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## The Health of Older Workers in Europe: Results of SHARE 2006

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An ageing population and the extension of working life are confronting most countries with the challenge of healthy ageing. Using data from the Survey of Health, Ageing and Retirement in Europe (SHARE), this study focuses on the state of health of Europeans aged 50 to 59 and its determinants.

If we note a notable increase in health problems from the age of 50, we equally note considerable situational differences between European countries. Although France has one of the highest life expectancy rates, its position is inversely rather poor regarding the health status of workers in their fifties.

After comparing the health status of older workers with that of the unemployed and inactive population in the same age group, creating the 'healthy worker' effect, particular attention is given to the analysis of the determinants of health in older employed Europeans.

The increase in the number of elderly persons combined with the measures to extend working life currently characterising Europe is confronting most countries with a new challenge: healthy ageing. Sometimes referred to as *active ageing* or *successful ageing*, this idea is at the core of public policy strategies aimed at promoting seniors' health and quality of life. Beyond the field of preventive medicine, healthy ageing equally supposes an environment enabling active participation in society to prevent age-associated loss of autonomy. In this context, health status and the labour market participation rate among seniors will strongly determine the success of active ageing policies.

This study aims to audit the health status of 50 to 59 year olds in 14 European countries using individual data collected by SHARE (2006-2007) [Context and Methods inserts].

The health status comparisons proposed are based on three health indicator category groups covering the main areas traditionally used to measure health status as defined by Blaxter (Blaxter, 1989; Sermet, Cambois, 2002). Among the numerous indicators available, we retained: self-perceived health status, the presence of physical and psychotic symptoms to represent subjective health, grip strength and cognitive impairment to cover the medical and psychological field and finally, activity limitations to determine physical function-

nal health status (Health Status measurements in SHARE insert).

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**In Europe, older workers  
are in better health than  
the unemployed or inactive**

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Whatever the indicator, the majority of Europeans are in good or very good health. Health status between countries is extremely heterogeneous and confirmed by other sources. In terms of self-perceived health for example, ECHI project (European Community Health Indicators) data indicate a clear gradient

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beginning in the Scandinavian countries through the United Kingdom and Ireland where almost 8 out of 10 individuals perceive their health as good or very good, followed by a central axis (France, Belgium, Spain) where only 7 out of 10 individuals report good health and ending in Central and Eastern Europe where the situation is clearly less favourable (cf. [http://ec.europa.eu/health/indicators/indicators/index\\_en.htm](http://ec.europa.eu/health/indicators/indicators/index_en.htm)).

In parallel, SHARE reveals considerable disparities in the employment rate of older Europeans with a similar North/South gradient. The employment rate in Sweden and Denmark is above 75% whereas in southern European countries such as Spain, Italy and Greece, the employment rate is below the European average of 61%. The following analysis demonstrates that health status and labour market participation in 50 to 59 years olds is strongly correlated.

### Health status measurements in SHARE\*

**Perception of general health status.** The question concerning self-perceived health is as follows: 'Would you say your health is excellent, very good, good, fair, poor?' A dichotomous version was used for analytical purposes where 1 is used to code individuals' declarations of 'fair or poor' health and 0 to code 'good, very good or excellent' health.

**Activity limitations.** This variable is generated by means of the following question: 'For at least the last six months, to what extent have you been limited because of a health problem in activities people usually do?' The variable is coded 1 if individuals declared a limitation whether severe or not, and 0 if individuals declared no limitation.

**Physical symptoms.** Individuals were asked the following question: 'Over the past six months, have you suffered from one of the following symptoms?' A showcard presented a list of 12 symptoms (including back and/or joint pain, heart problems, shortness of breath, etc). The variable generated is coded 1 if the respondent declared at least two symptoms, otherwise it was coded 0.

**Grip strength.** A grip-strength test was carried out during the interview using a dynamometer and following a specific procedure. A dichotomous variable is coded 1 if individuals' grip strength is inferior to the 1st distribution quintile and otherwise 0. It should be noted that during the creation of this variable, the breakdown into quintiles was effectuated according to gender and body mass index (BMI) grouped into three categories.

**Symptoms of Depression.** A scale of risks of depression is established from a series of 12 questions (depressive, pessimistic, suicidal, guilt, difficulty sleeping, etc.) corresponding to the EURO-D scale. Individuals with a high risk of depression is generally associated with 3 out of the 12 possible symptoms being declared – the variable is then coded 1 or otherwise 0.

\* Cf. The dictionary of survey codes can be consulted on the IRDES web site:

<http://www.irdes.fr/EspaceRecherche/Enquetes/SHARE/DictionnaireCodesShare.pdf>

## METHOD

### Sample

Data on the health of older Europeans used here were taken from the second wave of SHARE conducted in 2006 which covers 11,964 individuals aged 50 to 59 in 14 countries. The descriptive statistics were corrected for non-response bias to as to obtain results representative of the population aged 50-59 in each country studied. The working population represented over two thirds of the sub-population of actively employed individuals.

### Descriptive analysis

The descriptive analysis compares the prevalence of health problems in actively employed individuals aged 50 to 59 with those of the unemployed and inactive populations in the same age range. For analytical purposes, we use a dichotomous version of the health indicators to taking the value 1 for poor health and otherwise 0.

### Multi-variable analysis

Probit model regression analyses were carried out to correct the confounding effect of socio-economic determinants (age, gender, level of education, etc.). By adding country indicators to explanatory variables it is possible to isolate the actual effect of country of residence on health status once purged of the effect of observable individual variables. International health status comparisons are carried out within the framework of these Probit models.

### Self-perceived health

In total, 26% of 50-59 year olds declare a deterioration in health status (inferior or equal to 'fair') with a prevalence of 17.5% for the employed against 40% for the unemployed and inactive (table 1).

Significant cross-country disparities are noted: in Ireland, Greece, Switzerland, Belgium and Denmark self-perceived health is better than the European average whereas in Poland, the Czech Republic, Austria, Germany and Italy it is poorer than average. With 23% of individuals in poor health, France is within the European average. Whatever the country, the actively employed have a better perception of their health than the rest of the population. Cross-country classifications are identical whether based on the economically active population of 50-59 year olds or the group as a whole.

### Physical symptoms

The percentage of individuals declaring two or more symptoms varies according to country from between 23% (Greece and Ireland) to over 40% (Poland, Czech Republic and Austria). With 40% of indivi-

duals declaring at least two physical symptoms, France is equally ranked among the leaders.

As before, older individuals in employment are fewer to declare physical symptoms than the non-working population, whatever the country.

### Symptoms of depression

The population aged 50-59 declaring at least three symptoms evoking depression varies from one to three according to country. The rate is very high in Poland where 40% of individuals are at risk from depression and, with 30% of individuals at risk, France is in second position. In total, 24% of the older labour force falls within the risk category with 18% for the working population against 33% for the non-working population.

### Cognitive impairment

The population aged 50-59, too young to suffer from Alzheimer or related diseases are relatively unexposed to the risk of cognitive impairment (only 2%). Even if the differences between the working (> 1%) and non-working (4%) population are significant, the

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## Health status indicators in individuals aged 50-59 according to country and employment status

in %

	Poor perceived health			Activity limitation			Physical symptoms (2+)			Low grip strength			Symptoms of depression		
	Em- ployed	Others*	Total	Em- ployed	Others*	Total	Em- ployed	Others*	Total	Em- ployed	Others*	Total	Em- ployed	Others*	Total
Germany	20.4	44.6	27.9	31.0	56.6	38.9	27.5	42.2	32.0	10.5	21.4	13.8	14.8	25.3	18.1
Austria	19.1	43.1	30.9	35.8	56.2	45.8	34.0	52.0	42.8	16.1	23.4	19.5	10.1	24.4	17.0
Belgium	10.4	31.1	19.0	17.6	43.9	28.5	31.8	47.3	38.2	14.8	27.0	19.7	20.8	32.2	25.5
Denmark	10.3	52.3	19.8	19.1	65.8	29.7	31.6	59.7	38.0	16.7	34.8	20.6	15.1	36.1	19.8
Spain	16.6	37.7	25.9	14.8	37.9	24.9	21.0	32.8	26.2	23.3	49.3	34.5	11.4	36.6	22.5
<b>France</b>	<b>17.8</b>	<b>32.0</b>	<b>22.9</b>	<b>20.9</b>	<b>39.4</b>	<b>27.4</b>	<b>37.4</b>	<b>44.3</b>	<b>39.8</b>	<b>19.4</b>	<b>21.0</b>	<b>19.9</b>	<b>26.5</b>	<b>37.4</b>	<b>30.2</b>
Greece	7.2	18.5	11.8	8.4	21.7	13.8	17.9	30.2	22.9	19.3	31.7	24.2	9.4	19.9	13.7
Ireland	6.3	21.4	11.5	13.3	33.3	20.3	17.8	31.3	22.5	26.9	38.1	30.7	12.5	24.3	16.6
Italy	19.4	36.9	27.7	18.5	30.1	24.0	25.4	32.4	28.7	19.7	33.7	26.2	21.5	29.3	25.2
Netherlands	12.7	40.9	21.5	34.2	62.7	43.1	24.7	42.9	30.3	10.8	23.5	14.6	12.6	29.1	17.8
Poland	26.6	52.8	42.5	27.0	51.1	41.6	35.1	55.5	47.4	15.0	31.6	25.0	31.4	45.8	40.0
Czech Rep.	18.0	55.4	31.9	31.0	68.0	44.7	33.2	63.3	44.3	10.4	26.1	15.9	14.5	33.8	21.7
Sweden	19.2	49.3	24.3	25.0	78.3	34.1	28.2	62.4	34.0	13.4	27.6	15.6	13.3	36.5	17.1
Switzerland	7.3	33.9	12.5	16.5	42.5	21.6	23.7	38.2	26.5	13.1	23.2	14.9	13.7	33.2	17.5
<b>Total</b>	<b>17.5</b>	<b>39.6</b>	<b>26.1</b>	<b>23.4</b>	<b>44.4</b>	<b>31.5</b>	<b>28.7</b>	<b>42.2</b>	<b>33.9</b>	<b>16.3</b>	<b>29.9</b>	<b>21.5</b>	<b>18.4</b>	<b>33.0</b>	<b>24.0</b>

\* Others: unemployed, economically inactive (including retired).

Source: IRDES, 2006-2007 SHARE data (wave 2). Weighted effects.

number of individuals suffering from cognitive impairment is too low to carry out a comparative cross-country analysis.

### Low grip strength

The percentage of individuals with low grip strength ranges from below 15% in Germany, the Netherlands and Switzerland to over 30% in Spain and Ireland. As for the other health variables, it is interesting to note that the actively employed are fewer (16%) than the unemployed and inactive (30%) to declare low grip strength. The unemployed and inactive populations are on average twice as many to declare low grip strength whatever the country studied.

### Activity limitations

Activity limitations due to a health problem affect 31.5% of the population aged 50 to 59; of the actively employed, 23% declare activity limitations against 44% among the unemployed and inactive populations. The percentage of individuals aged

50-59 reporting activity limitations varies considerably from over 40% in Austria, the Czech Republic, the Netherlands and Poland to 20% in Switzerland and Ireland and only 14% in Greece.

### The 'healthy worker' effect

These initial descriptive statistics show that, whatever the country, the older labour force in active employment is in better health than the unemployed or inactive. These results corroborate the 'Healthy Worker Effect' favouring an over-representation of individuals in better health on the labour market. This effect is essentially the result of a phenomenon of selection: only individuals in good health have access to the labour market or remain in employment.

Moreover, in the context of international comparisons, the labour force participation of the over fifties population is not only determined by health status but also the implementation of early retirement incentives or inversely, incentives to maintain or increase employment rates.

## The impact of individual determinants...

In order to present an overview of older individuals' health status, the following multi-variable analysis specifically focuses on cross-country comparisons of those in active employment. It enables the study of international differences once corrected for the confounding effect of individual factors such as age, gender, level of education, social status, health risk behaviours and harshness of working conditions. According to country, the residual effects observed reflect the real differences in health status.

### Good working conditions, living as a couple, level of education... favour good health in the older working population

Among the variables revealing a marked effect on health whatever the indicator retained, working conditions as experienced by the employees are strongly cor-

related with health status. For example, the probability of declaring poor health is 5.7 percentage points lower among individuals aged 50 and over benefitting from comparatively favourable working conditions. Living as a couple, especially if the partner is in good health, is equally associated with good health. Finally, we find the more traditional effects such as the protective role played by education level and the negative impact of health risk behaviours.

**The differentiating effects of age and gender**

The other explanatory variables regarding health status have differentiating effects according to the health indicator considered.

Men are thus less likely to declare physical symptoms or signs of depression. The prevalence of ill health only appears to increase with age in terms of self-perceived health and grip strength. No age effect is observed regarding activity limitations or physical symptoms whereas symptoms of depression decrease with age.

The majority of these results are expected, given the narrow age range being studied. The real increase in the prevalence of activity limitations, for example, occurs at a much later stage at over 80 years old.

**Being a migrant or carer negatively impacts health status**

Particular attention was given to country of origin and whether individuals were born in their country of residence or not. It appears that migrants more frequently perceive their health as being poor, more frequently declare symptoms of depression and, all other things being equal, are more frequently affected by lower grip strength than individuals born in the country of residence (risk above 7 percentage points).

Finally, care provided to an individual outside the immediate household (for example informal caring for a dependant parent) can be an important determinant in health status for individuals in the 50-59 age range. Among carers, the risk of depression thus increases by 5.1 percentage points and the risk of declaring physical symptoms by 4.7 percentage points.

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**Determinants of health status of workers aged 50-59 years in Europe**

	Poor perceived health	Activity limitation	Physical symptoms(2+)	Low grip strenght	Symptoms of depression
<b>Working conditions</b>					
<i>Bad</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
Good	-0.057 ***	-0.080 ***	-0.090 ***	-0.027 ***	-0.084 ***
<b>Gender</b>					
<i>Women</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
Men	-0.013	-0.024 **	-0.123 ***	0.010	-0.115 ***
<b>Age</b>					
<i>50-52</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
52-54	0.019	-0.012	0.014	0.032 **	0.003
54-56	0.035 **	0.008	0.004	0.069 ***	-0.026 **
56-58	0.048 ***	0.017	0.016	0.104 ***	-0.010
58-59	0.038 **	0.007	0.012	0.125 ***	-0.038 ***
<b>Risk factors</b>					
Smoker	0.025 ***	0.024 **	0.058 ***	-0.015 *	0.016 *
<b>Education</b>					
<i>&lt; High school</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
High school	-0.037 ***	-0.025 **	-0.023 *	-0.015	-0.027 **
SupERIOR	-0.083 ***	-0.039 ***	-0.027 **	-0.03 ***	-0.015
<b>Household</b>					
<i>Without spouse</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
With spouse/partner					
- In good health	-0.060 ***	-0.034 **	-0.064 ***	-0.031 **	-0.070 ***
- In poor health	0.013	0.021	-0.012	-0.01	-0.032 ***
-Health status unknown	-0.012	-0.001	-0.02	-0.031 **	-0.032 ***
<b>Relation sociales</b>					
Informal care giver outside the household	0.040 ***	0.018	0.047 **	0.017	0.051 ***
<b>Country of origine</b>					
Migrant	0.046 **	0.018	0.001	0.07 ***	0.042 **
<b>Country of residence</b>					
<i>France</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
Germy	0.044 **	0.109 ***	-0.053 **	-0.073 ***	-0.079 ***
Austria	0.032	0.181 ***	0.008	-0.025	-0.091 ***
Belgium	-0.031 *	-0.007	-0.008	-0.033 *	-0.031 **
Denmark	-0.014	0.028	-0.018	0.008	-0.053 ***
Spain	-0.002	-0.073 ***	-0.117 ***	0.103 ***	-0.080 ***
Greece	-0.070 ***	-0.127 ***	-0.152 ***	0.029	-0.107 ***
Ireland	-0.068 ***	-0.053 *	-0.129 ***	0.091 ***	-0.075 ***
Italy	0.028	-0.006	-0.059 **	0.044 *	-0.013
Netherlands	-0.019	0.186 ***	-0.109 ***	-0.043 **	-0.082 ***
Poland	0.125 ***	0.096 ***	-0.010	0.006	0.055 **
Sweedan	0.024	0.080 ***	-0.049 **	-0.023	-0.087 ***
Switzerlan	-0.055 ***	-0.001	-0.068 ***	-0.038 *	-0.07 ***
Czech Rep.	0.011	0.120 ***	-0.013	-0.085 ***	-0.092 ***
Obs.	7,322	7,322	7,324	6,969	7,248
Log L.	-4 505,3	-3 755,6	-4 119,5	-2 991,2	-2 941,2

Significance: \* p<0,10 ; \*\* p<0,05 ; \*\*\* p<0,01.

**Reading guide:** The actively employed aged 50-59 who provide help outside the household have a probability of self-declaring poor health 4 percentage points inferior to that of the actively employed who are not informal care givers, all things being equal.

**Source:** IRDES, 2006-2007 SHARE data (wave 2).

### ... and national specificities

Whatever the health variable considered, there are European differences in the health status of actively employed individuals aged 50 to 59 that cannot be explained by population structure or its characteristics.

If it is difficult to establish a general outline of differences between European countries, a north-south gradient becomes apparent in the case of activity limitations. Countries in the North (Austria, Germany, Sweden and the Netherlands) and east (Czech Republic and Poland) of Europe have a superior rate of activity limitation than France, Belgium and Switzerland that have higher rates than Spain and Greece further south.

The other health indicators do not allow confirmation of a north-south gradient regarding the health status of European workers aged 50-59. France more often than not occupies a median position as in the case of self-perceived health, activity limitations or grip strength and a more unfavourable position in terms of physical symptoms and depression.

The fact that practically all the countries studied have different statistical results than France, the country of reference, is almost certainly due to specific local effects. Possible factors may include the impact of illness and disability welfare schemes, retirement policies or early retirement incentives but also measures implemented to maintain older workers' labour market participation. Other factors that are not specific to individuals in employ-

ment may also explain inter-country disparities such as environmental conditions, cultural differences in the perception of health status, genetic factors or differences in lifestyle.

\* \* \*

The analysis of socio-economic conditions affecting workers aged 50 to 59 reveals considerable differences in terms of health status between European countries. If it appears difficult to establish a clear-cut European schema, it appears that, in general, the French population of workers aged 50 and over are among those in the poorest health. This result is all the more cause for concern in the current context in which extending the official retirement age is at the heart of political debate. With such disparities in health status will it be possible to standardize European labour and social protection policy?

The analysis of individual determinants confirms, among other things, the positive influence of targeted public policy measures on workers' health status. The analysis notably suggests that an improvement in working conditions as part of a global aim to improve health conditions on the labour market would make sense. 'Working longer through better working conditions' has moreover become a leitmotiv more and more frequently evoked as a compromise that would considerably improve employment rates in the older European labour force.

Our research equally reveals the primordial role played by the country of residence on the health status of its labour force. The significant differences in health

## e CONTEXT

SHARE (*Survey of Health, Ageing and Retirement in Europe*) is a European panel survey on ageing carried out every two years. It is a research infrastructure financed by the European Union.

Data from three survey waves are currently available. The first two survey waves concerned health, ageing and retirement in individuals aged 50 and over. The third wave (SHARE-Life) collects retrospective data concerning the life history of individuals' interviewed in waves 1 and 2.

General coordination is ensured by the *Mannheim Research Institute for the Economics of Ageing in Germany*. In each participating country, the survey is supervised by researchers or university staff. In France it is jointly supervised by IRDES and INSEE

(<http://www.irdes.fr/Share/>). French data and the questionnaires used can be downloaded free of charge from the SHARE web site: [www.share-project.org](http://www.share-project.org).

The wave 2 SHARE data collection was financed by the European Commission within the framework of the 6th EU Framework Programme for Research and Development (FP6).

This study fits into a broader research framework developed at IRDES through the Health Economics of Ageing and Participation in Society (HEAPS) project aimed at furthering research on healthy ageing in France and in Europe. The HEAPS project is financed by the National Research Agency (Agence nationale de la recherche (ANR)).

status between European countries persist after taking socio-economic characteristics into account. Some of these disparities are probably due to cross-country differences in measurement notably related to the comprehension of the questionnaire but also to national characteristics: history, social norms, public policy and environment all providing potential areas for future research. ♦

## 7 FURTHER INFORMATION

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