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**The social and behavioural determinants of health in Europe: results from the European Social Survey (2014) special rotating module on the social determinants of health**

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## **Abstract**

### ***Background***

Previous studies comparing the social and behavioural determinants of health in Europe have largely focused on individual countries or combined data from various national surveys. In this paper, we present findings from the new rotating module on social determinants of health in the European Social Survey (2014) to obtain the first comprehensive comparison of estimates on the prevalence of the following social and behavioural determinants of health: working conditions, access to healthcare, housing quality, and unpaid care, childhood conditions and health behaviours.

### ***Methods***

We used the 7<sup>th</sup> round of the European Social Survey. We present separate results for men and women. All estimates were age-standardised in each separate country using a consistent metric. We show country-specific results as well as pooled estimates for the combined cross-national sample.

### ***Results***

We found that social and behavioural factors that have a clear impact on physical and mental health, such as lack of healthcare access, risk behaviour, and poor working conditions, are reported by substantial numbers of people in most European countries. Furthermore, our results highlight considerable cross-national variation in social and behavioural determinants of health across European countries.

## *Conclusions*

Substantial numbers of Europeans are exposed to social and behavioural determinants of health problems. Moreover, the extent to which people experience these social and behavioural factors varies cross-nationally. Future research should examine in more detail how these factors are associated with physical and mental health outcomes, and how these associations vary across countries.

Key words: social determinants of health; health behaviours; Europe

## Introduction

Health varies between the countries of Europe and there are socioeconomic inequalities in health within all European countries.<sup>1-5</sup> It has been well established that these inequalities in health between regions and countries are to a large part determined, not by biomedical or genetic factors, but by differential exposures to social and behavioural determinants.<sup>6</sup> Previous studies examining these social and behavioural determinants in more detail have largely focused on individual countries or combined data from various national surveys to create pan-European comparisons.

However, in its 7<sup>th</sup> round (2014), the European Social Survey (ESS)<sup>7</sup> included a rotating module which provides the first more comparable dataset on the social and behavioural determinants of health across Europe. In this paper, we report on the findings from this survey with regards to differences in the prevalence of the following social and behavioural determinants of health (for earlier research explaining the links between these determinants and health outcomes we refer to the studies cited here): working conditions,<sup>8,9</sup> healthcare access and utilisation,<sup>10-16</sup> housing quality,<sup>17-19</sup> providing unpaid care,<sup>20-21</sup> childhood conditions<sup>22</sup> and health behaviours<sup>23-26</sup> across Europe.

The aims of this paper are therefore threefold: (1) To provide a recent, comprehensive overview of a broad range of social and behavioural determinants of health across a large number of countries in all European regions; (2) As such, this paper also aims to give an overview of the available measures of social and behavioural determinants of health in the new rotating module in the ESS; and (3) The paper offers the first comprehensive comparison of estimates on the social and behavioural determinants of health across European countries available in this new promising data source. Some of the other key social determinants of health were already included in earlier rounds of the ESS, and were also measured in the 7th round

(e.g., gender, education, employment, income, occupational class and ethnicity). However, in this paper we focus on the social and behavioural determinants of health that were only included in the rotating module in the 7<sup>th</sup> round of the ESS, and not in any of the earlier rounds. We only make an exception for job control, which has been measured in all ESS rounds but is important for this specific rotating module as a dimension of working conditions.

## **Methods**

### *Data*

We use the 7<sup>th</sup> round of the European Social Survey.<sup>7</sup> This round contains a rotating module on social inequalities in health and their determinants, and contains information on individuals from 20 European countries plus Israel: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Israel, Lithuania, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland and UK. Data was collected to be representative for the complete non-institutionalised population aged 15 and over living in each country (including citizens as well as non-citizens). Information was collected through face to face interviews in people's homes. The complete questionnaire that was used and further information on the data collection can be found on the ESS website: <http://www.europeansocialsurvey.org/>. Below we outline the measurements used to obtain estimates, and the process of recoding the original items to arrive at comparable summary estimates. For further explanation of earlier research on the social and behavioural determinants of health included in this paper, the rationale and process behind the rotating module on the social determinants of health, and the design of the questionnaire we refer to Eikemo and colleagues.<sup>27</sup>

## *Measurements*

The rotating module on the social determinants of health includes measures of both *healthcare access and utilisation*. We measured unmet need for healthcare as an indicator of healthcare access. Respondents were asked if in the last 12 months they were ever unable to get a medical consultation or the treatment they needed for any of the following seven reasons (multiple reasons could be given): could not pay for it; could not take time off work; had other commitments; the treatment they needed was not available where they live or nearby; the waiting list was too long; there were no appointments available; other reasons. The introduction of an open-ended question was provided in the last response category, where respondents could fill in the reason why they did not get a medical consultation or the treatment they needed. We include the percentage of respondents answering affirmatively on having unmet need. Additionally, for those respondents who indicated having unmet need of any kind, we provide separate estimates of the percentage reporting each of the seven reasons.

Use of general practitioners and medical specialists was measured by asking respondents with which health professionals they have discussed their health in the last 12 months. Multiple answers were possible, and response categories were: “general practitioner”, “medical specialist (excluding dentists)”, “none of these”, and “don’t know”. In this paper we present separate estimates for the percentage of respondents who used a general practitioner and the percentage using a medical specialist. Use of alternative health care was measured with a separate showcard, asking respondents which of the treatments shown on the card they have used for their own health in the past 12 months. Multiple responses were possible, and the treatments listed were: acupuncture, acupressure, Chinese medicine, chiropractics, osteopathy, homeopathy, herbal treatment, hypnotherapy, massage therapy, physiotherapy, reflexology, spiritual healing (respondents could also tick boxes indicating “none of these” and “don’t know”). Although the data include separate items for each of the twelve treatments, in this paper

due to space considerations we only present the total percentage of people who indicated that they have used at least one of these treatments. For the pooled sample, however, we also list percentages for the five most popular forms of alternative treatment in the results section.

Four dimensions of *risk behaviour* were included in the rotating module: smoking, alcohol use, physical activity, and fruit and vegetable consumption. To measure smoking, respondents were asked which of the following descriptions on a showcard best described their cigarette smoking behaviour: 'I smoke daily', 'I smoke but not every day', 'I don't smoke now but I used to', 'I have only smoked a few times', and 'I have never smoked'. In this paper we present separate percentages for current smokers (the first two categories combined), former smokers (the third category only), and people who have never smoked (the fifth category only). People who answered to the first question that they smoke (either daily or not every day) were asked how many cigarettes they smoke on a typical day. We dichotomized this variable and report the percentage of respondents who smoke 20 or more cigarettes (one pack) on a typical day.

For alcohol consumption the data include separate measures on frequency, quantity, and binge drinking. The frequency of alcohol consumption was measured by asking respondents how often they drink alcohol. There were seven response categories: 'Never', 'Less than once a month', 'Once a month', '2-3 times a month', 'Once a week', 'Several times a week', and 'Every day'. In this paper we present the percentage of respondents who drink alcohol more than once a week. The quantity of alcohol consumption was measured by asking respondents two separate questions about how much they drank on the last occasion that they drank alcohol on a weekday (Monday to Thursday) and on a weekend day (Friday to Sunday). Country-specific showcards were used to enable respondents to indicate which drinks and how many drinks they had consumed on these occasions. The drinks on these showcards were then converted to grams of alcohol consumed. We capped the grams of alcohol consumed at 300 grams (i.e., giving



respondents with a score higher than 300 a score of 300). We have recoded the grams to units of alcohol by dividing the grams of alcohol consumed by 8. In this paper we present the average number of units consumed on workdays and weekend days separately, excluding respondents who do not drink alcohol at all. To measure binge drinking, respondents were presented with country-specific showcards showing a number of drinks corresponding with binge drinking classifications (i.e., 6 units for women; 8 units for men). Respondents were then asked how often in the past 12 months they had drunk the shown amount of alcohol on one single occasion. There were five response categories: 'Never', 'Less than monthly', 'Monthly', 'Weekly', 'Daily or almost daily'. In this paper we present the percentage of respondents who reported binge drinking at least weekly.

Physical activity was measured by asking during how many of the last 7 days respondents walked quickly, did sports or other physical activity for 30 minutes or longer. For this paper we calculated the percentages of respondents who undertook this kind of physical activity on 3 or 4 days and on 5 or more days over the last week.

To measure fruit and vegetable consumption, respondents were asked in two separate questions how often they eat fruit, excluding drinking juice, and how often they eat vegetables or salad, excluding potatoes. Response categories to both questions were: three times or more a day; twice a day; once a day; less than once a day but at least 4 times a week; less than 4 times a week but at least once a week; less than once a week; and never. In this paper we combine both variables, and present the percentage of respondents who consume both fruit and vegetables at least once per day.

Two subgroups of variables were used to measure physical *working conditions*: ergonomic and material conditions. The ergonomic conditions contain items on hand vibrations, tiring or painful work positions, manually lifting people, and manually moving heavy loads. The material conditions consist of items on loud noise, hot temperatures, cold temperatures,

radiation, chemical products, and smoke/fumes. For each item, respondents were asked if they ever were exposed to these items in any job. Although estimates for all separate items are available, in this paper we only present the percentage of people reporting to have experienced at least one of these conditions. This is done separately for ergonomic conditions and material conditions. To capture psychosocial working conditions, an index measuring job control was created by asking respondents to rate two statements, thinking about their current or previous job: “Allowed to decide how daily work is organised” and “Allowed to influence policy decisions about activities of organisation”. Both items were scored on a scale ranging from 0 (no influence) to 10 (complete control). We took the mean of both items to create the final ten point scale, and in this paper we present mean scores for this scale.

*Childhood conditions* were measured with two questions. Firstly respondents were asked how often there had been serious conflict between the people living in their household when they were growing up, and secondly they were asked how often they and their family experienced severe financial difficulties when they were growing up. Response categories for both variables were ‘always’, ‘often’, ‘sometimes’, ‘hardly ever’ and ‘never’. For this paper we have dichotomised both variables, contrasting respondents in the ‘always’ and ‘often’ categories to respondents in the other categories. We present percentages of respondents who always or often experienced family conflict and use the same approach for family difficulties.

To measure *quality of housing*, respondents were asked if any of the following problems listed on a showcard applied to their accommodation: mould or rot in windows, doors or floors; damp walls or leaking roof; lack of indoor flushing toilet; lack of bath and shower; overcrowding; extremely hot or extremely cold. Rather than recording separate responses for each of these problems this item simply distinguishes respondents for whom any of the problems mentioned apply from respondents who do not experience any of these problems. In

this paper we present estimates for the percentage of people reporting problems with their quality of housing.

*Providing unpaid care* was measured by asking respondents whether they spend any time looking after or giving help to family members, friends, neighbours or others because of any of the following reasons listed on a showcard: long-term physical ill health or disability; long-term mental ill health or disability; and problems related to old age. They were asked not to count anything they do as part of their paid employment. We present the percentage of people who reported providing unpaid care for any of these reasons. Finally, those respondents who provide unpaid care were asked how many hours a week they spend doing this. We present the percentage of respondents who reported spending more than 10 hours per week on providing unpaid care.

### ***Analysis***

We employed the complete sample of the European Social Survey without any age restrictions to obtain estimates. We present separate results for men and women. All estimates were age-standardised by weighting up or down the unstandardized (crude) prevalence rates for five year age groups in each separate country to a common standard. We weighted the age groups following the European Standard Population (ESP) of 2013.<sup>28</sup> This is a revised version of the 1976 ESP, which takes into account the ageing European population. The ESP 2013 is readily available from Information Services Division (ISD) Scotland.<sup>29</sup> Additionally, data were weighted by using the poststratification weights (*pspweight*) in the European Social Survey to take into account different sampling designs and selection probabilities for different countries in the sample. Furthermore, by using the population weights in the data (*pweight*) the pooled estimates were adjusted for different population sizes between countries. Although for most countries the results would only change marginally if the poststratification weights would not

be applied, the fact that some countries have stronger design effects than others necessitates the use of these weights in order to maximize the comparability of the estimates. We show country-specific results as well as pooled estimates for the combined cross-national sample. Countries are roughly grouped by geographical regions in the tables to show the regional clustering of estimates that we find for several of the indicators. For each item we present either percentages or mean scores as described earlier.

## **Results**

Table 1 contains information on healthcare access and utilisation for each country. Overall around 15 percent of the respondents report unmet need for healthcare in the past year. However, there is considerable variation in unmet need across countries, with particularly high percentages in Finland, France, Germany, Estonia, Poland, Israel and Portugal. Looking at the reasons reported for unmet need, overall waiting lists and lack of available appointments appear to be most problematic. For healthcare utilisation we find that in most countries around three quarters of the sample have consulted a GP in the past year. The percentage of respondents consulting a specialist or using alternative treatment was lower, and generally higher for women than for men. Further analysis of the data (not shown in the tables) revealed that the five most popular forms of alternative treatment were physiotherapy (reported by 16.4 percent), massage therapy (11.8 percent), homeopathy (5.7 percent), osteopathy (5.1 percent) and herbal treatment (4.5 percent). This underlines that while physiotherapy is the most popular alternative treatment in this European sample a range of other alternative treatments should not be neglected. Interestingly, in several countries the percentage using alternative treatment was similar to or even higher than the percentage consulting a specialist. There is no clear pattern of regional variation for these measures, and with these indicators we need to keep in mind that they have

not been adjusted for health problems or resulting need for healthcare. Interestingly, whereas women were more likely to report consulting GPs or specialists and using alternative treatment than men, they were also more likely to report unmet need for healthcare.

[Table 1 about here]

In Table 2 we present cross-national variation in risk behaviour. Starting with the data on smoking, we see that about 25 percent of the respondents were current smokers, and that around 80 percent were either current smokers or have smoked in the past. Percentages are much lower in Northern Europe and considerably higher among men in Central and Eastern Europe, where we see a substantial gender gap in smoking behaviour. The percentage of former smokers was particularly high in Northern Europe. Among current smokers approximately 30 percent smoked 20 or more cigarettes on a typical day. Among men 34.8 percent drank alcohol more than once per week, while among women this was 15.9 percent. There was strong variation across countries in the percentage reporting frequent alcohol consumption, with particularly low percentages in Israel and Central and Eastern Europe (especially among women). Looking at the quantity of alcohol consumed we see that overall men consumed almost twice as many units as women, and that weekend day consumption was almost twice weekday consumption. The number of units consumed was particularly high in Ireland. Frequent binge drinking was particularly high in the UK and Portugal. Frequent binge drinking was rare in Northern Europe, and among women in Central and Eastern Europe. For physical activity we see that about half of the sample was physically active at least 3 days per week. There are no clear regional patterns of variation or gender differences for these indicators. Finally, for fruit and vegetable consumption we find that the majority of respondents reported consuming both

fruit and vegetables at least once per day. Overall daily fruit and vegetable consumption was considerably higher among women than among men, particularly in Northern Europe.

[Table 2 about here]

Finally, Table 3 shows estimates for the other social determinants of health that were part of the rotating module in the ESS. Almost two-thirds of men in the sample have experienced ergonomic hazards in any of their previous jobs, and the same applies to material hazards. For women these percentages are lower but still substantial (52.1 percent and 37.6 percent). There is considerable variation in job control across countries, with the highest scores reported in Northern Europe and the lowest in Central and Eastern Europe, and reported job control is generally higher for men than for women. For childhood conditions we see that overall around 10-15 percent of the respondents faced regular conflicts at home growing up. Percentages reporting financial hardship while growing up are slightly higher, and particularly prominent in Southern and Central and Eastern Europe. We see that women reported higher rates of conflict and hardship when growing up than men, which suggests that there may be gendered patterns of recall bias for these issues. Housing problems were reported by about 16 percent of the respondents, and here we do not see clear patterns of regional variation. About one-third of the respondents provided unpaid care, and among those providing unpaid care about a quarter spent more than 10 hours per week on care provision. Women were more likely to provide unpaid care than men, and among those providing unpaid care women were more likely than men to do so for more than 10 hours per week.

[Table 3 about here]

## Discussion

In this paper data from the new rotating module on social inequalities in health in the 7<sup>th</sup> round of the European Social Survey (2014) were used to obtain an up to date overview of key social and behavioural determinants of health in 20 countries across all European regions and Israel. We found that social and behavioural factors that have a clear impact on physical and mental health, such as lack of healthcare access, risk behaviour, and poor working conditions, are reported by substantial numbers of people in most European countries. Furthermore, our results highlight that there is considerable cross-national variation in social and behavioural determinants of health across European countries. This highlights the relevance of the use of comparative data and research on the social determinants of health. Examining men and women separately has proven to be highly relevant: for most social determinants of health we have found clear differences in prevalences between men and women. This underlines the importance of considering gendered dimensions of inequality in any studies examining the social determinants of health in the European context.

Overall our findings are largely in line with existing knowledge from previous (mostly single-country) research on the social and behavioural determinants of health examined here. Some similarities and differences with previous research in our key findings deserve particular attention. The percentages of respondents who have visited a GP in the past year in our results are similar to findings from an earlier European study that concluded that GP visits in the past year ranged from about 54 percent in Greece to about 87 percent in Belgium.<sup>30</sup> In the same study, however, the prevalence of specialist visits in the past year was slightly higher compared to our results, ranging from about 22 percent (Ireland) to about 64 percent (Austria). Future research is needed to establish whether this indicates a decrease in the percentage visiting specialists, and if so, whether this decline is related to changes in unmet need. In most countries,

the use of alternative treatment resembles findings from the United States<sup>13</sup> where 42 percent of the population used at least one form of alternative treatment.

Findings on working conditions (ergonomic hazards, material hazards, and job control) are largely in line with findings from the European Working Conditions Survey (EWCS).<sup>31</sup> As in this survey we find that women are less likely than men to report exposure to ergonomic and material hazards, but in our data this gender gap appears to be even more pronounced. For childhood conditions, the two measures included here have not been part of earlier comparative data sources, but results from Sweden indicated that 18 percent reported financial hardship while growing up, whereas almost 12 percent reported conflict at home during their childhood.<sup>32</sup> Overall, our estimates are similar to these figures, but it is interesting to note that this cross-national data source has revealed considerable differences across countries in these measures. Finally, our estimates of the percentages providing unpaid care are considerably higher than estimates from the ANCIEN project (which found an average of 14 percent across Europe), which examined long-term care for the elderly in Europe.<sup>33</sup> This discrepancy may be caused by the more inclusive phrasing of the questions on unpaid care in the ESS, which focuses less on the elderly population compared to the data used in the ANCIEN project. In sum, comparison with earlier research underlines that the new data source used in this paper forms a good starting point for further examinations of the social and behavioural determinants of health in Europe in future studies.

This paper offers a unique recent picture of healthcare access and utilization, risk behaviour and other key social determinants of health in all European regions. Nonetheless, some limitations to the data presented here need to be acknowledged. Firstly, all measures used here are self-reported. For some measures (e.g., number of cigarettes smoked) respondents may have provided rough estimates rather than exact values. Reported scores on childhood conditions may suffer from recall bias. In general, cross-national differences in interpretation



and meaning of the questions are an issue that cannot be solved entirely, even though extensive consultation with translators, survey design experts and national coordinators of the data collections teams has helped to maximize cross-national comparability of the survey questions.<sup>34-37</sup>

Secondly, we cannot assume that the estimates presented in this paper are population prevalences of the social determinants of health included in this paper, because the data are based on a survey rather than on register data or sources that include the full population. This also implies that caution is necessary in using the estimates presented in this paper to derive statements about the population prevalence of certain social and behavioural determinants of health in the countries covered. The data may not be fully representative for the whole population, and as with all surveys bias may occur due to selective unit non-response<sup>38,39</sup> (e.g., respondents with severe addiction to alcohol may have been less likely to participate in the survey). These issues may have been especially problematic in countries with relatively low response rates (e.g., Germany). Finally, we should mention that the data only cover the non-institutionalised population, which is may lead to underrepresentation of individuals who are institutionalised because of poor health.

Finally, the 7<sup>th</sup> round of the European Social Survey covers 21 countries from all European regions, but several countries were not included. As a result, the estimates presented here cannot be generalized to all countries in Europe, and this survey would need to be repeated in other countries to derive a fully comprehensive overview of the social and behavioural determinants of health in Europe included in this paper.

All in all, this paper has shown that substantial numbers of Europeans are exposed to social and behavioural factors that have been associated with physical and mental health problems. Moreover, we found that the extent to which people experience these social and behavioural factors in many cases appears to differ between men and women, and depend on

the country they live in. As such, the gender differences that we find may reflect how differences in power relations between men and women across European countries have resulted in a stronger social disadvantage for women in some countries than in others. Future research should examine in more detail how these factors are associated exactly with physical and mental health outcomes, and whether and how these associations also vary across countries. Taken together this would help to develop new strategies and refine existing interventions in reducing social inequalities in health in Europe.<sup>40-42</sup>

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Table 1. Healthcare access and utilisation in 21 European countries (separately for men and women)

		Unmet need (%)	1: Could not pay (%)	2: Had to work (%)	3: Other commitments (%)	4: Not available (%)	5: Waiting list (%)	6: No appointments available (%)	7: Other (%)	Visited GP (%)	Visited specialist (%)	Used alternative treatment (%)
All (pooled)	M	12.2	1.3	1.9	1.2	0.9	4.2	4.1	1.2	72.9	40.3	29.8
	F	16.4	2.3	2.1	1.8	1.0	5.2	6.5	1.4	80.4	49.7	38.7
North												
Denmark	M	5.8	0.2	0.7	0.1	0.3	2.0	2.2	1.1	75.9	35.6	35.3
	F	8.0	1.2	0.8	0.4	0.1	2.9	1.8	1.2	83.2	41.4	44.8
Finland	M	16.9	0.5	1.8	1.8	0.6	6.5	5.9	2.6	68.1	35.0	39.3
	F	22.0	1.2	2.5	2.0	2.6	7.5	9.7	2.0	71.5	44.6	51.8
Norway	M	11.3	0.1	2.0	0.8	0.7	4.6	4.1	0.5	75.0	24.8	33.7
	F	16.1	1.3	1.6	1.1	1.8	5.9	4.8	2.1	85.0	30.0	42.9
Sweden	M	8.2	0.1	1.0	1.0	0.3	1.6	2.0	2.4	51.6	27.6	36.2
	F	12.9	1.0	1.2	1.6	1.6	2.8	3.0	3.7	63.1	37.4	45.9
West												
Austria	M	4.1	0.1	0.8	1.0	0.4	1.8	2.3	0.0	72.4	41.5	35.4
	F	6.0	0.5	0.9	0.9	0.8	1.8	3.1	0.2	82.0	55.1	44.7
Belgium	M	9.0	2.1	1.2	1.2	0.5	2.3	2.0	0.7	77.4	38.3	30.0
	F	11.5	2.7	2.2	1.9	0.2	4.0	1.5	0.9	85.7	51.0	37.2
France	M	15.0	3.0	2.0	1.7	0.6	4.1	3.7	2.1	80.2	40.1	35.9
	F	21.7	6.9	3.1	3.7	0.3	5.2	5.8	1.5	85.9	51.1	46.9
Germany	M	13.4	1.4	3.1	0.7	0.8	4.3	4.6	1.4	80.1	55.3	38.9
	F	19.0	1.9	3.4	2.1	1.0	5.9	7.4	2.9	83.3	69.3	54.7
Ireland	M	5.6	0.9	0.8	0.3	0.0	1.9	1.5	0.1	61.7	18.4	21.9
	F	7.8	1.7	0.7	0.3	0.2	3.4	2.2	0.1	74.2	20.0	29.7
Netherlands	M	3.8	0.8	0.6	0.6	0.4	1.1	0.5	0.4	65.2	39.3	34.1
	F	4.0	1.2	0.3	0.3	0.5	0.7	0.6	0.4	76.1	46.7	39.0
Switzerland	M	4.8	0.8	1.5	0.8	0.3	0.4	0.9	0.2	66.4	36.2	39.7
	F	8.1	1.3	1.9	1.1	0.0	1.3	1.8	0.8	74.9	45.7	56.7



UK	M	10.9	0.4	1.7	1.2	0.7	2.2	4.9	1.5	72.8	29.9	24.3
	F	14.9	0.6	1.4	0.5	0.6	3.2	10.3	1.4	78.9	33.9	32.1
Central/East												
Czech Rep	M	6.2	0.5	1.3	1.2	1.2	1.3	1.5	0.0	70.0	31.8	24.9
	F	6.3	1.7	0.5	1.1	1.7	2.2	1.1	0.3	76.5	39.0	33.4
Estonia	M	15.4	0.6	0.8	0.8	1.8	9.7	4.6	1.3	65.6	39.7	29.8
	F	19.9	1.8	1.1	1.5	1.8	10.7	8.3	1.6	77.6	57.0	46.3
Hungary	M	4.6	0.4	0.6	0.2	1.6	1.6	1.6	0.1	59.0	26.7	10.3
	F	6.7	1.3	0.5	0.9	1.7	3.2	2.2	0.0	69.6	33.3	14.6
Lithuania	M	11.3	1.0	1.7	0.0	2.0	5.2	5.1	0.1	52.4	21.1	29.0
	F	15.1	2.4	1.9	0.5	3.5	6.0	7.6	0.5	71.7	29.4	45.0
Poland	M	18.6	0.8	1.4	1.6	2.6	10.1	7.2	1.2	63.6	40.7	16.3
	F	25.8	1.2	1.8	1.8	3.9	10.3	12.0	0.8	77.2	48.4	19.7
Slovenia	M	7.9	0.7	2.0	1.9	0.5	4.5	0.2	0.9	75.0	37.3	27.9
	F	8.4	0.4	0.2	1.3	0.5	4.0	0.8	0.8	79.9	42.0	32.6
South												
Israel	M	15.9	2.6	4.1	3.3	5.3	10.8	7.5	1.9	76.3	55.1	22.3
	F	22.2	3.4	4.4	4.3	7.2	13.1	11.1	1.5	85.2	64.3	27.8
Portugal	M	18.7	2.4	1.8	3.0	0.4	6.9	4.7	1.4	77.9	35.1	22.9
	F	18.6	5.4	2.6	1.9	0.0	3.2	7.1	1.1	83.4	38.2	19.8
Spain	M	11.7	1.7	2.1	0.6	0.3	4.1	3.0	1.0	74.5	42.2	22.3
	F	13.1	1.7	2.2	1.0	0.0	5.1	3.8	0.7	83.9	52.7	29.9

Source: European Social Survey (2016).

Table 2. Risk behaviour in 21 European countries (separately for men and women)

		Smoking (current %)	Smoking (previous %)	20 or more cigs per day	Alcohol > once per week (%)	Units on weekday (mean)	Units on weekend day (mean)	Binge at least weekly (%)	Physical activity on 3- 4 days (%)	Physical activity on 5- 7 days (%)	Fruit and veg at least once/day (%)
All (pooled)	M	30.6	53.8	36.3	34.8	3.9	7.0	5.5	20.2	35.6	55.8
	F	24.2	54.3	22.0	15.9	2.3	4.3	2.3	19.5	31.3	68.8
North											
Denmark	M	27.1	61.4	37.0	38.6	4.5	9.3	3.3	20.9	37.7	53.5
	F	22.4	64.7	19.1	22.4	3.1	6.2	1.4	25.7	34.6	74.2
Finland	M	28.6	61.8	29.3	16.9	3.9	9.3	1.4	28.9	37.5	56.9
	F	22.9	62.3	20.4	6.1	2.4	5.8	0.4	25.9	42.5	72.5
Norway	M	22.1	66.4	20.6	20.0	4.7	9.7	1.1	25.8	29.7	58.9
	F	19.0	71.6	18.8	8.9	2.9	5.9	0.4	25.9	27.4	73.5
Sweden	M	15.1	77.8	18.5	22.0	4.0	8.4	2.2	24.4	33.0	49.8
	F	14.8	76.2	10.7	10.6	2.7	5.4	0.8	25.9	33.3	70.4
West											
Austria	M	33.1	46.0	56.8	37.8	4.2	6.7	9.2	23.8	33.6	44.1
	F	28.3	44.7	41.7	13.4	2.6	4.3	2.4	24.6	30.8	56.9
Belgium	M	28.2	55.6	33.6	38.9	3.7	6.5	3.1	19.4	32.5	58.3
	F	23.9	52.1	33.0	23.6	2.0	3.8	2.1	18.2	25.1	68.9
France	M	31.0	54.6	32.8	41.7	2.6	5.1	2.9	18.7	27.5	59.2
	F	26.5	53.4	18.7	17.4	1.6	2.9	0.9	14.7	18.5	71.7
Germany	M	34.2	52.9	38.4	36.9	3.2	6.1	4.4	23.5	40.9	49.9
	F	29.2	52.5	19.4	15.1	1.9	3.6	1.7	23.1	39.4	65.9
Ireland	M	24.6	51.5	40.0	22.8	6.3	12.5	5.1	25.9	44.8	67.0
	F	21.5	52.8	27.3	10.7	4.0	8.0	2.4	25.4	38.0	76.9
Netherlands	M	31.4	52.9	22.1	44.8	3.1	6.1	4.9	24.0	34.9	55.7
	F	22.3	61.5	23.7	29.2	1.8	3.4	5.1	24.4	34.9	68.6
Switzerland	M	28.5	52.5	37.6	39.8	3.3	5.3	5.5	22.1	37.5	62.6
	F	24.9	53.8	16.7	20.8	1.9	3.2	1.8	23.3	41.5	81.2
UK	M	22.9	60.4	24.7	38.3	5.7	9.5	11.2	18.9	39.7	65.3

	F	20.4	59.7	18.1	25.3	3.6	6.4	4.0	22.1	35.5	74.1
Central/East											
Czech Rep	M	34.8	41.0	25.4	24.8	6.4	10.0	4.6	21.2	24.3	33.3
	F	20.2	47.5	13.8	6.7	4.3	6.3	0.6	21.8	23.7	50.8
Estonia	M	37.4	50.2	38.3	17.4	3.9	8.7	3.4	21.2	44.5	52.1
	F	21.0	57.6	14.0	3.7	2.1	4.1	1.1	17.9	43.7	65.6
Hungary	M	41.3	34.2	47.9	22.1	6.0	11.6	7.2	14.7	20.3	28.3
	F	26.2	41.7	20.7	2.4	3.0	6.9	1.6	10.5	20.4	31.6
Lithuania	M	45.8	42.3	32.7	19.7	7.0	13.4	7.5	20.8	41.6	45.9
	F	16.7	57.9	11.2	3.3	3.5	5.9	1.1	20.5	33.1	58.7
Poland	M	34.2	52.9	48.5	17.4	4.9	8.5	3.1	15.0	38.7	55.8
	F	21.7	52.3	29.2	3.5	2.0	4.3	2.5	15.6	30.9	69.6
Slovenia	M	29.7	51.5	50.6	27.1	3.4	4.7	3.0	16.5	34.2	66.0
	F	26.8	46.1	20.9	9.5	2.0	2.5	1.6	19.9	26.6	78.2
South											
Israel	M	31.5	36.0	51.9	10.2	4.3	5.3	4.5	20.3	18.2	66.8
	F	17.7	38.2	32.1	3.1	3.2	3.8	1.3	17.8	15.7	72.0
Portugal	M	33.0	53.6	41.4	47.5	3.8	5.0	17.5	13.1	19.4	76.2
	F	14.7	51.1	14.5	15.3	1.9	2.9	5.2	11.5	22.7	82.7
Spain	M	31.3	51.7	30.0	40.1	2.2	4.9	6.5	17.8	39.4	56.2
	F	26.3	48.6	22.5	16.7	1.2	2.9	3.2	14.7	33.4	69.1

Source: European Social Survey (2016).

Table 3. Social determinants of health in 21 European countries (separately for men and women): working conditions, childhood conditions, housing, and providing unpaid care

		Any ergonomic hazards (%)	Any material hazards (%)	Job control (0-10, mean)	Often/always conflict growing up (%)	Often/always hardship growing up (%)	Any problems with housing (%)	Provide unpaid care (%)	>10 hours of unpaid care/week (%)
All (pooled)	M	66.8	64.0	5.5	10.0	15.3	14.9	31.0	19.3
	F	52.1	37.6	4.7	14.2	18.6	17.2	35.8	26.4
North									
Denmark	M	68.4	63.3	6.3	12.2	11.8	12.4	40.0	16.2
	F	60.6	48.0	5.6	19.1	13.7	19.5	46.1	16.6
Finland	M	80.8	77.3	6.2	7.3	14.5	10.4	39.7	10.5
	F	75.0	56.7	5.6	15.3	20.0	12.8	45.5	12.6
Norway	M	64.3	62.8	6.9	5.6	6.2	10.2	34.9	8.2
	F	54.4	40.9	6.1	11.2	10.0	11.6	45.1	11.8
Sweden	M	72.4	69.8	6.7	9.6	11.7	9.3	39.5	7.1
	F	66.6	48.9	5.8	16.0	14.7	10.1	39.4	16.5
West									
Austria	M	62.9	55.2	4.8	7.1	13.6	8.9	18.1	22.0
	F	41.8	27.4	4.0	13.2	15.7	9.4	25.4	31.0
Belgium	M	65.1	63.6	5.3	11.6	13.7	17.0	36.3	15.7
	F	49.8	33.4	4.8	15.4	13.8	17.5	39.4	21.1
France	M	72.7	68.4	5.7	12.7	15.7	19.0	37.4	14.6
	F	58.6	40.4	4.7	19.4	23.4	24.0	39.8	20.4
Germany	M	70.5	66.6	5.5	12.3	12.8	13.0	32.1	15.2
	F	56.5	39.2	4.6	19.0	16.6	16.8	37.1	19.9
Ireland	M	51.0	44.5	5.1	6.2	18.4	8.4	21.7	29.0
	F	28.2	25.6	4.1	7.6	15.8	9.4	30.1	41.3
Netherlands	M	58.4	55.6	6.0	10.3	14.4	13.3	31.9	20.8
	F	46.8	29.2	4.7	15.1	13.2	14.8	38.1	18.2
Switzerland	M	54.7	51.8	6.2	10.2	11.9	8.3	32.8	13.0
	F	41.1	29.7	5.3	15.3	13.4	11.7	41.8	16.9
UK	M	60.9	60.5	5.9	11.8	16.2	18.2	29.4	33.0

	F	38.9	29.6	5.4	14.5	20.7	18.3	31.0	30.1
Central/East									
Czech Rep	M	46.7	44.8	4.0	7.0	15.1	9.0	31.6	16.5
	F	33.1	25.3	3.1	6.5	17.8	9.7	37.1	37.7
Estonia	M	71.7	64.0	4.9	8.7	25.0	16.2	26.5	25.1
	F	53.8	45.6	4.6	15.0	24.9	20.7	35.8	39.1
Hungary	M	60.3	44.9	2.9	12.3	24.6	15.2	5.4	28.6
	F	40.0	30.7	2.4	11.9	24.4	15.0	9.9	38.4
Lithuania	M	67.0	48.3	3.9	11.9	22.9	18.0	16.7	27.8
	F	45.9	36.9	4.1	9.7	26.4	19.9	25.1	46.5
Poland	M	69.7	72.3	4.2	6.3	17.2	12.1	32.8	18.2
	F	55.4	44.7	3.9	7.0	19.1	11.1	38.5	37.6
Slovenia	M	67.4	68.7	5.0	5.7	15.5	16.0	30.0	18.0
	F	56.2	46.0	3.8	12.9	25.6	19.3	34.6	18.7
South									
Israel	M	45.2	44.7	5.7	10.3	18.4	16.2	35.5	19.2
	F	31.3	23.0	5.0	11.1	24.6	17.6	38.7	31.4
Portugal	M	71.7	70.2	6.3	7.2	25.7	13.3	35.0	33.1
	F	66.1	45.2	5.9	11.9	24.2	16.2	33.1	43.3
Spain	M	72.0	66.2	5.6	4.4	15.4	16.9	23.3	29.4
	F	58.6	43.1	5.1	6.1	14.7	21.5	32.5	42.2

Source: European Social Survey (2016).