The fractions and burden of cardiovascular diseases and depression attributable to psychosocial work exposures in the European Union

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Contents

Executive summary

This research project financed by the European Trade Union Institute (ETUI) pursued two objectives:

1. to estimate the fractions of cardiovascular disease and depression attributable to five different psychosocial work factors, i.e. job strain, effort-reward imbalance, job insecurity, long working hours, and bullying in Europe (35 countries, including 28 European Union countries), for each country and all countries taken together, in 2015;
2. to estimate the annual burden of cardiovascular diseases and depression attributable to the five psychosocial work exposures in 28 European Union countries (EU28) in 2015, in terms of prevalent cases, deaths, years of life lost (YLLs), years of life lost due to disability (YLDs), and disability-adjusted life years (DALYs).

The attributable fractions (AFs) of depression were all significant in EU28: job strain (16%), job insecurity (9%), bullying (9%), and effort-reward imbalance (6%). The AFs of depression were higher than those of cardiovascular diseases (for all exposures except long working hours). The AFs of cardiovascular diseases (including coronary/ischemic heart diseases (CHD), stroke, atrial fibrillation, peripheral artery disease, venous thromboembolism) ranged from 1% to 11%. Most of the AFs were significantly different from zero, except for the job strain-stroke pair. Differences in the AFs were observed between countries for all exposure-outcome pairs related to the outcome of depression and also to exposure to long working hours. Differences between genders were found for long working hours, with higher AFs observed among men than among women for all outcomes.

Our study showed a high burden of CHD and depression attributable to the studied psychosocial work exposures in the EU28 in 2015, with a higher burden for depression. The overall burden of CHD attributable to these exposures taken together was estimated at 173 629 DALYs for men and 39 238 for women, and 5092 deaths for men and 1098 for women in the EU28 in 2015. The overall burden of depression was estimated at 355 665 DALYs for men and 305 347 for women (respectively 3931 and 912 deaths). The three highest burdens in terms of DALYs in the EU28 in 2015 were found for depression attributable to job strain, job insecurity and workplace bullying. Our study showed discrepancies between EU countries in the burden borne by workers, with an east-west gradient for some exposure-outcome pairs related to CHD and stroke. At the country level, differences in DALY rates per 100 000 workers were observed between men and women in all countries for CHD attributable to job strain, ERI and job insecurity, with a higher burden for men. Finally, some psychosocial work factors including

specific exposures may be lacking from the study, for instance organisational injustice or violence at work. Therefore, our results provide conservative estimates of the burden of diseases attributable to psychosocial work factors, as we studied a limited set of exposures and health outcomes.

Such results are necessary as tools to aid decision makers (governments, employers, trade unions) in their task of defining public health priorities and work stress preventive strategies in Europe.

Introduction: background and objectives of the research project

Work-related psychosocial exposures are a major occupational hazard in European countries. They are highly prevalent, as shown in several studies based on the data from the European Working Conditions Surveys (Malard et al. 2013; Niedhammer et al. 2012). A large number of epidemiological studies have shown that psychosocial work exposures are associated with various health outcomes, especially cardiovascular diseases (Niedhammer et al. 2021) and mental disorders (Niedhammer et al. 2021). The etiological role of these exposures in these health outcomes has therefore been investigated in the literature and the scientific evidence is convincing.

Evaluations of the burden of psychosocial work exposures are very rare in the literature, even though mental and cardiovascular diseases represent a high burden in terms of morbidity (number of cases) and mortality (number of deaths), as well as in terms of economic impact. There is a gap in knowledge regarding these issues (Hassardet al. 2018). According to one multinational study conducted in the EU15, work-related stress (job strain) represented an annual total cost of 20 trillion euros in Europe in 2000 (Koukoulaki 2002). However, this study provided no clear explanation or specification of the methodology used. Another multinational study has been published recently by EU-OSHA (Tompa et al. 2019) and produced estimates of the direct, indirect and intangible costs of occupational diseases and injuries in five European countries. In this study, diseases attributable to psychosocial work exposures were not analysed specifically, since all types of occupational injuries and work-related diseases were included.

Yet, European public health decision makers need up-to-date economic evaluations of burden and the costs of diseases imputable to work-related psychosocial exposures in order to take account of the magnitude of this phenomenon. Such economic estimates are necessary when defining public health priorities for prevention policies (Niedhammer et al. 2014b; Sultan-Taïeb et Niedhammer 2013).

To meet this need and provide relevant information for decision making, a research project financed by the ETUI was developed through international collaboration between a Canadian (ESG-UQAM) and a French (INSERM) team. **The main objective of this project was to estimate the annual burden of psychosocial work exposures from the societal perspective in 28 European Union Member States (EU28), in both physical and monetary units (costs)**.

This project covers 28 different countries in 2015, namely the 27 Member States of the European Union (Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden) and the United Kingdom (UK).

The present report corresponds to the first part of this project on the fractions and burden of cardiovascular diseases and depression attributable to psychosocial work factors in the EU28 in 2015, in terms of prevalent cases, deaths and DALYs. A second forthcoming report deals with the costs of these diseases attributable to these factors in monetary units.

This report is made up of two sections, each corresponding to a published scientific article. The first section presents estimates of the fractions of cardiovascular diseases and depression attributable to psychosocial work factors in the EU28. The second section presents estimates of the burden of these diseases in the EU28 in 2015 in terms of prevalent cases, deaths, and DALYs, using the attributable fraction method.

Section 1
Update of the fractions of cardiovascular diseases and mental disorders attributable to psychosocial work factors in Europe

1. Introduction[1]

Psychosocial work factors constitute major occupational hazards in the working populations of developed countries. They have been found to be associated with various health outcomes, including cardiovascular diseases and mental disorders, for which a high level of evidence has been provided by the literature (Kivimaki et al. 2012; Madsen et al. 2017). However, the burden of diseases attributable to these factors remains understudied for Europe and European countries. The estimation of such a burden may be useful for at least two reasons. Firstly, this estimation may inform and guide stakeholders to take decisions on preventive measures (Niedhammer et al. 2014b). Secondly, this estimation may be a preliminary step for the calculation of the costs of diseases attributable to such factors (Sultan-Taïeb et al. 2013; Sultan-Taïeb and Niedhammer 2013). Nevertheless, the evaluation of such a burden, through the calculation of attributable fractions, implies causality between exposure and outcome, which is strongly dependent on the level of evidence available.

Some years ago, we published a paper presenting first estimates of the fractions of cardiovascular diseases and mental disorders attributable to psychosocial work exposures for Europe as a whole and each country separately (Niedhammer et al. 2014a). The studied exposures were job strain, effort-reward imbalance (ERI), and job insecurity. Indeed, these exposures represent concepts that are both well-known and widely used. Job strain is probably the most prominent psychosocial work exposure, derived from the job strain model by Karasek (Karasek et al. 1998) and defined by the combination of high psychological demands and low decision latitude. ERI from the ERI model (Siegrist et al. 2004) is the exposure defined by an excess of effort made compared to low levels of reward obtained. Job insecurity is generally defined by the fear or threat of job loss (Bartley and Ferrie 2001). Since 2014, other psychosocial work factors have emerged and the literature has grown, making the study of other exposures possible. At least two major exposures have been studied within the last years, which are long working hours and workplace bullying. Long working hours are defined by an excess of working hours, using thresholds that may vary according to studies (van der Hulst 2003). Workplace

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bullying is characterized by various aspects of psychological and physical violence at the workplace (Einarsen 2000).

In our earlier publication (Niedhammer et al. 2014a), we found that the highest significant attributable fraction was the fraction of mental disorders attributable to job strain in Europe (18%). The fractions of these disorders attributable to ERI (9%) and job insecurity (5%) were also significantly different from zero. The fraction of cardiovascular diseases attributable to job strain was 4% and significant as well. Almost no difference between European countries was observed in these fractions.

The present study added to the previous one by providing up-to-date estimates for exposure prevalences and attributable fractions with the use of more recent data (2015 instead of 2005 previously), covering Europe and all European countries more widely (35 European countries instead of 31 previously), and enlarging the study of psychosocial work exposures to the more recent concepts of long working hours and workplace bullying.

The objectives of this study were thus to **provide up-to-date estimates of the fractions of cardiovascular diseases and mental disorders attributable to the five aforementioned psychosocial work exposures in Europe as a whole and in 35 European countries separately**.

2. Methods

2.1 Prevalence of exposure

The study used the data from the 2015 European Working Conditions Survey (EWCS) to assess the prevalence of exposure (Pe) to psychosocial work factors. This survey is a periodical survey on working conditions among the European working populations set up by the European Foundation for the improvement of living and working conditions (Eurofound) since 1990. This survey is an important source of information for the assessment of occupational exposures in European countries, as it relies on the same protocol and questionnaire all over Europe. The sixth edition of the survey was performed in 2015 and covered 35 European countries, including the 28 European Union (EU) countries (the UK was still part of the EU in 2015). The sample was representative of all workers, employees and self-employed workers, aged 15 or more, living in private households, and in employment at the time of the survey (i.e. who worked during the week preceding the interview according to Eurostat definition). The sampling procedure was a multistage stratified random sampling. More information about the survey protocol and sampling design can be found elsewhere (Eurofound 2017). The survey sample included 43,850 workers. The sample was restricted to employees, as self-employed workers were not always asked the same questions in the survey. Consequently, the study sample included 35,571 employees, including 17,109 men and 18,453 women. There were 9 employees without information about gender, and their data were used when all men and women together were studied. The

sample size of employees according to country ranged between 553 (Albania) and 2762 (Spain) with a mean value of 1016 in each country (Appendix to Section 1, Table S1).

Five psychosocial work factors were assessed using the 2015 EWCS data: job strain, ERI, job insecurity, long working hours, and bullying. The list of the items from the 2015 questionnaire used to construct these factors is presented in Appendix. The construction of the factors was close but not strictly identical to the construction of the factors of job strain, ERI, and job insecurity in our previous publication (Niedhammer et al. 2014a), as some items were removed or added in the 2015 questionnaire compared to the 2005 questionnaire. To make the factor construction possible, the coding of some items (with reverse formulation) was reversed and the coding was made homogeneous if the coding was different between items. Job strain was defined by the combination of high psychological demands and low decision latitude following the job strain model (Karasek et al. 1998). Psychological demands were based on a sum score of 5 items (Cronbach's alpha coefficient: 0.64). Decision latitude was constructed using a weighted sum of skill discretion (3 items) and decision authority (8 items), the two components being given the same weight (Cronbach's alpha coefficient: 0.78). Exposure to high demands and low latitude was defined using the median of the distribution among the total sample. ERI was defined by a weighted ratio of effort and reward over 1, i.e. an imbalance between high effort and low reward (Siegrist et al. 2004). Effort was measured using 6 items (Cronbach's alpha coefficient: 0.56). Reward was measured by a weighted sum giving the same weight to the three components: reward (5 items), job promotion (3 items), and job security (1 item) (Cronbach's alpha coefficient: 0.73). There was no major change in Cronbach's alpha coefficients between countries. Job insecurity was measured using the same one item (strongly or tend to agree to lose job in the next 6 months). Long working hours (1 item) was defined by 55 hours or more a week, this threshold being chosen to be consistent with the literature. Bullying was measured using one item, which was exposure to workplace bullying/harassment within the last 12 months.

The prevalence of exposure to these 5 factors was calculated from weighted data to provide estimates that were representative for Europe as a whole (35 countries), for the 28 EU countries, and for each country. The calculation of 95% confidence intervals also took weighting into account. The difference in exposure between countries was tested using the Wald test. The main analyses were based on the total sample of men and women. Differences in the prevalence of exposure between genders were tested using the Rao-Scott Chi-Square test.

2.2 Relative risk

Relative risk (RR) estimates were obtained from the most recent literature reviews or if not available from studies of the IPD-Work consortium (Kivimaki et al. 2015) that provided pooled RR estimates from various cohort studies from a range of countries. Fifteen literature reviews and IPD-Work consortium studies were used to provide RRs for a number of associations between psychosocial work factors and health outcomes related to cardiovascular diseases and mental disorders.

Table 1 **Summary adjusted relative risks and 95% confidence intervals**

	RR	95% CI	
CHD			
Job strain (Kivimaki, Nyberg et al. 2012)	1.17	1.05	1.31
Effort-reward imbalance (Dragano, Siegrist et al. 2017)*	1.19	1.04	1.38
Job insecurity (Virtanen, Nyberg et al., 2013)[1*]	1.32	1.09	1.59
Long working hours (Kivimaki, Jokela et al. 2015; Li, Pega et al. 2020)[2*]	1.13	1.02	1.26
STROKE			
Job strain (Fransson, Nyberg et al. 2015)			
Overall stroke[3]	1.09	0.94	1.26
Ischemic stroke	1.18	1.00	1.39
Hemorrhagic stroke	0.95	0.72	1.27
Long working hours (Descatha, Sembajwe et al. 2020)[2*]			
Overall stroke	1.35	1.13	1.61
ATRIAL FIBRILLATION			
Long working hours (Kivimaki, Nyberg et al. 2017)*	1.42	1.13	1.80
PERIPHERAL ARTERY DISEASE			
Job strain (Heikkila, Pentti et al. 2020)[3*]	1.46	1.17	1.83
VENOUS THROMBOEMBOLISM			
Long working hours (Kivimaki, Nyberg et al. 2018)[4]	1.5	1.1	2.1
DEPRESSION			
Job strain (Madsen, Nyberg et al. 2017)[5]	1.77	1.47	2.13
Effort-reward imbalance (Rugulies, Aust et al. 2017)[6]	1.68	1.40	2.01
Job insecurity (Ronnblad, Gronholm et al. 2019)	1.61	1.29	2.00
Long working hours (Virtanen, Jokela et al. 2018)[7*]	1.14	1.03	1.25
Bullying (Theorell, Hammarstrom et al. 2015)[8]	2.82	2.21	3.59

Adjustment for gender, age, and SES, except:
[1] Adjusted for age
[2] Adjusted for at least gender, age, and SES
[3] Adjusted for gender and age
[4] Adjusted for gender, age, cohort, and SES
[5] Adjusted variables varied by study (published studies on clinical depression only)
[6] From least adjusted study-specific estimates
[7] Adjusted for gender, age, SES, and marital status or the closest
[8] From the least adjusted model from each study
* No significant gender differences in the RRs

These pooled RRs were based on prospective studies and were related to health outcomes that were clearly defined, i.e. that could be found in the International Classification of Diseases (ICD-10). The studied exposures were the five exposures measured using the 2015 EWCS data. The pooled RRs used in the present study were those that were adjusted for gender, age, and socioeconomic status (SES), or the closest adjustment. If various adjusted pooled RRs were available for a given exposure-outcome association in the literature, we retained the one that was adjusted for gender, age, and SES. Careful consideration was given to gender-stratified results or to all information provided by the authors on gender differences in RRs. However, the gender differences turned out to be either unexplored in the selected literature or non-significant i.e. the gender-related interactions were

found to be non-significant (meaning no difference in RRs between men and women). Consequently, the RRs and their 95% confidence intervals for men and women together were used and are presented in Table 1. The outcomes related to cardiovascular diseases were coronary/ischemic heart disease (CHD), stroke, atrial fibrillation, peripheral artery disease, and venous thromboembolism, and the outcome for mental disorders was depression. All RRs were significant except for the two associations of job strain-overall stroke and job strain-hemorrhage stroke.

2.3 Attributable fractions

Attributable fraction (AF) provides an estimate of 'the fraction of disease cases that is attributable to an exposure in a population and that would not have been observed if the exposure had been non-existent' (Nurminen and Karjalainen 2001). The calculation of AF implies that there is a causal association between exposure and outcome, but appears justified if there is a high level of evidence, though non-causal. AF for each exposure-outcome pair was calculated using the following formula (Nurminen and Karjalainen 2001), with Pe prevalence of exposure and RR relative risk:

$$AF=Pe(RR\text{-}1)/[1+Pe(RR\text{-}1)] \quad (1)$$

The AFs were calculated for Europe as a whole (all 35 countries), for the 28 EU countries, and for each country. 95% confidence intervals were calculated using simulation-modelling techniques that were presented in our previous study (Niedhammer et al. 2014a). Briefly, we simulated Pe and log(RR) through a normal distribution in order to provide the mean and variance, and consequently the 95 % confidence interval of the AFs. The difference in AFs between countries was tested using the Wald test. As the RRs for a given exposure-outcome association were assumed to be the same for all countries, the differences in AFs between countries were related to the differences in exposure prevalence between countries. Similarly, as the RRs were assumed to be the same for both genders, the differences in AFs between genders were related to the differences in exposure prevalence between men and women. Gender-stratified AFs were calculated only if the difference in exposure prevalence was significant between genders. The difference in AFs between men and women was tested using the Wald test.

All statistical analyses were performed using SAS software.

3. Results

3.1 Results for job strain (Table 2)

The overall prevalence of job strain was 26% in Europe (35 countries) and there was a significant difference between countries. The lowest prevalence of exposure (less than 17%) was observed in the Scandinavian countries, Latvia, Malta, and

Table 2 Fractions of cardiovascular diseases and mental disorders attributable to job strain in Europe

%	Exposure prevalence		CHD		Overall stroke		Peripheral artery disease		Depression	
	Pe[1]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI
Albania	39.43	[34.68-44.18]	**6.38**	**[1.84-10.93]**	3.38	[-2.52-9.27]	**15.44**	**[6.10-24.78]**	**23.25**	**[15.35-31.14]**
Austria	22.45	[19.23-25.68]	**3.75**	**[1.00-6.51]**	1.97	[-1.49-5.44]	**9.48**	**[3.33-15.64]**	**14.76**	**[9.12-20.41]**
Belgium	20.16	[18.26-22.07]	**3.38**	**[0.92-5.85]**	1.78	[-1.34-4.90]	**8.61**	**[3.04-14.19]**	**13.47**	**[8.39-18.55]**
Bulgaria	21.30	[18.27-24.33]	**3.57**	**[0.94-6.19]**	1.88	[-1.42-5.17]	**9.05**	**[3.15-14.95]**	**14.12**	**[8.68-19.55]**
Croatia	35.20	[31.38-39.01]	**5.74**	**[1.64-9.85]**	3.03	[-2.27-8.33]	**14.04**	**[5.44-22.64]**	**21.30**	**[13.94-28.66]**
Cyprus	43.15	[39.28-47.02]	**6.94**	**[2.05-11.83]**	3.68	[-2.73-10.08]	**16.63**	**[6.76-26.50]**	**24.89**	**[16.75-33.03]**
Czech Rep	26.79	[23.29-30.29]	**4.44**	**[1.21-7.67]**	2.34	[-1.76-6.44]	**11.09**	**[4.04-18.14]**	**17.11**	**[10.80-23.42]**
Denmark	19.19	[16.41-21.97]	**3.23**	**[0.84-5.61]**	1.70	[-1.29-4.68]	**8.23**	**[2.82-13.65]**	**12.91**	**[7.86-17.95]**
Estonia	21.28	[18.00-24.57]	**3.56**	**[0.93-6.20]**	1.88	[-1.42-5.17]	**9.04**	**[3.13-14.95]**	**14.11**	**[8.63-19.58]**
Finland	16.31	[13.56-19.06]	**2.76**	**[0.70-4.82]**	1.45	[-1.11-4.00]	**7.09**	**[2.33-11.85]**	**11.19**	**[6.65-15.73]**
France	24.33	[21.82-26.83]	**4.05**	**[1.11-6.99]**	2.13	[-1.60-5.87]	**10.19**	**[3.69-16.69]**	**15.80**	**[9.98-21.62]**
FYROM	29.44	[25.65-33.23]	**4.86**	**[1.34-8.37]**	2.56	[-1.92-7.05]	**12.04**	**[4.47-19.62]**	**18.48**	**[11.79-25.17]**
Germany	22.01	[19.81-24.22]	**3.68**	**[1.00-6.36]**	1.94	[-1.46-5.33]	**9.32**	**[3.32-15.32]**	**14.52**	**[9.10-19.95]**
Greece	46.95	[42.51-51.39]	**7.50**	**[2.24-12.76]**	3.98	[-2.95-10.90]	**17.81**	**[7.37-28.25]**	**26.48**	**[17.98-34.98]**
Hungary	31.44	[27.77-35.12]	**5.17**	**[1.45-8.89]**	2.73	[-2.04-7.50]	**12.75**	**[4.81-20.69]**	**19.49**	**[12.57-26.41]**
Ireland	25.92	[22.30-29.55]	**4.30**	**[1.16-7.45]**	2.27	[-1.71-6.24]	**10.78**	**[3.89-17.67]**	**16.65**	**[10.44-22.86]**
Italy	22.78	[19.79-25.77]	**3.80**	**[1.02-6.59]**	2.00	[-1.51-5.52]	**9.61**	**[3.40-15.82]**	**14.95**	**[9.29-20.60]**
Latvia	15.16	[12.45-17.88]	**2.57**	**[0.64-4.50]**	1.35	[-1.03-3.73]	**6.63**	**[2.14-11.12]**	**10.49**	**[6.16-14.82]**
Lithuania	27.56	[24.01-31.10]	**4.56**	**[1.25-7.87]**	2.40	[-1.81-6.62]	**11.37**	**[4.17-18.57]**	**17.51**	**[11.10-23.93]**
Luxembourg	21.23	[18.21-24.25]	**3.56**	**[0.94-6.17]**	1.87	[-1.42-5.16]	**9.02**	**[3.14-14.90]**	**14.08**	**[8.66-19.50]**
Malta	15.46	[12.67-18.26]	**2.62**	**[0.65-4.59]**	1.38	[-1.05-3.80]	**6.75**	**[2.19-11.32]**	**10.68**	**[6.27-15.08]**

%	Exposure prevalence		CHD		Overall stroke		Peripheral artery disease		Depression	
	Pe[1]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI
Montenegro	33.29	[29.04-37.54]	**5.45**	**[1.53-9.38]**	2.88	[-2.16-7.91]	**13.39**	**[5.09-21.68]**	**20.39**	**[13.18-27.60]**
Netherlands	15.29	[12.42-18.16]	**2.59**	**[0.64-4.54]**	1.36	[-1.04-3.76]	**6.68**	**[2.15-11.22]**	**10.57**	**[6.18-14.96]**
Norway	13.12	[10.91-15.34]	**2.23**	**[0.56-3.91]**	1.17	[-0.90-3.24]	**5.80**	**[1.85-9.74]**	**9.22**	**[5.39-13.04]**
Poland	24.36	[21.43-27.29]	**4.06**	**[1.10-7.01]**	2.14	[-1.61-5.88]	**10.20**	**[3.67-16.73]**	**15.82**	**[9.93-21.70]**
Portugal	26.16	[22.37-29.95]	**4.34**	**[1.17-7.51]**	2.29	[-1.73-6.30]	**10.86**	**[3.91-17.81]**	**16.78**	**[10.51-23.05]**
Romania	36.83	[32.76-40.90]	**5.99**	**[1.72-10.27]**	3.17	[-2.36-8.70]	**14.58**	**[5.70-23.47]**	**22.06**	**[14.50-29.63]**
Serbia	28.29	[24.17-32.41]	**4.68**	**[1.27-8.08]**	2.47	[-1.86-6.79]	**11.63**	**[4.25-19.01]**	**17.89**	**[11.29-24.49]**
Slovakia	29.40	[25.58-33.21]	**4.85**	**[1.34-8.36]**	2.56	[-1.92-7.04]	**12.03**	**[4.46-19.60]**	**18.46**	**[11.77-25.15]**
Slovenia	24.23	[21.54-26.92]	**4.04**	**[1.10-6.97]**	2.13	[-1.60-5.85]	**10.15**	**[3.66-16.64]**	**15.75**	**[9.92-21.57]**
Spain	33.68	[31.57-35.80]	**5.51**	**[1.59-9.43]**	2.91	[-2.17-7.99]	**13.52**	**[5.25-21.80]**	**20.59**	**[13.55-27.62]**
Sweden	16.07	[13.46-18.68]	**2.72**	**[0.69-4.75]**	1.43	[-1.09-3.94]	**7.00**	**[2.31-11.69]**	**11.05**	**[6.58-15.52]**
Switzerland	21.44	[18.45-24.43]	**3.59**	**[0.95-6.23]**	1.89	[-1.43-5.20]	**9.10**	**[3.18-15.02]**	**14.19**	**[8.75-19.64]**
Turkey	35.96	[32.93-38.99]	**5.86**	**[1.69-10.03]**	3.10	[-2.30-8.50]	**14.30**	**[5.60-22.99]**	**21.67**	**[14.30-29.03]**
UK	27.26	[24.47-30.05]	**4.51**	**[1.25-7.78]**	2.38	[-1.78-6.54]	**11.26**	**[4.16-18.37]**	**17.36**	**[11.08-23.64]**
Total (35 countries)	25.92	[25.16-26.68]	**4.30**	**[1.21-7.39]**	2.27	[-1.69-6.23]	**10.78**	**[4.01-17.55]**	**16.66**	**[10.73-22.58]**
p-value[3]	***		**ns**		ns		ns		*******	
Total (28 EU countries)	25.16	[24.35-25.97]	**4.18**	**[1.18-7.19]**	2.20	[-1.64-6.05]	**10.50**	**[3.88-17.11]**	**16.25**	**[10.44-22.06]**
p-value[3]	***		**ns**		ns		ns		******	

FYROM: Former Yugoslav Republic of Macedonia

[1] Pe: prevalence of exposure

[2] AF: attributable fraction

Bold: AF significantly different from 0 at 5%

[3] p-value for the comparison between countries: *:p<0.05; **:p<0.01; ***: p<0.001; ns: non-significant

the Netherlands, and the highest (more than 40%) in Cyprus and Greece. The fraction of CHD attributable to job strain was 4% and significantly different from zero. There was no difference in this AF between countries. The AF for overall stroke was not significantly different from zero and there was no difference between countries. Supplementary results for ischemic and hemorrhagic stroke (Appendix to Section 1, Table S2) showed that the AFs were significant neither for ischemic stroke nor for hemorrhagic stroke. The AF for peripheral artery disease was significant (11%), and there was no difference between countries. The AF for depression was 17% and was significant. This AF displayed significant differences between countries.

3.2 Results for ERI (Table 3)

The prevalence of ERI was 10% in Europe (35 countries) and there were differences in this prevalence between countries. The lowest prevalence of exposure was found in Norway (4%) and the highest in Turkey (16%). The significant fraction of CHD attributable to ERI was 2% and this fraction did not differ between countries. The AF for depression was 6% and was significantly different from zero. This AF was different between countries.

3.3 Results for job insecurity (Table 4)

The prevalence of job insecurity was 17% in Europe (35 countries), and there were differences in this prevalence between countries. The lowest values were found in Germany, Malta, and Slovakia (less than 10%) and the highest in Slovenia and Spain (more than 25%). The fraction of CHD attributable to job insecurity (5%) was significantly different from zero, and there was no difference between countries. The AF for depression was 9% and was significantly different from zero. There were differences in the AFs between the 35 European countries, but no difference between the 28 EU countries.

3.4 Results for long working hours (Table 5)

The prevalence of long working hours was 5% in Europe (35 countries) and there were differences in this prevalence between countries. The lowest prevalence of exposure was observed in Austria, Germany, Italy, and Switzerland (less than 2%) and the highest in Turkey (more than 25%). The fraction of CHD attributable to long working hours was 1% and significantly different from zero. There were differences in this AF between the 35 countries but not between the 28 EU countries. The AF for overall stroke was 2% and was significant. There were differences in this AF between countries. The AF for atrial fibrillation was 2% and significant. There were differences in this AF between countries. The AF for venous thromboembolism was significant (3%), and there were differences between the 35 European countries, but not between the 28 EU countries. The AF for depression was 1% and significant. Differences in the AFs were observed between countries.

Table 3 **Fractions of cardiovascular diseases and mental disorders attributable to effort-reward imbalance (ERI) in Europe**

%	Exposure prevalence		CHD		Depression	
	Pe[1]	95% CI	AF[2]	95% CI	AF[2]	95% CI
Albania	13.36	[10.10-16.63]	**2.60**	**[0.35-4.86]**	**8.34**	**[4.45-12.23]**
Austria	8.79	[6.69-10.89]	**1.73**	**[0.22-3.24]**	**5.66**	**[2.95-8.36]**
Belgium	7.90	[6.60-9.19]	**1.56**	**[0.23-2.89]**	**5.11**	**[2.80-7.42]**
Bulgaria	5.47	[3.69-7.24]	**1.08**	**[0.10-2.07]**	**3.60**	**[1.68-5.52]**
Croatia	13.24	[10.44-16.03]	**2.58**	**[0.37-4.79]**	**8.27**	**[4.52-12.02]**
Cyprus	11.97	[9.50-14.44]	**2.34**	**[0.34-4.34]**	**7.54**	**[4.11-10.97]**
Czech Rep	7.00	[4.87-9.13]	**1.38**	**[0.14-2.62]**	**4.56**	**[2.20-6.92]**
Denmark	6.07	[4.48-7.66]	**1.20**	**[0.14-2.26]**	**3.98**	**[2.00-5.96]**
Estonia	6.91	[4.88-8.95]	**1.37**	**[0.15-2.59]**	**4.51**	**[2.20-6.81]**
Finland	6.71	[4.86-8.56]	**1.33**	**[0.15-2.50]**	**4.38**	**[2.18-6.58]**
France	11.45	[9.62-13.27]	**2.24**	**[0.34-4.14]**	**7.24**	**[4.06-10.42]**
FYROM	8.85	[6.67-11.04]	**1.74**	**[0.22-3.26]**	**5.70**	**[2.95-8.44]**
Germany	6.80	[5.53-8.08]	**1.35**	**[0.19-2.50]**	**4.44**	**[2.38-6.50]**
Greece	14.23	[11.28-17.17]	**2.77**	**[0.41-5.13]**	**8.83**	**[4.87-12.79]**
Hungary	9.54	[7.10-11.98]	**1.88**	**[0.23-3.52]**	**6.11**	**[3.15-9.07]**
Ireland	11.59	[8.81-14.37]	**2.27**	**[0.30-4.23]**	**7.32**	**[3.88-10.76]**
Italy	10.37	[8.26-12.48]	**2.03**	**[0.29-3.78]**	**6.60**	**[3.58-9.63]**
Latvia	5.64	[4.03-7.26]	**1.12**	**[0.12-2.12]**	**3.71**	**[1.81-5.61]**
Lithuania	5.52	[3.81-7.23]	**1.10**	**[0.11-2.08]**	**3.64**	**[1.73-5.55]**
Luxembourg	7.83	[5.83-9.82]	**1.54**	**[0.19-2.90]**	**5.07**	**[2.59-7.55]**
Malta	7.93	[5.91-9.95]	**1.56**	**[0.19-2.94]**	**5.14**	**[2.63-7.64]**
Montenegro	14.89	[11.68-18.10]	**2.89**	**[0.42-5.36]**	**9.21**	**[5.06-13.35]**
Netherlands	12.08	[9.45-14.71]	**2.36**	**[0.33-4.39]**	**7.61**	**[4.12-11.10]**
Norway	3.72	[2.46-4.99]	**0.74**	**[0.06-1.42]**	**2.48**	**[1.12-3.85]**
Poland	9.17	[7.15-11.20]	**1.80**	**[0.24-3.36]**	**5.89**	**[3.13-8.65]**
Portugal	8.11	[5.47-10.75]	**1.60**	**[0.16-3.04]**	**5.24**	**[2.49-8.00]**
Romania	7.44	[4.96-9.91]	**1.47**	**[0.14-2.80]**	**4.83**	**[2.26-7.40]**
Serbia	14.79	[11.69-17.90]	**2.87**	**[0.42-5.32]**	**9.15**	**[5.05-13.25]**
Slovakia	7.85	[5.64-10.07]	**1.55**	**[0.18-2.92]**	**5.09**	**[2.53-7.64]**
Slovenia	14.85	[12.66-17.03]	**2.88**	**[0.46-5.30]**	**9.18**	**[5.26-13.10]**
Spain	13.86	[12.30-15.42]	**2.70**	**[0.44-4.95]**	**8.63**	**[5.00-12.25]**
Sweden	10.02	[7.91-12.13]	**1.97**	**[0.27-3.66]**	**6.40**	**[3.44-9.36]**
Switzerland	8.29	[6.24-10.35]	**1.63**	**[0.21-3.06]**	**5.36**	**[2.76-7.95]**
Turkey	15.60	[13.27-17.92]	**3.02**	**[0.49-5.56]**	**9.60**	**[5.52-13.68]**
UK	11.27	[9.37-13.18]	**2.21**	**[0.33-4.08]**	**7.14**	**[3.97-10.30]**
Total (35 countries)	9.83	[9.47-10.18]	**1.93**	**[0.32-3.54]**	**6.28**	**[3.64-8.92]**
p-value	***		ns		*******	
Total (28 EU countries)	9.70	[9.16-10.25]	**1.91**	**[0.31-3.50]**	**6.21**	**[3.59-8.83]**
p-value	***		ns		**	

FYROM: Former Yugoslav Republic of Macedonia. [1] Pe: prevalence of exposure. [2] AF: attributable fraction. Bold: AF significantly different from 0 at 5%. [3] p-value for the comparison between countries: *:p<0.05; **:p<0.01; ***: p<0.001; ns: non-significant

Table 4 **Fractions of cardiovascular diseases and mental disorders attributable to job insecurity in Europe**

%	Exposure prevalence		CHD		Depression	
	Pe[1]	95% CI	AF[2]	95% CI	AF[2]	95% CI
Albania	21.29	[17.32-25.26]	**6.36**	**[1.57-11.15]**	**11.49**	**[5.31-17.66]**
Austria	10.47	[8.10-12.83]	**3.25**	**[0.69-5.80]**	**6.03**	**[2.51-9.54]**
Belgium	14.72	[12.96-16.47]	**4.50**	**[1.11-7.89]**	**8.26**	**[3.79-12.73]**
Bulgaria	12.10	[9.54-14.66]	**3.73**	**[0.82-6.64]**	**6.90**	**[2.94-10.85]**
Croatia	19.07	[16.09-22.05]	**5.74**	**[1.43-10.05]**	**10.42**	**[4.83-16.02]**
Cyprus	14.15	[11.39-16.91]	**4.33**	**[1.00-7.67]**	**7.96**	**[3.49-12.44]**
Czech Rep	17.50	[14.43-20.57]	**5.30**	**[1.28-9.31]**	**9.65**	**[4.38-14.92]**
Denmark	11.08	[8.91-13.24]	**3.43**	**[0.76-6.10]**	**6.35**	**[2.72-9.99]**
Estonia	18.61	[15.74-21.48]	**5.61**	**[1.40-9.83]**	**10.20**	**[4.72-15.68]**
Finland	15.47	[12.79-18.16]	**4.72**	**[1.12-8.31]**	**8.64**	**[3.88-13.41]**
France	13.26	[11.29-15.24]	**4.08**	**[0.97-7.18]**	**7.51**	**[3.36-11.65]**
FYROM	18.54	[15.31-21.76]	**5.59**	**[1.37-9.82]**	**10.16**	**[4.65-15.68]**
Germany	9.31	[7.83-10.79]	**2.90**	**[0.66-5.14]**	**5.40**	**[2.34-8.46]**
Greece	23.49	[19.66-27.31]	**6.97**	**[1.79-12.14]**	**12.51**	**[5.94-19.09]**
Hungary	15.45	[12.56-18.33]	**4.71**	**[1.11-8.31]**	**8.63**	**[3.84-13.41]**
Ireland	13.73	[10.88-16.58]	**4.21**	**[0.95-7.47]**	**7.75**	**[3.36-12.14]**
Italy	21.71	[18.68-24.75]	**6.48**	**[1.67-11.29]**	**11.69**	**[5.55-17.83]**
Latvia	21.21	[18.06-24.37]	**6.34**	**[1.62-11.06]**	**11.45**	**[5.40-17.50]**
Lithuania	14.09	[11.13-17.04]	**4.32**	**[0.98-7.65]**	**7.93**	**[3.44-12.42]**
Luxembourg	10.71	[8.14-13.29]	**3.32**	**[0.69-5.95]**	**6.16**	**[2.54-9.78]**
Malta	8.45	[6.14-10.77]	**2.64**	**[0.51-4.77]**	**4.93**	**[1.92-7.93]**
Montenegro	17.97	[14.27-21.67]	**5.43**	**[1.28-9.58]**	**9.88**	**[4.42-15.35]**
Netherlands	24.42	[20.99-27.85]	**7.22**	**[1.90-12.54]**	**12.94**	**[6.24-19.65]**
Norway	10.21	[8.22-12.20]	**3.17**	**[0.70-5.64]**	**5.89**	**[2.51-9.27]**
Poland	23.97	[21.03-26.91]	**7.10**	**[1.88-12.31]**	**12.74**	**[6.17-19.31]**
Portugal	20.16	[16.29-24.03]	**6.05**	**[1.47-10.62]**	**10.95**	**[5.01-16.88]**
Romania	15.22	[12.06-18.38]	**4.64**	**[1.06-8.22]**	**8.51**	**[3.73-13.29]**
Serbia	24.98	[21.14-28.82]	**7.37**	**[1.93-12.81]**	**13.20**	**[6.34-20.05]**
Slovakia	8.06	[5.71-10.40]	**2.52**	**[0.47-4.58]**	**4.71**	**[1.80-7.62]**
Slovenia	27.32	[24.45-30.19]	**8.00**	**[2.19-13.81]**	**14.25**	**[7.06-21.44]**
Spain	25.51	[23.50-27.53]	**7.52**	**[2.05-12.98]**	**13.44**	**[6.65-20.24]**
Sweden	14.67	[12.15-17.18]	**4.48**	**[1.06-7.91]**	**8.23**	**[3.68-12.79]**
Switzerland	12.00	[9.53-14.47]	**3.70**	**[0.82-6.58]**	**6.84**	**[2.93-10.76]**
Turkey	16.45	[14.18-18.72]	**5.00**	**[1.23-8.76]**	**9.13**	**[4.20-14.07]**
UK	12.11	[10.07-14.15]	**3.74**	**[0.86-6.61]**	**6.90**	**[3.03-10.77]**
Total (35 countries)	16.56	[16.10-17.01]	**5.03**	**[1.30-8.76]**	**9.19**	**[4.36-14.02]**
p-value	***		ns		*	
Total (28 EU countries)	15.71	[15.05-16.37]	**4.79**	**[1.23-8.35]**	**8.76**	**[4.13-13.40]**
p-value	***		ns		ns	

FYROM: Former Yugoslav Republic of Macedonia. [1] Pe: prevalence of exposure. [2] AF: attributable fraction. Bold: AF significantly different from 0 at 5%. [3] p-value for the comparison between countries: *:p<0.05; **:p<0.01; ***: p<0.001; ns: non-significant

Table 5 Fractions of cardiovascular diseases and mental disorders attributable to long working hours in Europe

%	Exposure prevalence		CHD		Overall stroke		Atrial fibrillation		Venous thromboembolism		Depression	
	Pe[1]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI
Albania	16.51	[13.04-19.98]	**2.17**	**[0.22-4.13]**	**5.49**	**[1.79-9.19]**	**5.49**	**[1.79-9.19]**	**8.05**	**[0.97-15.12]**	**2.19**	**[0.39-3.99]**
Austria	1.51	[0.63-2.39]	0.20	[-0.02-0.43]	**0.53**	**[0.05-1.02]**	**0.53**	**[0.05-1.02]**	0.81	[-0.09-1.71]	**0.21**	**[0.00-0.42]**
Belgium	3.08	[2.25-3.91]	**0.42**	**[0.03-0.80]**	**1.08**	**[0.29-1.86]**	**1.08**	**[0.29-1.86]**	**1.63**	**[0.07-3.20]**	**0.42**	**[0.06-0.78]**
Bulgaria	6.38	[4.54-8.21]	**0.85**	**[0.06-1.65]**	**2.20**	**[0.60-3.80]**	**2.20**	**[0.60-3.80]**	**3.31**	**[0.18-6.43]**	**0.86**	**[0.12-1.60]**
Croatia	6.01	[3.85-8.16]	**0.80**	**[0.03-1.58]**	**2.08**	**[0.50-3.65]**	**2.54**	**[0.42-4.67]**	**3.12**	**[0.08-6.16]**	**0.81**	**[0.09-1.53]**
Cyprus	2.30	[1.32-3.28]	**0.31**	**[0.00-0.62]**	**0.81**	**[0.16-1.46]**	**0.99**	**[0.12-1.87]**	1.23	[-0.03-2.48]	**0.31**	**[0.02-0.60]**
Czech Rep	5.06	[3.09-7.02]	**0.68**	**[0.02-1.34]**	**1.76**	**[0.39-3.12]**	**2.15**	**[0.31-3.98]**	**2.64**	**[0.02-5.26]**	**0.68**	**[0.07-1.30]**
Denmark	2.56	[1.54-3.57]	**0.34**	**[0.01-0.68]**	**0.90**	**[0.19-1.60]**	**1.10**	**[0.15-2.06]**	1.36	[-0.01-2.73]	**0.35**	**[0.03-0.66]**
Estonia	3.36	[2.06-4.66]	**0.45**	**[0.01-0.89]**	**1.17**	**[0.26-2.09]**	**1.44**	**[0.20-2.68]**	**1.77**	**[0.00-3.55]**	**0.45**	**[0.04-0.87]**
Finland	2.44	[1.34-3.54]	**0.33**	**[0.00-0.66]**	**0.86**	**[0.15-1.56]**	**1.05**	**[0.11-1.99]**	1.30	[-0.05-2.64]	**0.33**	**[0.02-0.64]**
France	3.51	[2.36-4.65]	**0.47**	**[0.02-0.92]**	**1.22**	**[0.31-2.14]**	**1.50**	**[0.25-2.75]**	**1.85**	**[0.05-3.66]**	**0.47**	**[0.06-0.89]**
FYROM	8.27	[5.93-10.61]	**1.10**	**[0.08-2.13]**	**2.84**	**[0.80-4.87]**	**3.46**	**[0.70-6.22]**	**4.24**	**[0.27-8.20]**	**1.11**	**[0.16-2.06]**
Germany	1.23	[0.61-1.84]	0.17	[-0.01-0.34]	**0.43**	**[0.06-0.80]**	**0.53**	**[0.04-1.03]**	0.66	[-0.05-1.36]	**0.17**	**[0.00-0.33]**
Greece	9.07	[6.40-11.74]	**1.21**	**[0.08-2.34]**	**3.10**	**[0.86-5.34]**	**3.78**	**[0.76-6.80]**	**4.62**	**[0.30-8.94]**	**1.22**	**[0.17-2.26]**
Hungary	3.83	[2.28-5.38]	**0.51**	**[0.01-1.02]**	**1.34**	**[0.28-2.39]**	**1.64**	**[0.22-3.06]**	2.02	[-0.01-4.05]	**0.52**	**[0.04-0.99]**
Ireland	4.84	[2.99-6.69]	**0.65**	**[0.02-1.28]**	**1.68**	**[0.38-2.98]**	**2.06**	**[0.31-3.81]**	**2.53**	**[0.02-5.04]**	**0.65**	**[0.06-1.24]**
Italy	1.39	[0.43-2.34]	0.19	[-0.03-0.40]	**0.49**	**[0.01-0.97]**	0.60	[-0.03-1.23]	0.74	[-0.14-1.62]	0.19	[-0.02-0.39]
Latvia	3.69	[1.92-5.45]	0.50	[-0.01-1.00]	**1.29**	**[0.22-2.36]**	**1.58**	**[0.15-3.01]**	1.94	[-0.08-3.97]	**0.50**	**[0.02-0.97]**
Lithuania	2.26	[1.00-3.51]	0.30	[-0.02-0.63]	**0.79**	**[0.09-1.50]**	**0.97**	**[0.04-1.91]**	1.20	[-0.12-2.52]	**0.31**	**[0.00-0.61]**
Luxembourg	2.34	[1.20-3.48]	0.32	[-0.01-0.64]	**0.82**	**[0.13-1.51]**	**1.01**	**[0.08-1.93]**	1.25	[-0.07-2.56]	**0.32**	**[0.01-0.62]**
Malta	5.46	[3.66-7.25]	**0.73**	**[0.04-1.43]**	**1.89**	**[0.48-3.30]**	**2.32**	**[0.41-4.23]**	**2.85**	**[0.10-5.59]**	**0.74**	**[0.09-1.38]**

%	Exposure prevalence		CHD		Overall stroke		Atrial fibrillation		Venous thromboembolism		Depression	
	Pe[1]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI	AF[2]	95% CI
Montenegro	16.98	[13.70-20.26]	**2.23**	**[0.23-4.23]**	**5.63**	**[1.87-9.40]**	**6.82**	**[1.75-11.89]**	**8.26**	**[1.04-15.47]**	**2.25**	**[0.41-4.09]**
Netherlands	2.20	[1.08-3.31]	0.30	[-0.01-0.60]	**0.77**	**[0.11-1.43]**	**0.95**	**[0.06-1.83]**	1.17	[-0.08-2.42]	**0.30**	**[0.01-0.59]**
Norway	2.82	[1.72-3.92]	**0.38**	**[0.01-0.75]**	**0.99**	**[0.21-1.76]**	**1.21**	**[0.17-2.26]**	1.50	[-0.01-3.00]	**0.38**	**[0.04-0.73]**
Poland	5.82	[4.13-7.50]	**0.78**	**[0.05-1.51]**	**2.01**	**[0.55-3.48]**	**2.46**	**[0.47-4.46]**	**3.03**	**[0.15-5.90]**	**0.78**	**[0.11-1.46]**
Portugal	2.97	[1.36-4.58]	0.40	[-0.03-0.82]	**1.04**	**[0.13-1.95]**	**1.27**	**[0.07-2.48]**	1.57	[-0.13-3.27]	**0.40**	**[0.00-0.80]**
Romania	5.50	[3.87-7.12]	**0.74**	**[0.05-1.43]**	**1.91**	**[0.51-3.30]**	**2.33**	**[0.44-4.22]**	**2.87**	**[0.13-5.60]**	**0.74**	**[0.10-1.38]**
Serbia	10.60	[7.66-13.54]	**1.41**	**[0.10-2.71]**	**3.60**	**[1.04-6.16]**	**4.39**	**[0.93-7.84]**	**5.35**	**[0.41-10.29]**	**1.42**	**[0.21-2.62]**
Slovakia	4.15	[2.47-5.84]	**0.56**	**[0.01-1.11]**	**1.45**	**[0.31-2.59]**	**1.77**	**[0.24-3.31]**	2.18	[-0.01-4.38]	**0.56**	**[0.05-1.07]**
Slovenia	4.48	[3.12-5.84]	**0.60**	**[0.03-1.17]**	**1.56**	**[0.41-2.71]**	**1.91**	**[0.35-3.48]**	**2.35**	**[0.09-4.61]**	**0.61**	**[0.08-1.13]**
Spain	4.31	[3.26-5.36]	**0.58**	**[0.04-1.11]**	**1.50**	**[0.43-2.57]**	**1.84**	**[0.37-3.31]**	**2.26**	**[0.13-4.40]**	**0.58**	**[0.09-1.07]**
Sweden	2.76	[1.60-3.92]	**0.37**	**[0.00-0.74]**	**0.97**	**[0.19-1.74]**	**1.19**	**[0.14-2.23]**	1.46	[-0.03-2.96]	**0.37**	**[0.03-0.72]**
Switzerland	1.02	[0.36-1.69]	0.14	[-0.02-0.30]	**0.36**	**[0.02-0.71]**	0.44	[-0.01-0.90]	0.55	[-0.09-1.19]	0.14	[-0.01-0.29]
Turkey	25.46	[22.65-28.27]	**3.31**	**[0.42-6.19]**	**8.20**	**[3.00-13.39]**	**9.85**	**[2.91-16.80]**	**11.81**	**[2.01-21.61]**	**3.33**	**[0.68-5.97]**
UK	5.71	[4.31-7.12]	**0.77**	**[0.06-1.47]**	**1.98**	**[0.57-3.39]**	**2.42**	**[0.50-4.34]**	**2.98**	**[0.19-5.76]**	**0.77**	**[0.12-1.42]**
Total (35 countries)	5.13	[4.86-5.40]	**0.69**	**[0.08-1.30]**	**1.78**	**[0.59-2.97]**	**2.18**	**[0.53-3.83]**	**2.68**	**[0.25-5.11]**	**0.69**	**[0.13-1.25]**
p-value	***		***		***		***		***		***	
Total (28 EU countries)	3.52	[3.18-3.87]	**0.47**	**[0.05-0.90]**	**1.23**	**[0.40-2.07]**	**1.51**	**[0.35-2.67]**	**1.86**	**[0.15-3.57]**	**0.48**	**[0.09-0.86]**
p-value	***		ns		**		***		ns		*	

FYROM: Former Yugoslav Republic of Macedonia

[1] Pe: prevalence of exposure

[2] AF: attributable fraction

Bold: AF significantly different from 0 at 5%

[3] p-value for the comparison between countries: *:p<0.05; **:p<0.01; ***: p<0.001; ns: non-significant

Table 6 **Fractions of mental disorders attributable to workplace bullying in Europe**

%	Exposure prevalence		Depression	
	Pe[1]	95% CI	AF[2]	95% CI
Albania	0.28	[-0.27-0.84]	**0.52**	**[-0.53-1.57]**
Austria	6.02	[4.36-7.67]	**9.91**	**[5.76-14.06]**
Belgium	8.26	[6.98-9.54]	**13.12**	**[8.50-17.75]**
Bulgaria	0.15	[-0.06-0.37]	**0.28**	**[-0.13-0.70]**
Croatia	2.83	[1.48-4.18]	**4.93**	**[2.07-7.79]**
Cyprus	2.36	[1.20-3.52]	**4.15**	**[1.67-6.62]**
Czech Rep	1.93	[0.70-3.16]	**3.41**	**[0.95-5.87]**
Denmark	3.94	[2.58-5.29]	**6.72**	**[3.53-9.92]**
Estonia	2.79	[1.47-4.12]	**4.87**	**[2.05-7.69]**
Finland	5.54	[3.79-7.30]	**9.21**	**[5.10-13.32]**
France	12.79	[10.85-14.72]	**18.91**	**[12.72-25.10]**
FYROM	4.96	[2.99-6.92]	**8.31**	**[4.14-12.48]**
Germany	5.12	[4.02-6.23]	**8.58**	**[5.18-11.97]**
Greece	2.50	[1.19-3.80]	**4.37**	**[1.66-7.09]**
Hungary	1.05	[-0.06-2.16]	**1.88**	**[-0.23-3.99]**
Ireland	9.77	[7.00-12.55]	**15.13**	**[9.10-21.15]**
Italy	2.58	[1.46-3.70]	**4.52**	**[2.02-7.01]**
Latvia	4.92	[3.43-6.42]	**8.27**	**[4.60-11.93]**
Lithuania	4.64	[2.99-6.29]	**7.82**	**[4.08-11.55]**
Luxembourg	9.93	[7.73-12.13]	**15.35**	**[9.70-20.99]**
Malta	6.05	[4.29-7.82]	**9.96**	**[5.70-14.23]**
Montenegro	3.46	[1.96-4.95]	**5.95**	**[2.73-9.17]**
Netherlands	7.92	[5.88-9.96]	**12.64**	**[7.62-17.66]**
Norway	5.01	[3.53-6.48]	**8.40**	**[4.73-12.07]**
Poland	1.16	[0.41-1.90]	**2.08**	**[0.54-3.62]**
Portugal	0.80	[0.12-1.48]	**1.45**	**[0.11-2.80]**
Romania	4.12	[2.36-5.88]	**7.01**	**[3.29-10.73]**
Serbia	5.19	[3.44-6.95]	**8.68**	**[4.67-12.68]**
Slovakia	1.96	[0.78-3.14]	**3.47**	**[1.07-5.86]**
Slovenia	6.08	[4.65-7.51]	**10.01**	**[6.02-14.00]**
Spain	3.65	[2.78-4.52]	**6.27**	**[3.65-8.89]**
Sweden	4.44	[3.04-5.85]	**7.52**	**[4.10-10.95]**
Switzerland	4.11	[2.62-5.60]	**6.99**	**[3.59-10.40]**
Turkey	2.26	[1.36-3.16]	**3.98**	**[1.88-6.08]**
UK	5.35	[4.05-6.64]	**8.92**	**[5.29-12.55]**
Total (35 countries)	4.70	[4.45-4.95]	**7.93**	**[5.16-10.70]**
p-value	***		****	
Total (28 EU countries)	5.30	[4.88-5.72]	**8.85**	**[5.75-11.95]**
p-value	***		****	

FYROM: Former Yugoslav Republic of Macedonia. [1] Pe: prevalence of exposure. [2] AF: attributable fraction. Bold: AF significantly different from 0 at 5%. [3] p-value for the comparison between countries: *:p<0.05; **:p<0.01; ***: p<0.001; ns: non-significant

3.5 Results for workplace bullying (Table 6)

The prevalence of bullying was 5% in Europe (35 countries) and there were differences between countries. Albania, Bulgaria, and Portugal had the lowest prevalence of exposure (less than 1%) and France the highest prevalence (more than 10%). The fraction of depression attributable to bullying was 8% and was significant. Differences in the AFs were found between countries.

3.6 Gender differences (Appendix to Section 1, Tables S3-4)

There were some significant differences in the prevalence of exposure between men and women. Men were more likely to be exposed to ERI and long working hours than women in the 28 EU countries (Appendix to Section 1, Table S3). The corresponding AFs were calculated for men and women separately if gender differences in exposure were observed. The fractions attributable to long working hours were found to be significantly higher for men than for women for stroke, atrial fibrillation, and depression (Appendix to Section 1, Table S4). However, no gender difference was found in the AF for ERI.

4. Discussion

4.1 Summary of the results

The highest significant AF was the fraction of depression attributable to job strain (17%) in Europe. The AFs of depression were higher than those of cardiovascular diseases (for all exposures except long working hours). The AFs of cardiovascular diseases were found to be lower and ranged from 1% to 11%. Most of the AFs were significantly different from zero, except for the job strain-stroke pair. Differences in the AFs were observed between countries for all exposure-outcome pairs related to the outcome of depression and also to the exposure to long working hours. More differences were found between the 35 European countries than between the 28 EU countries. Gender differences in the AFs were observed for long working hours, these AFs being higher among men than among women for most outcomes.

4.2 Comparison with the literature

The prevalences of exposure observed in the present study were roughly in agreement with previous estimates for job strain, ERI, job insecurity, long working hours, and bullying from European and national surveys (Burr et al. 2003; de Smet et al. 2005; Lesuffleur et al. 2014; Niedhammer et al. 2014a), although the definition of exposure and study period were not always similar between surveys.

The main comparison regarding AFs that can be done was with the results of our previous publication (Niedhammer et al. 2014a), although the present study covered more countries than the previous one (35 versus 31). In agreement with our

previous results, the highest significant AF was found for job strain and depression with a similar magnitude (18% in 2005 and 17% in 2015). The differences were, however, found to be significant between countries in 2015 whereas they were not significant in 2005. The results were also consistent for the fractions of CHD attributable to job strain (4% in both 2005 and 2015). For both years, the fraction was significantly different from zero but without differences between countries. The two AFs related to ERI produced in this study were lower than the estimates obtained in our previous publication (12% in 2005 versus 2% in 2015 for CHD and 9% in 2005 versus 6% in 2015 for depression). This was explained by the use of lower but more reliable estimates of RRs based on a higher number of studies. The fraction of depression attributable to job insecurity obtained in this study was higher than our previous estimate (5% in 2005 and 9% in 2015), due to the use of a more recent and higher RR estimate.

The comparison with the literature can also be made with some rare previous studies that provided estimates of AFs, but not always for Europe and European countries. The study by Kivimaki et al. (Kivimaki et al. 2012) showed an estimate of 3.4% (95% CI 1.5–5.4) for the fraction of CHD attributable to job strain calculated from the data of 13 occupational cohort studies in 7 European countries, in line with our results. The study by LaMontagne et al. (Lamontagne et al. 2008) provided estimates of 13.2% for males (95% CI 1.1-28.1) and 17.2% (95% CI 1.5-34.9) for females for the fraction of depression attributable to job strain in Australia, which is also in agreement with our findings. The study by Nurminen and Karjalainen (Nurminen and Karjalainen 2001) was related to mortality (thus not strictly comparable to our study) in Finland and reported estimates of 15% among men and 10% among women for deaths related to depressive episode attributable to job strain. Some other studies in Denmark (Hannerz et al. 2009; Tuchsen et al. 2004) assessed attributable fractions using industry or industrial sector as an indirect marker of occupational exposures, which is a very different approach from ours, and did not allow to provide information about specific exposures. Hannerz et al. (Hannerz et al. 2009) found that the excess fraction for depressive episodes was 21% among women and 32% among men (interpreted as the fraction attributable to a non-optimum work environment). Similarly, Tuchsen et al. (Tuchsen et al. 2004) estimated that the excess hospitalisation fraction for diseases in the nervous system was 7% among women and 12% among men, and for circulatory diseases 12% among women and 10% among men.

Gender differences were explored in our study and suggested that there were differences between genders in the prevalence of exposure to some psychosocial work factors. However, there were no differences reported in the literature in the RR estimates between men and women (which did not mean that there was none, as the study of subgroup differences may suffer from a lack of statistical power). As the differences in RRs between genders were not systematically tested in the literature, a firm conclusion about the absence of gender differences may be difficult to achieve. Consequently, we may assume that the main source of differences in AFs between men and women could be related more to differences in the prevalence of exposure than to differences in RRs. The fractions attributable to long working hours showed significant higher values for men than for women for most outcomes.

4.3 Limitations and strengths of the study

The strengths of the study were the following. We used the data from the 2015 EWCS, that is a large survey at European level covering both men and women in all countries. Weighted data were used to make the extrapolation possible at European and national levels. We were able to provide estimates for the prevalence of exposure that were based on the same questionnaire and the same definition for exposure, i.e. that were comparable across Europe and between European countries. We were thus able to provide up-to-date estimates of exposure prevalence for Europe and each country (Niedhammer et al. 2012). Five exposures were studied, job strain, ERI, job insecurity, long working hours, and workplace bullying, that constitute major psychosocial work hazards in developed countries. We explored various health outcomes related to cardiovascular diseases and mental disorders, with more precise definition than in our previous publication (Niedhammer et al. 2014a). Estimates of AFs were provided for these exposures and outcomes, and our study may be one of the first to present fraction estimates of stroke, atrial fibrillation, peripheral artery diseases, and venous thromboembolism attributable to psychosocial work factors. We studied a higher number of countries in Europe than previously, 35 versus 31 (Niedhammer et al. 2014a). Comparison was done between countries for both exposure prevalence and AF. Differences in the prevalence of exposure were found between countries. Differences in AFs were also observed between countries, and most of these differences were observed between the 35 countries, whereas there was almost no difference between the 28 EU countries, suggesting a higher gap between EU countries and non-EU/acceding countries than between EU countries themselves. This was confirmed by significant higher prevalences of exposure to job strain, ERI, and long working hours, and by significant higher AFs, especially for long working hours in non-EU countries compared to EU countries. We studied gender differences in exposure prevalence, RR, and AF. We used RRs, that were extracted from the literature, with similar adjustment for covariates. The retained literature reviews provided no evidence of differences in RRs according to gender and age groups, but only a part of these reviews and meta-analyses tested these differences formally, and there may be a lack of statistical power in doing so. In the same way, only some very rare reviews tested and found differences in RRs according to SES (Heikkila et al. 2020; Li et al. 2020) and between countries or continents (Kivimaki et al. 2012; Virtanen et al. 2018). Consequently, to the best of our knowledge, subgroup differences in AFs would be more related to differences in exposure prevalence than in RRs.

There were, however, some limitations in our study. Although the data were recent (2015 EWCS), our results could not capture the changes induced by the new crisis related to the COVID-19 pandemic, that may have impacted the work environment drastically. As the EWCS did not include validated questionnaires, our measures of exposure to job strain and ERI may be considered as proxies, and may be imprecise. Indeed, the number and content of the items were not strictly identical in our study in comparison with the recommended questionnaires. Furthermore, the definition of exposure to job strain and ERI may be considered arbitrary (median cut-off for job strain and ratio over 1 for ERI). The measurement of job insecurity, long working hours, and bullying was based on one item only.

The measurement of long working hours used a cut-off of 55 hours a week, in order to be consistent with the literature providing the RRs. A cut-off of 48 hours a week (in agreement with the 2003/88/EC European Working Time Directive) would have been more pertinent for Europe. All in all, we may assume that using this cut-off, the AFs would have been similar (i.e. low), as the prevalence of exposure would have been higher and the RRs lower. Furthermore, as there were slight changes in the questionnaire of the EWCS survey from 2005 to 2015, some items were either removed or added, which led to some little changes in the measure of exposures between our two studies, the one published in 2014 (Niedhammer et al. 2014a) and the present one. These slight changes are likely to lead to a higher assessment quality in 2015 compared to 2005, especially for ERI for which a higher number of items was collected in 2015 compared to 2005. We studied five exposures only, because for these exposures, we had both exposure prevalence using the EWCS and pooled RRs from previous literature reviews. Consequently, we may have neglected other exposures, such as organizational injustice for example. The assessment of exposure may be slightly different between the data of the 2015 EWCS and the primary studies included in the literature reviews. Furthermore, these primary studies may themselves be heterogeneous in the assessment of exposure and outcome (see Appendix to section 1). The results may not be strictly comparable for a given outcome in our study, as the definition was not strictly equivalent between literature reviews. For example, depression was defined by clinical depression in one review (Madsen et al. 2017), and by depressive symptoms in the others (Ronnblad et al. 2019; Rugulies et al. 2017; Theorell et al. 2015; Virtanen et al. 2018). In addition, a reporting bias may be suspected in the exposure-outcome associations, and such a bias may be higher for depression than for cardiovascular diseases. We studied outcomes related to cardiovascular diseases and mental disorders only, as psychosocial work factors were found to be associated with these outcomes with a high level of evidence in the literature. The RRs used to calculate the AFs were those adjusted for gender, age, and SES, or the closest adjustment. Nevertheless, not all RRs were adjusted for SES, which may lead to potential overestimated RRs without this adjustment. The formula used to calculate AF may lead to biased estimates if adjusted RR is used instead of unadjusted RR. However, given the data available, it was the "best possible method" (Nurminen and Karjalainen 2001). The calculation of attributable fractions implies causality between exposure and outcome, a condition which may be difficult to fulfil, as the level of evidence varied according the studied exposure-outcome associations. Finally, we could not claim to estimate the total burden of diseases attributable to psychosocial work exposures, as we studied a limited number of exposures and outcomes.

5. Conclusion

Our estimation of the burden of cardiovascular diseases and mental disorders attributable to psychosocial work factors may be more underestimated than overestimated. Indeed, only a limited number of exposures and outcomes were studied. The highest burden was found for depression which was expected. The AFs of depression were particularly high for job strain and to a lesser extent for job insecurity and workplace bullying. There were differences between countries

in these AFs suggesting that some countries may have a concerning burden. Although the magnitude of AFs for cardiovascular diseases were lower than those of depression, these AFs were significant and warrant more attention especially for job strain and job insecurity with CHD, and for job strain with peripheral artery disease. Differences in the AFs between countries were found for long working hours, suggesting that national legislation regarding working time may have an impact on the burden of cardiovascular diseases. More exploration of subgroup differences in RRs and AFs would be informative, especially regarding gender, age, SES, and countries. This study may be helpful to guide prevention policies and establish priorities at national and European levels.

Section 2
Burden of cardiovascular diseases and depression attributable to psychosocial work exposures in 28 European countries

1. Introduction[2]

As shown in the previous section, psychosocial work factors are highly prevalent in European countries and are associated with cardiovascular diseases (CVD) and depression, with a high level of evidence in the literature (Niedhammer et al. 2022). These health outcomes represent a high and increasing burden in terms of morbidity and mortality. Prevalent cases of CVD rose by 26% between 1990 and 2019 in 28 European Union Member States (EU28) (from 47.6 to 59.9 million), with a greater increase for men (36%) than for women (18%). Prevalent cases of depressive disorders increased by 11% between 1990 and 2019 in the EU28 (13% for men and 10% for women) (Institute for Health Metrics and Evaluation (IHME) 2019).

Yet, evaluations of the burden of diseases attributable to occupational exposures are seldom in the literature and are even scarcer for psychosocial work exposures. In Europe, only a few studies provided estimates of the burden of these exposures – in Denmark and Sweden (Levi and Lunde Jensen, 1996) and in France (Sultan-Taïeb et al. 2013) – and these were limited to job strain exposure only. Other studies have been conducted in the US (Goh et al. 2016), Australia (Cocker et al. 2017) and South Korea (Lee and Kim 2018). There is no study available on the burden of psychosocial work factors encompassing all European Union (EU) countries and covering several concepts of psychosocial work factors. However, such results are necessary as tools to help decision and policy makers (governments, employers and trade unions) identify preventive priorities in occupational health.

Such estimates are difficult to produce, since data on the number of cases of occupational diseases available in work compensation statistical systems are heavily underestimated. Several estimates of under-reporting and under-compensation were produced for work-related diseases (Biddle et al. 1998; Leigh and Robbins 2004; Tompa et al. 2019), a phenomenon which is all the more present for diseases due to psychosocial work factors, since these are often not recognised as work-related diseases by public health insurance systems in EU countries (Lerouge 2017).

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The objectives of this study were to estimate the annual burden of CVD and depression attributable to psychosocial work exposures in the EU28 in 2015. This study was based on up-to-date estimates of fractions of CVD and depression attributable to five psychosocial work exposures in Europe, as presented in the first section of this report (Niedhammer et al. 2021) and on a new formula to estimate the overall fraction of diseases attributable to multiple dependent risk factors (Niedhammer and Chastang 2021).

This is the first study focusing on the morbidity and mortality burden of diseases attributable to five different psychosocial work exposures, encompassing several health outcomes and covering 28 EU Member States.

2. Methods

2.1 Attributable fractions

The first section of this report calculated fractions of CVD and depression attributable to psychosocial work exposures in Europe (Niedhammer et al. 2021), covering job strain, effort-reward imbalance (ERI), job insecurity, long working hours and workplace bullying. Attributable fraction (AF) estimates were based on the prevalences of exposure to these factors obtained from the 2015 European Working Conditions Survey conducted by the European Foundation for the Improvement of Living and Working Conditions (Eurofound). Relative risk (RR) estimates were obtained from the literature (Niedhammer et al. 2021).

We used the same AFs to estimate the number of morbidity and mortality cases attributable to each psychosocial work exposure. RRs used to compute AFs were derived from meta-analyses based on prospective studies. However, meta-analyses were very scarce for mortality. Comparisons between the rare available studies on cardiovascular mortality (Niedhammer et al. 2020; Taouk et al. 2020) and meta-analyses on cardiovascular morbidity (Kivimaki and Kawachi 2015) suggested RRs of a similar magnitude. Similarly, a comparison between the very rare studies on suicide ideation (Milner et al. 2018) and meta-analyses on depression (Madsen et al. 2017) showed a strong similarity of RRs.

We retained all significant AFs (i.e. those with a 95% confidence interval above 0) (Table 1), which allowed us to include the following diseases: coronary/ischemic heart disease (CHD), peripheral artery disease, atrial fibrillation, and stroke for CVD, and depression. Given the lack of available data on the prevalence of venous thromboembolism in the EU28, this disease was not included.

Table 1 **Available and significant fractions of cardiovascular diseases and depression attributable to psychosocial work exposures for the EU28 in 2015**

	Coronary/ ischemic heart disease	Peripheral artery disease	Atrial fibrillation	Overall stroke	Depression
Job strain	✓	✓	NA	NS	✓
ERI	✓	NA	NA	NA	✓
Job insecurity	✓	NA	NA	NA	✓
Long working hours	✓	NA	✓	✓	✓
Workplace bullying	NA	NA	NA	NA	✓

ERI: Effort-reward imbalance; NA: RR estimates were not available in the literature; NS: RR estimates were not significant in the literature.

Source: Niedhammer et al. 2021; Niedhammer et al. 2022.

We also provided the overall burden of a given disease attributable to the five studied psychosocial work exposures taken together (Niedhammer et al. 2022). Given that these exposures may be partially dependent (i.e. workers may be exposed to more than one factor), we used an approximation of the overall fractions of diseases for the EU28 based on Niedhammer and Chastang's formula (Niedhammer and Chastang 2021). We used the overall fraction of CHD attributable to four of the five studied psychosocial work exposures together (7.88%), since no RR and consequently AF were available for the pair bullying-CHD. We also used the overall fraction of depression attributable to the five studied exposures together in the EU28 in 2015 (25.95%) (Niedhammer and Chastang 2021; Niedhammer et al. 2022).

2.2 Burden of diseases

In line with the Global Burden of Disease Study (Murray et al. 2020), we used, as health outcome indicators, prevalent cases, deaths, years of life lost (YLLs), years of life lost due to disability (YLDs), and disability-adjusted life years (DALYs). These indicators were extracted from the Global Health Data Exchange (GHDx) database for the year 2015. This database provided data for all 28 EU countries, for the working age population (15-64 years), for men and women together and for men and women separately, and for CVD and depression (Kassebaum et al. 2016; Wang et al. 2016).

In the GHDx database, YLLs were computed using standard life expectancy at each age, based on the lowest observed death rates for each 5-year age group in populations larger than 5 million (Kassebaum et al. 2016; Wang et al. 2016). The same standard life expectancy was used for all EU countries. This method avoids ethical issues related to gaps in average life expectancy between European countries, which would attribute a greater burden to deaths occurring in countries where the life expectancy is longer. YLDs were provided by the GHDx database using the 2013 calculation of disability weights (Kassebaum et al. 2016; Salomon et al. 2015).

All data were available for CVD in the GHDx database. For depression, data were not available for deaths, YLLs, and consequently DALYs. As suggested in the literature, 53.7% of suicide cases were found to be related to depression (Bertolote et al. 2004). Thus, we extracted data related to suicide and multiplied these indicators by 53.7%, which provided an estimate of mortality related to depression. This estimation method for mortality related to depression has been used previously (Sultan-Taïeb et al. 2013).

To estimate the burden of disease attributable to each exposure and all studied exposures, the health outcome indicators were multiplied by the previously mentioned AFs.

In order to provide results for the working population, we multiplied each health outcome indicator by the employment rate in each country in 2015, according to Eurostat (Labour Force Survey 2015).

2.3 Burden per 100 000 workers

To take into account differences in population sizes between countries, we calculated the prevalence rate R_P , the mortality rate R_M and the DALY rate R_D for each health outcome attributable to each exposure per 100 000 workers, as follows:

$$R_P = \frac{\textit{Attributable prevalent cases*100 000}}{\textit{Employed population (15-64 years)}} \quad (1)$$

$$R_M = \frac{\textit{Attributable death cases*100 000}}{\textit{Employed population (15-64 years)}} \quad (2)$$

$$R_D = \frac{\textit{Attributable DALYs*100 000}}{\textit{Employed population (15-64 years)}} \quad (3)$$

Data for the employed population were extracted from the Eurostat database (Labour Force Survey 2015). We tested the differences between countries and between genders using the Wald test (Blakely 2012).

All results were provided for each country and the whole EU28, and for men and women together and separately. Statistical analyses were performed using SAS software and the maps were designed using Microsoft Excel.

3. Results

3.1 Burden in prevalent cases, deaths, YLLs, YLDs, DALYs

The overall burden of CHD attributable to the four studied psychosocial work exposures together was estimated at 173 629 DALYs for men and 39 238 for women, 5092 deaths for men and 1098 for women, in the EU28 in 2015. The overall burden of depression attributable to the five studied exposures was estimated at 355 665 DALYs for men and 305 347 for women, 3 931 deaths for men and 912 for women (Table 2).

Table 2 **Overall burden of CHD and depression attributable to all studied psychosocial work exposures in the EU28 in 2015**

CHD	Prevalent cases	Deaths	YLLs	YLDs	DALYs
Men	203 745	5 092	166 331	7 298	173 629
Women	95 715	1 098	35 028	4 210	39 238
All	299 460	6 190	201 359	11 508	212 867
Depression	**Prevalent cases**	**Deaths**	**YLLs**	**YLDs**	**DALYs**
Men	1 107 449	3 931	172 885	182 780	355 665
Women	1 631 247	912	38 805	266 542	305 347
All	2 738 696	4 843	211 689	449 322	661 011

CHD: coronary/ischemic heart disease

Overall fraction for CHD: 7.88% ; Overall fraction for depression: 25.95%

Source: Niedhammer I and Chastang J-F 2021.

When analysing each psychosocial work factor separately, the three highest burdens in DALYs in the EU28 in 2015 were found for depression attributable to job strain (223 875 for men and 190 150 for women), job insecurity (120 734 for men and 102 603 for women) and workplace bullying (112 620 for men and 111 590 for women) (Table 3). The highest burdens for CHD were attributable to job insecurity (106 036 for men and 23 710 for women) and job strain (92 714 for men and 20 702 for women) (Table 3). Detailed results for men and women by country are presented in the Appendix to Section 2 (Supplementary file S1).

Table 3 **Burden in DALYs for the five psychosocial work factors in the EU28 in 2015**

	DALYs men		DALYs women	
	N	95% CI	N	95% CI
Job strain				
CHD	92 714	[26 026-159 403]	20 702	[5 806-35 598]
PAD	2 698	[998-4 399]	1 008	[372-1 643]
Depression	223 875	[143 665-304 086]	190 150	[121 903-258 397]
ERI				
CHD	92 714	[26 026-159 403]	20 702	[5 806-35 598]
Depression	2 698	[998-4 399]	1 008	[372-1 643]
Job insecurity				
CHD	106 036	[27 076-184 996]	23 710	[6 045-41 375]
Depression	120 734	[56 741-184 728]	102 603	[48 165-157 042]
Long working hours				
CHD	15 064	[1 617-28 511]	1 306	[121-2 491]
Stroke	14 623	[4 710-24 536]	3 159	[950-5 368]
AT	1 697	[401-2 993]	254	[54-454]
Depression	9 425	[1 746-17 104]	3 103	[527-5 679]
Work Bullying				
Depression	112 620	[71 824-153 415]	111 590	[72 232-150 948]

CHD: Coronary/ischemic heart disease; PAD: Peripheral artery disease; ERI: Effort-reward imbalance; AT: Atrial fibrillation

3.2 Burden per 100 000 workers

Differences between men and women in DALY rates per 100 000 workers in the EU28 were significant for several exposure-outcome pairs: CHD attributable to job strain, to ERI, and to job insecurity, PAD attributable to job strain, and all exposure-outcome pairs related to long working hours, with a higher burden for men (Appendix to Section 2, Supplementary file S2, Table S2-1).

Differences between countries in prevalence, deaths and DALY rates were significant for all exposure-outcome pairs, except for the prevalence of PAD attributable to job strain and the prevalence of CHD attributable to ERI (Appendix to Section 2, Supplementary file S2, Table S2-2).

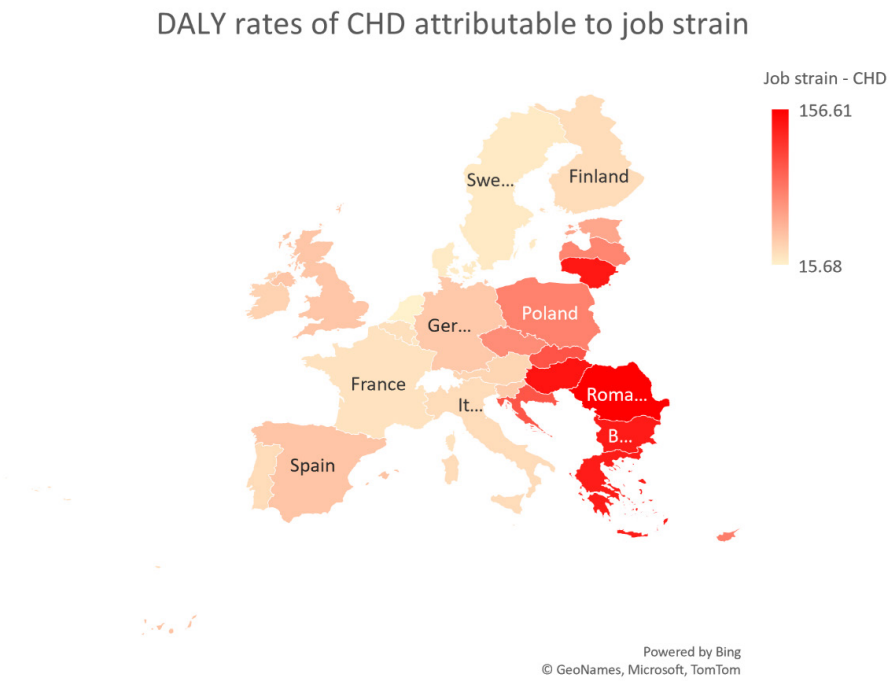
At the country level, the three highest DALY rates were found for depression attributable to job strain in Lithuania and Greece, and depression attributable to workplace bullying in France. The highest DALY rates for CHD were attributable to job insecurity in Latvia, and to job strain in Romania. Our study showed discrepancies between EU countries in the burden borne by workers. For instance, the burden in DALY rates of depression attributable to job strain was 4 times higher in Lithuania than in Malta. The burden in DALY rate of depression attributable to ERI was 3.5 times higher in Slovenia than in Bulgaria. The burden of CHD attributable to job insecurity was 9 times higher in Latvia than in Denmark.

The burden of stroke attributable to long working hours was 26 times higher in Bulgaria than in Italy (Appendix to Section 2, Supplementary file S3).

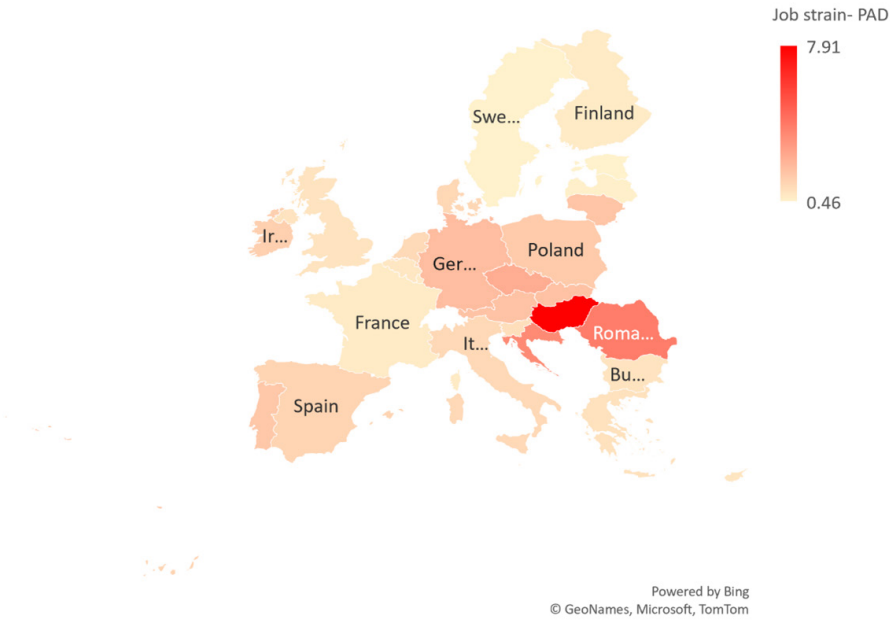
Maps highlighted an east-west gradient for some exposure-outcome pairs: the burdens of CHD attributable to job strain, ERI, job insecurity and long working hours showed a higher burden in DALY rates in the eastern part of the EU than in the western part. The burden of stroke attributable to long working hours also showed an east-west gradient, with a higher burden in the eastern part of the EU (Figure 1).

We stratified by country and gender the analysis of DALY rates per 100 000 workers for the two health outcomes with the highest prevalence in the employed population (CHD and depression), and for the three psychosocial work exposures with the highest prevalence of exposure (job strain, ERI, job insecurity). At the country level, gender differences in DALY rates were found in all countries, for three exposure-outcome pairs (CHD attributable to job strain, to ERI and to job insecurity), with a higher burden for men. There were only a few countries with gender differences for depression attributable to the three psychosocial work exposures (Appendix to Section 2, Supplementary file S4).

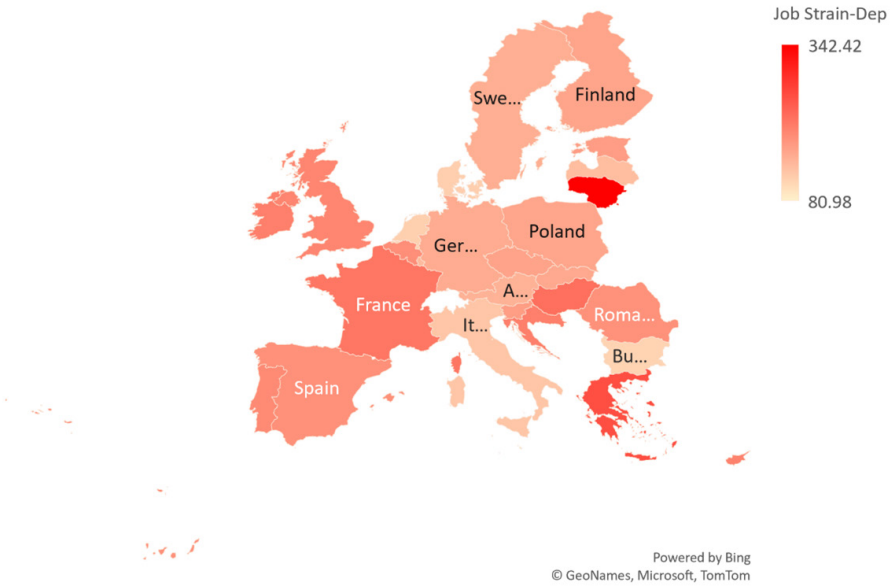
Figure 1 **DALY rates per 100 000 workers in the EU28 in 2015**

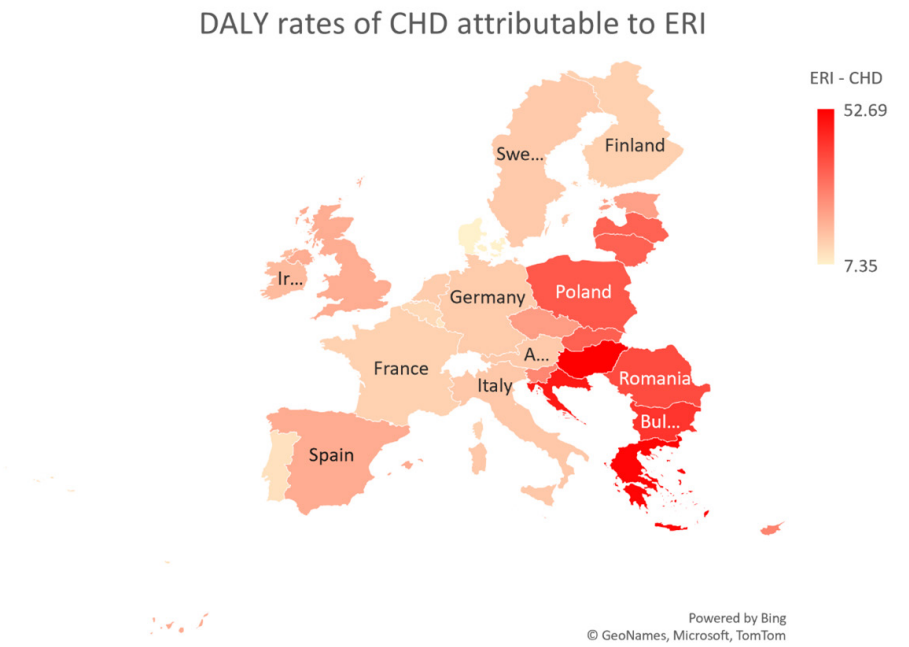


DALY rates of PAD attributable to job strain



DALY rates of depression attributable to job strain




DALY rates of CHD attributable to ERI
ERI - CHD
52.69
7.35
Swe...
Finland
Ir...
Germany
Poland
A...
France
Italy
Romania
Bul...
Spain
Powered by Bing
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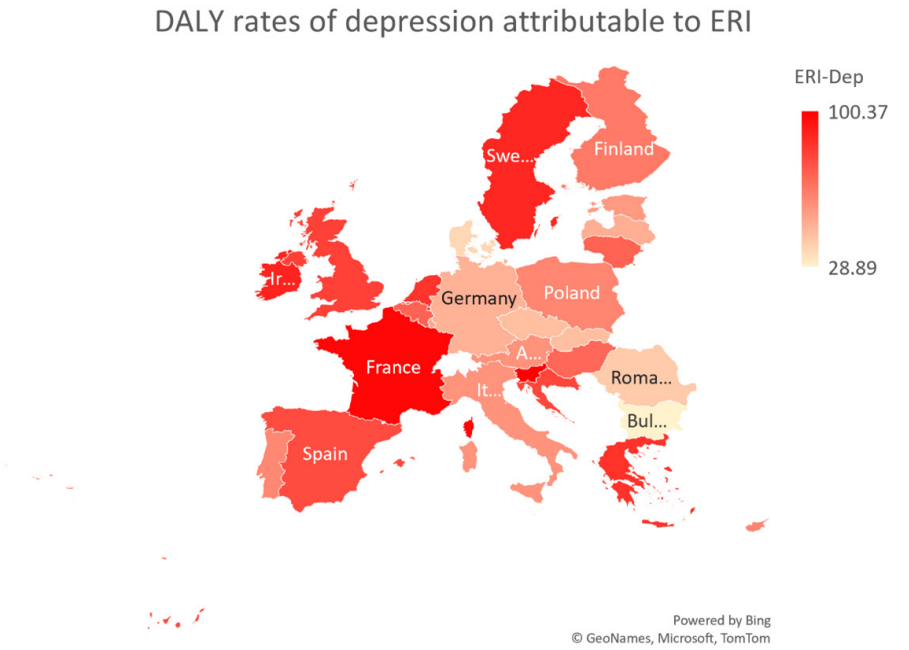
DALY rates of depression attributable to ERI
ERI-Dep
100.37
28.89
Swe...
Finland
Ir...
Germany
Poland
A...
France
It...
Roma...
Bul...
Spain
Powered by Bing
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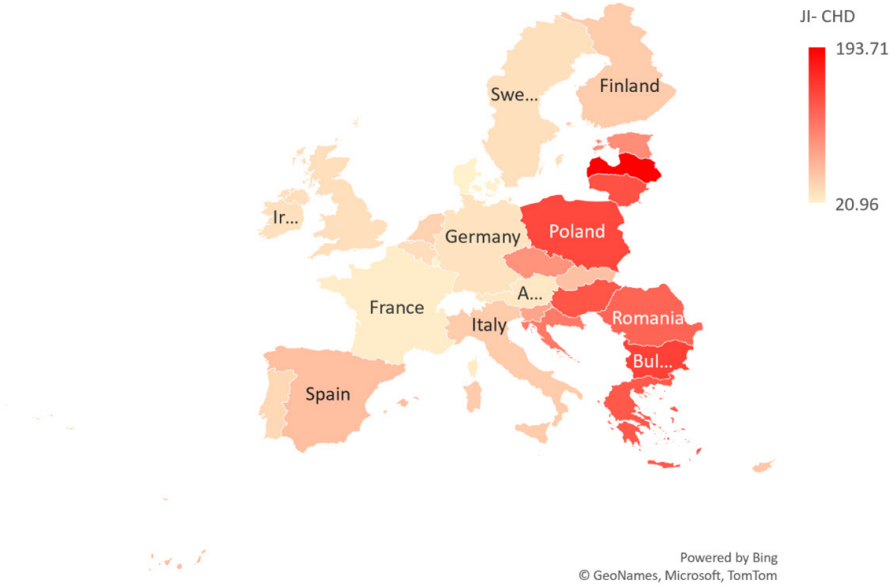
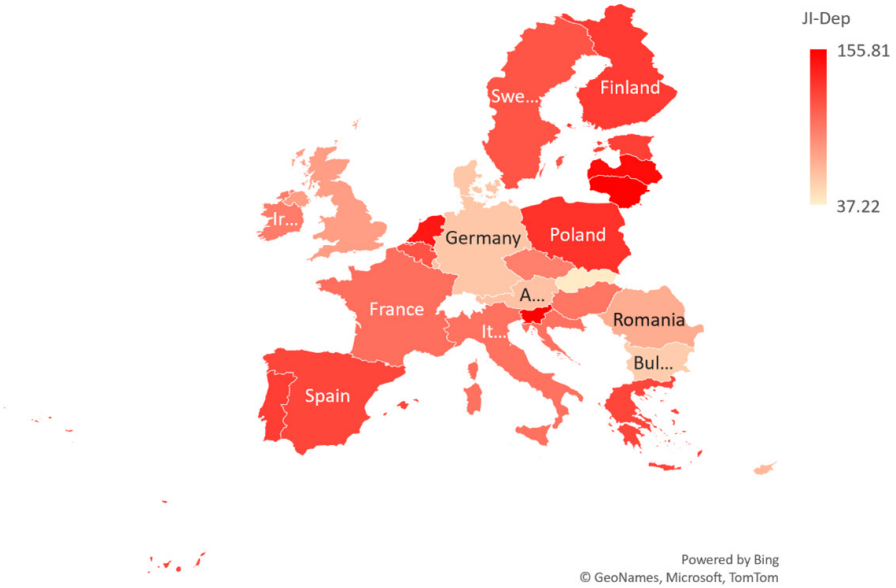
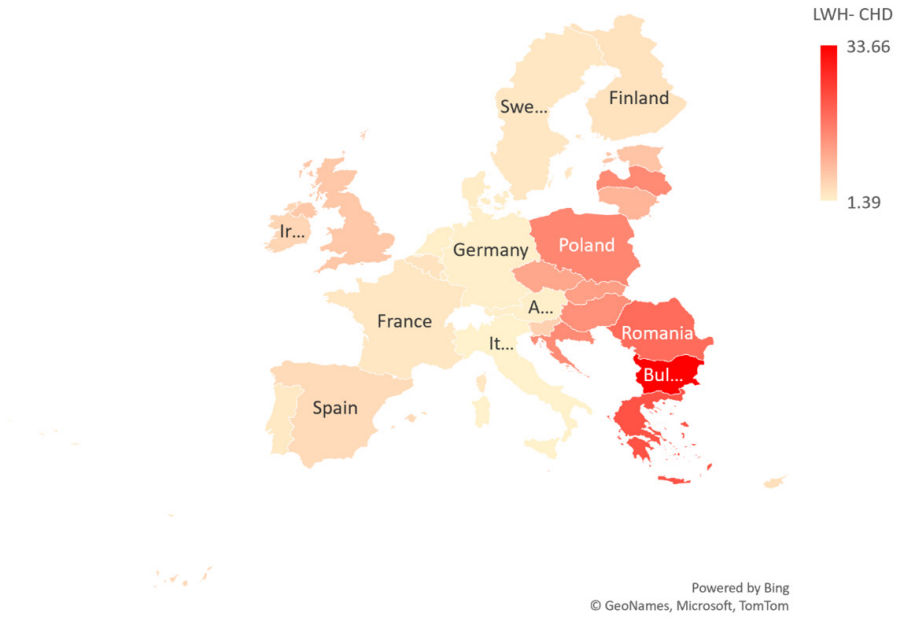
DALY rates of CHD attributable to job insecurity



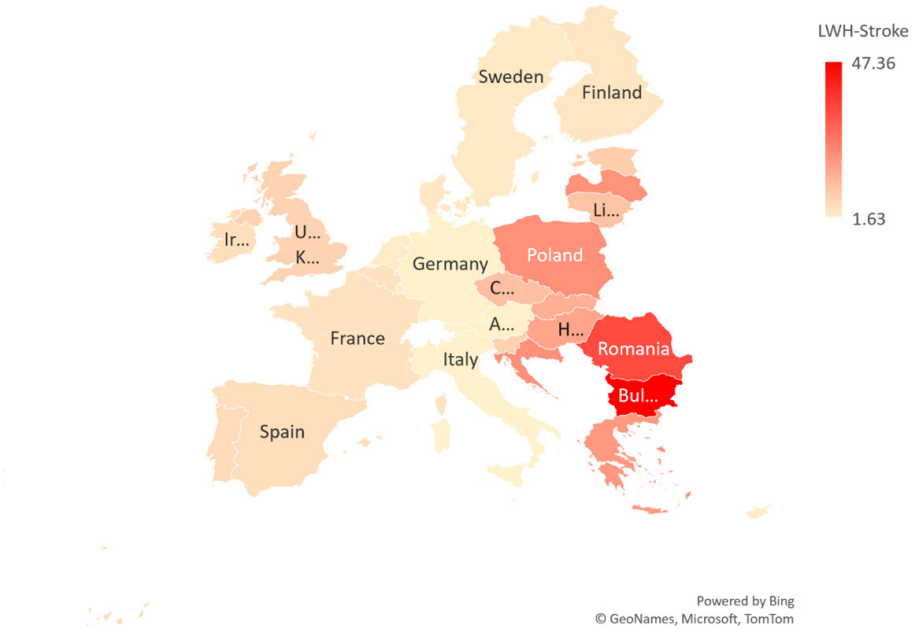
DALY rates of depression attributable to job insecurity



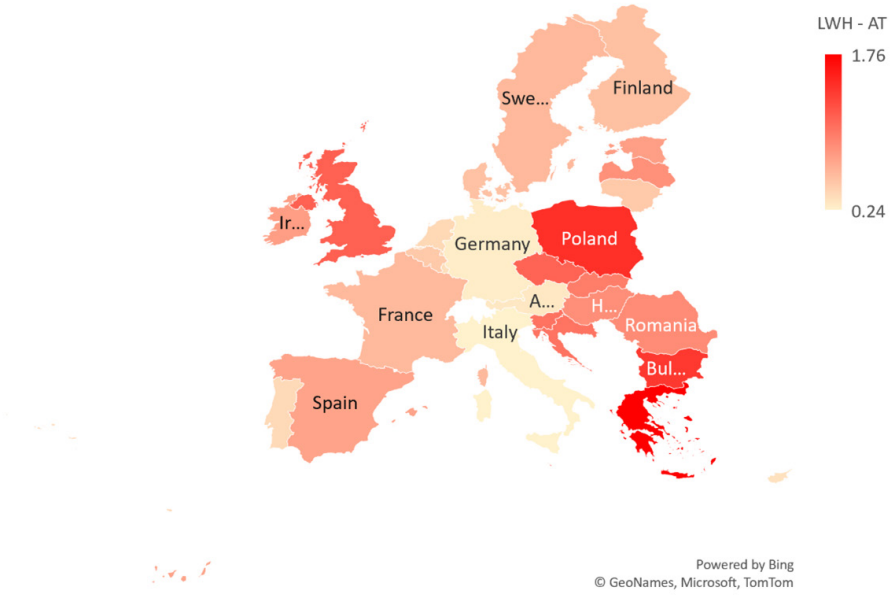
DALY rates of CHD attributable to LWH



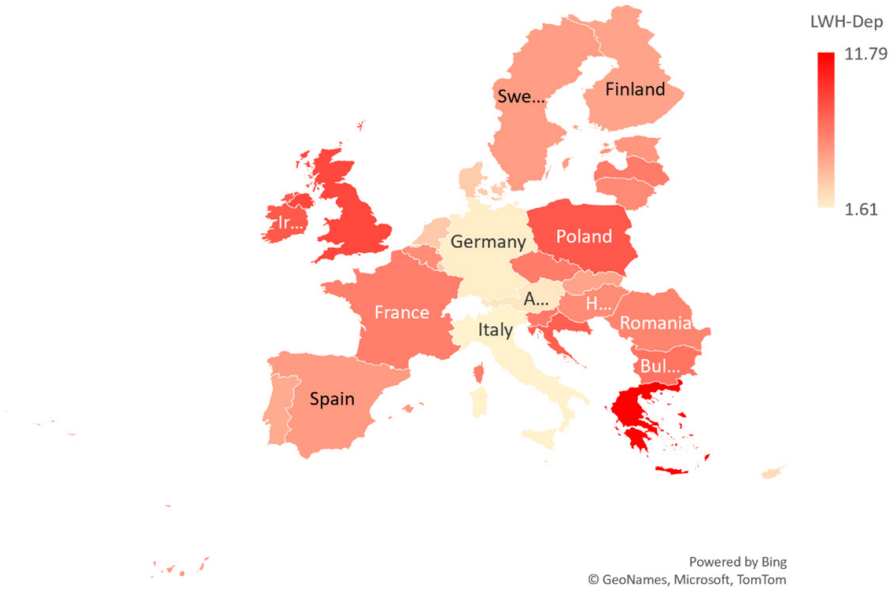
DALY rates of stroke attributable to LWH

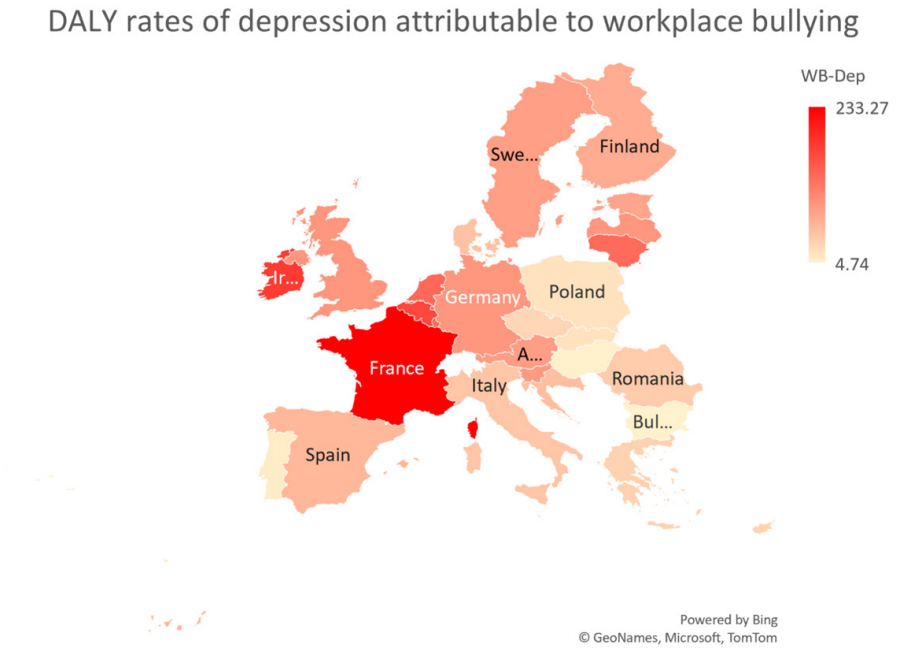


DALY rates of atrial fibrillation attributable to LWH



DALY rates of depression attributable to LWH





Legend: CHD: Coronary/ischemic heart disease; PAD: Peripheral artery disease; ERI: Effort-reward imbalance; AT: Atrial fibrillation; JI: Job insecurity; LWH: Long working hours

4. Discussion

4.1 Main results

Our study showed a high burden of CHD and depression attributable to the five studied psychosocial work exposures in the EU28 in 2015, with a higher burden for depression. It revealed discrepancies between EU countries in the burden borne by workers, with an east-west gradient for some exposure-outcome pairs related to CHD and stroke. At the country level, differences in DALY rates per 100 000 workers between men and women were observed in all countries for CHD attributable to job strain, ERI and job insecurity, with a higher burden for men.

4.2 Differences between countries

Given the calculation method, burden differences between countries for a given exposure-outcome pair resulted from differences in two parameters:

1. Differences in AF estimates between countries. Since the same RR estimates were used for all countries, differences in AF estimates resulted from differences in the prevalence of exposure between countries (Niedhammer et al. 2022).
2. Differences in the public health situation in the various countries, i.e. in the prevalence of CVD and depression in the employed population. For instance, the east-west gradient observed for the DALY rates per 100 000 workers of CHD attributable to job strain, ERI, job insecurity and long

working hours, as well as stroke attributable to long working hours, may be explained by the east-west gradient for cardiovascular mortality (Torjesen 2015; Townsend et al. 2015).

Consequently, these results provide relevant information on the burden attributable to psychosocial work factors borne by workers in each country, taking into account the size of the employed population. From an intervention perspective, these results underline the discrepancies between countries and may help to guide European policy makers in their decision making and priorities.

4.3 Gender differences

Burden differences between genders resulted from differences in the same two parameters:

1. Differences in AF estimates between men and women were only observed for stroke, atrial fibrillation and depression attributable to long working hours, with a higher burden for men. Indeed, AFs were based on RR estimates from a literature review (Niedhammer et al. 2021), in which most studies either did not test gender differences, or reported no differences between men and women, although the study of subgroups may have suffered from a lack of statistical power (Niedhammer et al. 2022). Therefore, gender differences in AFs could only derive from gender differences in the prevalence of exposure, which were either non-significant or small, except for long working hours (Niedhammer et al. 2022). Gender comparisons should be interpreted with caution. Indeed, the studied exposures were based on general concepts corresponding to those used in the RR literature. However, a more refined analysis of specific exposures might show a higher prevalence of exposure to repetitive work for women than for men (Eng et al. 2011) or a lower job control (Campos-Serna et al. 2013; Hooftman et al. 2005; Niedhammer et al. 2008) (subdimensions of job strain), a higher prevalence of exposure to sexual harassment for women than for men (Niedhammer et al. 2006) (which is a specific form of violence and bullying at work), and to temporary contracts, undesired changes in working conditions or enforced part-time work for women than for men (Benach et al. 2014; Vives et al. 2011) (specific exposures related to job insecurity).
2. Gender differences in the burden of disease attributable to psychosocial work factors also resulted from gender differences in disease prevalence. The number of DALYs lost due to CVD was higher for men than women in the EU28. This was also the case for the number of DALYs lost because of depression, which included a higher number of years of life lost because of suicide among men than women. These gender differences in the prevalence of diseases may explain gender differences in the burden of these diseases attributable to the studied psychosocial work factors.

4.4 Comparison with the literature

Comparing our results with the literature may be difficult as studies on this topic are lacking. A comparison can be made with our previous publication about the burden of CVD and mental disorders attributable to job strain in France in 2003 (Sultan-Taïeb et al. 2013). In the present study, the estimated numbers of CHD and depression cases attributable to job strain were more conservative than those in our previous publication. For CHD, this was due to the use of a lower but more robust RR estimate, and for depression, it was explained by a more precise and restrictive definition of the outcome. The study by Pega et al (Pega et al. 2021) estimated the burden of CHD and stroke attributable to long working hours in Europe. Although we used the same AF formula and very similar estimates for RRs (1.17 compared to 1.13 in our study for CHD and 1.35 in both studies for stroke) and for the prevalence of exposure (3.5%), AF estimates in Pega's study were 1.4% and 2.3% for CHD/IHD and 2.5% and 3.8% for stroke, which appear overestimated. The low burden attributable to long working hours may be explained by a low prevalence of exposure to 55 hours or more per week in Europe (resulting in low AFs (Niedhammer et al. 2022)). This is due to the European Working Time Directive adopted in 2003, which sets a maximum of 48 hours per week.

4.5 Limitations and strengths

This study has several strengths. Results were reported for the whole employed population, as well as for men and women separately, following best practices regarding gender analysis (Messing et al. 2003).

Our results were based on up-to-date AF estimates comparable across Europe. We covered five different psychosocial work exposures and a wide range of health outcomes related to CVD and depression. We also estimated the overall burden of CHD and depression attributable to the studied psychosocial work factors taken together, based on a recent and useful approximation method, since substantial dependence was found between the studied exposures. The burden per 100 000 workers was also calculated for each exposure-outcome pair, which allowed comparisons between the 28 EU countries, taking into account the size of the employed population. Therefore, this study provided detailed estimates of the burden due to psychosocial work factors, something which is very rare on this topic.

This study also has several limitations.

Although we used the most recent available data (2015), we were unable to provide information relevant to the burden of diseases during the Covid-19 pandemic. There were differences in the definitions of the outcomes between the RR estimates used to compute AF estimates and the health outcomes data from GHDx. For instance, the GHDx database provided data on the prevalence of atrial fibrillation and flutter, whereas RR estimates were available for atrial fibrillation only, which may have overestimated our results on the burden of this health outcome. In addition, the RR estimates were from reviews/meta-analyses that were themselves based on a

number of primary studies that may have been heterogeneous in the measurement of the outcome. Furthermore, the definition of outcomes may have differed from one review/meta-analysis to another (Niedhammer et al. 2021; Niedhammer et al. 2022). The results for the five health outcomes included in the study should not be added together since there may be comorbidities. We used health outcome data for each disease, multiplied by the employment rate among the population aged 15-64 in each country to provide relevant estimates for the working population. This method was based on the hypothesis that cases are equally distributed in the working and non-working population, which may not be the case. Since the healthy worker effect leads to the selection of healthier people at the workplace, there may be a bias towards overestimation. On the other hand, as the healthy worker effect leads to remove from the workplace people, who may be sick because of exposures, this is likely to underestimate the results. All in all, the impacts of these two biases are likely to offset each other. Since we applied AFs to the number of cases/deaths in the working population only, our estimates did not take into account potential delayed health effects due to psychosocial work factors that may occur after retirement; this is likely to underestimate the results. However, studies exploring delayed effects or effect reversibility after the end of exposure are still missing. We studied health outcomes related to CVD and depression, for which a high level of evidence has been provided by the literature. Other outcomes might be of interest, such as diabetes, musculoskeletal disorders or occupational injuries, but the level of evidence remains lower to date (Niedhammer et al. 2021). The definition and calculation methods used for the different exposures may make it difficult to carry out a comparison between the burden of each exposure. Indeed, job strain and ERI were defined using arbitrary thresholds (median and ratio over 1 respectively), unlike the other exposures, and this may have had an impact on the differences in exposure prevalence between factors. Exposure prevalence was based on estimates using the European Working Conditions Survey data (Niedhammer et al. 2022), but the assessment of exposure to job strain and ERI was not based on validated questionnaires, leading to potential imprecision and misclassification. Finally, some psychosocial work factors including specific exposures may be lacking, for instance organisational injustice or violence at work. Other occupational exposures not related to psychosocial work factors, such as shift or night work, were not studied. Our results thus provide conservative estimates of the burden of diseases attributable to psychosocial work factors, since we studied a limited set of exposures and outcomes.

5. Conclusion

This study provided an unparalleled contribution to the analysis of the loss of health related to psychosocial work exposures. Our study provided an overall picture across EU countries. This may provide information for decision making and health policy action. It also underlined the areas where epidemiological data on the etiological role of psychosocial work factors are still missing. Indeed, information about exposure-outcome associations is lacking for several psychosocial work factors, health outcomes and for men and women separately.

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Appendix to Section 1

Update of the fractions of cardiovascular diseases and mental disorders attributable to psychosocial work factors in Europe

1. Summary list of the items used to measure psychosocial work factors (European Working Conditions Survey 2015)

Items related to the job strain model factors

Psychological demands (5 items)
- working at very high speed
- working to tight deadlines
- not having enough time to get the job done
- pace of work dependent on the work done by colleagues
- interrupting a task to take on an unforeseen task

Decision latitude (11 items): skill discretion and decision authority

Skill discretion (3 items)
- monotonous tasks
- learning new things
- being able to apply own ideas in work

Decision authority (8 items)
- working hours entirely determined by yourself
- being able to choose or change your order of tasks
- being able to choose or change your methods of work
- being able to choose or change your speed or rate of work
- having a say in the choice of your work colleagues
- being able to take a break when you wish
- arranging to take an hour or two off during working hours to take care of personal or family matters is very easy
- being able to influence decisions that are important for your work

Items related to the effort-reward imbalance model factors

Effort (6 items)
- working at very high speed
- working to tight deadlines
- not having enough time to get the job done
- interrupting a task to take on an unforeseen task
- people working under your supervision, for whom pay increases, bonuses or promotion depend directly on you
- long working hours

Reward (9 items)

Esteem (5 items)
- colleagues help and support
- manager helps and supports
- being treated fairly at workplace
- employees appreciated when they have done a good job
- receiving the recognition I deserve for my work

Job promotion (3 items)
- duties corresponding well with present skills
- getting paid appropriately
- job offering good prospects for career advancement

Job insecurity (1 item)
- fear to lose job in the next 6 months

2. Measure of exposure and outcome in the 15 retained literature reviews and meta-analyses

Review/meta-analysis	Exposure	Outcome
Descatha et al. 2020	Long working hours ≥55 hours a week (reference group: 35-40 h/week)	Stroke (any assessment method including self-report)
Dragano et al. 2017	ERI (original questionnaire or proxies)	CHD (any assessment method including self-report)
Fransson et al. 2015	Job strain (original questionnaire or proxies)	Stroke (national hospital admission and death registries)
Heikkila et al. 2020	Job strain (original questionnaire or proxies)	Peripheral artery disease (hospital record)
Kivimaki et al. 2012	Job strain (original questionnaire or proxies)	CHD (national hospital admission and death registries)
Kivimaki et al. 2015a	Long working hours ≥55 hours a week (reference group: 35-40 h/week)	CHD (any assessment method including self-report)
Kivimaki et al. 2017	Long working hours (≥55 hours a week being the most commonly used definition)	Atrial fibrillation (electronic health records, hospitalisation, death, drug reimbursement registries, electrocardiogram)
Kivimaki et al. 2018	Long working hours ≥55 hours a week (reference group: 35-40 h/week)	Venous thromboembolism (electronic records of hospitalisations and deaths in national registers)
Li et al. 2020	Long working hours ≥55 hours a week (reference group: 35-40 h/week)	Ischemic heart disease (any assessment method including self-report)
Madsen et al. 2017	Job strain (original questionnaire or proxies)	Clinical depression (diagnostic interview or hospital records)
Ronnblad et al. 2019	Job insecurity or precarious/ temporary employment (any questionnaire)	Depressive symptoms (any assessment method)
Rugulies et al. 2017	ERI (original questionnaire or proxies)	Depressive disorders (any assessment method)
Theorell et al. 2015	Bullying (any questionnaire)	Depressive symptoms (any assessment method)
Virtanen et al. 2013	Job insecurity (any questionnaire)	CHD (any assessment method)
Virtanen et al. 2018	Long working hours (≥55 hours a week in most studies)	Depressive symptoms (any assessment method)

3. Tables S1 to S4

Table S1 **Sample size of employees by country, 2015 EWCS**

	Total N	Men N	Women N
Albania	553	224	329
Austria	863	379	484
Belgium	2178	1051	1127
Bulgaria	886	379	507
Croatia	822	393	427
Cyprus	820	410	410
Czech Republic	841	380	460
Denmark	939	471	468
Estonia	898	355	542
Finland	792	354	437
France	1392	644	747
FYROM	716	386	330
Germany	1840	914	925
Greece	638	350	288
Hungary	851	387	464
Ireland	828	380	447
Italy	956	450	505
Latvia	841	335	506
Lithuania	862	339	523
Luxembourg	896	444	452
Malta	880	487	393
Montenegro	680	370	310
Netherlands	864	423	441
Norway	945	421	524
Poland	1003	435	568
Portugal	724	302	422
Romania	853	424	429
Serbia	689	344	345
Slovakia	873	360	513
Slovenia	1354	624	730
Spain	2762	1341	1421
Sweden	926	449	477
Switzerland	875	447	428
Turkey	1365	955	410
UK	1366	702	664
Total	**35571**	**17109**	**18453**

FYROM: Former Yugoslav Republic of Macedonia

Table S2 **Fractions of ischemic stroke and hemorrhagic stroke attributable to job strain in Europe**

%	Exposure prevalence		Ischemic stroke		Hemorrhagic stroke	
	Pe[1]	95% CI	AF[2]	95% CI	AF[2]	95% CI
Albania	39.43	[34.68-44.18]	6.60	[-0.12-13.33]	-1.68	[-12.77-9.41]
Austria	22.45	[19.23-25.68]	3.90	[-0.18-7.98]	-0.87	[-7.13-5.39]
Belgium	20.16	[18.26-22.07]	3.52	[-0.15-7.19]	-0.77	[-6.38-4.83]
Bulgaria	21.30	[18.27-24.33]	3.71	[-0.17-7.60]	-0.82	[-6.76-5.11]
Croatia	35.20	[31.38-39.01]	5.95	[-0.14-12.03]	-1.46	[-11.33-8.40]
Cyprus	43.15	[39.28-47.02]	7.17	[-0.08-14.42]	-1.87	[-14.03-10.29]
Czech Rep	26.79	[23.29-30.29]	4.61	[-0.17-9.39]	-1.06	[-8.54-6.41]
Denmark	19.19	[16.41-21.97]	3.36	[-0.17-6.89]	-0.73	[-6.07-4.61]
Estonia	21.28	[18.00-24.57]	3.71	[-0.18-7.60]	-0.82	[-6.75-5.11]
Finland	16.31	[13.56-19.06]	2.87	[-0.17-5.91]	-0.61	[-5.15-3.93]
France	24.33	[21.82-26.83]	4.21	[-0.16-8.58]	-0.95	[-7.73-5.82]
FYROM	29.44	[25.65-33.23]	5.04	[-0.17-10.24]	-1.19	[-9.42-7.04]
Germany	22.01	[19.81-24.22]	3.83	[-0.15-7.81]	-0.85	[-6.98-5.27]
Greece	46.95	[42.51-51.39]	7.74	[-0.05-15.53]	-2.07	[-15.35-11.20]
Hungary	31.44	[27.77-35.12]	5.36	[-0.15-10.87]	-1.28	[-10.08-7.52]
Ireland	25.92	[22.30-29.55]	4.47	[-0.18-9.12]	-1.03	[-8.26-6.21]
Italy	22.78	[19.79-25.77]	3.96	[-0.17-8.08]	-0.89	[-7.23-5.46]
Latvia	15.16	[12.45-17.88]	2.68	[-0.17-5.52]	-0.57	[-4.79-3.66]
Lithuania	27.56	[24.01-31.10]	4.73	[-0.17-9.64]	-1.10	[-8.80-6.60]
Luxembourg	21.23	[18.21-24.25]	3.70	[-0.17-7.57]	-0.82	[-6.73-5.10]
Malta	15.46	[12.67-18.26]	2.73	[-0.17-5.63]	-0.58	[-4.88-3.73]
Montenegro	33.29	[29.04-37.54]	5.65	[-0.16-11.45]	-1.37	[-10.70-7.96]
Netherlands	15.29	[12.42-18.16]	2.70	[-0.17-5.57]	-0.57	[-4.83-3.69]
Norway	13.12	[10.91-15.34]	2.33	[-0.15-4.81]	-0.48	[-4.13-3.17]
Poland	24.36	[21.43-27.29]	4.22	[-0.16-8.60]	-0.96	[-7.75-5.84]
Portugal	26.16	[22.37-29.95]	4.51	[-0.18-9.20]	-1.04	[-8.34-6.27]
Romania	36.83	[32.76-40.90]	6.20	[-0.13-12.53]	-1.54	[-11.88-8.79]
Serbia	28.29	[24.17-32.41]	4.85	[-0.18-9.89]	-1.13	[-9.04-6.78]
Slovakia	29.40	[25.58-33.21]	5.03	[-0.17-10.23]	-1.19	[-9.40-7.03]
Slovenia	24.23	[21.54-26.92]	4.19	[-0.16-8.55]	-0.95	[-7.70-5.80]
Spain	33.68	[31.57-35.80]	5.71	[-0.12-11.54]	-1.39	[-10.81-8.03]
Sweden	16.07	[13.46-18.68]	2.83	[-0.16-5.83]	-0.60	[-5.07-3.87]
Switzerland	21.44	[18.45-24.43]	3.73	[-0.17-7.64]	-0.83	[-6.80-5.14]
Turkey	35.96	[32.93-38.99]	6.07	[-0.12-12.25]	-1.50	[-11.58-8.58]
UK	27.26	[24.47-30.05]	4.69	[-0.15-9.53]	-1.09	[-8.69-6.52]
Total (35 countries)	25.92	[25.16-26.68]	4.47	[-0.14-9.08]	-1.02	[-8.24-6.19]
p-value	***		ns		ns	
Total (28 EU countries)	25.16	[24.35-25.97]	4.35	[-0.14-8.83]	-0.99	[-7.99-6.01]
p-value	***		ns		ns	

FYROM: Former Yugoslav Republic of Macedonia. [1] Pe: prevalence of exposure. [2] AF: attributable fraction. Bold: AF significantly different from 0 at 5%. [3] p-value for the comparison between countries: *:p<0.05; **:p<0.01; ***: p<0.001; ns: non-significant

Table S3 **Gender differences in the prevalence of exposure**

28 EU countries	Men		Women		p-value
PREVALENCE OF EXPOSURE (%)	Pe	95% CI	Pe	95% CI	
Job strain	25.32	24.15-26.48	25.00	23.88-26.12	ns
Effort-reward imbalance	10.84	10.01-11.67	8.54	7.85-9.23	***
Job insecurity	15.80	14.86-16.74	15.62	14.69-16.56	ns
Long working hours	5.10	4.51-5.69	1.95	1.60-2.29	***
Workplace bullying	4.89	4.29-5.48	5.72	5.12-6.32	ns

p-value for the Rao-Scott Chi-Square test for the differences between genders *:p<0.05; **:p<0.01; ***: p<0.001; ns: non-significant

Table S4 **Gender differences in the attributable fractions**

28 EU countries	Men		Women		p-value
ATTRIBUTABLE FRACTIONS	AF	95% CI	AF	95% CI	
Effort-reward imbalance					
CHD	2.12	0.35-3.90	1.68	0.27-3.09	ns
Depression	6.88	3.98-9.79	5.51	3.15-7.87	ns
Long working hours					
CHD	0.68	0.07-1.29	0.26	0.02-0.50	ns
Overall stroke	1.77	0.57-2.97	0.68	0.21-1.16	*
Atrial fibrillation	2.17	0.51-3.82	0.84	0.18-1.50	*
Venous thromboembolism	2.67	0.23-5.10	1.04	0.06-2.01	ns
Depression	0.69	0.13-1.25	0.26	0.04-0.48	*

p-value for gender differences (Wald test)
The fractions attributable to job strain and job insecurity (and bullying for the 28 EU countries) were not calculated according to gender, as no gender differences were observed in the prevalence of these exposures.

Appendix to Section 2

Burden of cardiovascular diseases and depression attributable to psychosocial work exposures in 28 European countries

1. Supplementary file S1: burden of cardiovascular diseases and depression attributable to psychosocial work exposures in 28 European Union countries

1.1 Burden of coronary heart disease (CHD), peripheral artery disease (PAD) and depression attributable to job strain

Table 1 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to coronary heart disease (CHD) attributable to job strain for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	1 546	[391-2701]	36	[9-63]	1 174	[297-2051]	55	[14-96]	1 229	[311-2147]
Belgium	1 650	[441-2859]	31	[8-54]	1 019	[272-1766]	59	[16-101]	1 077	[288-1867]
Bulgaria	1 706	[411-3001]	92	[22-161]	3 032	[731-5333]	72	[17-126]	3 104	[749-5459]
Croatia	1 852	[516-3188]	46	[13-80]	1 489	[415-2563]	78	[22-134]	1 567	[437-2697]
Cyprus	277	[81-473]	12	[4-21]	412	[120-703]	12	[4-21]	424	[124-725]
Czech Rep.	4 208	[1105-7310]	101	[27-176]	3 181	[836-5527]	175	[46-304]	3 356	[882-5831]
Denmark	681	[162-1201]	11	[3-19]	347	[82-612]	23	[5-40]	370	[88-652]
Estonia	408	[99-717]	10	[2-18]	321	[78-564]	13	[3-24]	334	[81-588]
Finland	572	[122-1023]	15	[3-26]	453	[96-810]	20	[4-36]	474	[101-847]
France	8 529	[2234-14825]	147	[38-255]	4 852	[1271-8433]	286	[75-496]	5 138	[1346-8930]
Germany	16 562	[4425-28698]	424	[113-734]	13 694	[3659-23729]	567	[151-982]	14 261	[3810-24711]
Greece	2 590	[754-4425]	124	[36-212]	4 234	[1233-7234]	103	[30-177]	4 337	[1263-7411]
Hungary	4 659	[1268-8049]	163	[44-281]	5 226	[1423-9030]	194	[53-335]	5 420	[1475-9365]
Ireland	734	[186-1282]	17	[4-30]	569	[144-995]	27	[7-47]	596	[151-1042]
Italy	9 425	[2391-16459]	155	[39-270]	5 163	[1310-9016]	323	[82-564]	5 486	[1392-9580]
Latvia	444	[102-787]	21	[5-38]	687	[158-1217]	15	[4-27]	703	[161-1244]
Lithuania	1 016	[263-1769]	50	[13-88]	1 660	[430-2891]	36	[9-62]	1 696	[439-2953]
Luxembourg	59	[14-104]	1	[0-2]	38	[9-67]	2	[1-4]	41	[10-71]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Malta	59	[14-105]	2	[0-3]	63	[15-110]	3	[1-5]	65	[16-115]
Netherlands	2 463	[531-4395]	28	[6-50]	911	[196-1625]	71	[15-126]	981	[211-1751]
Poland	13 263	[3566-22959]	430	[116-745]	13 738	[3694-23782]	557	[150-963]	14 295	[3844-24745]
Portugal	1 532	[394-2671]	36	[9-62]	1 180	[303-2056]	61	[16-107]	1 241	[319-2163]
Romania	8 461	[2329-14594]	312	[86-538]	10 253	[2822-17684]	373	[103-643]	10 626	[2924-18327]
Slovakia	1 732	[442-3023]	63	[16-109]	2 000	[510-3490]	79	[20-139]	2 080	[530-3629]
Slovenia	609	[161-1056]	9	[2-16]	293	[78-509]	25	[7-44]	319	[85-553]
Spain	8 445	[2408-14481]	187	[53-321]	6 355	[1812-10899]	311	[89-533]	6 666	[1901-11432]
Sweden	1 351	[305-2397]	21	[5-38]	676	[152-1199]	53	[12-95]	729	[164-1294]
UK	15 829	[4304-27354]	328	[89-566]	10 897	[2963-18830]	420	[114-725]	11 317	[3077-19556]
Total EU28	108 796	[30540-187051]	2 719	[763-4675]	88 817	[24932-152703]	3 897	[1094-6700]	92 714	[26026-159403]

NS: Non-significant

Table 2 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to peripheral artery disease (PAD) attributable to job strain for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	2 746	[940-4552]	2	[1-3]	61	[21-102]	6	[2-11]	68	[23-112]
Belgium	3 245	[1140-5350]	1	[0-1]	20	[7-32]	8	[3-13]	28	[10-45]
Bulgaria	1 218	[393-2042]	0	[0-1]	15	[5-25]	3	[1-5]	18	[6-31]
Croatia	1 187	[455-1919]	2	[1-3]	51	[20-83]	3	[1-4]	54	[21-87]
Cyprus	591	[239-943]	0	[0-0]	2	[1-3]	1	[1-2]	4	[1-6]
Czech Rep.	2 939	[1048-4830]	3	[1-6]	106	[38-174]	7	[2-11]	112	[40-185]
Denmark	1 812	[569-3055]	0	[0-1]	14	[5-24]	4	[1-8]	19	[6-32]
Estonia	237	[78-396]	0	[0-0]	1	[0-1]	1	[0-1]	1	[0-2]
Finland	872	[247-1497]	0	[0-0]	6	[2-11]	2	[1-4]	9	[2-15]
France	16 012	[5557-26466]	2	[1-4]	73	[25-120]	40	[14-66]	112	[39-186]
Germany	27 978	[9895-46061]	19	[7-31]	589	[208-970]	68	[24-111]	657	[232-1081]
Greece	4 801	[1945-7658]	0	[0-0]	9	[4-15]	12	[5-19]	21	[8-33]
Hungary	3 095	[1154-5036]	10	[4-16]	300	[112-489]	8	[3-12]	308	[115-501]
Ireland	1 463	[503-2423]	1	[0-1]	19	[6-31]	3	[1-6]	22	[8-37]
Italy	14 046	[4767-23324]	6	[2-10]	183	[62-304]	30	[10-49]	213	[72-353]
Latvia	268	[83-453]	0	[0-0]	3	[1-5]	1	[0-1]	4	[1-6]
Lithuania	584	[207-961]	1	[0-1]	19	[7-30]	1	[0-2]	20	[7-33]
Luxembourg	133	[42-224]	0	[0-0]	1	[0-1]	0	[0-1]	1	[0-2]
Malta	139	[45-232]	0	[0-0]	2	[1-3]	0	[0-1]	2	[1-3]
Netherlands	3 667	[1060-6273]	2	[1-3]	58	[17-99]	9	[3-15]	67	[19-114]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	8 106	[2948-13265]	8	[3-12]	235	[85-384]	18	[7-30]	253	[92-414]
Portugal	3 570	[1259-5881]	2	[1-3]	57	[20-94]	9	[3-15]	66	[23-109]
Romania	5 633	[2134-9131]	9	[3-14]	281	[106-455]	14	[5-23]	295	[112-478]
Slovakia	1 169	[407-1931]	1	[0-2]	35	[12-58]	3	[1-5]	38	[13-63]
Slovenia	471	[167-775]	0	[0-0]	7	[3-12]	1	[0-2]	8	[3-13]
Spain	14 350	[5522-23179]	5	[2-8]	162	[62-261]	29	[11-47]	190	[73-307]
Sweden	1 868	[559-3176]	0	[0-0]	7	[2-12]	5	[1-8]	12	[4-20]
UK	19 174	[7007-31340]	4	[2-7]	135	[49-221]	42	[15-69]	178	[65-291]
Total EU28	143 535	[53070-233999]	75	[28-123]	2 363	[874-3853]	335	[124-546]	2 698	[998-4399]

NS: Non-significant

Table 3 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to job strain for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	10 051	[6057-14044]	47	[28-66]	2 071	[1248-2893]	1 513	[912-2114]	3 584	[2160-5008]
Belgium	13 966	[8648-19284]	63	[39-88]	2 793	[1729-3857]	2 357	[1460-3255]	5 150	[3189-7112]
Bulgaria	5 439	[3160-7718]	23	[13-33]	981	[570-1393]	868	[504-1231]	1 849	[1074-2624]
Croatia	6 033	[3903-8164]	29	[18-39]	1 203	[778-1628]	1 016	[657-1375]	2 219	[1435-3003]
Cyprus	2 177	[1455-2898]	5	[3-6]	235	[157-313]	331	[221-441]	566	[379-754]
Czech Rep.	14 933	[9244-20622]	75	[46-103]	3 324	[2057-4590]	2 496	[1545-3447]	5 820	[3603-8037]
Denmark	5 046	[2887-7205]	16	[9-23]	677	[387-967]	790	[452-1128]	1 467	[839-2095]
Estonia	1 780	[1041-2518]	9	[5-12]	391	[229-553]	287	[168-406]	678	[397-959]
Finland	5 185	[2767-7602]	18	[9-26]	811	[433-1189]	860	[459-1261]	1 671	[892-2450]
France	81 004	[49612-112395]	337	[206-467]	14 658	[8978-20339]	13 930	[8532-19328]	28 588	[17510-39667]
Germany	117 629	[73022-162236]	378	[235-522]	16 272	[10102-22443]	18 903	[11735-26072]	35 176	[21837-48515]
Greece	20 144	[13466-26821]	27	[18-36]	1 158	[774-1542]	3 304	[2209-4399]	4 462	[2983-5942]
Hungary	14 088	[8958-19218]	102	[65-139]	4 253	[2705-5802]	2 350	[1494-3206]	6 603	[4199-9008]
Ireland	7 899	[4768-11031]	22	[13-31]	1 055	[637-1474]	1 332	[804-1860]	2 388	[1441-3334]
Italy	61 052	[36713-85391]	125	[75-175]	5 393	[3243-7542]	9 931	[5972-13890]	15 324	[9215-21432]
Latvia	2 069	[1166-2972]	14	[8-20]	633	[357-910]	332	[187-477]	966	[544-1387]
Lithuania	5 426	[3334-7518]	53	[33-73]	2 387	[1467-3308]	918	[564-1272]	3 305	[2031-4580]
Luxembourg	561	[321-802]	2	[1-2]	69	[40-99]	89	[51-127]	159	[91-226]
Malta	435	[253-617]	1	[0-1]	36	[21-51]	66	[39-94]	103	[60-145]
Netherlands	16 050	[8666-23435]	48	[26-70]	2 076	[1121-3031]	2 565	[1385-3745]	4 641	[2506-6776]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	47 546	[29860-65232]	378	[237-519]	16 972	[10659-23285]	7 836	[4921-10751]	24 808	[15580-34036]
Portugal	17 721	[10851-24591]	42	[25-58]	1 712	[1048-2375]	2 838	[1738-3938]	4 550	[2786-6314]
Romania	26 988	[17319-36657]	137	[88-186]	5 926	[3803-8050]	4 488	[2880-6097]	10 415	[6683-14146]
Slovakia	5 897	[3584-8211]	35	[21-48]	1 534	[932-2136]	946	[575-1318]	2 480	[1507-3453]
Slovenia	2 461	[1525-3397]	15	[10-21]	653	[405-901]	410	[254-566]	1 063	[659-1467]
Spain	62 874	[41076-84672]	146	[95-196]	6 292	[4111-8474]	10 165	[6641-13689]	16 457	[10752-22163]
Sweden	10 350	[5731-14968]	34	[19-49]	1 536	[851-2222]	1 748	[968-2528]	3 284	[1819-4749]
UK	126 566	[79934-173198]	286	[181-392]	13 345	[8428-18262]	21 484	[13568-29399]	34 829	[21997-47661]
Total EU28	697 090	[447335-946845]	2 474	[1588-3361]	108 823	[69834-147813]	115 052	[73831-156273]	223 875	[143665-304086]

NS: Non-significant

Table 4 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to coronary heart disease (CHD) attributable to job strain for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	574	[144-1005]	6	[2-11]	204	[51-357]	24	[6-43]	229	[57-400]
Belgium	607	[159-1055]	7	[2-12]	231	[60-401]	26	[7-45]	257	[67-446]
Bulgaria	1 190	[307-2073]	32	[8-56]	1 023	[264-1782]	58	[15-102]	1 081	[279-1883]
Croatia	901	[249-1554]	9	[3-16]	284	[79-490]	44	[12-76]	328	[91-566]
Cyprus	130	[37-222]	2	[1-4]	70	[20-120]	6	[2-11]	77	[22-131]
Czech Rep.	1 978	[514-3442]	18	[5-31]	556	[144-967]	100	[26-173]	655	[170-1141]
Denmark	403	[103-703]	4	[1-6]	110	[28-191]	16	[4-28]	126	[32-219]
Estonia	195	[49-342]	2	[0-3]	55	[14-96]	9	[2-15]	63	[16-111]
Finland	410	[101-719]	4	[1-6]	112	[28-196]	18	[4-31]	129	[32-227]
France	4 788	[1300-8275]	36	[10-62]	1 178	[320-2037]	197	[53-340]	1 375	[373-2377]
Germany	6 517	[1715-11319]	85	[22-148]	2 722	[716-4727]	273	[72-474]	2 995	[788-5201]
Greece	1 056	[312-1800]	22	[6-37]	732	[216-1247]	48	[14-82]	780	[230-1329]
Hungary	2 284	[616-3952]	40	[11-69]	1 254	[338-2170]	109	[29-189]	1 364	[368-2359]
Ireland	319	[83-556]	4	[1-6]	119	[31-207]	14	[4-25]	133	[34-231]
Italy	3 850	[998-6702]	28	[7-50]	928	[241-1616]	167	[43-290]	1 095	[284-1907]
Latvia	190	[43-336]	4	[1-7]	117	[27-207]	9	[2-15]	125	[29-222]
Lithuania	592	[157-1027]	11	[3-19]	342	[91-593]	28	[7-48]	370	[98-641]
Luxembourg	39	[10-68]	0	[0-1]	11	[3-19]	2	[0-3]	13	[3-22]
Malta	12	[2-22]	0	[0-0]	7	[1-13]	1	[0-1]	8	[2-14]
Netherlands	1 097	[252-1941]	8	[2-14]	263	[60-465]	42	[10-74]	304	[70-538]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	5 206	[1326-9086]	59	[15-104]	1 825	[465-3185]	257	[65-448]	2 082	[530-3634]
Portugal	739	[188-1291]	6	[2-11]	205	[52-357]	33	[8-58]	238	[60-415]
Romania	4 767	[1344-8190]	81	[23-139]	2 555	[720-4390]	235	[66-403]	2 790	[786-4793]
Slovakia	1 072	[291-1852]	16	[4-28]	505	[137-873]	56	[15-96]	561	[152-969]
Slovenia	347	[92-602]	1	[0-2]	41	[11-70]	17	[4-30]	58	[15-100]
Spain	3 997	[1146-6849]	34	[10-59]	1 155	[331-1979]	177	[51-303]	1 332	[382-2283]
Sweden	933	[228-1638]	6	[1-11]	189	[46-331]	45	[11-78]	233	[57-409]
UK	6 669	[1794-11543]	69	[19-120]	2 275	[612-3939]	238	[64-412]	2 513	[676-4351]
Total EU28	50 499	[14162-86835]	579	[162-996]	18 480	[5183-31778]	2 221	[623-3820]	20 702	[5806-35598]

NS: Non-significant

Table 5 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to peripheral artery disease (PAD) attributable to job strain for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	3 183	[1064-5302]	0	[0-1]	12	[4-20]	6	[2-10]	18	[6-30]
Belgium	3 627	[1239-6014]	0	[0-0]	5	[2-9]	7	[2-12]	12	[4-21]
Bulgaria	1 770	[611-2929]	0	[0-0]	4	[1-6]	5	[2-7]	8	[3-14]
Croatia	1 279	[484-2075]	0	[0-0]	8	[3-12]	3	[1-5]	11	[4-17]
Cyprus	766	[306-1225]	0	[0-0]	0	[0-1]	1	[1-2]	2	[1-3]
Czech Rep.	2 845	[998-4693]	1	[0-1]	19	[7-31]	7	[2-11]	26	[9-42]
Denmark	3 074	[1050-5098]	0	[0-0]	9	[3-15]	6	[2-10]	15	[5-25]
Estonia	399	[133-664]	0	[0-0]	0	[0-0]	1	[0-2]	1	[0-2]
Finland	1 800	[591-3009]	0	[0-0]	3	[1-5]	4	[1-6]	7	[2-11]
France	25 960	[9422-42499]	1	[0-1]	27	[10-44]	54	[20-88]	81	[29-132]
Germany	32 628	[11308-53948]	6	[2-9]	177	[61-292]	66	[23-109]	243	[84-401]
Greece	5 752	[2378-9126]	0	[0-0]	3	[1-5]	12	[5-18]	15	[6-23]
Hungary	3 364	[1232-5495]	2	[1-3]	53	[20-87]	8	[3-14]	62	[23-101]
Ireland	1 884	[662-3105]	0	[0-0]	7	[2-11]	3	[1-6]	10	[4-17]
Italy	20 135	[6981-33288]	1	[0-2]	40	[14-67]	36	[12-59]	76	[26-126]
Latvia	378	[113-644]	0	[0-0]	1	[0-1]	1	[0-2]	2	[0-3]
Lithuania	1 096	[393-1800]	0	[0-0]	3	[1-6]	3	[1-4]	6	[2-10]
Luxembourg	242	[86-398]	0	[0-0]	0	[0-0]	0	[0-1]	1	[0-1]
Malta	80	[22-139]	0	[0-0]	0	[0-0]	0	[0-0]	0	[0-1]
Netherlands	4 968	[1525-8410]	1	[0-1]	23	[7-39]	10	[3-16]	33	[10-55]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	9 173	[3097-15248]	2	[1-3]	47	[16-78]	21	[7-34]	68	[23-113]
Portugal	4 440	[1522-7357]	0	[0-1]	13	[5-22]	9	[3-15]	22	[8-37]
Romania	6 214	[2414-10014]	1	[0-2]	36	[14-58]	16	[6-25]	52	[20-83]
Slovakia	1 474	[546-2402]	0	[0-0]	6	[2-10]	4	[1-6]	10	[4-16]
Slovenia	486	[171-801]	0	[0-0]	1	[0-1]	1	[0-2]	2	[1-3]
Spain	20 129	[7801-32457]	1	[0-2]	31	[12-50]	39	[15-62]	70	[27-113]
Sweden	3 388	[1094-5682]	0	[0-0]	5	[2-8]	6	[2-10]	11	[4-18]
UK	24 992	[9009-40975]	2	[1-4]	70	[25-115]	46	[17-76]	116	[42-190]
Total EU28	187 650	[69247-306054]	20	[7-33]	630	[233-1028]	377	[139-615]	1 008	[372-1643]

NS: Non-significant

Table 6 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to job strain for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	15 365	[9153-21577]	11	[7-16]	474	[282-665]	2 392	[1425-3358]	2 865	[1707-4024]
Belgium	19 066	[11617-26515]	20	[12-28]	821	[500-1141]	3 210	[1956-4465]	4 031	[2456-5606]
Bulgaria	8 849	[5382-12317]	6	[4-8]	244	[148-339]	1 414	[860-1969]	1 658	[1008-2308]
Croatia	6 668	[4282-9055]	6	[4-9]	259	[166-351]	1 103	[709-1498]	1 362	[875-1850]
Cyprus	3 715	[2466-4963]	1	[1-1]	46	[31-62]	581	[386-776]	627	[416-838]
Czech Rep.	14 943	[9160-20725]	11	[7-15]	468	[287-648]	2 452	[1503-3401]	2 920	[1790-4049]
Denmark	9 983	[6030-13936]	6	[4-9]	254	[154-355]	1 529	[923-2134]	1 783	[1077-2489]
Estonia	2 544	[1512-3577]	1	[1-2]	50	[30-71]	410	[244-577]	461	[274-648]
Finland	12 518	[7372-17665]	7	[4-11]	336	[198-474]	2 069	[1218-2920]	2 405	[1416-3394]
France	161 538	[101733-221344]	107	[68-147]	4 504	[2837-6172]	28 031	[17653-38409]	32 536	[20490-44581]
Germany	173 402	[106330-240473]	98	[60-136]	4 102	[2515-5689]	27 137	[16640-37634]	31 239	[19156-43322]
Greece	30 072	[20316-39827]	4	[3-6]	189	[128-251]	5 026	[3396-6657]	5 216	[3524-6908]
Hungary	16 426	[10351-22501]	21	[13-29]	851	[537-1166]	2 737	[1725-3749]	3 588	[2261-4915]
Ireland	11 416	[7002-15829]	5	[3-6]	216	[133-300]	1 876	[1151-2601]	2 092	[1283-2901]
Italy	85 304	[52042-118567]	27	[16-37]	1 115	[680-1550]	13 890	[8474-19306]	15 005	[9154-20856]
Latvia	2 207	[1222-3191]	1	[1-2]	61	[34-88]	340	[188-491]	401	[222-580]
Lithuania	7 760	[4829-10691]	8	[5-11]	338	[210-466]	1 274	[793-1755]	1 612	[1003-2220]
Luxembourg	1 230	[759-1700]	1	[0-1]	31	[19-43]	195	[121-270]	227	[140-313]
Malta	339	[175-504]	0	[0-0]	3	[1-4]	53	[27-78]	56	[29-83]
Netherlands	28 578	[16074-41082]	19	[11-27]	805	[453-1157]	4 540	[2554-6527]	5 345	[3006-7684]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	35 115	[21101-49129]	31	[19-43]	1 324	[795-1852]	5 421	[3257-7584]	6 744	[4053-9436]
Portugal	27 343	[16514-38173]	8	[5-11]	327	[198-457]	4 459	[2693-6225]	4 786	[2891-6682]
Romania	29 817	[19449-40185]	17	[11-23]	718	[468-967]	4 861	[3171-6551]	5 578	[3639-7518]
Slovakia	8 206	[5205-11207]	5	[3-7]	220	[140-301]	1 325	[840-1810]	1 545	[980-2110]
Slovenia	2 971	[1833-4109]	3	[2-3]	101	[62-140]	501	[309-693]	602	[371-832]
Spain	106 295	[69736-142854]	40	[26-54]	1 698	[1114-2283]	17 692	[11607-23777]	19 391	[12722-26060]
Sweden	21 676	[12643-30708]	15	[8-21]	658	[384-932]	3 733	[2178-5289]	4 391	[2561-6221]
UK	164 508	[103024-225991]	70	[44-96]	3 173	[1987-4359]	26 890	[16840-36939]	30 063	[18827-41299]
Total EU28	1 015 836	[651242-1380431]	568	[364-771]	24 165	[15492-32838]	165 985	[106411-225559]	190 150	[121903-258397]

NS: Non-significant

1.2 Burden of coronary heart disease (CHD) and depression attributable to effort-reward imbalance (ERI)

Table 7 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to coronary heart disease (CHD) attributable to effort-reward imbalance for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	651	[51-1252]	15	[1-29]	494	[39-950]	23	[2-45]	518	[40-995]
Belgium	791	[106-1476]	15	[2-28]	488	[65-912]	28	[4-52]	516	[69-964]
Bulgaria	759	[40-1478]	41	[2-79]	1 348	[71-2626]	32	[2-62]	1 380	[72-2688]
Croatia	857	[98-1616]	21	[2-40]	689	[79-1299]	36	[4-68]	725	[83-1367]
Cyprus	88	[10-166]	4	[0-7]	131	[15-247]	4	[0-7]	135	[15-255]
Czech Rep.	1 608	[137-3078]	39	[3-74]	1 215	[104-2327]	67	[6-128]	1 282	[109-2455]
Denmark	220	[9-431]	4	[0-7]	112	[5-219]	7	[0-14]	119	[5-234]
Estonia	197	[16-377]	5	[0-9]	155	[13-297]	6	[1-12]	161	[13-309]
Finland	301	[12-590]	8	[0-15]	238	[9-467]	11	[0-21]	249	[10-488]
France	5 266	[717-9815]	91	[12-169]	2 996	[408-5583]	176	[24-329]	3 172	[432-5912]
Germany	6 082	[725-11440]	156	[19-293]	5 029	[599-9459]	208	[25-392]	5 237	[624-9851]
Greece	989	[122-1857]	47	[6-89]	1 617	[199-3035]	40	[5-74]	1 657	[204-3110]
Hungary	1 957	[207-3706]	68	[7-129]	2 195	[233-4157]	81	[9-154]	2 276	[241-4311]
Ireland	464	[49-880]	11	[1-21]	360	[38-683]	17	[2-32]	377	[40-715]
Italy	5 886	[717-11055]	97	[12-181]	3 224	[393-6056]	202	[25-379]	3 426	[417-6435]
Latvia	131	[2-260]	6	[0-12]	203	[3-403]	5	[0-9]	208	[4-412]
Lithuania	130	[-10-270]	6	[0-13]	213	[-16-442]	5	[0-10]	217	[-17-451]
Luxembourg	26	[1-50]	1	[0-1]	16	[1-32]	1	[0-2]	18	[1-34]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Malta	38	[4-72]	1	[0-2]	40	[4-76]	2	[0-3]	42	[5-79]
Netherlands	2 653	[309-4998]	30	[3-56]	981	[114-1848]	76	[9-144]	1 057	[123-1991]
Poland	6 296	[739-11853]	204	[24-384]	6 522	[765-12278]	264	[31-497]	6 786	[796-12775]
Portugal	733	[47-1419]	17	[1-33]	564	[36-1092]	29	[2-57]	593	[38-1149]
Romania	2 321	[68-4574]	86	[2-169]	2 812	[82-5542]	102	[3-201]	2 914	[85-5744]
Slovakia	564	[30-1098]	20	[1-40]	651	[35-1268]	26	[1-50]	677	[36-1318]
Slovenia	450	[68-833]	7	[1-13]	217	[33-401]	19	[3-35]	236	[35-436]
Spain	4 494	[714-8274]	100	[16-183]	3 382	[537-6227]	166	[26-305]	3 548	[564-6532]
Sweden	1 122	[125-2120]	18	[2-33]	561	[62-1060]	44	[5-84]	606	[67-1144]
UK	9 369	[1358-17379]	194	[28-360]	6 449	[935-11964]	248	[36-461]	6 698	[971-12425]
Total EU28	54 911	[9034-100789]	1 372	[226-2519]	44 828	[7375-82281]	1 967	[324-3610]	46 795	[7699-85891]

NS: Non-significant

Table 8 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to effort-reward imbalance for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	3 552	[1592-5512]	17	[7-26]	732	[328-1135]	535	[240-830]	1 266	[568-1965]
Belgium	5 540	[2928-8151]	25	[13-37]	1 108	[586-1630]	935	[494-1376]	2 043	[1080-3006]
Bulgaria	1 990	[819-3162]	8	[3-13]	359	[148-570]	317	[131-504]	677	[278-1075]
Croatia	2 418	[1221-3614]	11	[6-17]	482	[243-721]	407	[206-609]	889	[449-1329]
Cyprus	627	[315-939]	1	[1-2]	68	[34-101]	95	[48-143]	163	[82-244]
Czech Rep.	4 861	[2230-7493]	24	[11-38]	1 082	[496-1668]	813	[373-1253]	1 895	[869-2920]
Denmark	1 338	[528-2149]	4	[2-7]	180	[71-288]	209	[83-336]	389	[153-625]
Estonia	711	[322-1099]	3	[2-5]	156	[71-241]	115	[52-177]	271	[123-419]
Finland	2 185	[856-3513]	7	[3-12]	342	[134-549]	362	[142-583]	704	[276-1132]
France	40 956	[21885-60027]	170	[91-249]	7 411	[3960-10862]	7 043	[3763-10323]	14 454	[7724-21185]
Germany	36 263	[18333-54193]	117	[59-174]	5 017	[2536-7497]	5 828	[2946-8709]	10 844	[5482-16206]
Greece	6 905	[3571-10238]	9	[5-14]	397	[205-589]	1 132	[586-1679]	1 530	[791-2268]
Hungary	5 101	[2501-7700]	37	[18-56]	1 540	[755-2325]	851	[417-1284]	2 391	[1172-3609]
Ireland	4 122	[2026-6219]	12	[6-18]	551	[271-831]	695	[342-1049]	1 246	[612-1880]
Italy	31 213	[16022-46405]	64	[33-95]	2 757	[1415-4099]	5 077	[2606-7548]	7 834	[4021-11647]
Latvia	507	[182-831]	3	[1-6]	155	[56-254]	81	[29-133]	236	[85-388]
Lithuania	610	[146-1074]	6	[1-10]	268	[64-472]	103	[25-182]	371	[89-654]
Luxembourg	198	[80-317]	1	[0-1]	25	[10-39]	32	[13-50]	56	[22-90]
Malta	225	[111-339]	0	[0-1]	19	[9-28]	34	[17-52]	53	[26-80]
Netherlands	13 512	[6846-20178]	41	[21-61]	1 747	[885-2610]	2 159	[1094-3224]	3 907	[1979-5834]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	19 089	[9669-28510]	152	[77-227]	6 814	[3451-10177]	3 146	[1593-4698]	9 960	[5045-14875]
Portugal	7 163	[3099-11227]	17	[7-26]	692	[299-1084]	1 147	[496-1798]	1 839	[796-2883]
Romania	6 550	[2498-10601]	33	[13-54]	1 438	[549-2328]	1 089	[416-1763]	2 528	[964-4091]
Slovakia	1 640	[677-2603]	10	[4-15]	427	[176-677]	263	[109-418]	690	[285-1095]
Slovenia	1 486	[828-2143]	9	[5-13]	394	[220-569]	247	[138-357]	642	[358-926]
Spain	28 473	[16244-40702]	66	[38-94]	2 850	[1626-4073]	4 603	[2626-6580]	7 453	[4252-10654]
Sweden	6 814	[3384-10244]	22	[11-33]	1 011	[502-1521]	1 151	[571-1730]	2 162	[1074-3251]
UK	62 472	[34294-90650]	141	[78-205]	6 587	[3616-9558]	10 604	[5821-15387]	17 191	[9437-24946]
Total EU28	293 756	[169829-417683]	1 043	[603-1483]	45 858	[26512-65205]	48 483	[28030-68937]	94 342	[54542-134142]

NS: Non-significant

Table 9 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to coronary heart disease (CHD) attributable to effort-reward imbalance for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	290	[31-550]	3	[0-6]	103	[11-196]	12	[1-23]	116	[12-219]
Belgium	265	[33-497]	3	[0-6]	101	[13-189]	11	[1-21]	112	[14-210]
Bulgaria	233	[1-464]	6	[0-12]	200	[1-399]	11	[0-23]	211	[1-421]
Croatia	390	[47-733]	4	[0-7]	123	[15-231]	19	[2-36]	142	[17-267]
Cyprus	46	[5-87]	1	[0-1]	25	[3-47]	2	[0-4]	27	[3-51]
Czech Rep.	455	[-15-925]	4	[0-8]	128	[-4-260]	23	[-1-47]	151	[-5-307]
Denmark	166	[16-316]	1	[0-3]	45	[4-86]	6	[1-12]	52	[5-98]
Estonia	56	[1-112]	1	[0-1]	16	[0-31]	3	[0-5]	18	[0-36]
Finland	187	[16-359]	2	[0-3]	51	[4-98]	8	[1-15]	59	[5-113]
France	2 371	[327-4416]	18	[2-33]	584	[80-1087]	97	[13-181]	681	[94-1268]
Germany	2 369	[275-4462]	31	[4-58]	989	[115-1864]	99	[12-187]	1 088	[126-2050]
Greece	374	[43-705]	8	[1-15]	259	[30-489]	17	[2-32]	276	[32-521]
Hungary	695	[36-1353]	12	[1-24]	382	[20-743]	33	[2-65]	415	[22-808]
Ireland	138	[12-264]	2	[0-3]	51	[5-98]	6	[1-12]	57	[5-110]
Italy	1 719	[189-3249]	13	[1-24]	415	[46-784]	75	[8-141]	489	[54-924]
Latvia	113	[9-217]	2	[0-4]	69	[6-133]	5	[0-10]	75	[6-143]
Lithuania	200	[17-384]	4	[0-7]	116	[10-222]	9	[1-18]	125	[11-240]
Luxembourg	17	[2-32]	0	[0-0]	5	[0-9]	1	[0-2]	6	[1-11]
Malta	6	[0-12]	0	[0-0]	4	[0-7]	0	[0-1]	4	[0-8]
Netherlands	824	[89-1558]	6	[1-11]	197	[21-373]	31	[3-59]	228	[25-432]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	2 122	[189-4055]	24	[2-46]	744	[66-1422]	105	[9-200]	849	[75-1622]
Portugal	192	[1-383]	2	[0-3]	53	[0-106]	9	[0-17]	62	[0-123]
Romania	1 027	[31-2023]	17	[1-34]	551	[17-1084]	51	[2-100]	601	[18-1184]
Slovakia	338	[25-650]	5	[0-10]	159	[12-306]	18	[1-34]	177	[13-340]
Slovenia	238	[34-442]	1	[0-2]	28	[4-52]	12	[2-22]	40	[6-73]
Spain	1 779	[276-3283]	15	[2-28]	514	[80-949]	79	[12-145]	593	[92-1094]
Sweden	591	[66-1116]	4	[0-7]	119	[13-226]	28	[3-53]	148	[17-279]
UK	2 495	[292-4699]	26	[3-49]	851	[100-1603]	89	[10-168]	940	[110-1771]
Total EU28	20 437	[3285-37590]	234	[38-431]	7 479	[1202-13756]	899	[144-1654]	8 378	[1347-15410]

NS: Non-significant

Table 10 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to effort-reward imbalance for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	6 396	[3123-9669]	5	[2-7]	197	[96-298]	995	[486-1505]	1 193	[582-1803]
Belgium	6 847	[3522-10171]	7	[4-11]	295	[152-438]	1 153	[593-1713]	1 448	[745-2150]
Bulgaria	1 476	[507-2444]	1	[0-2]	41	[14-67]	236	[81-391]	276	[95-458]
Croatia	2 494	[1280-3707]	2	[1-4]	97	[50-144]	413	[212-613]	509	[262-757]
Cyprus	1 183	[603-1762]	0	[0-0]	15	[7-22]	185	[94-276]	200	[102-298]
Czech Rep.	2 949	[874-5025]	2	[1-4]	92	[27-157]	484	[143-825]	576	[171-982]
Denmark	3 427	[1615-5240]	2	[1-3]	87	[41-134]	525	[247-802]	612	[288-936]
Estonia	615	[217-1014]	0	[0-0]	12	[4-20]	99	[35-163]	111	[39-184]
Finland	4 704	[2145-7263]	3	[1-4]	126	[58-195]	778	[355-1200]	904	[412-1395]
France	67 102	[35991-98213]	45	[24-65]	1 871	[1004-2738]	11 644	[6245-17043]	13 515	[7249-19781]
Germany	52 526	[26289-78763]	30	[15-44]	1 243	[622-1863]	8 220	[4114-12326]	9 463	[4736-14189]
Greece	9 723	[4930-14517]	1	[1-2]	61	[31-91]	1 625	[824-2426]	1 686	[855-2518]
Hungary	4 322	[1778-6867]	6	[2-9]	224	[92-356]	720	[296-1144]	944	[388-1500]
Ireland	4 163	[1929-6396]	2	[1-3]	79	[37-121]	684	[317-1051]	763	[353-1172]
Italy	31 800	[15702-47897]	10	[5-15]	416	[205-626]	5 178	[2557-7799]	5 594	[2762-8425]
Latvia	1 049	[472-1625]	1	[0-1]	29	[13-45]	161	[73-250]	190	[86-295]
Lithuania	2 242	[1025-3459]	2	[1-4]	98	[45-151]	368	[168-568]	466	[213-718]
Luxembourg	452	[221-684]	0	[0-0]	12	[6-17]	72	[35-109]	83	[41-126]
Malta	138	[52-224]	0	[0-0]	1	[0-2]	21	[8-35]	23	[9-37]
Netherlands	17 158	[8444-25872]	11	[6-17]	483	[238-729]	2 726	[1342-4110]	3 209	[1579-4839]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	11 862	[5474-18251]	10	[5-16]	447	[206-688]	1 831	[845-2817]	2 278	[1051-3505]
Portugal	6 035	[2078-9991]	2	[1-3]	72	[25-120]	984	[339-1629]	1 056	[364-1749]
Romania	5 786	[2207-9365]	3	[1-5]	139	[53-225]	943	[360-1527]	1 082	[413-1752]
Slovakia	2 248	[994-3502]	1	[1-2]	60	[27-94]	363	[160-565]	423	[187-659]
Slovenia	1 667	[914-2421]	1	[1-2]	57	[31-82]	281	[154-408]	338	[185-490]
Spain	40 814	[23001-58628]	15	[9-22]	652	[368-937]	6 793	[3828-9758]	7 446	[4196-10695]
Sweden	11 100	[5518-16682]	7	[4-11]	337	[168-507]	1 912	[950-2873]	2 249	[1118-3380]
UK	52 248	[26303-78194]	22	[11-33]	1 008	[507-1508]	8 540	[4299-12781]	9 548	[4807-14290]
Total EU28	346 271	[197787-494756]	193	[111-276]	8 237	[4705-11769]	56 580	[32318-80842]	64 817	[37023-92611]

NS: Non-significant

1.3 Burden of coronary heart disease (CHD) and depression attributable to job insecurity

Table 11 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to coronary heart disease (CHD) attributable to job insecurity for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	1 282	[225-2340]	30	[5-54]	974	[171-1776]	46	[8-84]	1 019	[179-1860]
Belgium	2 125	[509-3740]	40	[10-71]	1 312	[314-2310]	75	[18-133]	1 387	[333-2442]
Bulgaria	2 368	[475-4261]	127	[26-229]	4 209	[844-7573]	100	[20-179]	4 308	[864-7752]
Croatia	1 855	[437-3274]	46	[11-82]	1 492	[351-2632]	78	[18-138]	1 570	[370-2770]
Cyprus	175	[36-314]	8	[2-14]	260	[54-466]	8	[2-14]	268	[55-480]
Czech Rep.	4 253	[885-7620]	102	[21-183]	3 215	[669-5761]	177	[37-317]	3 392	[706-6078]
Denmark	746	[140-1351]	12	[2-22]	380	[71-689]	25	[5-45]	405	[76-733]
Estonia	712	[171-1254]	18	[4-31]	560	[134-986]	24	[6-41]	584	[140-1027]
Finland	1 165	[245-2085]	30	[6-53]	923	[194-1652]	42	[9-74]	964	[203-1726]
France	9 205	[2040-16370]	158	[35-282]	5 236	[1160-9312]	308	[68-548]	5 544	[1229-9860]
Germany	12 544	[2629-22460]	321	[67-574]	10 372	[2174-18571]	429	[90-769]	10 802	[2264-19339]
Greece	2 240	[524-3956]	108	[25-190]	3 663	[857-6468]	90	[21-158]	3 752	[878-6626]
Hungary	4 118	[868-7367]	144	[30-257]	4 619	[974-8265]	171	[36-306]	4 790	[1010-8571]
Ireland	807	[166-1448]	19	[4-34]	627	[129-1124]	29	[6-53]	656	[135-1177]
Italy	16 602	[4100-29105]	272	[67-478]	9 095	[2246-15944]	569	[140-997]	9 664	[2386-16941]
Latvia	1 046	[258-1834]	50	[12-88]	1 618	[399-2837]	36	[9-64]	1 654	[408-2900]
Lithuania	885	[143-1628]	44	[7-81]	1 447	[233-2660]	31	[5-57]	1 478	[238-2718]
Luxembourg	67	[10-124]	1	[0-2]	43	[7-80]	3	[0-5]	46	[7-85]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Malta	61	[11-112]	2	[0-4]	65	[11-118]	3	[0-5]	67	[12-123]
Netherlands	7 123	[1767-12479]	80	[20-141]	2 633	[653-4614]	205	[51-358]	2 838	[704-4972]
Poland	20 920	[5399-36441]	679	[175-1182]	21 670	[5593-37747]	878	[227-1529]	22 548	[5819-39276]
Portugal	2 047	[445-3649]	48	[10-85]	1 576	[342-2809]	82	[18-146]	1 658	[360-2955]
Romania	6 789	[1340-12239]	250	[49-451]	8 227	[1623-14830]	299	[59-539]	8 526	[1682-15369]
Slovakia	1 139	[160-2117]	41	[6-76]	1 315	[185-2444]	52	[7-97]	1 367	[193-2541]
Slovenia	1 161	[309-2013]	18	[5-30]	559	[149-969]	48	[13-84]	607	[162-1053]
Spain	11 780	[3182-20378]	261	[71-451]	8 866	[2395-15337]	434	[117-751]	9 300	[2512-16087]
Sweden	2 841	[650-5033]	45	[10-79]	1 421	[325-2517]	112	[26-199]	1 533	[351-2716]
UK	12 607	[2727-22487]	261	[56-465]	8 679	[1877-15480]	334	[72-596]	9 013	[1949-16076]
Total EU28	124 428	[31772-217083]	3 110	[794-5426]	101 579	[25938-177220]	4 457	[1138-7776]	106 036	[27076-184996]

NS: Non-significant

Table 12 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to job insecurity for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	3 964	[1475-6453]	19	[7-30]	817	[304-1329]	597	[222-971]	1 413	[526-2301]
Belgium	8 342	[3760-12924]	38	[17-59]	1 668	[752-2585]	1 408	[635-2182]	3 076	[1387-4766]
Bulgaria	3 465	[1400-5530]	15	[6-23]	625	[253-998]	553	[223-882]	1 178	[476-1880]
Croatia	2 969	[1329-4610]	14	[6-22]	592	[265-919]	500	[224-776]	1 092	[489-1696]
Cyprus	706	[290-1121]	2	[1-2]	76	[31-121]	107	[44-171]	184	[75-292]
Czech Rep.	7 215	[2981-11449]	36	[15-57]	1 606	[663-2548]	1 206	[498-1914]	2 812	[1162-4462]
Denmark	2 531	[976-4085]	8	[3-13]	340	[131-548]	396	[153-639]	736	[284-1188]
Estonia	1 423	[645-2201]	7	[3-11]	313	[142-483]	229	[104-355]	542	[246-838]
Finland	4 688	[1947-7429]	16	[7-25]	733	[304-1162]	778	[323-1232]	1 511	[627-2394]
France	40 874	[17491-64257]	170	[73-267]	7 397	[3165-11628]	7 029	[3008-11050]	14 425	[6173-22678]
Germany	42 261	[17393-67130]	136	[56-216]	5 846	[2406-9286]	6 792	[2795-10788]	12 638	[5201-20074]
Greece	8 851	[3951-13750]	12	[5-18]	509	[227-791]	1 452	[648-2255]	1 961	[875-3046]
Hungary	6 087	[2536-9638]	44	[18-70]	1 838	[765-2910]	1 015	[423-1608]	2 853	[1188-4518]
Ireland	4 106	[1685-6526]	12	[5-18]	549	[225-872]	692	[284-1101]	1 241	[509-1973]
Italy	49 225	[22737-75713]	101	[47-155]	4 348	[2008-6688]	8 007	[3698-12316]	12 355	[5707-19004]
Latvia	2 173	[1005-3342]	15	[7-23]	665	[308-1023]	349	[161-537]	1 014	[469-1560]
Lithuania	2 275	[813-3738]	22	[8-36]	1 001	[358-1645]	385	[137-632]	1 386	[495-2277]
Luxembourg	292	[100-483]	1	[0-1]	36	[12-60]	46	[16-77]	82	[28-136]
Malta	207	[77-338]	0	[0-1]	17	[6-28]	32	[12-51]	49	[18-80]
Netherlands	20 338	[9436-31241]	61	[28-94]	2 630	[1220-4040]	3 250	[1508-4992]	5 880	[2728-9033]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	35 132	[16731-53533]	279	[133-426]	12 541	[5972-19109]	5 790	[2757-8822]	18 331	[8730-27931]
Portugal	11 201	[4782-17620]	26	[11-41]	1082	[462-1702]	1 794	[766-2822]	2 876	[1228-4524]
Romania	10 715	[4292-17138]	54	[22-87]	2 353	[943-3763]	1 782	[714-2850]	4 135	[1656-6614]
Slovakia	1 872	[619-3125]	11	[4-18]	487	[161-813]	300	[99-502]	787	[261-1314]
Slovenia	2 152	[1046-3257]	14	[7-21]	571	[278-864]	358	[174-542]	929	[452-1407]
Spain	41 888	[20552-63224]	97	[48-146]	4 192	[2057-6327]	6 772	[3323-10221]	10 964	[5379-16549]
Sweden	9 699	[4253-15145]	32	[14-49]	1 440	[631-2248]	1 638	[718-2558]	3 077	[1350-4805]
UK	48 623	[20473-76773]	110	[46-174]	5 127	[2159-8095]	8 254	[3475-13032]	13 380	[5634-21127]
Total EU28	375 936	[176676-575197]	1 334	[627-2042]	58 688	[27581-89794]	62 047	[29160-94934]	120 734	[56741-184728]

NS: Non-significant

Table 13 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to coronary heart disease (CHD) attributable to job insecurity for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	520	[96-944]	6	[1-10]	185	[34-336]	22	[4-40]	207	[38-376]
Belgium	838	[196-1479]	10	[2-17]	318	[75-562]	36	[8-64]	354	[83-626]
Bulgaria	930	[175-1685]	25	[5-45]	799	[150-1449]	46	[9-83]	845	[159-1531]
Croatia	898	[209-1588]	9	[2-16]	283	[66-501]	44	[10-78]	327	[76-578]
Cyprus	80	[16-144]	1	[0-2]	43	[9-78]	4	[1-7]	47	[10-85]
Czech Rep.	2 762	[648-4875]	25	[6-44]	776	[182-1370]	139	[33-245]	915	[215-1616]
Denmark	418	[87-750]	4	[1-7]	114	[24-204]	16	[3-29]	130	[27-233]
Estonia	274	[63-486]	2	[1-4]	77	[18-136]	12	[3-22]	89	[20-158]
Finland	626	[141-1112]	6	[1-10]	171	[38-303]	27	[6-48]	198	[45-351]
France	4 548	[1027-8068]	34	[8-60]	1 119	[253-1986]	187	[42-331]	1 306	[295-2317]
Germany	5 359	[1132-9587]	70	[15-126]	2 238	[473-4004]	224	[47-401]	2 463	[520-4405]
Greece	1 054	[262-1845]	22	[5-38]	730	[182-1279]	48	[12-84]	778	[194-1363]
Hungary	2 147	[460-3833]	38	[8-67]	1 179	[253-2105]	103	[22-183]	1 281	[275-2288]
Ireland	277	[52-502]	3	[1-6]	103	[19-187]	12	[2-22]	115	[22-209]
Italy	6 336	[1548-11123]	47	[11-82]	1 528	[373-2682]	275	[67-482]	1 802	[440-3164]
Latvia	493	[117-869]	10	[2-17]	303	[72-535]	22	[5-39]	326	[77-574]
Lithuania	598	[132-1065]	11	[2-20]	346	[76-615]	28	[6-50]	374	[83-665]
Luxembourg	31	[6-57]	0	[0-0]	9	[2-16]	1	[0-3]	10	[2-18]
Malta	12	[1-22]	0	[0-0]	7	[1-13]	1	[0-1]	7	[1-14]
Netherlands	2 943	[748-5137]	22	[6-38]	705	[179-1230]	112	[28-195]	816	[208-1425]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	10 258	[2605-17912]	117	[30-205]	3 596	[913-6280]	506	[129-884]	4 103	[1042-7164]
Portugal	1 069	[240-1897]	9	[2-16]	296	[67-525]	48	[11-85]	344	[77-610]
Romania	3 560	[741-6379]	60	[13-108]	1 908	[397-3420]	175	[36-314]	2 084	[434-3733]
Slovakia	436	[55-817]	7	[1-12]	205	[26-385]	23	[3-42]	228	[29-428]
Slovenia	716	[192-1239]	3	[1-5]	84	[22-145]	35	[9-61]	119	[32-206]
Spain	5 324	[1433-9215]	46	[12-79]	1 539	[414-2663]	236	[63-408]	1 775	[478-3071]
Sweden	1 177	[241-2112]	8	[2-14]	238	[49-427]	56	[11-101]	294	[60-528]
UK	5 743	[1205-10282]	60	[13-107]	1 960	[411-3508]	205	[43-367]	2 165	[454-3875]
Total EU28	57 836	[14746-100927]	663	[169-1157]	21 166	[5396-36935]	2 544	[649-4440]	23 710	[6045-41375]

NS: Non-significant

Table 14 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to job insecurity for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	6 507	[2491-10524]	5	[2-8]	201	[77-324]	1 013	[388-1638]	1 213	[464-1962]
Belgium	12 055	[5353-18757]	13	[6-19]	519	[230-807]	2 030	[901-3158]	2 549	[1132-3966]
Bulgaria	3 281	[1265-5296]	2	[1-3]	90	[35-146]	524	[202-847]	615	[237-992]
Croatia	3 243	[1439-5046]	3	[1-5]	126	[56-196]	537	[238-835]	662	[294-1031]
Cyprus	1 172	[478-1866]	0	[0-0]	15	[6-23]	183	[75-292]	198	[81-315]
Czech Rep.	9 762	[4359-15164]	7	[3-11]	305	[136-474]	1 602	[715-2488]	1 907	[852-2963]
Denmark	4 854	[1993-7715]	3	[1-5]	124	[51-197]	743	[305-1181]	867	[356-1378]
Estonia	1 649	[724-2575]	1	[0-1]	33	[14-51]	266	[117-415]	299	[131-466]
Finland	8 747	[3797-13697]	5	[2-8]	235	[102-368]	1 446	[628-2264]	1 681	[730-2632]
France	73 189	[31719-114659]	49	[21-76]	2 041	[884-3197]	12 700	[5504-19897]	14 741	[6389-23094]
Germany	66 958	[27689-106227]	38	[16-60]	1 584	[655-2513]	10 479	[4333-16624]	12 063	[4988-19137]
Greece	15 299	[7128-23470]	2	[1-3]	96	[45-148]	2 557	[1191-3923]	2 654	[1236-4071]
Hungary	7 452	[3133-11770]	10	[4-15]	386	[162-610]	1 241	[522-1961]	1 628	[684-2571]
Ireland	4 737	[1838-7635]	2	[1-3]	90	[35-145]	778	[302-1255]	868	[337-1399]
Italy	64 721	[29694-99748]	20	[9-31]	846	[388-1304]	10 538	[4835-16242]	11 384	[5223-17546]
Latvia	2 520	[1133-3907]	2	[1-3]	70	[31-108]	388	[174-602]	458	[206-710]
Lithuania	3 738	[1601-5875]	4	[2-6]	163	[70-256]	613	[263-964]	776	[332-1220]
Luxembourg	471	[184-757]	0	[0-0]	12	[5-19]	75	[29-120]	87	[34-140]
Malta	148	[41-255]	0	[0-0]	1	[0-2]	23	[6-40]	24	[7-42]
Netherlands	33 839	[15958-51720]	22	[11-34]	953	[449-1456]	5 376	[2535-8217]	6 329	[2985-9673]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	31 341	[14745-47938]	28	[13-42]	1 181	[556-1807]	4 838	[2276-7400]	6 020	[2832-9207]
Portugal	18 373	[7989-28756]	5	[2-8]	220	[96-344]	2 996	[1303-4689]	3 216	[1398-5034]
Romania	11 149	[4606-17691]	6	[3-10]	268	[111-426]	1 817	[751-2884]	2 086	[862-3310]
Slovakia	1 661	[516-2807]	1	[0-2]	45	[14-75]	268	[83-453]	313	[97-529]
Slovenia	2 789	[1365-4213]	2	[1-4]	95	[46-143]	470	[230-710]	565	[276-853]
Spain	67 998	[33276-102720]	26	[13-39]	1 086	[532-1641]	11 318	[5539-17097]	12 404	[6070-18739]
Sweden	12 525	[5103-19947]	8	[3-13]	380	[155-606]	2 157	[879-3435]	2 537	[1034-4041]
UK	67 791	[28027-107555]	29	[12-45]	1 308	[541-2075]	11 081	[4581-17580]	12 388	[5122-19655]
Total EU28	548 137	[257309-838964]	306	[144-469]	13 039	[6121-19958]	89 564	[42044-137085]	102 603	[48165-157042]

NS: Non-significant

1.4 Burden of coronary heart disease (CHD), stroke, atrial fibrillation and depression attributable to long working hours

Table 15 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to coronary heart disease (CHD) attributable to long working hours for both genders**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	112	[-10-233]	2	[0-5]	71	[-6-149]	4	[0-9]	75	[-7-157]
Belgium	270	[18-521]	5	[0-9]	147	[10-285]	10	[1-20]	158	[11-304]
Bulgaria	713	[47-1380]	31	[2-60]	1 027	[67-1987]	32	[2-62]	1 059	[69-2049]
Croatia	382	[14-749]	8	[0-15]	243	[9-477]	17	[1-33]	260	[10-511]
Cyprus	18	[0-36]	1	[0-1]	21	[0-42]	1	[0-2]	22	[0-44]
Czech Rep.	933	[21-1845]	18	[0-35]	556	[13-1099]	42	[1-82]	597	[14-1181]
Denmark	123	[2-243]	2	[0-3]	54	[1-106]	4	[0-8]	58	[1-115]
Estonia	76	[2-149]	1	[0-3]	46	[1-92]	3	[0-6]	49	[1-98]
Finland	128	[-1-257]	3	[0-5]	80	[-1-161]	5	[0-10]	85	[-1-170]
France	1 604	[76-3133]	23	[1-44]	747	[35-1459]	58	[3-112]	805	[38-1571]
Germany	1 021	[-42-2083]	22	[-1-45]	718	[-30-1466]	37	[-2-76]	755	[-31-1542]
Greece	597	[39-1154]	24	[2-47]	822	[54-1590]	25	[2-48]	847	[56-1638]
Hungary	681	[9-1353]	20	[0-39]	628	[9-1248]	30	[0-59]	658	[9-1307]
Ireland	161	[4-318]	3	[0-6]	106	[3-209]	6	[0-12]	112	[3-221]
Italy	660	[-106-1427]	9	[-1-20]	305	[-49-660]	24	[-4-52]	330	[-53-712]
Latvia	116	[-3-234]	4	[0-9]	139	[-3-281]	4	[0-9]	143	[-4-290]
Lithuania	106	[-8-221]	4	[0-8]	131	[-10-272]	4	[0-9]	135	[-10-281]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Luxembourg	10	[0-19]	0	[0-0]	5	[0-10]	0	[0-1]	6	[0-11]
Malta	18	[1-36]	1	[0-1]	17	[1-34]	1	[0-2]	18	[1-35]
Netherlands	416	[-18-851]	4	[0-9]	139	[-6-283]	13	[-1-27]	152	[-7-310]
Poland	3 366	[215-6516]	84	[5-163]	2 675	[171-5179]	150	[10-290]	2 825	[181-5469]
Portugal	203	[-13-418]	4	[0-7]	120	[-7-247]	8	[-1-17]	128	[-8-264]
Romania	1 642	[101-3183]	49	[3-96]	1 607	[99-3115]	75	[5-146]	1 682	[104-3261]
Slovakia	332	[5-660]	10	[0-19]	305	[4-606]	16	[0-32]	321	[4-638]
Slovenia	142	[8-275]	2	[0-3]	49	[3-95]	6	[0-12]	55	[3-107]
Spain	1 313	[102-2524]	23	[2-45]	796	[62-1531]	51	[4-99]	848	[66-1630]
Sweden	320	[1-638]	4	[0-8]	125	[1-250]	14	[0-27]	139	[1-277]
UK	3 779	[297-7261]	66	[5-127]	2 198	[173-4223]	111	[9-213]	2 309	[181-4436]
Total EU28	18 007	[1947-34066]	372	[40-704]	12 108	[1309-22906]	692	[75-1309]	12 800	[1384-24215]

NS: Non-significant

Table 16 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to stroke attributable to long working hours for both genders**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	232	[21-442]	1	[0-3]	47	[4-89]	30	[3-58]	77	[7-147]
Belgium	443	[121-765]	4	[1-8]	148	[40-255]	58	[16-101]	206	[56-356]
Bulgaria	1 271	[349-2194]	39	[11-67]	1 260	[346-2174]	230	[63-397]	1 490	[409-2571]
Croatia	450	[108-791]	8	[2-15]	268	[64-471]	81	[19-142]	349	[84-613]
Cyprus	34	[7-62]	0	[0-1]	10	[2-19]	5	[1-8]	15	[3-27]
Czech Rep.	1 083	[242-1924]	12	[3-21]	384	[86-682]	195	[43-346]	578	[129-1027]
Denmark	226	[48-405]	2	[0-4]	70	[15-125]	30	[6-53]	99	[21-178]
Estonia	103	[23-184]	1	[0-2]	37	[8-66]	19	[4-34]	56	[12-100]
Finland	243	[44-442]	2	[0-4]	68	[12-124]	32	[6-58]	100	[18-182]
France	2 816	[703-4929]	26	[6-45]	874	[218-1530]	376	[94-658]	1 250	[312-2187]
Germany	1 868	[271-3466]	16	[2-30]	536	[78-994]	246	[36-455]	781	[113-1449]
Greece	1 097	[305-1889]	16	[5-28]	547	[152-942]	144	[40-248]	691	[192-1189]
Hungary	897	[189-1604]	18	[4-32]	573	[121-1024]	161	[34-288]	733	[155-1312]
Ireland	292	[66-518]	2	[0-4]	72	[16-128]	38	[9-68]	111	[25-196]
Italy	671	[9-1334]	9	[0-17]	295	[4-587]	90	[1-180]	386	[5-766]
Latvia	224	[37-410]	4	[1-8]	143	[24-261]	41	[7-75]	184	[31-336]
Lithuania	186	[21-351]	3	[0-6]	112	[12-211]	34	[4-64]	146	[16-275]
Luxembourg	17	[3-32]	0	[0-0]	5	[1-9]	2	[0-4]	7	[1-13]
Malta	32	[8-56]	0	[0-0]	10	[2-17]	4	[1-7]	14	[3-24]
Netherlands	608	[87-1129]	5	[1-9]	158	[23-293]	80	[11-149]	238	[34-441]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	4 065	[1105-7024]	88	[24-152]	2 886	[785-4988]	732	[199-1265]	3 619	[984-6253]
Portugal	470	[58-882]	7	[1-13]	221	[27-414]	61	[8-115]	282	[35-529]
Romania	2 709	[728-4690]	75	[20-130]	2 417	[650-4185]	488	[131-845]	2 905	[781-5030]
Slovakia	487	[103-870]	9	[2-15]	278	[59-498]	87	[19-156]	366	[77-654]
Slovenia	136	[36-237]	2	[0-3]	50	[13-87]	25	[6-43]	75	[20-130]
Spain	2 514	[718-4310]	20	[6-34]	684	[195-1172]	332	[95-570]	1 016	[290-1741]
Sweden	491	[98-884]	3	[1-5]	98	[20-177]	64	[13-116]	163	[32-293]
UK	5 246	[1515-8978]	51	[15-87]	1 759	[508-3010]	693	[200-1185]	2 451	[708-4195]
Total EU28	27 691	[8900-46482]	357	[115-599]	11 818	[3798-19838]	4 041	[1299-6783]	15 859	[5097-26621]

NS: Non-significant

Table 17 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to atrial fibrillation attributable to long working hours for both genders**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	111	[10-211]	0	[0-0]	4	[0-7]	9	[1-17]	13	[1-24]
Belgium	190	[52-328]	0	[0-0]	8	[2-15]	15	[4-27]	24	[7-41]
Bulgaria	280	[77-483]	1	[0-1]	22	[6-38]	23	[6-39]	44	[12-77]
Croatia	158	[26-290]	0	[0-0]	6	[1-10]	13	[2-23]	18	[3-34]
Cyprus	15	[2-28]	0	[0-0]	1	[0-1]	1	[0-2]	2	[0-4]
Czech Rep.	531	[78-983]	1	[0-1]	17	[3-32]	42	[6-78]	59	[9-110]
Denmark	114	[15-214]	0	[0-0]	6	[1-11]	9	[1-17]	15	[2-28]
Estonia	42	[6-77]	0	[0-0]	2	[0-3]	3	[0-6]	5	[1-10]
Finland	123	[13-233]	0	[0-0]	4	[0-8]	10	[1-19]	14	[1-27]
France	1 449	[245-2653]	2	[0-3]	51	[9-94]	119	[20-218]	170	[29-312]
Germany	824	[56-1592]	2	[0-3]	47	[3-91]	67	[5-130]	114	[8-220]
Greece	469	[94-843]	1	[0-2]	28	[6-50]	38	[8-69]	66	[13-119]
Hungary	336	[45-628]	0	[0-1]	12	[2-23]	27	[4-50]	39	[5-73]
Ireland	132	[20-245]	0	[0-0]	6	[1-12]	11	[2-20]	17	[3-32]
Italy	456	[-26-939]	1	[0-1]	18	[-1-37]	38	[-2-77]	56	[-3-115]
Latvia	67	[6-129]	0	[0-0]	2	[0-4]	5	[1-10]	8	[1-14]
Lithuania	60	[2-118]	0	[0-0]	2	[0-4]	5	[0-9]	7	[0-13]
Luxembourg	10	[1-20]	0	[0-0]	0	[0-1]	1	[0-2]	1	[0-2]
Malta	16	[3-29]	0	[0-0]	1	[0-1]	1	[0-2]	2	[0-3]
Netherlands	279	[19-538]	0	[0-1]	11	[1-22]	23	[2-44]	34	[2-65]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	2 202	[423-3981]	3	[1-5]	87	[17-158]	176	[34-319]	264	[51-477]
Portugal	150	[8-293]	0	[0-0]	7	[0-14]	12	[1-24]	19	[1-38]
Romania	666	[126-1207]	1	[0-1]	23	[4-42]	53	[10-97]	77	[14-139]
Slovakia	210	[28-392]	0	[0-1]	9	[1-16]	17	[2-31]	25	[3-47]
Slovenia	92	[17-168]	0	[0-0]	3	[1-5]	7	[1-13]	10	[2-19]
Spain	1 179	[239-2118]	1	[0-3]	43	[9-78]	97	[20-174]	140	[28-252]
Sweden	277	[34-520]	0	[0-0]	8	[1-14]	23	[3-43]	30	[4-57]
UK	3 225	[668-5782]	4	[1-7]	113	[23-203]	263	[54-471]	376	[78-674]
Total EU28	13 343	[3123-23563]	18	[4-32]	554	[130-978]	1 085	[254-1916]	1 639	[384-2894]

NS: Non-significant

Table 18 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to long working hours for both genders**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	361	[-7-728]	1	[0-2]	34	[-1-69]	55	[-1-112]	89	[-2-181]
Belgium	1 041	[150-1932]	3	[0-5]	109	[16-202]	175	[25-326]	284	[41-528]
Bulgaria	862	[121-1603]	2	[0-3]	79	[11-147]	138	[19-256]	217	[30-403]
Croatia	483	[53-913]	1	[0-2]	55	[6-103]	81	[9-152]	135	[15-256]
Cyprus	74	[5-143]	0	[0-0]	3	[0-7]	12	[1-22]	15	[1-29]
Czech Rep.	1 194	[114-2273]	3	[0-6]	148	[14-281]	198	[19-376]	345	[33-657]
Denmark	392	[35-750]	1	[0-1]	27	[2-52]	61	[5-116]	88	[8-168]
Estonia	140	[13-266]	0	[0-1]	14	[1-27]	23	[2-43]	36	[3-69]
Finland	509	[31-986]	1	[0-2]	38	[2-74]	84	[5-163]	123	[7-238]
France	7 156	[872-13440]	14	[2-26]	604	[74-1135]	1 238	[151-2324]	1 842	[224-3460]
Germany	3 375	[98-6653]	5	[0-11]	229	[7-451]	534	[16-1052]	762	[22-1503]
Greece	2 288	[322-4254]	1	[0-3]	63	[9-118]	379	[53-705]	443	[62-823]
Hungary	814	[70-1558]	3	[0-6]	132	[11-253]	136	[12-260]	268	[23-513]
Ireland	759	[74-1443]	1	[0-2]	51	[5-96]	126	[12-240]	177	[17-336]
Italy	1 834	[-174-3842]	2	[0-4]	83	[-8-174]	299	[-28-625]	382	[-36-800]
Latvia	207	[10-404]	1	[0-1]	29	[1-57]	32	[1-63]	62	[3-120]
Lithuania	231	[-1-463]	1	[0-2]	47	[0-94]	38	[0-77]	85	[0-171]
Luxembourg	39	[2-76]	0	[0-0]	3	[0-5]	6	[0-12]	9	[0-17]
Malta	57	[7-106]	0	[0-0]	2	[0-4]	9	[1-16]	11	[1-21]
Netherlands	1 240	[32-2448]	2	[0-4]	83	[2-164]	197	[5-390]	281	[7-554]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	4 082	[568-7596]	18	[3-34]	812	[113-1510]	652	[91-1213]	1 463	[204-2723]
Portugal	1 097	[7-2186]	1	[0-2]	46	[0-92]	178	[1-354]	224	[1-447]
Romania	1 906	[261-3551]	5	[1-10]	228	[31-425]	314	[43-585]	542	[74-1010]
Slovakia	428	[37-819]	1	[0-2]	57	[5-108]	69	[6-132]	126	[11-240]
Slovenia	210	[28-392]	1	[0-1]	28	[4-53]	35	[5-66]	64	[8-119]
Spain	4 768	[731-8805]	5	[1-10]	228	[35-420]	785	[120-1450]	1 013	[155-1870]
Sweden	1 059	[81-2037]	2	[0-3]	77	[6-149]	181	[14-348]	258	[20-497]
UK	12 970	[2004-23937]	16	[2-29]	723	[112-1335]	2 155	[333-3976]	2 878	[445-5311]
Total EU28	50 294	[9368-91221]	89	[17-161]	3 888	[724-7051]	8 252	[1537-14966]	12 139	[2261-22017]

NS: Non-significant

1.5 Burden of depression attributable to workplace bullying

Table 19 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to depression attributable to workplace bullying for men**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	5 281	[2366-8195]	25	[11-38]	1 088	[488-1688]	795	[356-1234]	1 883	[844-2922]
Belgium	11 582	[7057-16106]	53	[32-73]	2 316	[1411-3221]	1 955	[1191-2719]	4 271	[2603-5940]
Bulgaria	249	[-113-610]	1	[0-3]	45	[-20-110]	40	[-18-97]	85	[-38-207]
Croatia	1 521	[379-2663]	7	[2-13]	303	[75-531]	256	[64-449]	559	[139-980]
Cyprus	355	[96-615]	1	[0-1]	38	[10-66]	54	[15-94]	92	[25-160]
Czech Rep.	2 687	[-271-5645]	13	[-1-28]	598	[-60-1256]	449	[-45-944]	1 047	[-106-2200]
Denmark	2 411	[866-3956]	8	[3-13]	324	[116-531]	377	[136-619]	701	[252-1150]
Estonia	776	[242-1309]	4	[1-6]	170	[53-288]	125	[39-211]	295	[92-499]
Finland	2 779	[783-4776]	9	[3-16]	435	[122-747]	461	[130-792]	896	[252-1539]
France	95 938	[60700-131176]	399	[252-545]	17 361	[10984-23738]	16 498	[10438-22558]	33 859	[21423-46296]
Germany	65 600	[35977-95223]	211	[116-306]	9 075	[4977-13173]	10 542	[5782-15303]	19 617	[10758-28476]
Greece	2 850	[296-5405]	4	[0-7]	164	[17-311]	467	[48-887]	631	[65-1197]
Hungary	346	[-212-904]	3	[-2-7]	104	[-64-273]	58	[-35-151]	162	[-99-424]
Ireland	7 025	[3448-10603]	20	[10-30]	939	[461-1417]	1 185	[581-1788]	2 123	[1042-3205]
Italy	22 569	[7502-37635]	46	[15-77]	1 993	[663-3324]	3 671	[1220-6122]	5 665	[1883-9446]
Latvia	1 173	[493-1853]	8	[3-13]	359	[151-567]	188	[79-298]	547	[230-865]
Lithuania	2 052	[608-3497]	20	[6-34]	903	[268-1539]	347	[103-592]	1 250	[370-2130]
Luxembourg	663	[368-958]	2	[1-3]	82	[46-118]	105	[59-152]	187	[104-271]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Malta	379	[200-558]	1	[0-1]	32	[17-47]	58	[30-85]	89	[47-131]
Netherlands	19 298	[10119-28476]	58	[30-85]	2 496	[1309-3683]	3 084	[1617-4551]	5 580	[2926-8233]
Poland	4 826	[11-9640]	38	[0-77]	1 723	[4-3441]	795	[2-1589]	2 518	[6-5030]
Portugal	916	[-618-2450]	2	[-1-6]	88	[-60-237]	147	[-99-392]	235	[-159-629]
Romania	6 089	[1322-10855]	31	[7-55]	1 337	[290-2384]	1 013	[220-1805]	2 350	[510-4189]
Slovakia	771	[-64-1606]	5	[0-9]	201	[-17-418]	124	[-10-258]	324	[-27-675]
Slovenia	1 227	[612-1841]	8	[4-12]	326	[162-489]	204	[102-307]	530	[264-795]
Spain	20 419	[11060-29778]	47	[26-69]	2 043	[1107-2980]	3 301	[1788-4814]	5 345	[2895-7794]
Sweden	6 134	[2310-9957]	20	[8-32]	910	[343-1478]	1 036	[390-1681]	1 946	[733-3159]
UK	57 589	[30247-84930]	130	[68-192]	6 072	[3189-8955]	9 775	[5134-14416]	15 847	[8324-23371]
Total EU28	350 669	[223642-477696]	1 245	[794-1696]	54 743	[34913-74573]	57 877	[36911-78842]	112 620	[71824-153415]

NS: Non-significant

Table 20 **Number of prevalent cases, deaths, years of life lost (YLLs), years lived with disability (YLDs), and disability-adjusted life years (DALYs) due to due depression attributable to workplace bullying for women**

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Austria	12 698	[7032-18364]	9	[5-13]	391	[217-566]	1 976	[1095-2858]	2 368	[1311-3424]
Belgium	21 830	[13865-29795]	23	[14-31]	940	[597-1283]	3 676	[2335-5017]	4 615	[2932-6299]
Bulgaria	315	[-24-654]	0	[0-0]	9	[-1-18]	50	[-4-105]	59	[-4-123]
Croatia	1 376	[425-2327]	1	[0-2]	53	[17-90]	228	[70-385]	281	[87-475]
Cyprus	630	[126-1134]	0	[0-0]	8	[2-14]	99	[20-177]	106	[21-191]
Czech Rep.	3 302	[617-5987]	2	[0-4]	103	[19-187]	542	[101-982]	645	[121-1170]
Denmark	5 535	[2605-8464]	3	[2-5]	141	[66-216]	847	[399-1296]	988	[465-1512]
Estonia	649	[135-1163]	0	[0-1]	13	[3-23]	105	[22-188]	117	[24-211]
Finland	12 203	[6665-17740]	7	[4-11]	328	[179-476]	2 017	[1102-2932]	2 345	[1281-3409]
France	195 540	[130190-260891]	130	[87-174]	5 452	[3630-7274]	33 932	[22592-45272]	39 384	[26222-52546]
Germany	108 793	[61616-155969]	61	[35-88]	2 574	[1458-3690]	17 026	[9643-24409]	19 599	[11100-28098]
Greece	5 729	[1566-9892]	1	[0-1]	36	[10-62]	958	[262-1653]	994	[272-1716]
Hungary	2 973	[-146-6093]	4	[0-8]	154	[-8-316]	495	[-24-1015]	650	[-32-1331]
Ireland	10 390	[5815-14965]	4	[2-6]	197	[110-283]	1 708	[956-2459]	1 904	[1066-2743]
Italy	20 065	[5790-34341]	6	[2-11]	262	[76-449]	3 267	[943-5592]	3 529	[1018-6040]
Latvia	2 275	[1163-3387]	2	[1-2]	63	[32-94]	350	[179-522]	413	[211-615]
Lithuania	3 910	[1915-5905]	4	[2-6]	170	[83-257]	642	[314-969]	812	[398-1226]
Luxembourg	1 266	[775-1756]	1	[0-1]	32	[20-45]	201	[123-279]	233	[143-324]
Malta	363	[164-561]	0	[0-0]	3	[1-5]	57	[26-87]	60	[27-92]
Netherlands	33 915	[19009-48822]	23	[13-32]	955	[535-1375]	5 388	[3020-7756]	6 343	[3555-9131]

Country	Prevalence		Deaths		YLLs		YLDs		DALYs	
	N	95% CI	N	95% CI	N	95% CI	N	95% CI	N	95% CI
Poland	5 912	[285-11540]	5	[0-10]	223	[11-435]	913	[44-1781]	1 136	[55-2216]
Portugal	3 268	[-194-6731]	1	[0-2]	39	[-2-81]	533	[-32-1098]	572	[-34-1178]
Romania	12 105	[4966-19245]	7	[3-11]	291	[120-463]	1 973	[809-3137]	2 265	[929-3600]
Slovakia	1 923	[388-3457]	1	[0-2]	52	[10-93]	310	[63-558]	362	[73-651]
Slovenia	2 309	[1342-3277]	2	[1-3]	78	[46-111]	389	[226-552]	468	[272-664]
Spain	30 170	[15251-45090]	11	[6-17]	482	[244-720]	5 022	[2538-7505]	5 504	[2782-8225]
Sweden	16 298	[8296-24299]	11	[6-16]	495	[252-738]	2 807	[1429-4185]	3 302	[1681-4923]
UK	94 723	[51821-137624]	40	[22-58]	1 827	[1000-2655]	15 483	[8470-22495]	17 310	[9470-25150]
Total EU28	596 143	[385881-806406]	333	[216-451]	14 181	[9179-19183]	97 408	[63052-131765]	111 590	[72232-150948]

NS: Non-significant

2. Supplementary file S2: DALY rates per 100 000 workers, differences between men and women and between countries

Table S2-1 **DALY rates per 100 000 workers for men and women in the EU28 for each exposure-outcome pair (Wald test p-value)**

Exposure - health outcome	DALY rate men	DALY rate women	p-value
Job strain - CHD	72.77	19.23	***
Job strain – Peripheral artery disease	2.12	0.94	*
Job strain - Depression	175.73	176.59	NS
ERI - CHD	36.73	7.78	***
ERI - Depression	74.05	60.20	NS
Job insecurity - CHD	83.23	22.02	***
Job insecurity - Depression	94.77	95.29	NS
LWH - CHD	11.82	1.21	***
LWH - Stroke	11.48	2.93	***
LWH – Atrial fibrillation	1.33	0.24	***
LWH - Depression	7.40	2.88	*
Bullying - Depression	88.40	103.63	NS

*: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant
CHD: Coronary/ischemic heart disease; ERI: Effort-reward imbalance; LWH: Long working hours

Table S2-2 **Differences between countries for prevalent cases, deaths and DALY rates per 100 000 workers for each exposure-outcome pair in the EU28 (Wald test p-value)**

Exposure - outcome	Prevalent cases	Deaths	DALY rates
Job strain - CHD	*	***	***
Job strain – Peripheral artery disease	NS	***	***
Job strain - Depression	***	***	***
ERI - CHD	NS	***	***
ERI - Depression	***	***	***
Job insecurity - CHD	***	***	***
Job insecurity - Depression	***	***	***
LWH - CHD	***	***	***
LWH - Stroke	***	***	***
LWH – Atrial fibrillation	***	*	***
LWH - Depression	*	***	***
Bullying - Depression	***	***	***

*: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant
CHD: Coronary/ischemic heart disease; ERI: Effort-reward imbalance; LWH: Long working hours

3. Supplementary file S3: prevalent cases, deaths and DALY rates per 100 000 workers

Table 1 **Prevalence/deaths/DALY rates of coronary/ischemic heart disease (CHD) attributable to job strain (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	47.47	[12.59-82.35]	0.93	[0.25-1.62]	32.03	[8.49-55.54]
Belgium	44.91	[12.16-77.69]	0.76	[0.2-1.31]	26.25	[7.11-45.41]
Bulgaria	94.75	[25.05-164.45]	4.16	[1.11-7.21]	140.71	[37.19-244.26]
Croatia	156.49	[44.57-268.37]	3.10	[0.86-5.34]	106.70	[30.38-182.97]
Cyprus	67.99	[20.03-115.79]	2.36	[0.67-4.04]	82.97	[24.57-141.54]
Czech Rep.	116.47	[31.75-201.17]	2.21	[0.61-3.81]	74.58	[20.33-128.83]
Denmark	41.69	[10.9-72.49]	0.58	[0.15-1.02]	19.72	[5.16-34.25]
Estonia	90.72	[23.75-157.7]	1.83	[0.46-3.04]	59.21	[15.53-102.9]
Finland	42.45	[10.72-74.13]	0.87	[0.2-1.5]	28.13	[7.12-49.09]
France	48.13	[13.19-83.06]	0.68	[0.19-1.17]	24.14	[6.62-41.67]
Germany	53.30	[14.5-92.11]	1.16	[0.32-2.01]	39.44	[10.73-68.16]
Greece	98.56	[29.43-167.67]	3.99	[1.2-6.79]	139.89	[41.78-238]
Hungary	150.35	[42.07-258.61]	4.33	[1.21-7.47]	145.16	[40.62-249.68]
Ireland	48.25	[13.04-83.51]	0.95	[0.27-1.67]	33.58	[9.05-58.07]
Italy	56.66	[15.19-98.14]	0.79	[0.21-1.36]	28.29	[7.58-49]
Latvia	63.47	[15.79-111.16]	2.33	[0.64-4.13]	78.52	[19.6-137.44]
Lithuania	112.04	[30.68-193.39]	4.21	[1.19-7.3]	142.57	[39.03-246.18]
Luxembourg	38.76	[10.14-67.38]	0.72	[0-1.09]	22.46	[5.8-39.12]
Malta	33.20	[8.05-57.84]	1.01	[0-1.51]	32.69	[8.05-56.83]
Netherlands	43.05	[10.64-75.47]	0.44	[0.11-0.77]	15.68	[3.88-27.48]
Poland	96.66	[26.25-167.07]	2.42	[0.66-4.18]	81.13	[22.03-140.23]
Portugal	45.28	[12.19-78.36]	0.80	[0.23-1.4]	28.59	[7.71-49.5]
Romania	152.86	[43.78-261.93]	4.59	[1.32-7.86]	156.61	[44.85-268.37]
Slovakia	111.46	[30.7-192.18]	3.21	[0.89-5.56]	107.75	[29.7-185.84]
Slovenia	98.71	[26.94-170.48]	1.04	[0.31-1.87]	38.38	[10.51-66.26]
Spain	64.84	[18.7-110.98]	1.16	[0.34-1.99]	41.87	[12.08-71.66]
Sweden	47.00	[11.95-82.08]	0.58	[0.14-1.02]	20.40	[5.18-35.62]
UK	67.88	[18.83-116.93]	1.19	[0.33-2.05]	41.47	[11.5-71.43]
Total EU28	67.63	[19.02-116.24]	1.40	[0.39-2.4]	48.07	[13.52-82.63]
p-value	*		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 2 **Prevalence/deaths/DALY rates of peripheral artery disease (PAD) attributable to job strain (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	138.58	[48.65-228.5]	0.05	[0.02-0.09]	1.90	[0.67-3.12]
Belgium	142.00	[50.05-233.94]	0.02	[0-0.02]	0.80	[0.29-1.33]
Bulgaria	94.59	[32.93-156.25]	0.03	[0-0.03]	0.89	[0.32-1.46]
Croatia	141.79	[54.9-228.74]	0.11	[0.06-0.17]	3.62	[1.44-5.86]
Cyprus	229.06	[93.24-365.05]	0.00	[0-0]	0.84	[0.34-1.51]
Czech Rep.	110.44	[40.23-180.67]	0.08	[0.02-0.11]	2.57	[0.93-4.21]
Denmark	174.00	[59.53-288.51]	0.04	[0-0.04]	1.27	[0.44-2.11]
Estonia	97.27	[33.64-160.89]	0.00	[0-0]	0.46	[0.15-0.61]
Finland	104.08	[34.26-173.89]	0.00	[0-0.04]	0.67	[0.2-1.11]
France	145.02	[52.52-237.53]	0.01	[0-0.02]	0.69	[0.25-1.13]
Germany	143.32	[51.11-235.54]	0.06	[0.02-0.09]	2.08	[0.74-3.42]
Greece	279.61	[115.73-443.48]	0.00	[0-0.03]	0.96	[0.4-1.52]
Hungary	142.35	[53.74-230.93]	0.24	[0.09-0.4]	7.91	[2.99-12.81]
Ireland	151.90	[54.77-249.03]	0.05	[0-0.05]	1.49	[0.54-2.44]
Italy	143.48	[50.8-236.16]	0.03	[0.01-0.05]	1.24	[0.44-2.03]
Latvia	71.21	[23-119.32]	0.00	[0-0]	0.53	[0.21-0.95]
Lithuania	118.63	[43.45-193.75]	0.07	[0-0.07]	1.83	[0.63-2.95]
Luxembourg	132.94	[46.37-219.51]	0.00	[0-0]	0.72	[0.36-1.09]
Malta	113.17	[36.72-189.62]	0.00	[0-0]	1.01	[0.5-2.01]
Netherlands	101.30	[32.58-170.01]	0.04	[0.01-0.05]	1.19	[0.39-2.01]
Poland	98.03	[35.27-160.79]	0.04	[0.02-0.08]	1.65	[0.59-2.7]
Portugal	166.11	[59.84-272.38]	0.04	[0.02-0.06]	1.75	[0.64-2.86]
Romania	135.43	[52.91-217.95]	0.11	[0.05-0.19]	4.05	[1.58-6.53]
Slovakia	102.19	[37.89-166.46]	0.04	[0.04-0.08]	1.93	[0.73-3.17]
Slovenia	99.75	[35.99-163.41]	0.00	[0-0]	1.04	[0.42-1.66]
Spain	178.37	[69.28-287.46]	0.03	[0.01-0.05]	1.36	[0.53-2.19]
Sweden	103.68	[34.19-173.17]	0.00	[0-0.02]	0.46	[0.16-0.78]
UK	135.18	[49.94-220.41]	0.02	[0.01-0.03]	0.89	[0.33-1.45]
Total EU28	141.02	[52.17-229.86]	0.04	[0.01-0.07]	1.57	[0.58-2.56]
p-value	NS		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 3 **Prevalence/deaths/DALY rates of depression attributable to job strain (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	599.51	[373.25-822.43]	1.30	[0.82-1.77]	148.70	[92.58-204]
Belgium	686.58	[431.15-938.09]	1.66	[1.03-2.25]	187.47	[117.71-256.13]
Bulgaria	450.54	[278.96-619.67]	0.99	[0.61-1.33]	113.31	[70.16-155.84]
Croatia	730.67	[526.6-899.42]	1.95	[1.45-2.42]	204.51	[147.37-251.75]
Cyprus	996.86	[739.34-1214.16]	1.01	[0.74-1.08]	201.12	[149.13-244.96]
Czech Rep.	570.85	[363.31-775.25]	1.60	[1.02-2.16]	165.06	[105.06-224.16]
Denmark	530.58	[326.19-731.46]	0.87	[0.55-1.19]	118.54	[72.89-163.42]
Estonia	660.62	[407.4-909.85]	1.52	[0.92-1.96]	172.31	[106.18-237.24]
Finland	681.02	[407.76-950.43]	1.11	[0.68-1.57]	164.12	[98.24-229.03]
France	832.29	[564.71-1065.34]	1.63	[1.1-2.08]	214.24	[145.36-274.22]
Germany	691.32	[437.12-941.35]	1.10	[0.69-1.49]	156.15	[98.74-212.63]
Greece	1 326.38	[995.94-1599.72]	0.85	[0.65-1.02]	256.65	[192.71-309.53]
Hungary	673.39	[478-833.43]	2.66	[1.89-3.27]	221.68	[157.37-274.36]
Ireland	875.86	[593.59-1115.51]	1.22	[0.83-1.6]	203.99	[138.23-259.83]
Italy	614.83	[385.11-841.31]	0.65	[0.41-0.89]	127.99	[80.17-175.13]
Latvia	460.54	[272.42-646.11]	1.48	[0.85-2.1]	137.23	[81.24-192.6]
Lithuania	928.30	[592.94-1258.6]	4.21	[2.69-5.71]	342.42	[218.71-464.25]
Luxembourg	625.21	[388.15-858.76]	1.09	[0.73-1.44]	140.18	[86.99-192.51]
Malta	413.94	[266.66-534.64]	0.50	[0-0.46]	80.98	[52.45-104.9]
Netherlands	520.16	[306.53-730.05]	0.82	[0.48-1.14]	117.73	[69.38-165.23]
Poland	454.40	[287.45-619]	2.02	[1.28-2.76]	162.89	[103.04-221.89]
Portugal	941.64	[655-1183.08]	0.97	[0.66-1.22]	192.36	[133.81-241.69]
Romania	649.57	[470.37-796.99]	1.80	[1.3-2.21]	184.70	[133.75-226.62]
Slovakia	543.44	[349.1-734.88]	1.62	[1.05-2.22]	159.43	[102.38-215.58]
Slovenia	567.29	[360.14-771.5]	1.87	[1.15-2.48]	172.14	[109.25-234.01]
Spain	874.40	[578.94-1165.75]	0.97	[0.64-1.29]	185.68	[122.94-247.56]
Sweden	628.82	[377.62-875.79]	1.00	[0.61-1.41]	153.45	[92.16-213.71]
UK	890.68	[615.46-1119.35]	1.07	[0.74-1.34]	197.63	[136.56-248.37]
Total EU28	729.63	[485.34-956.84]	1.29	[0.86-1.69]	176.10	[117.14-230.94]
p-value	***		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 4 **Prevalence/deaths/DALY rates of coronary/ischemic heart disease (CHD) attributable to effort-reward imbalance (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	21.90	[2.83-40.97]	0.43	[0.06-0.8]	14.77	[1.91-27.63]
Belgium	20.68	[3.03-38.32]	0.35	[0.05-0.65]	12.08	[1.77-22.4]
Bulgaria	28.81	[2.69-54.93]	1.26	[0.12-2.41]	42.79	[4-81.58]
Croatia	70.28	[10.12-130.43]	1.40	[0.2-2.6]	47.91	[6.9-88.93]
Cyprus	22.90	[3.28-42.51]	0.79	[0.11-1.47]	27.98	[4.01-51.94]
Czech Rep.	36.31	[3.78-68.85]	0.69	[0.07-1.31]	23.25	[2.42-44.09]
Denmark	15.55	[1.82-29.27]	0.21	[0.03-0.4]	7.35	[0.86-13.83]
Estonia	34.78	[3.74-65.83]	0.68	[0.07-1.28]	22.70	[2.44-42.96]
Finland	20.42	[2.32-38.52]	0.41	[0.05-0.77]	13.53	[1.54-25.51]
France	26.61	[4.08-49.14]	0.38	[0.06-0.69]	13.35	[2.05-24.65]
Germany	19.48	[2.73-36.24]	0.42	[0.06-0.79]	14.42	[2.02-26.82]
Greece	36.35	[5.33-67.37]	1.47	[0.22-2.73]	51.59	[7.56-95.62]
Hungary	54.57	[6.83-102.32]	1.58	[0.2-2.95]	52.69	[6.59-98.78]
Ireland	25.42	[3.39-47.46]	0.51	[0.07-0.95]	17.68	[2.36-33.01]
Italy	30.29	[4.29-56.3]	0.42	[0.06-0.78]	15.13	[2.14-28.11]
Latvia	27.65	[2.99-52.3]	1.03	[0.11-1.96]	34.20	[3.7-64.71]
Lithuania	26.92	[2.67-51.17]	1.02	[0.1-1.93]	34.27	[3.4-65.13]
Luxembourg	16.89	[2.07-31.71]	0.28	[0.03-0.51]	9.77	[1.2-18.34]
Malta	19.81	[2.43-37.19]	0.57	[0.07-1.07]	19.40	[2.38-36.43]
Netherlands	39.23	[5.51-72.96]	0.40	[0.06-0.74]	14.29	[2.01-26.56]
Poland	42.99	[5.8-80.17]	1.08	[0.15-2.01]	36.08	[4.87-67.29]
Portugal	16.68	[1.63-31.74]	0.30	[0.03-0.57]	10.54	[1.03-20.05]
Romania	37.47	[3.5-71.43]	1.12	[0.11-2.14]	38.39	[3.59-73.19]
Slovakia	35.61	[4.04-67.18]	1.03	[0.12-1.94]	34.43	[3.91-64.96]
Slovenia	70.48	[11.32-129.64]	0.76	[0.12-1.4]	27.39	[4.4-50.37]
Spain	31.72	[5.22-58.21]	0.57	[0.09-1.04]	20.48	[3.37-37.59]
Sweden	34.02	[4.73-63.31]	0.42	[0.06-0.78]	14.76	[2.05-27.47]
UK	33.18	[5.01-61.35]	0.58	[0.09-1.08]	20.27	[3.06-37.48]
Total EU28	30.82	[5.07-56.58]	0.64	[0.1-1.17]	21.91	[3.61-40.22]
p-value	NS		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 5 **Prevalence/deaths/DALY rates of depression attributable to effort-reward imbalance (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	229.75	[120.79-337.08]	0.49	[0.26-0.73]	56.98	[29.95-83.6]
Belgium	260.62	[144.05-375.39]	0.63	[0.35-0.91]	71.16	[39.33-102.51]
Bulgaria	114.87	[53.91-174.97]	0.25	[0.13-0.38]	28.89	[13.57-44]
Croatia	283.70	[170.89-377.05]	0.75	[0.44-1]	79.42	[47.81-105.54]
Cyprus	302.10	[181.59-403.28]	0.34	[0.19-0.31]	60.93	[36.73-81.4]
Czech Rep.	152.20	[74.11-229.08]	0.42	[0.21-0.64]	44.01	[21.43-66.24]
Denmark	163.69	[82.94-243.04]	0.25	[0.15-0.4]	36.57	[18.52-54.28]
Estonia	210.97	[103.88-316.52]	0.46	[0.31-0.76]	54.95	[27.01-82.6]
Finland	266.42	[133.49-397.47]	0.44	[0.24-0.67]	64.20	[32.18-95.77]
France	381.36	[229.55-513.57]	0.75	[0.45-1.01]	98.16	[59.09-132.2]
Germany	211.34	[114.53-306.54]	0.33	[0.18-0.48]	47.74	[25.87-69.24]
Greece	442.36	[269.72-585.03]	0.29	[0.18-0.36]	85.60	[52.2-113.21]
Hungary	211.13	[119.98-286.11]	0.84	[0.48-1.12]	69.50	[39.49-94.18]
Ireland	385.00	[220.51-525.03]	0.54	[0.29-0.76]	89.66	[51.36-122.27]
Italy	271.67	[148.28-393.3]	0.29	[0.16-0.42]	56.55	[30.87-81.87]
Latvia	162.87	[80.06-244.7]	0.53	[0.21-0.74]	48.53	[23.91-72.94]
Lithuania	192.76	[92.27-291.72]	0.84	[0.42-1.32]	71.11	[34.03-107.62]
Luxembourg	225.31	[116.23-332.59]	0.36	[0-0.36]	50.35	[25.95-74.35]
Malta	199.17	[111.52-271]	0.00	[0-0.46]	39.23	[22.08-52.91]
Netherlands	374.41	[204.21-541.64]	0.59	[0.32-0.84]	84.74	[46.21-122.59]
Poland	169.17	[90.48-246.77]	0.75	[0.4-1.1]	60.64	[32.43-88.46]
Portugal	294.31	[155.29-410.5]	0.31	[0.16-0.41]	60.12	[31.73-83.85]
Romania	142.15	[73.34-198.95]	0.39	[0.2-0.55]	40.42	[20.86-56.57]
Slovakia	149.73	[75.11-223.25]	0.46	[0.23-0.69]	43.91	[22.03-65.47]
Slovenia	330.87	[191.24-468.53]	1.04	[0.63-1.55]	100.37	[57.98-142.14]
Spain	366.41	[213.56-517.17]	0.40	[0.23-0.57]	77.81	[45.35-109.83]
Sweden	364.14	[197.54-527.95]	0.58	[0.32-0.86]	88.86	[48.2-128.83]
UK	366.21	[220.68-487.85]	0.44	[0.26-0.58]	81.26	[48.97-108.25]
Total EU28	278.83	[166.85-383.02]	0.49	[0.3-0.68]	67.30	[40.27-92.45]
p-value	***		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 6 **Prevalence/deaths/DALY rates of coronary/ischemic heart disease (CHD) attributable to job insecurity (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	41.10	[8.82-72.88]	0.81	[0.16-1.42]	27.73	[5.95-49.15]
Belgium	59.72	[14.84-103.91]	1.00	[0.25-1.74]	34.90	[8.67-60.74]
Bulgaria	99.17	[22.04-175.19]	4.35	[0.96-7.67]	147.25	[32.76-260.17]
Croatia	156.44	[42.94-250.54]	3.10	[0.89-4.99]	106.65	[29.28-170.79]
Cyprus	42.41	[10.76-68.89]	1.51	[0.37-2.32]	51.84	[13.17-84.18]
Czech Rep.	138.93	[33.87-242.38]	2.63	[0.63-4.6]	88.95	[21.68-155.21]
Denmark	44.34	[9.97-78.07]	0.62	[0.15-1.08]	20.96	[4.69-36.9]
Estonia	142.78	[35.75-248.11]	2.74	[0.77-4.83]	93.16	[23.32-161.89]
Finland	72.63	[17.42-127.02]	1.46	[0.36-2.55]	48.10	[11.52-84.1]
France	48.41	[12.38-79.79]	0.68	[0.18-1.12]	24.28	[6.21-40.02]
Germany	41.99	[9.62-73.81]	0.92	[0.21-1.61]	31.07	[7.12-54.62]
Greece	91.54	[26.04-145.67]	3.70	[1.06-5.9]	129.93	[36.93-206.74]
Hungary	137.03	[35.42-220.94]	3.96	[1.02-6.38]	132.30	[34.19-213.31]
Ireland	47.21	[11.5-77.72]	0.95	[0.24-1.55]	32.86	[8.02-54.08]
Italy	96.49	[25.06-166.89]	1.34	[0.35-2.32]	48.18	[12.51-83.33]
Latvia	156.62	[40.24-271.43]	5.83	[1.49-10.1]	193.71	[49.74-335.74]
Lithuania	106.00	[24.13-186.54]	4.00	[0.92-7.04]	134.92	[30.71-237.45]
Luxembourg	36.22	[7.68-64.65]	0.72	[0-1.08]	21.01	[4.39-37.35]
Malta	33.20	[7.18-55.21]	1.01	[0-1.38]	32.69	[7.18-54.29]
Netherlands	119.97	[31.83-206.63]	1.22	[0.32-2.11]	43.69	[11.59-75.23]
Poland	169.12	[45.15-291.35]	4.24	[1.13-7.3]	141.95	[37.9-244.54]
Portugal	63.04	[17.07-101.28]	1.13	[0.3-1.8]	39.84	[10.77-63.98]
Romania	118.47	[29.89-191.7]	3.56	[0.9-5.75]	121.37	[30.63-196.41]
Slovakia	57.97	[10.82-104.42]	1.66	[0.31-3.03]	56.04	[10.47-100.93]
Slovenia	195.65	[53.99-335.06]	2.08	[0.63-3.61]	76.03	[20.97-130.17]
Spain	88.42	[24.32-151.69]	1.58	[0.43-2.71]	57.10	[15.71-97.95]
Sweden	77.54	[18.51-135.58]	0.96	[0.22-1.67]	33.65	[8.02-58.82]
UK	56.16	[14.07-91.68]	0.98	[0.25-1.61]	34.31	[8.6-56.01]
Total EU28	77.37	[20.53-130.33]	1.60	[0.42-2.69]	55.00	[14.59-92.64]
p-value	***		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 7 **Prevalence/deaths/DALY rates of depression attributable to job insecurity (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	244.68	[102.64-384.6]	0.53	[0.21-0.83]	60.68	[25.45-95.39]
Belgium	420.83	[194.51-643.66]	1.02	[0.47-1.54]	114.89	[53.1-175.74]
Bulgaria	220.10	[94.54-343.91]	0.48	[0.19-0.73]	55.34	[23.77-86.49]
Croatia	357.55	[182.53-502.51]	0.98	[0.51-1.37]	100.10	[51.1-140.64]
Cyprus	319.10	[154.14-457.18]	0.34	[0.19-0.46]	64.46	[31.16-92.21]
Czech Rep.	322.07	[147.46-493.99]	0.90	[0.4-1.38]	93.13	[42.63-142.83]
Denmark	261.20	[112.97-406.86]	0.44	[0.18-0.68]	58.36	[25.23-90.89]
Estonia	477.66	[222.8-728.48]	1.07	[0.46-1.66]	124.51	[58.16-189.97]
Finland	525.84	[237.75-809.71]	0.87	[0.4-1.33]	126.70	[57.3-195.1]
France	395.47	[190.3-574.15]	0.78	[0.37-1.12]	101.80	[48.99-147.79]
Germany	257.02	[112.23-399.37]	0.41	[0.18-0.63]	58.05	[25.35-90.21]
Greece	626.76	[328.9-872.91]	0.40	[0.21-0.56]	121.29	[63.65-168.92]
Hungary	298.08	[145.97-423.37]	1.16	[0.58-1.67]	98.12	[48.05-139.37]
Ireland	407.40	[190.72-592.17]	0.59	[0.29-0.84]	94.87	[44.41-137.93]
Italy	480.79	[229.95-728.07]	0.51	[0.24-0.77]	100.09	[47.87-151.56]
Latvia	502.71	[238.69-763.15]	1.59	[0.75-2.42]	149.84	[71.2-227.44]
Lithuania	420.41	[183.82-653.36]	1.90	[0.85-3]	155.07	[67.78-241.01]
Luxembourg	273.49	[113.67-430.64]	0.36	[0-0.72]	61.22	[25.58-96.62]
Malta	191.13	[81.71-281.13]	0.00	[0-0.46]	37.22	[16.01-55.21]
Netherlands	637.01	[309.49-958.84]	0.99	[0.49-1.5]	144.17	[70.05-217.02]
Poland	366.00	[178.47-550.9]	1.63	[0.79-2.45]	131.20	[63.97-197.48]
Portugal	614.34	[312.18-866.7]	0.64	[0.32-0.88]	125.49	[63.78-177.05]
Romania	250.51	[120.87-357.57]	0.70	[0.34-0.99]	71.23	[34.37-101.67]
Slovakia	138.61	[53.31-222.64]	0.42	[0.16-0.65]	40.67	[15.64-65.32]
Slovenia	513.41	[256.55-766.54]	1.66	[0.84-2.48]	155.81	[77.79-232.56]
Spain	571.10	[284.09-854.23]	0.63	[0.31-0.95]	121.28	[60.33-181.4]
Sweden	468.48	[211.13-721.5]	0.76	[0.34-1.15]	114.32	[51.53-176.05]
UK	354.05	[168.36-510.01]	0.43	[0.2-0.61]	78.56	[37.36-113.16]
Total EU28	393.42	[191.89-581.05]	0.70	[0.34-1.03]	94.96	[46.32-140.24]
p-value	***		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 8 **Prevalence/deaths/DALY rates of coronary/ischemic heart disease (CHD) attributable to long working hours (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	2.59	[-0.23-5.39]	0.05	[0-0.12]	1.74	[-0.16-3.63]
Belgium	5.52	[0.37-10.65]	0.10	[0-0.18]	3.23	[0.22-6.21]
Bulgaria	22.66	[1.49-43.86]	0.99	[0.06-1.91]	33.66	[2.19-65.12]
Croatia	21.94	[0.8-43.01]	0.46	[0-0.86]	14.93	[0.57-29.35]
Cyprus	3.03	[0-6.06]	0.17	[0-0.17]	3.70	[0-7.41]
Czech Rep.	17.79	[0.4-35.18]	0.34	[0-0.67]	11.38	[0.27-22.52]
Denmark	4.47	[0.07-8.83]	0.07	[0-0.11]	2.11	[0.04-4.18]
Estonia	11.57	[0.3-22.68]	0.15	[0-0.46]	7.46	[0.15-14.92]
Finland	5.06	[-0.04-10.17]	0.12	[0-0.2]	3.36	[-0.04-6.72]
France	5.60	[0.27-10.94]	0.08	[0-0.15]	2.81	[0.13-5.48]
Germany	2.40	[-0.1-4.9]	0.05	[0-0.11]	1.78	[-0.07-3.63]
Greece	15.89	[1.04-30.71]	0.64	[0.05-1.25]	22.54	[1.49-43.59]
Hungary	14.97	[0.2-29.74]	0.44	[0-0.86]	14.46	[0.2-28.73]
Ireland	7.29	[0.18-14.39]	0.14	[0-0.27]	5.07	[0.14-10]
Italy	2.78	[-0.45-6.02]	0.04	[0-0.08]	1.39	[-0.22-3]
Latvia	12.29	[-0.32-24.8]	0.42	[0-0.95]	15.15	[-0.42-30.73]
Lithuania	7.44	[-0.56-15.51]	0.28	[0-0.56]	9.48	[-0.7-19.73]
Luxembourg	3.62	[0-6.88]	0.00	[0-0]	2.17	[0-3.98]
Malta	9.05	[0.5-18.11]	0.50	[0-0.5]	9.05	[0.5-17.6]
Netherlands	4.91	[-0.21-10.05]	0.05	[0-0.11]	1.80	[-0.08-3.66]
Poland	18.57	[1.19-35.96]	0.46	[0.03-0.9]	15.59	[1-30.18]
Portugal	4.17	[-0.27-8.59]	0.08	[0-0.14]	2.63	[-0.16-5.43]
Romania	18.80	[1.16-36.44]	0.56	[0.03-1.1]	19.26	[1.19-37.33]
Slovakia	12.82	[0.19-25.49]	0.39	[0-0.73]	12.40	[0.15-24.64]
Slovenia	14.77	[0.83-28.6]	0.21	[0-0.31]	5.72	[0.31-11.13]
Spain	6.81	[0.53-13.09]	0.12	[0.01-0.23]	4.40	[0.34-8.45]
Sweden	6.42	[0.02-12.81]	0.08	[0-0.16]	2.79	[0.02-5.56]
UK	11.51	[0.9-22.12]	0.20	[0.02-0.39]	7.03	[0.55-13.51]
Total EU28	7.66	[0.83-14.49]	0.16	[0.02-0.3]	5.45	[0.59-10.3]
p-value	***		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 9 **Prevalence/deaths/DALY rates of stroke attributable to long working hours (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	5.37	[0.49-10.23]	0.02	[0-0.07]	1.78	[0.16-3.4]
Belgium	9.06	[2.47-15.64]	0.08	[0.02-0.16]	4.21	[1.14-7.28]
Bulgaria	40.40	[11.09-69.73]	1.24	[0.35-2.13]	47.36	[13-81.72]
Croatia	25.84	[6.2-45.43]	0.46	[0.11-0.86]	20.04	[4.82-35.2]
Cyprus	5.72	[1.18-10.43]	0.00	[0-0.17]	2.52	[0.5-4.54]
Czech Rep.	20.65	[4.61-36.69]	0.23	[0.06-0.4]	11.02	[2.46-19.58]
Denmark	8.21	[1.74-14.71]	0.07	[0-0.15]	3.60	[0.76-6.46]
Estonia	15.68	[3.5-28.01]	0.15	[0-0.3]	8.52	[1.83-15.22]
Finland	9.61	[1.74-17.48]	0.08	[0-0.16]	3.96	[0.71-7.2]
France	9.83	[2.45-17.21]	0.09	[0.02-0.16]	4.36	[1.09-7.63]
Germany	4.39	[0.64-8.15]	0.04	[0-0.07]	1.84	[0.27-3.41]
Greece	29.19	[8.12-50.27]	0.43	[0.13-0.75]	18.39	[5.11-31.64]
Hungary	19.72	[4.15-35.26]	0.40	[0.09-0.7]	16.11	[3.41-28.84]
Ireland	13.22	[2.99-23.45]	0.09	[0-0.18]	5.02	[1.13-8.87]
Italy	2.83	[0.04-5.63]	0.04	[0-0.07]	1.63	[0.02-3.23]
Latvia	23.74	[3.92-43.45]	0.42	[0.11-0.85]	19.50	[3.29-35.61]
Lithuania	13.06	[1.47-24.64]	0.21	[0-0.42]	10.25	[1.12-19.3]
Luxembourg	6.16	[1.09-11.59]	0.00	[0-0]	2.54	[0.36-4.71]
Malta	16.09	[4.02-28.17]	0.00	[0-0]	7.04	[1.51-12.07]
Netherlands	7.18	[1.03-13.34]	0.06	[0.01-0.11]	2.81	[0.4-5.21]
Poland	22.43	[6.1-38.76]	0.49	[0.13-0.84]	19.97	[5.43-34.51]
Portugal	9.66	[1.19-18.13]	0.14	[0.02-0.27]	5.80	[0.72-10.87]
Romania	31.01	[8.33-53.69]	0.86	[0.23-1.49]	33.26	[8.94-57.58]
Slovakia	18.81	[3.98-33.6]	0.35	[0.08-0.58]	14.14	[2.97-25.26]
Slovenia	14.15	[3.74-24.65]	0.21	[0-0.31]	7.80	[2.08-13.52]
Spain	13.03	[3.72-22.35]	0.10	[0.03-0.18]	5.27	[1.5-9.03]
Sweden	9.86	[1.97-17.75]	0.06	[0.02-0.1]	3.27	[0.64-5.88]
UK	15.98	[4.62-27.35]	0.16	[0.05-0.27]	7.47	[2.16-12.78]
Total EU28	11.78	[3.79-19.78]	0.15	[0.05-0.25]	6.75	[2.17-11.33]
p-value	***		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 10 **Prevalence/deaths/DALY rates of atrial fibrillation attributable to long working hours (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	2.57	[0.23-4.88]	0.00	[0-0]	0.30	[0.02-0.56]
Belgium	3.88	[1.06-6.71]	0.00	[0-0]	0.49	[0.14-0.84]
Bulgaria	8.90	[2.45-15.35]	0.03	[0-0.03]	1.40	[0.38-2.45]
Croatia	9.07	[1.49-16.65]	0.00	[0-0]	1.03	[0.17-1.95]
Cyprus	2.52	[0.34-4.71]	0.00	[0-0]	0.34	[0-0.67]
Czech Rep.	10.13	[1.49-18.74]	0.02	[0-0.02]	1.13	[0.17-2.1]
Denmark	4.14	[0.54-7.77]	0.00	[0-0]	0.54	[0.07-1.02]
Estonia	6.39	[0.91-11.72]	0.00	[0-0]	0.76	[0.15-1.52]
Finland	4.87	[0.51-9.22]	0.00	[0-0]	0.55	[0.04-1.07]
France	5.06	[0.86-9.26]	0.01	[0-0.01]	0.59	[0.1-1.09]
Germany	1.94	[0.13-3.74]	0.00	[0-0.01]	0.27	[0.02-0.52]
Greece	12.48	[2.5-22.43]	0.03	[0-0.05]	1.76	[0.35-3.17]
Hungary	7.39	[0.99-13.8]	0.00	[0-0.02]	0.86	[0.11-1.6]
Ireland	5.97	[0.91-11.09]	0.00	[0-0]	0.77	[0.14-1.45]
Italy	1.92	[-0.11-3.96]	0.00	[0-0]	0.24	[-0.01-0.49]
Latvia	7.10	[0.64-13.67]	0.00	[0-0]	0.85	[0.11-1.48]
Lithuania	4.21	[0.14-8.28]	0.00	[0-0]	0.49	[0-0.91]
Luxembourg	3.62	[0.36-7.24]	0.00	[0-0]	0.36	[0-0.72]
Malta	8.05	[1.51-14.59]	0.00	[0-0]	1.01	[0-1.51]
Netherlands	3.30	[0.22-6.36]	0.00	[0-0.01]	0.40	[0.02-0.77]
Poland	12.15	[2.33-21.97]	0.02	[0.01-0.03]	1.46	[0.28-2.63]
Portugal	3.08	[0.16-6.02]	0.00	[0-0]	0.39	[0.02-0.78]
Romania	7.62	[1.44-13.82]	0.01	[0-0.01]	0.88	[0.16-1.59]
Slovakia	8.11	[1.08-15.14]	0.00	[0-0.04]	0.97	[0.12-1.82]
Slovenia	9.57	[1.77-17.47]	0.00	[0-0]	1.04	[0.21-1.98]
Spain	6.11	[1.24-10.98]	0.01	[0-0.02]	0.73	[0.15-1.31]
Sweden	5.56	[0.68-10.44]	0.00	[0-0]	0.60	[0.08-1.14]
UK	9.82	[2.04-17.61]	0.01	[0-0.02]	1.15	[0.24-2.05]
Total EU28	5.68	[1.33-10.02]	0.01	[0-0.01]	0.70	[0.16-1.23]
p-value	***		*		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 11 **Prevalence/deaths/DALY rates of depression attributable to long working hours (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	8.35	[-0.16-16.72]	0.02	[0-0.05]	2.06	[-0.05-4.16]
Belgium	21.28	[3.09-39.19]	0.06	[0-0.1]	5.81	[0.84-10.71]
Bulgaria	27.40	[3.87-50.6]	0.06	[0-0.09]	6.90	[0.96-12.72]
Croatia	27.74	[3.35-47.97]	0.06	[0-0.11]	7.75	[0.95-13.45]
Cyprus	12.45	[0.93-22.09]	0.00	[0-0]	2.52	[0.19-4.48]
Czech Rep.	22.77	[2.19-43.01]	0.06	[0-0.11]	6.58	[0.63-12.43]
Denmark	14.24	[1.28-27]	0.04	[0-0.04]	3.20	[0.29-6.05]
Estonia	21.31	[1.99-40.17]	0.00	[0-0.15]	5.48	[0.46-10.42]
Finland	20.13	[1.24-38.71]	0.04	[0-0.08]	4.87	[0.28-9.34]
France	24.98	[3.27-43.89]	0.05	[0.01-0.08]	6.43	[0.84-11.3]
Germany	7.93	[0.23-15.51]	0.01	[0-0.03]	1.79	[0.05-3.5]
Greece	60.88	[9.48-103.35]	0.03	[0-0.07]	11.79	[1.82-19.99]
Hungary	17.89	[1.69-31.28]	0.07	[0-0.12]	5.89	[0.56-10.3]
Ireland	34.35	[3.62-60.59]	0.05	[0-0.08]	8.01	[0.83-14.11]
Italy	7.74	[-0.74-16.09]	0.01	[0-0.02]	1.61	[-0.15-3.35]
Latvia	21.94	[1.07-42.52]	0.11	[0-0.11]	6.57	[0.32-12.63]
Lithuania	16.22	[-0.07-32.25]	0.07	[0-0.14]	5.97	[0-11.91]
Luxembourg	14.13	[0.73-27.3]	0.00	[0-0]	3.26	[0-6.11]
Malta	28.67	[3.86-48.77]	0.00	[0-0]	5.53	[0.55-9.66]
Netherlands	14.65	[0.38-28.68]	0.02	[0-0.05]	3.32	[0.08-6.49]
Poland	22.53	[3.16-41.62]	0.10	[0.02-0.19]	8.07	[1.13-14.92]
Portugal	22.55	[0.16-41.1]	0.02	[0-0.04]	4.60	[0.02-8.4]
Romania	21.82	[3.29-37.15]	0.06	[0.01-0.1]	6.20	[0.93-10.57]
Slovakia	16.53	[1.44-31.39]	0.04	[0-0.08]	4.87	[0.43-9.2]
Slovenia	21.84	[2.94-40.46]	0.10	[0-0.1]	6.66	[0.84-12.28]
Spain	24.72	[3.81-45.36]	0.03	[0.01-0.05]	5.25	[0.81-9.63]
Sweden	21.26	[1.64-40.55]	0.04	[0-0.06]	5.18	[0.41-9.89]
UK	39.51	[6.61-67.31]	0.05	[0.01-0.08]	8.77	[1.47-14.94]
Total EU28	21.40	[4.13-37.49]	0.04	[0.01-0.07]	5.16	[1-9.05]
p-value	*		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

Table 12 **Prevalence/deaths/DALY rates of depression attributable to workplace bullying (per 100 000 workers) in the EU28 in 2015**

Country	Prevalent cases		Deaths		DALYs	
	Rate	95% CI	Rate	95% CI	Rate	95% CI
Austria	337.62	[152.49-519.97]	0.72	[0.33-1.13]	83.76	[37.84-128.99]
Belgium	604.64	[371.33-834.37]	1.45	[0.89-2.01]	165.10	[101.39-227.81]
Bulgaria	18.82	[-8.61-45.83]	0.03	[-0.03-0.09]	4.74	[-2.18-11.52]
Croatia	188.88	[51.8-302.61]	0.52	[0.13-0.84]	52.89	[14.48-84.69]
Cyprus	165.61	[49.34-263.03]	0.17	[0-0.31]	33.49	[10.02-53.13]
Czech Rep.	106.19	[-10.8-221.38]	0.31	[-0.04-0.62]	30.70	[-3.13-64.01]
Denmark	219.07	[79.46-356.28]	0.36	[0.15-0.58]	48.96	[17.75-79.59]
Estonia	296.06	[92.99-495.92]	0.61	[0.15-1.06]	77.17	[24.24-129.27]
Finland	293.04	[83.17-499.83]	0.47	[0.12-0.82]	70.61	[20.06-120.42]
France	906.25	[615.96-1159.07]	1.77	[1.2-2.27]	233.27	[158.55-298.35]
Germany	401.03	[221.94-577.15]	0.63	[0.35-0.91]	90.58	[50.13-130.37]
Greece	181.85	[20.86-314.85]	0.11	[0-0.19]	35.18	[4.03-60.93]
Hungary	17.19	[-11.59-41.02]	0.07	[-0.05-0.16]	5.65	[-3.82-13.49]
Ireland	762.16	[404.23-1067.14]	1.09	[0.59-1.51]	177.52	[94.16-248.53]
Italy	221.57	[74.21-366.82]	0.24	[0.08-0.39]	46.12	[15.45-76.36]
Latvia	304.34	[128.95-477.51]	0.95	[0.43-1.58]	90.71	[38.43-142.29]
Lithuania	358.85	[107.12-606.63]	1.61	[0.5-2.72]	132.39	[39.55-223.8]
Luxembourg	592.61	[332.23-848.34]	0.72	[0.37-1.44]	132.94	[74.56-190]
Malta	427.01	[247.34-575.13]	0.50	[0-0.46]	83.49	[48.58-112.73]
Netherlands	592.36	[313.16-866.69]	0.92	[0.49-1.36]	134.07	[70.88-196.15]
Poland	52.76	[0.13-104.66]	0.24	[0-0.47]	18.91	[0.04-37.52]
Portugal	52.60	[-39.44-128.71]	0.06	[-0.05-0.13]	10.75	[-8.06-26.3]
Romania	142.50	[34.08-232.15]	0.39	[0.09-0.64]	40.52	[9.69-66.01]
Slovakia	65.85	[-5.49-136.12]	0.19	[0-0.42]	19.31	[-1.6-39.94]
Slovenia	290.20	[145.94-432.3]	0.94	[0.52-1.45]	88.00	[44.24-131.2]
Spain	280.56	[152.89-406.49]	0.31	[0.17-0.45]	59.58	[32.47-86.32]
Sweden	340.97	[129.57-548.81]	0.54	[0.2-0.88]	83.20	[31.62-133.93]
UK	414.33	[235.51-564.02]	0.50	[0.28-0.68]	91.93	[52.26-125.15]
Total EU28	368.94	[243.66-485.45]	0.65	[0.43-0.86]	89.05	[58.81-117.17]
p-value	***		***		***	

Wald test p-value for the difference between countries: *: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant

4. Supplementary file S4: differences between men and women in DALY rates per 100 000 workers (Wald test p-value)

Country	Job strain-CHD	Job strain-Depression	ERI-CHD	ERI-Depression	Job insecurity-CHD	Job insecurity-Depression
Austria	***	NS	***	NS	***	NS
Belgium	***	NS	***	NS	***	NS
Bulgaria	*	NS	***	NS	***	NS
Croatia	***	NS	***	NS	***	NS
Cyprus	***	NS	***	NS	***	NS
Czech Rep.	***	NS	***	*	**	NS
Denmark	**	NS	NS	NS	**	NS
Estonia	***	NS	***	*	***	NS
Finland	***	NS	***	NS	***	NS
France	***	NS	***	NS	***	NS
Germany	***	NS	***	NS	***	NS
Greece	***	**	***	NS	***	NS
Hungary	***	*	***	*	***	NS
Ireland	***	NS	***	NS	***	NS
Italy	***	NS	***	NS	***	NS
Latvia	***	**	*	NS	***	*
Lithuania	***	**	*	NS	***	NS
Luxembourg	**	*	*	NS	***	NS
Malta	***	NS	***	NS	***	NS
Netherlands	**	NS	***	NS	**	NS
Poland	***	***	***	***	***	**
Portugal	***	NS	***	NS	***	NS
Romania	***	*	**	NS	***	NS
Slovakia	***	NS	**	NS	***	NS
Slovenia	***	NS	***	NS	***	NS
Spain	***	NS	***	NS	***	NS
Sweden	**	NS	**	NS	***	NS
UK	***	NS	***	NS	***	NS
Total EU28	***	NS	***	NS	***	NS

*: p<0.05; **: p<0.01; ***: p<0.001; NS: non-significant
CHD: Coronary heart disease; ERI: Effort-reward imbalance

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