Impact of high-risk jobs on long-term work absence

Long-term work absence is an issue of concern among employers and employees in the Netherlands. Disparities between occupations in terms of sick leave cannot be explained by differences in the characteristics of the workers, the job, the company or the working conditions. After adjusting for these factors, occupation remains an independent predictor of long-term work absence, with police officers, firefighters and security guards at highest risk.

Health and cost concerns

In the Netherlands, about 250,000 to 300,000 employees are absent from work for at least 13 consecutive weeks a year. This situation makes the prevention of long-term sick leave an important issue, not only for the employee but also for employers, since employers are responsible for paying absent workers during the first 104 weeks of the absence period.

A recent study (Houtman et al, 2007) showed that work absence differs highly between occupations. In a further study by the Netherlands Organisation for Applied Scientific Research (Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek, TNO) (Hooftman and Ybema, 2008), the analysis therefore examined whether these differences can be explained by personal characteristics of the workers, aspects of the job, company characteristics and working conditions, or whether the occupation itself is an independent predictor of absence. Since long-term sick leave is a major cost factor, this was the main focus of the study.

About the study

Data on long-term work absence of 13 weeks or more, registered by the Social Security Administration (Uitvoeringsinstituut Werknemers Verzekering, UWV), were combined with data on personal characteristics, job characteristics, company characteristics and working conditions measured in the Netherlands Working Conditions Survey (Nationale Enquête Arbeidsomstandigheden, NEA) (van Hooff et al, 2008). This was done prospectively – in other words, only work absence in the 12 months after the completion of the NEA was considered.

Occupation as a predictor of long-term work absence

On average, 2.8% of the employees had been absent from work for a long-term period (Table 1). Long-term absence was significantly higher than average in 11 occupations. About one in seven employees (14%) works in one of these high-risk occupations, and together the high-risk occupations are responsible for 23% of long-term sick leave.

Within the high-risk occupations, the proportion of long-term sickness absence ranged from 3.7% for builders, carpenters and other construction workers to 6.4% for workers in home care. This means that home care workers have a more than 2.5 times higher chance of going on long-term work absence than the average employee (odds ratio = 2.68).

Table 1: High-risk occupations for long-term work absence

Occupation	% of workers long-term absent	No. of workers long-term absent	Unadjusted		Adjusted	
			Odds ratio	95% CI	Odds ratio	95% CI
Workers in home care	6.4%	3,540	2.68	(1.75–4.10)	1.83	(1.16–2.88)

Police officers, firefighters and security guards	5.5%	6,852	2.33	(1.73–3.16)	2.17	(1.56–3.03)
Nurses in home care	5.3%	1,894	1.83	(1.06–3.19)	1.44	(0.81–2.57)
Care workers in other sectors	5.3%	2,467	1.85	(1.08–3.15)	1.76	(1.01–3.05)
Nurses in other sectors	5.0%	4,873	1.7	(1.18–2.45)	1.42	(0.96–2.10)
Caretakers and cleaning workers in buildings	4.9%	5,098	1.76	(1.16–2.67)	1.29	(0.83–2.02)
Bus and train drivers, sailors	4.7%	2,320	1.84	(1.04–3.28)	1.28	(0.70–2.35)
Care workers in (nursing) homes	4.7%	2,541	1.9	(1.17–3.08)	1.33	(0.80–2.23)
Primary school teachers	4.0%	5,691	1.42	(1.05–1.93)	1.36	(0.96–1.95)
Nurses in (nursing) homes	3.9%	4,290	1.48	(1.02–2.13)	1.12	(0.75–1.68)
Builders, carpenters and other construction workers	3.7%	6,760	1.44	(1.01–2.05)	1.32	(1.00–1.74)
Average for all occupations	2.8%	198,072				

Notes: CI = confidence interval. Only occupations that were high-risk occupations in the unadjusted analyses are shown. The adjusted data take into account personal, job and company characteristics, as well as working conditions.

Source: NEA 2005-2006 and UWV 2006-2007

Disparities between occupations could not be explained by differences in personal characteristics of the workers, job characteristics, company characteristics or working conditions. After adjusting for these factors, the occupation remains an independent predictor of long-term work absence, with the highest risk of such absence being found among police officers, firefighters and security guards. This group has a more than twofold higher risk than average of going on long-term sick leave (odds ratio = 2.17). It thus seems as if the occupation itself has, at least partly, an independent effect on long-term work absence.

Influence of other factors

Nevertheless, personal characteristics, aspects of the job, company characteristics and working conditions do influence the likelihood of long-term work absence. Women and workers with a low educational level have a higher chance of being absent from work, while the likelihood of long-term absence increases with age (Table 2). However, the best predictor of long-term sick leave is the health of an employee. Both poor general health and a chronic condition mean a higher risk of long-term work absence. The influence of working conditions on such absence is limited. Only the following aspects of working conditions lead to a greater risk of long-term absence: less autonomy, more repetitive movements and working with dangerous substances on an almost daily basis.

Table 2: Other factors as significant predictors of long-term work absence

Predictor	Odds ratio	95% CI
Gender		
Female	1.38	(1.26–1.50)
Male	0.73	(0.67–0.79)
Age (years)	1.02	(1.02–1.03)
Educational level		
Low	1.13	(1.01–1.25)
Medium	0.98	(0.90–1.07)
High	0.91	(0.81–1.01)

General health		
Bad	1.55	(1.38–1.74)
Good	0.98	(0.90–1.06)
Very good	0.66	(0.59–0.74)
Chronic condition		
No	0.81	(0.74–0.89)
Yes, but no work limitations	0.94	(0.85–1.05)
Yes, and work limitations	1.31	(1.19–1.44)
Employment contract		
Permanent contract	1.40	(1.13–1.74)
Temporary contract (waiting for permanent)	1.18	(0.87–1.61)
Temporary contract (fixed-term)	0.81	(0.55–1.18)
Temporary agency contract	0.52	(0.27–0.99)
On-call contract	0.68	(0.38–1.23)
Sheltered employment	2.11	(1.33–3.36)
Working hours according to contract (hours)	1.01	(1.01–1.02)
Company size		
1–4 employees	0.86	(0.66–1.14)
5–9 employees	0.74	(0.59–0.93)
10–49 employees	1.04	(0.91–1.18)
50–99 employees	1.19	(1.03–1.39)
100–499 employees	1.10	(0.96–1.25)
500–999 employees	1.05	(0.86–1.29)
1,000 employees	1.08	(0.92–1.27)
Autonomy (scale 1=high autonomy, 3=low autonomy)	1.18	(1.03–1.36)
Repetitive movements (scale 1=never, 4=very often)	1.10	(1.03–1.18)
Dangerous substances (almost daily)	1.09	(1.00–1.17)

Sources: NEA 2005–2006 and UWV 2006–2007

Overall, about 7% of the variations between employees regarding long-term work absence can be explained by differences in occupation, personal characteristics, job characteristics, company characteristics and working conditions.

Conclusion

Although these results do not show exactly what employers or employees should do in order to prevent long-term sick leave, they underline that its prevention should also focus on occupations. Considering the large influence of high-risk occupations in long-term work absence, it is recommended that these jobs should be examined first.

References

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