

European Agency for Safety and Health at Work

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Annex to Report:
Work-related musculoskeletal disorders –
Facts and figures

National Report: Ireland

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This document is an annex to the Agency's Report "Work-related musculoskeletal disorders – Facts and figures" - Ireland

You can find the full report –in English only- on the Agency's website:

<http://osha.europa.eu/en/publications/TERO09009ENview>

More information on the European Union is available on the Internet (<http://europa.eu>).

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Summary

Musculoskeletal Disorders have multifaceted causal factors and as such there are no data collected specifically under the heading of Musculoskeletal Disorders for Ireland. Much of the data gathered in Ireland in relation to accidents and injuries is compiled under the heading Manual Handling, which includes 'lifting and carrying', 'pushing and pulling' and 'twisting and turning of the body'.

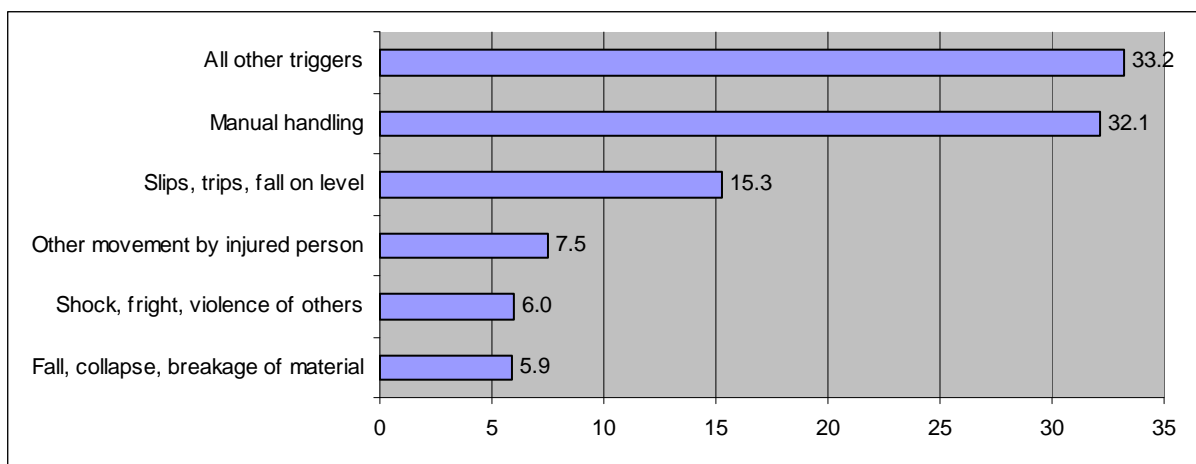
Up to one third of all work injuries in Ireland (2005) occur during manual handling. In 2000, 35% of the accidents reported to the Health and Safety Authority (HSA) were injuries resulting from manual handling activity (A Report of the results of the Manual Handling Inspection Programme 2001). In 2001 the Authority undertook a manual handling inspection programme, a key part of which was the completion of a specific set of inspections in the first year of the programme, across a number of sectors – Manufacturing, construction, wholesale/retail and Hotel/restaurant. Findings showed that:

- 83% of all sites inspected across all five sectors do not carry out any risk assessment.
- 60% of all sites inspected across all sectors do not carry out manual handling training.
- Although 40% of the sites do provide training, the quality of training is poor in many cases. Apart from instruction on safe lift techniques, little else is provided as part of the training.
- There is no system in place for assessing the training bodies who provide instructor-training courses in terms of the quality of the training materials and the expertise of the trainer.

This prompted HSA to identify manual handling as a key risk and to launch a four year manual handling initiative within its work programme in 2001 with a target to reduce manual handling incidents by 20% at the end of this period.

Despite this initiative, manual handling incidents continue to be a persistent problem in Ireland accounting for nearly one third of all incidents reported to the Authority in 2005. Manual handling was previously identified as a high-risk issue in 2004, when nearly 30% of all reported incidents were triggered by manual handling activity.

Figure 1: Top five accident triggers of non fatal injuries – all sectors 2005 (HSA)



Source: Summary of Fatality, injury and illness statistics 2004-2005

The percentage of manual handling incidents is particularly high in the Wholesale and retail trade sector (G), the Transport, storage and communication sector (I) and the Health and social work sector (N). Further analysis was conducted on the subset of manual handling injuries which revealed that 67% of manual handling injuries cause sprain or strain type injuries and nearly half (46%) result in back injuries. When compared with 2004 data, sprain or strain type injuries accounted for 33% of injuries and 20% were reported to result in back injuries.

Manual handling is a key risk and is reported on as an incident risk alert in annual statistical reports from the Authority. The purpose of the risk alert device is to highlight areas for consideration and action by all safety stakeholders – the HSA, legislators, employers, trade bodies and unions among others. In terms of research and statistical analysis, the risk alert issues highlight areas that warrant continuous attention. The emerging trends identified will continue to be monitored and reported upon in future publications by the Authority. The risk alert issues also suggest areas where additional analysis of specific sectors, occupations or age groups would be useful. The 2004-2005 Statistical Summary has been extended to examine issues that were highlighted in the 2003-2004 Summary, such as manual handling, and the Authority will continue to extend the scope of future summaries to incorporate detailed information on the most salient risk issues.

Among those who had a workplace injury or work-related illness during 2002, an estimated 25,300 people were not at work at the end of that year. In the same year, an estimated 1.2 million working days were lost among those in employment due to work related injury and ill health. Among those who had a work-related illness, half of the cases resulted from a bone, joint or muscle problem; therefore the majority of occupational health problems in Ireland relate to injury. (*Health And Safety At Work In Ireland 1992-2002-Statistical Resource Book*). Data on occupational illness for this report on lifting is reported using this category of bone, joint or muscle problem as it is the only category that approximates to the type of problem incurred by lifting. However, it should be noted that problems of this nature may be incurred by other occupational accidents.

Health And Safety At Work In Ireland 1992 – 2002 — Statistical Resource Book suggested that the single most important issue to be addressed was back injury, which was the most prevalent and widespread problem across all the economic sectors and is a cost to the Irish economy and society in the form of absenteeism and un-employability. It recommended that back injury hazards in every type of workplace should be highlighted and tailor-made prevention programmes should be introduced.

The Quarterly National Household Survey (QHNS) health and safety module also includes a question that identifies the type of illness, finding out that bone, muscle and joint problems are the most commonly reported types of illness in the Irish working population. These problems are present in every sector, but are most common in the Agriculture and Forestry followed by Health and Construction. According to this survey self-employed with no paid employees are most likely to have bone, joint or muscle problems, which are also prevalent among various occupational groups but they are particularly common among Managers and Administrators, and Craft and related workers: 14.3 per 1,000 workers.

2004 figures from the Central Statistics Office (CSO) show that bone, joint or muscle problems are still the most common category of work-related illness and that 29,600 workers experienced this problem with a rate of 16 per 1,000 workers (17 cases per 1,000 male workers compared with 13 cases per 1,000 female workers). In this report, the highest percentage of injuries reported are back injuries (23%), which are the most prevalent in the transport sector (30.2%) and the health and social work sector (30%).

Finally, information from the Fourth European Survey on Working Conditions (ESWC) reveals that 14.5% of Irish workers report suffering from backache while 13.8% complain of muscular pain. The prevalence of muscular pain generally increases with age but backache is most frequent among those aged 25 to 39. It is also worth stressing that over 12% of young workers under 24 years of age already report suffering from backache.

Source description**Statistical sources**

Title	European Survey on Working Conditions
Acronym	ESWC
Institution	European Foundation for the Improvement of Working and Living Conditions (Dublin)
Country	EU
Periodicity	Every 4 years: 1991-1996-2000-2005
Type	Employee Survey
URL	http://www.eurofound.eu.int/working/surveys/index.htm
Demographic group	Employees, self-employed without personnel and self-employed with less than 10 employees
Objectives	<p>Monitoring of trends in working conditions for employees and the self-employed throughout the European Union.</p> <p>This Survey provides an opportunity to monitor working conditions in the EU and to analyze specific themes in depth, such as: sector differences, working conditions and gender, age, or employment contracts, work organization, working hours, etc.</p>
Description	Face-to face interviews in all EU countries, with approx. 1,000 people in each country are selected (random walk), structured questionnaire
Content	This survey describes a broad range of questions in the field of working conditions.
Question	<p>Q.33. Does your work affect your health, or not? (yes, no)</p> <p>Q.33a. How does it affect your health?</p> <p>Q33a_d Backache (mentioned, not mentioned)</p> <p>Q33a_g Muscular pains -in shoulders, neck and/or upper/lower limbs (mentioned, not mentioned)</p>

Title	Health and Safety at Work in Ireland 1992 - 2002
Institution	Health and Safety Authority
Country	Ireland
Periodicity	It covers the period from 1992-2002
Type	<i>Statistical Resource Book</i>
URL	http://www.hsa.ie/files/file_200608010254450110YrTrend%20rpt.pdf
Demographic group	Various groups
Objectives	To provide an overview of health and safety in Ireland over 10 year period.
Description	This publication draws on a range of demographic and health and safety statistics to give a picture of occupational health and safety in Ireland over the 10 year period from 1992 to 2002.

Title	Health and Safety at Work in Ireland 1992 - 2002
Content	<p>Four specific questions are posed, and answered, in this document.</p> <ul style="list-style-type: none"> • What is the trend of health and safety in Ireland? • What are the characteristics of the health and safety problems specific to Ireland? • What actions are needed in what areas? • What kinds of information are available and what are missing?
Question	Various Questions

Title	Summary of Fatality, Injury and illness Statistics 2004 - 2005
Editor	Health and Safety Authority
Country	Ireland
Time	May 2006
URL	http://publications.hsa.ie/index.asp?locID=17&docID=146
Description	<p>This is the second Annual Statistics Summary of accidents and injuries in published in Ireland. The aim of the summary is to make the HSA statistics available to a wider audience by summarizing information in tables and graphs and providing basic interpretation.</p>
TOC	<p>Statistics are presented under the following headings; General illness and injury statistics, victim statistics, incident statistics and work environment statistics. There are also fatality injury statistics, statistics about injuries amongst non-Irish workers and young workers.</p>

Title	Summary of Fatality, Injury and illness Statistics 2003 - 2004
Editor	Health and Safety Authority
Country	Ireland
Time	May 2005
URL	http://www.hsa.ie/files/file_20060627052312statsum_0304.pdf
Description	<p>This is the second Annual Statistics Summary of accidents and injuries in published in Ireland. The aim of the summary is to make the HSA statistics available to a wider audience by summarizing information in tables and graphs and providing basic interpretation.</p>
TOC	<p>Statistics are presented under the following headings; General illness and injury statistics, victim statistics, incident statistics and work environment statistics.</p> <p>There are also fatality injury statistics, statistics about injuries amongst non-Irish workers and young workers.</p>

Analytical sources

Title	Time constraints at work and health risks in Europe
Editor	European Foundation for the Improvement of Working and Living Conditions
Country	EU
Time	2003
URL	http://www.eurofound.eu.int/publications/files/EF0307EN.pdf
Description	The third European survey on working conditions highlights the risks and dangerous working conditions that continue to pose a threat to workers' health, as well as the increase in time and organisational constraints at work. A study based on the statistical use of the data gathered from the survey provides a great deal of information on the organisation of working time. It also explores the links between the organisation of working time and the duration of working time, and the health risks to which workers in the EU are exposed.
TOC	Rising trend in atypical working hours - Working hours decline, but disparities remain - Industrial and market constraints on the pace of work - Intensity of work: impact on employees - Sources of strain - Health problems

Title	Annual Report of the Irish Labour Inspectorate: Year 2004
Editor	Dr. Peter J. Claffey, Programme Manager, Health and Safety Authority
Country	Ireland
Time	2004
URL	
Description	2004 saw completion of a comprehensive review of Manual Handling Training and preparation of new guidance on management of manual handling. A major research study, conducted jointly with Aer Rianta, on baggage handling practices in Dublin Airport was completed. In addition, a major initiative was launched in conjunction with large retailers with multiple outlets to improve safety management and manual handling systems. A further significant development was the agreement reached with cement manufacturers to replace 50kg bags with 25kg bags thus reducing a major risk factor in manual handling injury.

Title	A Report of the results of the Manual Handling Inspection Programme 2001
Editor	Prepared By: Frank Power, Ergonomist (Health & Safety Inspector, Health and Safety Authority Ireland)
Country	Ireland
Time	2001

Title	A Report of the results of the Manual Handling Inspection Programme 2001
URL	http://www.safetyireland.com/report.pdf
Description	This report provides details of the Manual Handling inspection programme undertaken by the Health and Safety Authority (Ireland). It provides information on the number of manual handling incidents identified during inspection, risk assessments undertaken and training for manual handling undertaken by those organizations where incidents were identified. The report focuses on different sectors.

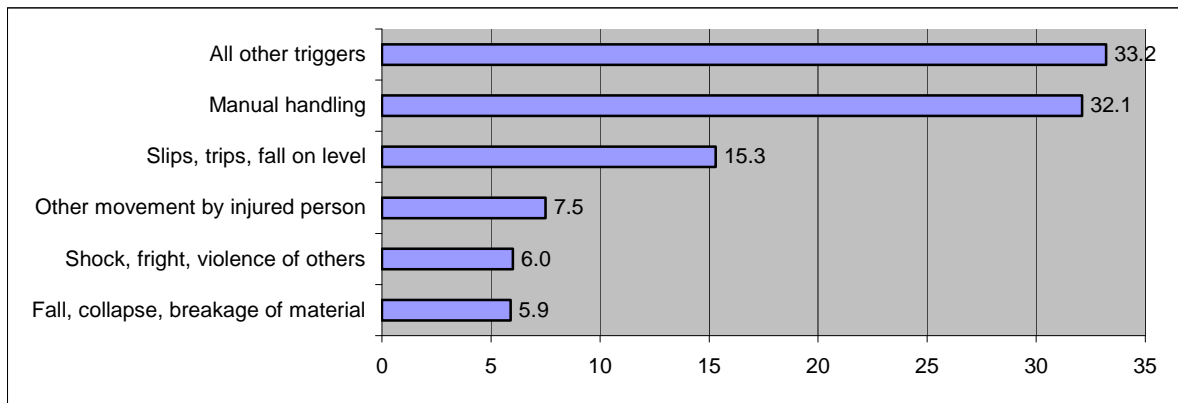
1. General prevalence

Manual handling has been identified as one of the significant risk alerts requiring continuous monitoring in Ireland. The percentage of manual handling incidents reported in 2004-2005 was 32%, up from 29% in the previous reporting period 2003-2004.

Findings from Annual Summary of Fatality, Injury and Illness Statistics 2004 – 2005 indicate that 32% of all incidents are triggered by manual handling activity. This includes ‘lifting and carrying’, ‘pushing and pulling’ and ‘twisting and turning of the body’. Findings from Health and Safety at Work in Ireland 1992-2002 also show handling, lifting or carrying to be the most frequently reported incidents, with a share of non-fatal accidents at 32%.

The figure below shows the top five accident triggers of non-fatal injuries across all sectors for 2005 (HSA Summary of Fatality, Injury and Illness Statistics 2004 – 2005).

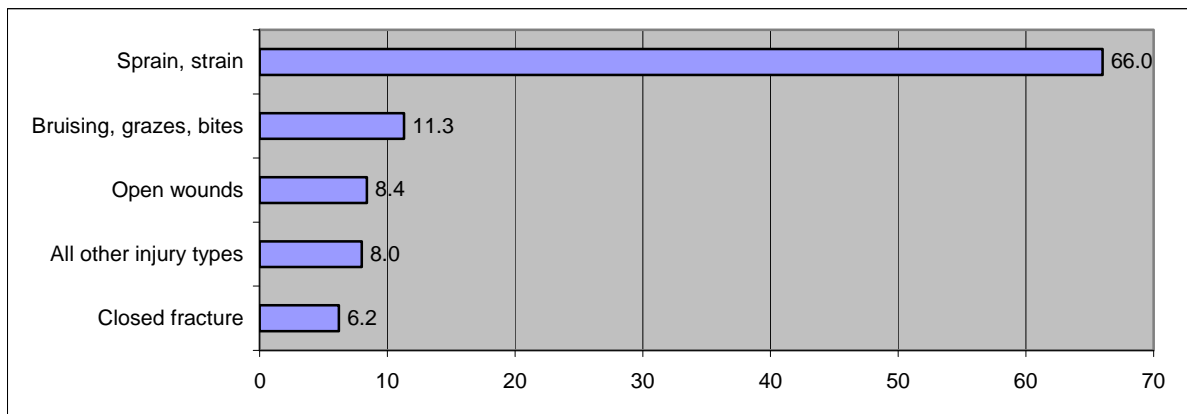
Figure 2: Top five accident triggers of non fatal injuries – all sectors 2005 (HSA)



Source: Summary of Fatality, injury and illness statistics 2004-2005

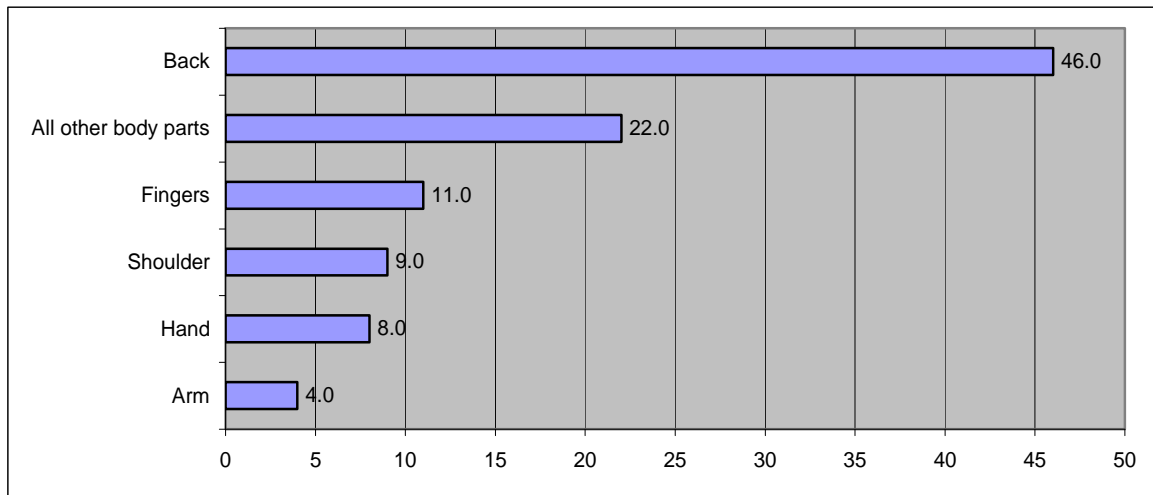
Further analysis conducted on a sub-set of manual handling injuries revealed that 67% of manual handling injuries are caused by sprain or strain type injuries and 46% result in back injuries.

Figure 3: Manual handling incidents by injury type 2005



Source: Summary of Fatality, injury and illness statistics 2004-2005

Figure 4: Manual handling incidents by body part injured 2005 (HSA)



Source: Summary of Fatality, injury and illness statistics 2004-2005

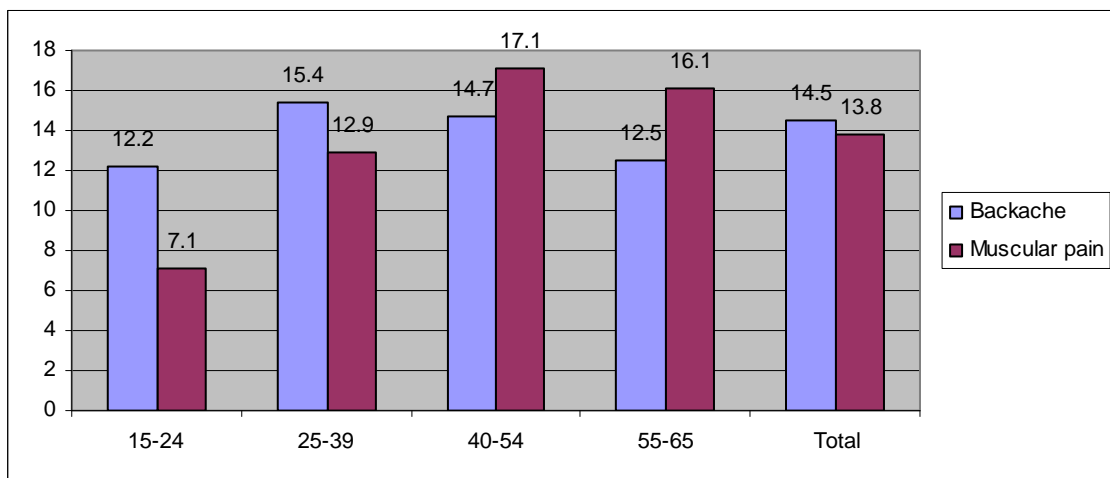
Information from the ESWC shows that 14.5% of Irish workers reported suffering from work related backache while 13.8% complained of muscular pain.

2. By age

The available information broken down by age in Ireland is that of the ESWC, which reveals a slightly different age pattern between backache and muscular pain. Data show that backache is most prevalent among the 25-39 year old workers (15.4%) and that, in any case, it remains fairly stable across all age groups around the 14.5% average. It is also worth pointing out that 12.2% of youngest workers aged 15 to 24 already report suffering from backache.

As opposed to this, muscular pain appears to increase with age, until the 40-54 age group, which reports the highest share (17.1%), only to decrease slightly among the 55-65 year old workers (16.1%).

Figure 5: Percentage share of workers reporting MSDs: backache and muscular pain, by age, 2005



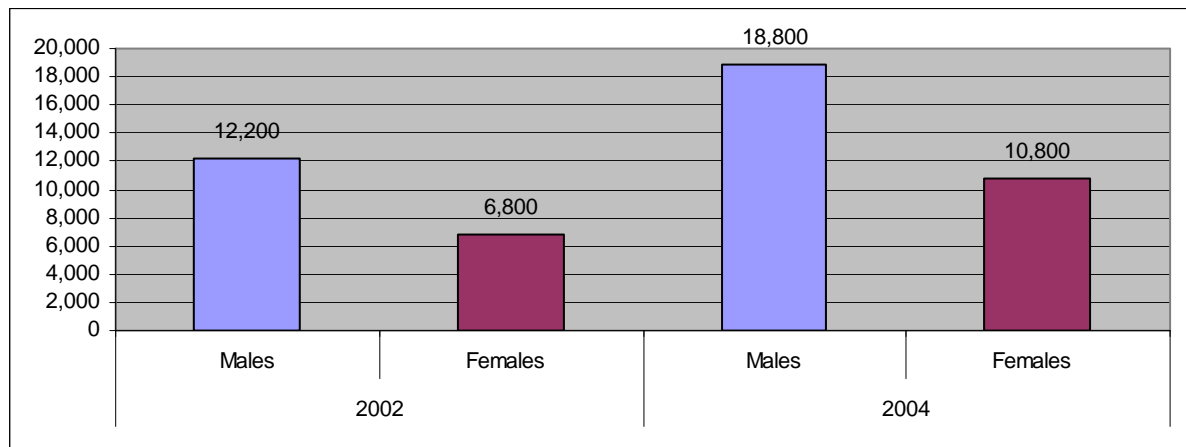
European Survey on Working Conditions, 2005

3. By gender

Information directly related to Musculoskeletal Disorders is not available for Ireland and breakdowns by gender could only be identified under the heading bone, joint or muscle problems. Available CSO figures for 2002 show that the incidence of bone, joint or muscle problems for male workers in employment was 12,200 cases, which represents a rate of 11.9 per 1,000 workers. At the same time, there were 6,800 cases reported by females in employment, which is a rate of 9.1 per 1000 workers. The overall rate in 2002 was 10.7 cases by 1,000 people in employment.

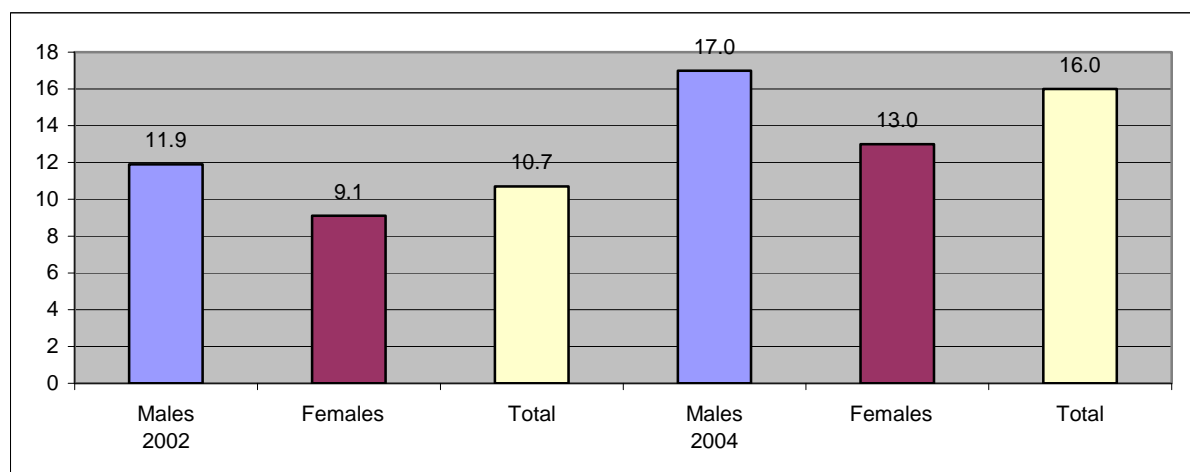
2004 CSO figures show that bone, joint or muscle problems are still the most common category of work-related illness and that 29,600 workers experienced this problem with a rate of 16 per 1,000 workers: 17 cases per 1,000 male workers compared with 13 cases per 1,000 female workers. It is worth stressing that bone, joint or muscle problems have increased significantly across both genders.

Figure 6: Absolute number of cases of bone, joint or muscle problems, by gender. 2002 and 2004



CSO 2002, 2004

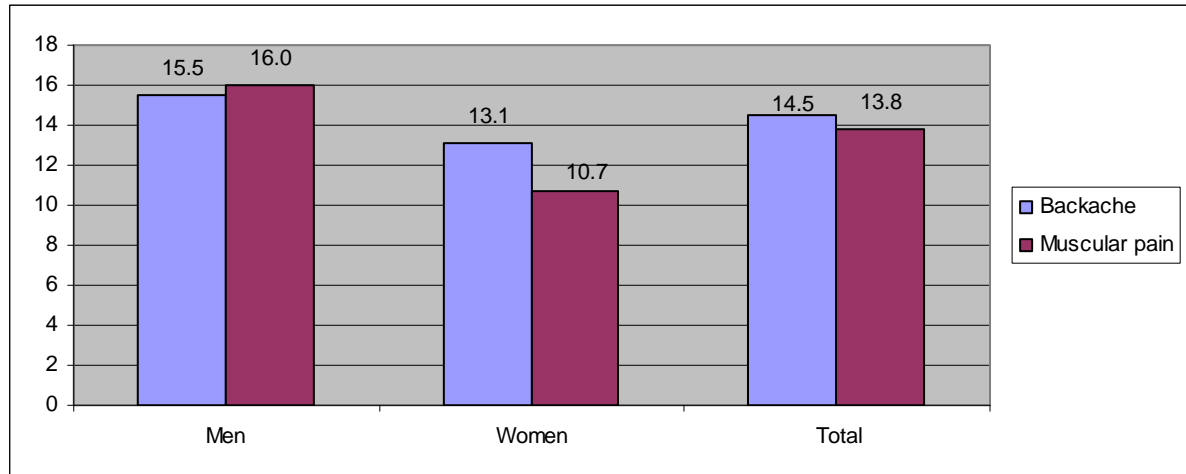
Figure 7: Rate per 1,000 employed people of bone, joint or muscle problems, by gender. 2002 and 2004



CSO 2002, 2004

Data from the ESWC shows a slightly higher prevalence of MSDs among men than women. More specifically, Irish men report suffering from muscular pain (16%) a little more frequently than backache (15.5%), while their female counterparts instead, report a higher share of backache than muscular pain: 13.1.% and 10.7%, respectively.

Figure 8: Percentage share of workers reporting MSDs: backache and muscular pain, by gender, 2005



European Survey on Working Conditions, 2005

4. By sector

Sector groups (sections in NACE Rev 1.1) used in tables and figures:

- A: Agriculture, hunting, forestry;
- B: Fishing;
- C: Mining;
- D: Manufacturing;
- E: Electricity, gas and water;
- F: Construction;
- G: Whole sale and retail, repairs;
- H: Hotels and restaurants;
- I: Transport and communication;
- J: Financial intermediation;
- K: Real estate, business activity;
- L: Public administration and defense;
- M: Education;
- N: Health and social work;
- O: Other community, social and personal service activities.

Transport, storage and communications (I) and health and social work (N) have particularly high rates of back injuries.

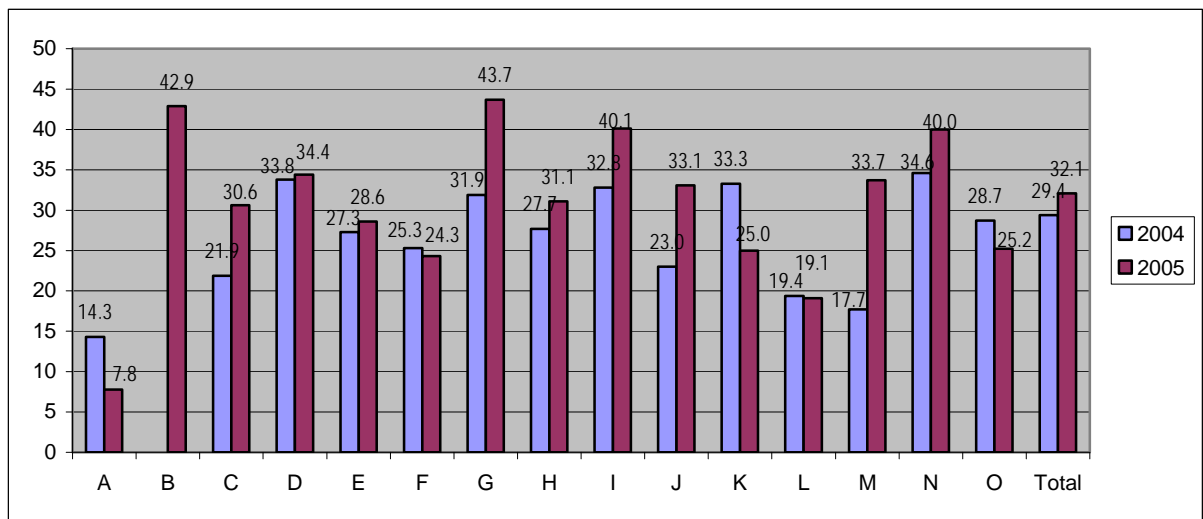
Information directly related to Musculoskeletal Disorders is not available for Ireland. The following tables look at the accident trigger by sector for manual handling, the occupational illness (bone, joint

or muscle problem) by sector and percentage reported injury by body part injured by economic sector for back injuries.

The figure below shows the percentage of non-fatal injuries reported for manual handling in 2004-2005 Summary of fatality, injury and illness statistics report. From this it can be seen that manual handling triggers a high percentage of accidents in all economic sectors but that Wholesale and retail trade sector (G), the Health/social work sector (N) and Fishing (B) were the sectors that most frequently reported manual handling as an accident trigger.

The 2003-2004 summaries found the highest incidence in the Health/social work sector (N).

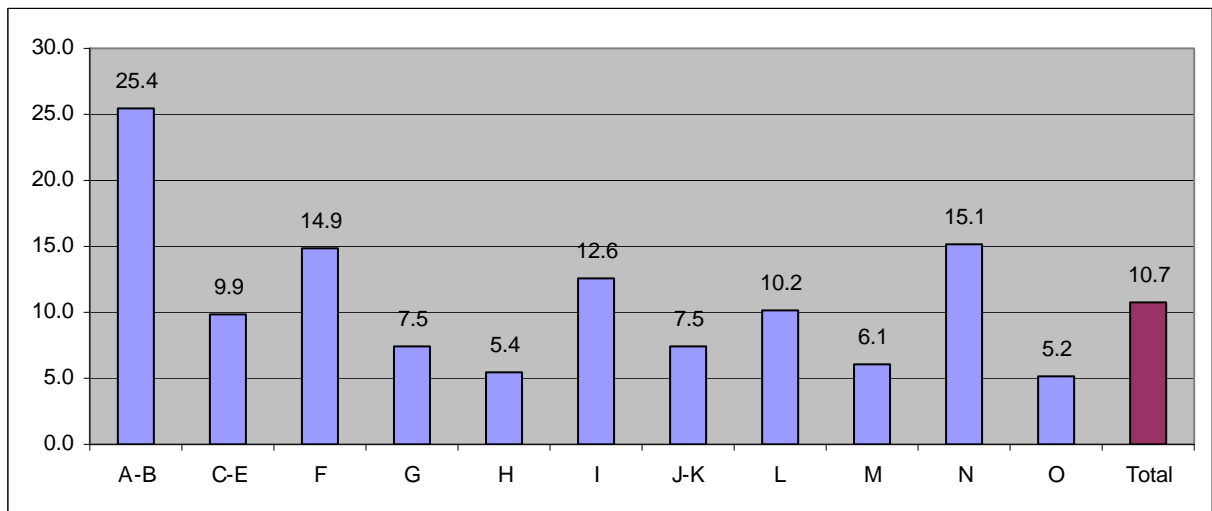
Figure 9: Percentage share of manual handling reported as accident trigger, by sector, 2004-2005



HSA Summary of Fatality, Injury and illness Statistics 2004 - 2005

The figure below looks at the rate of occupational illness by sector for bone, joint or muscle problems. The rate is highest in Agriculture, forestry, fishing (A-B) followed by Health and social work (N) and Construction (F).

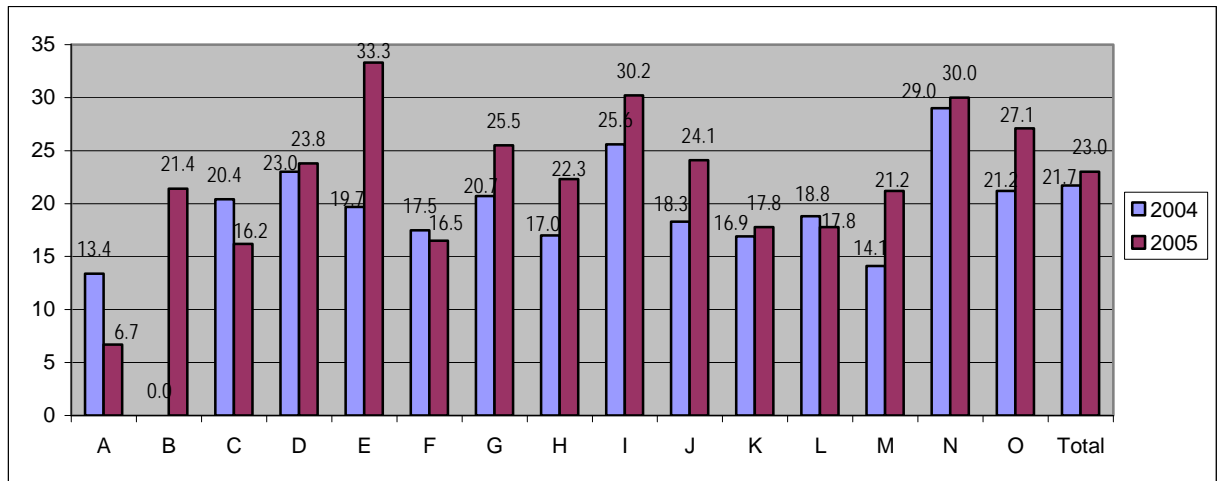
Figure 10: Bone, joint or muscle problems (rate per 1,000) by sector, 2002



Health and Safety at Work In Ireland 1992 – 2002 — Statistical Resource Book

The figure below shows the percentage injury reported by body part for back injury. In 2004 and 2005, over 20% of all reported incidents resulted in back injury. Back injuries were the most common type of injury in every economic sector in both years, with the exception of the Agriculture sector (A), where there are more injuries to legs, hands and fingers. The Transport, storage and communication sector (I) and the Health and social work sector (N) have particularly high percentages of back injuries. Finger injuries are most frequent in the Manufacturing sector (D) and the Hotel and restaurant sector (H).

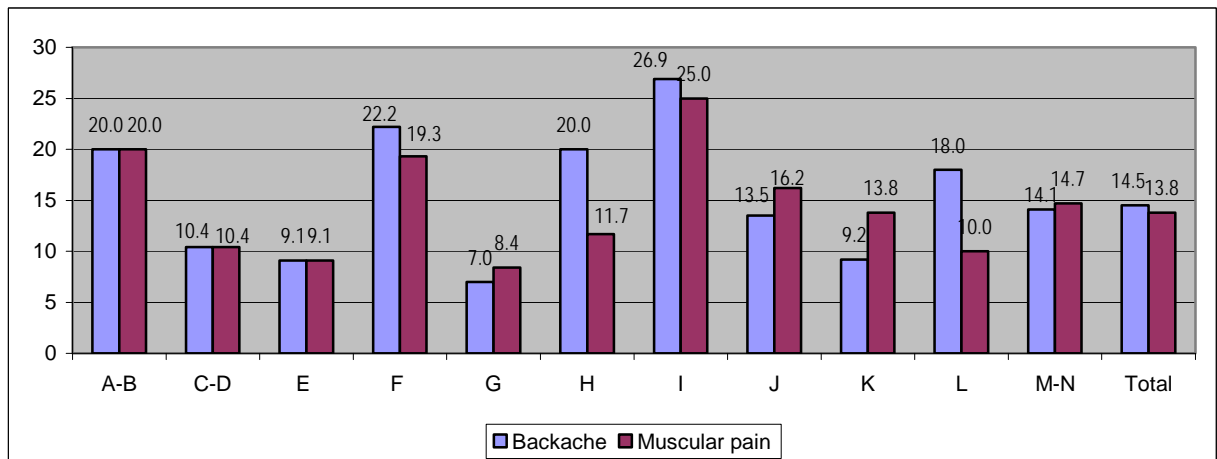
Figure 11: Percentage reported injury by body part injured (back pain) by economic sector 2005 (HSA)



HSA Summary of Fatality, Injury and illness Statistics 2004 - 2005

In line with what has been mentioned above, the ESWC reveals that transport and communications, construction and agriculture and fisheries are the sectors with the highest prevalence of MSDs. Concerning transport and communications, over a quarter of workers in the sector report suffering from backache (26.9%) and muscular pain (25%). Both in construction and in agriculture and fisheries around one fifth of workers complain of backache and muscular pain. As far as other sectors are concerned, backache is particularly prevalent in hotels and restaurants (20%) and public administration (18%) while muscular pain is common among workers in financial intermediation (16.2%) and education and health (14.7%).

Figure 12: Percentage share of workers reporting MSDs: backache and muscular pain, by sector, 2005



European Survey on Working Conditions, 2005

5. By occupation

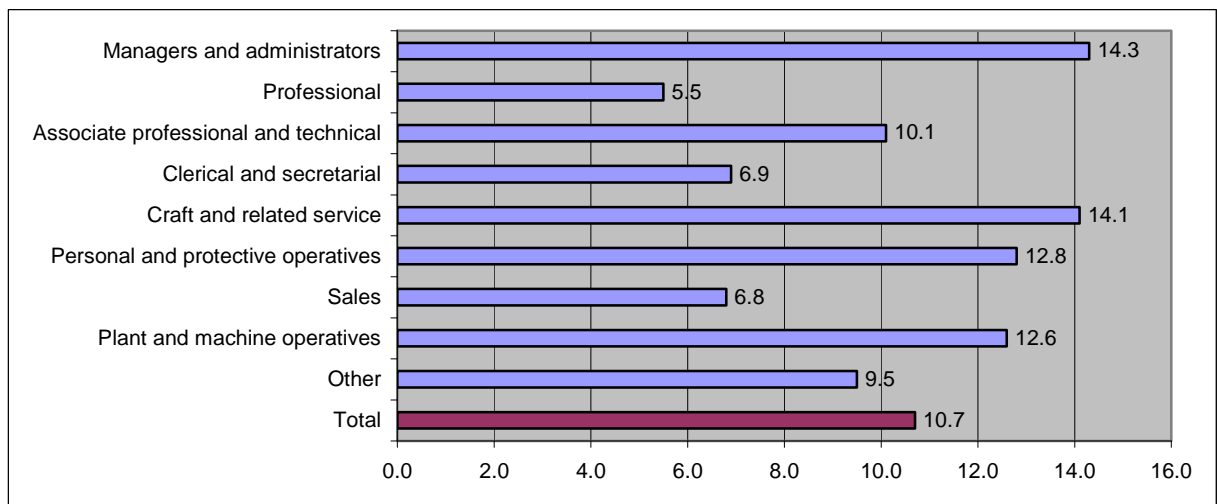
ISCO Groups of occupation used in tables and figures:

- ISCO 1: Legislators, senior officials and managers;
- ISCO 2: Professionals;
- ISCO 3: Technicians and associate professionals;
- ISCO 4: Clerks;
- ISCO 5: Service workers and shop and market sales workers;
- ISCO 6: Skilled agricultural and fishery workers;
- ISCO 7: Craft and related trades workers;
- ISCO 8: Plant and machine operators and assemblers;
- ISCO 9: Elementary occupations;
- ISCO 10: Armed force.

Information directly related to Musculoskeletal Disorders is not available for Ireland and breakdowns by occupation could only be identified under the occupational illness heading bone, joint or muscle problems.

The figure below shows that the incidence rate of bone, joint or muscle problems is highest among Managers and administrators (14.3 per 1,000), Craft and related service (14.1), Personal and protective operatives (12.8) and Plant and machine operatives (12.6)

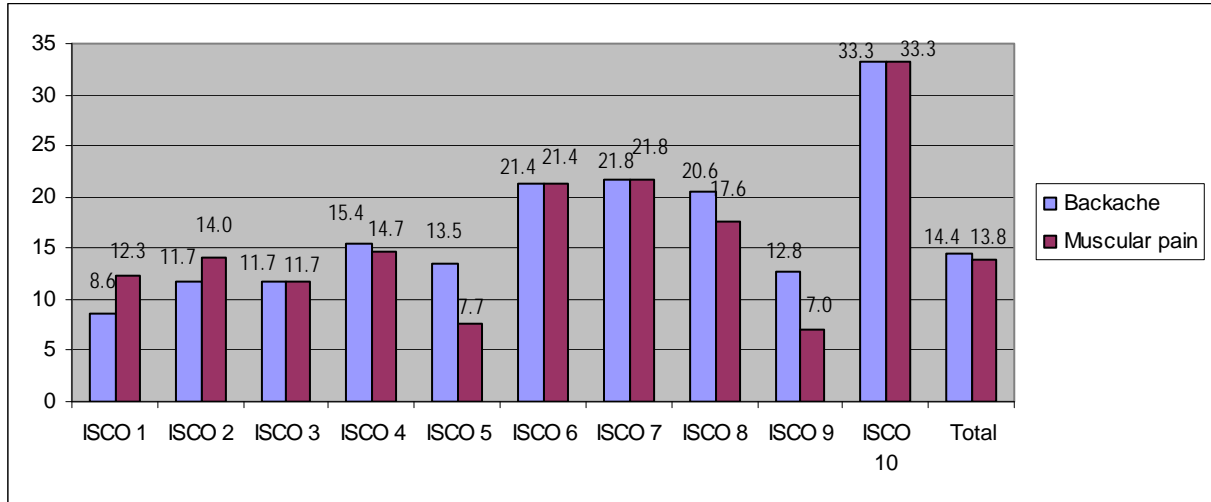
Figure 13: Bone, joint or muscle problems (rate per 1,000) by occupation, 2002



Health and Safety at Work In Ireland 1992 - 2002 - Statistical Resource Book

The ESWC shows that craft and related trades workers (ISCO 7), skilled agricultural and fishery workers (ISCO 6) and plant and machine operators and assemblers (ISCO 8) report the highest shares of both backache and muscular pain. The high share of armed forces workers (ISCO 10) needs to be interpreted with caution due to the small sample size.

Figure 14: Percentage share of workers reporting MSDs: backache and muscular pain, by occupation, 2005



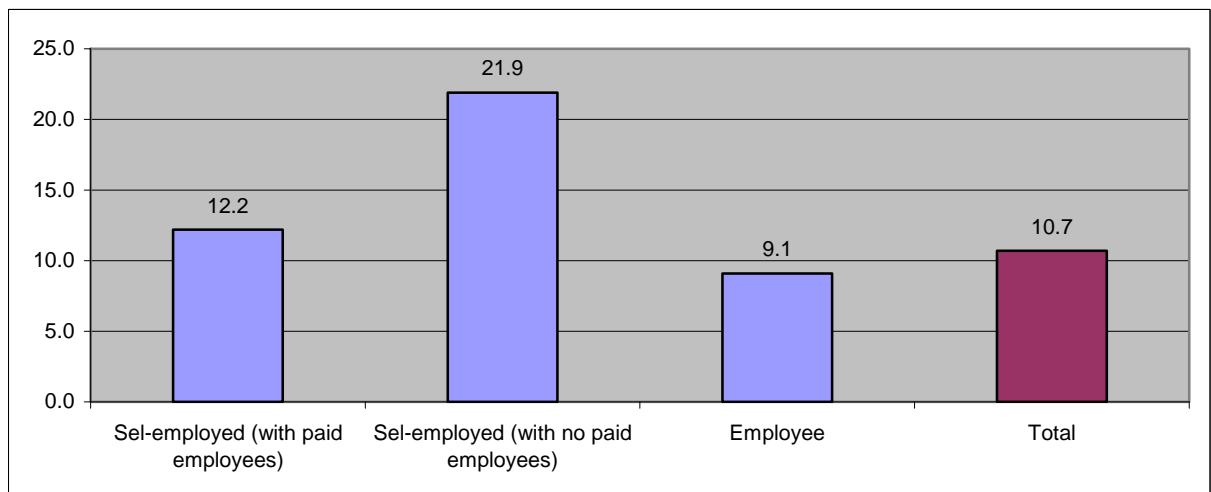
European Survey on Working Conditions, 2005

6. By employment status

Information directly related to Musculoskeletal Disorders is not available for Ireland and breakdowns by employment status could only be identified under the related occupational illness heading bone, joint or muscle problems.

From the figure below, it can be seen that the incidence rate of bone, joint muscle is highest among the self-employed, particularly those with no paid employees (21.9 per 1,000).

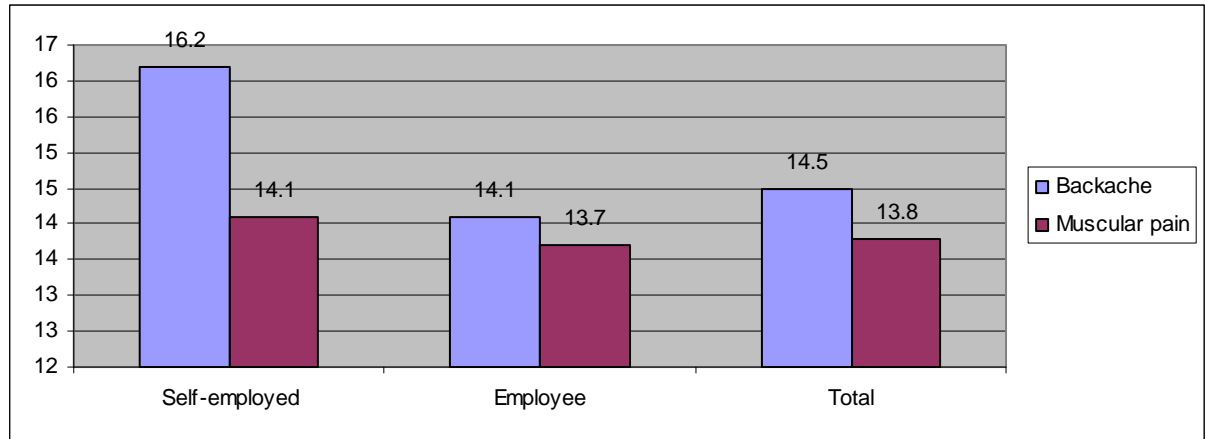
Figure 15: Bone, joint or muscle problems (rate per 1,000) by economic status, 2002



Health and Safety at Work In Ireland 1992 – 2002 — Statistical Resource Book

Similarly, the ESWC too reveals a higher prevalence of MSDs among self-employed workers, particularly backache (16.2%). Among employees there is no big difference in the prevalence of backache (14.1%) and muscular pain (13.7%).

Figure 16: Percentage share of workers reporting MSDs: backache and muscular pain, by employment status, 2005.



European Survey on Working Conditions, 2005