS HIM OR HER

CV005_ MALE OR FEMALE

OBSERVATION

IWER: NOTE SEX OF RESPONDENT FROM OBSERVATION (ASK IF UNSURE)

- 1. Male
- 2. Female

CV006 MONTH OF BIRTH

In which month and year were you born? MONTH: YEAR:

- 1. January
- 2. February

```
| 3. March
 4. April
 5. May
 6. June
 7. July
 8. August
 9. September
 10. October
 11. November
 12. December
 CV007_ YEAR OF BIRTH
 In which month and year were you born? MONTH: [{month of birth}]
 YEAR:
 (1900..2004)
 IF CV007_(YEAR OF BIRTH) = NONRESPONSE
 | CV008_ AGE INDICATION
 | Are you born after or before 1954?
 | 1. after 1954
| | 2. (about) 1954
 | 3. before 1954
 ENDIF
 CV009_ LIVING WITH SPOUSE/PARTNER
 Are you...
 IWER: READ OUT
 1. Living with a spouse
 2. Living with a partner
 3. Living as a single
 IF CV009 (LIVING WITH SPOUSE/PARTNER) <> 3. Living as a single AND
 CV009_ (LIVING WITH SPOUSE/PARTNER) = RESPONSE
 | CV010_ FIRST NAME SPOUSE/PARTNER
 | What is [your] [wife/husband/partner]'s first name?
 IWER: HERE WE DO NOT NEED THE REAL NAME, JUST SOME NAME TO
 | IDENTIFY HIM OR HER DURING THE INTERVIEW ONLY
 | CV011_ MALE OR FEMALE SPOUSE/PARTNER
 | IWER: NOTE SEX OF [wife/husband/partner] OF
 | RESPONDENT (ASK IF UNSURE)
| | 1. Male
2. Female
| CV012_ MONTH OF BIRTH SPOUSE/PARTNER
In which month and year was [your] [husband/wife/partner] born? MONTH:
| YEAR:
| 1. January
| 2. February
| | 3. March
```

	4. April 5. May
i	8. August
	9. September 10. October
	11. November
	12. December
	CV013_ YEAR OF BIRTH SPOUSE/PARTNER In which month and year was [your] [husband/wife/partner] born? MONTH: [{month of birth husband/wife/partner}] YEAR: (19002004)
	$ IF CV013_ (YEAR OF BIRTH SPOUSE/PARTNER) = NONRESPONSE$
İ	Is [your] [husband/wife/partner] born after or before
į	2. (about) 1954
į	ENDIF
	CV015_ SOMEONE ELSE IN THE HOUSEHOLD
	Does anyone else live in this household? IWER: A HOUSEHOLD CONSISTS OF ALL PERSONS - WHO LIVE IN THE
	SAME DWELLING (USING THE SAME ENTRANCE DOOR) AND- WHO
	HAVE A COMMON HOUSEKEEPING BUDGET OR USUALLY HAVE THEIR MEALS TOGETHER. EXCEPTIONS:
	LODGERS (PERSONS WHO SUBLET) ARE NOT CONSIDERED MEMBERS
	OF THE HOUSEHOLD, EVEN THOUGH THEY MAY OCCASIONALLY HAVE DINNER WITH THE HOST. CHILDREN LIVING TOGETHER WITH THEIR
	PARENTS AT THE PARENTS?
	ADDRESS, OR PARENTS LIVING TOGETHER WITH THEIR CHILDREN AT THE CHILDREN'S ADDRESS WILL BE CONSIDERED MEMBERS OF THE
	HOUSEHOLD WHETHER OR NOT THEY HAVE A COMMON
į	HOUSEKEEPING BUDGETS FOR MEALS.
	1. Yes 5. No
	IF $CV015$ _ (SOMEONE ELSE IN THE HOUSEHOLD) = 1. Yes
	LOOP cnt:= 1 TO 18
1	TO IDENTIEV HIM OR HER DURING THE INTERVIEW ONLY IE

US CO	ONDENT IS UNSURE WITH WHOM TO CONTINUE, PROMP. NTINUE WITH THE HOUSEHOLD MEMBER WHO IS OLDE IG THOSE WE HAVE NOT YET TALKED ABOUT	
CV017_	_ MALE OR FEMALE OF HHMEMBER	
What is	the sex of [{first name household member}]?	
1. Male		
2. Fema	ale	
CV018	_ RELATION TO RESPONDENT	
	g at card 1, what is [his/her] [relationship] to you?	
IWER:	By "parent-in-law" we mean the parent of a coresiding partner,	
	arents-in-law (e.g. parents of former partners) are to be	
coded a	as "other relatives".	
1. Spou		
2. Partn		
3. Child		
4. Child		
5. Parer		
	nt-in-law	
7. Siblir		
8. Gran		
	er relative (specify) ner non-relative (specify)	
	VI 2/	
	9_ OTHER RELATIVE ou please specify what other relative?	
 ENDIF		
	018_ (RELATION TO RESPONDENT) = er non-relative (specify)	
 CV02	20_ SPECIFY RELATIONSHIP	
	rou please specify [{first name household member}]'s relationship	
 ENDIF	7	
CV021	_ MONTH OF BIRTH HHMEMBER	
	th month and year was [{first name household member}] born?	
	'H: YEAR:	
1. Janua		
2. Febr		
3. Marc	•	
4. April		
5. May		
6. June		
7. July		
8. Augu	act	

	9. September
	10. October
	11. November
	12. December
	 CV022 _ YEAR OF BIRTH HHMEMBER
	In which month and year was [{first name household member}] born?
iii	MONTH: [{month of birth of household member}] YEAR:
iii	(19002004)
	IF CV022_ (YEAR OF BIRTH HHMEMBER) = NONRESPONSE
	CV022 ACE INDICATION HUMEMBED
	CV023_ AGE INDICATION HHMEMBER Is [{first name household member}] born after or before 1954?
1 1 1	1. after 1954
	2. (about) 1954
111	3. before 1954
111	
	ENDIF
	 IF CV922_ (BIRTHDATE HHMEMBER) > 17
ijij	
İİİ	CV024_ LIVING WITH SPOUSE/PARTNER HHMEMBER
	Is [{first name household member}] living with a spouse, with a
	partner, or as a single?
	1. Living with a spouse
	2. Living with a partner 3. Living as a single
	IF CV024_ (LIVING WITH SPOUSE/PARTNER HHMEMBER) <> 3. Living as a
single	
111	CV025_ FIRST NAME HHMEMBER SPOUSE
111	What is his or her first name?
iii	IWER: HERE WE DO NOT NEED THE REAL NAME, JUST SOME NAME
Ϊİİ	TO IDENTIFY HIM OR HER DURING THE INTERVIEW ONLY
	CV026_ MALE OR FEMALE OF HHMEMBER SPOUSE
	What is the sex of [{first name household member's husband/wife/partner}]?
iii	
	Looking at card 1, what is [his/her] [relationship] to you?
	IWER: BY "PARENT-IN-LAW" WE MEAN THE PARENT OF A
	CORESIDING PARTNER, OTHER PARENTS-IN-LAW (E.G. PARENTS
	RELATIVES".
	4. Child-in-law 5. Parent
	5.1 arcm

	6. Parent-in-law
	7. Sibling
	8. Grand-child
	9. Other relative (specify)
	10. Other non-relative (specify)
	IF CV027_ (RELATION TO RESPONDENT SPOUSE) =
	IF CV027_ (RELATION TO RESPONDENT
	SPOUSE = 9. Other relative (specify)
	Can you please specify what other relative?
iiii	IF CV027_ (RELATION TO RESPONDENT
	SPOUSE = 10. Other non-relative (specify)
	Can you please specify [{first name household member's
	husband/wife/partner}]'s relationship to you?
	ENDIF
	 CV030_ MONTH OF BIRTH HHMEMBER SPOUSE
iiii	In which month and year was [{first name household member's
iiii	husband/wife/partner}] born? MONTH: YEAR:
	1. January
	2. February
	3. March
	4. April
	5. May
	6. June 7. July
	9. September
1111	10. October
iiii	11. November
	12. December
1111	In which month and year was [{first name household member's
iiii	husband/wife/partner}] born? MONTH: [{month of birth household
iiii	member's husband/wife/partner}] YEAR:
	(19002004)
	NONRESPONSE
	CV032 _ AGE INDICATION HHMEMBER SPOUSE
	Is [{first name household member's husband/wife/partner}] born after

	2. (about) 1954
	CV033_ SOMEONE ELSE IN THE HOUSEHOLD Does anyone else live in this household? IWER: A HOUSEHOLD CONSISTS OF ALL PERSONS - WHO LIVE IN THE SAME DWELLING (USING THE SAME ENTRANCE DOOR) AND- WHO HAVE A COMMON HOUSEKEEPING BUDGET OR USUALLY HAVE THEIR MEALS TOGETHER. EXCEPTIONS: LODGERS (PERSONS WHO SUBLET) ARE NOT CONSIDERED MEMBERS OF THE HOUSEHOLD, EVEN THOUGH THEY MAY OCCASIONALLY HAVE DINNER WITH THE HOST. CHILDREN LIVING TOGETHER WITH THEIR PARENTS AT THE PARENTS? ADDRESS, OR PARENTS LIVING TOGETHER WITH THEIR CHILDREN AT THE CHILDREN'S ADDRESS WILL BE CONSIDERED MEMBERS OF THE HOUSEHOLD WHETHER OR NOT THEY HAVE A COMMON HOUSEKEEPING BUDGETS FOR MEALS. 1. Yes 5. No
	ENDIF
	IF CV948_ (HHSIZE) > 1
	CV034_ CHECK HOUSEHOLD SIZE Let me just check. That makes [{number of people in household}] people living in this household altogether? Is that correct? 1. Yes 5. No
	IF $CV034$ _ (CHECK HOUSEHOLD SIZE) = 5. N_0
	CV035_ HAVE WE LEFT SOMEONE OUT IWER: READ OUT LOUD ALL NAMES ON THE HOUSEHOLD GRID.[AllRespondents] Have we left anyone out? 1. Yes 5. No
(CHECK: Please go back and add this person. press enter to continue
	ENDIF
	 ENDIF
	IF Number of Eligibles > 0

	CV037_ PERSONS TO INTERVIEW I would like to interview[{list with eligible respondents}] Continue
 <i>1</i>	ENDIF
 1	F Number of Eligibles > 1
	CV038_ CHOICE RESPONDENT FOR HOUSING Some questions are about your household's housing and household finances. I only need to ask these questions of one of you. Which one of the people selected for the interview would be most able to answer questions about housing and household finances? IWER: CODE ONLY ONE HOUSEHOLD RESPONDENT IF HOUSEHOLD RESPONDENT DETERMINED IN COVERSHEET BECOMES UNAVAILABLE AFTER CV IS COMPLETED, SMS/CAPI OFFERS POSSIBILITY TO CHANGE THIS LATER ON [{eligible respondents}]
	CV039_ BACK TO MAIN
 	IWER: THIS IS THE LAST QUESTION IN THE COVERSCREEN. 1. Continue
 1	ENDIF
 El	NDIF
ΙF	Number of Eligibles < 1
	CV036_ INTRO END OF INTERVIEW Thank you very much for your time, there is no one here I need to nterview at this time. Continue
 El	NDIF

```
IFINTERVIEW\ MODE = 1.\ Individual.\ Single
ELSE
 IF INTERVIEW MODE = 2. Individual. Couple, first respondent
| | CM002_ FINANCES TOTALLY SEPARATE
| Later in this interview, we will be asking questions about family
| | finances, for example about your savings for old-age and financial
| | support to children and other relatives. We need to ask these
| | questions of only one person in a couple, except when they are not
| | informed about each other's savings or support given to relatives.
| | Should we ask these questions to each of you separately, or can we
| | ask them only once for both of you together?
 | 1. Separately
| | 5. Together
| | IF CM002_ (FINANCES TOTALLY SEPARATE) = 5. Together
| | your finances?
| | 1. Name of person 1
 | 2. Name of person 2
| | ENDIF
ELSE
 ENDIF
ENDIF
DN001 INTRO DEMOGRAPHICS
I would like to begin by asking some questions about your background.
1. Continue
IF RESPONDENT ID <> 1
 DN002_ MONTH OF BIRTH
 In which month and year were you born? MONTH: YEAR:
 1. January
 2. February
 3. March
```

4. April5. May6. June7. July8. August9. September10. October11. November12. December

165

```
| DN003_ YEAR OF BIRTH
 In which month and year were you born? MONTH: [{month of birth}] YEAR:
 (1875..2004)
ELSE
ENDIF
DN004_ COUNTRY OF BIRTH
Were you born in the United Kingdom?
1. Yes
5. No
IF DN004_ (COUNTRY OF BIRTH) = 5. No
 DN005_ OTHER COUNTRY OF BIRTH
 In which country were you born? Please name the country that your
 birthplace belonged to at the time of your birth.
 DN006_ YEAR CAME TO LIVE IN COUNTRY
 In which year did you come to live in the United Kingdom?
 (1875..2004)
ENDIF
DN007 CITIZENSHIP COUNTRY
Do you have British citizenship?
1. Yes
5. No
IF DN007_{CITIZENSHIP\ COUNTRY) = 5.\ No
 DN008 OTHER CITIZENSHIP
 What is your citizenship?
ENDIF
IF MN001_{\text{C}} (INTERVIEW COUNTRY) = 3. Germany
 DN009 WHERE LIVED ON NOVEMBER 1ST 1989
 Where have you lived on November 1st 1989, that is before the Berlin
 wall came down? in the GDR, in the FRG, or elsewhere?
 1. GDR
 2. FRG
 3. Elsewhere
ENDIF
DN010_ HIGHEST EDUCATIONAL DEGREE OBTAINED
```

Please look at card 2. What is the highest school leaving certificate or school degree that you have obtained?

- 1. Comprehensive school
- 2. Grammar school (not fee-paying)

- 3. Fee-paying grammar school
- 4. Sixth form College/Tertiary College
- 5. Public or other private school
- 6. Elementary school
- 7. Secondary modern/secondary school
- 8. Technical school (not college)
- 95. No degree yet/still in school
- 96. None
- 97. Other type (also abroad)

IF DN010_ (HIGHEST EDUCATIONAL DEGREE OBTAINED) =	97. Other type
(also abroad)	
 DN011_ OTHER HIGHEST EDUCATION	
What other school leaving certificate or school degree have you	
obtained?	
 ENDIF	

DN012 FURTHER EDUCATION

Please look at card 3. Which degrees of higher education or vocational training do you have?

IWER: CODE ALL THAT APPLY

- 1. Nurses' training school
- 2. College of further/higher education
- 3. Other college or training establishment
- 4. Polytechnic/Scottish Central Institutions
- 5. University
- 95. Still in higher education or vocational training
- 96. None
- 97. Other (also abroad)

IF 97. Other (also abroad) IN DN012_(FURTHER EDUCATION)

	DN013 _ OTHER EDUCATION
	Which other degree of higher education or vocational training do you
	have?
Ì	ENDIF

DN014_ MARITAL STATUS

Please look at card 4. What is your marital status?

- 1. Married and living together with spouse
- 2. Registered partnership
- 3. Married, living separated from spouse
- 4. Never married
- 5. Divorced
- 6. Widowed

```
IF DN014_ (MARITAL STATUS) = 1. Married and living together with spouse

| IF RESPONDENT ID = 1
| |
```

```
| | DN015_ YEAR OF MARRIAGE, IF LIVING TOGETHER
| In which year did you get married?
| (1890..2004)
CHECK: Year marriage should be at least 12 years after year of birth of respondent!
 ENDIF
ENDIF
IF DN014_(MARITAL STATUS) = 2. Registered partnership
 DN016 YEAR OF REGISTERED PARTNERSHIP
 In which year did you register your partnership?
 (1890..2004)
ELSE
 IF DN014_ (MARITAL STATUS) = 3. Married, living separated from
 spouse
 DN017 YEAR OF MARRIAGE, IF LIVING SEPARATED
 | In which year did you get married?
 (1890..2004)
 ELSE
 | IF DN014 (MARITAL STATUS) = 5. Divorced
| | | DN018_ SINCE WHEN DIVORCED
| | In which year did you get divorced?
|  |  | IWER: IF MORE THAN ONE DIVORCE ENTER YEAR OF LAST DIVORCE
| | (1890..2004)
| | |
| | ELSE
| | IF DN014_ (MARITAL STATUS) = 6. Widowed
| | | | DN019_ SINCE WHEN WIDOWED
| | | | In which year did you become a [widow/widower]?
| | | (1890..2004)
| ENDIF
 ENDIF
ENDIF
IF DN014_ (MARITAL STATUS) = 3. Married, living separated from
spouse OR DN014_{-} (MARITAL STATUS) = 5. Divorced OR
DN014_{\perp} (MARITAL STATUS) = 6. Widowed
 DN020 YEAR OF BIRTH OF FORMER PARTNER
In which year was [your] [ex-/late] [husband/wife] born?
```

IWER: RECORD BIRTH YEAR OF MOST RECENT SPOUSE (1875...2004)**DN021** HIGHEST EDUCATIONAL DEGREE OF FORMER PARTNER Please look at card 2. What is the highest school certificate or degree that [your] [ex-/late] [husband/wife] has obtained? 1. Comprehensive school 2. Grammar school (not fee-paying) 3. Fee-paying grammar school 4. Sixth form College/Tertiary College 5. Public or other private school 6. Elementary school 7. Secondary modern/secondary school 8. Technical school (not college) 95. No degree yet/still in school 96. None 97. Other type (or abroad) IF DN021_ (HIGHEST EDUCATIONAL DEGREE OF FORMER PARTNER) = 97. Other type (or abroad) | **DN022** OTHER HIGHEST EDUCATIONAL DEGREE PARTNER OBTAINED Which other school certificate or degree has [your] [ex-/late] [husband/wife] obtained? **ENDIF DN023** FURTHER EDUCATION OF FORMER PARTNER Please look at card 3. Which degrees of higher education or vocational training does [your] [ex-/late] [husband/wife] have? IWER: CODE ALL THAT APPLY 1. Nurses' training school 2. College of further/higher education 3. Other college or training establishment 4. Polytechnic/Scottish Central Institutions 5. University 95. Still in higher education or vocational training 96. None 97. Other (also abroad) IF 97. Other (also abroad) IN DN023_(FURTHER EDUCATION OR VOCATIONAL TRAINING OBTAINED OF PARTNER) | **DN024** OTHER EDUCATION PARTNER Which other education or vocational training does [your] [ex-/late] [husband/wife] have? **ENDIF DN025**_ LAST JOB OF PARTNER What is the most recent job [your] [ex-/late] [husband/wife/husband] had? Please give the exact description. IWER: E.G. NOT "CLERK" BUT "FORWARDING MERCHANT", NOT "WORKER" BUT "ENGINE FITTER". IN CASE OF A CIVIL SERVANT,

DN039 INTRODUCTION PARENTS SIBLINGS

Now, I have some questions about your parents and siblings.

1. Continue

Questions DN026_ (IS NATURAL PARENT STILL ALIVE) to DN033_ (HEALTH OF PARENT) are repeated for mother and father and asked to every eligible with the appropriate fill.

```
IF (MN016_ (MOTHER IN HOUSEHOLD) = 5. No AND RESPONDENT ID = 1) OR
IF (MN018_ (MOTHER IN LAW IN HOUSEHOLD) = 5. No AND RESPONDENT
ID = 2) OR
IF RESPONDENT ID > 2 OR
IF (MN017_ (FATHER IN HOUSEHOLD) = 5. No AND RESPONDENT ID = 1) OR
IF (MN019 (FATHER IN LAW IN HOUSEHOLD) = 5. No AND RESPONDENT
ID = 2) OR
IF RESPONDENT ID > 2
 DN026 IS NATURAL PARENT STILL ALIVE
 Is [your] [natural] [mother/father] still alive?
 1. Yes
 5. No
 IF DN026_{-} (IS NATURAL PARENT STILL ALIVE) = 5. No
  DN027_ AGE OF DEATH OF PARENT
  How old was [your] [mother/father] when [she/he] died?
 (10..120)
| ELSE
| | IF DN026_ (IS NATURAL PARENT STILL ALIVE) = 1. Yes
| | How old is [your] [mother/father] now?
 | | _____ (18..120)
CHECK: Age should be at least ten years above respondent's age
| | ENDIF
 ENDIF
 DN029 LAST JOB OR OCCUPATION OF PARENT
 What is or was the last job [your] [mother/father] had? Please
 give the exact description.
 IWER: E.G. NOT "CLERK" BUT "FORWARDING MERCHANT", NOT
 "WORKER" BUT "ENGINE FITTER". IN CASE OF A CIVIL SERVANT,
 PLEASE GET FIRST OFFICIAL TITLE, E.G. "POLICE CONSTABLE" OR
 "STUDENT TEACHER".
 ONLY IF PERSON NEVER HAD ANY OCCUPATION, ENTER "HOUSEWIFE/
```

```
-HUSBAND".
 IF DN026_ (IS NATURAL PARENT STILL ALIVE) = 1. Yes
 DN030 WHERE DOES PARENT LIVE
| Please look at card 5. Where does [your] [mother/father] live?
| | 1. In the same household
| 2. In the same building
| 3. Less than 1 kilometre away
| 4. Between 1 and 5 kilometres away
| | 5. Between 5 and 25 kilometres away
| 6. Between 25 and 100 kilometres away
| | 7. Between 100 and 500 kilometres away
 | 8. More than 500 kilometres away
| 9. More than 500 kilometres away in another country
| IF DN030_ (WHERE DOES PARENT LIVE) = 9. More than 500 kilometres away
| in another country
| | DN031_ WHICH COUNTRY
| | | Which country is it?
| | ENDIF
| IF DN030 (WHERE DOES PARENT LIVE) > 1. In the same
| | household
| | MONTHS
| | During the past twelve months, how often did you have contact with
| | [your] [mother/father], either personally, by phone or mail?
| | | IWER: ANY KIND OF CONTACT, INCLUDING FOR EXAMPLE E-MAIL,
| | SMS OR MMS
| | 1. Daily
| | 5. About once a month
I I I
| | ENDIF
| | DN033_ HEALTH OF PARENT
| | How would you describe the health of [your] [mother/father]?
| | Would you say it is
| | IWER: READ OUT
| 1. Very Good
| | 2. Good
| | 3. Fair
| | 4. Poor
| | 5. Very Poor
| ENDIF
```

```
ENDIF
DN034_ EVER HAD ANY SIBLINGS
Have you ever had any siblings?
IWER: INCLUDE NON-BIOLOGICAL SIBLINGS
1. Yes
5. No
IF DN034_ (EVER HAD ANY SIBLINGS) = 1. Yes
 DN035 OLDEST YOUNGEST CHILD
 Were you the oldest child, the youngest child, or somewhere
 in-between?
 1. Oldest
 2. Youngest
 3. In-between
 DN036_ HOW MANY BROTHERS ALIVE
 How many brothers do you have that are still alive?
 IWER: INCLUDE NON-BIOLOGICAL
    (0..20)
 DN037_ HOW MANY SISTERS ALIVE
 And how many sisters do you have that are still alive?
 IWER: INCLUDE NON-BIOLOGICAL
     (0..20)
ENDIF
DN038_ INTERVIEWER CHECK DN
IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION?
1. Respondent only
2. Respondent and proxy
3. Proxy only
PH001_ INTRO HEALTH
Now I have some questions about your health.
1. Continue
IF PHRANDOM (RANDOM NR: HEALTH IN GENERAL QUESTION VERSIONS) = 1
 PH002_ HEALTH IN GENERAL QUESTION V 1
 Would you say your health is ...
 1. Very good
 2. Good
 3. Fair
 4. Bad
 5. Very bad
ELSE
 PH003_ HEALTH IN GENERAL QUESTION V 2
| Would you say your health is ....
```

- | 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor

ENDIF

PH004_ LONG-TERM ILLNESS

Some people suffer from chronic or long-term health problems. By long-term we mean it has troubled you over a period of time or is likely to affect you over a period of time. Do you have any long-term health problems, illness, disability or infirmity?

IWER: INCLUDING MENTAL HEALTH PROBLEMS

- 1. Yes
- 5. No

PH005 LIMITED ACTIVITIES

For the past six months at least, to what extent have you been limited because of a health problem in activities people usually do? IWER: READ OUT

- 1. Severely limited
- 2. Limited, but not severely
- 3. Not limited

PH006_ DOCTOR TOLD YOU HAD CONDITIONS

Please look at card 6. Has a doctor ever told you that you had any of the conditions on this card? Please tell me the number or numbers of the conditions.

IWER: CODE ALL THAT APPLY

- 1. A heart attack including myocardial infarction or coronary thrombosis or any other heart problem including congestive heart failure
- 2. High blood pressure or hypertension
- 3. High blood cholesterol
- 4. A stroke or cerebral vascular disease
- 5. Diabetes or high blood sugar
- 6. Chronic lung disease such as chronic bronchitis or emphysema
- 7. Asthma
- 8. Arthritis, including osteoarthritis, or rheumatism
- 9. Osteoporosis
- 10. Cancer or malignant tumour, including leukaemia or lymphoma, but excluding minor skin cancers
- 11. Stomach or duodenal ulcer, peptic ulcer
- 12. Parkinson disease
- 13. Cataracts
- 14. Hip fracture or femoral fracture
- 96. None
- 97. Other conditions, not yet mentioned

CHECK: You cannot select 'none of the above' together with any other answer. Please change your answer!

IF 97. Other conditions, not yet mentioned IN PH006_(DOCTOR TOLD YOU HAD CONDITIONS)

| PH007_ OTHER CONDITIONS

```
What other conditions have you had?
 IWER: PROBE
ENDIF
LOOP cnt = 1 TO 16
 IF cnt IN PH006_ (DOCTOR TOLD YOU HAD CONDITIONS) OR (cnt = 16
 AND 97. Other conditions, not yet mentioned IN PH006_(DOCTOR TOLD YOU
 HAD CONDITIONS))
 | IF cnt=10 AND cnt IN PH006_ (DOCTOR TOLD YOU HAD CONDITIONS)
 | | PH008_ CANCER IN WHICH ORGANS
 In which organ or part of the body have you or have you had cancer?
| | 1. Brain
 | 2. Oral cavity
| | 3. Larynx
| | 4. Other pharynx
 | | 7. Breast
 | 8. Oesophagus
| | 10. Liver
| | 11. Pancreas
 | | 12. Kidney
| | | 13. Prostate
| | 15. Ovary
| | 16. Cervix
 | | 17. Endometrium
| | 18. Colon or rectum
| | 19. Bladder
| | 20. Skin
 | 21. Non-Hodgkin lymphoma
| | ENDIF
  | PH009 AGE WHEN CONDITION STARTED
 About how old were you when you were first told by a doctor that you
| | had [a heart attack or any other heart problem/high blood
 pressure/high blood cholesterol/a stroke or cerebral vascular
  disease/diabetes/chronic lung disease/asthma/arthritis or
  | rheumatism/osteoporosis/cancer/stomach or duodenal ulcer/parkinson
  | disease/cataracts/hip fracture or femoral fracture/[other filled by
 | PH007_ (OTHER CONDITIONS)]?
   _____(0..125)
CHECK: age should be less than or equal to respondent's age
```

174

	ENDIF		
	ENDIF		
ENDLOOP			

PH010 BOTHERED BY SYMPTOMS

Please look at card 7. For the past six months at least, have you been bothered by any of the health conditions on this card? Please tell me the number or numbers.

IWER: CODE ALL THAT APPLY

- 1. Pain in your back, knees, hips or any other joint
- 2. Heart trouble or angina, chest pain during exercise
- 3. Breathlessness, difficulty breathing
- 4. Persistent cough
- 5. Swollen legs
- 6. Sleeping problems
- 7. Falling down
- 8. Fear of falling down
- 9. Dizziness, faints or blackouts
- 10. Stomach or intestine problems, including constipation, air, diarrhoea
- 11. Incontinence or involuntary loss of urine
- 96. None
- 97. Other symptoms, not yet mentioned

CHECK: You cannot select 'none of the above' together with any other answer. Please change your answer!

PH011 CURRENT DRUGS AT LEAST ONCE A WEEK

Our next question is about the medication you may be taking. Please look at card 8. Do you currently take drugs at least once a week for problems mentioned on this card?

IWER: CODE ALL THAT APPLY

- 1. Drugs for high blood cholesterol
- 2. Drugs for high blood pressure
- 3. Drugs for coronary or cerebrovascular diseases
- 4. Drugs for other heart diseases
- 5. Drugs for asthma
- 6. Drugs for diabetes
- 7. Drugs for joint pain or for joint inflammation
- 8. Drugs for other pain (e.g. headache, backpain, etc.)
- 9. Drugs for sleep problems
- 10. Drugs for anxiety or depression
- 11. Drugs for osteoporosis, hormonal
- 12. Drugs for osteoporosis, other than hormonal
- 13. Drugs for stomach burns
- 14. Drugs for chronic bronchitis
- 96. None
- 97. Other drugs, not yet mentioned

CHECK: You cannot select 'none of the above' together with any other answer. Please change your answer!

PH012_ WEIGHT OF RESPONDENT Approximately how much do you weigh? IWER: WEIGHT IN KILOS (IN UK: STONE-DOT-POUNDS) ______ (0.00..300.00)

PH013_ HOW TALL ARE YOU?

How tall are you?

IWER: LENGTH IN CENTIMETRES (IN UK: FEET-DOT-INCHES)

(100.00..230.00)

PH041_ USE GLASSES

Do you usually wear glasses or contact lenses?

- 1. Yes
- 5. No

PH042 EYESIGHT

Is your eyesight [using glasses or contact lenses as usual]...

IWER: READ OUT...

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor
- 6. SPONTANEOUS registered or legally blind

IF PH042_ (EYESIGHT) <> 6. SPONTANEOUS registered or legally blind AND PH042_ (EYESIGHT) <> DONTKNOW AND PH042_ (EYESIGHT) <> REFUSAL

PH043_ EYESIGHT DISTANCE

How good is your eyesight for seeing things at a distance, like recognising a friend across the street [using glasses or contact lenses as usual]? Would you say it is ...

IWER: READ OUT ...

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor

PH044 EYESIGHT READING

How good is your eyesight for seeing things up close, like reading ordinary newspaper print [using glasses or contact lenses as usual]? Would you say it is ...

IWER: READ OUT ...

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor

ENDIF

PH045 USE HEARING AID

Are you usually wearing a hearing aid?

- 1. Yes
- 5. No

PH046_ HEARING

Is your hearing [using a hearing aid as usual]...

IWER: READ OUT...

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor

PH047 HEARING WITH BACKGROUND NOISE

Do you find it difficult to follow a conversation if there is background noise, such as a TV, a radio or children playing [using a hearing aid as usual]?

- 1. Yes
- 5. No

PH055_ HEARING WITH SEVERAL PEOPLE

Can you hear clearly what is said in a conversation with several people [using a hearing aid as usual]?

- 1. Yes
- 5. No

PH056 HEARING WITH ONE PERSON

Can you hear clearly what is said in a conversation with one person [using a hearing aid as usual]?

- 1. Yes
- 5. No

PH024 USE DENTURES

Do you use dentures?

- 1. Yes
- 5. No

PH025_ BITE ON HARD FOODS

[Using your dentures,] [can you/Can you] bite and chew on hard foods such as a firm apple without difficulty?

- 1. Yes
- 5. No

PH048_ HEALTH AND ACTIVITIES

Please look at card 9.We need to understand difficulties people may have with various activities because of a health or physical problem. Please tell me whether you have any difficulty doing each of the everyday activities on card 9. Exclude any difficulties that you expect to last less than three months. (Because of a health problem, do you have difficulty doing any of the activities on this card?) IWER: PROBE: ANY OTHERS? CODE ALL THAT APPLY

- 1. Walking 100 metres
- 2. Sitting for about two hours
- 3. Getting up from a chair after sitting for long periods
- 4. Climbing several flights of stairs without resting
- 5. Climbing one flight of stairs without resting
- 6. Stooping, kneeling, or crouching
- 7. Reaching or extending your arms above shoulder level
- 8. Pulling or pushing large objects like a living room chair
- 9. Lifting or carrying weights over 10 pounds/5 kilos, like a heavy bag of groceries

- 10. Picking up a small coin from a table
- 96. None of these

CHECK: You cannot select 'none of the above' together with any other answer. Please change your answer!

PH049_ MORE HEALTH AND ACTIVITIES

Please look at card 10. Here are a few more everyday activities. Please tell me if you have any difficulty with these because of a physical, mental, emotional or memory problem. Again exclude any difficulties you expect to last less than three months. (Because of a health or memory problem, do you have difficulty doing any of the activities on card 10?)

IWER: PROBE: ANY OTHERS? CODE ALL THAT APPLY

- 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
- 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

CHECK: You cannot select 'none of the above' together with any other answer. Please change your answer!

IF NOT 96. None of these IN PH048_ (HEALTH AND ACTIVITIES) OR PH048_ (HEALTH AND ACTIVITIES) = DONTKNOW OR PH048_ (HEALTH AND ACTIVITIES) = REFUSAL OR 96. None of these IN PH049_ (MORE HEALTH AND ACTIVITIES) OR PH049_ (MORE HEALTH AND ACTIVITIES) = DONTKNOW OR PH049_ (MORE HEALTH AND ACTIVITIES) = REFUSAL

PH050_ HELP ACTIVITIES

Thinking about the activities that you have problems with, does anyone ever help you with these activities?

IWER: INCLUDING YOUR PARTNER OR OTHER PEOPLE IN YOUR

HOUSEHOLD

1. Yes

5. No

IF PH050_ (HELP ACTIVITIES) = 1. Yes

| PH051_ HELP MEETS NEEDS

| Would you say that the help you receive meets your needs?

IWER: READ OUT ...

- 1. All the time
- | 2. Usually
- | | 3. Sometimes
- | 4. Hardly ever

| ENDIF

```
ENDIF
IF PHRANDOM (RANDOM NR: HEALTH IN GENERAL QUESTION VERSIONS) = 2
 PH052 HEALTH IN GENERAL QUESTION V 2
 Would you say your health is ....
 IWER: THIS IS A SECOND VERSION. DO NOT GO BACK TO FIRST
 VERSION.
 1. Excellent
 2. Very good
 3. Good
 4. Fair
 5. Poor
ELSE
 PH053_ HEALTH IN GENERAL QUESTION V 1
 Would you say your health is ...
 IWER: THIS IS A SECOND VERSION. DO NOT GO BACK TO FIRST
 VERSION.
 1. Very good
 2. Good
 3. Fair
 4. Bad
 5. Very bad
ENDIF
PH054_ WHO ANSWERED THE QUESTIONS IN PH
IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION?
1. Respondent only
2. Respondent and proxy
3. Proxy only
BR001 EVER SMOKED DAILY
The following questions are about smoking and drinking alcoholic
beverages. Have you ever smoked cigarettes, cigars, cigarillos or a
pipe daily for a period of at least one year?
1. Yes
5. No
IF BR001 (EVER SMOKED DAILY) = 1. Yes
 BR002_ SMOKE AT THE PRESENT TIME
 Do you smoke at the present time?
 1. Yes
 5. No, I have stopped
 BR003_ HOW MANY YEARS SMOKED
 For how many years [do/did] [you] [smoke] altogether?
 IWER: DON'T INCLUDE PERIODS WITHOUT SMOKING
```

_____(0..150)

CHECK: number should be less than or equal to respondent's age
IF BR002_ (SMOKE AT THE PRESENT TIME) = 5. No, I have stopped
<i>stopped</i>
BR004_ AGE STOPPED SMOKING
How old were you when you stopped smoking?
(0105)
CHECK: age should be less than or equal to respondent's age
ENDIF
BR005_ WHAT DO OR DID YOU SMOKE What [do/did] [you] [smoke/smoke before you stopped]? IWER: READ OUT; CODE ALL THAT APPLY 1. Cigarettes 2. Pipe 3. Cigars or cigarillos
IF 1. Cigarettes IN BR005_(WHAT DO OR DID YOU SMOKE)
BR006_ AVERAGE AMOUNT OF CIGARETTES PER DAY How many cigarettes [do/did] [you] [smoke] on average per day? (0120)
ENDIF
IF 2. Pipe IN BR005_(WHAT DO OR DID YOU SMOKE)
BR007_ AVERAGE AMOUNT OF PIPES PER DAY How many pipes [do/did] [you] [smoke] on average per day? (0120)
ENDIF
IF 3. Cigars or cigarillos IN BR005_(WHAT DO OR DID YOU SMOKE)
BR008_ AVERAGE AMOUNT OF CIGARS PER DAY How many cigars or cigarillos [do/did] [you] [smoke] on average per day? (0120) ENDIF
 ENDIF

BR010_ BEVERAGES CONSUMED LAST 6 MONTHS

I am now going to ask you a few questions about what you drink - that is if you drink. Please look at card 11. During the last six months, how often have you drunk any alcoholic beverages, like beer, cider, wine, spirits or cocktails?

- 1. Almost every day
- 2. Five or six days a week
- 3. Three or four days a week
- 4. Once or twice a week
- 5. Once or twice a month

- 6. Less than once a month
- 7. Not at all in the last 6 months

IF BR010_ (BEVERAGES CONSUMED LAST 6 MONTHS) < 7. Not at all in the last 6 months

BR011_ FREQ MORE THAN 2 GLASSES BEER IN A DAY

Please look at card 11. During the last six months, how often have you had more than two glasses or cans of beer or cider in a single day?

- 1. Almost every day
- 2. Five or six days a week
- 3. Three or four days a week
- 4. Once or twice a week
- 5. Once or twice a month
- 6. Less than once a month
- 7. Not at all in the last 6 months

BR012_ FREQ MORE THAN 2 GLASSES WINE IN A DAY

(Please look at card 11.) During the last six months, how often have you had more than two glasses of wine in a single day?

- 1. Almost every day
- 2. Five or six days a week
- 3. Three or four days a week
- 4. Once or twice a week
- 5. Once or twice a month
- 6. Less than once a month
- 7. Not at all in the last 6 months

BR013_ FREQ MORE THAN 2 HARD LIQUOR IN A DAY

(Please look at card 11.) During the last six months, how often have you had more than two cocktails or drinks of hard liquor in a single day?

- 1. Almost every day
- 2. Five or six days a week
- 3. Three or four days a week
- 4. Once or twice a week
- 5. Once or twice a month
- 6. Less than once a month
- 7. Not at all in the last 6 months

ENDIF

BR015_ SPORTS OR ACTIVITIES THAT ARE VIGOROUS

We would like to know about the type and amount of physical activity you do in your daily life. How often do you engage in vigorous physical activity, such as sports, heavy housework, or a job that involves physical labour?

IWER: READ OUT

- 1. More than once a week
- 2. Once a week
- 3. One to three times a month
- 4. Hardly ever, or never

BR016_ ACTIVITIES REQUIRING A MODERATE LEVEL OF ENERGY

How often do you engage in activities that require a low or moderate

CAPI instrument

level of energy such as gardening, cleaning the car, or doing a walk?

IWER: READ OUT

- 1. More than once a week
- 2. Once a week
- 3. One to three times a month
- 4. Hardly ever, or never

BR017 INTERVIEWER CHECK BR

IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION?

- 1. Respondent only
- 2. Respondent and proxy
- 3. Proxy only

CF019_ INSTRUCTION FOR CF

IWER: THIS IS THE COGNITIVE TEST SECTION: WHILE YOU COMPLETE THIS SECTION, MAKE SURE THAT NO THIRD PERSONS ARE PRESENT. START OF A NON-PROXY SECTION. NO PROXY ALLOWED. IF THE RESPONDENT IS NOT CAPABLE OF ANSWERING ANY OF THESE QUESTION ON HER/HIS OWN, PRESS CTRL-K AT EACH QUESTION AND MAKE A REMARK USING CTRL-M AT THE END OF THE SECTION. 1. Continue

CF001 SELF-RATED READING SKILLS

Now I would like to ask some questions about your reading and writing skills. How would you rate your reading skills needed in your daily life? Would you say they are....

IWER: READ OUT

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor

CF002_ SELF-RATED WRITING SKILLS

How would you rate your writing skills needed in your daily life?

Would you say they are.....

IWER: READ OUT

- 1. Excellent
- 2. Very good
- 3. Good
- 4. Fair
- 5. Poor

CF003_ DATE-DAY OF MONTH

Part of this study is concerned with people's memory and ability to think about things. First, I am going to ask about today's date.

Which day of the month is it?

IWER: CODE WHETHER DAY OF MONTH ([{day of the month}]) IS GIVEN CORRECTLY

- 1. Day of month given correctly
- 2. Day of month given incorrectly/doesn't know day

CF004_ DATE-MONTH

Which month is it?

IWER: CODE WHETHER MONTH

([january/february/march/april/may/june/july/august/september/october/november/december]) IS GIVEN CORRECTLY

- 1. Month given correctly
- 2. Month given incorrectly/doesn't know month

CF005_ DATE-YEAR

Which year is it?

IWER: CODE WHETHER YEAR ([{current year}]) IS GIVEN CORRECTLY

- 1. Year given correctly
- 2. Year given incorrectly/doesn't know year

CF006_ DAY OF THE WEEK

Can you tell me what day of the week it is?

IWER: CORRECT ANSWER:

([monday/tuesday/wednesday/thursday/friday/saturday/sunday])

- 1. Day of week given correctly
- 2. Day of week given incorrectly/doesn't know day

CF007_ INTRODUCTION TEN WORDS LIST LEARNING

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?

IWER: PRESS ENTER TO BEGIN TEST AND HAVE BOOKLET READY 1. Continue

```
IF CF007_ (INTRODUCTION TEN WORDS LIST LEARNING) = RESPONSE
 IF CF009_ (VERBAL FLUENCY INTRO) = EMPTY
| | CF008 TEN WORDS LIST LEARNING FIRST TRIAL
Now please tell me all the words you can recall.
I I IWER: WAIT UNTIL WORDS APPEAR ON THE SCREEN. WRITE WORDS
 ON SHEET PROVIDED. ALLOW UP TO ONE MINUTE FOR RECALL.
| ENTER THE WORDS RESPONDENT CORRECTLY RECALLS.
| | 1. Butter
| | 2. Arm
| | 3. Letter
 4. Queen
 5. Ticket
 6. Grass
 | 7. Corner
 8. Stone
 | 9. Book
| | 10. Stick
```

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

| ENDIF

| 96. None of these

ENDIF

CF009_ VERBAL FLUENCY INTRO

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.

IWER: ALLOW ONE MINUTE PRECISELY. IF THE SUBJECT STOPS BEFORE THE END OF THE TIME, ENCOURAGE THEM TO TRY TO FIND MORE WORDS. IF THEY ARE SILENT FOR 15 SECONDS REPEAT THE BASIC INSTRUCTION ("I WANT YOU TO TELL ME ALL THE ANIMALS YOU CAN THINK OF"). NO EXTENSION ON THE TIME LIMIT IS MADE IN THE EVENT THAT THE INSTRUCTION HAS TO BE REPEATED

1. Continue

```
IF CF009_ (VERBAL FLUENCY INTRO) = RESPONSE

| IF CF011_ (INTRODUCTION NUMERACY) = EMPTY

| |
| CF010_ VERBAL FLUENCY SCORE

| IWER: THE SCORE IS THE SUM OF ACCEPTABLE ANIMALS. ANY
| MEMBER OF THE ANIMAL KINGDOM, REAL OR MYTHICAL IS SCORED
| CORRECT, EXCEPT REPETITIONS AND PROPER NOUNS. SPECIFICALLY,
| EACH OF THE FOLLOWING GETS CREDIT: A SPECIES NAME AND ANY
| ACCOMPANYING BREEDS WITHIN THE SPECIES; MALE, FEMALE AND
| INFANT NAMES WITHIN THE SPECIES. CODE NUMBER OF ANIMALS
| (0..100)
| ______ (0..100)
| ENDIF
| ENDIF
```

CF011_ INTRODUCTION NUMERACY

Next I would like to ask you some questions which assess how people use numbers in everyday life.

IWER: IF NECESSARY, ENCOURAGE THE RESPONDENT TO TRY TO ANSWER EACH OF THE NUMERACY QUESTIONS

1. Continue

CF012_ NUMERACY-CHANCE DISEASE 10 PERC. OF 1000

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? IWER: DO NOT READ OUT THE ANSWERS

1.100

2. 10

3.90

4.900

97. Other answer

IF CF012_ (NUMERACY-CHANCE DISEASE 10 PERC. OF 1000) <> 1.100

| CF013_ NUMERACY-HALF PRICE | In a sale, a shop is selling all items at half price. Before the | sale, a sofa costs 300 [{local currency}]. How much will it cost in | the sale? | IWER: DO NOT READ OUT THE ANSWERS | 1.150 [{local currency}]

```
2. 600 [{local currency}]
 97. Other answer
ENDIF
IF CF012 (NUMERACY-CHANCE DISEASE 10 PERC. OF 1000) = 1.100
 CF014 NUMERACY-6000 IS TWO-THIRDS WHAT IS TOTAL PRICE
 A second hand car dealer is selling a car for 6,000 [{local
 currency}]. This is two-thirds of what it costs new. How much did the
 car cost new?
 IWER: DO NOT READ OUT THE ANSWERS
 1. 9,000 [{local currency}]
 2. 4,000 [{local currency}]
 3. 8,000 [{local currency}]
 4. 12,000 [{local currency}]
 5. 18,000 [{local currency}]
 97. Other answer
 IF CF014_ (NUMERACY-6000 IS TWO-THIRDS WHAT IS TOTAL PRICE) =
 1. 9,000 [{local currency}]
 | CF015 NUMERACY-AMOUNT IN THE SAVINGS ACCOUNT
 Let's say you have 2000 [{local 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?
 | IWER: DO NOT READ OUT THE ANSWERS
| | 1. 2420 [{local currency}]
| | 2. 2020 [{local currency}]
| | 3. 2040 [{local currency}]
| | 4. 2100 [{local currency}]
| | 5. 2200 [{local currency}]
 | 6. 2400 [{local currency}]
 97. Other answer
 ENDIF
ENDIF
IF CF007_ (INTRODUCTION TEN WORDS LIST LEARNING) = RESPONSE
 CF016_ TEN WORDS LIST LEARNING DELAYED RECALL
 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?
 IWER: WRITE THE WORDS ON A SHEET AND THEN SCORE THE RIGHT
 WORDS
 1. Butter
 2. Arm
 3. Letter
 4. Queen
 5. Ticket
 6. Grass
 7. Corner
 8. Stone
| 9. Book
```

10. Stick

96. None of these

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

ENDIF

CF017_ CONTEXTUAL FACTORS DURING THE COGNITIVE FUNCTION TEST

IWER: WERE THERE ANY FACTORS THAT MAY HAVE IMPAIRED THE RESPONDENT'S PERFORMANCE ON THE TESTS?

1. Yes

5. No

CF018_ WHO WAS PRESENT DURING CF

IWER CHECK: WHO WAS PRESENT DURING THIS SECTION?

IWER: CODE ALL THAT APPLY

- 1. Respondent alone
- 2. Partner present
- 3. Child(ren) present
- 4. Other(s)

CHECK: Please go back and add this person. Press enter to continue.

MH001_ INTRO MENTAL HEALTH

Earlier we talked about your physical health. Another measure of health is your emotional health or well being -- that is, how you feel about things that happen around you.

1. Continue

MH002_ SAD OR DEPRESSED LAST MONTH

In the last month, have you been sad or depressed?

IWER: IF PARTICIPANT ASKS FOR CLARIFICATION, SAY 'BY SAD OR DEPRESSED, WE MEAN MISERABLE, IN LOW SPIRITS, OR BLUE'

1. Yes

5. No

MH003_ HOPES FOR THE FUTURE

What are your hopes for the future?

IWER: NOTE ONLY WHETHER HOPES ARE MENTIONED OR NOT

- 1. Any hopes mentioned
- 2. No hopes mentioned

MH004_ FELT WOULD RATHER BE DEAD

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_ FEELS GUILTY

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

IF MH005_ (FEELS GUILTY) = 3. Mentions guilt or self-blame, but

it is unclear if these constitute obvious or excessive guilt or self-blame

MH006 BLAME FOR WHAT

So, for what do you blame yourself?

IWER: NOTE - ONLY CODE 1 FOR AN EXAGGERATED FEELING OF GUILT, WHICH IS CLEARLY OUT OF PROPORTION TO THE CIRCUMSTANCES. THE FAULT WILL OFTEN HAVE BEEN VERY MINOR, IF THERE WAS ONE AT ALL. JUSTIFIABLE OR APPROPRIATE GUILT SHOULD BE CODED 2.

- 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

. ENDIF

MH007_ TROUBLE SLEEPING

Have you had trouble sleeping recently?

- 1. Trouble with sleep or recent change in pattern
- 2. No trouble sleeping

MH008_ LESS OR SAME INTEREST IN THINGS

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

IF MH008_ (LESS OR SAME INTEREST IN THINGS) = 3. Non-specific or uncodeable response

MH009 KEEPS UP INTEREST

So, do you keep up your interests?

- 1. Yes
- 5. No

ENDIF

MH010_ IRRITABILITY

Have you been irritable recently?

- 1. Yes
- 5. No

MH011_ APPETITE

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

IF MH011_ (APPETITE) = 3. Non-specific or uncodeable response

MH012 EATING MORE OR LESS

So, have you been eating more or less than usual?

- 1. Less
- 2. More
- 3. Neither more nor less

ENDIF

MH013_ FATIGUE

In the last month, have you had too little energy to do the things you wanted to do?

- 1. Yes
- 5. No

MH014_ CONCENTRATION ON ENTERTAINMENT

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_ CONCENTRATION ON READING

Can you concentrate on something you read?

- 1. Difficulty in concentrating on reading
- 2. No such difficulty mentioned

MH016_ ENJOYMENT

What have you enjoyed doing recently?

- 1. Fails to mention any enjoyable activity
- 2. Mentions ANY enjoyment from activity

MH017_ TEARFULNESS

In the last month, have you cried at all?

IWER: END OF NON-PROXY SECTION. IF THE RESPONDENT WAS NOT CAPABLE OF ANSWERING THE PRECEDING QUESTIONS, PRESS CTRL-M AND MAKE A REMARK

1. Yes

5. No

MH018_ DEPRESSION EVER

Has there been a time or times in your life when you suffered from symptoms of depression which lasted at least two weeks?

1. Yes

5. No

IF MH018_ (DEPRESSION EVER) = 1. Yes

| MH019_ AGE DEPRESSION SYMPTOMS FIRST TIME | How old were you when the symptoms occurred for the first time? | ______ (0..120) | | MH020_ EVER TREATED FOR DEPRESSION BY DOCTOR OR | PSYCHIATRIST | Were you ever treated for depression by a family doctor or a | psychiatrist? | 1. Yes | 5. No | | MH021_ EVER ADMITTED TO MENTAL HOSPITAL OR PSYCHIATRIC | WARD | Were you ever admitted to a mental hospital or psychiatric ward? | 1. Yes | 5. No

```
ELSE
 IF MH018_ (DEPRESSION EVER) = 5. No
 ENDIF
ENDIF
HC002 HOW OFTEN SEEN OR TALKED TO MEDICAL DOCTOR LAST 12 MONTHS
Now we have some questions about your health care. Please think about
your care during the last twelve months. Since
[january/february/march/april/may/june/july/august/september/october/
november/december] [{last year}], about how many times in total have
you seen or talked to a medical doctor about your health? Please
exclude dentist visits and hospital stays, but include emergency room
or outpatient clinic visits.
IWER: IF MORE THAN 98, ENTER 98
   (0..98)
IF HC002_ (SEEN OR TALKED TO MEDICAL DOCTOR) > 0
 HC003 HOW MANY OF THESE CONTACTS WITH GENERAL
 PRACTITIONER
 How many of these contacts were with a general practitioner or with a
 doctor at your health care center?
 IWER: IF MORE THAN 98, ENTER 98
            __ (0..98)
CHECK: Answer cannot be higher than hc002_(seen or talked to medical doctor).
ENDIF
IF (HC002 (HOW OFTEN SEEN OR TALKED TO MEDICAL DOCTOR LAST 12 MONTHS) > 0
AND (HC003_ (HOW MANY OF THESE CONTACTS WITH GENERAL PRACTITIONER) <
HC002 (HOW OFTEN SEEN OR
TALKED TO MEDICAL DOCTOR LAST 12 MONTHS)) OR HC002 (HOW OFTEN SEEN OR
TALKED TO MEDICAL DOCTOR LAST 12 MONTHS) = DONTKNOW
 HC004 CONTACTS WITH SPECIALISTS
 Please look at card 12. During the last twelve months, have you
 consulted any of the specialists mentioned on card 12?
 1. Yes
 5. No
 IF HC004_ (CONTACTS WITH SPECIALISTS) = 1. Yes
  | HC005_ LAST CONSULTATION TO SPECIALIST
| | Still looking at card 12, which of these specialists did you consult
| | most recently?
| | IWER: IF DENTIST MENTIONED, SAY THIS COMES LATER ON
| 1. Specialist for heart disease, pulmonary, gastroenterology,
| | diabetes or endocrine diseases
| 3. Neurologist
```

```
| 4. Opthalmologist
| | 5. Ear, nose and throat specialist
| | 6. Rheumatologist or physiatrist
| 7. Orthopaedist
| 8. Surgeon
| 9. Psychiatrist
| 10. Gynaecologist
| 11. Urologist
| 12. Oncologist
| 13. Geriatrician
CHECK: You selected gynaecologist for a male respondent. Are you sure?
| | HC006_ TYPE OF LAST CONSULTATION TO SPECIALIST
| | Was your last consultation with a specialist for an emergency, for a
| | new health problem which was not an emergency, or for a regular,
| | scheduled visit, including a check-up?
| | 1. For an emergency
| 2. For a new problem (including referral by the general practitioner)
| 3. For regular, scheduled visit (including check-up)
| | IF HC006_ (TYPE OF LAST CONSULTATION TO SPECIALIST) = 1. For
| an emergency
(0..98)
| | |
| | ELSE
| | |
| | | IF HC006_ (TYPE OF LAST CONSULTATION TO SPECIALIST) = 2.
| | For a new problem (including referral by the general practitioner)
 | | | OF ONE WEEK
| | | | _____(0..98)
| | ENDIF
| | IF HC007_ (DAYS WAITING FOR EMERGENCY CONSULTATION TO
| | SPECIALIST) > 0 OR HC008_ (WEEKS WAITING FOR NON-EMERGENCY
| CONSULTATION| > 0
| | 1. Yes
| | ENDIF
```

| ENDIF **ENDIF** HC010_ SEEN A DENTIST/DENTAL HYGIENIST During the last twelve months, have you seen a dentist or a dental hygienist? IWER: VISITS FOR ROUTINE CONTROLS, FOR DENTURES AND STOMATOLOGY CONSULTATIONS INCLUDED 1. Yes 5. No IF HC010_ (SEEN A DENTIST/DENTAL HYGIENIST) = 1. Yes HC011 CONTACT DENTIST FOR ROUTINE CONTROL/PREVENTION OR TREATMENT Was that for routine control or prevention, for treatment, or for IWER: IF MORE THAN ONE CONSULTATION, CODE FOR ALL **CONSULTATIONS TOGETHER** 1. Only for routine control or prevention 2. Only for treatment 3. Both for prevention and for treatment **ENDIF** HC012 IN HOSPITAL LAST 12 MONTHS During the last twelve months, have you been in a hospital overnight? Please consider stays in medical, surgical, psychiatric or in any other specialized wards. 1. Yes 5. No IF HC012 (IN HOSPITAL LAST 12 MONTHS) = 1. Yes HC013 TIMES BEING PATIENT IN HOSPITAL How often have you been a patient in a hospital overnight during the last twelve months? IWER: COUNT SEPARATE OCCASIONS ONLY. CODE 10 FOR 10 OR MORE **OCCASIONS** _____(1..10) HC014_ TOTAL NIGHTS STAYED IN HOSPITAL How many nights altogether have you spent in hospitals during the last twelve months? _____(1..365) HC015_ REASONS FOR HAVING STAYED IN HOSPITAL Please look at card 13. For which of these reasons have you staved overnight in hospitals during the last twelve months: inpatient surgery, medical tests or non-surgical treatments, or mental health problems? IWER: CODE ALL THAT APPLY 1. Inpatient surgery

2. Medical tests or non-surgical treatments (except mental health)

```
3. Mental health problems
 IF 1. Inpatient surgery IN HC015_ (REASONS FOR HAVING STAYED IN
 HOSPITAL) AND HC013_ (TIMES BEING PATIENT IN HOSPITAL) > 1
 HC016 TIMES OVERNIGHT IN HOSPITAL FOR SURGERY
 How often have you stayed overnight in a hospital for a surgery
 | during the last twelve months?
 | IWER: COUNT SEPARATE OCCASIONS ONLY
     _____(1..98)
CHECK: Answer cannot be higher than hc013 (times being patient in hospital).
 ENDIF
 IF 1. Inpatient surgery IN HC015_(REASONS FOR HAVING STAYED IN
 HOSPITAL)
 HC017 HAD INPATIENT SURGERY LAST 12 MONTHS
 | Please look at card 14. During the last twelve months, have you had
 | any of these surgeries as an inpatient?
 | 1. Yes
| | 5. No
 | IF HC017_ (HAD INPATIENT SURGERY LAST 12 MONTHS) = 1. Yes
 | | HC018_ WHICH INPATIENT SURGERY
 | Please look at card 14. Which surgery was that?
| | MOST RECENT
 | 1. Cardiac catheterization, including removal of obstruction, stent
| | 2. Coronary artery bypass graft
| | 4. Any ear, nose and throat surgery
| | 6. Hip replacement
| | 7. Knee replacement
| | 9. Hernia repair
| | 10. Cholecystectomy
| | 11. Prostatectomy
| | 12. Hysterectomy
| | 13. Cataract surgery
| | 97. Any other inpatient surgery
   | HC019 PLANNED OR EMERGENCY INPATIENT SURGERY
| | | Was this a planned surgery or an emergency surgery?
| | 1. Planned surgery
| | | IF HC019_ (PLANNED OR EMERGENCY INPATIENT SURGERY) = 1. Planned
| | surgery
| | | How many months did you have to wait to get this surgery?
```

 ENDIF
IF 3. Mental health problems IN HC015_ (REASONS FOR HAVING STAYED IN HOSPITAL) AND HC013_ (TIMES BEING PATIENT IN HOSPITAL) > 1
HC022_ TIMES OVERNIGHT IN HOSPITAL FOR MENTAL HEALTH PROBLEMS How often have you stayed overnight in a hospital for mental health problems during the last twelve months? IWER: COUNT SEPARATE OCCASIONS ONLY (198)
CHECK: Answer cannot be higher than hc013_(times being patient in hospital). ENDIF
ENDIF ENDIF
HC023_ HAD OUTPATIENT SURGERY LAST 12 MONTHS During the last twelve months, have you had outpatient surgery? IWER: EXPLAIN: BY "OUTPATIENT SURGERY" WE MEAN SURGERY PERFORMED IN AN OPERATING ROOM FOR PATIENTS WHO ARE NOT HOSPITALISED OVERNIGHT 1. Yes 5. No
IF HC023_ (HAD OUTPATIENT SURGERY LAST 12 MONTHS) = 1. Yes
HC024_ TIMES HAD OUTPATIENT SURGERY LAST 12 MONTHS How often have you had outpatient surgery during the last twelve months? IWER: COUNT SEPARATE OCCASIONS ONLY (198)
HC025_ ANY OF THESE OUTPATIENT SURGERIES LAST 12 MONTHS Please look at card 15.During the last twelve months, have you had any of these surgeries as an outpatient? 1. Yes 5. No

```
IF HC025 (ANY OF THESE OUTPATIENT SURGERIES LAST 12 MONTHS) = 1
1. Yes
 | HC026_ WHICH OUTPATIENT SURGERY
 | Still looking at card 15, which outpatient surgery was that?
| | IWER: IF MORE THAN ONE CODE MOST RECENT
| | 1. Knee arthroscopy
| 2. Cataract surgery
| 3. Hernia repair
| 4. Biopsy or cyst removal
| | 5. Hand surgery
| 6. Vein stripping
| | 7. Anal surgery
 8. Arteriography or angiography using contrast
 97. Any other outpatient surgery performed in an operating room
 ENDIF
 HC027 MONTHS WAITING FOR LAST OUTPATIENT SURGERY
 How many months did you have to wait to get this surgery?
 IWER: COUNT COMPLETED MONTHS, ENTER 0 IF LESS THAN ONE
 MONTH
  _____(0..98)
 IF HC027_ (MONTHS WAITING FOR LAST OUTPATIENT SURGERY) > 0
 | HC028 WISH LAST OUTPATIENT SURGERY EARLIER
 | Would you have liked to get this surgery earlier?
 | 1. Yes
 | 5. No
 ENDIF
ENDIF
HC029 IN A NURSING HOME
During the last twelve months, have you been in a nursing home
overnight?
IWER: EXPLAIN: BY "NURSING HOMES" WE MEAN INSTITUTIONS SHELTERING OLDER
PERSONS WHO NEED ASSISTANCE IN ACTIVITIES OF DAILY LIVING, IN AN
ENVIRONMENT WHERE THEY CAN RECEIVE NURSING CARE, FOR SHORT OR LONG
STAYS
1. Yes, temporarily
3. Yes, permanently
5. No
IF HC029_{INA} (IN A NURSING HOME) = 1. Yes, temporarily
 HC030 TIMES STAYED IN A NURSING HOME OVERNIGHT
 How often have you been in a nursing home overnight during the last
 twelve months?
 IWER: COUNT SEPARATE OCCASIONS ONLY
      ____(1..365)
| HC031_ WEEKS STAYED IN A NURSING HOME
```

 	During the last 12 months, how many weeks altogether did you stay in a nursing home? IWER: COUNT 4 WEEKS FOR EACH FULL MONTH; COUNT 1 FOR PART OF ONE WEEK (152)
İ	ENDIF
1	IF NOT $HC029$ _(IN A NURSING $HOME$) = 3. Yes, permanently
	HC032_ RECEIVED HOME CARE IN OWN HOME Please look at card 16. During the last twelve months, did you receive in your own home any of the kinds of care mentioned on this card? IWER: CODE ALL THAT APPLY 1. Professional or paid nursing or personal care 2. Professional or paid home help, for domestic tasks that you could not perform yourself due to health problems 3. Meals-on-wheels 96. None of these
	CHECK: You cannot select 'None of the above' together with any other answer. Please change your
aı	nswer. IF 1. Professional or paid nursing or personal care IN HC032_(RECEIVED HOME CARE IN OWN HOME)
 	HC033_ WEEKS RECEIVED PROFESSIONAL NURSING CARE During the last twelve months, how many weeks did you receive professional or paid nursing care in your own home? IWER: COUNT 4 WEEKS FOR EACH FULL MONTH; COUNT 1 FOR PART OF ONE WEEK (152)
	HC034_ HOURS RECEIVED PROFESSIONAL NURSING CARE On average, how many hours per week did you receive professional or paid nursing care at home? IWER: ROUND UP TO FULL HOURS (1168)
	IF 2. Professional or paid home help, for domestic tasks that you could not perform yourself due to health problems IN HC032_(RECEIVED HOME CARE IN OWN HOME)
 	HC035_ WEEKS RECEIVED PAID DOMESTIC HELP During the last twelve months, how many weeks did you receive professional or paid help for domestic tasks at home because you could not perform them yourself due to health problems? IWER: COUNT 4 WEEKS FOR EACH FULL MONTH; COUNT 1 FOR PART OF ONE WEEK (152)

	HC036_ HOURS RECEIVED PAID DOMESTIC HELP On average, how many hours per week did you receive such professional or paid help?
	 ENDIF
	 IF 3. Meals-on-wheels IN HC032_(RECEIVED HOME CARE IN OWN HOME)
	HC037_ WEEKS RECEIVED MEALS-ON-WHEELS During the last twelve months, how many weeks did you receive meals-on-wheels, because you could not prepare meals due to health problems?
į	IWER: COUNT 4 WEEKS FOR EACH FULL MONTH (152)
İ	
I	 ENDIF
N () () () () () () () () () (TF MN001_ (INTERVIEW COUNTRY) = 12. Belgium OR MN001_ (INTERVIEW COUNTRY) = 10. Denmark OR MN001_ (INTERVIEW COUNTRY) = 8. France OR MN001_ (INTERVIEW COUNTRY) = 13. Greece OR MN001_ (INTERVIEW COUNTRY) = 7. Italy OR MN001_ (INTERVIEW COUNTRY) = 5. Netherlands OR MN001_ (INTERVIEW COUNTRY) = 6. Spain OR MN001_ (INTERVIEW COUNTRY) = 4. Sweden OR MN001_ (INTERVIEW COUNTRY) = 11. Switzerland OR MN001_ (INTERVIEW COUNTRY) = 1. Generic
	 HC038 _ RECEIVED CARE FROM PRIVATE PROVIDERS
	Please look at card 17.During the last twelve months, did you receive any of these types of care from private providers that you paid yourself or through a private insurance because you would have waited too long, or you could not get them as much as you needed, in the
	National Health System? IWER: IF NECESSARY, EXPLAIN REHABILITATION: SPECIFIC CARE TO RESTORE ESSENTIAL FUNCTIONS SUCH AS MOBILITY, SPEECH, OR CAPACITY TO PERFORM DAILY ACTIVITIES 1. Yes 5. No
	 IF HC038_ (RECEIVED CARE FROM PRIVATE PROVIDERS) = 1. Yes
	HC039_ TYPE OF RECEIVED CARE FROM PRIVATE PROVIDERS Which types of care did you receive? IWER: CODE ALL THAT APPLY 1. Surgery 2. Care from a general practitioner 3. Care from a specialist physician 4. Drugs 5. Dental care 6. Hospital (inpatient) rehabilitation
	7. Ambulatory (outpatient) rehabilitation

```
| | 8. Aids and appliances
| 9. Care in a nursing home
| 10. Home care
| 11. Paid home help
  | 97. Any other care not mentioned on this list
CHECK: You cannot select 'None of the above' together with any other answer. Please change your
| ENDIF
ENDIF
HC040_ FORGO ANY TYPES OF CARE BECAUSE OF COSTS
Please look at card 17. During the last twelve months, did you forgo
any types of care because of the costs you would have to pay?
1. Yes
5. No
IF HC040_ (FORGO ANY TYPES OF CARE BECAUSE OF COSTS) = 1. Yes
 HC041 TYPES OF CARE FORGO BECAUSE OF COSTS
 Which types of care did you forgo because of the costs you would have
 IWER: CODE ALL THAT APPLY
 1. Surgery
 2. Care from a general practitioner
 3. Care from a specialist physician
 4. Drugs
 5. Dental care
 6. Hospital (inpatient) rehabilitation
 7. Ambulatory (outpatient) rehabilitation
 8. Aids and appliances
 9. Care in a nursing home
 10. Home care
 11. Paid home help
 97. Any other care not mentioned on this list
CHECK: You cannot select 'None of the above' together with any other answer. Please change your
answer.
ENDIF
HC042_ FOREGO ANY TYPES OF CARE BECAUSE UNAVAILABLE
Please look at card 17. During the last twelve months, did you forgo
any types of care because they were not available or not easily
IWER: IF NECESSARY, EXPLAIN "AVAILABLE": REASONABLY CLOSE TO HOME, OPEN
AT REASONABLE HOURS, ETC. (FROM THE RESPONDENT'S POINT OF VIEW)
1. Yes
5. No
IF HC042_ (FOREGO ANY TYPES OF CARE BECAUSE UNAVAILABLE) = 1. Yes
 HC043 TYPES OF CARE FORGO BECAUSE UNAVAILABLE
 Which types of care did you forgo because they were not available or
  not easily accessible?
 IWER: CODE ALL THAT APPLY
```

CAPI instrument

- | 1. Surgery
- 2. Care from a general practitioner
- 3. Care from a specialist physician
- 4. Drugs
- 5. Dental care
- 6. Hospital (inpatient) rehabilitation
- 7. Ambulatory (outpatient) rehabilitation
- 8. Aids and appliances
- 9. Care in a nursing home
- 10. Home care
- 11. Paid home help
- 97. Any other care not mentioned on this list

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

ENDIF

HC044_ INTRODUCTION CARE EXPENSES

Now I would like to ask you some questions concerning out-of-pocket expenses for your care and your personal health insurances.

1. Continue

```
IF HC012_ (IN HOSPITAL\ LAST\ 12\ MONTHS) = 1. Yes
```

HC045_ PAID OUT-OF-POCKET FOR INPATIENT CARE

Not counting health insurance premiums or reimbursements from

employers, about how much did you pay out-of-pocket for all your

hospital inpatient care in the last twelve months?

IWER: IF NECESSARY READ: BY OUT OF POCKET EXPENSES WE MEAN

EVERYTHING THAT IS NOT PAID BY THE INSURANCE COMPANY. IF

YOU FIRST PAY BUT LATER GET IT REIMBURSED, THIS IS NOT OUT OF

POCKET EXPENSES. IF THE INSURANCE COMPANY PAYS FIRST, BUT

LATER CHARGES YOU, THIS IS OUT OF POCKET EXPENSES.

AMOUNT IN [{local currency}]

enter an amount

IF HC045_ (PAID OUT-OF-POCKET FOR INPATIENT CARE) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes

| **HC045M** PAID OUT-OF-POCKET FOR INPATIENT CARE

Not counting health insurance premiums or reimbursements from

employers, about how much did you pay out-of-pocket for all your

| hospital inpatient care in the last twelve months?

| IWER: IF NECESSARY READ: BY OUT OF POCKET EXPENSES WE MEAN

| EVERYTHING THAT IS NOT PAID BY THE INSURANCE COMPANY. IF

YOU FIRST PAY BUT LATER GET IT REIMBURSED, THIS IS NOT OUT OF

POCKET EXPENSES. IF THE INSURANCE COMPANY PAYS FIRST, BUT

LATER CHARGES YOU, THIS IS OUT OF POCKET EXPENSES.

| AMOUNT IN [{pre-euro currency}]

enter an amount

ENDIF

CHECK: Please enter a value.

| IF HC045_ (PAID OUT-OF-POCKET FOR INPATIENT CARE) = NONRESPONSE | OR HC045M (PAID OUT-OF-POCKET FOR INPATIENT CARE) =

```
| NONRESPONSE
| | Unfolding Brackets
 ENDIF
ENDIF
HC047 PAID OUT-OF-POCKET FOR OUTPATIENT CARE
Not counting health insurance premiums or reimbursements from
employers, about how much did you pay out-of-pocket for all your
outpatient care, in the last twelve months?
IWER: EXPLAIN: CONSIDER EXPENSES FOR CONSULTATIONS FOR ALL HEALTH
PROFESSIONALS, INCLUDING DENTISTS, FOR ALL LABS, EXAMS, OR THERAPIES
PRESCRIBED BY DOCTORS, AND FOR OUTPATIENT SURGERY - DO NOT CONSIDER
EXPENSES FOR DRUGS OR FOR ALTERNATIVE MEDICINES.
AMOUNT IN [{local currency}]
enter an amount
IF HC047_ (PAID OUT-OF-POCKET FOR OUTPATIENT CARE) = EMPTY AND
MN004_ (EURO COUNTRY) = 1. Yes
 HC047M PAID OUT-OF-POCKET FOR OUTPATIENT CARE
 Not counting health insurance premiums or reimbursements from
 employers, about how much did you pay out-of-pocket for all your
 outpatient care, in the last twelve months?
 IWER: EXPLAIN: ONSIDER EXPENSES FOR CONSULTATIONS OF ALL
 HEALTH PROFESSIONALS, INCLUDING DENTISTS, FOR ALL LABS,
 EXAMS, OR THERAPIES PRESCRIBED BY DOCTORS, AND FOR
 OUTPATIENT SURGERY - DO NOT CONSIDER EXPENSES FOR DRUGS OR | | FOR
ALTERNATIVE MEDICINES
| AMOUNT IN [{pre-euro currency}]
 enter an amount
ENDIF
CHECK: Please enter a value.
IF HC047_ (PAID OUT-OF-POCKET FOR OUTPATIENT CARE) =
NONRESPONSE OR HC047M (PAID OUT-OF-POCKET FOR OUTPATIENT
CARE) = NONRESPONSE
 Unfolding Brackets
ENDIF
HC049 PAID-OUT-OF-POCKET FOR PRESCRIBED DRUGS
Not counting health insurance premiums or reimbursements from
employers, about how much did you pay out-of-pocket for all your
prescribed drugs, in the last twelve months?
IWER: DO NOT CONSIDER EXPENSES FOR SELF-MEDICATION OR DRUGS
NOT PRESCRIBED
AMOUNT IN [{local currency}]
enter an amount
IF HC049 (PAID-OUT-OF-POCKET FOR PRESCRIBED DRUGS) = EMPTY AND
MN004_ (EURO COUNTRY) = 1. Yes
```

```
HC049M PAID OUT-OF-POCKET FOR PRESCRIBED DRUGS
 Not counting health insurance premiums or reimbursements from
 employers, about how much did you pay out-of-pocket for all your
 prescribed drugs, in the last twelve months?
 IWER: DO NOT CONSIDER EXPENSES FOR SELF-MEDICATION OR DRUGS
 NOT PRESCRIBED
 AMOUNT IN [{pre-euro currency}]
 enter an amount
ENDIF
CHECK: Please enter a value.
IF HC049_ (PAID-OUT-OF-POCKET FOR PRESCRIBED DRUGS) = NONRESPONSE OR
HC049M (PAID OUT-OF-POCKET FOR PRESCRIBED DRUGS) = NONRESPONSE
 Unfolding Brackets
ENDIF
IF HC029 (IN A NURSING HOME) = 1. Yes, temporarily OR
HC029 (IN A NURSING HOME) = 3. Yes, permanently OR 1. Professional or paid nursing or personal care IN
HC032_ (RECEIVED HOME CARE IN OWN HOME) OR 2. Professional or paid home help, for domestic
tasks that you could not perform yourself due to health problems IN HC032_ (RECEIVED HOME CARE IN
OWN HOME) OR 3. Meals-on-wheels IN HC032_(RECEIVED HOME CARE IN OWN HOME)
 HC051_ PAID OUT-OF-POCKET FOR DAY CARE, NURSING HOME AND
 HOME-BASED CARE
 Not counting health insurance premiums, about how much did you pay
 out-of-pocket for all your care in nursing homes, in day-care
 centers, and for all home care services in the last twelve months?
 IWER: AMOUNT IN [{local currency}]. IF QUESTION IS ASKED TO
 PERMANENT NURSING HOME RESIDENTS, EXPENSES FOR HOUSING
 AND BOARD MUST NOT BE INCLUDED
 enter an amount
 IF HC051_ (PAID OUT-OF-POCKET FOR DAY CARE, NURSING HOME AND
 HOME-BASED CARE) = EMPTY AND MN004 (EURO COUNTRY) = 1. Yes
  HC051M PAID OUT-OF-POCKET FOR DAY CARE, NURSING HOME AND
  | HOME-BASED CARE
  Not counting health insurance premiums, about how much did you pay
 out-of-pocket for all your care in nursing homes, in day-care
| | centers, and for all home care services in the last twelve months?
 | IWER: AMOUNT IN [{pre-euro currency}]. IF OUESTION IS ASKED TO
 | PERMANENT NURSING HOME RESIDENTS, EXPENSES FOR HOUSING
  AND BOARD MUST NOT BE INCLUDED
  enter an amount
 ENDIF
CHECK: Please enter a value.
 IF HC051_ (PAID OUT-OF-POCKET FOR DAY CARE, NURSING HOME AND
 HOME-BASED CARE) = NONRESPONSE OR HC051M (PAID OUT-OF-POCKET
 FOR DAY CARE, NURSING HOME AND HOME-BASED CARE) =
 NONRESPONSE
| | Unfolding Brackets
```

```
| ENDIF
ENDIF
IF MN001_{-} (INTERVIEW COUNTRY) = 10. Denmark OR
MN001 (INTERVIEW COUNTRY) = 13. Greece OR MN001 (INTERVIEW
COUNTRY) = 6. Spain OR MN001_ (INTERVIEW COUNTRY) = 1. Generic
 HC053 BASIC HEALTH INSURANCE CATEGORY
 Please look at card 18. What is your health insurance category in the
 National Health Insurance System?
 0. Social security institute (private sector employees)
 1. Organization for agricultural insurance (rural sector)
 2. Self employed persons funds (merchants, craftsmen, etc)
 3. Civil servants fund, employees of municipalities
 4. Public utilities: telecoms, electricity, trains, metro
 5. Health professions, engineers, lawyers
 6. Hotel employees
 7. Seamen
 8. Various bank employees funds
 9. Any other social health insurance fund
 96. No social health insurance fund
ENDIF
IF MN001_ (INTERVIEW COUNTRY) = 11. Switzerland OR
MN001_ (INTERVIEW COUNTRY) = 1. Generic
 HC054 BASIC HEALTH INSURANCE DEDUCTIBLE
 What is the deduction for your basic health insurance?
 IWER: AMOUNT IN [{local currency}]
 enter an amount
 IF HC054_ (BASIC HEALTH INSURANCE DEDUCTIBLE) = EMPTY AND
 MN004 (EURO COUNTRY) = 1. Yes
 HC054M BASIC HEALTH INSURANCE DEDUCTIBLE
 What is the deduction for your basic health insurance?
  | IWER: AMOUNT IN [{pre-euro currency}]
   enter an amount
 ENDIF
 HC055_ BASIC HEALTH INSURANCE GATEKEEPING
 Does your basic health insurance contract specify that you must ask
 your general practitioner before consulting a specialist doctor?
 1. Yes
 5. No
 HC056 BASIC HEALTH INSURANCE LIMIT CHOICE
 Does your basic health insurance contract limit your choice of
 doctors?
 1. Yes
 5. No
ENDIF
```

```
IF MN001_ (INTERVIEW COUNTRY) = 12. Belgium OR
MN001\_ (INTERVIEW COUNTRY) = 8. France OR MN001\_ (INTERVIEW
COUNTRY) = 3. Germany OR MN001_ (INTERVIEW COUNTRY) = 2. Austria OR
MN001_{-} (INTERVIEW COUNTRY) = 5. Netherlands OR MN001_ (INTERVIEW
COUNTRY) = 1. Generic
 HC057_ BASIC HEALTH INSURANCE COVERAGE
 Are you covered by the National Health Insurance System?
 1. Yes
 5. No
 IF HC057_ (BASIC HEALTH INSURANCE COVERAGE) = 1. Yes
 | HC058_ BASIC HEALTH INSURANCE STATUS
 Is your coverage by the National Health Insurance System statutory or
 is it your own choice?
 1. Statutory
 | 2. My own choice
 ENDIF
ENDIF
IF ((HC057_ (BASIC HEALTH INSURANCE COVERAGE) = 5. No OR
HC057_ (BASIC HEALTH INSURANCE COVERAGE) = DONTKNOW) AND
(MN001 (INTERVIEW COUNTRY) = 2. Austria OR MN001 (INTERVIEW
COUNTRY) = 3. Germany OR MN001_ (INTERVIEW COUNTRY) = 12. Belgium OR
MN001_{\text{ (INTERVIEW COUNTRY)}} = 5. Netherlands OR MN001_{\text{ (INTERVIEW)}}
COUNTRY) = 8. France OR MN001_ (INTERVIEW COUNTRY) = 1. Generic)) OR
((HC053_(BASIC HEALTH INSURANCE CATEGORY) = 96. No social health insurance fund OR
HC053\_ (BASIC HEALTH INSURANCE CATEGORY) = DONTKNOW) AND
(MN001\_(INTERVIEW\ COUNTRY) = 13.\ Greece\ OR\ MN001\_(INTERVIEW\ COUNTRY) = 6.
Spain))
 HC059 CONTRACT VOLUNTARY HEALTH INSURANCE
 Please look at card 19.Do you have any voluntary health insurance
 contract for at least one of the following types of care? If yes,
 please say what is covered.
 IWER: CODE ALL THAT APPLY
 1. Medical care with direct access to specialists
 2. Medical care with access to specialists through a general
 3. Medical care with unrestricted choice of doctors
 4. Medical care with limited choice of doctors
 5. Dental care
 6. Full coverage of drugs expenses
 7. Partial coverage of drugs expenses
 8. Hospital care with unrestricted choice of hospitals and clinics
 9. Hospital care with limited choice of hospitals and clinics
 10. Long term care in nursing home
 11. Nursing care at home in case of chronic disease or disability
 12. Home help
 96. No voluntary health insurance at all
 97. Any other type of voluntary health insurance
```

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

ENDIF

IF (MN001_ (INTERVIEW COUNTRY) = 10. Denmark OR

MN001_ (INTERVIEW COUNTRY) = 7. Italy OR MN001_ (INTERVIEW

COUNTRY) = 4. Sweden OR MN001_ (INTERVIEW COUNTRY) = 11. Switzerland

OR MN001_ (INTERVIEW COUNTRY) = 1. Generic) OR ((MN001_ (INTERVIEW

COUNTRY) = 12. Belgium OR MN001_ (INTERVIEW COUNTRY) = 8. France OR

MN001_ (INTERVIEW COUNTRY) = 3. Germany OR MN001_ (INTERVIEW

COUNTRY) = 2. Austria OR MN001_ (INTERVIEW COUNTRY) = 5. Netherlands)

AND (HC057_ (BASIC HEALTH INSURANCE COVERAGE) = 1. Yes)) OR (NOT

HC053_(BASIC HEALTH INSURANCE CATEGORY) = 96. No social health insurance fund AND

(MN001_ (INTERVIEW COUNTRY) = 13. Greece OR MN001_ (INTERVIEW COUNTRY) = 6.

Spain))

HC060_ CONTRACT VOLUNTARY, SUPPLEMENTARY HEALTH INSURANCE

Please look at card 20.Do you have any voluntary, supplementary or private health insurance for at least one of the following types of care in order to complement the coverage offered by the National Health System? If yes, please say what is covered.

IWER: CODE ALL THAT APPLY

- 1. Medical care with direct access to specialists
- 2. Medical care with an extended choice of doctors
- 3. Dental care
- 4. A larger choice of drugs and/or full drugs expenses (no participation)
- 5. An extended choice of hospitals and clinics for hospital care
- 6. (Extended) Long term care in a nursing home
- 7. (Extended) Nursing care at home in case of chronic disease or disability
- 8. (Extended) Home help for activities of daily living (household, etc.)
- 9. Full coverage of costs for doctor visits (no participation)
- 10. Full coverage of costs for hospital care (no participation)
- 96. No voluntary health insurance at all
- 97. Any other type of voluntary health insurance

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

ENDIF

IF (HC059_ (CONTRACT VOLUNTARY HEALTH INSURANCE) = RESPONSE AND NOT 96. No voluntary health insurance at all IN HC059_ (CONTRACT VOLUNTARY HEALTH INSURANCE)) OR (HC060_ (CONTRACT VOLUNTARY, SUPPLEMENTARY HEALTH INSURANCE) = RESPONSE AND NOT 96. No voluntary health insurance at all IN HC060_(CONTRACT VOLUNTARY, SUPPLEMENTARY HEALTH INSURANCE))

HC061_ PAY FOR ALL VOLUNTARY HEALTH INSURANCE CONTRACTS How much do you pay each year for all your voluntary, supplementary or private health insurance contracts? IWER: CONSIDER ALL VOLUNTARY HEALTH INSURANCES CONTRACTED INSTEAD OF, OR IN ADDITION TO BASIC, STATUTORY INSURANCES AMOUNT IN [{local currency}] enter an amount

IF HC061_ (PAY FOR ALL VOLUNTARY HEALTH INSURANCE CONTRACTS) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
HC061M PAY FOR ALL VOLUNTARY HEALTH INSURANCE CONTRACTS How much do you pay each year for all your voluntary, supplementary or private health insurance contracts? IWER: CONSIDER ALL VOLUNTARY HEALTH INSURANCES CONTRACTED INSTEAD OF, OR IN ADDITION TO BASIC, STATUTORY INSURANCES AMOUNT IN [{pre-euro currency}] enter an amount ENDIF
CHECK: Please enter a value. IF HC061_ (PAY FOR ALL VOLUNTARY HEALTH INSURANCE CONTRACTS) = NONRESPONSE OR HC061M (PAY FOR ALL VOLUNTARY HEALTH INSURANCE CONTRACTS) = NONRESPONSE
Unfolding Brackets ENDIF
ENDIF
HC063_ WHO ANSWERED THE QUESTIONS IN HC IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION? 1. Respondent only 2. Respondent and proxy 3. Proxy only
EP001_ INTRODUCTION EMPLOYMENT AND PENSIONS Now I'm going to ask you some questions about your current employment situation. 1. Continue
EP005_ CURRENT JOB SITUATION
Please look at card 21. In general, how would you describe your current situation?
IWER: CODE ONLY ONE 1. Retired
2. Employed or self-employed (including working for family business)3. Unemployed
4. Permanently sick or disabled5. Homemaker97. Other (specify)
IF EP005_ (CURRENT JOB SITUATION) = 97. Other (specify)
EP200_ OTHER CURRENT JOB SITUATION What other current job situation do you mean?
ENDIF
IF EP005_ (CURRENT JOB SITUATION) <> 2. Employed or self-employed

(including working for family business)

loop).

```
EP002_ DID NEVERTHELESS ANY PAID WORK LAST FOUR WEEKS
 Did you do nevertheless any paid work during the last four weeks,
 either as an employee or self-employed, even if this was only for a
 few hours?
 1. Yes
 5. No
 IF EP002_ (DID NEVERTHELESS ANY PAID WORK LAST FOUR WEEKS) = 5.
 No
 | EP003_ TEMPORARILY AWAY FROM WORK
Are you temporarily away from any work, including seasonal work?
 | 1. Yes
| | 5. No
| | IF EP003_ (TEMPORARILY AWAY FROM WORK) = 1. Yes
| | ELSE
| \ | \ | IF (EP003_ (TEMPORARILY AWAY FROM WORK) = 5. No) AND
| | (EP005 (CURRENT JOB SITUATION) = 4. Permanently sick or disabled OR
| | | Have you ever done any paid work?
| | | 1. Yes
| | | 5. No
| | ENDIF
 ENDIF
ENDIF
IF EP002_ (DID NEVERTHELESS ANY PAID WORK LAST FOUR WEEKS) = 1. Yes OR
EP003_ (TEMPORARILY AWAY FROM WORK) = 1. Yes OR
EP005\_(CURRENT\ IOB\ SITUATION) = 2.\ Employed\ or\ self-employed
(including working for family business)
 EP007 CURRENTLY MORE THAN ONE JOB
 Do you currently have more than one job?
 1. Yes
 5. No
Questions EP008_ (INTRODUCTION CURRENT JOB) to EP045_ (TOTAL AMOUNT OF PROFITS
AT THE END OF THE YEAR) are repeated for main and (if more than one job) secondary job with the appropriate
```

Except for questions EP025_ (INTRODUCTION WORK DESCRIPTION) to EP037_ (AFRAID HEALTH LIMITS ABILITY TO WORK BEFORE REGULAR RETIREMENT), which are asked once (first time in the

205

EP008_ INTRODUCTION CURRENT JOB The following questions are about your [main/secondary] job in the last month in which you worked.

IWER: INCLUDING SEASONAL JOB. THE MAIN JOB IS THE JOB THE RESPONDENT IS WORKING MOST HOURS FOR. IF SAME HOURS THAN CHOOSE THE ONE THE RESPONDENT GETS MORE MONEY FROM. IF MORE THAN ONE SECONDARY JOB, CHOOSE THE JOB WITH THE MOST WORKING HOURS

1. Continue

EP009_ EMPLOYEE OR A SELF-EMPLOYED

In your [main/secondary] job are you an employee, a civil servant, or a self-employed?

IWER: IF RESPONDENT SAYS HE/SHE WORKS BOTH AS AN EMPLOYED AND AS A SELF-EMPLOYED, THIS IS TO BE TREATED AS TWO DIFFERENT JOBS

- 1. Employee
- 2. Civil servant
- 3. Self-employed

EP010_ START OF CURRENT JOB (YEAR)

In which year did you start your [main/secondary] job? (1900..2004)

CHECK: Year should be at least 10 years after year of birth.

| IF EP009_ (EMPLOYEE OR A SELF-EMPLOYED) = 1. Employee OR | EP009_(EMPLOYEE OR A SELF-EMPLOYED) = 2. Civil servant

| EP011 TERM OF JOB

| In this job, do you have a short-term or a permanent contract? | IWER: BY SHORT-TERM WE MEAN LESS THAN 3 YEARS

- 1. Short-term
- 2. Permanent

| EP012_ TOTAL CONTRACTED HOURS PER WEEK IN THIS JOB

| What are your total basic or contracted hours each week in this job, excluding meal breaks and any paid or unpaid overtime?

(0.0..168.0)

ENDIF

EP013_ TOTAL HOURS WORKED PER WEEK

[Regardless of your basic contracted hours] [how many/How many] hours a week do you usually work in this job, excluding meal breaks [but including any paid or unpaid overtime]?
____________(0.0..168.0)

EP014 MONTHS WORKED IN THE JOB (NUMBER)

How many months a year are you normally working in this job (including paid holidays)?

_____(1..12)

EP016_ NAME OR TITLE OF JOB

What is your [main/secondary] job called? Please give the

```
exact name or title.
 EP017_ TRAINING OR QUALIFICATIONS NEEDED FOR JOB
 What training or qualifications are needed for this job?
 IF EP009_ (EMPLOYEE OR A SELF-EMPLOYED) = 1. Employee OR
 EP009_(EMPLOYEE OR A SELF-EMPLOYED)= 2. Civil servant
 | EP018 WHICH INDUSTRY ACTIVE
 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)?
| | IF EP009_ (EMPLOYEE OR A SELF-EMPLOYED) = 1. Employee
| | 1. Yes
| | ENDIF
 | EP020 NUMBER OF PEOPLE EMPLOYED AT FIRM
About how many people (including yourself) are employed at the place
| where you usually work?
| | IWER: PLACE REFERS TO ONE LOCATION, E.G. PLANT (FIAT IN NAPLES)
| | 1.1 to 5
2. 6 to 15
| | 3. 16 to 24
| 4.25 to 199
| | 5. 200 to 499
| | 6.500 or more
| | EP021_ RESPONSIBILITY FOR SUPERVISING OTHER EMPLOYEES
In your [main/secondary] job, do you have any responsibility
| | for supervising the work of other employees?
| | 1. Yes
| 5. No
| | IF EP021_ (RESPONSIBILITY FOR SUPERVISING OTHER EMPLOYEES)
| \ | = 1. Yes
| | | EP022 NUMBER OF PEOPLE RESPONSIBLE FOR
| | About how many people are you responsible for in this job?
| | 1.1 to 5
| | 2.6 to 15
| | 3. 16 to 24
| | 4. 25 to 199
| | 5. 200 to 499
| | 6.500 or more
| | ENDIF
| ELSE
```

```
| | IF EP009_(EMPLOYEE OR A SELF-EMPLOYED)= 3. Self-employed
| | | What kind of business or industry are you in (that is, what do you
 | make or do at the place where you work)?
| How many employees, if any, do you have in your
 | | [main/secondary] job?
| | 0. None
| | 1.1 to 5
| | 2.6 to 15
| | 3. 16 to 24
 | 4. 25 to 199
 | | 5. 200 to 499
| | 6.500 or more
 | ENDIF
ENDIF
 IF FIRST TIME IN THIS LOOP
 | EP025_ INTRODUCTION WORK DESCRIPTION
 Please look at card 22.I am now going to read some statements people
 might use to describe their work. We would like to know if you feel
 like this about your present [main] job. Thinking about your
 present job please tell me whether you strongly agree, agree,
 disagree or strongly disagree with each statement.
| | 1. Continue
 EP026_ SATISFIED WITH JOB
 All things considered I am satisfied with my job. Would you say you
| | strongly agree, agree, disagree or strongly disagree?
| | IWER: SHOW CARD 22
| 1. Strongly agree
| | 2. Agree
| 3. Disagree
| 4. Strongly disagree
| | EP027 | JOB PHYSICALLY DEMANDING
| | My job is physically demanding. Would you say you strongly agree,
| | agree, disagree or strongly disagree?
| | IWER: SHOW CARD 22
| 1. Strongly agree
| | 2. Agree
| 3. Disagree
| 4. Strongly disagree
| | EP028_ TIME PRESSURE DUE TO A HEAVY WORKLOAD
| | I am under constant time pressure due to a heavy workload. (Would you
| | say you strongly agree, agree, disagree or strongly disagree?)
| | IWER: SHOW CARD 22
| 1. Strongly agree
```

	 2. Agree 3. Disagree 4. Strongly disagree
	EP029_ LITTLE FREEDOM TO DECIDE HOW I DO MY WORK I have very little freedom to decide how I do my work. (Would you say you strongly agree, agree, disagree or strongly disagree?) IWER: SHOW CARD 22 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
	EP030_ I HAVE AN OPPORTUNITY TO DEVELOP NEW SKILLS I have an opportunity to develop new skills. (Would you say you strongly agree, agree, disagree or strongly disagree?) IWER: SHOW CARD 22 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
	EP031_ SUPPORT IN DIFFICULT SITUATIONS I receive adequate support in difficult situations. (Would you say you strongly agree, agree, disagree or strongly disagree?) IWER: SHOW CARD 22 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
	EP032_ RECEIVE THE RECOGNITION DESERVING FOR MY WORK I receive the recognition I deserve for my work. (Would you say you strongly agree, agree, disagree or strongly disagree?) IWER: SHOW CARD 22 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
	EP033_ SALARY OR EARNINGS ARE ADEQUATE Considering all my efforts and achievements, my [salary is/earnings are] adequate. (Would you say you strongly agree, agree, disagree or strongly disagree?) IWER: SHOW CARD 22 IN CASE OF DOUBT EXPLAIN: WE MEAN EQUATE FOR THE WORK DONE 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
	EP034_ PROSPECTS FOR JOB ADVANCEMENT ARE POOR My [job promotion prospects/prospects for job advancement] are poor. (Would you say you strongly agree, agree, disagree or strongly disagree?) IWER: SHOW CARD 22

```
| | 1. Strongly agree
| | 2. Agree
| 3. Disagree
| 4. Strongly disagree
 | EP035 | JOB SECURITY IS POOR
| | My job security is poor. (Would you say you strongly agree, agree,
| | disagree or strongly disagree?)
| | IWER: SHOW CARD 22
| 1. Strongly agree
| | 2. Agree
| 3. Disagree
| 4. Strongly disagree
 | | IF EP005_ (CURRENT JOB SITUATION) <> 1. Retired
| | Now we will not use card 22 any longer. Thinking about your present
| | | [main/secondary] job, would you like to retire as early as
| | | you can from this job?
| | 1. Yes
| | Are you afraid that your health will limit your ability to work in
| | this job before regular retirement?
| | 1. Yes
| | 5. No
| | ENDIF
ENDIF
 IF EP009 (EMPLOYEE OR A SELF-EMPLOYED) = 1. Employee OR
EP009_(EMPLOYEE OR A SELF-EMPLOYED)= 2. Civil servant
| | EP038_ FREQUENCY OF PAYMENT
Now I'd like to ask some questions about your income from your
| [main/secondary] job. How often do you get paid?
| | IWER: DO NOT READ OUT
| 1. Every week
| 2. Every two weeks
| 3. Every calender month/4 weeks
| 4. Every three months/13 weeks
| 5. Every six months/26 weeks
| 6. Every year/12 months/52 weeks
| 97. Other frequency (specify)
| IF EP038_ (FREQUENCY OF PAYMENT) = 97. Other frequency
| (specify)
```

```
| | ENDIF
| | EP041_ TAKEN HOME FROM WORK BEFORE TAX
| Before any deductions for tax, national insurance or pension and
  health contributions, union dues and so on, about how much was the
 | last payment?
  | IWER: AMOUNT IN [{local currency}]
| enter an amount
| | IF EP041 (TAKEN HOME FROM WORK BEFORE TAX) = EMPTY AND
| MN004_{EURO\ COUNTRY}| = 1. Yes
| | Before any deductions for tax, national insurance or pension and
| | health contributions, union dues and so on, about how much was your
| | last payment?
| | IWER: AMOUNT IN [{pre-euro currency}]
| | enter an amount
| | ENDIF
CHECK: Please enter a value.
| | IF EP041_ (TAKEN HOME FROM WORK BEFORE TAX) = NONRESPONSE
| OR EP041M (TAKEN HOME FROM WORK BEFORE TAX) = NONRESPONSE
| | ENDIF
| | EP214_ AMOUNT INCLUDE ADDITIONAL PAYMENTS
| Did this amount include any additional payments or bonus?
| | 1. Yes
| | 5. No
| | EP201_ TAKEN HOME FROM WORK AFTER TAX
| | And about how much was your last payment after all deductions for
| | tax, national insurance or pension and health contributions, union
| | dues and so on?
| | IWER: AMOUNT IN [{local currency}]
| enter an amount
| | IF EP201 (TAKEN HOME FROM WORK AFTER TAX) = EMPTY AND
| MN004_{CURO\ COUNTRY}| = 1. Yes
| | And about how much was your last payment after all deductions for
|  |  tax, national insurance or pension and health contributions, union
| | dues and so on?
| | | IWER: AMOUNT IN [{pre-euro currency}]
| | enter an amount
| | ENDIF
CHECK: Please enter a value.
```

```
| | IF EP201_ (TAKEN HOME FROM WORK AFTER TAX) = NONRESPONSE OR
| | EP201M (TAKEN HOME FROM WORK AFTER TAX) = NONRESPONSE
| ENDIF
 ELSE
 | IF EP009_(EMPLOYEE OR A SELF-EMPLOYED)= 3. Self-employed
| | | EP045_ TOTAL AMOUNT OF PROFITS AT THE END OF THE YEAR
| | Now I'd like to ask about your income from your business, that is
| | after paying for any materials, equipment or goods that you use in
 | | your work. On average what was your monthly income before taxes from
 | | your business over the last twelve months?
 | | IWER: AMOUNT IN [{local currency}]
|  |  enter an amount
 | | IF EP045_ (TOTAL AMOUNT OF PROFITS AT THE END OF THE
 | YEAR \rangle = EMPTY AND MN004 (EURO COUNTRY) = 1. Yes
| | | Now I'd like to ask about your income from your business, that is
 | | after paying for any materials, equipment or goods that you use in
| | | | IWER: AMOUNT IN [{pre-euro currency}]
| | | enter an amount
 CHECK: Please enter a value.
| | | |
| | ENDIF
| ENDIF
ENDIF
IF EP006_ (EVER DONE PAID WORK) = 1. Yes OR EP005_ (CURRENT
JOB SITUATION) = 1. Retired OR EP005_ (CURRENT JOB SITUATION) = 3.
Unemployed
 EP048 INTRODUCTION PAST JOB
 We are now going to talk about the last job you had [before you
 retired/before you became unemployed].
 1. Continue
| EP050_ YEAR LAST JOB END
```

```
In which year did your last job end?
 (1900..2004)
 EP049 YEARS WORKING IN LAST JOB
 How many years have you been working in your last job?
 (0..99)
 EP051_ EMPLOYEE OR A SELF EMPLOYED IN LAST JOB
 In this last job were you an employee or self-employed?
 1. Employee
 2. Civil servant
 3. Self-employed
 EP052 NAME OR TITLE OF JOB
 What was your job called? Please give the exact name or title.
 EP053_ TRAINING OR QUALIFICATIONS NEEDED FOR JOB
 What training or qualifications were needed for this job?
 IF EP051_ (EMPLOYEE OR A SELF EMPLOYED IN LAST JOB) = 1.
 Employee OR EP051_(EMPLOYEE OR A SELF EMPLOYED IN LAST JOB) =
 2. Civil servant
 | EP054_ WHICH INDUSTRY ACTIVE
 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)?
| | IF EP051_ (EMPLOYEE OR A SELF EMPLOYED IN LAST JOB) = 1.
| | Employee
| | EP055_ FIRM BELONGED TO THE PUBLIC SECTOR
| | In this job were you employed in the public sector?
| | 1. Yes
| | 5. No
| | ENDIF
| | EP056_ NUMBER OF PEOPLE EMPLOYED AT FIRM
| | About how many people, including yourself, were employed at the place
| | where you usually worked?
| | IWER: PLACE REFERS TO ONE LOCATION, E.G. PLANT (FIAT IN NAPLES)
 1.1 to 5
| | 2.6 to 15
| | 3. 16 to 24
| 4.25 to 199
| | 5. 200 to 499
| | 6.500 or more
| | EP057 RESPONSIBILITY FOR SUPERVISING THE WORK
| In your last job, did you have any responsibility for supervising the
| | work of other employees?
| | 1. Yes
| | 5. No
```

```
| | IF EP057_ (RESPONSIBILITY FOR SUPERVISING THE WORK) = 1.
| Yes
| About how many people were you responsible for?
| | 1.1 to 5
| | 2.6 to 15
| | 3. 16 to 24
| | 4. 25 to 199
| | 5. 200 to 499
| | 6.500 or more
| | ENDIF
ELSE
| | IF EP051_(EMPLOYEE OR A SELF EMPLOYED IN LAST JOB) =
| 3. Self-employed
| | | What kind of business or industry were you in (that is, what did you
| | How many employees, if any, did you have?
| | 0. None
| | 1.1 to 5
| | 2.6 to 15
| | 3. 16 to 24
| | 4. 25 to 199
| | 5. 200 to 499
 | | 6.500 or more
| ENDIF
ENDIF
IF EP005_ (CURRENT JOB SITUATION) = 1. Retired
 | EP064 REASON FOR RETIREMENT
| | Please look at card 23. For which reasons did you retire?
| | IWER: CODE ALL THAT APPLY
| | 1. Became eligible for public pension
| 2. Became eligible for private occupational pension
| | 3. Became eligible for a private pension
| 4. Was offered an early retirement option/window (with special
| | incentives or bonus)
| | 5. Made redundant (for example pre-retirement)
| 6. Own ill health
| | 7. Ill health of relative or friend
| 8. To retire at same time as spouse or partner
| 9. To spend more time with family
| 10. To enjoy life
```

i	EP065 _ RETIREMENT BEEN A RELIEF OR A CONCERN
i	Since you stopped working, has retirement mainly been a relief or a
1	concern for you?
1	1. A relief
1	2. A concern
i	3. Neither a relief nor a concern
i	4. Both a relief and a concern
i	
i	EP059_ OPPORTUNITIES TO WORK AFTER THE OFFICIAL RETIREMENT
i	AGE
i	In your last job, were there opportunities to work, either full time
i	or part-time, after the official retirement age?
i	1. Yes
i	5. No
i	
i	ELSE
İ	
İ	IF EP005_ (CURRENT JOB SITUATION) = 3. Unemployed
İ	
İ	EP067_ HOW BECAME UNEMPLOYED
ĺ	Would you tell us how you became unemployed? Was it
ĺ	IWER: READ OUT
ĺ	1. Because your place of work or office closed
	2. Because you resigned
	3. Because you were laid off
	4. By mutual agreement between you and your employer
	5. Because a temporary job had been completed
	97. Other reason
ļ	ELSE
ļ	
	IF EP005_ (CURRENT JOB SITUATION) = 4. Permanently sick or
	disabled
1	You said that you are permanently sick or disabled. Was this caused
1	by your working activities before you stopped?
	1. Yes
i	5. No
i	
i	ELSE
i	
i	IF EP005_ (CURRENT JOB SITUATION) = 5. Homemaker
i	
i	EP069 _ REASON STOP WORKING
i	Why did you decide to stop working?
i	IWER: READ ANSWERS OUT
i	1. Because of health problems
İ	2. It was too tiring
İ	3. It was too expensive to hire someone to look after home or family
ĺ	4. Because you wanted to take care of children or grandchildren
ĺ	97. Other
İ	
İ	IF 97. Other IN EP069_(REASON STOP WORKING)
İ	i i i i i

EP070_ OTHER REASON STOP WORKING
Please specify the other reason for you to stop working.
 ENDIF
 ENDIF
EP203_ INTRO INDIVIDUAL INCOME We would now like to know more about your earnings and income during the last year, that is in 2003. 1. Continue
EP204_ ANY EARNINGS FROM EMPLOYMENT 2003 Have you had any earnings at all from employment in 2003? 1. Yes 5. No
IF EP204_ (ANY EARNINGS FROM EMPLOYMENT 2003) = 1. Yes
EP205_ EARNINGS EMPLOYMENT PER YEAR BEFORE TAXES Before any tax and contributions, what was your approximate income from employment in the year 2003? IWER: AMOUNT IN [{local currency}] enter an amount
IF EP205_ (EARNINGS EMPLOYMENT PER YEAR BEFORE TAXES) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
EP205M EARNINGS EMPLOYMENT PER YEAR BEFORE TAXES Before any tax and contributions, what was your approximate income from employment in the year 2003? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
 ENDIF
CHECK: Please enter a value. IF EP205_ (EARNINGS EMPLOYMENT PER YEAR BEFORE TAXES) = NONRESPONSE OR EP205M (EARNINGS EMPLOYMENT PER YEAR BEFORE TAXES) = NONRESPONSE
 ENDIF
 ENDIF

EP206_ INCOME FROM SELF-EMPLOYMENT 2003

Have you had any income at all from self-employment or work for a family business in 2003?

1. Yes

5. No

IF EP206_ (INCOME FROM SELF-EMPLOYMENT 2003) = 1. Yes

```
EP207_ EARNINGS PER YEAR BEFORE TAXES FROM SELF-EMPLOYMENT
 Before any tax and contributions, but after paying for any materials,
  equipment or goods that you use in your work, what was your
 approximate income from self-employment in the year 2003?
 IWER: AMOUNT IN [{local currency}]
 enter an amount
  IF EP207_ (EARNINGS PER YEAR BEFORE TAXES FROM SELF-
  EMPLOYMENT) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
  | EP207M EARNINGS PER YEAR BEFORE TAXES FROM SELF-
  | EMPLOYMENT
 Before any tax and contributions, but after paying for any materials,
 | | equipment or goods that you use in your work, what was your
 | approximate income from self-employment in the year 2003?
  | IWER: AMOUNT IN [{pre-euro currency}]
   enter an amount
 ENDIF
CHECK: Please enter a value.
 IF EP207_ (EARNINGS PER YEAR BEFORE TAXES FROM SELF-
  EMPLOYMENT) = NONRESPONSE OR EP207M (EARNINGS PER YEAR
  BEFORE TAXES FROM SELF-EMPLOYMENT) = NONRESPONSE
  | Unfolding Brackets
```

EP071_ INCOME SOURCES IN LAST YEAR

Please look at card 24. Have you received income from any of these sources in the year 2003?

IWER: CODE ALL THAT APPLY

- 1. Public old age pension
- 2. Public early retirement or pre-retirement pension
- 3. Public disability insurance
- 4. Public unemployment benefit or insurance
- 5. Public survivor pension from your spouse or partner
- 6. Public invalidity or incapacity pension
- 7. War pension

ENDIF

ENDIF

- 8. Private (occupational) old age pension
- 9. Private (occupational) early retirement pension
- 10. Private (occupational) disability or invalidity insurance
- 11. Private (occupational) survivor pension from your spouse or partner's job
- 96. None of these

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

LOOP cnt = 1 TO 11

IF cnt IN EP071_(INCOME SOURCES IN LAST YEAR)

| EP213_ YEAR RECEIVED INCOME SOURCE

In which year did you first receive your [public old age pension/public early retirement or pre-retirement pension/public disability insurance/public unemployment benefit or insurance/public survivor pension from your spouse or partner/public invalidity or incapacity pension/war pension/private (occupational) old age | pension/private (occupational) early retirement pension/private (occupational) disability or invalidity insurance/private (occupational) survivor pension from your spouse or partner's job]? ____ (1900..2003)

| EP208_ HOW MANY MONTHS RECEIVED INCOME SOURCE

For how many months altogether did you receive [the public old age pension/the public early retirement or pre-retirement pension/the public disability insurance/the public unemployment benefit or insurance/the public survivor pension from your spouse or partner/the public invalidity or incapacity pension/the war pension/the private (occupational) old age pension/the private (occupational) early retirement pension/the private (occupational) disability or invalidity insurance/the private (occupational) survivor pension from your spouse or partner's job] in 2003?

_ (1..12)

EP078_ AVERAGE PAYMENT OF PENSION IN 2003

Before taxes, about how large was the average payment of [your public old age pension/your public early retirement or pre-retirement pension/your public disability insurance/your public unemployment benefit or insurance/your public survivor pension from your spouse or partner/your public invalidity or incapacity pension/your war pension/your private (occupational) old age pension/your private (occupational) early retirement pension/your private (occupational) disability or invalidity insurance/your private (occupational) survivor pension from your spouse or partner's job] in 2003?

| IWER: AMOUNT IN [{local currency}]

enter an amount

| IF EP078 (AVERAGE PAYMENT OF PENSION IN 2003) = EMPTY AND $|MN004_(EURO\ COUNTRY) = 1.\ Yes$

| | **EP078M** AVERAGE PAYMENT OF PENSION IN 2003

Before taxes, about how large was the average payment of [your public old age pension/your public early retirement or pre-retirement pension/your public disability insurance/your public unemployment benefit or insurance/vour public survivor pension from your spouse or partner/your public invalidity or incapacity pension/your war pension/your private (occupational) old age pension/your private | | (occupational) early retirement pension/your private (occupational) disability or invalidity insurance/your private (occupational) survivor pension from your spouse or partner's job] in 2003?

| | IWER: AMOUNT IN [{pre-euro currency}]

ļ	enter an amount
	 ENDIF
$\frac{ }{C}$	 HECK: Please enter a value.
	IF EP078_ (AVERAGE PAYMENT OF PENSION IN 2003) = NONRESPONSE OR EP078M (AVERAGE PAYMENT OF PENSION IN 2003) = NONRESPONSE
	unfolding brackets
	ENDIF
	EP074_ PERIOD OF INCOME SOURCE What period did that payment cover? 1. One week 2. Two weeks 3. Calendar month/4 weeks 4. Three months/13 weeks 5. Six months/26 weeks 6. Full year/12 months/52 weeks 97. Other (specify)
į	IF EP074_ (PERIOD OF INCOME SOURCE) = 97. Other (specify)
	EP075_ OTHER PERIOD OF RECEIVING BENEFITS
	IWER: NOTE OTHER PERIOD
ļ	 ENDIF
	EP081_ LUMP SUM PAYMENT INCOME SOURCE Did you receive any additional or lump sum (one off) payment from [your public old age pension/your public early retirement or pre-retirement pension/your public disability insurance/your public unemployment benefit or insurance/your public survivor pension from your spouse or partner/your public invalidity or incapacity pension/your war pension/your private (occupational) old age pension/your private (occupational) early retirement pension/your private (occupational) disability or invalidity insurance/your private (occupational) survivor pension from your spouse or partner's job] during the year 2003? 1. Yes 5. No
İ	IF EP081_ (LUMP SUM PAYMENT INCOME SOURCE) = 1. Yes
	EP082_TOTAL AMOUNT OF LUMP SUM PAYMENT FROM INCOME SOURCE Before taxes, about how much did you receive as additional or lump sum payments from [this public old age pension/this public early retirement or pre-retirement pension/this public disability insurance/this public unemployment benefit or insurance/this public survivor pension from your spouse or partner/this public invalidity or incapacity pension/this war pension/this private (occupational) old age pension/this private (occupational) early retirement

```
pension/this private (occupational) disability or invalidity
| | insurance/this private (occupational) survivor pension from your
| | spouse or partner's job]?
| | IWER: AMOUNT IN [{local currency}]
| | enter an amount
 | | IF EP082_ (TOTAL AMOUNT OF LUMP SUM PAYMENT FROM INCOME
 | SOURCE | = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
 | | | SOURCE
 | | | Before taxes, about how much did you receive as additional or lump
| | | sum payments from [this public old age pension/this public early
 | | | retirement or pre-retirement pension/this public disability
 | | insurance/this public unemployment benefit or insurance/this public
 | | survivor pension from your spouse or partner/this public invalidity
 | | or incapacity pension/this war pension/this private (occupational)
| | | old age pension/this private (occupational) early retirement
| | | pension/this private (occupational) disability or invalidity
 | | insurance/this private (occupational) survivor pension from your
| | | spouse or partner's job]?
| | | | IWER: AMOUNT IN [{pre-euro currency}]
| | | enter an amount
 | | ENDIF
CHECK: Please enter a value.
| | SOURCE) = NONRESPONSE OR EP082M (TOTAL AMOUNT OF LUMP SUM
| \ | \ | PAYMENT FROM INCOME SOURCE) = NONRESPONSE
| | | Unfolding Brackets
| | ENDIF
 | ENDIF
 ENDIF
ENDLOOP
IF (MN001_ (INTERVIEW COUNTRY) = 2. Austria OR
MN001 (INTERVIEW COUNTRY) = 3. Germany) AND (MN002 (AGE) > 70 OR PH004 (LONG-
TERM ILLNESS) = 1. Yes)
 EP085_ RECEIVE CARE INSURANCE PAYMENTS
 Did you receive regular payments from a long-term care insurance in
 2003?
 1. Yes
 5. No
 IF EP085_ (RECEIVE CARE INSURANCE PAYMENTS) = 1. Yes
   EP086_ AMOUNT OF CARE INSURANCE
  How much do you get each month from long-term care insurance?
| | IWER: AMOUNT IN [{local currency}]
```

enter an amount
IF EP086_ (AMOUNT OF CARE INSURANCE) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
EP086M AMOUNT OF CARE INSURANCE How much do you get each month from long-term care insurance? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
ENDIF
CHECK: Please enter a value. ELSE
$ \ $ $ \ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $
EP087_ APPLY FOR CARE INSURANCE Did you ever apply for payments from long-term care insurance? 1. Yes 5. No
$ \ \ $ IF EP087_ (APPLY FOR CARE INSURANCE) = 1. Yes
EP088_ APPLICATION REJECTED OR PENDING Was your application rejected or is it still pending? 1. Rejected 2. Pending
ENDIF
ENDIF
 ENDIF
 ENDIF
EP089 _ ANY REGULAR PAYMENTS RECEIVED Please look at card 25. Did you receive any of the following regular payments or transfers during the year 2003?

IWER: READ OUT. CODE ALL THAT APPLY

- 1. Life insurance payment
- 2. Private annuity/private personal pension
- 3. Private health insurance payment
- 4. Alimony
- 5. Regular payments from charities
- 96. None of these

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

```
LOOP cnt = 1 TO 5
IF cnt IN EP089_(ANY REGULAR PAYMENTS RECEIVED)
 EP096_ MONTHS RECEIVED REGULAR PAYMENTS
For how many months altogether did you receive [a life insurance
```

payment/a private annuity or private personal pension/a private health insurance payment/alimony/regular payments from charities] in	
2003?(112)	
(112)	
EP094_ TOTAL AMOUNT IN THE LAST PAYMENT Before any taxes and contributions, about how large was the average payment of [your life insurance payment/your private annuity or private personal pension/your private health insurance payment/your alimony/your regular payments from charities] in 2003? IWER: AMOUNT IN [{local currency}] enter an amount	
IF EP094_ (TOTAL AMOUNT IN THE LAST PAYMENT) = EMPTY MN004_ (EURO COUNTRY) = 1. Yes	AND
EP094M TOTAL AMOUNT IN THE LAST PAYMENT Before any taxes and contributions, about how large was the average payment of [your life insurance payment/your private annuity or private personal pension/your private health insurance payment/your alimony/your regular payments from charities] in 2003? IWER: AMOUNT IN [{pre-euro currency}] enter an amount	
 ENDIF	
ECK: Please enter a value.	
IF EP094_ (TOTAL AMOUNT IN THE LAST PAYMENT) = NONRE	
EP094M (TOTAL AMOUNT IN THE LAST PAYMENT) = NONRES.	PONSE
Unfolding Brackets	
 ENDIF	
EP090_ Period RECEIVED REGULAR PAYMENTS	
Which period did that payment cover?	
1. One week	
2. Two weeks3. Calender month/4 weeks	
4. Three months/13 weeks	
5. Six months/26 weeks	
6. Full year/12 months/52 weeks 97. Other (specify)	
IF EP090_ (PERIOD RECEIVED REGULAR PAYMENTS) = 97. Othe (specify)	r
EP091_ OTHER PERIOD OF RECEIVING REGULAR PAYMENT	S
IWER: SPECIFY OTHER	
	
 ENDIE	
I ENDIF	

	personal pension/your private health insurance payment/your
	alimony/your regular payments from charities], did you get additional or lump sum payments in 2003?
	1. Yes
į	5. No
	 IF EP092_ (ADDITIONAL PAYMENTS FOR THIS BENEFIT IN 2003) = 1. Yes
į	
-	EP209_ ADDITIONAL PAYMENTS BEFORE TAXES Before taxes and contributions, about how much did you get in
	additional payments?
į	IWER: AMOUNT IN [{local currency}]
	enter an amount
i	
į	$ MN004_{-}$ (EURO COUNTRY) = 1. Yes
i	Before taxes and contributions, about how much did you get in
-	additional payments?
1	IWER: AMOUNT IN [{pre-euro currency}] enter an amount
i	i i i
-	ENDIF
CF	HECK: Please enter a value.
ļ	IF EP209_ (ADDITIONAL PAYMENTS BEFORE TAXES) = NONRESPONSE
	OR EP209M (ADDITIONAL PAYMENTS BEFORE TAXES) = NONRESPONSE
	Unfolding Brackets
	ENDIF
-	I ENDIF
E	NDLOOP
\mathbf{E}	P097_ PENSION CLAIMS
	ow we are talking about future pension entitlements. Please look at
	rd 26. Are you entitled to at least one pension listed on this card
	nich you do not receive currently? Yes
	No
ΙF	FEP097_ (PENSION CLAIMS) = 1. Yes
	EP098_ TYPE OF PENSION YOU ARE ENTITLED TO
	Which type or types of pension are you entitled to?
1:	IWER: CODE ALL THAT APPLY
	1. Public old age pension
	2. Public early retirement or pre-retirement pension 3. Public disability insurance; sickness/invalidity/incapacity pension
	4. Private (occupational) old age pension

| 5. Private (occupational) early retirement pension | 96. None of these

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

OP cnt = 1 TC	9			
F ont IN EP09	8_(TYPE OF PE	NSION YOU 2	4RE ENTITLE	D TO)
Does [the pul pre-retiremen sickness/inva age pension/t pension] incluinsurance? 1. Pension on	ISION WITH/W blic old age pension at pension/the pullidity/incapacity pension the private (occupude also health aly	on/the public eblic disability in bension/the proportional) early re	early retirement on surance; ivate (occupation)r
	CURRENT JOB S ncluding working for		= 2. Employed or	
In total, wh [your public pre-retiremed sickness/in old age pen pension]?	ERCENTAGE Of at percentage of y cold age pension/your private sion/your private	your current gro your public ea public disability y pension/your (occupational)	oss earnings goes arly retirement or ty insurance; r private (occupa early retirement	tional)
IWER: EX(ENDIF	CLUDING EMP (0.00100.00)	LOYER'S CO	NTRIBUTION	
EP101_ NAM What is the n [your public of pre-retirement sickness/inva	ME OF PLAN OI ame of the institu old age pension/your point it pension/your poil lidity/incapacity pon/your private (o	tion (pension pour public early ublic disability pension/your p	y retirement or insurance; orivate (occupation	
Is participation retirement or insurance; sic (occupational	MPULSORY OF on in [this public of pre-retirement pekness/invalidity/it) old age pension, nsion] compulsor	old age pension ension/this pub ncapacity pens /this private (o	this public early olic disability ion/this private	y
EP103_ YEA How many ye	ARS CONTRIBU' cars have you been public early retire	n contributing	to [you <mark>r public</mark> o	

	public disability insurance; sickness/invalidity/incapacity pension/your private (occupational) old age pension/your private
	(occupational) early retirement pension] ?
	(0120)
	EP104_ RETIREMENT AGE IN PENSION In this pension, what is the regular age at which you start receiving payments?
	IWER: Regular age means the age at which, according to the rules/law prevailing, the respondent can start drawing the payment (0120)
	EP105_ EARLY RETIREMENT POSSIBILITY Does this pension offer the possibility to receive payments before the regular age? 1. Yes 5. No
	EP106_ EXPECTED AGE TO COLLECT THIS PENSION At what age do you expect to collect this pension? (0120)
 	IECK: Expected age should be higher than or equal to current age. EP107_ EXPECT LUMP SUM PAYMENT WITH THIS PENSION Do you expect to receive a lump sum (one off) payment with this pension? 1. Yes 5. No
	 IF EP107_ (EXPECT LUMP SUM PAYMENT WITH THIS PENSION) = 1. Yes
	EP108_ AMOUNT LUMP SUM PAYMENT AT RETIREMENT How much do you expect to receive as a lump sum payment when you collect this pension? IWER: AMOUNT IN [{local currency}] enter an amount
	EP108M AMOUNT LUMP SUM PAYMENT AT RETIREMENT How much do you expect to receive as a lump sum payment when you collect this pension? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
CF	IECK: Please enter a value. IF EP108_ (AMOUNT LUMP SUM PAYMENT AT RETIREMENT) = NONRESPONSE OR EP108M (AMOUNT LUMP SUM PAYMENT AT RETIREMENT) = NONRESPONSE

	EP109_ PERCENTAGE OF SALARY RECEIVED AS PENSION Thinking about the year when you will collect this pension, approximately, what percentage of your earnings will [your public old age pension/your public early retirement or pre-retirement pension/your public disability insurance; sickness/invalidity/incapacity pension/your private (occupational) old age pension/your private (occupational) early retirement pension amount to? IWER: LAST EARNINGS BEFORE COLLECTING PENSION
$\mid \mid I$	ENDLOOP
EI	NDIF

EP210_ WHO ANSWERED SECTION EP

IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION?

- 1. Respondent only
- 2. Respondent and proxy
- 3. Proxy only

GS001_ WILLING TO HAVE HANDGRIP MEASURED

Now I would like to assess the strength of your hand in a gripping exercise. I will ask you to squeeze this handle as hard as you can, just for a couple of seconds and then let go. I will take two alternate measurements from your right and your left hand. Would you be willing to have your handgrip measured?

IWER: DEMONSTRATE GRIP STRENGTH MEASURE

- 1. Yes
- 2. No
- 3. Unable to take measurement

GS002_ RECORD RESPONDENT STATUS

IWER: RECORD RESPONDENT STATUS

- 1. Respondent has the use of both hands
- 2. Respondent is unable to use right hand
- 3. Respondent is unable to use left hand
- 4. Respondent is unable to use either hand

IF GS001_ (WILLING TO HAVE HANDGRIP MEASURED) <> 1. Yes OR GS002_ (RECORD RESPONDENT STATUS) = 4. Respondent is unable to use either hand

GS003 END OF TEST BECAUSE RESPONDENT IS UNABLE OR NOT WILLING TO DO TEST INTERVIEWER STOP TEST. IWER: NO HANDGRIP MEASUREMENT TO BE TAKEN 1. Continue **ENDIF** IF GS001_ (WILLING TO HAVE HANDGRIP MEASURED) = 1. Yes AND GS002_ (RECORD RESPONDENT STATUS) < 4. Respondent is unable to use either hand IF GS002_ (RECORD RESPONDENT STATUS) = 1. Respondent has the use of both hands GS004 DOMINANT HAND | Which is your dominant hand? | 1. Right hand 2. Left hand **ENDIF GS005** INTRODUCTION TO TEST IWER: POSITION THE RESPONDENT CORRECTLY. ADJUST DYNAMOMETER TO HAND SIZE BY TURNING THE LEVER AND RESET ARROW AT ZERO. EXPLAIN THE PROCEDURE ONCE AGAIN. LET RESPONDENT HAVE A PRACTICE WITH ONE HAND. USE SCORECARD TO RECORD THE RESULTS AND ENTER RESULTS INTO COMPUTER AFTER TEST IS FINISHED. 1. Continue IF GS002_ (RECORD RESPONDENT STATUS) = 1. Respondent has the use of both hands OR GS002_ (RECORD RESPONDENT STATUS) = 2. Respondent is unable to use right hand | GS006 FIRST MEASUREMENT, LEFT HAND | LEFT HAND, FIRST MEASUREMENT. | IWER: ENTER THE RESULTS TO THE NEAREST INTEGER VALUE. (0..100) | **GS007**_ SECOND MEASUREMENT, LEFT HAND LEFT HAND, SECOND MEASUREMENT. IWER: ENTER THE RESULTS TO THE NEAREST INTEGER VALUE. (0..100) **ENDIF** IF GS002_ (RECORD RESPONDENT STATUS) = 1. Respondent has the use of both hands OR GS002_ (RECORD RESPONDENT STATUS) = 3. Respondent is unable to use left hand | GS008 FIRST MEASUREMENT, RIGHT HAND | RIGHT HAND, FIRST MEASUREMENT. | IWER: ENTER THE RESULTS TO THE NEAREST INTEGER VALUE. (0..100)

```
| GS009_ SECOND MEASUREMENT, RIGHT HAND
 | RIGHT HAND, SECOND MEASUREMENT.
 IWER: ENTER THE RESULTS TO THE NEAREST INTEGER VALUE.
          (0..100)
 ENDIF
ENDIF
IF MN002 (AGE) > 75 OR 1. Walking 100 metres IN PH048 (HEALTH AND ACTIVITIES)
 WS001 RECORD RESPONDENT STATUS
 IWER: THIS IS THE START OF WALKING SPEED TEST, PLEASE RECORD
 RESPONDENT STATUS
 1. Observed walking without help of another person or using support
 2. Observed walking with help of another person or using support
 3. Not observed - in wheelchair
 4. Not observed - bed bound
 5. Not observed - uncertain if respondent has impairment
 IF WS001_ (RECORD RESPONDENT STATUS) <> 1. Observed walking
 without help of another person or using support
 | WS002 INTRODUCTION TO RESPONDENT
 Now we have a different kind of exercise that involves walking a
 short distance. Are you able to walk alone without holding on to
 | another person (using a walking stick or other aid if necessary)?
 | 1. Yes
2. Yes, but aid unavailable
 | 3. No
 ENDIF
 IF WS001_ (RECORD RESPONDENT STATUS) = 1. Observed walking
 without help of another person or using support OR
 WS002_{-} (INTRODUCTION TO RESPONDENT) = 1. Yes
 | WS003_ IS IT SAFE TO CARRY OUT THE TEST
 I would now like to test whether you can walk a very short distance
 comfortably (using a walking stick or other aid if necessary). First,
 I would like to check if it is safe to carry out the test. Do you
| | have any problems from recent surgery, injury, or other health
| | conditions that might prevent you from walking?
| 1. No apparent restriction
| 2. Yes, recent surgery
| 3. Yes, injury
| 4. Yes, other health condition
 | IF WS003_ (IS IT SAFE TO CARRY OUT THE TEST) = 1. No apparent
 restriction
 | | WS004_ RESPONDENT WILLING TO DO WALKING TEST
```

Are you willing to do the walking test?
IF WS004_ (RESPONDENT WILLING TO DO WALKING TEST) = 1.
WS005_ DOES RESPONDENT FEEL SAFE TO CONTINUE
IWER: DO YOU FEEL THAT IT IS SAFE TO CONTINUE WITH THE WALKING TEST?
 ENDIF
IF (WS001_ (RECORD RESPONDENT STATUS) <> 1. Observed walking without help of another person or using support AND WS002_ (INTRODUCTION TO RESPONDENT) <> 1. Yes) OR WS003_ (IS IT SAFE TO CARRY OUT THE TEST) <> 1. No apparent restriction OR WS005_ (DOES RESPONDENT FEEL SAFE TO CONTINUE) <> 1. Yes
WS006_ END OF TEST BECAUSE RESPONDENT IS UNABLE TO DO TEST
IWER: IT WOULD BE SAFEST TO SKIP THIS TEST AND MOVE ON TO THE NEXT SET OF QUESTIONS. 1. Continue
IF WS003_ (IS IT SAFE TO CARRY OUT THE TEST) = 1. No apparent restriction AND WS004_ (RESPONDENT WILLING TO DO WALKING TEST) = 1. Yes AND WS005_ (DOES RESPONDENT FEEL SAFE TO CONTINUE) = 1. Yes
WS007_ CHECK AVAILABLE SPACE FOR TEST
IWER: CHECK AVAILABILITY OF SUITABLE SPACE 1. Suitable space available 2. No suitable space
WS008_ EXPLAIN WALKING COURSE

	IWER: RECORD RESULT OF THE FIRST TRIAL
İ	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
l I	0. Respondent ferused
 	IF WS010_ (RESULT OF FIRST TRIAL) = 1. Completed successfully
 	2. Attempted but unable to complete
	3. Stopped by the interviewer because of safety reasons
ĺ	4. Not attempted, respondent felt it would be unsafe
	5. Participant unable to understand instructions
 	IWER: RECORD TIME IN SECONDS TO TWO DECIMAL PLACES
 	ENDIF
 	ENDIF
 	WS014_ DID THE RESPONDENT HAVE COMMENT ON PAIN IWER: CODE IF RESPONDENT HAS COMMENTED ON PAIN, OTHERWISE ASK:Did you have pain while you were performing the walking test? 1. Yes
İ	5. No
 	WS015_ RECORD TYPE OF FLOOR SURFACE
	IWER: RECORD TYPE OF FLOOR SURFACE
	1. Linoleum/tile/wood
 	2. Low-pile carpet3. Thick-pile carpet
1	J. THEN PHE CAIPEL

4. Concrete	
5. Not sure 97. Other	
$ IF WS015_ (RECORD TYPE OF FLOOR SURFACE) = 97. Other$	
WS016_ OTHER TYPE OF FLOOR SURFACE	
WS017_ TYPE OF AID USED DURING TEST	
1. None	
2. Walking stick or cane 3. Elbow crutches	
4. Walking frame	
97. Other	
 WS019 _ DETAILS ON WHY TEST WAS NOT COMPLETED	
ENDIF	
ENDIF	
$IF MN006_{-}$ (FAMILY RESPONDENT) = 1	
CH001_ NUMBER OF CHILDREN	
Now I will ask some questions about your children. How many children	
do you have that are still alive? Please count all natural children,	
fostered, adopted and stepchildren[, including those of]	
[your husband/your wife/your partner].	

(020)
 IF CH001_ (NUMBER OF CHILDREN) > 0
CH002_ NATURAL CHILD(REN) [Is this child a natural child/Are all these children natural children] of your own [and your current spouse or partner]? 1. Yes 5. No
CH003_ INTRODUCTION TEXT ON QUESTIONS ABOUT CHILDREN We would like to know more about [this child/these children. Let us begin with the oldest child]. 1. Continue
LOOP cnt = 1 TO NUMBER OF CHILDREN
CH005_ SEX OF CHILD N Is [{child name}] male or female? IWER: ASK ONLY IF UNCLEAR 1. Male 2. Female
CH007_ WHERE DOES CHILD N LIVE Please look at card 5.Where does [{child name}] live? 1. In the same household 2. In the same building 3. Less than 1 kilometre away 4. Between 1 and 5 kilometres away 5. Between 5 and 25 kilometres away 6. Between 25 and 100 kilometres away 7. Between 100 and 500 kilometres away 8. More than 500 kilometres away 9. More than 500 kilometres away in another country
IF CH007_ (WHERE DOES CHILD N LIVE) = 9. More than 500 kilometres away in another country

```
| | ENDLOOP
| ENDIF
IF CH001_ (NUMBER OF CHILDREN) > 0
| LOOP cnt = 1 TO 4
| | | IF [child name] <> EMPTY
I \mid I \mid I \mid I
| | | | CH009_ INTRODUCTION2 TEXT ON QUESTIONS ABOUT CHILDREN
| | | Now we want to know more about some of these children. Please let us
| | | | begin with [{child name}].
| | | | 1. Continue
| \ | \ | \ | IF CH002_ (NATURAL CHILD(REN)) = 5. No
| | | | IF MN005_ (INTERVIEW MODE) = 1. Individual. Single
| | | | | CH010_ STEP ADOPTIVE OR FOSTER (SELECTED) CHILD
| | | | | IWER: READ OUT
| | | | 4. A foster child
| | | | | IWER: READ OUT
| | | | | 1. A child of your own and your current partner
| | | | | 2. A child of your own from a previous relationship
| | | | 3. A child of your current partner from a previous relationship
| | | | IF CH006_ (YEAR OF BIRTH CHILD N) < YEAR SYSTEM DATE - 16
| | | | Please look at card 4. What is the marital status of [{child name}]?
| | | | 1. Married and living together with spouse
| | | | 2. Registered partnership
| | | | 3. Married, living separated from spouse
| | | | 4. Never married
```

		6. Widowed
Does [{child name}] have a partner who lives with [him/her]? 1. Yes		IF CH012_ (MARITAL STATUS OF (SELECTED) CHILD) > 2
		Does [{child name}] have a partner who lives with [him/her]? 1. Yes
		 ENDIF
During the past twelve months, how often did you [or your]		household AND CH007_ (WHERE DOES CHILD N LIVE) <> DONTKNOW
ENDIF		During the past twelve months, how often did you [or your] [husband/wife/partner] have contact with [{child name}], either personally, by phone or mail? [WER: ANY KIND OF CONTACT, INCLUDING FOR EXAMPLE E-MAIL, SMS OR MMS 1. Daily 2. Several times a week 3. About once a week 4. About every two weeks 5. About once a month 6. Less than once a month 7. Never [CH015_ YEAR (SELECTED) CHILD MOVED FROM HOUSEHOLD In which year did [{child name}] move from the parental household? IWER: THE LAST MOVE TO COUNT. TYPE "2005" IF CHILD STILL LIVES AT HOME (EG. WITH DIVORCED MOTHER)
	CHE	CK: Year should be greater than or equal to birth year.
		ENDIF
Please look at card 27. What is [{child name}]'s employment status? 1. Full-time employed 2. Part-time employed 3. Self-employed or working for own family business 4. Unemployed 5. In vocational training/retraining/education 6. Parental leave 7. In retirement or early retirement 8. Permanent sick or disabled 9. Looking after home or family 97. Other		IF CH006_ (YEAR OF BIRTH CHILD N) < YEAR SYSTEM DATE - 16
iiii		Please look at card 27.What is [{child name}]'s employment status? 1. Full-time employed 2. Part-time employed 3. Self-employed or working for own family business 4. Unemployed 5. In vocational training/retraining/education 6. Parental leave 7. In retirement or early retirement 8. Permanent sick or disabled 9. Looking after home or family
		ii

	Please look at card 2. What is the highest school leaving certificate
	or school degree [{child name}] has obtained?
	1. Comprehensive school
	2. Grammar school (not fee-paying)
	3. Fee-paying grammar school
	5. Public or other private school
	6. Elementary school
	7. Secondary modern/secondary school
	8. Technical school (not college)
ĺ	95. No degree yet/still in school
ĺ	
Ì	97. Other type (also abroad)
İ	Please look at card 3. Which degrees of higher education or vocational
ĺ	training does [{child name}] have?
İ	IWER: CODE ALL THAT APPLY
İ	1. Nurses' training school
İ	2. College of further/higher education
İ	3. Other college or training establishment
İ	4. Polytechnic/Scottish Central Institutions
İ	5. University
İ	95. Still in higher education or vocational training
İ	96. None
į	97. Other (also abroad)
	CH019_ NUMBER OF CHILDREN OF (SELECTED) CHILD How many children - if any - does [{child name}] have? IWER: PLEASE COUNT ALL NATURAL CHILDREN, FOSTERED, ADOPTED AND STEPCHILDREN, INCLUDING THOSE OF A SPOUSE OR PARTNER (025)
Ì	
1	
İ	CH020_ YEAR OF BIRTH YOUNGEST CHILD OF (SELECTED) CHILD In which year was the [youngest] child of [{child name}] born? (18752004)
į	ENDIF
	 ENDLOOP
	 ENDIF
	IF CH001_ (NUMBER OF CHILDREN) > 0
	CH021_ NUMBER OF GRANDCHILDREN
1	How many grandchildren do you [and your] [husband/wife/partner]

	have altogether? IWER: INCLUDE GRANDCHILDREN OF SPOUSE OR PARTNER FROM PREVIOUS RELATIONSHIPS	
	(020)	
	IF CH021_ (NUMBER OF GRANDCHILDREN) > 0 	
	CH022_ HAS GREAT-GRANDCHILDREN Do you [or your] [husband/wife/partner] have any great-grandchildren? 1. Yes	
	1. 1es 5. No	
	ENDIF	
	ENDIF	
	CH023_ WHO ANSWERED QUESTIONS IN SECTION CH IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION? 1. Respondent only 2. Respondent and proxy 3. Proxy only	
1	ENDIF	
1	$FMN006_{-}$ (FAMILY RESPONDENT) = 1	
	SP001_ INTRODUCTION SP We are interested in how people support one another. The next set of questions are about the help that you may have given to people you know or that you may have received from people you know. 1. Continue	
	SP002_ RECEIVED HELP FROM OUTSIDE THE HOUSEHOLD Now please think of the last twelve months. Has any family member from outside the household, any friend or neighbor given you [or] [your] [husband/wife/partner] any kind of help listed on card 28? 1. Yes 5. No	
	IF SP002_ (RECEIVED HELP FROM OUTSIDE THE HOUSEHOLD) = 1. Yes	
	Questions SP003_(WHO GAVE YOU HELP) to SP006_(HOURS RECEIVED HOUSEHOLD HELP) are repeated with the appropriate fill to a maximum of 3 when SP007_(ANY OTHER HELPER FROM DUTSIDE THE HOUSEHOLD) = 1.Yes	1
	SP003_ WHO GAVE YOU HELP Which [other] family member from outside the household, friend or neighbor has helped you [or] [your] [husband/wife/partner] [most often] in the last twelve months? {list with relations}	

ll	SP004 WHICH TYPES OF HELP
ij	Please look at card 28. Which types of help has this person provided
İ	in the last twelve months?
	IWER: CODE ALL THAT APPLY. QUESTION DOES NOT INCLUDE
	LOOKING AFTER GRANDCHILDREN; THIS IS ASKED LATER IN SP014
	1. personal care, e.g. dressing, bathing or showering, eating,
	getting in or out of bed, using the toilet
	2. practical household help, e.g. with home repairs, gardening,
	transportation, shopping, household chores
	3. help with paperwork, such as filling out forms, settling financial
	or legal matters
 	SP005_ HOW OFTEN RECEIVED HELP FROM THIS PERSON
 	In the last twelve months, how often altogether have you
 	[or] [your] [husband/wife/partner] received such help
 	from this person? Was it
 	IWER: READ OUT
ij	1. Almost daily
ij	2. Almost every week
i	3. Almost every month
ij	4. Less often
	SP006_ HOURS RECEIVED HOUSEHOLD HELP About how many hours did you [or] [your] [husband/wife/partner] receive such help altogether [on a typical day/in a typical week/in a typical month/in the last twelve months] from this person? IWER: ROUND UP TO FULL HOURS
	IF NOT THIRD TIME IN THIS LOOP
	SP007_ ANY OTHER HELPER FROM OUTSIDE THE HOUSEHOLD Is there any other family member from outside the household, friend, neighbor who has helped you [or] [your] [husband/wife/partner] with the tasks listed on card 28 in the last twelve months? 1. Yes 5. No
	 ENDIF
	ENDIF
l El	NDIF

SP008_ DID YOU GIVE HELP TO OTHERS OUTSIDE THE HOUSEHOLD

Now I would like to ask you about the help you have given to others. In the last twelve months, have you personally given any kind of help listed on card 28 to a family member from outside the household, a friend or neighbor?

- 1. Yes
- 5. No

IF SP008_ (DID YOU GIVE HELP TO OTHERS OUTSIDE THE HOUSEHOLD) = 1. Yes

| Questions SP009_(TO WHOM DID YOU GAVE HELP) to SP012_(HOURS GIVEN HELP) are repeated with the appropriate fill to a maximum of 3 when SP013_(HAVE YOU GIVEN HELP TO OTHERS) = 1.Yes

SP009 TO WHOM DID YOU GIVE HELP Which [other] family member from outside the household, friend or neighbor have you helped [most often] in the last twelve months? {list with relations} SP010_ TYPES OF HELP GIVEN Please look at card 28. Which types of help have you given to this person in the last twelve months? IWER: CODE ALL THAT APPLY. QUESTION DOES NOT INCLUDE LOOKING AFTER GRANDCHILDREN; THIS IS ASKED LATER IN SP014 1. personal care, e.g. dressing, bathing or showering, eating, getting in or out of bed, using the toilet 2. practical household help, e.g. with home repairs, gardening, transportation, shopping, household chores 3. help with paperwork, such as filling out forms, settling financial or legal matters

SP011_ HOW OFTEN GIVE HELP

In the last twelve months, how often altogether have you given such help to this person? Was it...

IWER: READ OUT

- 1. Almost daily
- 2. Almost every week
- 3. Almost every month
- 4. Less often

SP012_ HOURS GIVEN HELP

About how many hours altogether did you give such help [on a typical day/in a typical week/in a typical month/in the last twelve months]?

IWER: ROUND UP TO FULL HOURS

IF NOT THIRD TIME IN THIS LOOP

| SP013_ HAVE YOU GIVEN HELP TO OTHERS
| Is there any other family member from outside the household, friend, | or neighbor whom you have helped with the tasks listed on card 28 in | the last twelve months?
| 1. Yes
| 5. No

IF $CH021_(NUMBER\ OF\ GRANDCHILDREN) > 0$

SP014_ LOOK AFTER GRANDCHILDREN

During the last twelve months, have you regularly or occasionally

ENDIF

```
looked after [your grandchild/your grandchildren] without the
 presence of the parents?
 1. Yes
 5. No
 IF SP014 (LOOK AFTER GRANDCHILDREN) = 1. Yes
 | SP015 PARENTS FROM GRANDCHILDREN
 | From which of your children [is/are] [the grandchild/the
| grandchildren you have looked after?
| | IWER: CODE ALL THAT APPLY
| | {list with children}
| LOOP cnt = 1 TO 20
| | | IF cnt IN SP015_(PARENTS FROM GRANDCHILDREN)
| | | | name}] in the last twelve months? Was it...
| | | | IWER: READ OUT
| | | 1. Almost daily
| | | 2. Almost every week
| | | 3. Almost every month
| | | About how many hours did you look after the child(ren) of [{child
| | | name}] [on a typical day/in a typical week/in a typical month/in the
| | | last twelve months]?
| | | | IWER: ROUND UP TO FULL HOURS
| | | | _
| | ENDLOOP
ENDIF
ENDIF
IF MN013_ (HOUSEHOLD SIZE) > 1
 SP018_ GIVEN HELP TO SOMEONE IN THE HOUSEHOLD
 Let us now talk about help within your household. Is there someone
 living in this household whom you have helped regularly during the
 last twelve months with personal care, such as washing, getting out
 of bed, or dressing?
 IWER: BY REGULARLY WE MEAN DAILY OR ALMOST DAILY DURING
 AT LEAST THREE MONTHS. WE DO NOT WANT TO CAPTURE HELP
 DURING SHORT-TERM SICKNESS OF FAMILY MEMBERS.
 1. Yes
 5. No
 IF SP018_{-} (GIVEN HELP TO SOMEONE IN THE HOUSEHOLD) = 1. Yes
```

	SP019_ TO WHOM GIVEN HELP IN THIS HOUSEHOLD
	Who is that? IWER: CODE ALL THAT APPLY
	{list with relations}
	 IF NOT 96. None of these IN PH048_(HEALTH AND ACTIVITIES)
	SP020_ SOMEONE IN THIS HOUSEHOLD HELPED YOU REGULARLY WITH PERSONAL CARE And is there someone living in this household who has helped you regularly during the last twelve months with personal care, such as washing, getting out of bed, or dressing? IWER: By regularly we mean daily or almost daily during at least three months. We do not want to capture help during short-term sickness of family members. 1. Yes 5. No IF SP020_ (SOMEONE IN THIS HOUSEHOLD HELPED YOU REGULARLY WITH PERSONAL CARE) = 1. Yes
	SP021_ WHO HELPED YOU WITH PERSONAL CARE IN THE HOUSEHOLD Who is that? IWER: CODE ALL THAT APPLY {list with relations} SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY SIDE ALL THAT APPLY
1	ENDIF
I 1	SP022_ WHO ANSWERED THE QUESTIONS IN SP IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION? 1. Respondent only 2. Respondent and proxy 3. Proxy only
	IF MN007_ (FINANCIAL RESPONDENT) = 1. Yes OR CM002_(FINANCES TOTALLY SEPARATE) =1. Separately
	FT001_ INTRODUCTION FINANCIAL TRANSFERS Many people provide financial or material gifts, or support to others such as parents, children, grandchildren, some other kin, or friends or neighbors. 1. Continue
	FT002_ GIVEN FINANCIAL GIFT 250 EURO OR MORE Now please think of the last twelve months. Not counting any shared housing or shared food, have you [or] [your] [husband/wife/partner] given any financial or material gift or support to any person inside or outside this

	household amounting to 250 euro (in local currency) or more? IWER: BY FINANCIAL GIFT WE MEAN GIVING MONEY, OR COVERING SPECIFIC TYPES OF COSTS SUCH AS THOSE FOR MEDICAL CARE OR INSURANCE, SCHOOLING, DOWN PAYMENT FOR A HOME. DO NOT INCLUDE LOANS, ONLY GIFTS AND SUPPORT. 1. Yes 5. No
į	IF FT002_ (GIVEN FINANCIAL GIFT 250 EURO OR MORE) = 1. Yes
fi	Questions FT003_(TO WHOM DID YOU PROVIDE FINANCIAL GIFT 250 EURO OR MORE) o FT006_(REASON FINANCIAL GIFT GIVEN 250 EURO OR MORE) are repeated with the appropriate fill to a maximum of 3 when FT007_(OTHER PERSONS GIVEN FINANCIAL GIFT 250 EURO OR MORE) = 1.Yes
	FT003_ TO WHOM DID YOU PROVIDE FINANCIAL GIFT 250 EURO OR MORE To whom [else] did you [or] [your] [husband/wife/partner] provide such financial assistance or gift in the last twelve months? IWER: INSTRUMENT ALLOWS TO GO THROUGH THE 'GIVE' LOOP UP TO THREE TIMES {list with relations} FT004_ AMOUNT FINANCIAL GIFT GIVEN 250 EURO OR MORE About how much did you [or] [your] [husband/wife/partner] give to this person altogether in the last twelve months? IWER: ADD SINGLE VALUES TO ARRIVE AT A TOTAL AMOUNT (in local currency) enter an amount IF FT004_ (AMOUNT FINANCIAL GIFT GIVEN 250 EURO OR MORE) = RESPONSE
C	HECK: The amount has to be higher than or equal to the earlier mentioned minimum amount.
	ENDIF IF FT004_ (AMOUNT FINANCIAL GIFT GIVEN 250 EURO OR MORE) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes FT004M AMOUNT FINANCIAL GIFT GIVEN 250 EURO OR MORE
	About how much did you [or] [your] [husband/wife/partner] give to this person altogether in the last twelve months? IWER: ADD SINGLE VALUES TO ARRIVE AT A TOTAL AMOUNT IN [{pre-euro currency}] enter an amount
C	HECK: The amount has to be higher than or equal to the earlier mentioned minimum amount. ENDIF
Ċ	HECK: Please enter a value. IF FT004_ (AMOUNT FINANCIAL GIFT GIVEN 250 EURO OR MORE) = NONRESPONSE OR FT004M (AMOUNT FINANCIAL GIFT GIVEN 250 EURO OR MORE) = NONRESPONSE

```
| ENDIF
| | FT006 REASON FINANCIAL GIFT GIVEN 250 EURO OR MORE
| | Please look at card 29. What was the main reason for this assistance
 or gift?
| | 1. To meet basic needs
| 2. To buy or furnish a house or apartment
| 3. To help with a large item of expenditure (other than buying a
| | house)
 4. For a major family event (birth, marriage, other celebration)
| | 5. To help with a divorce
| | 6. To help following a bereavement or illness
| | 7. To help with unemployment
| | 8. For further education
 9. To meet a legal obligation (e.g. alimony or compulsory payments
 | for parents' care)
| 96. No specific reason
| 97. Other reason
 I IF NOT THIRD TIME IN THIS LOOP
| | Still thinking about the last twelve months: Is there anyone else
 | | inside or outside this household whom you
| | | [or] [your] [husband/wife/partner] have given any
 | | financial or material gift or support amounting to 250 euro (in local
 | | currency) or more?
 | | 1. Yes
 | | 5. No
 | ENDIF
 ENDIF
 FT008 INTRODUCTION RECEIVE
 We have just asked you about financial or material gifts or support
 that you may have given. Now we would like to know about financial or
 material gifts and support that you may have received.
 1. Continue
 FT009_ RECEIVED FINANCIAL GIFT OF 250 EURO OR MORE
 Please think of the last twelve months. Not counting any shared
 housing or shared food, have you [or] [your] [husband/wife/partner] received any | | financial or
material gift from anyone inside or outside this household
 amounting to 250 euro (in local currency) or more?
 IWER: BY FINANCIAL GIFT WE MEAN GIVING MONEY, OR COVERING
 SPECIFIC TYPES OF COSTS SUCH AS THOSE FOR MEDICAL CARE OR
 INSURANCE, SCHOOLING, DOWN PAYMENT FOR A HOME. DO NOT
 INCLUDE LOANS, ONLY GIFTS AND SUPPORT.
 1. Yes
 5. No
 IF FT009_ (RECEIVED FINANCIAL GIFT OF 250 EURO OR MORE) = 1. Yes
```

| Questions FT010_(FROM WHOM RECEIVED FINANCIAL GIFT 250 EURO OR MORE) to FT013_(REASON FINANCIAL GIFT RECEIVED 250 EURO OR MORE) are repeated with the appropriate fill to a maximum of 3 when FT014_(FROM OTHER PERSONS RECEIVED FINANCIAL GIFT 250 EURO OR MORE) = 1.Yes

	FT010_ FROM WHOM RECEIVED FINANCIAL GIFT 250 EURO OR MORE Who [else] has given you [or] [your] [husband/wife/partner] a gift or assistance in the past twelve months? [Please name the person that has given or helped you most.] {list with relations} FT011_ AMOUNT FINANCIAL GIFT RECEIVED 250 EURO OR MORE
	About how much did this person give you [or] [your] [husband/wife/partner] altogether in the last twelve months? IWER: ADD SINGLE VALUES TO ARRIVE AT A TOTAL AMOUNT (in local currency}] enter an amount
-	IF FT011_ (AMOUNT FINANCIAL GIFT RECEIVED 250 OR MORE) = RESPONSE
	CHECK: The amount has to be higher than or equal to the earlier mentioned minimum amount. ENDIF
	FT011M AMOUNT FINANCIAL GIFT RECEIVED 250 EURO OR MORE About how much did this person give you [or][your] [husband/wife/partner] altogether in the last twelve months? IWER: ADD SINGLE VALUES TO ARRIVE AT A TOTAL AMOUNT (in pre-euro currency) enter an amount
	CHECK: The amount has to be higher than or equal to the earlier mentioned minimum amount. ENDIF
Ī	
	Unfolding Brackets
	FT013_ REASON FINANCIAL GIFT RECEIVED 250 EURO OR MORE Please look at card 29.What was the main reason for this assistance or gift? 1. To meet basic needs 2. To buy or furnish a house or apartment 3. To help with a large item of expenditure (other than buying a house) 4. For a major family event (birth, marriage, other calebration)
i	4. For a major family event (birth, marriage, other celebration)

```
| | 5. To help with a divorce
| 6. To help following a bereavement or illness
| | 7. To help with unemployment
| | 8. For further education
| | 9. To meet a legal obligation (e.g. alimony or compulsory payments
 | for parents' care)
 96. No specific reason
 | 97. Other reason
 I IF NOT THIRD TIME IN THIS LOOP
 | | FT014_ FROM OTHER PERSONS RECEIVED FINANCIAL GIFT 250 EURO
| | OR MORE
| | | Still thinking about the last twelve months: Is there anyone else
 | | inside or outside this household who has given you
 | | [or] [your] [husband/wife/partner] any financial or
 | material gift or support amounting to 250 euro (in local currency) or
 | more?
 | | IWER: INSTRUMENT ALLOWS TO GO THROUGH THE 'RECEIVE' LOOP
 | UP TO THREE TIMES
 | | 1. Yes
 | | 5. No
 | ENDIF
 ENDIF
 FT015 EVER RECEIVED GIFT OR INHERITED MONEY 5000 EURO OR
 MORE
 Not counting any large gift we have already talked about, have you
 [or] [your] [husband/wife/partner] ever received a gift
 or inherited money, goods, or property worth more than 5000 euro
 (in local currency)?
 IWER: NOT INCLUDING ANY GIFTS YOU HAVE ALREADY MENTIONED
 1. Yes
 5. No
 IF FT015_ (EVER RECEIVED GIFT OR INHERITED MONEY 5000 EURO OR
 MORE) = 1. Yes
 | Questions FT016 (IN WHICH YEAR GIFT OR INHERITANCE RECEIVED) to FT018 (
VALUE INHERITANCE) are repeated with the appropriate fill to a maximum of 5 when FT020_(ANY
FURTHER GIFT OR INHERITANCE) = 1.Yes
   FT016 IN WHICH YEAR GIFT OR INHERITANCE RECEIVED
 [Think of the largest gift or inheritance you received.] In
 | which year did you [or] [your] [husband/wife/partner] receive it?
 (1890..2004)
 FT017 FROM WHOM INHERITED 5000 EURO OR MORE
 From whom did you [or] [your] [husband/wife/partner] receive this gift or
 | inheritance?
 | {list with relations}
| | FT018_ VALUE INHERITANCE
 What was the value of this gift or inheritance at the time you
 | [or] [your] [husband/wife/partner] received it?
```

	IWER: ENTER AMOUNT (in local currency) enter an amount
	 IF FT018_ (VALUE INHERITANCE) = RESPONSE
C	HECK: The amount has to be higher than or equal to the earlier mentioned minimum amount. ENDIF
	IF FT018_ (VALUE INHERITANCE) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	FT018M VALUE INHERITANCE What was the value of this gift or inheritance at the time you [or] [your] [husband/wife/partner] received it? IWER: ENTER AMOUNT (in local currency) MAKE A REMARK (CTRL+M) IN CASE OF A DIFFERENT PRE-EURO CURRENCY enter an amount
C	HECK: The amount has to be higher than or equal to the earlier mentioned minimum amount. ENDIF
 C 	HECK: Please enter a value. IF FT018_ (VALUE INHERITANCE) = NONRESPONSE OR FT018M (VALUE INHERITANCE) = NONRESPONSE
 	Unfolding Brackets ENDIF
ĺ	IF NOT FIFTH TIME IN THIS LOOP
	FT020_ ANY FURTHER GIFT OR INHERITANCE Did you [or] [your] [husband/wife/partner] receive any further gift or inheritance worth more than 5000 euro (in local currency)? 1. Yes 5. No
	 ENDIF
	ENDIF
	FT021_ WHO ANSWERED THE QUESTIONS IN FT IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION? 1. Respondent only 2. Respondent and proxy 3. Proxy only
E	ENDIF
I.	$FMN008_{-}$ (HOUSEHOLD RESPONDENT) = 1
	HO001_ INTERVIEW IN HOUSE OF RESPONDENT
	IWER: DOES THE INTERVIEW TAKE PLACE IN THE RESPONDENT'S

```
| HOUSE OR FLAT?
 1. Yes
 5. No
 HO002_ OWNER, TENANT OR RENT FREE
 Now I have a few questions about your residence. Do you live as an
 owner, a main tenant, a subtenant, or do you live rent free?
 IWER: A SUBTENANT IS SOMEBODY WHO RENTS AN ACCOMMODATION
 FROM SOMEBODY WHO HIMSELF OR HERSELF RENTS IT FROM A THIRD
 PARTY
 1. Owner
 2. Member of a cooperative
3. Tenant
 4. Subtenant
 5. Rent free
 IF HO002_ (OWNER, TENANT OR RENT FREE) <> 1. Owner AND
 HO002_ (OWNER, TENANT OR RENT FREE) <> 5. Rent free
 | HO003 RENT PAYMENT PERIOD
 Thinking about your last rent payment, what period did this cover?
| | Was that
| | IWER: READ OUT
| | 1. A week
2. A month
| 3. Three months
| 4. Six months
| 97. Another period of time
| IF HO003_ (RENT PAYMENT PERIOD) = 97. Another period of
| | time
| | HO004_ OTHER PERIOD
 | | What other period do you mean?
| ENDIF
 | HO005_ AMOUNT LAST RENT PAYMENT
 | How much was your last payment?
| | IWER: AMOUNT IN [{local currency}]
| enter an amount
| | IF H0005_ (AMOUNT LAST RENT PAYMENT) = EMPTY AND MN004_ (EURO
 \mid COUNTRY \rangle = 1. Yes
| | HO005M AMOUNT LAST RENT PAYMENT
| | IWER: AMOUNT IN [{pre-euro currency}]
| | enter an amount
| | ENDIF
 | IF HO005_ (AMOUNT LAST RENT PAYMENT) = NONRESPONSE OR
\mid \mid HO005M  (AMOUNT LAST RENT PAYMENT) = NONRESPONSE
| | |
```

	Unfolding Brackets
	 ENDIF
	HO007_ LAST RENT PAYMENT INCLUDES ALL CHARGES AND SERVICES
	Did your last payment include all charges and services, such as water charges, garbage removal, upkeep of common space, electricity, gas, or heating? 1. Yes 5. No
	S. NO
	HO008_ AMOUNT CHARGES AND SERVICES About how much did you pay for charges and services that were not included in your rent during the last [week/month/three months/six months/period of payment]? IWER: AMOUNT IN [{local currency}] enter an amount
	IF HO008_ (AMOUNT CHARGES AND SERVICES) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	HO008M AMOUNT CHARGES AND SERVICES About how much did you pay for charges and services that were not included during the last [week/month/three months/six months/period of payment]? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
	IF H0008_ (AMOUNT CHARGES AND SERVICES) = NONRESPONSE OR H0008M (AMOUNT CHARGES AND SERVICES) = NONRESPONSE
	Unfolding Brackets
	ENDIF
	HO010_ BEHIND WITH RENT In the last twelve months, have you ever found yourself more than two months behind with your rent? 1. Yes 5. No
	 ENDIF
	IF HO002_ (OWNER, TENANT OR RENT FREE) = 1. Owner OR HO002_(OWNER, TENANT OR RENT FREE) = 2. Member of a cooperative
	HO011_ HOW PROPERTY ACQUIRED How did you acquire this property? Did you

```
| | IWER: READ OUT
| 1. Purchase or build it solely with own means
| 2. Purchase or build it with help from family
| 3. Receive it as a bequest
| 4. Receive it as a gift
| | 5. Acquire it through other means
| | HO012_ YEAR ACQUIRED PROPERTY
| In which year was that?
(1900..2004)
| | HO013 MORTGAGES OR LOANS ON PROPERTY
Do you have mortgages or loans on this property?
| | 1. Yes
| | 5. No
| | IF HO013_ (MORTGAGES OR LOANS ON PROPERTY) = 1. Yes
| | | IF MN001_ (INTERVIEW COUNTRY) <> 4. Sweden
| | | _____(1..50)
| | How much do you [or] [your] [husband/wife/partner] still have to pay on
| | your mortgages or loans, excluding interest?
| | IWER: AMOUNT IN [{local currency}]
|  |  enter an amount
|  |  | IF H0015 (AMOUNT STILL TO PAY ON MORTGAGE OR LOAN) = EMPTY
| \ | \ | AND\ MN004\_ (EURO COUNTRY) = 1. Yes
| | | your mortgages or loans, excluding interest?
| | | | IWER: AMOUNT IN [{pre-euro currency}]
| | | enter an amount
| | | IF HO015_ (AMOUNT STILL TO PAY ON MORTGAGE OR LOAN) =
|  |  NONRESPONSE OR H0015M (AMOUNT STILL TO PAY ON MORTGAGE OR
| \ | \ | \ LOAN) = NONRESPONSE
| | | Unfolding Brackets
```

Thinking about your last repayment, what period did this cover? Was that 1. A week 2. A month 3. Three months 4. Six months 97. Another period of time IF HO018_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Another		PERIOD REPAY MORTGAGE OR LOAN
that 1. A week 2. A month 3. Three months 4. Six months 97. Another period of time IF H0018_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Another of time H0019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? ENDIF H0020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF H0020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAN EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes H0020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF H0020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD ENDIF IF H0020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD E	_	_
1. A week 2. A month 3. Three months 4. Six months 97. Another period of time IF HO018_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Another of time IF HO019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? ENDIF HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD) NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD) NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAD)		3 about your last repayment, what period did this cover: was
2. A month 3. Three months 4. Six months 97. Another period of time IF HO018_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Another of time HO019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? ENDIF HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAS = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAS LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAS NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAS NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAS NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAS NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAS NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAS NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAS NONRESPONSE		k
3. Three months 4. Six months 97. Another period of time IF HO018_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Anoth of time HO019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN WHAT SAMOUNT IN [{local currency}] WER: AMOUNT REGULAR REPAY MORTGAGE OR LOAN HOW MUCH ARE TERMINE TO AND WOOD LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		
4. Six months 97. Another period of time IF HO018_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Anoth of time HO019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other period do you mean? LOAN What other regular repayments for all mortgages and loans outstanding on this property? WER: AMOUNT IN [{local currency}] WER: AMOUNT IN [{local currency}] EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAN NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN NONRESPONSE		
97. Another period of time IF HO018_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Another of time HO019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? ENDIF HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT		
HO019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? ENDIF HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOA NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOA NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOA NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN		
HO019_ OTHER PERIOD REPAY MORTGAGE OR LOAN What other period do you mean? ENDIF HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount FHO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAE = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF ETHO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAE = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAE = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE	IF HO0	18_ (PERIOD REPAY MORTGAGE OR LOAN) = 97. Another
What other period do you mean? ENDIF HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOA NONRESPONSE OR LOAN) = NONRESPONSE	of time	
HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE	 HO 01	9_ OTHER PERIOD REPAY MORTGAGE OR LOAN
HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE	What	other period do you mean?
HO020_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		
How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN = NONRESPONSE OR LOAN) = NONRESPONSE	ENDIF	
outstanding on this property? IWER: AMOUNT IN [{local currency}] enter an amount IF H0020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes H0020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF H0020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR H0020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) MORTGAGE OR LOAN) = NONRESPONSE	HO020	_ AMOUNT REGULAR REPAY MORTGAGE OR LOAN
IWER: AMOUNT IN [{local currency}] enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE	How mi	ich are the regular repayments for all mortgages and loans
enter an amount IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		
IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD ENONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		- · · · · · · · · · · · · · · · · · · ·
= EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE	enter an	amount
= EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes HO020M AMOUNT REGULAR REPAY MORTGAGE OR LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAD = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE	IF HO0	20_ (AMOUNT REGULAR REPAY MORTGAGE OR LOAN
LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		
LOAN How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		OM AMOUNT RECHI AR REDAY MORTCACE OR
How much are the regular repayments for all mortgages and loans outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		
outstanding on this property? IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE	1	
IWER: AMOUNT IN [{pre-euro currency}] enter an amount ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE		
enter an amount ENDIF ENDIF IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE 		
IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE 	:	
IF HO020_ (AMOUNT REGULAR REPAY MORTGAGE OR LOA = NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE 	 ENDIF	
= NONRESPONSE OR HO020M (AMOUNT REGULAR REPAY MORTGAGE OR LOAN) = NONRESPONSE 		
MORTGAGE OR LOAN) = NONRESPONSE		,
		·
Unfolding Brackets	MOK1	AGE OR LOAN) – NONRESPONSE
	Unfol	ling Brackets
 ENDIF	 ENDIF	
HO022_ BEHIND WITH REPAY MORTGAGE OR LOAN	H0022	BEHIND WITH REPAY MORTGAGE OR LOAN
In the last twelve months, have you ever found yourself more than two		
months behind with these repayments?		
1. Yes	IIIOmns	Total of the control
5. No		

```
| ENDIF
ENDIF
 IF HO002_ (OWNER, TENANT OR RENT FREE) <> 5. Rent free
 | HO023_ SUBLET OR LET PARTS OF ACCOMMODATION
 Do you [let/sublet] parts of this accommodation?
| 1. Yes
 | 5. No
ENDIF
 IF HO002 (OWNER, TENANT OR RENT FREE) = 1. Owner OR
 HO002\_(OWNER, TENANT OR RENT FREE) = 2. Member of a cooperative
 | HO024_ VALUE OF PROPERTY
In your opinion, how much would you receive if you sold your property
| | today?
| | IWER: AMOUNT IN [{local currency}]
| enter an amount
| | IF HO024_ (VALUE OF PROPERTY) = EMPTY AND MN004_ (EURO
| COUNTRY| = 1. Yes
| | In your opinion, how much would you receive if you sold your property
| | IWER: AMOUNT IN [{pre-euro currency}]
| | enter an amount
| | ENDIF
 | IF HO024_ (VALUE OF PROPERTY) = NONRESPONSE OR
 | HO024M (VALUE OF PROPERTY) = NONRESPONSE
| | Unfolding Brackets
 | ENDIF
ENDIF
 HO026 OWN OTHER REAL ESTATE
 Not including special time-sharing arrangements, do you
 [or] [your] [husband/wife/partner] own secondary homes,
 holiday homes, other real estate, land or forestry?
 IWER: PLEASE DO NOT INCLUDE A TIME SHARING ARRANGEMENT
1. Yes
 5. No
IF HO026 (OWN OTHER REAL ESTATE) = 1. Yes
 | HO027 VALUE OF OTHER REAL ESTATE
In your opinion, how much would this property be worth now if you
 | sold it?
| | IWER: IF OWNS PROPERTY ABROAD, GIVE VALUE IN [{local currency}]
```

ļ	enter an amount
 	IF HO027_ (VALUE OF OTHER REAL ESTATE) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	HO027M VALUE OF OTHER REAL ESTATE In your opinion, how much would this property be worth now if you sold it? IWER: IF OWNS PROPERTY ABROAD, GIVE VALUE IN [{pre-euro currency}] enter an amount
	ENDIF
	IF HO027_ (VALUE OF OTHER REAL ESTATE) = NONRESPONSE OR HO027M (VALUE OF OTHER REAL ESTATE) = NONRESPONSE
	Unfolding Brackets
	 ENDIF
	HO029_ RECEIVED INCOME OR RENT OF OTHER REAL ESTATE Did you [or] [your] [husband/wife/partner] receive any income or rent from these properties in 2003? 1. Yes
	5. No
	IF HO029_ (RECEIVED INCOME OR RENT OF OTHER REAL ESTATE) = 1. Yes
į	HO030_ AMOUNT INCOME OR RENT OF OTHER REAL ESTATE LAST YEAR
	How much income or rent did you [or] [your] [husband/wife/partner] receive from these properties during 2003, before taxes? IWER: AMOUNT IN [{local currency}] enter an amount
	IF HO030_ (AMOUNT INCOME OR RENT OF OTHER REAL ESTATE LAST YEAR) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	How much income or rent did [or] [your] [husband/wife/partner] receive from these properties during 2003, before taxes? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
	Unfolding Brackets

	ENDIF
	HO032_ NUMBER OF ROOMS IN ACCOMMODATION Now a few questions about your household's accommodation. How many rooms do you have for your household members' personal use, including bedrooms but excluding kitchen, bathrooms, and hallways [and any rooms you may let or sublet]? IWER: DO NOT COUNT BOXROOM, CELLAR, ATTIC ETC.
	HO033_ SPECIAL FEATURES IN ACCOMMODATION Does your home have special features that assist persons who have physical impairments or health problems? IWER: E.G. WIDENED DOORWAYS, RAMPS, AUTOMATIC DOORS, CHAIR LIFTS, ALERTING DEVICES (BUTTON ALARMS), KITCHEN OR BATHROOM MODIFICATIONS 1. Yes 5. No
	HO034_ YEARS IN ACCOMMODATION How many years have you been living in your present accommodation? IWER: ROUND UP TO FULL YEARS (0120)
	HO035_ YEARS IN COMMUNITY And approximately how many years have you been living in your present town? IWER: ROUND UP TO FULL YEARS
(CHECK: This value cannot be smaller than ho034_(years in accommodation).
	IF HO001_ (INTERVIEW IN HOUSE OF RESPONDENT) = 5. No HO036_ TYPE OF BUILDING What type of building does your household live in? IWER: READ OUT 1. A farm house 2. A free standing one or two family house 3. A one or two family house as row or double house 4. A building with 3 to 8 flats 5. A building with 9 or more flats but no more than 8 floors 6. A high-rise with 9 or more floors 7. A housing complex with services for elderly 8. Special housing for elderly (24 hours attention)
	IF HO036_ (TYPE OF BUILDING) = 4. A building with 3 to 8 flats OR HO036_ (TYPE OF BUILDING) = 5. A building with 9 or more flats but no more than 8 floors

	ENDIF
 	IF HO036_ (TYPE OF BUILDING) > 3. A one or two family house as row or double house
	HO043_ NUMBER OF STEPS TO ENTRANCE How many steps have to be climbed (up or down) to get to the main entrance of your flat? IWER: DO NOT INCLUDE STEPS THAT ARE AVOIDED, BECAUSE THE BLOCK HAS AN ELEVATOR 1. Up to 5 2. 6 to 15 3. 16 to 25
	4. More than 25 <i>ENDIF</i>
	HO037_ AREA WHERE YOU LIVE Please look at card 30.How would you describe the area where you live? IWER: READ OUT 1. A big city 2. The suburbs or outskirts of a big city 3. A large town 4. A small town 5. A rural area or village
1	 ENDIF
 - - -	HO038_ SPEND REGULARLY TIME IN OTHER RESIDENCE Apart from vacations or brief visits, do you regularly spend part of the year in another residence? IWER: IF UNCLEAR: MORE THAN ONE MONTH 1. Yes 5. No
	IF HO038_ (SPEND REGULARLY TIME IN OTHER RESIDENCE) = 1. Yes
 	HO039_ LOCATION OF OTHER RESIDENCE Where is this residence located? IWER: READ OUT 1. In same city or community 2. In another part of the country 3. In another country (please specify)
	IF HO039_ (LOCATION OF OTHER RESIDENCE) = 3. In another country (please specify)
 	HO040_ COUNTRY OF ACCOMMODATION In which country is the residence located?
	 ENDIF
	 ENDIF
	HO041_ WHO ANSWERED THE QUESTIONS IN HO

```
IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION?
 1. Respondent only
 2. Respondent and proxy
 3. Proxy only
ENDIF
IF MN008_{-} (HOUSEHOLD RESPONDENT) = 1
 HH001 OTHER CONTRIBUTOR TO HOUSEHOLD INCOME
 Although we may have asked you [or other members of your
 household] some of the details earlier, it is important for
 us to understand your household's situation correctly. In the last
 year, that is in 2003, was there any household member who contributed
 to your household income and who is not part of this interview?
 IWER: IF NECESSARY READ LIST OF ELIGIBLES: PART OF THIS
 INTERVIEW ARE
 [{list with eligible respondents}]
 1. Yes
 5. No
 IF HH001_ (OTHER CONTRIBUTOR TO HOUSEHOLD INCOME) = 1. Yes
 HH002_TOTAL INCOME OTHER HOUSEHOLD MEMBERS
 Can you give us the approximate total amount of income received in
 2003 by other household members before any taxes or contributions?
 | IWER: CODE ZERO IF NO SUCH INCOME; AMOUNT IN [{local currency}]
 enter an amount
 | IF HH002_ (TOTAL INCOME OTHER HOUSEHOLD MEMBERS) = EMPTY
| AND MN004_ (EURO COUNTRY) = 1. Yes
 | | HH002M TOTAL INCOME OTHER HOUSEHOLD MEMBERS
 | Can you give us the approximate total amount of income received in
 | 2003 by other household members before any taxes or contributions?
 | | IWER: CODE ZERO IF NO SUCH INCOME; AMOUNT IN
| | | [{pre-euro currency}] enter an amount
| | ENDIF
| | IF HH002_ (TOTAL INCOME OTHER HOUSEHOLD MEMBERS) =
| | NONRESPONSE OR HH002M (TOTAL INCOME OTHER HOUSEHOLD
 | MEMBERS) = NONRESPONSE
 | | Unfolding Brackets
 | ENDIF
 ENDIF
 HH010 INCOME FROM OTHER SOURCES
 Some households receive payments such as housing allowances, child
 benefits, poverty relief etc. Has your household or anyone in your
 household received any such payments in 2003?
| 1. Yes
```

	5. No
	 IF HH010_ (INCOME FROM OTHER SOURCES) = 1. Yes
	HH011_ ADDITIONAL INCOME RECEIVED BY ALL HOUSEHOLD MEMBERS IN LAST YEAR Please give us the approximate total amount of income from these benefits that you received as a household in 2003, before any taxes and contributions. IWER: AMOUNT IN [{local currency}] enter an amount
	HH011M ADDITIONAL INCOME RECEIVED BY ALL HOUSEHOLD MEMBERS IN LAST YEAR Please give us the approximate total amount of income from these benefits that you received as a household in 2003, before any taxes and contributions. IWER: AMOUNT IN [{pre-euro currency}] enter an amount
	IF HH011_ (ADDITIONAL INCOME RECEIVED BY ALL HOUSEHOLD MEMBERS IN LAST YEAR) = NONRESPONSE OR HH011M (ADDITIONAL INCOME RECEIVED BY ALL HOUSEHOLD MEMBERS IN LAST YEAR) = NONRESPONSE
	 ENDIF
	HH014_ WHO ANSWERED THE QUESTIONS IN HH IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION? 1. Respondent only 2. Respondent and proxy 3. Proxy only
I	ENDIF
Ì	IF $MN008$ _ (HOUSEHOLD RESPONDENT) = 1
	CO001_ Introduction text We would now like to ask some questions about your household's usual expenditures and how your household is managing financially. 1. Continue
	CO002_ AMOUNT SPENT ON FOOD AT HOME Please look at card 31. Thinking about the last 12 months: about how much did your household spend in a typical month on food to be consumed at home?

```
IWER: AMOUNT IN [{local currency}]
enter an amount
IF CO002_ (AMOUNT SPENT ON FOOD AT HOME) = EMPTY AND
MN004_ (EURO COUNTRY) = 1. Yes
 | CO002M AMOUNT SPENT ON FOOD AT HOME
 Please look at card 31. Thinking about the last 12 months: about how
| much did your household spend in a typical month on food to be
| consumed at home?
 | IWER: AMOUNT IN [{pre-euro currency}]
 enter an amount
ENDIF
CO003_ AMOUNT SPENT ON FOOD OUTSIDE THE HOME
Please look at card 31.Still thinking about the last 12 months: about
how much did your household spend in a typical month on food to be
consumed outside home?
IWER: AMOUNT IN [{local currency}]
enter an amount
IF CO003_ (AMOUNT SPENT ON FOOD OUTSIDE THE HOME) = EMPTY AND
MN004_ (EURO COUNTRY) = 1. Yes
  CO003M AMOUNT SPENT ON FOOD OUTSIDE THE HOME
 | Please look at card 31. Still thinking about the last 12 months:
 about how much did your household spend in a typical month on food to
 | be consumed outside home?
 | IWER: AMOUNT IN [{pre-euro currency}]
 enter an amount
ENDIF
 CO004 AMOUNT SPENT ON TELEPHONES IN LAST MONTH
Please look at card 31. Again, in the last 12 months: about how much
was your household's expenditure on telephone calls and charges in a
typical month?
IWER: AMOUNT IN [{local currency}]
enter an amount
IF CO004_ (AMOUNT SPENT ON TELEPHONES IN LAST MONTH) = EMPTY
AND MN004 (EURO COUNTRY) = 1. Yes
  CO004M AMOUNT SPENT ON TELEPHONES IN LAST MONTH
Please look at card 31. Again, in the last 12 months: about how much
 was your household's expenditure for telephone calls and charges in a
 | typical month?
 | IWER: AMOUNT IN [{pre-euro currency}]
 enter an amount
ENDIF
CO005_ AMOUNT SPENT ON ALL GOODS AND SERVICES IN LAST
MONTH
Please look at card 31. Thinking about the last 12 months: about how
```

```
much did your household spend in a typical month on all goods and
  services, including groceries, eating out, telephone and everything
  else?
 IWER: AMOUNT IN [{local currency}]
 enter an amount
 IF CO005_ (AMOUNT SPENT ON ALL GOODS AND SERVICES IN LAST
 MONTH) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
  | CO005M AMOUNT SPENT ON ALL GOODS AND SERVICES IN LAST
  | MONTH
 Please look at card 31. Thinking about the last 12 months: about how
 much did your household spend in a typical month on all goods and
 services, including groceries, eating out, telephone and everything
  | else?
  | IWER: AMOUNT IN [{pre-euro currency}]
  enter an amount
 ENDIF
 IF CO005_ (AMOUNT SPENT ON ALL GOODS AND SERVICES IN LAST
 MONTH) = RESPONSE
CHECK: Could I please confirm that amount.
 ENDIF
 IF CO005M (AMOUNT SPENT ON ALL GOODS AND SERVICES IN LAST
 MONTH) = RESPONSE
CHECK: Could I please confirm that amount.
 ENDIF
 CO007 IS HOUSEHOLD ABLE TO MAKE ENDS MEET
 Thinking of your household's total monthly income, would you say that
  your household is able to make ends meet ...
 IWER: READ OUT
 1. With great difficulty
 2. With some difficulty
 3. Fairly easily
 4. Easily
 CO008_ SITUATION IMPROVEMENT THINKING BACK ONE YEAR
 Thinking back to one year ago, would you say your household's
  financial situation today has ..
 IWER: READ OUT
 1. Greatly improved
 2. Somewhat improved
 3. Remained the same
  4. Somewhat deteriorated
  5. Greatly deteriorated
 CO009_ WHO ANSWERED THE QUESTIONS IN CO
 IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION?
 1. Respondent only
 2. Respondent and proxy
```

| 3. Proxy only

```
ENDIF
IF MN007_ (FINANCIAL RESPONDENT) = 1 OR CM002_(FINANCES TOTALLY SEPARATE)
=1. Separately
  AS001_ INTRODUCTION 1 TO ASSETS
  The next questions ask about a number of different kinds of savings
  or investments that you [or] [your] [husband/wife/partner] may have.
  1. Continue
  AS002_ HAS ANY SAVINGS OR INVESTMENTS
  Please look at card 32. Looking at this card, which, if any, of these
  savings and investments do you [or] [your] [husband/wife/partner] have?
  IWER: CODE ALL THAT APPLY
  1. Bank accounts, transaction accounts or saving accounts
  2. Government or corporate bonds
  3. Stocks or shares (listed or unlisted on stock market)
  4. Mutual funds or managed investment accounts
  5. Individual retirements accounts
 6. Contractual saving for housing
  7. Life insurance
  96. None of these
CHECK: You cannot select 'None of the above' together with any other answer. Please change your
 IF 1. Bank accounts, transaction accounts or saving accounts IN
  AS002_(HAS ANY SAVINGS OR INVESTMENTS)
| | AS003_ AMOUNT BANK ACCOUNT
| About how much did you [or] [your] [husband/wife/partner] have in bank
| accounts, transaction accounts or saving accounts at the end of 2003?
| | IWER: AMOUNT IN [{local currency}]
  enter an amount
| | IF AS003_ (AMOUNT BANK ACCOUNT) = EMPTY AND MN004_ (EURO
| COUNTRY| = 1. Yes
| | About how much did you [or] [your] [husband/wife/partner] have in bank
| | accounts, transaction accounts or savings accounts at the end of 2003?
| | | IWER: AMOUNT IN [{pre-euro currency}]
 | enter an amount
| | ENDIF
CHECK: Please enter a value.
| | IF AS003_ (AMOUNT BANK ACCOUNT) = NONRESPONSE OR
| AS003M (AMOUNT BANK ACCOUNT) = NONRESPONSE
| | |
| | ENDIF
```

	AS005_ INTEREST FROM BANK ACCOUNTS
	About how much interest income did you [or] [your] [husband/wife/partner]
	receive from such accounts in 2003?
	IWER: AMOUNT IN [{local currency}]; BEFORE TAXES
	enter an amount
	$ MN004_(EURO\ COUNTRY) = 1.\ Yes$
	AS005M INTEREST FROM BANK ACCOUNTS
	About how much interest income did you [or] [your] [husband/wife/partner]
	receive from such accounts in 2003?
	IWER: AMOUNT IN [{pre-euro currency}]; BEFORE TAXES
	enter an amount
(CHECK: Please enter a value.
	IF AS005_ (INTEREST FROM BANK ACCOUNTS) = NONRESPONSE OR
	AS005M (INTEREST FROM BANK ACCOUNTS) = NONRESPONSE
	Unfolding Brackets
	 ENDIF
	IF 2. Government or corporate bonds IN AS002_(HAS ANY SAVINGS OR
	INVESTMENTS)
	ACCORT AMOUNTE IN COMEDNIA (ENTERONIDO
	AS007 _ AMOUNT IN GOVERNMENT BONDS About how much did you [or] [your] [husband/wife/partner] have in government
	roout now inden did you [of] [your] [nusband/whe/ partner] have in government or corporate bonds?
	IWER: ENTER AN AMOUNT IN [{local currency}]
	enter an amount
	i i
	$ IF AS007_ (AMOUNT IN GOVERNMENT BONDS) = EMPTY AND$
	$\mid MN004_$ (EURO COUNTRY) = 1. Yes
	AS007M AMOUNT IN GOVERNMENT BONDS
	About how much did you [or] [your] [husband/wife/partner] have in governmen or corporate bonds?
	IWER: AMOUNT IN [{pre-euro currency}]
	enter an amount
	i i i
	ENDIF
-	
(CHECK: Please enter a value.
	IF AS007_ (AMOUNT IN GOVERNMENT BONDS) = NONRESPONSE OR AS007M (AMOUNT IN GOVERNMENT BONDS) = NONRESPONSE
	ENDIF
	L LASING INTERRITERUNCALIVITALINI BUNDENT BUNDIN

```
| About how much interest income did you [or] [your] [husband/wife/partner]
| | receive from these bonds in 2003?
| | IWER: AMOUNT IN [{local currency}]; BEFORE TAXES
| enter an amount
| | IF AS009 (INTEREST FROM GOVERNMENT BONDS) = EMPTY AND
| MN004\_(EURO\ COUNTRY) = 1.\ Yes
| | About how much interest income did you [or] [your] [husband/wife/partner]
 | | receive from these bonds in 2003?
| | | IWER: AMOUNT IN [{pre-euro currency}]; BEFORE TAXES
| | enter an amount
 | ENDIF
CHECK: Please enter a value.
| | IF AS009_ (INTEREST FROM GOVERNMENT BONDS) = NONRESPONSE OR
| | AS009M (INTEREST FROM GOVERNMENT BONDS) = NONRESPONSE
| | ENDIF
 ENDIF
 IF 3. Stocks or shares (listed or unlisted on stock market) IN
 AS002_(HAS ANY SAVINGS OR INVESTMENTS)
| | AS011_ AMOUNT IN STOCKS
| About how much did you [or] [your] [husband/wife/partner] have in stocks or
| | shares (listed or unlisted on stock market) at the end of 2003?
| | IWER: AMOUNT IN [{local currency}]
| enter an amount
| | IF AS011_ (AMOUNT IN STOCKS) = EMPTY AND MN004_ (EURO
 | COUNTRY| = 1. Yes
| | About how much did you [or] [your] [husband/wife/partner] have in stocks or
| | | shares (listed or unlisted on stock market) at the end of 2003?
| | IWER: AMOUNT IN [{pre-euro currency}]
|  |  enter an amount
  | ENDIF
CHECK: Please enter a value.
| | IF AS011_ (AMOUNT IN STOCKS) = NONRESPONSE OR
| AS011M (AMOUNT IN STOCKS) = NONRESPONSE
| | |
| | ENDIF
 | AS015 DIVIDEND FROM STOCKS
About how much dividend income did you [or] [your] [husband/wife/partner]
```

```
| receive from these stocks in 2003?
| | IWER: AMOUNT IN [{local currency}]; BEFORE TAXES
| enter an amount
| | IF AS015_ (DIVIDEND FROM STOCKS) = EMPTY AND
| MN004  (EURO COUNTRY) = 1. Yes
| | About how much dividend income did you [or] [your] [husband/wife/partner]
| | receive from these stocks in 2003?
| | | IWER: AMOUNT IN [{pre-euro currency}]; BEFORE TAXES
| | enter an amount
| | ENDIF
CHECK: NOT Please enter a value.
| | IF AS015_ (DIVIDEND FROM STOCKS) = NONRESPONSE OR
| AS015M (DIVIDEND FROM STOCKS) = NONRESPONSE
| | ENDIF
| ENDIF
 IF 4. Mutual funds or managed investment accounts IN ASO02_(HAS ANY
 SAVINGS OR INVESTMENTS)
| | AS017 AMOUNT IN MUTUAL FUNDS
About how much did you [or] [your] [husband/wife/partner] have in mutual funds
| or managed investment accounts at the end of 2003?
| | IWER: AMOUNT IN [{local currency}]
| enter an amount
| | IF AS017 (AMOUNT IN MUTUAL FUNDS) = EMPTY AND
| MN004_{CURO\ COUNTRY}| = 1. Yes
| | About how much did you [or] [your] [husband/wife/partner] have in mutual funds
| | or managed investment accounts at the end of 2003?
| | IWER: AMOUNT IN [{pre-euro currency}]
| | enter an amount
| | |
| | ENDIF
CHECK: Please enter a value.
| | IF AS017_ (AMOUNT IN MUTUAL FUNDS) = NONRESPONSE OR
| AS017M (AMOUNT IN MUTUAL FUNDS) = NONRESPONSE
| | ENDIF
 | AS019_ MUTUAL FUNDS MOSTLY STOCKS OR BONDS
 Are these mutual funds and managed investment accounts mostly stocks
or mostly bonds?
```

```
| | 1. Mostly stocks
| 2. Half stocks and half bonds
| 3. Mostly bonds
 | AS058_ INTEREST OR DIVIDEND ON MUTUAL FUNDS
 About how much interest or dividend income did you
| | [or] [your] [husband/wife/partner] earn with mutual funds
or managed investment accounts in 2003?
| | IWER: AMOUNT IN [{local currency}]; BEFORE TAXES
| enter an amount
| | IF AS058_ (INTEREST OR DIVIDEND ON MUTUAL FUNDS) = EMPTY AND
| MN004_{CURO\ COUNTRY}| = 1. Yes
| | | [or] [your] [husband/wife/partner] earn with mutual funds
| | or managed investment accounts in 2003?
| | | IWER: AMOUNT IN [{pre-euro currency}]; BEFORE TAXES
 enter an amount
| | ENDIF
CHECK: Please enter a value.
 | IF AS058_ (INTEREST OR DIVIDEND ON MUTUAL FUNDS) =
| | NONRESPONSE OR AS058M (INTEREST OR DIVIDEND ON MUTUAL FUNDS)
| | = NONRESPONSE
 | Unfolding Brackets
| | ENDIF
 ENDIF
 IF 5. Individual retirements accounts IN ASO02 (HAS ANY SAVINGS OR
 INVESTMENTS)
 | IF MN005_ (INTERVIEW MODE) <> 1. Individual. Single AND
 | CM002_(FINANCES TOTALLY SEPARATE) = 5. Together
| | Who has individual retirements accounts? You[, your] [husband/wife/partner]
| | 1. Respondent only
 | | 2. [husband/wife/partner] only
 | | 3. Both
| | ENDIF
| | IF MN005_ (INTERVIEW MODE) = 1. Individual. Single OR
| | CM002_(FINANCES TOTALLY SEPARATE) = 1. Separately OR
| | (CM002_(FINANCES TOTALLY SEPARATE) = 5. Together
| AND (AS020_(WHO HAS INDIVIDUAL RETIREMENT ACCOUNTS) = 1.
| Respondent only OR AS020_ (WHO HAS INDIVIDUAL RETIREMENT
| ACCOUNTS| = 3. Both)
```

	AS021_ AMOUNT INDIVIDUAL RETTREMENT ACCOUNTS How much did you have in individual retirement accounts at the end of
	2003? IWER: ENTER AN AMOUNT IN [{local currency}] enter an amount
	AS021M AMOUNT INDIVIDUAL RETIREMENT ACCOUNTS How much did you have in individual retirement accounts at the end of 2003?
	IWER: AMOUNT IN [{pre-euro currency}] enter an amount
 	HECK: Please enter a value. IF AS021_ (AMOUNT INDIVIDUAL RETIREMENT ACCOUNTS) = NONRESPONSE OR AS021M (AMOUNT INDIVIDUAL RETIREMENT ACCOUNTS) = NONRESPONSE
	Unfolding Brackets
	AS023_ INDIVIDUAL RETIREMENT ACCOUNTS MOSTLY IN STOCKS OR BONDS Are these individual retirement accounts mostly in stocks or mostly in bonds? 1. Mostly stocks 2. Half stocks and half bonds 3. Mostly bonds
į	 ENDIF
	IF CM002_(FINANCES TOTALLY SEPARATE)= 5. Together AND (AS020_ (WHO HAS INDIVIDUAL RETIREMENT ACCOUNTS) = 2.[husband/wife/partner] only OR AS020_ (WHO HAS INDIVIDUAL RETIREMENT ACCOUNTS) = 3. Both)
	AS024_ PARTNER AMOUNT INDIVIDUAL RETIREMENT ACCOUNTS How much did [or] [your] [husband/wife/partner] have in individual retirement accounts at the end of 2003? IWER: AMOUNT IN [{local currency}] enter an amount
	AS024M PARTNER AMOUNT INDIVIDUAL RETIREMENT ACCOUNTS How much did [or] [your] [husband/wife/partner] have in individual retirement accounts at the end of 2003? IWER: AMOUNT IN [{pre-euro currency}] enter an amount

```
CHECK: Please enter a value.
| | | IF AS024_ (PARTNER AMOUNT INDIVIDUAL RETIREMENT ACCOUNTS) =
|  |  | NONRESPONSE OR AS024M (PARTNER AMOUNT INDIVIDUAL
| | ENDIF
| | Are these individual retirement accounts mostly in stocks or mostly
| | 1. Mostly stocks
| | 3. Mostly bonds
 | ENDIF
 ENDIF
 IF 6. Contractual saving for housing IN AS002_(HAS ANY SAVINGS OR
 INVESTMENTS)
 AS027 AMOUNT CONTRACTUAL SAVING
| Apart from anything you have already told me, about how much did you
 [or] [your] [husband/wife/partner] have in contractual
| | saving for housing at the end of 2003?
| | IWER: ENTER AN AMOUNT IN [{local currency}]
| enter an amount
| | IF AS027_ (AMOUNT CONTRACTUAL SAVING) = EMPTY AND
| MN004  (EURO COUNTRY) = 1. Yes
| | | |
| | | AS027M AMOUNT CONTRACTUAL SAVING
| | saving for housing at the end of 2003?
| | | IWER: AMOUNT IN [{pre-euro currency}]
| | enter an amount
| | ENDIF
CHECK: Please enter a value.
| | IF AS027_ (AMOUNT CONTRACTUAL SAVING) = NONRESPONSE OR
| AS027M (AMOUNT CONTRACTUAL SAVING) = NONRESPONSE
| | ENDIF
 ENDIF
| IF 7. Life insurance IN AS002_(HAS ANY SAVINGS OR INVESTMENTS)
```

	\$029_ LIFE INSURANCE POLICIES TERM OR WHOLE LIFE
O	re your life insurance policies term policies, whole life policies, r both of these?
	Term policies Whole life policies
1 1	Both
9	7. Other
1	F AS029_ (LIFE INSURANCE POLICIES TERM OR WHOLE LIFE) = 2. Whole life policies OR AS029_ (LIFE INSURANCE POLICIES TERM OR WHOLE IFE) = 3. Both
	AS030_ FACE VALUE LIFE POLICIES What is the face value of the whole life policies owned by you
	[or] [your] [husband/wife/partner]? IWER: AMOUNT IN [{local currency}] enter an amount
	IF AS030_ (FACE VALUE LIFE POLICIES) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	AS030M FACE VALUE LIFE POLICIES What is the face value of the whole life policies owned by you [or] [your] [husband/wife/partner]? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
	 ENDIF
	IF AS030_ (FACE VALUE LIFE POLICIES) = NONRESPONSE OR AS030M (FACE VALUE LIFE POLICIES) = NONRESPONSE
	Unfolding Brackets
	ENDIF
$\begin{vmatrix} & & & & & & & & & & & & & & & & & & &$	NDIF
1	F AS029_ (LIFE INSURANCE POLICIES TERM OR WHOLE LIFE) = 2. Thole life policies OR AS029_ (LIFE INSURANCE POLICIES TERM OR WHOLE IFE) = 3. Both
	AS032 _ AMOUNT DEPENDENTS GET FROM LIFE INSURANCE POLICIES About how much will your dependents or other beneficiaries get from [your term policies/your whole life policies] when you [or] [your] [husband/wife/partner] die?
	IWER: AMOUNT IN [{local currency}]. CODE TOTAL AMOUNT FOR ALL BENEFICIARIES enter an amount
	IF AS032_ (AMOUNT DEPENDENTS GET FROM LIFE INSURANCE POLICIES) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	AS032M AMOUNT DEPENDENTS GET FROM LIFE INSURANCE

	POLICIES
ÌΪ	About how much will your dependents or other beneficiaries get from
iί	[your term policies/your whole life policies] when you
iί	[or] [your] [husband/wife/partner] die?
	IWER: AMOUNT IN [{pre-euro currency}]. CODE TOTAL AMOUNT FOR
	ALL
!!	BENEFICIARIES
	enter an amount
	ENDIF
ÌÌ	IF AS032_ (AMOUNT DEPENDENTS GET FROM LIFE INSURANCE
iί	POLICIES) = NONRESPONSE OR AS032M (AMOUNT DEPENDENTS GET
iі	FROM LIFE INSURANCE POLICIES) = NONRESPONSE
ii	
1 1	Unfolding Brackets
	 ENDIF
!!	LACCOLA DATE ONLY THE INCLIDANCE BOLLOVER
	AS034_ PAID ON LIFE INSURANCE POLICIES
	About how much did you [or] [your] [husband/wife/partner] pay on [your term
	policies/your whole life policies] in 2003?
	IWER: AMOUNT IN [{local currency}]
	enter an amount
Ìί	
iί	IF AS034_ (PAID ON LIFE INSURANCE POLICIES) = EMPTY AND
іi	$MN004_(EURO\ COUNTRY) = 1.\ Yes$
ii	
1 1	AS034M PAID ON LIFE INSURANCE POLICIES
	About how much did you [or] [your] [husband/wife/partner] pay on [your term
!!	policies/your whole life policies] in 2003?
	IWER: AMOUNT IN [{pre-euro currency}]
	enter an amount
	ENDIF
ÌÌ	IF AS034_ (PAID ON LIFE INSURANCE POLICIES) = NONRESPONSE
iі	OR AS034M (PAID ON LIFE INSURANCE POLICIÉS) = NONRESPONSE
іi	
iί	Unfolding Brackets
 	ENDIF
	ENDIF
	IE 40000 /LIEF INCLID ANCE DOLLCIEC TEDM OD WILLOLE LIEF) - 4
!!	IF AS029_ (LIFE INSURANCE POLICIES TERM OR WHOLE LIFE) = 1.
	Term policies OR AS029_ (LIFE INSURANCE POLICIES TERM OR WHOLE
	LIFE) = 3. Both
	AS032_ AMOUNT DEPENDENTS GET FROM LIFE INSURANCE POLICIES
ÌΪ	About how much will your dependents or other beneficiaries get from
ij	[your term policies/your whole life policies] when you
	[or] [your] [husband/wife/partner] die?
 	IWER: AMOUNT IN [{local currency}]. CODE TOTAL AMOUNT FOR ALL
	BENEFICIARIES
	enter an amount

П	
	IF AS032_ (AMOUNT DEPENDENTS GET FROM LIFE INSURANCE POLICIES) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	AS032M AMOUNT DEPENDENTS GET FROM LIFE INSURANCE POLICIES About how much will your dependents or other beneficiaries get from [your term policies/your whole life policies] when you [or] [your] [husband/wife/partner] die? IWER: AMOUNT IN [{pre-euro currency}]. CODE TOTAL AMOUNT FOR ALL BENEFICIARIES enter an amount
 	ENDIF
	IF AS032_ (AMOUNT DEPENDENTS GET FROM LIFE INSURANCE POLICIES) = NONRESPONSE OR AS032M (AMOUNT DEPENDENTS GET) FROM LIFE INSURANCE POLICIES) = NONRESPONSE
 -	Unfolding Brackets
 -	
	AS034_ PAID ON LIFE INSURANCE POLICIES About how much did you [or] [your] [husband/wife/partner] pay on [your term policies/your whole life policies] in 2003? IWER: AMOUNT IN [{local currency}] enter an amount
 	IF AS034_ (PAID ON LIFE INSURANCE POLICIES) = EMPTY AND MN004_ (EURO COUNTRY) = 1. Yes
	AS034M PAID ON LIFE INSURANCE POLICIES About how much did you [or] [your] [husband/wife/partner] pay on [your term policies/your whole life policies] in 2003? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
 -	
 -	Unfolding Brackets
 -	
 -	 ENDIF
 -	 ENDIF
	IF NOT 96. None of these IN AS002_(HAS ANY SAVINGS OR INVESTMENTS)
 	AS040_ HOW OFTEN SPEND TIME ON MANAGING SAVINGS Managing your savings requires some time. Please look at card 33. How

```
| often do you [or] [your] [husband/wife/partner] spend some time
| | finding out how your financial assets are performing and looking for
| | possible new investment opportunities?
| | IWER: WE MEAN TIME READING THE FINANCIAL NEWS, WATCHING
| | TV, LOOKING ON THE INTERNET, CALLING FINANCIAL ADVISORS,
 | TALKING TO FINANCIAL EXPERTS ETC
| | 1. Never
| 2. About once every year
| 3. Few times per year
| 4. About every month
 | 5. About every week
 | 6. About every day
 ENDIF
  AS041 OWN FIRM COMPANY BUSINESS
  Do you [or] [your] [husband/wife/partner] own a firm, company,
  or business?
  1. Yes
  5. No
  IF AS041_ (OWN FIRM COMPANY BUSINESS) = 1. Yes
  | AS042_ AMOUNT SELLING FIRM
  If you sold this firm, company or business and then paid off any
 | debts on it, about how much money would be left?
| | IWER: AMOUNT IN [{local currency}]
| | enter an amount
 | IF AS042_ (AMOUNT SELLING FIRM) = EMPTY AND MN004_ (EURO
| COUNTRY| = 1. Yes
| | If you sold this firm, company or business and then paid off any
  | | debts on it, about how much money would be left?
 | | IWER: AMOUNT IN [{pre-euro currency}]
 | | enter an amount
 | ENDIF
CHECK: Please enter a value.
| | IF AS042_ (AMOUNT SELLING FIRM) = NONRESPONSE OR
| AS042M (AMOUNT SELLING FIRM) = NONRESPONSE
| | |
 | | Unfolding Brackets
 | ENDIF
| | AS044_ PERCENTAGE SHARE FIRM OWNED
  What percentage or share of this firm, company or business is owned
| | by you [or] [your] [husband/wife/partner]?
| | IWER: ENTER PERCENT
CHECK: Percentage should be less or equal to 100.
```

IF AS044_ (PERCENTAGE SHARE FIRM OWNED) = NONRESPONSE
Unfolding Brackets
 ENDIF
AS049_ NUMBER OF CARS How many cars do you [or] [your] [husband/wife/partner] own? Please exclude company cars. (010)
$ $ IF AS049_ (NUMBER OF CARS) > 0
AS051_ AMOUNT SELLING CARS If you sold [this/these] [car/cars] and paid off any debts that you may have on [it/them], about how much would be left? IWER: AMOUNT IN [{local currency}] enter an amount
IF AS051_ (AMOUNT SELLING CARS) = EMPTY AND MN004_ (EURO) COUNTRY) = 1. Yes
AS051M AMOUNT SELLING CARS If you sold [this/these] [car/cars] and paid off any debts that you may have on [it/them], about how much would be left? IWER: AMOUNT IN [{pre-euro currency}] enter an amount
Unfolding Brackets
 ENDIF
AS053_ INTRODUCTION 2 TO ASSETS The next questions refer to money that you [or] [your] [husband/wife/partner] may owe. Do not include mortgages or money owed on land, property or firms. 1. Continue
AS054_ OWE MONEY Looking at card 34, which of these types of debts do you [or] [your] [husband/wife/partner] currently have, if any? IWER: CODE ALL THAT APPLY 1. Debt on cars and other vehicles (vans/motorcycles/boats, etc.) 2. Overdue bills (phone, electricity, heating) 3. Overdue credit cards / store card bills 4. Loans (from bank, building society or other financial institution)

```
| 5. Debts to relatives or friends
 6. Student loans
 96. None of these
 97. Other
CHECK: You cannot select 'None of the above' together with any other answer. Please change your
 IF NOT 96. None of these IN AS054_(OWE MONEY)
| | AS055_ AMOUNT OWING MONEY IN TOTAL
  How much do you [and] [your] [husband/wife/partner] owe in total?
 | IWER: AMOUNT IN [{local currency}]
| | enter an amount
| | IF AS055_ (AMOUNT OWING MONEY IN TOTAL) = EMPTY AND
| MN004\_(EURO\ COUNTRY) = 1. Yes
| | How much do you [and] [your] [husband/wife/partner] owe in total?
| | | IWER: AMOUNT IN [{pre-euro currency}]
| | enter an amount
| | ENDIF
CHECK: Please enter a value.
| | IF AS055_ (AMOUNT OWING MONEY IN TOTAL) = NONRESPONSE OR
| | AS055M (AMOUNT OWING MONEY IN TOTAL) = NONRESPONSE
| | ENDIF
 ENDIF
 AS057 WHO ANSWERED THE QUESTIONS IN AS
 IWER CHECK: WHO ANSWERED THE QUESTIONS IN THIS SECTION?
 1. Respondent only
 2. Respondent and proxy
 3. Proxy only
ENDIF
```

AC001_ INTRODUCTION AC ACTIVITIES

Now I have a few questions about the motivation for and the satisfaction with your activities, and about your expectations for the future.

IWER: START OF A NON-PROXY SECTION. NO PROXY ALLOWED. IF THE RESPONDENT IS NOT CAPABLE OF ANSWERING ANY OF THESE QUESTION ON HER/HIS OWN, PRESS CTRL-K AT EACH QUESTION AND MAKE A REMARK USING CTRL-M AT THE END OF THE SECTION 1. Continue

AC002_ ACTIVITIES IN LAST MONTH

Please look at card 35. Have you done any of these activities in the last month?

IWER: CODE ALL THAT APPLY

- 1. Done voluntary or charity work
- 2. Cared for a sick or disabled adult
- 3. Provided help to family, friends or neighbors
- 4. Attended an educational or training course
- 5. Gone to a sport, social or other kind of club
- 6. Taken part in a religious organization (church, synagogue, mosque etc.)
- 7. Taken part in a political or community-related organization
- 96. None of these

ENDLOOP

CHECK: You cannot select 'None of the above' together with any other answer. Please change your answer.

```
LOOP cnt = 1 TO 7
  IF cnt IN AC002_(ACTIVITIES IN LAST MONTH)
  | AC003 HOW OFTEN ACTIVITY IN THE LAST FOUR WEEKS
| How often in the last four weeks [did/have]
| | [you] [do voluntary or charity work/cared for
| a sick or disabled adult/provided help to family, friends or
| | neighbors/attended an educational or training course/go to a sport,
  social or other kind of club/taken part in a religious organization
| | (church, synagogue, mosque etc.)/taken part in a political or
| | community-related organization]?
| 1. Almost daily
| | 2. Almost every week
| 3. Less often
| | AC004_ MOTIVATIONS
| | Please look at card 36. For which on the reasons given on this card,
| | if any, [did/have] [you] [do voluntary or charity work/cared for
   a sick or disabled adult/provided help to family, friends or
 | | neighbors/attended an educational or training course/go to a sport,
 | | social or other kind of club/taken part in a religious organization
 (church, synagogue, mosque etc.)/taken part in a political or
| | community-related organization]?
| | IWER: CODE ALL THAT APPLY
| 1. To meet other people
| 2. To contribute something useful
| 3. For personal achievement
| | 4. Because I am needed
  | 5. To earn money
| | 6. Because I enjoy it
| 7. To use my skills or to keep fit
  8. Because I feel obligated to do it
   96. None of these
CHECK: You cannot select 'None of the above' together with any other answer. Please change your
| ENDIF
```

```
IF 1. Done voluntary or charity work IN AC002_ (ACTIVITIES IN
LAST MONTH) OR 2. Cared for a sick or disabled adult IN
AC002_ (ACTIVITIES IN LAST MONTH) OR 3. Provided help to family,
friends or neighbors IN AC002_(ACTIVITIES IN LAST MONTH)
 AC005 INTRODUCTION STATEMENTS AC
 I will now read a couple of statements that are related to your
 commitment towards people. Please tell me whether you strongly agree,
 agree, disagree or strongly disagree with each statement.
 1. Continue
 LOOP cnt = 1 TO 3
 | IF cnt IN AC002 (ACTIVITIES IN LAST MONTH)
 | | AC006_ FULLY SATISFIED WITH WHAT ACHIEVED SO FAR
 | Considering all the efforts that I have invested into my [voluntary
| | or charity work/care for a sick or disabled adult/help to family,
| | | friends or neighbors/educational or training course/sport, social or
     other kind of club/participation in a religious organization (church,
| | synagogue, mosque etc.)/participation in a political or
| | community-related organization], I am fully satisfied with what I
| | have achieved so far. (Would you say that you strongly agree, agree,
 | | disagree, or strongly disagree with that statement?)
 | 1. Strongly agree
 | | 2. Agree
| | 4. Strongly disagree
     AC007_ RECEIVED ADEQUATE APPRECIATION FROM OTHERS
| | Considering all the efforts that I have invested into my [voluntary
| | or charity work/care for a sick or disabled adult/help to family,
| | | friends or neighbors/educational or training course/sport, social or
| | other kind of club/participation in a religious organization (church,
     synagogue, mosque etc.)/participation in a political or
| | community-related organization], I always received adequate
   appreciation from others. (Would you say that you strongly agree,
| | agree, disagree, or strongly disagree with that statement?)
 | | 1. Strongly agree
 | | 2. Agree
| | 3. Disagree
 | 4. Strongly disagree
 | ENDIF
 ENDLOOP
ENDIF
```

EX001_ INTRODUCTION AND EXAMPLE: SUNNY WEATHER

Finally, I have some questions about how likely you think various events might be. When I ask a question I'd like for you to give me a number from 0 to 100.Let's try an example together and start with the weather. Looking at card 37, what do you think the chances are that it will be sunny tomorrow? For example, '90' would mean a 90 per

```
cent chance of sunny weather. You can say any number from 0 to 100.
  (0..100)
EX002 CHANCE OF RECEIVING INHERITANCE
Please look at card 37. Thinking about the next ten years, what are
the chances that you will receive any inheritance, including property
and other valuables?
  ____(0..100)
IF EX002_ (CHANCE OF RECEIVING INHERITANCE) > 0
 EX003 CHANCE INHERITANCE MORE THAN 50000 EURO
 Please look at card 37. Within the next ten years, what are the
 chances that you will receive an inheritance worth more than 50,000 euro
 (in local currency)?
      ____(0..100)
ENDIF
EX004 CHANCE OF LEAVING INHERITANCE MORE THAN 50000 EURO
(Please look at card 37.) Including property and other valuables, what
are the chances that you [or] [your] [husband/wife/partner] will leave an
inheritance totalling 50,000 euro (in local currency) or more?
   (0..100)
IF EX004_ (CHANCE OF LEAVING INHERITANCE MORE THAN 50000 EURO) = 0
 EX005 CHANCE OF LEAVING ANY INHERITANCE
 (Please look at card 37.) What are the chances that you
 [or] [your] [husband/wife/partner] will leave any
 inheritance?
 IWER: INCLUDE PROPERTIES AND OTHER VALUABLES
 _____(0..100)
ELSE
 IF EX004_ (CHANCE OF LEAVING INHERITANCE MORE THAN 50000 EURO)
 > 0
| | EX006_ CHANCE OF LEAVING INHERITANCE MORE THAN 150000 EURO
| | (Please look at card 37.)What are the chances that you
| | [or] [your] [husband/wife/partner] will leave an
| | inheritance totalling 150,000 euro (in local currency) or more?
 | IWER: INCLUDE PROPERTIES AND OTHER VALUABLES
     (0..100)
 ENDIF
ENDIF
IF EP005_(CURRENT JOB SITUATION) = 2. Employed or self-employed (including working for family business)
OR 1. Public old age pension IN
EP098 (TYPE OF PENSION YOU ARE ENTITLED TO)
 EX007 GOVERNMENT REDUCES PENSION
(Please look at card 37.) What are the chances that before you retire
```

the government will reduce the pension which you are entitled to? (0100)
EX008_ GOVERNMENT RAISES RETIREMENT AGE (Please look at card 37.)What are the chances that before you retire the government will raise your retirement age? (0100)
ENDIF
EX009 _ LIFE EXPECTANCY (Please look at card 37.)What are the chances that you will live to be age [75/80/85/90/95/100/105/110/120] or more? (0100)
EX010_ CHANCES STANDARD OF LIVING WILL BE BETTER (Please look at card 37.)What are the chances that five years from now your standard of living will be better than today? IWER: BY STANDARD OF LIVING WE MEAN THE ABILITY TO BUY GOODS AND SERVICES(0100)
EX011 _ CHANCES STANDARD OF LIVING WILL BE WORSE (Please look at card 37.)And what are the chances that five years from now your standard of living will be worse than today? IWER: BY STANDARD OF LIVING WE MEAN THE ABILITY TO BUY GOODS AND SERVICES(0100)
EX012_ UNEXPECTED GIFT Finally, imagine you received an unexpected gift of 12,000 euro (in local currency). Please look at card 38. What would you use this money for? IWER: IF UNCLEAR SAY THAT GIFT IS NET OF TAXES 1. Continue
EX013_ SAVE OR INVEST ANY OF THE GIFT Would you save or invest any of it? 1. Yes 5. No
IF EX013_ (SAVE OR INVEST ANY OF THE GIFT) = 1. Yes
EX014_ AMOUNT SAVE OR INVEST OF THE GIFT How much of it would you save or invest? IWER: ENTER AN AMOUNT IN [{local currency}]
 ENDIF
IF EX014_ (AMOUNT SAVE OR INVEST OF THE GIFT) < 12000
EX015_ USE ANY OF THE GIFT TO PAY OFF DEBTS Would you use any of it to pay off debts? 1. Yes 5. No

<i>IF EX013</i>	5_{-} (USE ANY OF THE GIFT TO PAY OFF DEBTS) = 1. Yes
•	_ AMOUNT USING TO PAY OFF DEBTS uch of it would you use to pay off debts?
 ENDIF	
	4_ (AMOUNT SAVE OR INVEST OF THE GIFT) + (AMOUNT USING TO PAY OFF DEBTS) < 12000
_	GIVE ANY TO RELATIVES OR DONATION you give any of it to relatives or donate any of it?
IF EX0	017_ (GIVE ANY TO RELATIVES OR DONATION) = 1. Yes
How :	8_ AMOUNT GIVING TO RELATIVES OR DONATION much of it would you give to relatives or donate? R: ENTER AN AMOUNT IN [{local currency}]
 ENDIF	7
EX016_	014_ (AMOUNT SAVE OR INVEST OF THE GIFT) + _ (AMOUNT USING TO PAY OFF DEBTS) + EX018_ (AMOUNT GIVINO LATIVES OR DONATION) < 12000
Would	
 IF ΕΣ	X019_ (USE TO BUY DURABLES) = 1. Yes
Hov	020_ AMOUNT USING TO BUY DURABLES w much of it would you use to buy durable items? ER: ENTER AN AMOUNT IN [{local currency}]
	 IF
EX01 GIVI	X014_ (AMOUNT SAVE OR INVEST OF THE GIFT) + 16_(AMOUNT USING TO PAY OFF DEBTS) + EX018_(AMOUNT NG TO RELATIVES OR DONATION) + EX020_(AMOUNT USING TO DURABLES) < 12000
	$EX021_{-}$ (USE FOR HOLIDAY OR JOURNEY) = 1. Yes

How much of it would you use for a holiday trip or journey?
IWER: ENTER AN AMOUNT IN [{local currency}]
ENDIF
ENDIF
ENDIF
İ
ENDIF

CHECK: Total of the values should be less or equal to 12000. **EX023**_ END NON PROXY

IWER: END OF NON-PROXY SECTION. IF THE RESPONDENT WAS NOT CAPABLE OF ANSWERING THE PRECEDING QUESTIONS, PRESS CTRL-M AND MAKE A REMARK. HAND OUT DROP-OFF QUESTIONNAIRE TO RESPONDENT. FILL IN INITIALS, HOUSEHOLD ID [{sample id}] AND RESPONDENT ID [{respondent id}]. RANDOM NUMBER: [{random number 1..12}] 1. Continue

EX024 THANK YOU FOR PARTICIPATION

Thank you. This was the last question. We would like to thank you very much again for participating in our research project. We know it has been a long and difficult questionnaire, but your help was really important. With your participation you have helped researchers to understand how the ageing of populations in Europe affects our future. It has not been decided yet but we are thinking about continuing this research project in one or two years with another, much shorter interview. For this reason, we hope that it is ok with you that we keep your name and address in our files, so that we can contact you again. Is this ok?

IWER: LET RESPONDENT SIGN CONSENT STATEMENT IF NECESSARY. IF THE RESPONDENT ASKS OR HESITATES, SAY THAT HE/SHE CAN STILL SAY NO AT THE TIME WHEN RECONTACTING

- 1. Consent to recontact
- 5. No consent to recontact

IV001_ INTRODUCTION TO IV

This section is about your observations during the interview and should be filled out after each completed individual interview.

1. Continue

IF DN038_(WHO ANSWERED THE QUESTIONS IN DN) = 3. Proxy only OR PH054_(WHO ANSWERED THE QUESTIONS IN PH) = 3. Proxy only OR

BR017_(WHO ANSWERED THE QUESTIONS IN BR) = 3. Proxy only OR HC063_(WHO ANSWERED THE QUESTIONS IN HC) = 3. Proxy only OR

EP210_(WHO ANSWERED THE QUESTIONS IN EP) = 3. Proxy only OR CH023_(WHO ANSWERED THE QUESTIONS IN CH) = 3. Proxy only OR

SP022_(WHO ANSWERED THE QUESTIONS IN SP) = 3. Proxy only OR FT021_(WHO

```
ANSWERED THE QUESTIONS IN FT) = 3. Proxy only OR
HO041_(WHO ANSWERED THE QUESTIONS IN HO) = 3. Proxy only OR HH014_(WHO
ANSWERED THE QUESTIONS IN HH) = 3. Proxy only OR
CO009_(WHO ANSWERED THE QUESTIONS IN CO) = 3. Proxy only OR AS057_(WHO
ANSWERED THE QUESTIONS IN AS) = 3. Proxy only
 IV020 RELATIONSHIP PROXY
 A proxy respondent has answered some or all of the questions we had
 for [{name of respondent}]. How is the proxy respondent related to
 [{name of respondent}]?
 1. Spouse/Partner
 2. Child/child-in-law
 3. Parent/ Parent-in-law
 4. Sibling
 5. Grand-child
 6. Other relative
 7. Nursing home staff
 8. Home helper
 9. Friend/acquaintance
 10. Other
ENDIF
```

IV002_ THIRD PERSONS PRESENT

Were any third persons, except proxy respondents, present during (parts of) the interview with [{name of respondent}]?

IWER: CODE ALL THAT APPLY

- 1. Nobody
- 2. Spouse or partner
- 3. Parent or parents
- 4. Child or children
- 5. Other relatives
- 6. Other persons present

```
IF NOT (1. Nobody IN IV002_ (THIRD PERSONS PRESENT) AND Number of answers in IV002_ = 1)

| IV003_ INTERVENED IN INTERVIEW
| Have these persons intervened in the interview?
| 1. Yes, often
| 2. Yes, occasionally
| 3. No
```

IV004_ WILLINGNESS TO ANSWER

How would you describe the willingness of [{name of respondent}] to answer?

- 1. Very good
- 2. Good

ENDIF

- 3. Fair
- 4. Bad
- 5. Good in the beginning, got worse during the interview
- 6. Bad in the beginning, got better during the interview

IF IV004_ (WILLINGNESS TO ANSWER) = 5. Good in the beginning, got

worse during the interview

	IV005_ WHY WILLINGNESS WORSE
	Why did the respondent's willingness to answer get worse during the
	interview?
	IWER: CODE ALL THAT APPLY
	1. The respondent was losing interest
	2. The respondent was losing concentration or was getting tired
	3. Other, please specify
	IF 3. Other, please specify IN IV005_(WHY WILLINGNESS WORSE)
	IV006_ WHICH OTHER REASON
	Which other reason?
	ENDIF
Ì	ENDIF

IV007_ RESP. ASK FOR CLARIFICATION

Did [{name of respondent}] ask for clarification on any questions?

- 1. Never
- 2. Almost never
- 3. Now and then
- 4. Often
- 5. Very often
- 6. Always

IV008_ RESPONDENT UNDERSTOOD QUESTIONS

Overall, did you feel that [{name of respondent}] understood the questions?

- 1. Never
- 2. Almost never
- 3. Now and then
- 4. Often
- 5. Very often
- 6. Always

IV018_ HELP NEEDED READING SHOWCARDS

Did the respondent need any help reading the showcards during the interview?

- 1. Yes, due to sight problems
- 2. Yes, due to literacy problems
- 3. No

IF MN008_ (HOUSEHOLD RESPONDENT) = 1 | IF HO001_(INTERVIEW IN HOUSE OF RESPONDENT) = 1. Yes | | IV009_ WHICH AREA BUILDING LOCATED | In which type of area is the building located? | 1. A big city | 2. The suburbs or outskirts of a big city | 3. A large town | 4. A small town

5. A rural area or village
Which type of building does the household live in?
1. A farm house 2. A free standing one or two family house
3. A one or two family house as row or double house
4. A building with 3 to 8 flats
5. A building with 9 or more flats but no more than 8 floors
6. A high-rise with 9 or more floors 7. A housing complex with services for elderly
8. Special housing for elderly (24 hours attention)
IF IV010_ (TYPE OF BUILDING) = 4. A building with 3 to 8 flats OR IV010_(TYPE OF BUILDING) = 5. A building with 9 or more flats but no more than 8 floors
IV011 NUMBER OF FLOORS OF BUILDING
Including the ground floor, how many floors does the building have?
as row or double house
IV012_ NUMBER OF STEPS TO ENTRANCE How many steps had to be climbed (up or down) to get to the main entrance of the household's flat?
IWER: DO NOT INCLUDE STEPS THAT ARE AVOIDED, BECAUSE THE BLOCK HAS AN ELEVATOR
3. 16 to 25
4. More than 25
 IV019_ INTERVIEWER ID
Your interviewer ID:
IV013_ SEX OF INTERVIEWER Finally, we would like to ask you to provide a few details about you.
What is your sex?
1. Male
2. Female
IV014_ AGE OF INTERVIEWER
What is your age?
(1599)
IV015_ HIGHEST SCHOOL INTERVIEWER What is the highest school certificate or degree that you have

```
| obtained?
 1. Comprehensive school
 2. Grammar school (not fee-paying)
 3. Fee-paying grammar school
 4. Sixth form College/Tertiary College
 5. Public or other private school
 6. Elementary school
 7. Secondary modern/secondary school
 8. Technical school (not college)
 96. None
 97. Other type (also abroad)
 IV016_ DEGREE OF EDUCATION INTERVIEWER
 Which degrees of higher education or vocational training do you have?
 IWER: CODE ALL THAT APPLY
 1. Nurses' training school
 2. College of further/higher education
 3. Other college or training establishment
 4. Polytechnic/Scottish Central Institutions
 5. University
 96. None
 97. Other (also abroad)
 IV017_ OUTRA IV
 Thank you very much for completing this section.
 1. Continue
ELSE
ENDIF
```

Appendix C: Showcards

- 1. Spouse
- 2. Partner
- 3. Child
- 4. Child-in-law
- 5. Parent
- 6. Parent-in-law
- 7. Sibling
- 8. Grand-child
- 9. Other relative (specify)
- 10. Other non-relative (specify)

- 1. Comprehensive school
- 2. Grammar school (not fee-paying)
- 3. Fee-paying grammar school
- 4. Sixth form College/Tertiary College
- 5. Public or other private school
- 6. Elementary school
- 7. Secondary modern/secondary school
- 8. Technical school (not college)
- 95. No degree yet/still in school
- 96. None
- 97. Other type (also abroad)

- 1. Nurses' training school
- 2. College of further/higher education
- 3. Other college or training establishment
- 4. Polytechnic/Scottish Central Institutions
- 5. University
- 95. Still in higher education or vocational training
- 96. None
- 97. Other (also abroad)

- 1. Married and living together with spouse
- 2. Registered partnership
- Married, living separated from spouse
- 4. Never married
- 5. Divorced
- 6. Widowed

- 1. In the same household
- 2. In the same building
- 3. Less than 1 kilometre away
- 4. Between 1 and 5 kilometres away
- 5. Between 5 and 25 kilometres away
- 6. Between 25 and 100 kilometres away
- 7. Between 100 and 500 kilometres away
- 8. More than 500 kilometres away
- 9. More than 500 kilometres away in another country

- 1. A heart attack including myocardial infarction or coronary thrombosis or any other heart problem including congestive heart failure
- 2. High blood pressure or hypertension
- 3. High blood cholesterol
- 4. A stroke or cerebral vascular disease
- 5. Diabetes or high blood sugar
- 6. Chronic lung disease such as chronic bronchitis or emphysema
- 7. Asthma
- 8. Arthritis, including osteoarthritis, or rheumatism
- 9. Osteoporosis
- 10. Cancer or malignant tumour, including leukaemia or lymphoma, but excluding minor skin cancers
- 11. Stomach or duodenal ulcer, peptic ulcer
- 12. Parkinson disease
- 13. Cataracts
- 14. Hip fracture or femoral fracture
- 96. None
- 97. Other conditions, not yet mentioned

- 1. Pain in your back, knees, hips or any other joint
- 2. Heart trouble or angina, chest pain during exercise
- 3. Breathlessness, difficulty breathing
- 4. Persistent cough
- 5. Swollen legs
- 6. Sleeping problems
- 7. Falling down
- 8. Fear of falling down
- 9. Dizziness, faints or blackouts
- 10. Stomach or intestine problems, including constipation, air, diarrhoea
- 11. Incontinence or involuntary loss of urine
- 96. None
- 97. Other symptoms, not yet mentioned

- 1. Drugs for high blood cholesterol
- 2. Drugs for high blood pressure
- 3. Drugs for coronary or cerebrovascular diseases
- 4. Drugs for other heart diseases
- 5. Drugs for asthma
- 6. Drugs for diabetes
- 7. Drugs for joint pain or for joint inflammation
- 8. Drugs for other pain (e.g. headache, backpain, etc.)
- 9. Drugs for sleep problems
- 10. Drugs for anxiety or depression
- 11. Drugs for osteoporosis, hormonal
- 12. Drugs for osteoporosis, other than hormonal
- 13. Drugs for stomach burns
- 14. Drugs for chronic bronchitis
- 96. None
- 97. Other drugs, not yet mentioned

- 1. Walking 100 metres
- 2. Sitting for about two hours
- 3. Getting up from a chair after sitting for long periods
- 4. Climbing several flights of stairs without resting
- 5. Climbing one flight of stairs without resting
- 6. Stooping, kneeling, or crouching
- 7. Reaching or extending your arms above shoulder level
- 8. Pulling or pushing large objects like a living room chair
- 9. Lifting or carrying weights over 10 pounds/5 kilos, like a heavy bag of groceries
- 10. Picking up a small coin from a table
- 96. None of these

- 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
- 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

- 1. Almost every day
- 2. Five or six days a week
- 3. Three or four days a week
- 4. Once or twice a week
- 5. Once or twice a month
- 6. Less than once a month
- 7. Not at all in the last 6 months

- Specialist for heart disease, pulmonary, gastroenterology, diabetes or endocrine diseases
- 2. Dermatologist
- 3. Neurologist
- 4. Opthalmologist
- 5. Ear, nose and throat specialist
- 6. Rheumatologist or physiatrist
- 7. Orthopaedist
- 8. Surgeon
- 9. Psychiatrist
- 10. Gynaecologist
- 11. Urologist
- 12. Oncologist
- 13. Geriatrician

- 1. Inpatient surgery
- 2. Medical tests or non-surgical treatments (except mental health)
- 3. Mental health problems

- 1. Cardiac catheterization, including removal of obstruction, stent
- 2. Coronary artery bypass graft
- 3. Insertion, replacement or removal of pacemaker
- 4. Any ear, nose and throat surgery
- 5. Any biopsy
- 6. Hip replacement
- 7. Knee replacement
- 8. Surgical treatment of fracture or ortopaedic trauma
- 9. Hernia repair
- 10. Cholecystectomy
- 11. Prostatectomy
- 12. Hysterectomy
- 13. Cataract surgery
- 97. Any other inpatient surgery

- 1. Knee arthroscopy
- 2. Cataract surgery
- 3. Hernia repair
- 4. Biopsy or cyst removal
- 5. Hand surgery
- 6. Vein stripping
- 7. Anal surgery
- 8. Arteriography or angiography using contrast
- 97. Any other outpatient surgery performed in an operating room

- 1. Professional or paid nursing or personal care
- Professional or paid home help, for domestic tasks that you could not perform yourself due to health problems
- 3. Meals-on-wheels
- 96. None of these

- 1. Surgery
- 2. Care from a general practitioner
- 3. Care from a specialist physician
- 4. Drugs
- 5. Dental care
- 6. Hospital (inpatient) rehabilitation
- 7. Ambulatory (outpatient) rehabilitation
- 8. Aids and appliances
- 9. Care in a nursing home
- 10. Home care
- 11. Paid home help
- 97. Any other care not mentioned on this list

- 0. Social security institute (private sector employees)
- 1. Organization for agricultural insurance (rural sector)
- 2. Self employed persons funds (merchants, craftsmen, etc)
- 3. Civil servants fund, employees of municipalities
- 4. Public utilities: telecoms, electricity, trains, metro
- 5. Health professions, engineers, lawyers
- 6. Hotel employees
- 7. Seamen
- 8. Various bank employees funds
- 9. Any other social health insurance fund
- 96. No social health insurance fund

- 1. Medical care with direct access to specialists
- 2. Medical care with access to specialists through a general practitioner
- 3. Medical care with unrestricted choice of doctors
- 4. Medical care with limited choice of doctors
- 5. Dental care
- 6. Full coverage of drugs expenses
- 7. Partial coverage of drugs expenses
- 8. Hospital care with unrestricted choice of hospitals and clinics
- 9. Hospital care with limited choice of hospitals and clinics
- 10. Long term care in nursing home
- Nursing care at home in case of chronic disease or disability
- 12. Home help
- 96. No voluntary health insurance at all
- 97. Any other type of voluntary health insurance

- 1. Medical care with direct access to specialists
- 2. Medical care with an extended choice of doctors
- 3. Dental care
- 4. A larger choice of drugs and/or full drugs expenses (no participation)
- 5. An extended choice of hospitals and clinics for hospital care
- 6. (Extended) Long term care in a nursing home
- 7. (Extended) Nursing care at home in case of chronic disease or disability
- 8. (Extended) Home help for activities of daily living (household, etc.)
- 9. Full coverage of costs for doctor visits (no participation)
- 10. Full coverage of costs for hospital care (no participation)
- 96. No voluntary health insurance at all
- 97. Any other type of voluntary health insurance

- 1. Left work (retired)
- 2. Employed or self-employed (including working for family business)
- 3. Unemployed
- 4. Permanently sick or disabled
- 5. Homemaker
- 97. Other (specify)

- 1. Strongly agree
- 2. Agree
- 3. Disagree
- 4. Strongly disagree

- 1. Became eligible for public pension
- 2. Became eligible for private occupational pension
- 3. Became eligible for a private pension
- 4. Was offered an early retirement option/window (with special incentives or bonus)
- Made redundant (for example preretirement)
- 6. Own ill health
- III health of relative or friend
- To retire at same time as spouse or partner
- 9. To spend more time with family
- 10. To enjoy life

- 1. Public old age pension
- 2. Public early retirement or pre-retirement pension
- 3. Public disability insurance; sickness/invalidity/incapacity pension
- 4. Public unemployment benefit/insurance
- 5. Public survivor pension from spouse/partner
- 6. Income/poverty support
- 7. War pension
- 8. Private (occupational) old age pension
- 9. Private (occupational) early retirement pension
- 10. Private (occupational) disability/invalidity insurance
- 11. Private (occupational) survivor pension from spouse/partner's job
- 96. None of these

- 1. Life insurance payment
- 2. Private annuity/private personal pension
- 3. Private health insurance payment
- 4. Alimony
- 5. Regular payments from charities
- 96. None of these

- 1. Public old age pension
- 2. Public early retirement or preretirement pension
- 3. Public disability insurance; sickness/invalidity/incapacity pension
- 4. Private (occupational) old age pension
- 5. Private (occupational) early retirement pension
- 96. None of these

- 1. Full-time employed
- 2. Part-time employed
- 3. Self-employed or working for own family business
- 4. Unemployed
- 5. In vocational training/retraining/education
- 6. Parental leave
- 7. In retirement or early retirement
- 8. Permanent sick or disabled
- 9. Looking after home or family
- 97. Other

- 1. personal care, i.e.
 - a) dressing, including putting on shoes and socks
 - b) bathing or showering
 - c) eating, e.g. cutting up your food
 - d) getting in or out of bed
 - e) using the toilet, including getting up or down
- practical household help, e.g. with home repairs, gardening, transportation, shopping, household chores
- help with paperwork, such as filling out forms, settling financial or legal matters

- 1. To meet basic needs
- 2. To buy or furnish a house or apartment
- 3. To help with a large item of expenditure (other than buying a house)
- 4. For a major family event (birth, marriage, other celebration)
- 5. To help with a divorce
- 6. To help following a bereavement or illness
- 7. To help with unemployment
- 8. For further education
- 9. To meet a legal obligation towards a spouse, parent or child
- 96. No specific reason
- 97. Other reason

- 1. City
- 2. Suburbs
- 3. Large town
- 4. Small town
- 5. Rural area/village

EXPENDITURE

1. Food consumed at home

Include: all food items and non-alcoholic beverages bought at supermarkets, grocery stores, markets and other outlets. **Do not include:** spending on alcoholic beverages such as beer,

wine, or spirits.

2. Food consumed outside home

Include: all meals at restaurants and other outlets such as bars, pubs and canteens.

Do not include: spending on alcoholic beverages, or expenditures on large ceremonial occasions such as wedding anniversaries.

3. Telephoning

Include: per call or long distance charges and the basic rate; all expenditure on mobile phone calls made over the month; internet connection costs from your home.

Do not include: purchases of telephone equipment such as phones or mobile phones.

4. All goods and services

Include: groceries, utilities, transportation, clothing, entertainment, out-of-pocket medical expenses and any other expenses you and your household may have.

Do not include: housing payments (rent or mortgage), housing maintenance, or the purchase of large items such as a car, or car payments, television, jewellery or furniture.

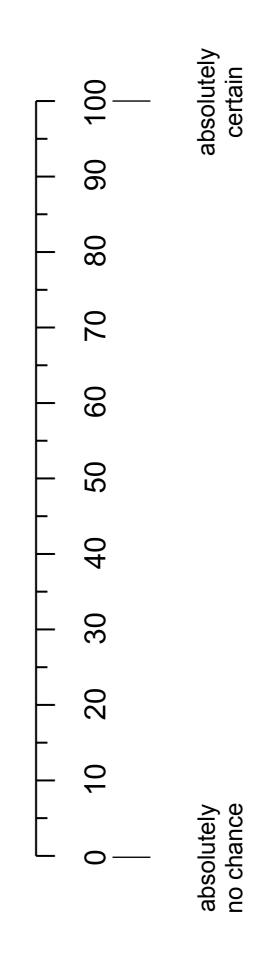
- 1. Bank accounts, transaction accounts or saving accounts
- 2. Government or corporate bonds
- 3. Stocks or shares (listed or unlisted on stock market)
- Mutual funds or managed investment accounts
- 5. Individual retirements accounts
- 6. Contractual saving for housing
- 7. Life insurance
- 96. None of these

- 1. Never
- 2. About once every year
- 3. Few times per year
- 4. About every month
- 5. About every week
- 6. About every day

- 1. Debt on cars and other vehicles (vans/motorcycles/boats, etc.)
- 2. Overdue bills (phone, electricity, heating)
- 3. Overdue credit cards / store card bills
- 4. Loans (from bank, building society or other financial institution)
- 5. Debts to relatives or friends
- 6. Student loans
- 96. None of these
- 97. Other

- 1. Done voluntary or charity work
- 2. Cared for a sick or disabled adult
- Provided help to family, friends or neighbors
- Attended an educational or training course
- 5. Gone to a sport, social or other kind of club
- Taken part in a religious organization (church, synagogue, mosque etc.)
- 7. Taken part in a political or community-related organization
- 96. None of these

- 1. To meet other people
- 2. To contribute something useful
- 3. For personal achievement
- 4. Because I am needed
- 5. To earn money
- 6. Because I enjoy it
- 7. To use my skills or to keep fit
- 8. Because I feel obligated to do it
- 96. None of these



- 1. Saving or investment
- 2. Pay off debt
- 3. Give to relatives or donations
- 4. Buy durable item (house, car, furniture, large electrical appliances,...)
- 5. Make a holiday trip or journey

Appendix D: Self-completion Questionnaire



Agency Logo	

					Н	louseh	old-ID)			Perso	on-ID
1	2	0	4	2					0	0		

Interview Date: /[
Interviewer ID:	
Respondent's Initials:	

"50+ in Europe"

The Survey of Health, Ageing and Retirement in Europe

Self-Administered Questionnaire

How to FILL IN this questionnaire

Most of the questions on the following pages can be answered by simply checking the box below or alongside the answer that applies to you.

Please check O	x:			
Correct Incorrect				

Please proceed question by question. Skip questions only if there is an explicit instruction to do so.

□₁ Yes	$\square_{\scriptscriptstyle{5}}$ No $\stackrel{lacktriangle}{lacktriangle}$ Go to question .
V ₁	
If you check "Yes" in this example, you go on to the next question!	If you check "No in this example, you go on to the question given in the instruction be

How to RETURN this Questionnaire

If the interviewer is still in your home when you have completed the questionnaire, please hand it back to him or her. If not, please return the completed questionnaire in the pre-paid envelope as soon as you possibly can. If you need a replacement envelope, please call [national survey agency] at [toll-free telephone number].

PLEASE START THE QUESTIONNAIRE AT QUESTION 1 ON THE NEXT PAGE
ALL YOUR ANSWERS WILL REMAIN CONFIDENTIAL. THANK YOU AGAIN FOR
YOUR HELP

1. How satisfied are you with your life in general? (Please tick one box)

Somewhat satisfied \square_2 Somewhat dissatisfied \square_3 Very dissatisfied \square_4	Very satisfied	
Somewhat dissatisfied	Somewhat satisfied	
_	Somewhat dissatisfied	
	Very dissatisfied	

2. Here is a list of statements that people have used to describe their lives or how they feel. We would like to know how often, if at all, you think this applies to you.

(Please tick one box in each row)

		Often₁	Sometimes ₁	Rarely₁	Never ₁
		lacksquare1	lacksquare1	lacksquare1	lacksquare1
a)	My age prevents me from doing the things I would like to				$\square_{\scriptscriptstyle 4}$
b)	I feel that what happens to me is out of my control			\square_3	$\square_{\scriptscriptstyle 4}$
c)	I feel left out of things			\square_3	\square_4
d)	I can do the things that I want to do	\square_1		\square_3	$\square_{\scriptscriptstyle 4}$
e)	Family responsibilities prevent me from doing what I want to do	$\square_{\scriptscriptstyle 1}$	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$
f)	Shortage of money stops me from doing the things I want to do		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
g)	I look forward to each day			\square_3	$\square_{\scriptscriptstyle 4}$
h)	I feel that my life has meaning	\square_1			$\square_{\scriptscriptstyle 4}$
i)	On balance, I look back on my life with a sense of happiness			\square_3	$\square_{\scriptscriptstyle 4}$
j)	I feel full of energy these days				$\square_{\scriptscriptstyle 4}$
k)	I feel that life is full of opportunities				$\square_{\scriptscriptstyle 4}$
l)	I feel that the future looks good for me				$\square_{\scriptscriptstyle 4}$
		A ₁	A ₁	A ₁	A ₁
		Often ₁	Sometimes ₁	Rarely₁	Never ₁

3. Here are some more statements that people have used to describe their lives and how they feel. Please tell us how much you agree or disagree with each statement for you personally.

(Please tick one box in each row)

		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
		lacksquare1	lacksquare	\bigvee_3	lacksquare4	lacksquare5
a)	I pursue my goals with lots of energy	\square_1	\square_2	\square_3	\square_4	\square_5
b)	In uncertain times, I usually expect the best	\square_1	\square_2	\square_3	□₄	□₅
c)	I'm always optimistic about my future	\square_1	\square_2	\square_3	\square_4	\square_5
d)	I hardly ever expect things to go my way	\square_1	\square_2	\square_3	\square_4	\square_{5}
e)	I still find ways to solve a problem if others have given up	□₁	\square_2	\square_3	\square_4	\square_{5}
f)	I rarely count on good things happening to me	\square_1	\square_2	\square_3	\square_4	$\square_{\scriptscriptstyle 5}$
g)	Given my previous experiences I feel well prepared for my future	\square_1	\square_2	\square_3	\square_4	\square_{5}
		A ₁	A 2	A ₃	A ₄	A ₅
		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

4. How often have you experienced the following feelings over the last week (Please tick one box in each row)

		Almost all of the time	Most of the time	Some of the time	Almost none of the time
a)	I felt depressed	\square_1	\square_2	\square_3	\square_4
b)	I felt that everything I did was an effort	□₁	\square_2	\square_3	\square_4
c)	My sleep was restless	□₁	\square_2	\square_3	\square_4
d)	I was happy		\square_2	\square_3	\square_4
e)	I felt lonely		\square_2	\square_3	□4
f)	I felt people were unfriendly	\square_1	\square_2	\square_3	\square_4
g)	I enjoyed life		\square_2	\square_3	\square_4
h)	I felt sad		\square_2	\square_3	\square_4
i)	I felt that people disliked me	\square_1	\square_2	\square_3	\square_4
j)	I couldn't get going		\square_2	\square_3	\square_4
k)	I didn't feel like eating; my appetite was poor	□₁	\square_2	\square_3	\square_4
l)	I had a lot of energy		\square_2	\square_3	\square_4
m)	I felt tired	\square_1	\square_2	\square_3	\square_4
n)	I felt really rested when I woke up in the morning	□₁	\square_2	\square_3	\square_4
		▲₁ Almost all of the time	▲ ₂ Most of the time	▲ ₃ Some of the time	Almost none of the time

5. The following statements are about people's expectations of each other. Please tell us how much you agree or disagree with each statement for you personally.

		at I have received in re		
	∐₁ Strongly	' agree	∐ 8	Does not apply
	∐ ₂ Agree			
	□₃ Neither	agree nor disagree		
	□₄ Disagree	е		
	□ ₅ Strongly	disagree		
b)	I have always re	eceived adequate appro	eciation f	or providing help in my family
	$\square_{\scriptscriptstyle 1}$ Strongly	v agree		Does not apply
	$\square_{\scriptscriptstyle 2}$ Agree			
	$\square_{\scriptscriptstyle 3}$ Neither :	agree nor disagree		
	□₄ Disagree	e		
	□₅ Strongly	disagree		
	□ ₁ Strongly	tisfied with the rewards agree	s i receive	ea for my eπorts
	□₂ Agree			
		agree nor disagree		
	□₃ Neither a			
	□₄ Disagree			
d)	\square_4 Disagree \square_5 Strongly	e ⁄ disagree	hurt by s	omeone to whom I gave my trust
d)	\square_4 Disagree \square_5 Strongly	e / disagree iously disappointed or	hurt by s	omeone to whom I gave my trust
d)	□₄ Disagree □₅ Strongly I have been seri	e / disagree iously disappointed or	hurt by s	omeone to whom I gave my trust
d)	\square_4 Disagree \square_5 Strongly I have been seri \square_1 Strongly \square_2 Agree	e / disagree iously disappointed or	hurt by s	omeone to whom I gave my trust
d)	\square_4 Disagree \square_5 Strongly I have been seri \square_1 Strongly \square_2 Agree	e disagree iously disappointed or agree agree nor disagree	hurt by s	omeone to whom I gave my trust

6. The following statements are related to the duties people may have in their family. Please tell us how much you agree or disagree with each statement.

(Please tick one box in each row)

		Strongly agree	Agree	Neither agree nor disagre e	Disagre e	Strongly disagre e
		lacksquare1	\bigvee_2	\mathbf{V}_3	\bigvee_4	lacksquare5
a)	Parents' duty is to do their best for their children even at the expense of their own well-being.		\square_2	\square_3	\square_4	\square_5
b)	Grandparents' duty is to be there for grandchildren in cases of difficulty (such as divorce of parents or illness).	\square_1	\square_2	\square_3	\square_4	\square_5
c)	Grandparents' duty is to contribute towards the economic security of grandchildren and their families.		\square_2		\square_4	
d)	Grandparents' duty is to help grandchildren's parents in looking after young grandchildren.	\square_1		\square_3	\square_4	\square_5

7. In your opinion, who – the family or the State -- should bear the responsibility for each of the following...:

(Please tick one box in each row)

		Totally family	Mainly family	Both equally	Mainly state	Totally state
		lacksquare1	\bigvee_2	\bigvee_3	\bigvee_4	lacksquare5
a)	Financial support for older persons who are in need?			\square_3	\square_4	
b)	Help with household chores for older persons who are in need such as help with cleaning, washing?	\square_1	\square_2	\square_3	\square_4	\square_5
c)	Personal care for older persons who are in need such as nursing or help with bathing or dressing?	□₁	\square_2	\square_3	\square_4	

8. There are sometimes important questions about which we have a
disagreement with persons close to us, and which therefore may lead to
conflicts. Please tell us how often, if at all, you experience conflict with each of
the following persons. (Please tick one box in each row)

		Often	Some time	Ra	rely	Never	Does not Apply		
a)	Parents	\square_1			\beth_3	\square_4	\square_{8}		
b)	Parents-in-law	\square_1			\gimel_3	\square_4	\square_{8}		
c)	Partner/spouse	\square_1			\beth_3	\square_4	□8		
d)	Children	\square_1			J_3	\square_4	\square_{8}		
e)	Other family members	\square_1			\gimel_3	\square_4	\square_{8}		
f)	Friends, coworkers, acquaintainces	\square_1			\beth_3	\square_4	□8		
ove	9. How often do you experience conflicts with your children or children-in-law over the education and bringing up of your grandchild(ren)? (Please tick one box)								
		Often	Some time	Ra	rely	Never	Does not Apply		
		\square_1			\beth_3	\square_4	\square_{8}		
	Do you or did you ever share	a house □₅	hold wit		oand, wi		rtner?		
11.	11. Who in the couple takes or took the main responsibility for the following tasks (Please tick one box in each row)								
		Myself only	Myself mainly	Myself and my partner equally	My partner mainly	My partner only	Does Not Apply		
a)	Bringing up children	\square_1			\square_4	\square_5			
h)		•••••					— °		
b)	Earning money	\square_1		\square_3	\square_4	\square_{5}			
c)	Earning money Cooking, cleaning the house, laundry and ironing	\Box_1 \Box_1		\square_3 \square_3	\square_4 \square_4	\square_5 \square_5			

In the following, we are interested in aspects of medical advice and prevention Do you have a "general practitioner" (i.e. a doctor you usually turn to for your common health problems)?							
\square_1	Yes \square_5 No \blacksquare	Go to q	uestion 1	4.			
$oldsymbol{\Psi}$							
Ho	w often does your general practitioner						
***************************************		At every visit	visits	Neve			
a)	ask how much physical activity you do	lacksquare	V ₂	\bigvee_3			
b)	tell you that you should get regular exercise?						
c)							
d)	ask you about falling down?						
u)	check your balance or the way you walk	LJ₁	\square_2				
۵۱							
e) f)	check your weight?ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor?						
f)	check your weight?ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor? the last year, have you had a flu vaccination?						
f)	check your weight?ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor? the last year, have you had a flu vaccination? Go to question 16.						
f)	check your weight?ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor? the last year, have you had a flu vaccination?						
f)	check your weight?ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor? the last year, have you had a flu vaccination? Go to question 16.						
f)	check your weight?ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor? the last year, have you had a flu vaccination? Yes Go to question 16. No		\square_2				
f) In t	check your weight?ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor? the last year, have you had a flu vaccination? Go to question 16.		\square_2				
f) In t	check your weight? ask you about any drugs you take, either bought over-the-counter or drugs prescribed by another doctor? the last year, have you had a flu vaccination? Go to question 16. No the last year, were you advised by any doctor to the last year, were you advised by any doctor to the last year.		\square_2				

□ ₁ Yes	□ ₈ Does not apply (for men)
□ ₅ No	
-	ers do tests such as sigmoidoscopy or or colon cancer. <u>In the past ten years</u> , did a
	r recommend any of these tests?
□ ₁ Yes □ ₅ No	
— 5	
Have you ever had a signong ago did you have the	moidoscopy or colonoscopy? If so, about ne most recent one?
\square_1 Yes, I had one of thes	e tests <u>less than 10 years</u> ago
\square_2 Yes, I had one of thes	e tests <u>10 or more years</u> ago
\square_3 No, I never had any of	f these tests
-	
small stool sample on a this test?	special card. <u>In the last ten years</u> , have y
small stool sample on a this test? □₁ Yes → Go to qu	special card. <u>In the last ten years</u> , have y
small stool sample on a this test?	special card. <u>In the last ten years</u> , have y
small stool sample on a this test? □₁ Yes → Go to qu	special card. <u>In the last ten years</u> , have y
small stool sample on a this test? □₁ Yes → Go to qu	special card. <u>In the last ten years</u> , have y
small stool sample on a this test? ☐₁ Yes → Go to qu ☐₅ No ☐ the last ten years, did	special card. <u>In the last ten years</u> , have y
small stool sample on a this test? ☐₁ Yes → Go to qu ☐₅ No ↓	den blood in your stool. For this test, yo special card. In the last ten years, have y estion 22.

y s the pain controlled when you take drugs? □₁ Yes □₂ Somewhat		Vac		Co to avection 2
Can you specify the location of your joint pain? (Please tick all tha	L	I 69	□ ₅ N0 ¬	Go to question 3
□₁ a) Pain in hips □₁ b) Pain in knees □₁ c) Pain in other joints (upper or lower limbs) Do you have joint pain on most days? □₁ Yes □₅ No Do you currently take drugs for your joints pain? □₁ Yes □₅ No ➡ Go to question 2 ★ s the pain controlled when you take drugs? □₁ Yes □₂ Somewhat	$lack \Psi$			
□₁ a) Pain in hips □₁ b) Pain in knees □₁ c) Pain in other joints (upper or lower limbs) Do you have joint pain on most days? □₁ Yes □₅ No Do you currently take drugs for your joints pain? □₁ Yes □₅ No ➡ Go to question 2 ★ s the pain controlled when you take drugs? □₁ Yes □₂ Somewhat	_			
□ b) Pain in knees □ c) Pain in other joints (upper or lower limbs) Do you have joint pain on most days? □ Yes □ No Do you currently take drugs for your joints pain? □ Yes □ No □ No □ No □ No □ No □ No □ No □ No		••••••••••••••••••••••••••••••••••••••	cion of your joint pain?	' (Please tick all that
□ c) Pain in other joints (upper or lower limbs) Do you have joint pain on most days? □ Yes □ No Do you currently take drugs for your joints pain? □ No □ Yes □ No □ To to question 2 □ Sthe pain controlled when you take drugs? □ Yes □ Somewhat				
Do you have joint pain on most days? ☐ Yes ☐ No Do you currently take drugs for your joints pain? ☐ Yes ☐ No → Go to question 2 ↓ s the pain controlled when you take drugs? ☐ Yes ☐ Somewhat ☐ Somewhat				
□₁ Yes □₅ No Do you currently take drugs for your joints pain? □₁ Yes □₅ No ➡ Go to question 2 ➡ s the pain controlled when you take drugs? □₁ Yes □₂ Somewhat □₂ Somewhat	Ц₁	c) Pain in other joints (ւ	upper or lower limbs)	
Do you currently take drugs for your joints pain? ☐ Yes ☐ No → Go to question 2 ■ Sthe pain controlled when you take drugs? ☐ Yes ☐ Somewhat ☐ Somewhat		•••		
☐ Yes ☐ No → Go to question 2 ☐ No → Go to question 2 ☐ Sthe pain controlled when you take drugs? ☐ Yes ☐ Somewhat ☐ Somewhat ☐ Somewhat	LJ 5	INU		
s the pain controlled when you take drugs? The second of the pain controlled when you take drugs? Somewhat	Do y	ou currently take dru	igs for your joints pair	1?
y s the pain controlled when you take drugs? □₁ Yes □₂ Somewhat	\square_1	Yes	\square_5 No \blacksquare	Go to question 2
s the pain controlled when you take drugs? Yes Somewhat				
☐₁ Yes ☐₂ Somewhat	V			
☐₁ Yes ☐₂ Somewhat			an vali taka dulua?	
□₂ Somewhat	la 4h	a pain aaptrallad urbe		
			sii you take urugs:	
\square_3 No		Yes	an you take urugs:	

a) check your joints? b) suggest a drug treatment for this pain? c) tell you about the possible side effects or risks from anti-inflammatories? Have you ever been a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain		1 Yes	□ ₅ No →	Go to ques	stion 30).
a) check your joints? b) suggest a drug treatment for this pain? c) tell you about the possible side effects or risks from anti-inflammatories? Have you ever been a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain	1	•				
a) check your joints? b) suggest a drug treatment for this pain? c) tell you about the possible side effects or risks from anti-inflammatories? Have you ever been a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain	Wł	en you told the doctor a	bout your pain, did l	ne or she		
b) suggest a drug treatment for this pain? c) tell you about the possible side effects or risks from anti-inflammatories? Have you ever been a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain					Yes	
b) suggest a drug treatment for this pain? c) tell you about the possible side effects or risks from anti-inflammatories? Have you ever been a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain					\mathbf{V}_1	
c) tell you about the possible side effects or risks from anti- inflammatories? Have you ever been a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain	a)	check your joints?			\square_1	
Have you ever been a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain	b)	suggest a drug treatment	for this pain?		\square_1	
a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain	c)		e side effects or risks fr	om anti-		
a) sent to physiotherapy or an exercise program for your joint pain? b) told by a doctor that you should have surgery or joint replacement for the pain that you presently have? c) sent by a doctor to an orthopeadic surgeon for the joint pain	На	ve you ever been				
b) pain? told by a doctor that you should have surgery or joint replacement for the pain that you presently have? sent by a doctor to an orthopeadic surgeon for the joint pain					Yes	
b) pain? told by a doctor that you should have surgery or joint replacement for the pain that you presently have? sent by a doctor to an orthopeadic surgeon for the joint pain					lacksquare1	
replacement for the pain that you presently have? sent by a doctor to an orthopeadic surgeon for the joint pain	a)		an exercise program for	your joint	\square_1	
	b)	,	0 ,	joint		
that you presently have?	c)	sent by a doctor to an orth	hopeadic surgeon for th	ne joint pain		

30. The following questions are about your accommodation. Please answer each question by ticking either "yes" or "no". Does your accommodation have...?

		Yes	No
		lacksquare1	lacksquare5
a)	An indoor bath or shower only for your household's personal use	\square_1	$\square_{\scriptscriptstyle 5}$
b)	An indoor flushing toilet only for your household's personal use	\square_1	$\square_{\scriptscriptstyle 5}$
c)	Central heating	□₁	\square_{5}
d)	Air condition	\square_1	$\square_{\scriptscriptstyle 5}$
e)	An elevator	\square_1	\square_{5}
f)	A balcony, terrace or garden	\square_1	\square_{5}
31.	Further, with respect to your accommodation, would you say it.		
		Yes —	No —
		V ₁	V ₅
a)	has not enough space		\square_5
b)	costs too much	\square_1	\square_5
c)	has not enough light	\square_1	\square_{5}
d)	has insufficient heating or cooling facilities	\square_1	\square_5
	And, how about the area immediately surrounding your accomruld you say it		,
		Yes	No
		▼ ₁	▼ ₅
a)	has sufficient supply of facilities such as pharmacy, medical care, grocery and the like within reasonable distance		\square_5
b)	has sufficient possibilities for public transportation	\square_1	\square_5
c)	has pollution, noise or other environmental problems	\square_1	\square_5
d)	suffers from vandalism or crime	\square_1	\square_5

a) Dog	Ц	No pets in household
b) Cat		
c) Bird		
d) Fish		
e) Other pets		
34. Finally, we have some questions about you belong or feel attached to mostly? (Please tick one box)	your b	ackground. What religion do
Protestant (e.g., Lutheran or Anglican church)		
Protestant (evangelist) free church / other protestant	\square_2	
Roman Catholic	\square_3	
Greek or Russian Orthodox	\square_4	
Jewish	$\square_{\scriptscriptstyle 5}$	
Islam	\square_6	
Hinduist	\square_7	
Buddhist	\square_8	
Esoteric, New Age		
Other (Please specify):		
I do not belong or feel attached to any religion	\square_{96}	
35. Thinking about the present, about how (Please tick one box) More than once a day Once daily or almost daily A couple of times a week	often o	lo you pray?
Once a week	\square_4	
Less than once a week		

Never

Self-completion Questionnaire

36. Have you been educated religiously by your parents? (Please tick one box)		
Yes		
No		
37. Many people in [COUNTRY] lean tow term, even if they occasionally vote for a you lean? (Please tick one box)		
Conservative	\Box ₁	
Labour	\square_2	
Liberal democratic		
Scottish National Party (SNP)	\square_4	
Plaid Cymru		
Green Party	\square_6	
Other party:	\square_7	
None	\square_{96}	
38. Finally, please state your sex and birds a) I am Male	th year:	
Female		
b) I was born in (year)		

Thank you very much for taking the time to answer our questions. Please give the questionnaire to the interviewer or post it back in the envelope provided.

Appendix E: SHARE Translation Guidelines and the TRAPD framework

Janet A Harkness Text version of SHARE Presentation (14.-15.03.2003)

1. Introduction

TRAPD is an acronym for Translation, Review, Adjudication, Pretesting and Documentation. five interrelated procedures which are recommended as the framework for SHARE translation and assessment (Harkness, 2003). These are the five basic procedures involved in producing a final version of a questionnaire following current best practice (cf. ESS translation guidelines under documents at www.europeansocialsurvey.org and the US Bureau of Census guidelines at www.fcsm.gov/03papers/delaPuente_Final.pdf).

All or some of these procedures may need to be repeated at different stages. For example, pre-testing and debriefing sessions with fielding staff and respondents will lead to translation revisions; these then call for further testing of the revised translations. Three different sets of people are required to produce the final version of a translated questionnaire: translators, reviewer, and adjudicator. Their roles in the translation and review process are, briefly, as follows:

Translators should be skilled practitioners who have received training on translating questionnaires. Translators should translate out of English into their strongest language. (In most cases this is a person's 'first' language.)

Reviewers need to have at least as good translation skills as the translators but should be familiar with questionnaire design principles, as well as the study design and topic. One reviewing person with linguistic expertise, experience in translating, and survey knowledge is sufficient. If one person cannot be found with these skills, two could cover the different aspects.

Adjudicators make the final decisions about which translation options to adopt. They understand the research subject, know about the survey design, and, if not proficient in the languages involved, must be aided by a consultant who is.

The TRAPD team approach was developed a deliberate strategy to:

- counteract the subjective nature of translation and text-based translation assessment procedures;.
- provide surveys such as SHARE with a approach which is qualitatively better than some others (such as the much-cited 'back translation' approach) but is not more expensive or more complicated;
- accommodate the different thematic areas covered in complex questionnaires such as that of SHARE;
- include documentation steps which makes adjudication decisions easier and which can provide information needed for secondary analysis;
- allow considered but parsimonious production of translations which share a language with another country.

Team-based approaches include the translators in the review process. Thus the cost of using two translators to translate, for example, is offset by their participation in assessment. Since they are familiar with the problems in the texts, the review is more effective.

The undesirable alternative is to implement an *ex post* machinery after translations have been delivered, first to assess and then, if weaknesses are found, to try to remedy these. In this case, someone has also to be found to provide revised translations. This is likely to be more time consuming (and expensive) that establishing team responsibilities from the start

Countries 'Sharing' Languages.

A number of SHARE countries will produce questionnaires in the same language, i.e., 'share' languages. SHARE does <u>not</u> follow a deliberate policy of harmonisation. However, it does make sense to have countries consult with one another for several reasons.

- Consultation provides another perspective on questions a given country may have 'struggled' with.
- It provides the opportunity for country A to benefit from a neater or better translation made by country B but also suitable for country A.
- Unnecessary differences in wording can be avoided. In all cases, the emphasis
 must be on 'better' not on 'word level sameness' for the sake of 'word level
 sameness'.

Sharing Procedures and Requirements

The Co-ordinator's Office wishes to monitor translation differences for several reasons; to establish a basis for future comparative research, to help improve later rounds, and to provide documentation useful for secondary analysis. With this in mind, countries that share a language with another SHARE country should first complete their individual draft translations and then compare and consult with one another. Documentation on translations should then record differences between the various final versions in one language and if possible note where one or the other (or both) made changes in the course of the sharing procedure.

2. Getting a Good Team

What staff do you need to find? Your individual needs determine whether you require to find translators, translators and reviewers, or also perhaps an adjudicator. If a CTL is not to be the adjudicator for a given translation, a person of senior standing with the appropriate qualities is required. In looking for translators, you may also find someone suitable to act as reviewer. The reviewer's language skills and understanding of translation issues should be at least as good as those of the translators.

It is useful to have a number of applicants or possible translators. Even if some SHARE members feel they have suitable people already, we suggest these people be 'put to the test' along with new recruits. In this way, for example, it is easier to decide who might be better suited as reviewer and who as translator, or which of two translators is stronger for the task at hand.

Where several different translated questionnaires are to be produced, translation begins in each case from the English source questionnaire, not from a translated questionnaire Thus in every case translators are needed who habitually work from English into another language (and into their 'strongest' language).

3. Finding and Selecting Translators

Finding translators

The first step is to find likely people, the next is to select wisely from among them. The appropriate places to look are official channels (translation associations and the

like); places of instruction, e.g., translating colleges; your own network channels; possibly within your institution; the ZUMA network channel; and through other institutions you know of that are likely to use translators.

Using translation bureaux or agencies will in most cases not be a viable option. For example, translators may work long distance and not be available for discussion. They may not be permitted by the agency to interact directly with SHARE members as 'clients' or, indeed, with each other. Translation agencies are also unlikely to accommodate the selection procedures outlined below.

Apart from aspects related to our recommendations on how SHARE should undertake translations, translation agencies are usually more expensive than individual translators are. It is also unlikely that fielding agencies SHARE participants work with will be able to accommodate the TRAPD system. They may in fact obtain translations through further sub-contracting.

Selecting Translators

Survey literature advocates that translators should be 'bilinguals,' 'professional translators,' people who understand empirical social science research, or combinations of all of these. The most important factors for deciding on which translators to use is whether they are experienced translators and whether (in the interview we recommend), they demonstrate their suitability. Official credentials are relevant but decisions should certainly not be based primarily on these. Given the wide range of topics covered in SHARE, several translators may be needed and at the least the team for review needs to include people with expertise in the different fields.

In selecting translators, it is wise to look at:

- performance in tasks presented at the interview;
- past performance: samples of work, although these can be misleading on many accounts. If poor, forget the candidate;
- experience: a novice is not recommended;
- type of work: someone who has worked on different text types and not just on one type—contracts, commercial correspondence—may be better equipped to tackle a new text type;
- personal background and education: someone with social sciences training could have an advantage over someone from a pure science background, while a language background could be indicative of a general (and relevant) interest in language;
- cultural embeddedness in the context for which they are translating: CTLs should be aware of the kind of problems arising from using translators who do not know or no longer know the culture for whom they are translating. Translators used for minority languages should know this minority culture and not just the language;
- official credentials: these indicate a career choice, unlikely for those who end up translating by virtue of the fact that they speak a foreign language and need employment. At the same time, credentials differ greatly within and across countries. In addition, the number of people entering serious translation training differs across countries. It is not necessary to insist on official credentials, other things being equal;
- openness to the approach your country plans to employ: people who 'bristle' in the interview at discussion of their 'version' of a test task are not natural choices for a team approach;

their views on translation and on their task: translators who are convinced there
is some single 'correct' or 'best' translation, for example, and seem unaware of
pragmatic meaning and the fact that people construct meaning are not likely to
be suitable.

Training

The people most likely to be good questionnaire translators are people who are already good translators and who learn/are trained to become questionnaire translators. The procedures suggested for training include procedures which can be used to assess the suitability of applicants. Training materials can readily be developed from available questionnaire translations; old questionnaires can be used for training and practice.

Both applicants and translators being trained can, for example, be asked to identify problems in question formulations in either English or the target language, to provide translations, comment on translations already available (old, prepared questionnaires), to correct translations, to make questions more suitable for a specified target population, to explain what questions are asking, and so forth. This gives some impression of their ability to work with the materials as well as their 'ear' for suitable language for different modes and target audiences. Their flexibility in impromptu generation of versions (alongside the quality of these versions) is a good indicator of likely suitability. Good translators, aware of the constraints, tend to recognise good translation solutions when they see them.

SHARE training will include familiarisation with the questionnaire, with the Language Management Utility developed by CentERdata and with the documentation required for the TRAPD translation-review process.

Given the scarcity of training opportunities for survey translation, not many translators will have been trained to translate questionnaires adequately. Thus, in many cases, proven translating skills will be more important than survey translation experience. Translators who have had experience in translating questionnaires but were never actually trained to handle this kind of text may, indeed, prove difficult to (re-)train. At all events, translators with experience in translating survey questions should also be interviewed and assessed carefully.

Check your Choice

Even once translators have been appointed, decisions sometimes need to be reversed. The first 10 percent of the first assignment should be delivered for monitoring as soon as it is completed. It is unlikely that serious deficiencies can be remedied by pointing out or discussing problems. If the translation quality is not already reasonable, it is probably better to start again with a new translator.

If translators are not good team members, remember that an individual translation is only the first step in a team approach. You can expect to have many of the draft translations improved in the review discussion. Therefore someone who does not function well in the team weakens the input you have during the review session(s).

Provide task specifications and support materials

Since SHARE follows an Ask-the-Same-Question model, functionally equivalent (but different) components are for the most part not envisaged. Translators need to be informed of how close or free translation is required to be.

Equipping translators properly for the task helps them perform better. Translators need to understand the function of target and source text to see the best possible translation options. What they produce as a translation depends not only on their

ability and training but on the quality of the material they are asked to translate and on the task specifications they receive. If not given job specifications, translators mentally decide their own, since they cannot translate in a vacuum. Task specifications must thus indicate the intended audience, level of literacy and tone of text (e.g., official or more casual tone), the function of the text (e.g., a questionnaire for fielding or a gloss to describe the contents of a questionnaire), and the degree of freedom permitted in translation.

Translators informed about the measurement components of questions and trained to be sensitive to design requirements as well as target audience requirements are in an optimal position to produce good versions. They are also more likely to be able to point out when one or the other requirement cannot be met and to recognise problems. It is thus strongly recommended that translators are given support materials, example texts, and the information relevant for their part in producing instruments...

Documentation

Translation and review decisions need to be documented for a number of reasons.

- Those reviewing and adjudicating need notes on options discarded or problems noted in order to decide better on the 'final' choices. Translators' notes can be important for (and speed up) the review process.
- The SHARE procedures for translating and pre-testing provide an opportunity for CTLs to report difficulties to the Co-ordinator before the final version is fielded to allow for changes in the source questionnaire and all the translated versions.
- Careful documentation of versions, problems and changes is essential to maintain comparability across instruments.
- Secondary analysts can benefit from records of unavoidable differences or adaptations and from notes on mistakes found after a questionnaire was fielded
- SHARE is planned for replication. Many important instruments have a history of versions. Longitudinal studies need to record which version of which item is involved in a particular study.

Appendix F: Contract Specifications and Deliverables

Contract partners

Contract between SHARE, represented by the University of Tilburg, represented by Prof. Dr. Frank A. van der Duyn Schouten, Rector Magnificus, legal representative,

and

Firm name: <SURVEY AGENCY>
Mailing Address: <MAILING ADDRESS>

Contact: <LEGAL REPRESENTATIVE>

Phone: <Phone Number>
Fax: <FaxNumber>

E-mail: <E-MAIL ADDRESS>

The contract details the steps of the work to be performed by <SURVEY AGENCY> which have been specified in the A8.2 forms of the Contract Preparation Form (CPF) and in workpackage WP10 (with deliverable D7) in the Technical Annex (TA) to Contract QLRT-2001-00360 with the European Commission. The steps read as follows:

- (1) Pilot: The full questionnaire will be piloted to check for reliability and validity based on a quota sample, N about 50;
 - (2) Set-up of a survey management system (SMS);
- (3) Pre-test: The revised questionnaire will be pre-tested on a random sample to check for reliability and validity of sampling procedure and to finalize the questionnaire, N about 100;
 - (4) Prepare for a medium-scale test survey of the prototype questionnaire;
- (5) Medium scale test survey: N at least 1500 household to generate the actual prototype data base.

The scheduled workload for the service amounts to around 20 person months.

General Contract Specifications and Deliverables Survey Content

The Survey of Health, Ageing, and Retirement in Europe (SHARE) is a new study that will explore people's experiences as they grow older in currently eleven European countries from Sweden to Greece. SHARE will be based on best practice technologies in the participating countries. The project brings together scientists from many disciplines, including epidemiology, sociology, statistics, psychology, demography, and economics. They will be involved in feasibility studies, experiments, and instrument development. The long-term objective is to lay the foundation for a longitudinal SHARE as a fundamental and innovative resource for science and public policy.

The multidisciplinary nature of the data will provide new insights in the complex interactions between all relevant factors determining the quality of life of the elderly. The data to be collected include health variables (e.g. self-reported health, physical

and cognitive functioning, use of health care facilities), psychological variables (e.g. well-being, life satisfaction, control beliefs), economic variables (e.g. work activity, income, earnings history, retirement behaviour, wealth and consumption), social support variables, (e.g. family and social network, family support, intergenerational transfers of money and time). The questionnaire includes mainly closed questions as well as physical and mental health tests. The data will be freely available to the research and public policy community.

Survey design

The target population is all persons born 1954 or earlier having their regular domicile in <COUNTRY>, together with their spouses, independent of age ("interview eligibles"). The sample is based on residents, not citizens. Deviations from the sample definition above (e.g. omitting institutionalised persons) must be approved by SHARE beforehand, and specified in Part II.

The sample for the pre-test and the main survey (see below) will be a **full probability** sample. Quota sampling is not permissible for the pre-test and the main test survey. It is not permissible to substitute non co-operative interview eligible persons with other persons not belonging to the gross sample¹. No oversampling by age or other socio-demographic characteristics will take place. Details of the applicable **sampling frame** are described in Part II of this contract.

The SHARE survey is a **CAPI based face-to-face** interview. During the interview, showcards will be used alongside CAPI. In addition, a (drop-off) self-completion questionnaire (paper and pencil) is part of the interview. The self completion questionnaire contains additional questions in the areas of mental and physical health, health care, and social networks.

The **interview length** depends on the household size, normally ranging from around 80 minutes in a one-person household to slightly less than 120 minutes in a household consisting of a couple. Interviews will take longer in the rare cases in which a household contains more respondents eligible for the interview. On average, the household interview length will be around 100 minutes.

Interviewers

All interviewers shall have extensive general face-to-face interview experience. All interviewers receive a personal general interview training from <SURVEY AGENCY> prior to attending study specific training. This includes all skills related to approaching a household, addressing respondent concerns, probing, recording responses, completing time sheets, etc. <SURVEY AGENCY> gives relevant information about each interviewer, indicating at least:

- sex,
- age,
- education,
- years of experience and number of surveys conducted as an interviewer.

For pilot, pre-test, and main test survey, <SURVEY AGENCY> makes sure that an appropriate number of interviewers is available in a sufficient regional spread, to be specified in Part II.

¹ The gross sample consists of all originally sampled interview eligible households, ie number of target respondent households (100 for pretest, 1500 for main test survey), plus projected nonrespondent households. Sampled households are households which have at least one member born 1954 or earlier.

- interviewers are not overloaded with work from other surveys.
- there is sufficient time allocated for training.

Some (preferably two) representatives of <SURVEY AGENCY> must take part at the "train the trainer" program.

<SURVEY AGENCY> accepts quality control back-checks, e.g. contacting interviewed households by SHARE to ensure that the interview actually took place, acceptance of visits or feedback meetings by the country-team leader (CTL) and/or the SHARE co-ordinator or persons delegated by them.

Centralised services and arrangements

The following tasks are centrally provided and are not part of <SURVEY AGENCY> work:

The **questionnaire** will be centrally provided by CentERdata as an executable computer program. SHARE also provides a set of show cards and a drop-off questionnaire to be copied and printed for the interviewers by <SURVEY AGENCY>. No changes of the questionnaire or the drop off by the survey institutes are permitted. Materials for the physical measurements (grip strength measurement devices, stop watches, measurement tapes) will be provided by SHARE

A "train the trainer" program will be centrally conducted by SHARE. That is, SHARE will train representatives of <SURVEY AGENCY> how to train the interviewers. Suitable material (videos, animated PC programs, printed material) will be supplied by SHARE.

Training

Trainer Training: <SURVEY AGENCY> shall participate with two representatives at two train-the-trainer sessions which take place in Italy (end of May 2003) and Germany (mid of December 2003), each lasting two working days. These training sessions will be conducted in English. Trainers, in turn, will conduct a series of interviewer training sessions in the local language. Interviewer trainers must successfully pass trainer certification. Representatives of SHARE will be in attendance at trainer training sessions.

Interviewer Training: <SURVEY AGENCY> will confirm that all interviewers employed to work on the project have received general interviewer training covering such topics as ethical guidelines for interviewing human subjects, rules for asking questions and recording answers in an unbiased manner, proper procedures for locating and contacting respondents, and conducting refusal conversion attempts. For each stage of the survey process, <SURVEY AGENCY> will conduct in-person one-day training sessions of interviewers in <LANGUAGE> using materials provided by SHARE. <SURVEY AGENCY> will not be responsible for translating interviewer training materials into <LANGUAGE>. Only materials approved by SHARE will be used in the interviewer training sessions. Representatives of SHARE will be in attendance at interviewer training.

Prenotification: <SURVEY AGENCY> will mail a SHARE-approved letter to all selected respondents to notify them of the study. The letter will introduce the purpose of the study, the rights of respondents, what will be requested from them

during the interview, and the data confidentiality responsibilities of the researchers and the survey agency.

Data Collection Specifications

Data collection will be closely interconnected with the central **data management** service at University of Tilburg and CentERdata.

The survey process takes place in three steps.

The **pilots** take place in June 2003 and test the survey instrument in each country. <SURVEY AGENCY> conducts pilot interviews with a minimum of 50 interviewed households. The pilot is based on a convenience or quota sample which is roughly representative of the population aged 50 or older.

The **pre-tests** will take place between 12. January and 20. February 2004 and mainly test the country-specific procedures to achieve a probability sample. <SURVEY AGENCY> shall complete interviews in a minimum of 100 households with the interview eligible respondent, selected by the sampling procedure detailed in Part II, plus spouse of respondent, plus all other household members born 1954 or earlier, plus their spouses. The pre-test should be conducted in a manner as close as possible to the main test survey.

The main test surveys will be conducted between April and September 2004. It delivers a prototype for the planned multi-year panel, and should serve as a demonstration object to the European Commission. The demonstration includes the achievement of a genuine probability sample. <SURVEY AGENCY> shall complete interviews in a minimum of 1.500 households with the interview eligible respondent, selected by the sampling procedure detailed in Part II, plus spouse of respondent, plus all other household members born 1954 or earlier, plus their spouses². The minimum fieldwork duration shall be three months, the maximum six months. The main test survey shall fulfil the following response rate criteria:

The target household response rate is 75 percent, defined as follows ("Household response rate").

(Households with at least one completed interview of a person born in 1954 or earlier) / (total selected interview eligible households – nonsample households).

A "nonsample household" will be defined as a selected interview eligible household (ie containing at least one person born in 1954 or earlier), where all interview-eligible persons in this household:

- * are deceased
- * are incarcerated during the entire survey period
- * are hospitalised or institutionalised during the entire survey period
- * are out of the country during the entire survey period
- * are unable to speak <LANGUAGE>

² We thus expect to have around 2200 persons interviewed (based on an average of about 1,5 persons per household in the target sample).

<SURVEY AGENCY> guarantees a household response rate of at least 60 percent.

The target is to interview all eligible household members. <SURVEY AGENCY> guarantees a conditional within-household response rate (individual completed interviews / interview-eligible household members) of 80 percent.

The target person response rate is 75 percent, defined as follows ("Person response rate"):

(completed individual interviews) / (total interview-eligible persons – nonsample persons).

"Interview-eligible persons" will be defined as:

* All age eligibles in the household plus their spouses.

A "nonsample person" will be defined as an interview-eligible person in a sample household who:

- * is deceased
- * is incarcerated during the entire survey period
- * is hospitalised or institutionalised during the entire survey period
- * is out of the country during the entire survey period
- * is unable to speak <LANGUAGE>

The target is to collect 96 percent of the self-completion questionnaires, based on all CAPI - interviewed persons. <SURVEY AGENCY> guarantees a drop-off collection rate of at least 90 percent.

Breakoffs: On occasion, a respondent may express reluctance to continue an interview If a respondent is unable to finish the questionnaire at that time, interviewers shall make an appointment to return to the household at another time convenient for the respondent to complete the interview. Partially completed interviews will not count towards the overall goal of completing 1,500 interviews.

Interviewing Staff: Approximately 100 interviewers will work on the main test survey, around five interviewers on the pilot and about 10 interviewers on the pretest. In the main test survey, the number of interviews per interviewer shall be around 15 on average and must not exceed 50. <SURVEY AGENCY> guaranties that all interviewers have already conducted CAPI interviews.

Interviewers are responsible for locating sample persons; describing the research and recruiting sample persons into the study; making appointments for interviews; identifying spouses and other interview eligible persons who will be asked to provide an interview; conducting CAPI interviews with selected respondents and the respective interview eligible persons; maintaining detailed records of each contact and contact attempt; returning completed interviews back to <SURVEY AGENCY>, and backing up data on their laptop. Only those interviewers who successfully pass training certification and who maintain high quality standards shall work on this project.

End of Study Procedures: <SURVEY AGENCY> will work closely with SHARE to determine the best approach for closing out the study and obtaining the

response rate goal as well as completing 1,500 interviews. End of study strategies such as subsampling remaining cases may be employed to reach these goals. SHARE must approve all such strategies.

Interview Mode: The laptops used must accommodate the executable survey instrument code in a WindowsTM 95 or higher environment. <SURVEY AGENCY> will be responsible for supplying the computers. SHARE is responsible to provide an executable production version of the interviewing application to <SURVEY AGENCY>.

During the production interviewing phase of the project, data will be sent back to <SURVEY AGENCY> central office via modem, in SPSS format within a working day after the delivery of the raw data to CentERdata.³ Interviewers will make back up copies of data files containing completed interviews on their laptops before the data are sent to the <SURVEY AGENCY> central office.

Respondent Contact Procedures

Initial contact with the selected sample person will be made in-person or by telephone. At this initial contact the interviewer should obtain the number of all interview eligible household members and make an appointment to conduct the interview.

A minimum of five in-person **contact attempts** (of which at least two should be in person at the respondent's address) shall be made for each interview eligible before such person may be considered non-respondent. In-person and telephone contacts shall be made at varying times of day and days of the week over at least a three month period to maximise potential contact with the household and/or respondent.

Record of Calls: For each telephone or in-person contact or contact attempt with the selected respondent or members of their household, or other informants such as neighbours, interviewers shall record the date of the call, time of the call, result code which describes the call outcome contact type (telephone versus in person), and interviewer comments about the call. This information shall be entered into an electronic database. Notes should be sufficiently detailed so that someone other than the interviewer can understand the sequence and nature of calls to a sample household. A set of standard result codes will be provided for classifying the outcome of each case.

"Refusal Conversions": <SURVEY AGENCY> will attempt to convert every initial non-cooperative respondent. Interviewers must maintain detailed contact and contact attempt records which clearly indicate the nature of the respondent's reasons for being reluctant to participate. These contact protocols will be the basis for determining whether the refusal is a final refusal or whether a refusal conversion attempt will be made. All cases which express reluctance to participate must receive a refusal conversion attempt if it is not considered a final refusal. Where appropriate, initially refusing respondents may be offered an incentive for their participation. The form and value of the incentive will be discussed with and approved by SHARE.

Thank-You Note: <SURVEY AGENCY> will mail each respondent a thank-you letter after the interview. The content of the thank-you letter will be developed by

-

³ Provided that no unforeseen events occur.

SHARE. Copies of the letter will be provided to <SURVEY AGENCY>. <SURVEY AGENCY> will be responsible for providing a mailing envelope, postage, and mailing the letters to respondents.

Respondent Name, Address, and Phone Number: <SURVEY AGENCY> will require interviewers to ask each respondent for their full name, current address, and phone number. This information will be used to verify that an interview occurred. <SURVEY AGENCY> will keep respondent contact information separate from the survey data in electronic format at no additional cost to the study for a period of 5 years. The re-contact record for each respondent will also include its unique sample identification number.

Data Deliverables

Delivery of data will comprise files containing **interview data**, remarks data, dropoff data (in SPSS or STATA format), an ASCII file containing the **keystroke** and **timestamps** files, the status reports and the contact protocols, and the technical report.

Applications in the SHARE-provided CAPI-interviewing software will output the interview **raw** data in one file. The time interval between interview and posting this data to CentERdata is at maximum seven working days. The same timing applies to the contact protocols and the status reports, and timestamps files, which are to be delivered as ASCII files.

Sample Case Identification Numbers: Each country participating in the project will be assigned a specified range of case identification numbers which uniquely identifies each case in the sample. Consistency in the sample case numbering system across countries is required in order to facilitate quality control procedures and to uniquely identify each country's data in the final data set. The final data set used for the analysis portion of the project will be a compilation of the data from all participating countries.

<SURVEY AGENCY> will maintain a sample management system based on "exposure records" which provides the necessary data to prepare the production of the weekly status reports and electronic contact protocols. Information contained in the SMS requirement list shows which information <SURVEY AGENCY> shall provide to SHARE each week upon the start of data collection. The columns in the report describe the status of each sample case. The rows in the table show the various subgroups for which the status of each case should be shown. The format of such reports will be defined later. In addition to showing the status across the total sample, the status of each sample case will also be shown by week of production interviewing, and by interviewer.

The **SMS documentation tables** are to be delivered after pretest and main test survey, respectively.

The completed **drop-off** will be scanned or keyed in by <SURVEY AGENCY> and be delivered as a SPSS or STATA-database. Remarks data have to be delivered as an ASCII-file two times: two months after the start of the fielding period and six weeks after the fielding period. <SUREY AGENCY> is responsible for duplicating all materials required for the pilot or the pretest. <SURVEY AGENCY> will be responsible for coding text from open-ended questions and the remarks, with the

help of the CTL. The format and an appropriate electronic coding scheme will be given by SHARE.

Technical reports detailing all aspects of the data collection at the pretest and the main test survey stages shall be delivered within one month of the end of the fieldwork. The report shall include at the minimum:

- How the agency assesses its own performance, relative to the requirements.
- Which measures have been undertaken to meet these requirements.
- An indication which requirements have produced unusually high costs.
- A description of the cooperation with the various SHARE partners
- A summary of the debriefing meetings.

<SURVEY AGENCY> will provide an additional data set which includes statistical data about the community in which the respondent lives. These data must at a minimum include the number of inhabitants and the share of inhabitants born 1954 or earlier.

Quality Control Procedures

Verification: <SURVEY AGENCY> will certify that a minimum of 10 percent of each interviewer's completed interviews has been verified by supervisory personnel. Additional checks may be made by SHARE. Verification involves calling the respondent by telephone and re-asking factual questions from various parts of the interview. A higher proportion of an interviewer's work will be verified during the beginning of the data collection period than at the end of the data collection period so that the overall average percent for each interviewer across the data collection period is at least 10 percent. Written records of the verification process must be maintained by <SURVEY AGENCY>. SHARE may inspect verification and other quality control materials without prior notice throughout the data collection and data processing period. Reports on the results of verification will be provided bi-weekly after the start of data collection. Verification reports will disclose verification outcomes by individual interviewer. For purposes of reporting verification results, interviewers will be assigned a unique identification number which does not disclose their individual identities. Any interviewer credibly suspected of interview falsification will have 100 percent of his or her work verified. In all such cases these interviews will be re-taken at no cost to the project.

Debriefing

After pilot and pre-test, <SURVEY AGENCY> shall hold a debriefing meeting with all interviewers, in which the interviewers report on their experiences during the fieldwork. The CTL and, possibly, members of the SHARE co-ordination team will take part at these meetings. Location and format of the meetings will be agreed upon by SHARE and <SURVEY AGENCY>.

After the main test survey, <SURVEY AGENCY> shall hold a debriefing meeting with the CTL and some members of the SHARE co-ordination team, in which some (preferably two) representatives of <SURVEY AGENCY> will summarise the experiences during the fieldwork. Location and format of this meeting will be agreed upon by SHARE and <SURVEY AGENCY>.

Legal rights and venue

The SHARE Contract with the European Commission and its annexes (attached), in particular annex II, form part of this contract.

Before the pretest and the main test survey start, a file containing all sample identification numbers ("keys") representing the gross sample must be given to SHARE. The address file remains with <SURVEY AGENCY>. Upon demand of the SHARE co-ordinator, selected addresses and phone numbers must be delivered to the co-ordinator to enable back checks.

Upon completion of the main test survey, all address files together with the keys become the sole property of SHARE. At the end of the interview, each respondent is asked if he/she is willing to take part in another wave of SHARE. This information shall be kept as part of the person identifying key. Upon demand of the SHARE coordinator, the address file shall be given by <SURVEY AGENCY> to another survey agency.

The SHARE country leader and <SURVEY AGENCY> are jointly and separately responsible that national legal requirements of data confidentiality laws are fulfilled. If implementation of the European law for data confidentiality has not (yet) taken place in <COUNTRY>, European law applies. <SURVEY AGENCY> shall adhere to ESOMAR standards.⁴

All reports by <SURVEY AGENCY> shall be written in English.

Any subcontracting by <SURVEY AGENCY> requires explicit and written approval by the CTL.

All **copyrights** on data and documents (including their translations) are with SHARE. The International Copyright on the survey remains the property of SHARE, is non-transferable. Data must not be copied, reproduced, kept in any data bank, stored in any retrieval system or transmitted in any form or by any means whatsoever, electronic, mechanical, photocopying, recording or otherwise or given or sold to any third party without the prior written consent of the copyright holder. Such unauthorised transfer of either the whole or any part of any Data or Documents will be regarded as a breach both of International Copyright and the EU Data Protection Directive (95/46/EC).

The Contract is to be construed under the **law of the Netherlands**. The venue (place of litigation) is Tilburg, The Netherlands, with Breda, the Netherlands, as the relevant court. Exceptions must be specified in Part II.

Data Protection: Names, personal data and all other personal information in the Survey are deemed to be at all times the intellectual property of SHARE and it is to be noted that such data contain confidential information which is legally privileged and is intended for the use of the project only. All information contained therein is by the EU Data Protection Directive (95/46/EC). covered Each of the parties agrees it has complied with and shall continue to comply with the provisions of EC Council Directive 95/46/EC and any associated national laws (as amended from time to time) relating to the protection of personal data; it has obtained all the necessary consents of the individuals whose personal data it holds; it has in place all such appropriate technical and organisational measures to protect such personal data against unlawful processing, damage or destruction; it shall not process the personal data in any manner incompatible or inconsistent with the purposes of this Agreement.

-

⁴ http://www.esomar.nl/guidelines/ICC_ESOMARcode.htm

Date and 1	olace:
------------	--------

Signature on behalf of the legal representative of the SHARE project, Prof. Dr. Frank A. van der Duyn Schouten, Rector Magnificus Tilburg University

Date and place:

Signature on behalf of the legal representative of the <SURVEY AGENCY>

Mailing Address: <MAILING ADDRESS>

Contact: <LEGAL REPRESENTATIVE>

Phone: <Phone Number>
Fax: <FaxNumber>

E-mail: <E-MAIL ADDRESS>

Read and approved: Country Team leader:

Date: Signature

Appendix G - Contributors

Kirsten H. Alcser is Survey Director at the University of Michigan Institute for Social Research (ISR) in the United States. She has a doctorate in Organizational Sociology from the University of Michigan and has worked as a research investigator and study director for 20 years. Since coming to the ISR in 1991, she has consulted extensively on survey research design and methodology and she regularly lectures on those topics at the University of Michigan.

Grant Benson is the Director of the Survey Services Laboratory CATI facility at the University of Michigan's Institute for Social Research (ISR) in the United States. He holds a Master's in Political Science and is currently completing his Doctorate in Comparative Politics with a focus on welfare policy. Benson has managed large, national field and telephone studies, and provided consultation on research design and methodology for almost a decade.

Axel Börsch-Supan is Professor for Macroeconomics and Public Policy and Director of the Mannheim Research Institute for the Economics of Aging at the University of Mannheim, Germany. He holds a Diploma in Mathematics from Bonn University and a Ph.D. in Economics from M.I.T. He started teaching at Harvard's Kennedy School of Government, then taught at Dortmund and Dresden, Germany. Börsch-Supan chairs the Council of Advisors to the German Economics Ministry and is Member of the German Academy of Sciences "Leopoldina" and the German Academy of Sciences at Berlin-Brandenburg.

Agar Brugiavini is Professor in Economics at the University Ca' Foscari of Venice, Italy. She obtained a Ph.D. in Economics at the London School of Economics, UK, and was a lecturer in Finance at the City University Business School (London, UK). She was a _Fulbright Fellow at Northwestern University (USA) and she is currently responsible for the EU-sponsored RTN-Program AGE for the Venice node. She is also part of the NBER (National Bureau of Economic Research) international research group on Social Security and Retirement Around the World and a research associate of the Institute for Fiscal Studies (London, UK). Her major fields of research are in the economics of savings, pensions, pension reforms and labour supply; she has carried out both theoretical and empirical work. In her applied work she has acquired extensive knowledge of micro-data sets at household/individual level both for Italy and for the UK.

Dimitrios Christelis is an RTN research fellow at the Center for Studies in Economics and Finance, University of Salerno. He holds a Ph.D. in Economics from the University of Pennsylvania. His research interests include the saving and portfolio selection decisions of households and the statistical analysis of missing data.

Enrica Croda is SHARE-AMANDA Post-Doctoral Fellow and Adjunct Professor of Economics at Università Ca' Foscari Venezia, Italy. She holds a Laurea degree in Economics from Università Ca' Foscari Venezia and a M.A. and a Ph.D. from UCLA - University of California at Los Angeles. She is a member of Fondazione Eni Enrico Mattei International Research Network, of the California Center for Population Research, and of the EU-sponsored RTN-Program AGE.

Marcel Das is director of CentERdata, a survey research institute specialized in Internet surveys. He graduated in econometrics at Tilburg University in 1993. He holds a Ph.D. in Economics from the same university. After finishing his Ph.D. he

worked as a senior researcher at a contract research institute. Das has several international scientific publications in the field of statistical and empirical analysis of survey data.

Giuseppe de Luca is a Ph.D. student in the "Econometrics and Empirical Economics" program at the University of Rome "Tor Vergata", and makes part of the AMANDA project at the University of Venice "Ca' Foscari". He was also a visiting researcher at the Mannheim Research Institute for the Economics of Aging, as part of the RTN project.

Patrik Hesselius, Ph.D., Uppsala University, 2004, is a post-doctoral researcher at the Institute for Labour Market Policy Evaluation (IFAU) and the Department of Economics, Uppsala University. He is a research fellow at the Department of Oncology, Radiology and Clinical Immunology, Uppsala University. His research interest is mainly in labour economics and health economics (at the moment social security and sickness absence), and has also a strong interest in microeconometrics, social interactions and epidemiology.

Tullio Jappelli is Professor of Economics at the University of Salerno, Director of the Centre for Studies in Economics and Finance (CSEF), and a Research Fellow of the Centre for Economic Policy Research (CEPR). His current research interests are in the area of saving, intergenerational transfers, pension reforms, household portfolio choice.

Hendrik Jürges is a senior researcher at the Mannheim Research Institute for the Economics of Aging, University of Mannheim, and Assistant Co-ordinator of SHARE. He holds a Diploma in Economics and Sociology from the University of Cologne and a Ph.D. in Economics from the University of Dortmund.

Adriaan Kalwij, Ph.D., Tilburg University, 1999, is a post-doctoral researcher at the department of economics at Tilburg University. He is a research fellow at the Amsterdam Institute for Advanced Labour Studies, University of Amsterdam, Institute for the Study of Labor, Bonn, and CentER for Economic Research, Tilburg University, and is on the Editorial Board of the Oxford Bulletin of Economics and Statistics.

N. Anders Klevmarken is professor of Econometrics at Uppsala University. He holds a PhD in statistics from Stockholm University. 1976-1985 he held the chair in Statistics at Gothenburg University, 1985-1994 he was professor of Econometrics at the Swedish Council for Humanities and Social sciences. In 1992 Klevmarken was the president of the European Society for Population Economics. He has served as a member of the Swedish Council for Social Research. He is currently a member of the scientific council of Statistics Sweden and of the standing committee for the consumer price index. In the beginning of the 1980s Klevmarken initiated the Swedish household panel survey Household Market and Nonmarket Activities (HUS), a project for which he was the director until 1993. Most of Klevmarken's economic research falls within the area of applied micro econometrics including applications to labor economics, demand analysis, time-use, distributional issues, and micro simulation.

Oliver Lipps is Head of Methods and Analyses at the Swiss Household Panel at the University of Neuchâtel, Switzerland. Before, he was Field Project Manager at the SHARE project at the University of Mannheim, Germany. He holds a Diploma in Mathematics from Freiburg (Breisgau) University, Germany, and a Ph.D. in Civil Engineering from Karlsruhe University, Germany.

Omar Paccagnella is a research officer at the Department of Economics, University of Padua, Italy. He graduated in Statistics and Economics and obtained a Ph.D. in Applied Statistics in 2003 at the Department of Statistics, University of Padua. His research activities focus on multilevel modelling, policy evaluations and survey designs. He has been working in SHARE since the beginning

Mario Padula is Associate Professor of Econometrics at the University of Salerno. He holds a Ph.D from University College London. His current research interests are in the area of saving, pension reforms, household portfolio choice and consumer credit.

Franco Peracchi is a Professor of Econometrics at "Tor Vergata" University in Rome. He holds a M.Sc. in Econometrics from the London School of Economics and a Ph.D. in Economics from Princeton University. He started teaching at UCLA and NYU, then taught at Udine and Pescara in Italy and Universidad Carlos III in Spain. His research interests include econometric theory and methods, nonparametric and robust statistical method, labor economics, and the economics of social security and pensions.

Roberta Rainato is SHARE-AMANDA research assistant at the Department of Economics of the University of Venice. She holds a Laurea degree in statistics from the University of Padua.

Arthur van Soest is Professor in Econometrics at Tilburg University, the Netherlands, and senior economist at RAND, Santa Monica, California. He has a master's degree in Mathematics from Nijmegen University and a master;s and Ph.D. in Econometrics from Tilburg University. His research interests cover microeconometrics (limited dependent variable models, panel data, semi- and nonparametrics), labor economics (participation and labour supply, formal versus informal sector employment, wage structures), consumption and saving behaviour (income expectations, demand systems, portfolio choice), and economic psychology (risk aversion, time preferences, anchoring, non-expected-utility models).

Bengt Swensson (PhD in statistics, Stockholm University) is professor emeritus of statistics (Örebro University and Uppsala University). He is co-author (with C.-E. Särndal and J. Wretman) of *Model Assisted Survey Sampling* (Springer-Verlag 1992). One of his papers (with C.-E. Särndal and J. Wretman) appears in *LASS Jubilee Commemorative Volume – Landmark Papers in Survey Statistics* as one of the 19 best and most influential papers on sample survey theory and practice in the period 1934-1990. He was for several years a member of Statistics Sweden's scientific council.

Corrie Vis is Head of the research department at CentERdata, Tilburg University.

Guglielmo Weber (Ph.D. economics, LSE 1988) is a full professor of econometrics at the Statistics Faculty and a member of the Economics Department. He previously worked at University College London and Università di Venezia and was a visiting professor at Nothwestern University. He is also an international research affiliate of the Institute for Fiscal Studies (London) and CEPR research fellow. His specialisation is the econometric analysis of consumer behaviour using survey data. He has worked on US, UK and Italian household survey data analysing demand patterns, saving and household portfolio decisions. He has also been involved in the analysis of recall errors in consumer survey data, within a working group set up by the Italian Central Statistical Office (ISTAT) in co-operation with the Bank of Italy. He has published papers on *American Economic Review*, *Econometrica*, *Journal of Political*

Economy, Review of Economic Studies and other peer-refereed journals, and has been an editor or associate editor of academic journals in Economics.

Bas Weerman is Software developer (statistical database access and Internet communications) and website designer (including maintenance) at CentERdata, Tilburg University. He is responsible for the technical layout of the SHARE project.