

Workplace Health and Safety Queensland

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Musculoskeletal Framework 2007-10

Version 2–June 2009

Strategic linkages

This musculoskeletal framework has been developed in response to the Queensland Government Department of Employment and Industrial Relations' (DEIR) recognition of work-related musculoskeletal disorders (MSDs) as a priority target for the Queensland Workplace Health and Safety Strategy 2004-2012.

This framework is linked to DEIR's Occupational Disease Strategy 2007-2010, the various Industry Action Plans 2008-2010 and other whole of government strategies which address the determinants of musculoskeletal health. DEIR will work closely with internal and external stakeholders, and other agencies to ensure better work related musculoskeletal health for the people of Queensland.

Vision

Our vision is for Queensland workplaces to be free from death, injury and disease related to work-related musculoskeletal disorders.

Scope

This framework addresses the prevention and control of work-related musculoskeletal disorders caused by the following mechanisms of injury:

- body stressing (manual tasks)
- slips, trips and falls at level and at height
- hitting or being hit by objects
- contributing psychosocial factors.

Definition of work-related musculoskeletal disorders

Musculoskeletal disorders include a wide range of inflammatory and degenerative conditions affecting the muscles, tendons, ligaments, joints, peripheral nerves, and supporting blood vessels. Examples of disorders arising out of work include carpal tunnel syndrome, vibration white finger, sciatica as well as musculoligamentous strains, sprains and tears.

Musculoskeletal disorders may result from an acute one off event or exposure over a period of time to physical and psychosocial factors that are present in the work environment or are otherwise encountered in the course of conducting work.

Purpose

The purpose of the Musculoskeletal Strategy is to provide a strategic framework for reducing the incidence and severity of MSDs in Queensland workplaces.

Emerging issues and challenges

Non-recognition of musculoskeletal disorders

Recognition and control of risk factors related to MSDs is limited across all industries as evidenced by the high rate of workers' compensation claims for these types of injuries. In particular there is a lack of awareness of the various risk factors that can result in MSDs, for example tasks involving low muscular forces that are sustained for extended periods or performed repeatedly may be more hazardous than the occasional exertion of much higher forces. These tasks can result in tissue breakdown over time and MSDs. While some industries have demonstrated a greater awareness of these issues for example significant changes have been made in the health care industry in regards to people handling tasks, strategies need to be developed that focus on changing industry safety culture, climate and risk perception relating to MSDs.

Psychosocial factors

Psychosocial factors affect physical injury, particularly the development of musculoskeletal disorders. There is a need to focus on practical strategies for influencing these factors, including improving relationships at work; increasing job control; providing support; managing change and job demands; and ensuring recognition and reward and appropriate skill use. There is suggestive evidence for psychosocial stress impacting on musculoskeletal disorders and the physiological response to pain and fatigue.

Obesity

There has been an increase in the prevalence of obesity in the community. This has implications for accelerating degenerative joint disease, increasing the risk of MSDs from manual handling tasks and increasing the MSD risk for health care workers who have to manage increasing numbers of bariatric (morbidly obese) patients. Increasing weight, size, shape and dimensions of people as well as changing strengths and capacities related to obesity have implications for safe design in the workplace, for example, safe design limits for seating.

Ageing and diverse workforce

Older workers are the positive new trend in response to the current skills shortage. However, physical changes in older workers, who may also have a chronic disease, can lead to an increased risk of MSDs due to reduced muscular strength and physical and functional capacity. Visual changes and hearing deficits, along with altered mobility and gait patterns, may increase the risk of slips, trips and falls.

Increasing workforce diversity for example young workers, women, and migrants may also lead to an increased risk of MSDs if the work and work environment is not designed to suit the wide range of worker characteristics such as body size, strength and experience.

Safe design is a vital part of ensuring that the risk of MSDs is eliminated or minimised for all workers.

Changes in employment relationships

Workers in the first month of a new job are over four times more likely to have a lost time injury than workers with over one year in their current job. With increasing use of labour hire, agency workers and casuals, there is a need to address safety training and skills particularly for manual handling tasks. Extended shifts and multiple jobs also increases exposure to MSD risk factors and fatigue.

Changes in types of industry

According to Monash University employment forecasts for Queensland, growth is anticipated in the health and community services, retail, construction, hospitality and recreational services, and property, transport services and business services industries, with a decline in the numbers of persons employed in utilities, communication and rural industries and to a lesser extent the manufacturing industry. Skill shortages in these areas may increase the risk of MSDs as job demands increase. An increase in home based and community services work requires the development of strategies for safety in non controlled environments, for example, caring for people in their homes.

The majority of businesses (97%) in Queensland are small businesses which employ 19 workers or less. Many of these businesses provide contracted services to larger enterprises. There is a potential for an increased risk of MSDs as resources for addressing health and safety issues may be limited.

Recognition and control of musculoskeletal disorders are the key issues for Workplace Health and Safety Queensland

Why must we take action?

The number of MSDs has increased steadily over the last six years. However, the rate of MSDs has remained fairly constant over the last three years, except in the manufacturing and rural sectors where there has been a significant increase. MSDs currently represent 59% of all total non fatal workers' compensation claims in Queensland.

Accepted Non-fatal Musculoskeletal Disorder Workers' Compensation Claims by Industry

| Industry | Rate per 1000 Workers | | | | | % Change 2003-04 – 2005-06 | Total Number of Claims (2003-04 – 2006-07) |
|--|-----------------------|------------|------------|------------|------------|----------------------------|--|
| | Strategy Base | 2003-04 | 2004-05 | 2005-06 | 2006-07 | | |
| Construction | 9.1 | 9.5 | 9.1 | 9.6 | 9.5 | 3% | 7,178 |
| Health and Community Services | 9.2 | 8.7 | 9.2 | 8.8 | 9.3 | 1% | 16,211 |
| Hospitality, Recreation and Other Services | 7.1 | 7.0 | 7.1 | 7.0 | 6.9 | -3% | 9,998 |
| Manufacturing | 18.0 | 17.1 | 17.3 | 20.5 | 20.5 | 14% | 12,800 |
| Retail and Wholesale | 6.1 | 6.3 | 5.8 | 6.2 | 6.3 | 3% | 11,174 |
| Rural | 7.5 | 7.7 | 8.9 | 9.3 | 8.2 | 10% | 2,174 |
| Transport and Storage | 15.2 | 14.6 | 14.8 | 15.4 | 14.3 | -5% | 6,512 |
| Total | 9.0 | 8.8 | 8.7 | 8.9 | 9.1 | 1% | 66,213 |

What needs to be done?

Workplace Health and Safety Queensland will work with all stakeholders, industry organisations, workers and their representatives, as well as other government agencies to improve the recognition and the elimination or control of risk factors leading to MSDs in the workplace.

What is our aim?

Our aim is to have in place the organisational capability, capacity and resources to continue reducing MSDs in the workplace through implementing the musculoskeletal framework. Our objective is to reduce the incidence of MSDs in Queensland workplaces by 15% by 2010, and to contribute to the target of a 40% reduction in all types of injuries by 2012.

How will we achieve this?

Workplace Health and Safety Queensland has set itself the following goal for MSDs: Improved control of risk factors for musculoskeletal disorders. We will determine our success in achieving this goal by measuring the performance indicators for the strategies outlined in this framework.

What are our priorities?

In 2007-08 we will lay the foundation by:

- (i) increasing our internal capacity through recruitment and development of our Inspectors
- (ii) increasing the awareness of employers, the self-employed and workers about risk factors for musculoskeletal injuries
- (iii) identifying and establishing partnerships with our stakeholders.

This will allow us to consolidate our work on the six core elements of the musculoskeletal framework in 2008-09 and 2009-10.

Priority: Work-Related Musculoskeletal Disorders

Goal

Improved control of MSD risk factors.

Performance indicators

- Increased compliance with standards.
- Reduction in the rates and incidence of permanent impairment in workers due to musculoskeletal injuries caused by body stressing (manual tasks), slips, trips, and falls, hitting and being hit by objects and psychosocial factors in the workplace.
- Increased awareness of MSD risk factors by employers.

Strategies

- Improve recognition and control of the primary mechanisms of injury which cause MSDs (body stressing, slips, trips and falls at level and height, hitting and being hit by objects, and psychosocial factors) by:
 - Developing **strategic partnerships** with key stakeholders and other organisations to work toward developing interventions and identifying solutions for MSD prevention.
 - Delivering **interventions** targeted at the mechanisms of injuries responsible for musculoskeletal injuries.
 - Developing internal and external **capability** in ergonomics to address MSDs.
 - Developing industry awareness and facilitating activity in MSD prevention through **promotion** with targeted priority industry sectors.
 - Supporting **applied research** into MSD injury prevention and intervention effectiveness.
 - Identifying **solutions** for targeted high risk manual tasks.
 - Updating and developing **standards** and the legislative framework to support industry in achieving the effective risk management of MSDs.

The core elements of our strategy are:

Capability

- Improve the capability of industry (employers, Workplace Health and Safety Officers, Workplace Health and Safety Representatives and others) to recognise and control MSD risks.
- Improve the capability of WHSQ Inspectors and Small Business Advisors through professional development and a mentoring program in ergonomics and MSD controls.
- Develop cultural and climate change initiatives to expand the current scope of practice for the WHSQ inspectors.
- Develop selection, recruitment and retention strategies for technical ergonomics specialists including the graduate trainee program.

Promotions

- Promote an industry focus on MSDs and related mechanisms of injury.
- Promote information products, programs and tools for the control of MSD risks to industry through various avenues such as the Internet, workshops and seminars.
- Promote MSD campaigns and interventions, including successful MSD prosecutions, through the media and industry and worker associations.

Partnerships

- Build on existing relationships and establish new collaborations that target MSD prevention.
- Establish partnerships to identify high risk MSD related tasks, identify solutions and promote their uptake within industry.
- Build existing WHSQ internal relationships to achieve a whole of organisation approach to the prevention of MSDs.

Interventions

- Identify high risk industries, occupations and manual tasks and implement a targeted, MSD risk-based approach to enforcement and advice including targeted audit programs, development of information products, and provision of industry information forums.
- Deliver dedicated MSD risk management programs and tools to targeted high risk industry sectors.
- Implement a targeted MSD enforcement and prosecution strategy.
- Promote and ensure a focus on safe design as an integral part of MSD prevention.

Solutions and applied research

- Establish tripartite collaborations with WHSQ and stakeholders including universities to target priority industry sub-sectors and high risk tasks, and to promote practical solutions.
- Support the development of research and delivery of ergonomics courses through universities.

Standards

- Contribute to the development and review of manual tasks and other MSD related standards and codes of practice.

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