The health and safety of men and women at work

Didier Dupré

Men are more likely than women to suffer accidents at work. In 1998, an average of just under 5,300 men in the EU per 100,000 men employed were involved in accidents either at work or related to the job which they were doing which led to them being away from work for 4 days or more. This compares with a figure of just under 1,900 women per 100,000 employed having at least 4 days off for a similar reason. Men were therefore, almost three times as likely to be involved in accidents at work than women, the ratio varying from almost 3½ times in Greece and Ireland to under twice as likely in Sweden and just over twice as likely in the UK (Fig. 1 – it should be noted that no data by gender are available for the Netherlands). Considering incidences calculated per 100,000 full-time equivalent (FTE) persons in employment and standardised for differences in the branches of activity in which men and women work, the EU ratio decreases but still remains higher than two (2.2).

Fig. 1 Incidence rate of accidents at work suffered by men relative to women, 1998

Moreover, according to the ad hoc module on accidents at work and occupational diseases in the 1999 European Union Labour Force Survey that included also accidents at work not resulting in absence from work or resulting in 1 to 3 days’ absence, the incidence rate per FTE employed, standardising for differences in the occupation performed by men and women, was still 1½ times greater for men than women.

On the contrary, also standardising for differences in the occupation on a FTE basis, in the EU in 1999 women were 1½ times as likely as men to suffer work-related health problems other than accidental injury. Among the different types of complaints reported as the most serious suffered, musculoskeletal disorders were the most frequent for both sexes — more than 50% of victims. However, stress, depression and anxiety were slightly more common among women — 20% - (tables 2 and 3 page 5).
Introduction

The figures quoted above on accidents come from the European Statistics of Accidents at Work (ESAW) compiled by Eurostat on an annual basis since 1993. They are standardised across Member States to allow for differences between them in the structure of economic activity, since the incidence of accidents differs significantly between sectors. In construction, for example, the average incident rate of accidents among men involving 4 days or more off work was some 8,700 per 100,000 employed in 1998, while in agriculture and transport, it was over 7,000 per 100,000 (as against only 1,900 per 100,000 employed in financial and business services). Other things being equal, countries with a relatively high proportion employed in the former sectors would, therefore, tend to have a higher overall accident rate than countries where these sectors are less important.

Although there are some problems of comparing data across Member States, even after standardising for differences in the structure of economic activity (see Methodological notes), the statistics on the incidence of accidents are important indicators of working conditions across the EU and of job quality more general. Most importantly perhaps, despite the differences in coverage and reporting arrangements, they provide a valuable indication of how the situation in different Member States is changing over time.

Comparing the incidence of accidents at work to men and women

The specific concern here is with the number of accidents suffered by women as compared with men. While the figures cited above indicate that men are far more likely than women to suffer accidents at work, these take no account of the different types of job performed by the two. Men, therefore, are more likely to be employed in activities such as construction or transport where the risk of accidents is relatively high, whereas women are disproportionately employed in offices or shops where the risk is much smaller.

At the same time, women tend on average to work shorter hours than men, if only because more of them are employed in part-time jobs, which means that they are at work for less time and consequently exposed to the risk of accident for a shorter period than men. This fact as well as differences in the activities in which they are employed needs to be specifically allowed for in order to compare the incidence of accidents to men and women on an equivalent basis.

Such an allowance can be made by expressing the number of men and women suffering accidents at work in relation to full-time equivalent (FTE) employment rather than simply to the number of people employed (see Methodological notes for details of the method of estimation). If this is done in each sector, taking the full-time hours worked in the economy overall as the adjustment factor, then it is also a means of explicitly allowing for differences in hours worked in different activities, in agriculture as opposed to financial services for example.

Calculating the incidence rate of accidents in these terms, per 100,000 FTE employed and standardising for differences in the sectors of activity in which men and women work (specifically, by assuming a common distribution of employment of the two between activities) tends to increase the rate for women relative to men, though not by nearly enough to close the gap completely. Over the EU as a whole, men in 1998 were just over twice as likely as women to suffer accidents at work serious enough for them to be away for 4 days or more, even after allowing for differences in working time and in the sectoral distribution of economic activity (Fig. 2).
The difference in the adjusted incidence rate between men and women was similar in most Member States, though in Belgium, France and Austria, the standardised rate per 100,000 FTE employed was over 2½ times higher for men than for women, while in Sweden and the UK, it was only around 1½ times higher. (It should be noted that the figure for women in construction in Portugal has been adjusted while awaiting corrected data on persons covered from 1999.)

The accident rate for men, standardised and calculated in relation to FTE employment, was higher than for women in all sectors of activity across the EU as a whole in 1998 (Fig. 3), the difference being particularly large in construction and in the energy and water industry, reflecting the different kinds of job which men and women tend to do in these sectors (women working in offices, men on building sites or, say, in generating stations). In hotels and restaurants, however, where there ought not to be too much difference in the typical work performed, men were only marginally more likely to have been involved in an accident than women. Indeed, in 6 of the 14 Member States for which data by gender are available, the incidence rate of accidents among women was higher than for men in this branch (Table 1).

Changes in incidence rates, 1994 to 1998

Although data on accidents began to be collected in 1993, the first year was a pilot one and the analysis here, therefore, covers the period 1994-1998. Over these five years, the incidence of accidents in the EU declined. Adjusting for changes in the structure of economic activity, which, since they took the form of a shift in employment from industry and agriculture towards services, tended to reduce the risk of accident, the number of men involved in accidents per 100,000 FTE employed fell by just over 8% on average, while the number of women fell by slightly less, 7½% (Fig. 4 – it should noted that the full-time hours used in the FTE adjustment are also kept constant from year to year to standardise for changes in these). While the overall rate declined in 10 Member States (including the Netherlands), it rose in 5.

In all but 4 Member States, the rate for men either fell by more than for women or increased by less (in Germany, the rate for women rose while it fell for men). Since shifts in employment between sectors are explicitly allowed for in the calculation, the differences between men and women may reflect differential changes in the types of job performed within sectors (such as a greater shift out of manual jobs for men than for women). They may also, of course, reflect genuine changes in the behaviour of men towards risks relative to women, and since they tend to be more exposed to risks in the work that they do than women, they are also more likely to be the target of efforts to reduce accidents, such as through preventative campaigns.

Table 1: Incidence rates of accidents at work to men relative to women by sector of activity, 1998

<table>
<thead>
<tr>
<th>Sector</th>
<th>B</th>
<th>DK</th>
<th>D</th>
<th>EL</th>
<th>E</th>
<th>F</th>
<th>IRL</th>
<th>I</th>
<th>L</th>
<th>A</th>
<th>P</th>
<th>FIN</th>
<th>S</th>
<th>UK</th>
<th>EU</th>
</tr>
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<tbody>
<tr>
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<td>1.4</td>
<td>2.3</td>
<td>1.2</td>
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<td>2.0</td>
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<td>0.9</td>
<td>1.7</td>
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<tr>
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<td>2.0</td>
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<td>2.4</td>
<td>2.4</td>
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<td>2.8</td>
<td>2.4</td>
<td>1.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Energy and water</td>
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<td>3.8</td>
<td>22.4</td>
<td>8.9</td>
<td>3.2</td>
<td>5.1</td>
<td>3.3</td>
<td>2.1</td>
<td>0.7</td>
<td>6.4</td>
<td>3.2</td>
<td>6.3</td>
<td>6.7</td>
<td>3.3</td>
<td>2.7</td>
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<td>2.4</td>
<td>2.5</td>
<td>2.6</td>
<td>11.1</td>
<td>1.3</td>
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<td>3.8</td>
<td>3.9</td>
<td>4.2</td>
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<td>2.0</td>
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<td>2.0</td>
<td>2.0</td>
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<td>2.3</td>
<td>3.2</td>
<td>3.6</td>
<td>3.8</td>
<td>3.8</td>
<td>4.2</td>
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<tr>
<td>Hotels and restaurants</td>
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<td>1.1</td>
<td>1.1</td>
<td>1.4</td>
<td>1.0</td>
<td>1.1</td>
<td>0.6</td>
<td>0.6</td>
<td>0.9</td>
<td>1.4</td>
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<td>1.7</td>
<td>0.7</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Transport, communication</td>
<td>2.9</td>
<td>1.1</td>
<td>2.2</td>
<td>3.6</td>
<td>2.7</td>
<td>3.0</td>
<td>4.9</td>
<td>1.9</td>
<td>4.0</td>
<td>2.7</td>
<td>1.1</td>
<td>2.2</td>
<td>1.4</td>
<td>2.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Financial and business</td>
<td>2.4</td>
<td>1.2</td>
<td>0.6</td>
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<td>2.5</td>
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<td>1.4</td>
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<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>2.7</td>
<td>1.7</td>
<td>2.0</td>
<td>2.4</td>
<td>2.1</td>
<td>2.7</td>
<td>1.9</td>
<td>2.3</td>
<td>2.1</td>
<td>2.8</td>
<td>3.1</td>
<td>2.3</td>
<td>1.5</td>
<td>2.2</td>
<td>2.2</td>
</tr>
</tbody>
</table>

EU excludes NL, for which data by sex are not available.
The incidence of accidents at work and work-related complaints according to the Labour Force Survey

The differential vulnerability of men and women to accidents at work is confirmed by the EU Labour Force Survey (LFS) which in 1999 included a special module on health and safety at work. Unlike the ESAW, the LFS covered all sectors of the economy, including the public sector. Four Member States, however (Belgium, France, the Netherlands and Austria) did not participate in the exercise, while in Germany, there was only partial coverage of the questions asked. In the 11 Member States providing data, the number of men suffering accidents at work per 100,000 FTE employed – in this case, irrespective of the number of days off which ensued – was just under 1 ½ times larger than the number of women, the difference being relatively small in Sweden and the UK and relatively large in Greece, in line with the ESAW results.

According to the LFS, in most Member States responding, women were more likely than men to suffer accidents at work in the health and education sectors, not covered by the ESAW, but much less likely in public administration, which includes the police service.

The LFS data also enable specific account to be taken of differences in the occupations performed by men and women as well as in the sectors of activity in which they work. Adjusting for occupational differences, men are still more likely overall to suffer accidents at work than women, though the difference is reduced slightly (Fig. 5). Indeed, in Denmark, the adjustment results in the incidence rate for women being the same as for men. Within occupational groups, while the number of accidents in relation the FTE employment was higher for men than for women in both skilled and unskilled manual jobs, for managers, professionals and technicians, the reverse was the case in most Member States. The exceptions for this last group were Greece and Portugal, where the rate for men was higher than for women, and Italy, where it was the same.

Illnesses and complaints associated with working

The LFS module, in addition, provides data on illnesses and complaints suffered by workers, such as backache and stress as well as infectious diseases, based on self-assessment by respondents that covers more than the occupational diseases recognised by national insurance systems. In contrast to accidents, these data show less of a difference in prevalence between men and women. Indeed, standardising for differences in sectors of activity and relating the figures to FTE employment, in 5 of the 10 countries in which relevant data were collected (no data are available by sector and on the number of days lost in the last twelve months for Germany), more women reported suffering complaints from working than men. Overall, however, in around a third of cases – much the same figure as for men – these did not cause the person concerned to take any days off work. In a quarter of cases, on the other hand, the men and women affected were off work for one month or more and in 9% of cases, never worked again. In the case of complaints, occupational differences between men and women seem to have more effect on comparative prevalence rates than sectoral differences. In all Member States apart from Greece, the number of complaints per 100,000 FTE employed was larger for women than for men once differences in occupation are explicitly allowed for and in Denmark, it was twice as large (Fig. 6). In all occupational groups considered separately, women were more likely than men to suffer complaints, though less so among skilled manual workers than others. The difference was particularly pronounced for managers, professionals and technicians, as well as sales and service workers, where complaints among women were around twice the rate for men in most countries (Table 2).
The type of complaints suffered

While men and women reported similar types of complaints as the most serious experienced, bone, joint and muscular problems being the most common, suffered by over half of victims in the Member States covered, there were significant differences between countries (see Table 3 on the proportion of men and women reporting complaints of different types).

Bone, joint and muscular problems were the most frequently reported in all Member States, apart from women in Portugal, but the next most common type of complaint overall, stress, depression and anxiety, was reported by over a third of women in Portugal and the UK as being the most serious experienced but by under 10% of women in Denmark and Spain.

There was slightly less variation across Member States among men reporting stress-related complaints, and in each case, the proportion was less than for women, though it was over 30% in the UK. It was under 10% in Denmark, Spain and Luxembourg. In the EU as a whole, among the victims of work-related health problems, 17% of men and 20% of women reported stress, depression and anxiety as being the most serious complaint.

On the other hand, men were more affected than women in most Member States by breathing problems (except Luxembourg, Portugal and the UK) and by heart diseases and similar complaints as well as by hearing problems. (Table 3).

Table 2: Prevalence rates of work-related complaints by occupation, 1999

<table>
<thead>
<tr>
<th>Main occupations (ISCO)</th>
<th>DK</th>
<th>EL</th>
<th>E</th>
<th>IRL</th>
<th>I</th>
<th>L</th>
<th>P</th>
<th>FIN</th>
<th>S</th>
<th>UK</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers, professionals, technicians</td>
<td>0.4</td>
<td>1.0</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
<td>0.4</td>
<td>0.6</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Office workers</td>
<td>0.9</td>
<td>: 1.3</td>
<td>1.1</td>
<td>0.9</td>
<td>0.8</td>
<td>0.8</td>
<td>0.6</td>
<td>1.0</td>
<td>0.8</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Sales and service workers</td>
<td>0.5</td>
<td>: 0.7</td>
<td>0.6</td>
<td>0.6</td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Skilled manual workers</td>
<td>0.5</td>
<td>: 2.4</td>
<td>0.6</td>
<td>1.1</td>
<td>0.9</td>
<td>0.6</td>
<td>0.9</td>
<td>0.6</td>
<td>1.0</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Elementary workers</td>
<td>0.5</td>
<td>1.4</td>
<td>0.9</td>
<td>0.5</td>
<td>0.7</td>
<td>2.1</td>
<td>1.3</td>
<td>0.5</td>
<td>1.1</td>
<td>0.8</td>
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</tr>
<tr>
<td>Standardised total</td>
<td>0.5</td>
<td>3.6</td>
<td>0.8</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>0.9</td>
<td>0.6</td>
<td>0.7</td>
<td>0.6</td>
<td></td>
</tr>
</tbody>
</table>

EU excludes B, D, F, NL and A for which data or breakdown by occupation are not available.

Table 3: Proportion of men and women affected by different types of work-related complaints, 1999

<table>
<thead>
<tr>
<th>Type of complaint</th>
<th>DK</th>
<th>EL</th>
<th>E</th>
<th>IRL</th>
<th>I</th>
<th>L</th>
<th>P</th>
<th>FIN</th>
<th>S</th>
<th>UK</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone, joint or muscle problem</td>
<td>57.3</td>
<td>38.8</td>
<td>53.0</td>
<td>50.3</td>
<td>44.3</td>
<td>45.6</td>
<td>58.6</td>
<td>59.7</td>
<td>44.1</td>
<td>51.4</td>
<td></td>
</tr>
<tr>
<td>Stress, depression or anxiety</td>
<td>8.4</td>
<td>10.7</td>
<td>7.3</td>
<td>12.6</td>
<td>7.3</td>
<td>15.2</td>
<td>11.2</td>
<td>14.2</td>
<td>30.5</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>Breathing or lung problem</td>
<td>4.8</td>
<td>17.5</td>
<td>12.6</td>
<td>10.3</td>
<td>12.6</td>
<td>11.3</td>
<td>11.8</td>
<td>5.8</td>
<td>3.7</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>Heart disease or attack, or other problems in the circulatory system</td>
<td>2.5</td>
<td>0.0</td>
<td>11.2</td>
<td>5.4</td>
<td>9.0</td>
<td>6.3</td>
<td>5.1</td>
<td>3.6</td>
<td>3.2</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Hearing problem</td>
<td>1.9</td>
<td>4.9</td>
<td>2.3</td>
<td>8.3</td>
<td>2.5</td>
<td>4.5</td>
<td>4.2</td>
<td>3.8</td>
<td>2.5</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Headache and/or eyestrain</td>
<td>3.3</td>
<td>9.2</td>
<td>2.1</td>
<td>4.4</td>
<td>7.7</td>
<td>2.3</td>
<td>1.6</td>
<td>1.7</td>
<td>2.9</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Skin problem</td>
<td>1.6</td>
<td>14.1</td>
<td>1.1</td>
<td>3.2</td>
<td>3.7</td>
<td>4.4</td>
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<td>1.0</td>
<td>2.5</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Infectious disease (virus, bacteria or other type of infection)</td>
<td>3.3</td>
<td>0.0</td>
<td>1.6</td>
<td>3.0</td>
<td>6.1</td>
<td>2.2</td>
<td>1.2</td>
<td>1.2</td>
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<tr>
<td>Other types of complaint</td>
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<td>8.7</td>
<td>2.5</td>
<td>6.8</td>
<td>8.2</td>
<td>3.3</td>
<td>9.0</td>
<td>7.8</td>
<td>6.7</td>
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<td><strong>Total</strong></td>
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<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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<table>
<thead>
<tr>
<th>Type of complaint</th>
<th>DK</th>
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<th>E</th>
<th>IRL</th>
<th>I</th>
<th>L</th>
<th>P</th>
<th>FIN</th>
<th>S</th>
<th>UK</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone, joint or muscle problem</td>
<td>63.4</td>
<td>: 66.1</td>
<td>48.3</td>
<td>33.6</td>
<td>26.8</td>
<td>63.9</td>
<td>60.7</td>
<td>40.4</td>
<td>54.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress, depression or anxiety</td>
<td>9.3</td>
<td>: 8.7</td>
<td>17.0</td>
<td>13.7</td>
<td>34.3</td>
<td>11.5</td>
<td>20.6</td>
<td>36.5</td>
<td>20.2</td>
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<tr>
<td>Breathing or lung problem</td>
<td>2.5</td>
<td>: 5.3</td>
<td>9.4</td>
<td>13.6</td>
<td>13.1</td>
<td>10.4</td>
<td>3.2</td>
<td>4.5</td>
<td>6.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache and/or eyestrain</td>
<td>3.9</td>
<td>: 2.1</td>
<td>8.6</td>
<td>8.0</td>
<td>7.5</td>
<td>2.5</td>
<td>1.7</td>
<td>4.5</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious disease (virus, bacteria or other type of infection)</td>
<td>3.1</td>
<td>: 1.4</td>
<td>5.3</td>
<td>9.1</td>
<td>0.6</td>
<td>1.4</td>
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<td>3.6</td>
<td>2.8</td>
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<td>Skin problem</td>
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<td>: 1.3</td>
<td>3.7</td>
<td>1.1</td>
<td>4.2</td>
<td>3.7</td>
<td>2.3</td>
<td>1.9</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart disease or attack, or other problems in the circulatory system</td>
<td>1.0</td>
<td>: 6.1</td>
<td>3.3</td>
<td>7.4</td>
<td>1.9</td>
<td>2.8</td>
<td>1.4</td>
<td>1.4</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache/other problem</td>
<td>1.4</td>
<td>: 0.4</td>
<td>2.8</td>
<td>0.4</td>
<td>0.5</td>
<td>0.8</td>
<td>0.4</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other types of complaint</td>
<td>13.1</td>
<td>: 8.7</td>
<td>3.6</td>
<td>13.0</td>
<td>10.9</td>
<td>2.9</td>
<td>7.4</td>
<td>6.8</td>
<td>6.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>: 100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EU excludes B, D, EL (women only), F, IRL, NL and A for which data or breakdown by sex are not available.
The European statistics of accidents at work (ESAW)

The ESAW covers all accidents that resulted in an absence of at least four calendar days. Accidents in the ESAW are broadly defined to include mishaps which may have little to do with the working environment as such but which occur in the course of performing working activities, such as a road accident or a slip on a pavement. On the other hand, they exclude accidents which happen when travelling backwards and forwards to work as well as accidents caused by illnesses – such as a heart attack, for example – which occur when a person is working but which are not directly related to employment as such.

Some problems remain in comparing the number of accidents between Member States, even after standardising for differences in the structure of economic activity, because of differences in coverage. In some Member States (Belgium, Greece, France, the Netherlands and Portugal), the self-employed and family workers are not included in the data (self-employed in Ireland and family workers in Finland are not covered), while in Ireland and the UK, road accidents are excluded even when they happen in the course of a person’s work. The main comparability problem, however, stems from differences in reporting arrangements which reflect differences in systems of health care. In particular, in countries with insurance-based systems, such as in Germany or France, where people are reimbursed for the costs incurred in obtaining treatment for injuries suffered while at work, there tends to be a financial incentive for both employers and employees to report accidents. In countries with national health systems, on the other hand, where treatment is free of charge at the point of delivery, there is no such incentive and the collection of statistics relies on voluntary reporting of accidents. Although efforts are made by Eurostat to correct for the inevitable under-reporting in the latter Member States, the extent of the adjustment to the raw data needed is hard to judge. The differences observed in incidence rates between Member States, therefore, arise in some degree from the variation in reporting arrangements. However, the current study compares national ratios of men to women and trends for incidence rates, which, in contrast to the rates values, can be considered as comparable. There is also a break in the series in Ireland and Austria between 1995 and 1996. The change in the incidence rate of accidents shown in Fig. 4, therefore, are for the years 1996 to 1998 in the case of these two Member States (for Portugal it is calculated with the previous series 1994-1998 and not with the new series).

Some sectors for some Member States are not covered or only partially covered by the ESAW. Public administration (NACE L) is not covered in Belgium, Greece and Portugal, and only partly covered in Spain, France and the Netherlands. As part of public administration, police and fire brigades (NACE classes 75.24 and 75.25) are not covered in Italy. Education (NACE M) is not or only partly covered in Belgium, Greece, Spain, France, the Netherlands and Portugal. Health and social work (NACE N) is partly covered in Greece, France, the Netherlands and Portugal. Electricity & Gas supply (NACE groups 40.1 and 40.2) is not covered in Greece. Maritime Transport (NACE group 61.1) is not covered in Denmark, Greece, France, Ireland and the UK. Air Transport (NACE division 62) is not covered in the Netherlands and only partly in Denmark and the UK. Transport via Railways (NACE group 60.1) is not covered in Belgium, Greece and the UK and only partly in France. Post & Telecommunications (NACE division 64) is not covered in Belgium and Greece and only partly in France. Mining and Quarrying (NACE section C) are not covered in the Netherlands and the UK (partly in France). Offshore miners are not covered in Denmark, the Netherlands and the UK.

More information on the ESAW methodology are available in the publication “European statistics on accidents at work (ESAW) – Methodology – 2001 edition” – Directorate General Employment and social affairs series – Catalogue No KE-36-019-60EN-C.

Labour Force Survey (LFS)

The LFS included in 1999 an ad-hoc module on health and safety at work and work-related ill-health. It was defined by Commission Regulation (EC) No1571/98 of 20 July 1998. The module was not conducted in Austria, Belgium and France and in Germany, it was only partly conducted. The module was conducted as part of the survey for the second quarter of 1999 (except Sweden, which conducted it partly during the first quarter, and Italy and the United Kingdom, in the third quarter). For the Netherlands, the module was conducted after the results are not included in the current analysis. All in all, 650 000 persons were interviewed in the survey about the occurrence of occupational accidents or the suffering of work-related health problems, during the last 12 months and, if so, about their characteristics.

The LFS ad-hoc module data cover only accidents that occurred at work or during working time (irrespective of the precise workplace or the type of work performed at the time of the accident), during the last 12 months at the date of the interview. Road-traffic accidents, slips and falls are also included as with the ESAW, though accidents while commuting to and from work are excluded. Occupational diseases or illnesses are also excluded from the data on accidents but included in the data on complaints (see below). Unlike the ESAW, the LFS ad-hoc module data also include accidents that did not lead to absence from work or resulted in few than four days’ absence from work.
The data on complaints suffered by the people surveyed include all complaints, irrespective of their severity, considered by them to be caused or made worse by work (self-assessment, different from the medico-legal concept of occupational disease) during the 12 months reference period or, indeed, complaints which are of longer duration so long as they are associated with working, including those due to earlier employment which, where appropriate, continue to affect persons currently non-active (such as a lung disease incurred by a miner perhaps many years before). When a person suffered more than one complaint, only the most severe one from a medical point of view is included in the data on types of complaint.

Germany: number and length of absences from work of accidents and health problems only. Work-related complaints: Spain: “diseases” in the strict sense; Greece: very few data available; Ireland: most recent health problems (musculoskeletal disorders: 93%); United Kingdom: persons having been in employment over the past 12 months; no age limit except in Denmark (65 years), Finland and Sweden (75 years).

The other information normally collected under the LFS is defined in the publication “European Union Labour Force Survey – Methods and Definition – 1998 Edition” – Catalogue No CA-19-98-536-EN-C.

Incidence and prevalence rates

The incidence rate is defined as the number of accidents at work occurred during the year per 100 000 persons in employment. The prevalence rate is the number of work-related health complaints suffered over the past 12 months per 100 000 persons in employment. The reference employment population in each country is based on the Labour Force Survey of the corresponding year. Here the incidence rate is measured in terms of full-time equivalent employment (see below) in order to allow for differences in hours worked both between men and women and between jobs in different sectors of activity.

People are classified to sectors of activity (NACE 1-digit here) and occupations (ISCO-88 1-digit) according to their employment at the time of the accident or complaint suffered.

Full-time equivalent employment

Full-time equivalent (FTE) employment of men and women is estimated by adjusting the number employed in each sector or occupation in the different Member States by the average hours they usually work per week relative to the average hours worked by men and women employed full-time in the EU as a whole. This differs from the usual procedure of defining FTE employment in terms of the usual full-time hours worked in each country separately because the aim is to adjust for differences in working time between Member States as well as between men and women, types of activity and occupations. The full-time hours used in the adjustment are kept constant over time (specifically, average full-time hours in 1998 are also applied to earlier years) in order to allow explicitly for changes in these over time.
Further information:

- **Reference publications**

  Title: Accidents at work in the EU 1998-1999 - Statistics in focus
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