European Agency for Safety and Health at Work

Work-related musculoskeletal disorders: prevalence, costs and demographics in the EU

National report: Hungary

European Agency for Safety and Health at Work

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Cataloguing data can be found on the cover of this publication.

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Summary

Prevalence of MSDs

- The percentage of both Hungarian men and women workers reporting that their work affects their health is lower (29 % and 23 %, respectively) than the average levels for the 28 EU Member States (EU-28) (39 % and 35 %, respectively).
- The percentages of Hungarian workers affected by back pain, muscular pain in the lower limbs and muscular pain in the shoulders, neck and/or upper limbs were lower than the EU-28 average.
- Concerning incidence rates of occupational diseases, national data from the Occupational Health Department of the National Public Health Centre show that the highest incidence rate is for diseases linked to biological agents (2.8 per 100,000 employees), followed by skin diseases (0.9 per 100,000 employees). Musculoskeletal disorders (MSDs) are in third place, with an incidence rate of 0.81 per 100,000 employees.

Impact of MSDs

- With regard to the costs and other burdens related to MSDs, the available data on disability-adjusted life years (DALYs) show that the number of years of life lost and lived with disability resulting from work-related MSDs per 100,000 workers represents a higher percentage of the total number of years of life lost and lived with disability due to other reasons (cancer, circulatory problems, injuries, etc.) than the EU-28 average.
- According to the available national data, MSD-related benefits paid to more than 2.8 million patients by the National Health Insurance Fund of Hungary (NEAK) amounted to a total of EUR 360,867,297 in 2017. The number of patients remained relatively stable during the period 2015-2017, whereas the amount of benefits saw a remarkable upwards trend. Most of the benefits are paid to patients with two main types of MSD-related diagnoses, namely arthropathies and dorsopathies. The available resources are primarily spent on two main groups: women (66 % of total benefits) and those aged 60 and over (around 60 % of total benefits).
- Available data show that a higher percentage of people in Hungary have reported a period off work as a result of a work-related health problem resulting in sick leave than the EU-28 average. Available data also show that Hungarian workers have longer periods of absenteeism than the EU-28 average.
- A lower percentage of Hungarian employees work in companies that support employees to return to work after long-term sickness than the EU-28 average (37 % compared with 72 %).

Risk factors for MSDs

- A large percentage of Hungarian employees are exposed to physical factors at work that may put them at risk of MSDs. The most important physical risks factors include standing, repetitive hand/arm movements and working in sitting positions. A comparison with EU-level data shows that the relative importance of the different physical risk factors is similar in Hungary, although Hungarian employees report that they are less exposed than their EU counterparts to most important physical risks.
- According to national sources, regarding the numbers of workers affected by the different physical factors, the most important physical factor is working with visual display screens, which affects 24.2 % of Hungarian workers, followed by carrying out heavy physical work (4.2 % of workers). In 2017, 3.1 % of Hungarian workers were treated for MSDs by the occupational health services.

- Organisational and psychosocial risk factors also play a role as potential triggers of MSDs. The most relevant of these factors among Hungarian employees is working at very high speed, followed by tight deadlines and by the pace of work being under the direct control of their boss. Other relatively important risk factors include the pace of work being dependent on other people's demands, difficulties with sleep and overall fatigue. A comparison with EU-level data shows that the most relevant organisational and psychosocial risk factors are pretty much the same in Hungary as in the EU as a whole, although the pace of work being under the direct control of the boss is much more relevant for Hungarian employees than for their EU counterparts.

Prevention of MSDs

- Surveys of enterprises suggest that Hungarian employees benefit less from measures aimed at preventing MSDs in their workplaces than is average in the EU-28, particularly in relation to the provision of equipment that helps with lifting or moving, encouraging regular breaks for people who work in uncomfortable working positions and the provision of ergonomic equipment. In contrast, the extent of the introduction of rotation of tasks to reduce repetitive movements is slightly higher in Hungary than in the EU-28. Meanwhile, the percentage of Hungarian employees working in companies that provide training in their establishments on several preventive activities is lower than the EU-28 average.

1 Introduction

1.1. Background

This is the national musculoskeletal disorders (MSDs) facts and figures overview report for Hungary ([1]). This national report is part of a much larger project, '**MSDs facts and figures overview: prevalence, costs and demographics of MSDs in Europe**', intended to support policy-makers at EU and national levels by providing an accurate picture of the prevalence and costs of MSDs across Europe, pulling together existing data from a number of relevant and reliable official statistical sources. This national report is considered complementary to the overview report covering the EU as a whole, *Work-related musculoskeletal disorders: prevalence, costs and demographics in the EU – Final report* ([2]).

The European Agency for Safety and Health at Work (EU-OSHA), aware of the limits of EU data sources related to MSDs, decided to complement and enrich EU-level findings with national data and analyses. This national report is not intended to provide a comprehensive and exhaustive national overview of MSDs. Rather, the main criteria followed in relation to gathering national data were to identify and focus on national MSD-related information that is either not available at EU level or complementary to existing data. Moreover, EU-OSHA considers that making the information/data identified at national level accessible to the European occupational safety and health (OSH) community and Member States (by publishing it in English) is also important. By sharing this national data at EU level, EU-OSHA aims to improve knowledge on the MSD topic among policy-makers, OSH professionals and national authorities in general.

This national report is structured into five chapters, including this introductory chapter, Chapter 1. Chapter 2 presents some data on the prevalence of MSDs among national workers, as well as information on MSD-related occupational diseases. Chapter 3 analyses the impact of MSDs, presenting information on health, work and employment outcomes (including information on costs linked to MSDs). Chapter 4 identifies several risk factors underpinning MSDs, including physical as well as organisational/psychosocial and sociodemographic risk factors. Chapter 5 provides some information related to activities carried out by enterprises/establishments intended to prevent MSDs within the workforce, including training and support activities to help workers returning to work. Finally, the report lists the main national data sources on MSDs along with (when possible) links through which this information can be accessed. All chapters follow the same structure: each chapter presents national data on MSDs based on EU-level data sources and these data are subsequently complemented with information from national data sources (if any). This has been done to ensure that all reports contain a minimum level of basic information, harmonised for all the Member States analysed.

The structure of this national report is the same as that of the general European overview report (mentioned above), and readers are invited to consult the information available in the equivalent chapter of the general European report for a more comprehensive overview of the issues addressed in this national report.

From a methodological perspective, the information presented in this report comes from national data sources based either on surveys or on administrative data related to the issue of MSDs. This national information has been complemented in some cases with information from European/international data sources to allow comparisons between national and EU-level results.

([1]) Information about the occupational safety and health system in Hungary is available at: https://oshwiki.eu/wiki/OSH_system_at_national_level_-_Hungary

([2]) This report is available at: https://osha.europa.eu/en/publications/msds-facts-and-figures-overview-prevalence-costs-and-demographics-msds-europe/view

1.2. Causes and consequences of MSDs: a framework

1.2.1 Main sources of information on MSDs

MSDs refer to impairments of bodily structures such as muscles, joints, tendons, ligaments, nerves, cartilage, bones and the localised blood circulation system (EU-OSHA, 2002) ([3]). If MSDs are caused or aggravated primarily by work and by the effects of the immediate environment in which work is carried out, they are known as work-related MSDs.

The two main sources of information and data regarding MSDs are surveys based on self-reporting and administrative data.

In the case of self-reporting, people are asked whether or not they suffer from an MSD (either in general or a specific type of MSD). When assessing the prevalence of MSDs through surveys, it is customary to ask about the part of the body affected by health complaints and not about the clinical nature of the complaint.

Questions regarding the prevalence of MSDs are included in different surveys. The formulation of the questions used varies between surveys, and also between different waves of these surveys. These differences are likely to result in different outcomes.

Another important source of information is administrative data. Two examples of available administrative data are:

- data on the number (and proportion) of occupational diseases recognised to be due to diseases of the musculoskeletal system and connective tissue;
- data on declared work-related accidents.

Estimates of MSD prevalence based on self-reporting may include people with relatively mild health complaints as well as people with severe health complaints. Statistics based on administrative data are likely to include only people with more severe health complaints (severe enough to result in the complaint being recognised as an occupational disease).

1.2.2 A multidimensional model of MSDs

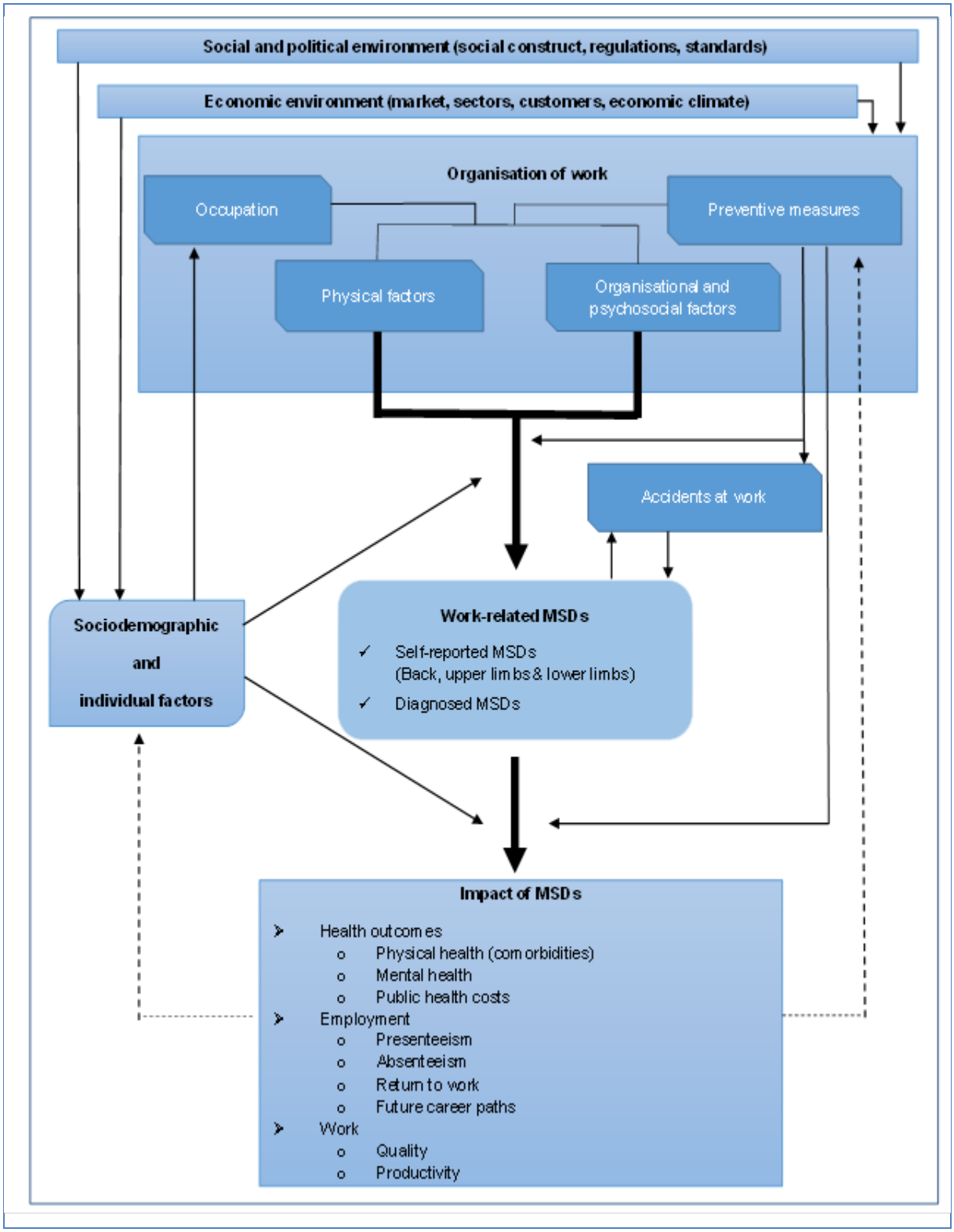
MSDs can be caused by many different (combinations of) factors and may have many different consequences. Figure 1 shows the main causes and consequences of MSDs that have been identified in previous studies.

The objective of this national report is to present additional country-specific information regarding the following aspects of the framework depicted in Figure 1:

- the prevalence of MSDs;
- the impact of MSDs;
- risk factors for MSDs;
- the prevention of MSDs.

([3]) EU-OSHA — European Agency for Safety and Health at Work, 'Introduction to work-related musculoskeletal disorders', *Facts 71*, 2002. Available at: https://osha.europa.eu/sites/default/files/publications/documents/en/publications/factsheets/71/Factsheet_71_-_Introduction_to_work-related_musculoskeletal_disorders.pdf

Figure 1: Theoretical framework of work-related MSDs



Note: theoretical framework developed by Panteia, vhp performance and IKEI

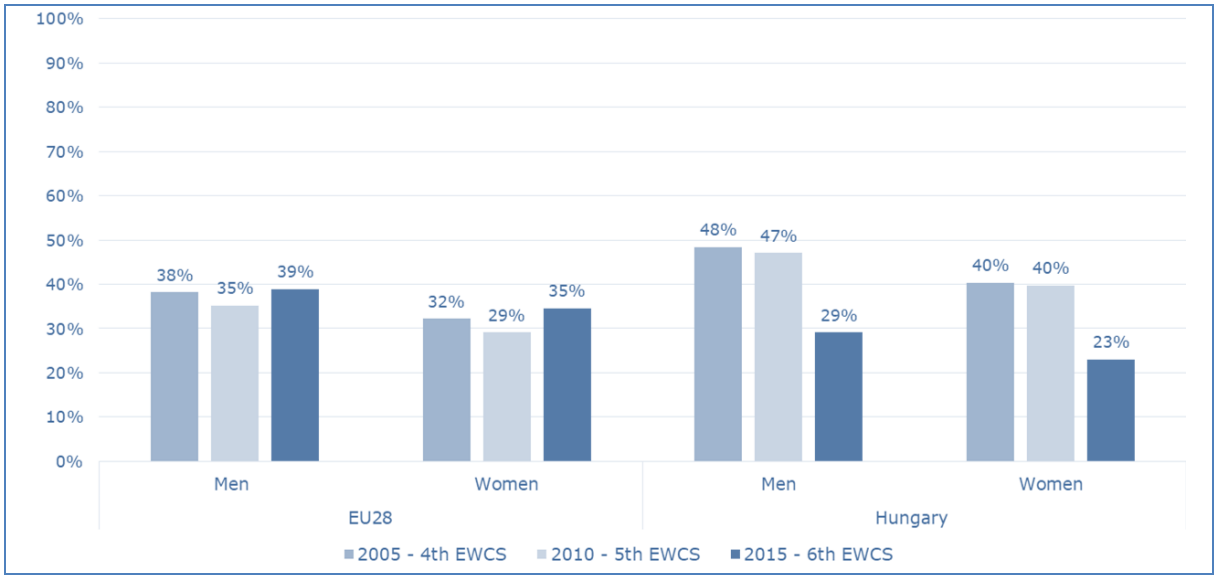
2 Prevalence of MSDs

2.1 Self-reported MSDs

In this chapter, an overview of the prevalence of MSDs in Hungary and in comparison with the EU-28 is presented.

First, Figure 2 illustrates the percentages of workers, by gender, in Hungary who report that their work affects their health. Around 29 % of men and 23 % of women report that their work affects their health (data for 2015); both percentages are lower than the corresponding EU-28 averages (39 % and 35 %, respectively). There has been a remarkable downwards trend in this perception among Hungarian workers since the surveys carried out in 2005 and 2010.

Figure 2: Percentages of workers who reported that their work affects their health in the EU-28 and Hungary, by gender, in 2005, 2010 and 2015



Source: Panteia, based on data from the 2005, 2010 and 2015 waves of the European Working Conditions Survey (EWCS) ([4])

The main focus is on three specific categories of MSDs, namely back pain, muscular pain in the upper limbs and muscular pain in the lower limbs.

Figure 3 shows the percentages of workers who reported back pain in the past 12 months in the EU-28 and in Hungary. According to the available information, back pain is less prevalent in Hungary than in the EU-28, which is confirmed by the last two waves of the European Working Conditions Survey (EWCS 2010 and 2015). In 2015, 27 % of Hungarian workers reported back pain in the past 12 months, whereas this percentage was 43 % in the EU-28.

([4]) Eurofound (European Foundation for the Improvement of Living and Working Conditions), EWCS. Information about the survey is available at: https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys

Figure 3: Percentages of workers who reported back pain in the past 12 months in the EU-28 and Hungary, in 2010 and 2015

Source: Panteia, based on data from the 2010 and 2015 waves of the EWCS

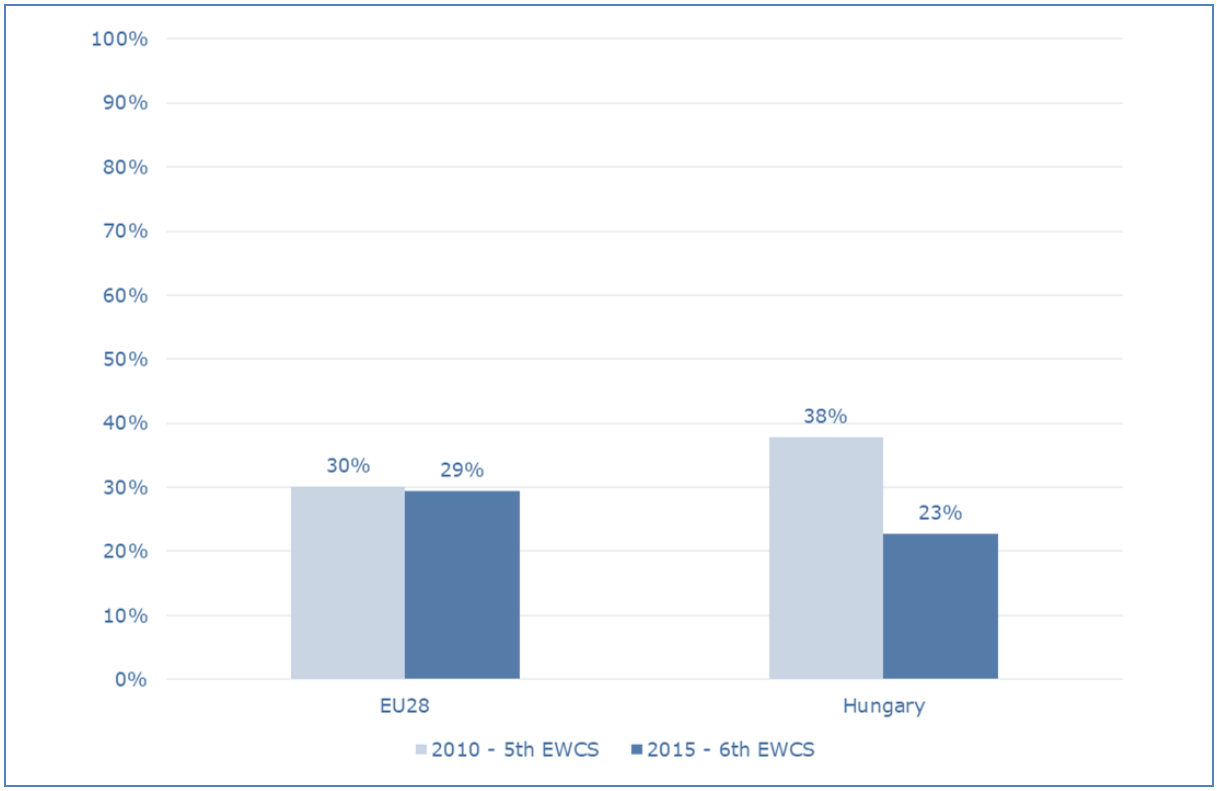
Figure 4 illustrates the percentages of workers who reported muscular pain in the shoulders, neck and/or upper limbs in the past 12 months in the EU-28 and in Hungary. According to the available data, the percentage of Hungarian workers reporting this type of muscular pain was 30 % in 2015, which was lower than that in the EU-28 (41 %). The percentages for Hungary have shown a remarkable downwards trend since 2010.

Figure 4: Percentages of workers who reported muscular pains in the shoulders, neck and/or upper limbs in the past 12 months in the EU-28 and Hungary, in 2010 and 2015

Source: Panteia, based on data from the 2010 and 2015 waves of the EWCS

Finally, Figure 5 presents the percentages of workers who reported muscular pain in the lower limbs in the past 12 months in the EU-28 and in Hungary. The available data show that the percentage of Hungarian workers reporting being affected by this type of muscular pain was 23 % in 2015, slightly below the figure for the EU-28 (29 %). Again, a remarkable decrease is apparent between 2010 and 2015 in the Hungarian data.

Figure 5: Percentages of workers who reported muscular pains in the lower limbs in the past 12 months in the EU-28 and Hungary, in 2010 and 2015



Source: Panteia, based on data from the 2010 and 2015 waves of the EWCS

2.2 MSD-related occupational diseases

Using national data, the Occupational Health Department of the National Public Health Centre (NNK-MFF) ([5]) provides information on incidence rates of registered occupational diseases per 100,000 employees (Table 1). Unfortunately, the quality of this register is considered to be rather low; however, it is the only national data set for occupational diseases. According to this source, the highest incidence rate is for diseases linked to biological agents (2.8 per 100,000 employees), followed by skin diseases (0.9 per 100,000 employees) (2017 data). MSDs are in third place, with an incidence rate of 0.81 per 100,000 employees. Focusing on the trend in the MSD incidence rate since 2008 onwards, 2012 had the lowest rate (0.3 per 100,000 employees), whereas 2009 had the highest (1.1 per 100,000 employees). In any case, it must be said that the overall reporting rate for occupational diseases is low and the true figures could be several times higher.

([5]) National Health Insurance Fund of Hungary — Register of occupational diseases and excessive exposures (Foglalkozási betegségek és fokozott expozíciós esetek nyilvántartása) (no Internet access)

Table 1: Incidence rates of registered occupational diseases per 100,000 employees, 2008-2017

Type of occupational disease or disorder	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Diseases due to chemical exposures (toxicity)	0.1785	0.2764	0.5842	0.2437	0.0595	0.6979	0.2485	0.2412	0.2848	0.3046
Noise-induced hearing loss	0.1487	0.1229	0.2767	0.5788	0.0595	0.0291	0.0552	0.3484	0.1036	0.2031
MSDs (except vibration-induced)	0.7734	1.1057	0.8609	0.5484	0.3572	0.4362	0.6351	1.0719	0.9839	0.8122
Disorders due to vibration	0.1190	0.2150	0.1845	0.0609	0.0000	0.0291	0.0828	0.1072	0.1295	0.1015
Respiratory diseases	4.2537	3.5320	3.2284	2.2240	1.4288	1.2214	1.7119	1.3130	0.4661	0.4569
Skin diseases	1.4278	0.5528	0.4612	0.6702	0.6549	0.4653	0.5522	1.4738	0.7768	0.9391
Diseases due to biological agents	1.3683	1.8735	2.7364	3.1075	0.9823	1.9193	1.7671	2.8405	3.2107	2.8173

Note: the reporting rate for occupational diseases is low. The true figures could be several times higher.

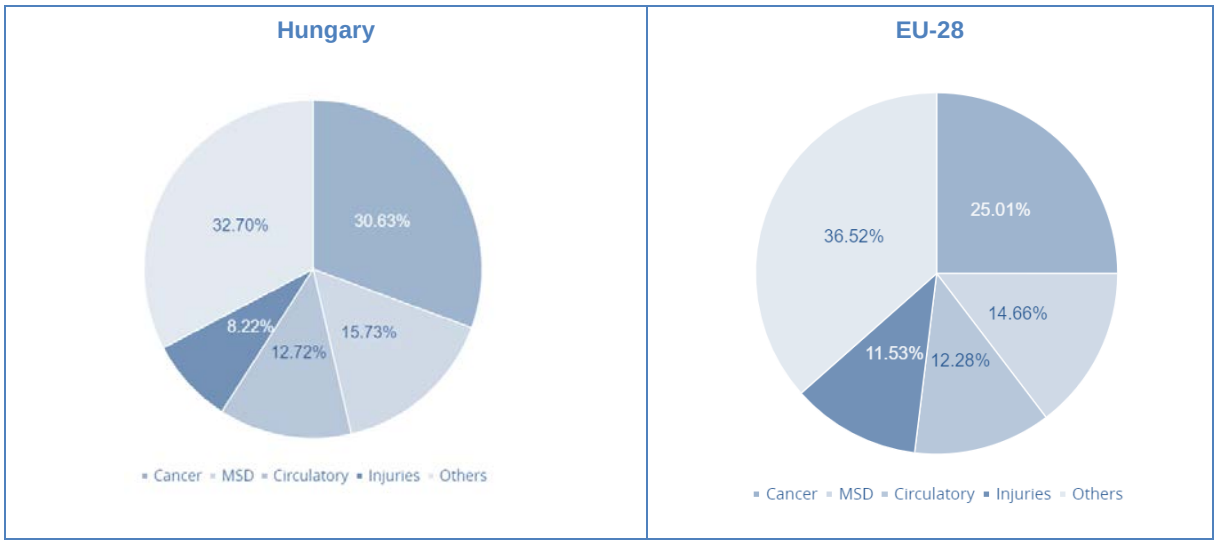
Source: Kudász, F., Nagy, K. and Nagy, I. (2017): Occupational Diseases in Belgium, the Czech Republic and Hungary - A Comparison. Centr. Eur. J. Occ. Env. Med. 23(1-2):32-49. Available at: https://www.nnk.gov.hu/cejoem/Volume23/Vol23No1-2/23_1-2_Article_02.pdf

3 Impact of MSDs

3.1 Health outcomes

With regard to costs and burdens related to MSDs, the available data([6]) on DALY rates ([7]) show that the number of years of life lost and lived with disability resulting from work-related MSDs represent 15.73 % of the total number of years of life lost and lived with disability due to other reasons (cancer, circulatory problems, injuries, etc.), which is slightly higher than the EU-28 average (14.66 %) (see Figure 6).

Figure 6: Distribution of years of life lost and lived with disability (DALYs) per 100,000 workers, by main work-related illnesses in Hungary and the EU-28, 2017



Source: Panteia, based on EU-OSHA, data visualisation, 'The economics of occupational safety and health', 2017. Available at: https://visualisation.osha.europa.eu/osh-costs#!/eu-analysis-illness

The data set out above can be complemented with some national data related to the impact of MSDs on the benefits paid to patients by the National Health Insurance Fund of Hungary (NEAK) ([8]). According to the available data, the MSD-related benefits paid in 2017 amounted to EUR 360,867,297, paid to more than 2.8 million patients. The number of patients remained relatively stable during the period 2015-2017, whereas the amount of benefits saw a remarkable upwards trend.

([6]) EU-OSHA, data visualisation, 'The economics of occupational safety and health', 2017. Available at: https://visualisation.osha.europa.eu/osh-costs#!/eu-analysis-illness

([7]) A DALY is the sum of years of life lost (YLL) because of work-related death and years of life lived with disability (YLD) due to work-related injury and illness. DALY rate refers to DALYs per 100,000 workers.

([8]) National Health Insurance Fund of Hungary (NEAK) — Database of the National Health Insurance Fund of Hungary (A Nemzeti Egészségbiztosítási Alapkezelő — NEAK adatbázisa) (No Internet access)

Table 2: Number of MSD patients and related benefits (in euros) paid by NEAK by type of MSD in Hungary, 2015-2017

ICD-10 diseases	Number of patients (*)			Benefits paid by NEAK related to patients (euros)		
	2015	2016	2017	2015	2016	2017
Mononeuropathies of upper and lower limb (G56-G57)	40,069	42,514	43,571	3,296,945	4,058,785	5,045,575
Arthropathies (M00-M25)	1,900,724	1,924,393	1,892,183	138,050,687	148,505,677	161,276,660
Systemic connective tissue disorders (M30-M36)	32,098	32,339	31,322	5,669,738	6,384,457	7,606,417
Dorsopathies (M40-M54)	2,117,731	2,126,626	2,059,367	111,047,889	116,808,497	131,181,688
Soft tissue disorders (M60-M79)	647,293	668,050	658,835	14,001,916	15,591,242	18,720,733
Osteopathies and chondropathies (M80-M94)	679,979	681,437	671,958	30,367,255	31,215,804	32,391,173
Other disorders of the musculoskeletal system and connective tissue (M95-M99)	31,448	27,829	25,729	4,129,942	4,004,494	4,645,051
Total MSDs	2,784,132	2,803,272	2,778,987	306,564,371	326,568,956	360,867,297

(*) One patient may have more than one ICD-10 diagnosis Note: Exchange rate: EUR 1 = HUF 323.55 Source: NEAK, ad hoc analysis

The available data also show that most of the benefits are paid to patients with two main types of MSD-related diagnoses, namely arthropathies (M00-M25) and dorsopathies (M40-M54), with benefits amounting to EUR 161,276,660 and EUR 131,181,688, respectively, or 44.7 % and 36.4 %, of the total benefits paid in 2017.

Interestingly, most MSD-related benefits paid by NEAK are for treatment (both hospital and non-hospital treatment), obviously for the two most important types of diseases, arthropathies and dorsopathies. It is worth noting that non-hospital treatment-related benefits are particularly high for dorsopathies, as are spa-related benefits

Table 3: Amount of MSD-related benefits paid by NEAK related to patients, by type of MSD and type of expense (in euros), Hungary, 2017

ICD-10 diseases	Hospital treatment	Non-hospital treatment	Other	Spa	Medication	Medical aids	Total
Mononeuropathies of upper and lower limb (G56-G57)	3,207,472	1,373,995	211,353	4,369	30,901	217,485	5,045,575
Arthropathies (M00-M25)	75,088,246	19,923,369	34,909,082	1,833,998	11,449,614	18,072,351	161,276,660
Systemic connective tissue disorders (M30-M36)	3,421,195	583,352	1,986,687	6,804	1,583,786	24,592	7,606,417
Dorsopathies (M40-M54)	48,794,465	32,005,711	26,200,022	9,723,273	5,025,145	9,433,073	131,181,688
Soft tissue disorders (M60-M79)	5,931,635	9,945,058	926,266	422,804	853,068	641,902	18,720,733
Osteopathies and chondropathies (M80-M94)	7,391,050	7,215,672	662,090	144,245	16,314,757	663,358	32,391,173
Other disorders of the musculoskeletal system and connective tissue (M95-M99)	3,244,215	454,477	667,088	129,486	23,604	126,180	4,645,051
Total MSDs	147,078,279	71,501,634	65,562,589	12,264,978	35,280,876	29,178,940	360,867,297

Exchange rate: EUR 1 = HUF 323.55

Source: NEAK, ad hoc analysis

Finally, the available national data on the distribution of MSD-related benefits paid by NEAK by gender and age show that these resources are primarily spent on two main groups: women (66 % of total benefits) and those aged 60 and over (around 60 % of total benefits). These percentages remained relatively stable during the period 2015-2017.

Table 4: Amount of MSD-related benefits paid by NEAK related to patients, by gender and age (in euros), Hungary, 2015-2017

	2015	2016	2017
Gender			
Men	101,459,184	108,722,349	121,379,369
Women	205,105,187	217,846,607	239,487,927
Age			
0-19	13,975,890	14,054,795	15,260,197
20-29	8,039,633	8,353,386	9,006,457
30-39	17,908,429	17,351,717	18,331,148
40-49	32,981,047	35,225,588	38,916,385
50-59	58,836,630	58,887,580	62,360,848
60+	174,822,742	192,695,890	216,992,261
Total	**306,564,371**	**326,568,956**	**360,867,297**

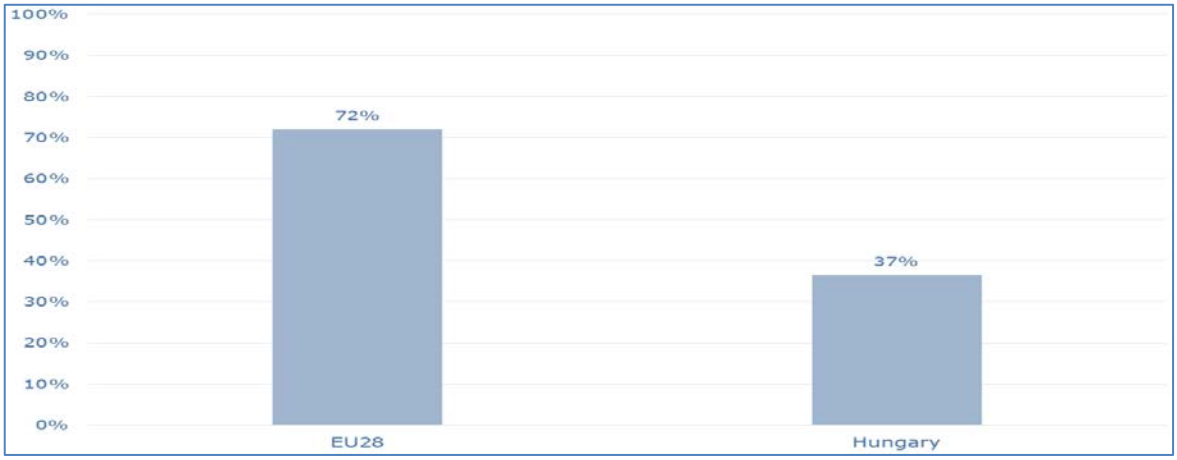
Exchange rate: EUR 1 = HUF 323.55

Source: NEAK, ad hoc analysis

3.2 Employment and work outcomes

Approximately 4 out of 10 Hungarian employees (37 %) work in companies that support employees to return to work after long-term sickness. This percentage is much lower than in the EU-28 (72 %) (data from ESENER 2 ([9]) for 2014; see Figure 7).

Figure 7: Percentages of employees working in establishments with support measures for employees returning to work after long-term sickness in the EU-28 and Hungary, 2014



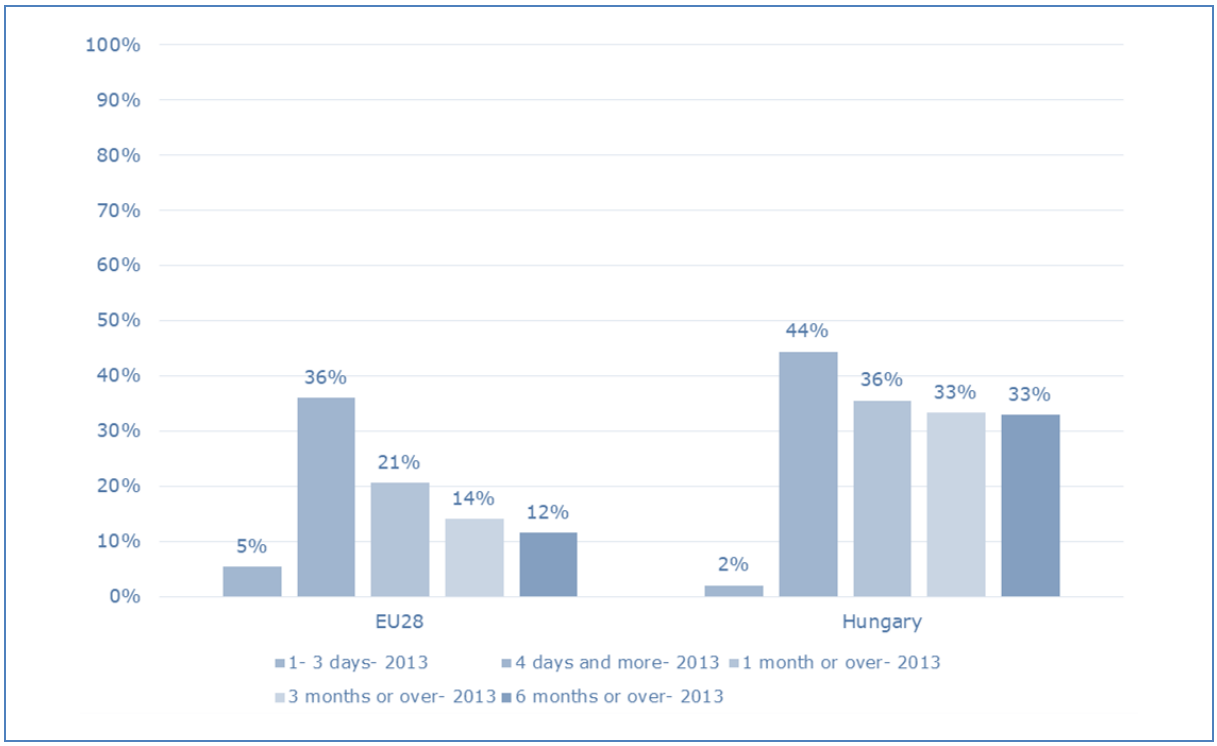
Note: Data are weighted with the employee-proportional weighting factor. This weighting factor controls for the disproportional nature of the national samples, is scaled to the number of employees instead of the number of establishments in the universe, and allows for international analysis.

Source: Panteia, based on ESENER 2 data

([9]) EU-OSHA, Second European Survey of Enterprises on New and Emerging Risks (ESENER 2). Information about the survey is available at: https://osha.europa.eu/en/facts-and-figures/esener

Figure 8 is based on publicly available data from the Labour Force Survey (LFS) ([10]) ad hoc modules. It shows the percentages of people who reported a work-related health problem resulting in sick leave characterised by various periods off work, in the EU-28 and in Hungary in 2013. The available data show that up to 44 % of Hungarian workers reported a period of 4 days or more off work, in comparison with 36 % in the EU-28. Moreover, 33 % of Hungarians who reported a work-related health problem resulting in sick leave had a period off work of 6 months or more, compared with 12 % on average in the EU-28.

Figure 8: Percentages of people reporting a work-related health problem resulting in sick leave by period off work, in the EU-28 and Hungary, 2013



Source: Panteia, based on LFS ad hoc module (Eurostat)

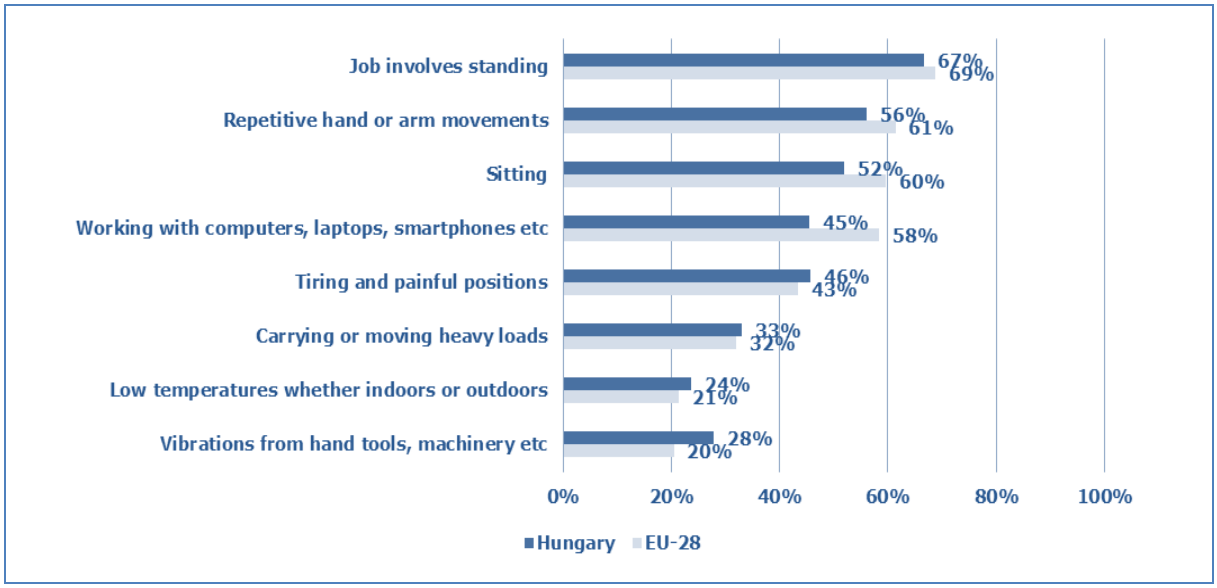
([10]) Eurostat, European Union LFS ad hoc module on accidents at work and other work-related health problems. Information about the survey is available at: https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey

4 Risk factors for MSDs

4.1 Physical factors at work

A large percentage of Hungarian employees are exposed to physical factors at work that may have an influence on MSDs (see Figure 9). More precisely, 67 % of employees work in establishments where employees work in standing positions, 56 % work in establishments where employees use repetitive hand/arm movements and 52 % in establishments where employees work in sitting positions. Working with computers/laptops and working in tiring/painful positions affect between 45 % and 46 % of Hungarian employees, respectively. Other physical risks are less apparent, particularly carrying/moving heavy loads, low temperatures and the presence of vibrations.

Figure 9: Percentages of employees working in establishments where there are certain physical risk factors in Hungary and the EU-28, 2015 (2010 for standing)



Note: Data are weighted with the employee-proportional weighting factor. This weighting factor controls for the disproportional nature of the national samples, is scaled to the number of employees instead of the number of establishments in the universe, and allows for international analysis.

Source: Panteia, based on ESENER 2 data

A comparison with EU-level data shows that the relative importance of the different physical risk factors is similar in Hungary to in the EU-28. In addition, the available data show that Hungarian employees consider themselves to be less exposed than their EU counterparts to most important physical risks, whereas the opposite is true for working in tiring/painful positions, carrying/moving heavy loads, low temperatures and the presence of vibrations.

In addition several reports produced by the National Public Health Center – Occupational Health Department([11]) provide information on the number of workers affected by different physical risk factors. The most important physical risk factor is working with visual display screens, which affects 24.18 % of Hungarian workers, followed by carrying out heavy physical work (4.20 % of workers) (2017 data). Meanwhile, hand/arm vibration affects 1.36 % of workers, and whole body vibration affect 1.24 % of workers. Overall, in 2017, 3.05 % of Hungarian workers were treated for MSDs by the occupational health services. This percentage has been on the increase since 2013 (2.42 %).

([11]) National Public Health Center — Occupational Health Department. Reports of the occupational health services on their yearly work (A foglalkozás-egészségügyi szolgálatok jelentése az éves munkájukról)

Table 5: Percentages of Hungarian workers affected by the following physical factors, 2008-2017

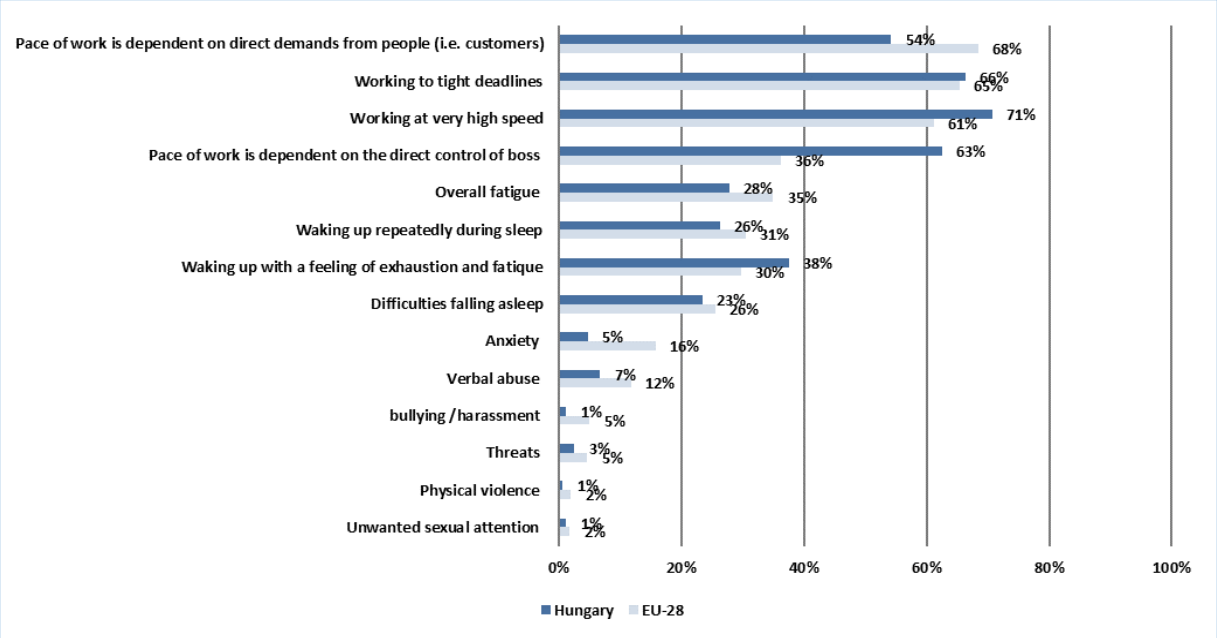
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Doing heavy physical work	4.27	4.16	4.21	4.07	4.09	4.56	4.88	4.41	3.92	4.20
Working with visual display screens	18.13	18.75	20.19	21.14	20.84	24.05	25.20	23.68	24.34	24.18
Hand/arm vibration	0.93	0.91	0.93	1.06	0.96	1.07	1.24	1.21	1.24	1.36
Whole body vibration	1.10	1.10	1.07	1.22	1.32	1.27	0.98	1.29	1.30	1.24
Hyperbaric pressure	0.00	0.01	0.01	0.01	0.00	0.01	0.02	0.05	0.02	0.02
Attended occupational health services (*) for MSDs	2.96	2.44	2.72	3.48	2.54	2.42	2.54	2.74	2.60	3.05

(*) Regardless of the origin of the disease - Source: Reports of the Hungarian occupational health services

4.2 Organisational and psychosocial risk factors

Organisational and psychosocial risk factors also play a role as potential triggers of MSDs (see Figure 10). The most relevant of these factors among Hungarian employees relate to working at very high speed, tight deadlines and the pace of work being under the direct control of the boss (between 63 % and 71 % of Hungarian employees are affected by these risks). Other relatively important risks include the pace of work being dependent on other people's demands, difficulties with sleep and overall fatigue.

Figure 10: Percentages of employees working in establishments where the following organisational/psychosocial risk factors are present in Hungary and the EU-28, 2015



Note: Data are weighted with the employee-proportional weighting factor. This weighting factor controls for the disproportional nature of the national samples, is scaled to the number of employees instead of the number of establishments in the universe, and allows for international analysis.

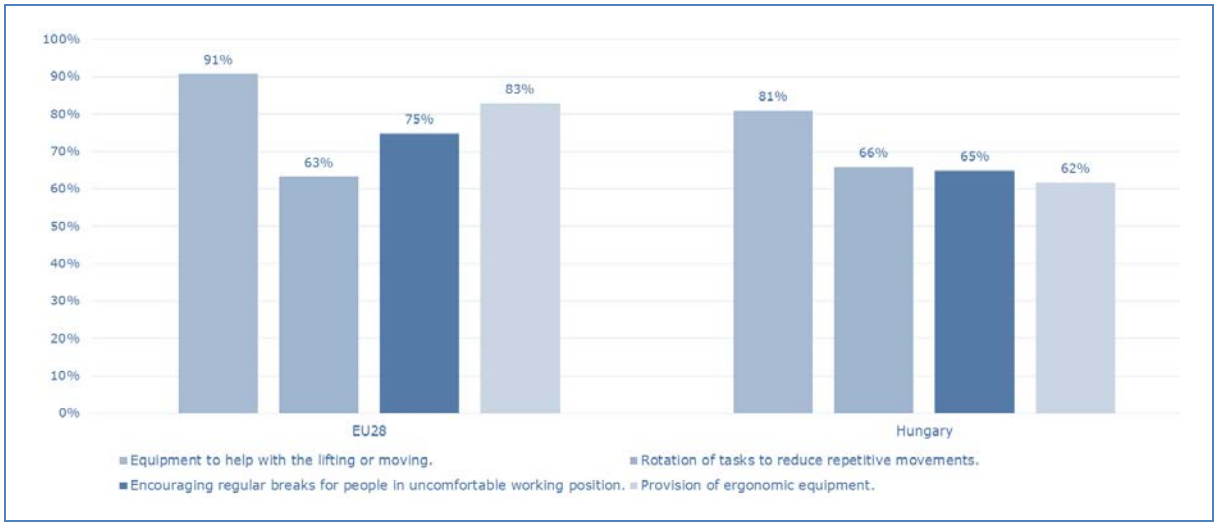
Source: Panteia, based on ESENER 2 data

A comparison with EU-level data shows that the most relevant organisational and psychosocial risk factors are similar in Hungary, although the pace of work being under the direct control of the boss is much more relevant for Hungarian employees than for their EU counterparts, whereas the pace of work being dependent on other people's demands is less relevant in Hungary.

5 Prevention of MSDs

A high proportion of Hungarian companies report implementing measures to prevent MSDs within their establishments: 81 % of employees work in companies where equipment to help with lifting or moving is provided, and 66 % work in companies where rotation of tasks has been introduced to reduce repetitive movements. Moreover, 65 % of Hungarian employees work in companies that encourage regular breaks for people who work in uncomfortable working positions and 62 % work in companies that provide ergonomic equipment (data for 2014; see Figure 11). In all cases, these percentages are lower than the EU-28 averages, particularly in the case of the provision of ergonomic equipment (the EU-28 average is 83 %), with the only exception being the introduction of rotation of tasks (the EU-28 average is 63 %).

Figure 11: Percentages of employees working in establishments where certain preventive measures are in place, EU-28 and Hungary, 2014

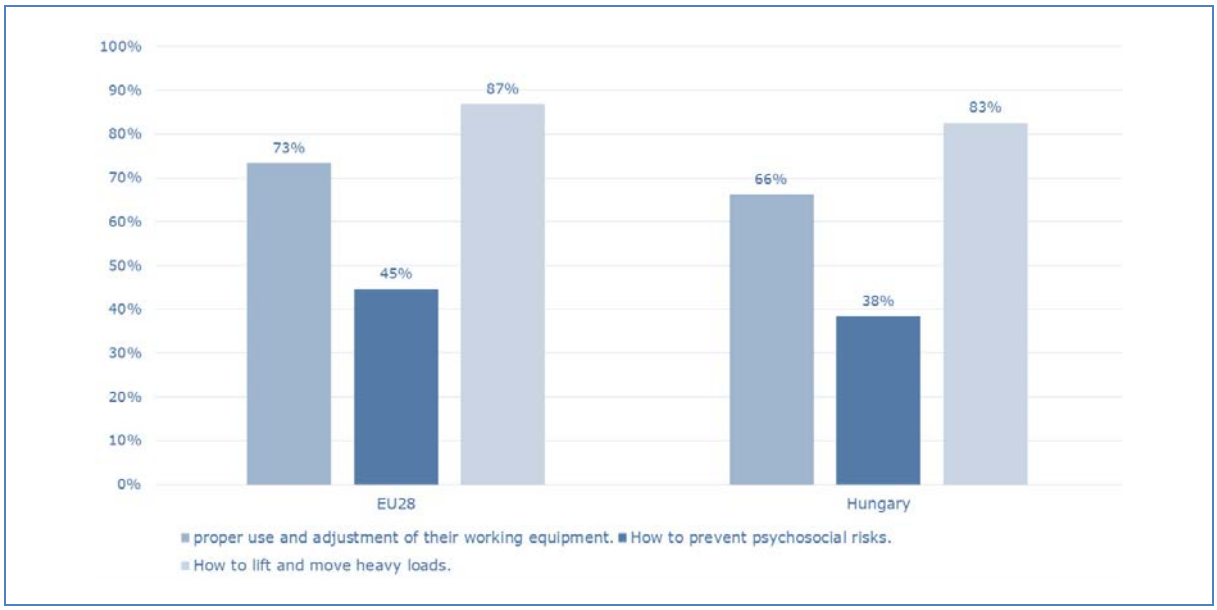


Note: Data are weighted with the employee-proportional weighting factor. This weighting factor controls for the disproportional nature of the national samples, is scaled to the number of employees instead of the number of establishments in the universe, and allows for international analysis.

Source: Panteia, based on ESENER 2 data

As shown in Figure 12, 83 % of Hungarian employees work in companies where training on how to lift and move heavy loads is provided, and 66 % work in companies that provide training on the proper use and adjustment of work equipment. In contrast, 38 % work in companies where training is provided on how to prevent psychosocial risks (data for 2014). In all cases, these percentages are lower than the EU-28 averages (87 %, 73 % and 45 %, respectively).

Figure 12: Percentages of employees working in establishments where training on how to prevent risks is provided, in the EU-28 and Hungary, 2014



Note: Data are weighted with the employee-proportional weighting factor. This weighting factor controls for the disproportional nature of the national samples, is scaled to the number of employees instead of the number of establishments in the universe, and allows for international analysis.

Source: Panteia, based on ESENER 2 data

6 Main national data sources on MSDs

- Data source 1: National Health Insurance Fund of Hungary (NEAK) — Database of the National Health Insurance Fund of Hungary (A Nemzeti Egészségbiztosítási Alapkezelő — NEAK adatbázisa) (No Internet access)
- Data source 2: National Public Health Center – Occupational Safety and Health Department (NNK-MFF) — Annual reports of the occupational health services (A foglalkozás-egészségügyi szolgálatok jelentése az éves munkájukról) (no Internet access)
- Data source 3: National Public Health Center – Occupational Safety and Health Department (NNK-MFF)— Register of occupational diseases and excessive exposures (Foglalkozási betegségek és fokozott expozíciós esetek nyilvántartása) (no Internet access)
- Data source 4: Ministry of Finance - Occupational Safety and Health Department (PM-MVF) — information on work accidents (Munkabaleseti statisztika). Available at: http://ommf.gov.hu/index.php?akt_menu=223

The European Agency for Safety and Health at Work (EU-OSHA) contributes to making Europe a safer, healthier and more productive place to work. The Agency researches, develops, and distributes reliable, balanced, and impartial safety and health information and organises pan-European awareness raising campaigns. Set up by the European Union in 1994 and based in Bilbao, Spain, the Agency brings together representatives from the European Commission, Member State governments, employers' and workers' organisations, as well as leading experts in each of the EU Member States and beyond.

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