3.4 Health Behaviour
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Introduction
There is evidence on the importance of health behaviour such as non-smoking, moderate alcohol consumption and moderate physical activity, as well as weight control, to lower mortality and improve functional capacity, also among elderly (Adams et al. 1990; Davis et al. 1994). Further, we know that improving these factors brings health benefits (Johansson and Sundqvist 1999). The SHARE project provides an excellent opportunity to study the prevalence and associations of health behaviours among the ageing European population.

This contribution describes the prevalence of health behaviour such as smoking, alcohol consumption, and physical activity, and also body-mass-index among men and women, different age groups and different socio-economic groups in 10 SHARE countries.

Measures
Smoking (cigarettes, cigars, cigarillos, pipe) was asked ‘having ever smoked at least for a year’, ‘current smoking’, ‘having stopped smoking’, and ‘number of cigarettes/pipes smoked’. Alcohol consumption was asked as ‘frequency of consuming alcoholic beverages (beer, cider, wine, spirits or cocktails) in the last six months’, and as ‘frequency more than two of the drinks at a time’. Physical activity was asked ‘frequency of moderate physical activity’ (such as gardening, cleaning the car, doing a walk) and ‘vigorous physical activity’ (sports, heavy housework, a job involving physical labour) using the questions of the English ELSA study. Self-reported height and weight were used to calculate the body-mass index (BMI, weight (kg) divided by the square of height (m²)). BMI equal or higher than 30 was used as a limit for obesity (World Health Organisation 2000), but also the cut-off of 25-29.9 for overweight, and that of 25+ for overweight/obesity were used.

Health Behaviour by Gender and Age
Over two thirds of men and over a quarter of women had smoked at least for a year in their lifetime. Twenty-four percent of men and 13% of women were current smokers (Table 1). Among men who had smoked, 63% had stopped; and the corresponding figure among women was 55%.

Among women 42% and among men 19% had consumed no alcohol during the last six months. Percentage of those who took alcohol more than the recommended level of two drinks almost daily was 26% among men, and 7% among women (Table 1). Abundant alcohol consumption is known to be harmful for health, but lately there has been a lot of discussion of potential health benefits of moderate alcohol consumption. Recently Sulerter et al. (2004) have shown among elderly men evidence for the U-shaped association between alcohol consumption and functional ability.

Nine percent of men and 15% of women were physically inactive, since they did not do any moderate or vigorous physical activity (Table 1). We know that physical inactivity is associated with negative health outcomes. Men were more often overweight or obese (67%) than women (55%). The results of SHARE confirm the worrying trend of overweight as a public health problem, especially among men. Research has shown that obesity is related to metabolic syndrome with increased risk of diabetes type II and cardiovascular disease as well as risk of functional disabilities.
Table 1. Prevalence of Behavioral Risk Factors Among Men and Women Aged 50 Years and Above in 10 European Countries

<table>
<thead>
<tr>
<th>Behavioural Risk factor</th>
<th>Levels</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>Ever smoking 1+ years</td>
<td>64.0 (62.2-65.8)</td>
<td>27.2 (25.6-28.9)</td>
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<td></td>
<td>Current smoking</td>
<td>23.9 (22.3-25.6)</td>
<td>13.2 (12.0-14.5)</td>
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<tr>
<td></td>
<td>Average number of years</td>
<td>19.0 (18.6-19.4)</td>
<td>6.7 (6.4-6.9)</td>
</tr>
<tr>
<td></td>
<td>smoking (among the total population)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol drinking</td>
<td>Daily/5-6 times per day</td>
<td>42.1 (40.2-44.0)</td>
<td>17.8 (16.5-19.3)</td>
</tr>
<tr>
<td></td>
<td>Never in the last six months</td>
<td>19.0 (17.6-20.6)</td>
<td>42.3 (40.5-44.2)</td>
</tr>
<tr>
<td></td>
<td>Drinking daily or 5-6 days a week more than two</td>
<td>26.3 (24.6-28.0)</td>
<td>6.9 (6.0-7.9)</td>
</tr>
<tr>
<td></td>
<td>glasses of alcohol</td>
<td></td>
<td></td>
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<tr>
<td>Low physical activity</td>
<td>Neither vigorous nor moderate physical activity</td>
<td>9.3 (8.3-10.5)</td>
<td>14.9 (13.7-16.3)</td>
</tr>
<tr>
<td>Body Mass Index</td>
<td>Overweight (BMI 25-29.9)</td>
<td>50.2 (48.2-52.1)</td>
<td>36.4 (34.6-38.2)</td>
</tr>
<tr>
<td></td>
<td>Obesity (BMI 30+)</td>
<td>16.3 (15.0-17.8)</td>
<td>18.1 (16.7-19.6)</td>
</tr>
<tr>
<td></td>
<td>Overweight or obesity (BMI 25+)</td>
<td>66.5 (64.7-68.3)</td>
<td>54.5 (52.6-56.4)</td>
</tr>
</tbody>
</table>

A declining age-gradient was found in current smoking for both genders (Figure 1). Among men of 50-59 years almost four in ten smoked, but only one in ten did so in the age group 80+. Here probably selective mortality explains partly the decline. In frequent alcohol consumption (more than two drinks a day, nearly every day) a general, declining age-gradient was also seen, although less steep than in smoking (see Tables 3A.12 and 3A.13 in the Appendix to this chapter). However, those in the age group of 60-69 years seemed to consume alcohol somewhat more than the other age groups. The steepest age-gradient was in sedentary lifestyle (defined as never engaging in neither moderate nor vigorous physical activity. Overweight and obesity were less common among the oldest (80+) age group, probably partly due to selective mortality. The found declining age-gradient in behavioural risk factors is in line with previous research (Adams et al. 1990; Sulander et al. Forthcoming).
Variations by Socio-Economic Status

Both educational level and income level (for the definition, please see the contribution on socio-economic disparities by Avendano et al., section 3.2) were used as indicators of the socio-economic status in studying social disparities in health behaviours, overweight and obesity. There were clear social disparities in favour of higher educational groups in physical activity and BMI (Figure 2.). Among men the similar disparities (although less prominent) existed in current smoking. More frequent alcohol consumption seemed to be more common among the higher educational groups. This association was even stronger among women. These disparities are similar to the findings from both Europe (Cavelaars

Figure 1. Smoking behaviour according to age among men and women aged 50 years and older in 10 European countries.

Figure 2. Odds ratios of health behaviours comparing low vs. middle/high educational levels among men and women aged 50 years and above in 10 European countries.
et al. 2000) and the United States (Moore et al. 1999). Using income level as an indicator of socio-economic status (Table 3A.14) gave similar results, and current smoking among women was even more common among the lowest income group.

**Variations Between Countries**

All in all, the between-country differences in smoking were higher in having ever smoked and in the number of years smoked, and lower in current smoking. Countries like the Netherlands, Denmark, Sweden, and also Greece (in the numbers of years smoked), had the highest figures (Table 3A.15).

Over 30% of the French, Italian, and Spanish men reported having taken more than two drinks of alcoholic beverages daily or 5-6 times a week in the past six months (Figure 3). Among women this type of drinking was rather rare, but the highest percentages, about 10%, were reported in France, Italy, the Netherlands and Denmark. Consumption was highest in three southern European countries of France, Italy and Spain, but was clearly lower in Greece. On the other hand, the Netherlands and Denmark reported also rather high figures, whereas Sweden reported very low figure on this kind of frequent drinking.

![Figure 3](image)

*Figure 3 The prevalence of drinking more than two glasses of alcohol daily or almost daily among men and women aged 50 years and older in 10 European countries*

One potential explanation for the low Swedish figures could be the used measure of (almost) daily consumption of two or more glasses of alcohol. This frequency question with rather low level of consumption does not probably capture the drinking habits especially in this Nordic country where bigger amounts of alcohol are consumed less frequently (Hemström et al. 2002). Other potential explanations could also be either high alcohol prices in the country, or reporting bias due to cultural attitudes towards drinking. The difference between Denmark and Sweden in health behaviours has been reported also earlier.

Percentages of sedentary behaviour among men and women were highest in Italy, Spain, France, and Austria and in these countries gender differences were bigger than elsewhere.
In all countries men were significantly more often overweight than women, and compared to the European average, Greek, Spanish and Austrian men were above the average, as were also Greek and Spanish women (Table 3A.14). It is interesting to note that these higher level of sedentary behaviour, overweight and obesity in several Southern European countries, contrast with extremely low levels of mortality from heart diseases.

**Conclusions**

The SHARE results on the high prevalence of behavioural health risk factors, especially overweight, among the elderly, are rather alarming. Health promotion (in its wide meaning of multi-sectorial activities such as nutritional policies, societal and social measures to create health promoting environments as well as health education) is needed to decrease the consequences like metabolic syndrome, diabetes and cardiovascular diseases, premature mortality, and decline in functional capacity. Socio-economic disparities in behavioural risk factors threaten the manifest European aim to decrease socio-economic inequalities. Between-country differences in health behaviours point for differential actions in different countries, but on the other hand also raise questions about increasing international research, and about international policies e.g. in food labels, and smoking policies in enhancing the health of the Europeans.

**Key points**

- Over weight and obesity are health threats in this European population 50+. This can have enormous effects on the prevalence of chronic disease during the future decades in Europe.

- Socio-economic disparities in favour of those better off exist in physical activity, overweight/obesity, and somewhat less in smoking.

- Between-country differences suggest a need for both culturally targeted efforts and international policies.

**References**


