Accidents at work

Introduction

Annually almost 5% of total medical expenditure is used for the medical treatment of injuries (ICD-10: S00-T98) [Statistisches Bundesamt 2010 (Federal Statistical Office)]. According to estimates by the Federal Institute for Occupational Safety and Health 8.6 million people were injured in 2013 due to accidents. Among them were about a million notifiable accidents in the work place [Bundesanstalt für Arbeitsschutz und Arbeitsmedizin - 2013].

It is only possible to partially map accident events in Germany on the basis of official statistics. One reason for this is that significant areas are not being systematically recorded. For example, accidents at work only need to be reported if they lead to incapacity to work for more than three days. Furthermore, it is not possible to derive population-based prevalences on the basis of those accidents at work reported [Bundesanstalt für Arbeitsschutz und Arbeitsmedizin 2014]. Representative surveys provide an overview of non-fatal accidents [Robert Koch-Institut 2013, Varnaccia et al. 2014] and are therefore an important addition to providing information on accidents in the workplace. The following analyses rely on data of the representative survey German Health Update (GEDA) 2012.

Indicator

The collection of data regarding the prevalence of non-fatal injuries took place in several stages. Initially, the survey asked: "Have you, in the past 12 months, had an injury or case of poisoning, which required medical treatment?" Thereafter a differentiation was made between intentional and unintentional injuries. The proportion of people was evaluated who, within the past 12 months, had suffered an unintentional injury in the workplace and as a result had sought medical help. Commuting accidents do not count in this analysis as work-related accidents.

Key results

- In 2012, 2.6% of people in gainful employment aged between 18 and 70 years in Germany suffered an accident at work, which required medical treatment.
- Working women suffer significantly fewer accidents at work (1.3%) than men (3.7%). More than three quarters of all accidents at work are suffered by male employees.
- Work accidents occur most frequently in occupations involving high physical stress and high risk activities.

Classification of findings

In 2012, 2.6% of people in gainful employment aged between 18 and 70 years in Germany suffered an accident at work, which required medical treatment (Table 1). Extrapolated, this corresponds to a figure of more than one million people.

Figures reported by the bodies responsible for statutory accident insurance regarding accidents requiring official reporting tend to be below the estimates based on the GEDA studies [Rommel et al. 2016]. In 2012, 969.860 accidents were reported to bodies responsible for statutory accident insurance [Bundesanstalt für Arbeitsschutz und Arbeitsmedizin 2014]. This difference comes about due to the fact that less serious accidents are included in the GEDA studies, which result in an incapacity for work of less than three days and thus are not covered under the obligation to report accidents within the context of statutory accident insurance rules.

Employed women are significantly less frequently affected by accidents than men, i.e. 1.3% compared to 3.7% (Table 1). More than three quarters of all persons injured by accidents at work are therefore men. The elevated accident rates among employed men can mainly be attributed to the fact that they more frequently exercise high risk and physically stressful occupations [Varnaccia et al. 2014, Saß & Rommel 2016]. In addition, it is evident that the prevalence of work-related accidents in physically stressful activities is increased (Figure 1).

It has to be taken into account as part of the gender comparison regarding accidents at work that gainfully employed women are much more likely than men to be in part-time or marginal employment (2014: 57.8 v. 20.1) [Wagner 2015]. They are therefore, on average, exposed to the risks of having accidents at work for shorter periods. However, there is still a higher risk of accidents at work for men, if the working time influence is statistically controlled.

In addition to the differences between women and men, work accidents among employees with higher professional status are significantly rarer than for workers with lower job status. Previous evaluations based on GEDA 2010 showed that accidents at work in fields of activity with a customarily high professional status, such as management and engineering, are very rare. Accident-prone occupations such as manual or agricultural jobs, however, often have a low or medium professional status [Rommel et al. 2016]. This is mainly attributable to the distribution of activities hazardous to health. These characterise the activity in occupations with low professional status significantly more often than in occupations with high status [Kroll 2011].

The incidence of accidents at work in Germany is therefore largely determined by work-related factors. Other risk factors such as the existence of chronic disease or risk behaviours such as alcohol and tobacco consumption are admittedly being discussed internationally [Palmer et al. 2008, Ramchand et al. 2009] , they do not however, according to the evaluations based on GEDA 2010, constitute risk factors with regard to accidents at work in Germany. Among health-related factors, only obesity and physical inactivity increase the risk of accidents at work [Rommel et al. 2016]. The importance of physical fitness has already been discussed in detail in the field of health and safety at work with regard to the prevention of accidents and excessive stress [Deutsche Gesetzliche Unfallversicherung 2012, Fischer et al. 2008]. In particular, risk assessment that takes into account individual activities and resources, therefore represents the most important field of activity for the prevention of accidents at work even in the future.

Note: A detailed description of the study, as well as methodological notes can be found on the GEDA study website at www.geda-studie.de - as well as under RKI (2012).
Additional results regarding accidents and injuries in adults and children in German can be found under RKI (2013), RKI (2015), Saß et al. (2016), Saß et al. (2014), Varnaccia et al. (2014a) and Varnaccia et al. (2014b).

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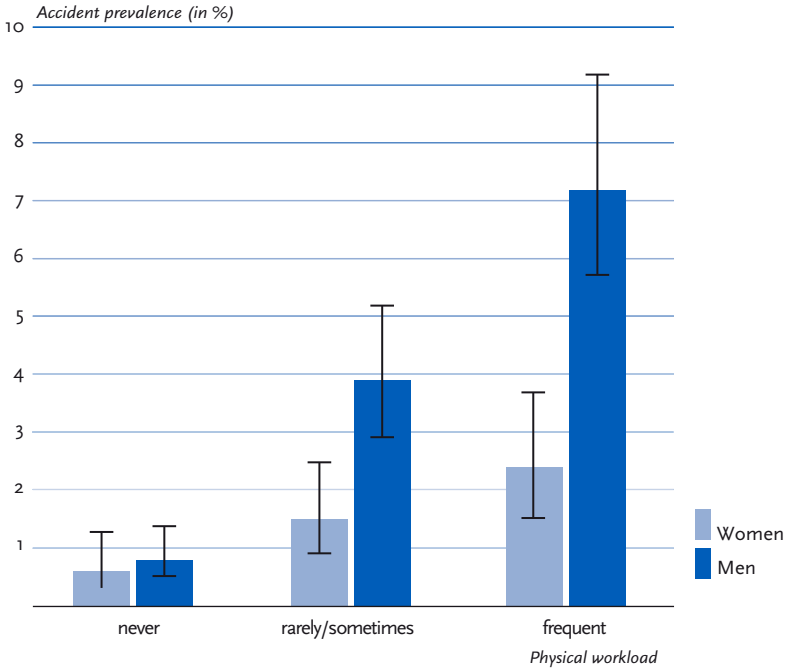
Table 1
Accidents at work among employed men and women according to age (in %; ≥ 70 years)
GEDA 2012, own calculations

	Women		Men		Total	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Age group						
18–29 years	**1.3**	(1.0–1.8)	**3.7**	(3.1–4.47)	**2.6**	(2.2–3.0)
30–44 years	**2.3**	(1.4–3.7)	**4.2**	(2.9–6.1)	**3.4**	(2.5–4.5)
45–59 years	**1.5**	(0.9–2.4)	**4.7**	(3.5–6.1)	**3.2**	(2.5–4.0)
50–59 years	**0.8**	(0.4–1.6)	**3.0**	(2.2–4.0)	**1.9**	(1.5–2.6)
60–70 years	**0.6**	(0.1–2.4)	**1.7**	(0.8–3.4)	**1.3**	(0.7–2.4)

Figure 1
Prevalence of work-related accidents among employed persons by gender and work load (work involving more burdensome physical positions)
GEDA 2012, own calculations



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