



# Work injuries in children and young people

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**Standardized incidence rate of nonfatal work injuries resulting in more than 3 days absence from work among employees under 18 and between 18 and 24 years of age per 100 000 persons in employment.**

This summary is based on the standardized incidence rate of non-fatal work injuries resulting in more than three days of absence per 100 000 employees in children (under 18 years of age) and young people aged 18–24 years.

## KEY MESSAGE

 During the period 1995–2003, slightly decreasing trends were visible in the standardized incidence rates of work injuries among young workers. A clear decrease could only be noted in a few countries, which indicates that overall progress in Europe is not adequate.

EUROSTAT is the only publicly available international database (1), and the incidence rates in children and young people are difficult to compare because of the limitations in data reporting systems. Urgent action is needed to improve occupational health surveillance across the Region.

The relatively high incidence of workplace injuries (50 000/100 000) in some countries indicates the need for improved working conditions for young employees as well as for eliminating hazardous forms of child labour.

## RATIONALE

For children and adolescents, the effects of work on their health and safety as well as on their physical, mental and intellectual development are different compared with adults. The young employees must be considered as a specific risk group, and relevant measures must be taken to ensure their safety and health. The incidence rates of non-fatal work injuries among young people are outcome indicators of health and safety reflecting the quality of working conditions for these specific risk groups.

## PRESENTATION OF DATA

Figures 1 and 2 present data on changes over time in the standardized incidence rates of non-fatal work injuries among young workers between 1995 and 2003 for 12 EU countries and Norway. The data are derived from the EUROSTAT database (1).

For most countries, there are slightly decreasing trends in the standardized incidence rates of work injuries in both age groups. Among workers aged under 18 years, a falling trend was noticeable in Belgium, Finland and the Netherlands; while in those aged 18–24 years a decreasing trend was visible in Austria, Belgium, Finland, Greece, Italy and the Netherlands. Although the work injury rates for both age groups are tending to fall in Belgium, they remain some of the highest compared to other countries.

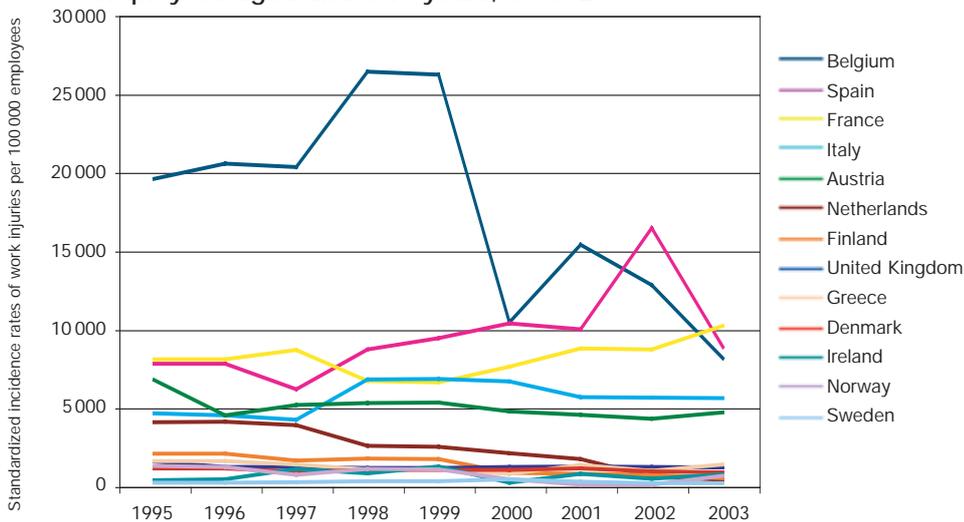
## HEALTH – ENVIRONMENT CONTEXT

Young workers run a higher risk of work injuries arising from lack of experience, limited awareness of existing or potential risks or immaturity (2). Working methods, tools and equipment are normally designed for adults and do not take into account the smaller body size of the child worker. Thus, children and young people are at a greater risk of fatigue, injury and accidents because of ill-fitting tools and safety equipment (3). For example, a survey carried out by the Labour Inspectorate of the Republic of Slovenia shows that among all the non-fatal injuries at work involving young employees in Slovenia, injuries to fingers (e.g. cuts and sprains) are the most frequent. Injuries to feet and ankles, often caused by sprains and objects falling on the feet, come second, followed by injuries to the palms of the hands and the eyes (4).

Furthermore, casual handling of health and safety issues in many forms of temporary employment may result in higher injury rates among young workers who tend to start their working lives in temporary jobs. Across Europe, 18–24-year-olds are at least 50% more likely to have a non-fatal workplace accident than those in older age groups. Most dangerous workplace hazards occur in electricity, gas and construction jobs (3).

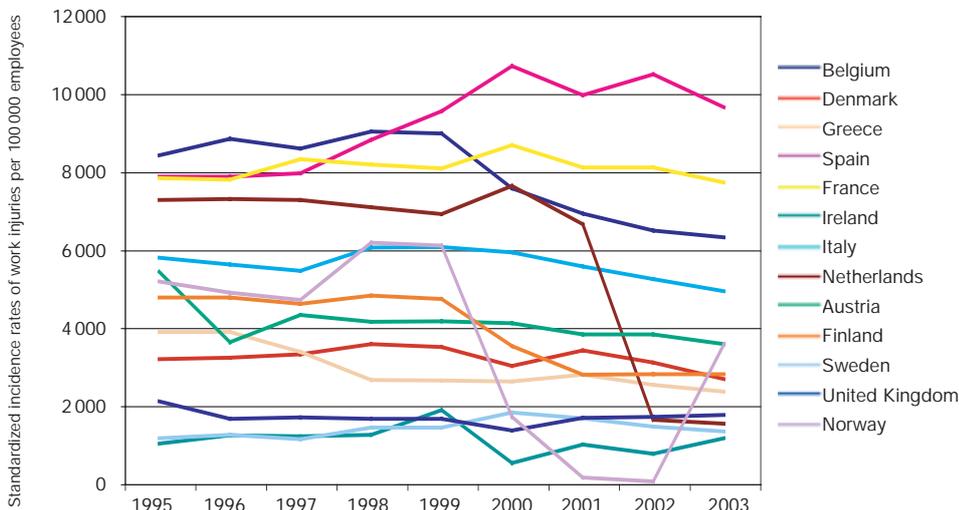
In the long run, adverse health effects are more frequent and severe when exposure occurs during childhood, owing to the higher sensitivity of children's developing organs to toxic agents and other workplace hazards. Various diseases, including chronic musculoskeletal trauma and stress, have serious implications

Fig. 1. Changes in standardized incidence rates of work injuries among employees aged under 18 years, 1995–2003



Source: EUROSTAT (1).

Fig. 2. Changes in standardized incidence rates of work injuries among employees aged 18–24 years, 1995–2003



Source: EUROSTAT (1).

for increased work-related diseases during the later working life. The incidence of work-related injuries among young people does not, therefore, necessarily reflect the long-term effect of work-related factors on the health of young workers (2,4).

Child labour is a relatively under-reported issue and there is a lack of reliable information about the number of child workers in the Region. There are three forms of child labour (5).

1. The worst forms of child labour as recognized by the International Labour Organization (ILO) Convention No. 182 (3). The worst forms of child labour include: (a) slavery, trafficking of children, forced labour and child soldiers; (b) child prostitution and the use of children in pornography; (c) the involvement of children in illicit activities, such as the production and trafficking of illicit drugs; and (d) hazardous labour which, by its nature or the conditions in which it is carried out, is likely to

harm the health, safety and morals of children (3). Unacceptable working conditions encompass activities where children are exposed to chemical agents, noxious fumes and other hazards, occurring at coalmines, farms and plantations, and construction sites (4). Although often thought otherwise, in Europe the worst forms of child labour have far from disappeared (5).

2. "Voluntary" helping-out in domestic settings or undocumented employment. The lack of data, linked to under-reporting of accidents and ill health, for this form of child labour is a global problem. Children perform work that is regarded as helping-out and is seldom recognized in official statistics. It is not known how many children are injured or suffer health problems as a result of work in domestic settings, seasonal jobs and street trading (5).
3. Inexperienced young workers aiming for personal satisfaction.

Children themselves may choose to work as a measure of independence, mainly in seasonal and temporary jobs. This form of youth work may include a positive component allowing children to gain experience of working life (5).

Child labour in all its forms can result in injuries and premature deaths as well as in loss of opportunities for education and social development (5).

## POLICY RELEVANCE AND CONTEXT

Both the WHO Global Strategy on Occupational Health for All and the WHO Global Plan of Action on Workers' Health 2008–2017 recognize child workers and young employees as high-risk groups and recommend the elimination of hazardous forms of labour (6,7).

ILO Convention No. 182 aims progressively to eliminate all forms of child labour which may be a risk to children's health, with priority given to eliminating without delay what are termed the worst forms of child labour. It has been ratified by 163 countries worldwide, including most countries in the Region (3). Regional Priority Goal IV of the Children's Health and Environment Action Plan for Europe aims to reduce the risks of disease and disability arising from, among other things, hazardous working environments during pregnancy, childhood and adolescence and emphasizes elimination of the worst forms of child labour (8).

In the European Union (EU), legislation is enforced to protect young workers' rights to a safe working environment. The Community Strategy on Occupational Safety and Health is based on a preventive approach, which involves improving people's knowledge of work-related health risks through education, awareness and anticipation (9). The strategy acknowledges the need for the commitment of both employers and employees. Implementation of the European strategy is promoted in the surrounding non-EU countries through the EU Neighbourhood Policy, which aims to strengthen and secure well-being in the EU's immediately neighbouring countries (10).

The Framework Directive on Health and Safety at Work (89/391/EEC) states that particular sensitive risk groups must be protected against the dangers which specifically affect them (11). According to the Directive 94/33/EC on young people at work, employers are obliged to guarantee that work is not harmful to the safety, health or development of young people as a consequence of their lack of experience or

awareness of existing or potential risks, or the fact that their body systems are not yet fully mature. Neither must work prevent them attending school. Vocational guidance or training programmes should be available (12).

The protection of children and young people at work requires health and safety promotion campaigns to raise the awareness of both employers and young employees as well as their parents about existing or potential health hazards. These campaigns should be complemented by health education and training for the young people at work. There is a need for surveillance systems to evaluate the effectiveness of legislation and administrative provisions.

## ASSESSMENT

For the reporting period 1995–2003 a slight decrease was observed in work injuries among children and young people and a more pronounced decrease among workers aged 18–24 years. Time trends for the older group shows a marked decline in work injuries and a cluster of countries with relatively low incidence rates (below 5000). There is no clear time pattern for work injuries in those aged under 18 years. Only Belgium, Finland and the Netherlands show a decrease, although the rates for Belgium are rather high.

The absence of a clear decline and the relatively high rates of work injuries provide an indication that overall progress in Europe is not adequate.

The great differences in standardized incidence rates of non-fatal work injuries between reporting countries can partly be explained by the unstable nature of the labour market, especially among children aged under 18 years who change their status throughout the year, for example, working and studying. Work-related injuries among both temporary and regular workers are covered by data collection. However, the Labour Force Survey (LFS) does not count temporary employees as employed persons unless they happen to work during the week of the survey, which is not very likely. This results in a situation in which all work-related injuries are counted, while the population covered by the reporting system (i.e. those working) are only those in regular employment (according to the LFS definition). EUROSTAT work injury statistics cover several economic sectors including the most hazardous workplaces such as electricity, gas and construction work (13). Standardized incidence rates are aggregated, so no conclusion can be drawn about the differential effects of working conditions in the different economic sectors.

## DATA UNDERLYING THE INDICATOR

### Data source

EUROSTAT, Standardized incidence rate of accidents at work by economic activity, severity and age (1).

### Description of data

The EUROSTAT data on incidence rates of working injuries are based on data collected under the European Statistics on Accidents at Work (ESAW) project.

### Method of calculating the indicator

Number of cases of non-fatal injuries among workers aged under 18 years and 18–24 years per 100 000 employees in the same age group.

### Computation:

$$\text{Incidence rate} = \frac{\text{No. of non-fatal accidents}}{\text{No. of employed persons in the studied population}} \times 100\,000$$

Incidence rates were calculated in nine categories of the EU Classification of Economic Activities (NACE): agriculture, hunting and forestry; manufacturing; electricity, gas and water supply; construction; wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods; hotels and restaurants; transport, storage and communication; financial intermediation; real estate, renting and business activities (12,13). A standardized number of accidents at work per 100 000 persons in employment was calculated per member state by giving each category the same weight at national level as in the entire EU (standardized incidence rate) (14).

### Geographical coverage

13 EU countries and Norway reported non-fatal work injury data for workers aged under 18 years, while 15 EU countries and Norway reported data for the group aged 18–24 years. For Germany and Portugal, the incidence rates for workers aged under 18 years were not reported to EUROSTAT and thus could not be presented in this fact sheet. Luxembourg data are not displayed in this fact sheet because of the possibility of statistical bias.

### Period of coverage

1995–2003.

### Frequency of update

Annual data sampling.

### Data quality

Only workers and workplace injury data collected within the ESAW project are included in this assessment. Because of the differences in health care systems and data collecting methods between countries, the data on non-fatal injuries are difficult to compare directly.

Among the group aged under 18 years, at least in developed countries, there are many youngsters who work occasionally either as trainees as part of their studies or during holiday periods from their studies, or who do occasional

work for other reasons. Work injuries among temporary workers (such as seasonal workers) and regular workers are combined in data collection. The LFS does not, however, count temporary workers as employed persons (unless they happen to work during the week of the survey, which is not very likely). This results in a situation in which all work-related injuries for occasional and regular workers are counted, while the denominator only includes regular employed persons according to the LFS definition.

Luxembourg data are not displayed because of the possibility of statistical bias. The number of work-related injuries is rather low per age category and the LFS is based on a small sample for the group aged under 18 years, so the employment figure is probably imprecise. Besides, one third of the working population travels daily from the neighbouring countries.

## SUGGESTIONS FOR FURTHER MONITORING

It is particularly important to improve the monitoring of work injuries among, and the working conditions of young employees. To make the data more comparable and informative, only the regular workers should be counted when the incidence rates are calculated, so that the self-employed, trainees, etc. are excluded. The calculation should be based on the denominator of full-time equivalents. But for those aged 18 years and under, the LFS-based data will always remain biased as the labour market situation among these youngsters change so many times during a year. It will be instructive to look more closely at what forms of child labour exist in the western and eastern parts of the Region. Understanding and identifying the similarities and

differences between countries and sub-regions will help in laying the foundations of future strategies, policies and action plans. A pan-European information system on workers' health would be necessary to ensure reliable information on the health and safety of the working population, including the high-risk groups of children and young people. The system will support the identification of occupational health problems across the Region, the planning and monitoring of effective interventions to improve working conditions and, ultimately, the reduction and prevention of work injuries.

Efforts should be targeted at the development of methods and instruments, for example, surveys or proxy measures to deal with under-reporting and illegal work among children and young people.

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