

Earlier Intervention, Other Healthy Measures and the Impact on a Self-Insured Organisation

by Kris Fraser

Introduction

This paper is based on case study research which examines the effect of improving the structure of occupational health and safety (OHS) management systems on OHS performance indicators within a self-insuring organisation. The focus is on the restructuring of the OHS management systems that accompanied the change to self insurance.

Key features of the new OHS Management Systems are earlier Ergonomics & Rehabilitation intervention for musculoskeletal injuries, earlier claims decision making and entitlements, and improved Ergonomics preventative strategies and OHS preventative strategies. The OHS performance indicators used to examine the impact of changes to the OHS Management Systems are both positive and outcome based and will be detailed in this paper.

Description of the Self-Insured Organisation

The University of Queensland is a large organisation that employs approximately 4500 full time workers and 4000 casual / part time workers across 32 Queensland based campus sites. The University's teaching, research and administrative activities are performed across a diversity of work environments including offices, laboratories, fieldwork outdoors, hospitals and workshops.

The University's Occupational Health and Safety Policy states a commitment to the prevention of accidents, illnesses and injuries and to the management of rehabilitation and compensation claims. The Occupational Health and Safety (OHS) Unit has the responsibility of overseeing the OHS commitment and consists of the following employees:

- Executive Manager OHS
- Ergonomics & Rehabilitation Adviser
- Occupational Hygiene Adviser
- Radiation Protection Adviser
- Workers' Compensation Claims Manager
- Workers' Compensation Case Manager
- Administrative Support Staff.

The University's broad OHS focus for the prevention, rehabilitation and claims management of injuries and illnesses is unique and allows for coordination between the management systems in each of the areas. Further, the comprehensive nature of OHS management at the University presents an excellent opportunity to examine and evaluate the changes to the OHS management systems as a result of moving to self-insurance of worker's compensation.

The University's Senior Management made the decision to apply for self-insurance of workers' compensation and the self-insurance licence application required the University to obtain a satisfactory score on the Tri Safe Audit system and formal approval of new Injury and Claims

Management Procedures. This was the impetus for the University to restructure its OHS management systems.

The goal of OHS management systems is simple and outcome focussed: to reduce the risk of work-related death, injury and disease (TriSafe Audit 2000). Thus the establishment and maintenance of effective systems to manage risks to the health and safety of workers and others arising from the nature of work performed, equipment, materials, substances and the work environment is an essential objective for the organisation in achieving the goal.

Description of OHS management systems and Workers' Compensation arrangements before self insurance

For the purposes of this study, the University's OHS management system will be considered in 2 components:

1. The General OHS Management System - a system comprised of documented OHS responsibilities, consultative structures, policies and guidelines.
2. The Musculoskeletal Injury Management System – a system comprised of workplace injury, illness and incident reporting and investigation procedures, rehabilitation & ergonomics interventions and claims management.

1. The General OHS Management System

Before the University commenced self-insurance of its workers' compensation liabilities, the management of general OHS issues was not systematised. An adhoc range of policies and guidelines that were stand alone strategies and did not form part of an integrated OHS management system were used to address OHS issues at the local Faculty level. The centralised OHS Unit was responsible for developing the general OHS policies and guidelines that were adapted at the local level.

Further, there was no systematic measurement of general OHS issues, and local areas conducted hazard audits on an ad hoc basis.

2. The Musculoskeletal Injury Management System

Before self-insurance, this system included the Workplace Injury, Illness and Incident Reporting and Investigation System that complies with AS 1885.1-1990. The Reporting and Investigation System was publicised by the OHS Unit annually via bulk mail out.

The WorkCover Qld Authority was primarily responsible for the management of injuries requiring compensation and rehabilitation before self-insurance. There was no coordination between the University's Injury Reporting and Investigation system and the WorkCover compensation and rehabilitation management and as a result there were frequent delays in rehabilitation and claims intervention for musculoskeletal injuries.

Features of the former Musculoskeletal Injury Management System (claims and rehabilitation management) were as follows:

- Claims and Rehabilitation management conducted by the WorkCover Qld Authority
- Criteria for referral to the Rehabilitation Counsellor by the Claims Manager was 6 weeks lost time / claim duration.
- Separation of the providers of claims and rehabilitation management (WorkCover) from the provider of workplace rehabilitation management (University Ergonomics & Rehabilitation Adviser).
- Delays within the University of up to 4 weeks post injury in notifying the Ergonomics & Rehabilitation Adviser of the injury.
- There was no cross referencing between the workplace injury, illness and incident reporting system and the workers' compensation claims system.

Before implementation of the new Musculoskeletal Injury Management System, the only measurement of injury management performance was compensation claims frequency and costs annually. Other than the time before referral to rehabilitation and the total number of interventions provided, there were no positive performance indicators used to measure the effectiveness of the system.

The interventions provided by the Ergonomics & Rehabilitation Adviser before self-insurance were as follows:

Basic ergonomics design for office workstations
Ergonomics design for laboratories, workshops and stores.
Rehabilitation ergonomics and suitable duties programs for compensable and non-compensable musculoskeletal injuries
Rehabilitation counselling for psychiatric/psychological illnesses.

Whilst WorkCover had primary responsibility for rehabilitation programs of compensation claimants, the Ergonomics & Rehabilitation Adviser spent a high proportion of time providing interventions 1 & 2 above. Time delays in the compensation reporting system meant that there was an inability of the Ergonomics & Rehabilitation Adviser to identify and service some of the compensable musculoskeletal injuries.

Description of the new OHS management systems and self-insurance of workers' compensation arrangements

1. General OHS Management System

The University's self-insurance licence commenced on 1/4/01, however the structuring and implementation of the new General OHS management System commenced in January 2000 and has been a continuing project. There have been continuous improvements and measures taken, the results of which will be examined in this study.

The new General OHS Management System is based on the Trisafe Audit System (2000) framework and is measured in accordance with the Trisafe scoring system. The system elements address OHS preventative strategies and are as follows:

- Health and Safety Policy Communication
- Allocation of Responsibility/Accountability
- Suppliers, Sub-contractors and Purchasing Controls
- Health and Safety Consultation
- Hazard Identification, Evaluation and Control
- Provision of Information
- Training
- Workplace Specific Issues
- Reporting and Investigation
- Emergency Planning

2. Musculoskeletal Injury Management System

The Musculoskeletal Injury Management System was redesigned on the basis of best practice knowledge and the new system was implemented on 1 April 2001 under the University's self-insurance of workers' compensation licence. Self-insurance means that the University is responsible for the provision of all claims and rehabilitation management services for compensable injuries.

Features of the new injury management system (claims and rehabilitation management) are based on best practice and are as follows:

- Centrally held Applications for Rehabilitation and Compensation. All potential compensation claimants are required to contact the Work Injury Management (WIM) Team to obtain an Application. All requests for Application forms are registered and basic details of the injury/illness are recorded. The claims application process is outlined in Appendix .
- The Ergonomics & Rehabilitation Adviser reviews all injury/illness details registered and makes early contact with potential claimants with musculoskeletal injury.
- Rehabilitation Ergonomics and Workplace Rehabilitation services are usually provided before a claims decision is made, or before an application for a claim is received.
- Earlier provision of rehabilitation ergonomics and suitable duties programs for compensable musculoskeletal injury and psychological/psychiatric illness.
- There is manual cross referencing between the Workplace Injury, Illness and Incident Reporting and Investigation System and the Application for Rehabilitation and Compensation System.
- A coordinated approach to injury management between the Claims Manager and Ergonomics & Rehabilitation adviser who are located within the OHS Unit.
- Implemented by a large self insuring organisation with comprehensive program of OHS prevention, claims management and rehabilitation.

Under the new system all musculoskeletal injuries are referred to the Ergonomics & Rehabilitation Adviser and it is expected that the volume of Ergonomics & Rehabilitation interventions for this purpose will increase.

Upon commencement of the new injury management system it is expected that priority will be given to ergonomics design and rehabilitation programs for injured staff and that less time will be spent performing basic ergonomics assessment and design for individual laboratory and office workstations. Rather, self directed ergonomics assessment information has been provided on the

OHS web home page and ergonomics design information has been provided to the project managers for refurbishments and new buildings.

Research Aims

The aims of the case study research are as follows:

- To compare compensation claims data for 6 years before, and 3 years following self-insurance of workers' compensation
- To compare incident and injury reports for 6 years before, and 3 years following self-insurance of workers' compensation
- To compare ergonomics and rehabilitation interventions for 6 years before, and 3 years following self-insurance of workers' compensation
- To define additional positive performance indicators for the organisation's OHS management systems and assess these indicators for 3 years following self-insurance.
- To examine the relationship between workers' compensation data, injury and incident reports, ergonomics & rehabilitation intervention data, and positive performance indicators. (Measures of the preventative OHS management system may indicate strong performance in the areas of training and hazard identification evaluation and control for manual handling. If there were a concomitant improvement in performance indicators for the injury management system such as an increased number of referrals for ergonomics assessment and a reduction in the frequency of back injuries, then qualitative data could potentially be used to speculate about the effect that strong preventative activities have on injury numbers.)
- To gather qualitative data regarding implementation of the OHS management system via semi-structured interviews with management and staff of the organisation across the 2 years following self-insurance.

Analysis of the data will be used to describe the consequences of the change to self-insurance for the organisation and associated changes in management systems; identify barriers to effective implementation of the new OHS management systems; and make recommendations regarding subsequent modification of the organisation's OHS management systems.

Literature Review and Case Study Rationale

The following aims have been achieved by the literature review:

To identify what OHS performance indicators have been used in the past to examine changes in OHS management systems (more)

To provide guidance in the selecting OHS performance indicators that will be used to evaluate changes to the OHS management system in this case study.

To describe what is already known about the effect of changes in OHS management systems on OHS performance indicators (more headings and literature about this)

To describe features of OHS management systems that have in the past been associated with positive changes in OHS performance indicators

The topics covered by the literature review are listed below:

- The association between OHS Management Systems and OHS performance indicators
- Selection of positive and outcome performance indicators for general OHS Management System
- Selection of positive and outcome performance indicators for musculoskeletal injury management system
- Continuous improvement for OHS Management Systems
- Self-insurance of workers' compensation and injury management outcomes
- Features of successful general OHS management and injury management systems
- Features of successful general OHS management systems

The details of the literature review can be requested from the author of this paper:

Method

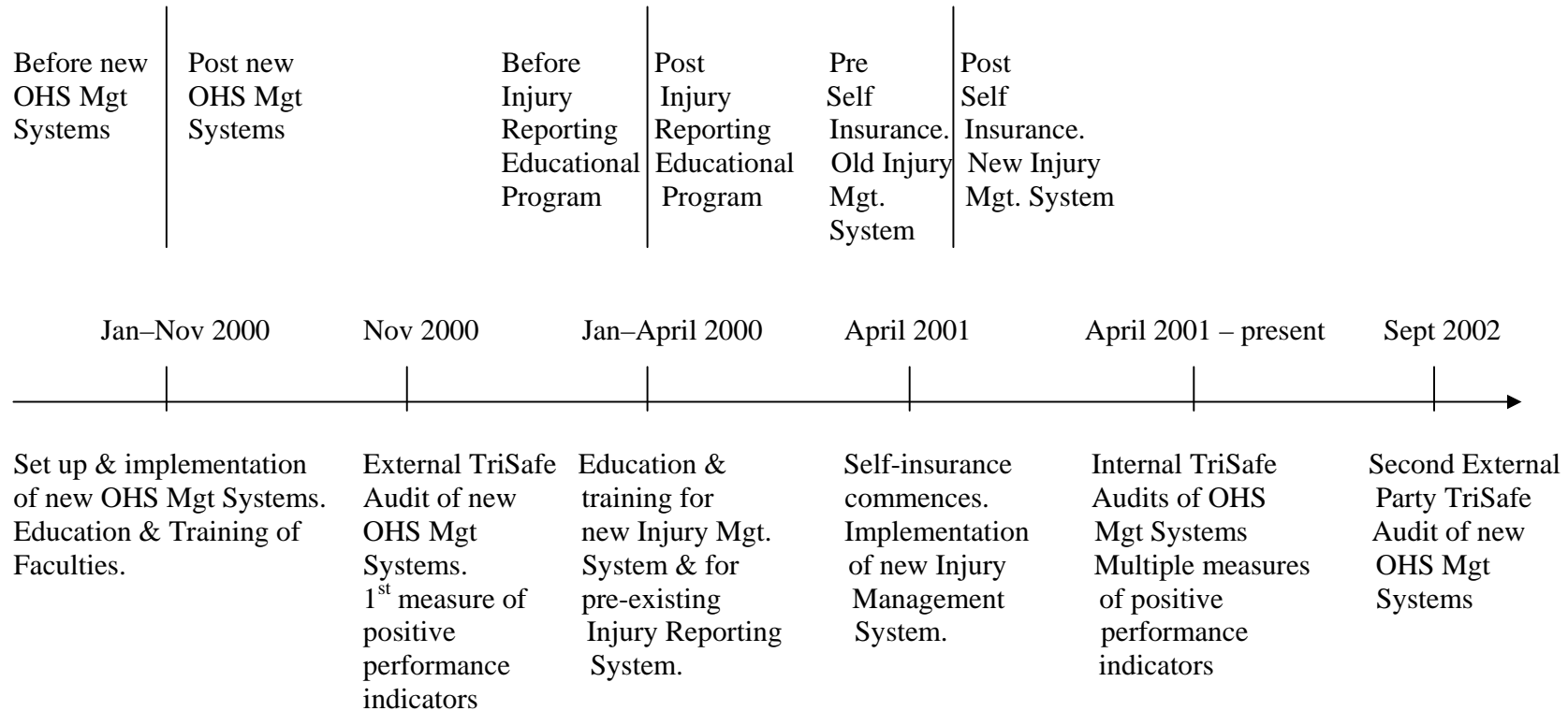
The time line below plots a chronology of activities related to the setting up and implementation of self-insurance of workers' compensation and the new Musculoskeletal Injury Management System and General OHS Management System. Quantitative and qualitative data will be discussed with consideration of milestone activities on the time line.

Time Line

Continuous measurement of Ergonomics & Rehabilitation Interventions annually

Continuous measurement of Injury Reports 1 April – 31 March annually

Continuous measurement of Workers' Comp Performance 1 April – 31 March annually



Musculoskeletal Injury Reports

It was anticipated that the education and training program that was conducted for the new Injury Management System and the pre-existing Workplace Injury, Illness and Incident Reporting and Investigation would increase the annual frequency of musculoskeletal injury reports due to increased awareness of the reporting requirements. It is important to recognise that an increase in the frequency of musculoskeletal injury reports is not necessarily an indicator of increased incidence, but may be an indicator of improved injury management through the early ergonomics intervention that arises from reporting, or both. Conversely, little or no change in the annual frequency of musculoskeletal injury reports following the education and training program may be associated with a reduction in injury incidence.

It is conceivable that musculoskeletal injury incidence may decrease as a result of improved Musculoskeletal Injury Management Systems and General OHS Management Systems. The new OHS Management Systems aim to ensure the prevention of musculoskeletal injury through early risk assessment and control for manual tasks, and through earlier referral for ergonomics intervention. Changes in musculoskeletal injury reporting patterns should therefore be considered in the context of the improved educational and training program for Workplace Injury, Illness and Incident Reporting and improved General OHS Management for the prevention of musculoskeletal injury incidence.

Preliminary Results and Discussion

In the years 00-01 and 01-02 during which the education program for injury reporting, compensation claims, and earlier intervention musculoskeletal injury management system were implemented, there was a marked increase in the frequency of musculoskeletal injury reports and requests for ergonomics & rehabilitation (E&R) interventions. The reason for this is likely to be associated with the increased awareness of the reporting requirements, rather than an actual increase in injury incidence although the possibility of the latter remains.

During the years of 01-02 and 02-03, there was a significant change in 2 positive performance measures as compared with the years preceding commencement of the new injury management system. The 2 measures and the changes are as follows:

The time frame between injury onset and ergonomics & rehabilitation intervention has been significantly reduced.

The number of cases that received an ergonomics & rehabilitation intervention that also progressed to a workers' compensation claim have reduced markedly.

The changes in the 2 positive performance indicators suggest that the earlier ergonomics & rehabilitation intervention for compensable and non-compensable injuries is a successful feature of the new musculoskeletal injury management system. Earlier ergonomics and rehabilitation intervention appears to assist in ameliorating musculoskeletal symptoms and the progression to a workers' compensation claim. This argument is supported by documented feedback from clients who have received ergonomics and rehabilitation interventions.

The University's Self-Insurance Office reports a significant reduction in the total number of compensation claims and costs for the periods 01-02 & 02-03, the first 2 years of self insurance, as compared with the range of claims frequencies and costs in the years preceding self-insurance. The majority of workers' compensation claims are for musculoskeletal injuries. It is interesting that there was a significant increase in ergonomics & rehabilitation interventions during the years of the reduction in claims costs and frequency. At this early stage of analysis, the workers' compensation data appears to support the suggestion that earlier E&R interventions are associated with progression of musculoskeletal symptoms to a point where compensation is sought for treatment and wages.

There are numerous cases where during an E&R intervention a client is advised to proceed with an application for workers' compensation in order to gain medical treatment for well advanced musculoskeletal symptoms. In such cases there is recognition that ergonomics interventions alone are unlikely to break the pain cycle or address the symptomatology.

There are also numerous cases where an application for workers' compensation is sought before any E&R intervention. It is routine for the Self-Insurance Office to immediately refer any clients who have requested paperwork to lodge a claim for a musculoskeletal injury, to the E&R Advisor. The E&R Advisor routinely provides workplace interventions to such clients well before the claim application is lodged. Liaison between the E&R Advisor and the Treating Medical Practitioner occurs for all clients with musculoskeletal workers' compensation claims to clarify the diagnosis, treatment and ensure that the E&R intervention is appropriate.

The new OHS Management System included increased referrals of appropriate staff to Manual Tasks Risk Assessment and Control training programs and Office Ergonomics training programs. In order to service the increased referrals, the number of Manual Tasks Risk Assessment training programs was increased from 1 per year before April 01 to 3 per year from April 01 onwards. The annual number of Office Ergonomics courses remained unchanged.

Collation and analysis of OHS management training, and TriSafe Audit activity and results will provide more quantitative data relating to other positive performance measures.

References

Doonan, P. 2000. Distributing the cost of risk within your organisation: claims costs, premium costs, broker costs, RM Costs. The basic principles and methodologies. 24th National Conference of the Association of Risk and Insurance Managers of Australasia Limited.

Blewett, V. 1994. Beyond Lost Time Injuries: Positive Performance Indicators for OHS. Positive Performance Indicators Part 1: Issues. p 1-5.

Burgess-Limerick, T. & Burgess-Limerick, R. 1998. Conversational Interviews and Multiple-case Research in Psychology. *Australian Journal of Psychology*. 50(2):63-70.

The Boston Consulting Group (1992). Benchmarking best practice: Cost drivers in Australian workers' compensation systems. A report for the Victorian Accident Compensation System.

Engleman, A. 2000. INJURY MANAGEMENT V's Injury Management. Proceedings of National Workers' Compensation Symposium 2000. IIR Conferences.

Gardner, J.A. 1991. Early Referral and Other Factors Affecting Vocational Rehabilitation Outcome for the Workers' Compensation Client. *Rehabilitation Counselling Bulletin*.34(3):196-208.

Glendon, I.A. & McKenna, E.F. 1995. Human Safety and Risk Management. Chapman & Hall, London.

Hopkins, A. 1994. The Impact of Workers' Compensation Premium Incentives on Health and Safety. *Journal of Occupational Health & Safety – Aust NZ*, 10(2): 129-136

Hopkins, A. 1994. The Limits of Lost Time Injury Frequency Rates. Positive Performance Indicators Part 1:Issues. p29-35. WorkSafe.Australia.

Kenny, D. 1994. Determinants of Time Lost from Workplace Injuries: The Impact of the Injury, the Injured, the Industry, the Intervention and the Insurer. *International Journal of Rehabilitation Research*. 17(333-342).

Kenny, D. 1995. Barriers to Occupational Rehabilitation: An Exploratory Study of Long-Term Injured Workers. *Journal of Occupational Health & Safety – Australia and New Zealand*. 11(3):39-43.

Kenny, D. 1995. Common Themes, Different Perspectives: A Systemic Analysis of Employer-Employee Experiences of Occupational Rehabilitation. *Rehabilitation Counselling Bulletin*. 39(1) 55-71.

Kenny, D.T. 1996. The Roles, Functions and Effectiveness of Treating Doctors in the Management of Occupational Injury: Perceptions of Key Stakeholders. *The Australian Journal of Rehabilitation Counselling*. 2(2): 86-98.

Kenny, D. & Jones, S. 1995. Improving Injury Management: Parables, processes, paradigms and practices.

Mitchell, L.K., Brodwin, M.G. & Benolt, R.B. 1990. Strengthening the Workers' Compensation System by Increasing Client Efficacy. *Journal of Applied Rehabilitation Counselling*. 21(4):23-27.

National Occupational Health and Safety Council. 1995. Guidance Note for the Best Practice Rehabilitation Management of Occupational Injuries and Diseases. [NOHSC: 3021 (1995)]. Worksafe Australia.

National Occupational Health and Safety Council. 1994. Positive Performance Indicators Beyond Lost Time Injuries Part 1 – Issues. Worksafe Australia.

National Occupational Health & Safety Council. 1999. OHS Activity and Firm Performance. Worksafe Australia.

Oxenburgh, M. 1994. Increasing Productivity and Profit through Health & Safety. CCH Australia Limited.

Owen, K. 1996. The Economic Cost of Poor Performance in Occupational Health and Safety. *Journal of Occupational Health & Safety – Aust NZ* ,12(5):609-617.

Robson, L.S., Shannon, H.S., Goldenhar, L.M., Hall, A.R. 2001. Guide to Evaluating the Effectiveness of Strategies for Preventing Work Injuries: How to Show Whether a Safety Intervention Really Works. National Institute for Occupational Safety and Health. Publications Dissemination. Cincinnati, OH.

Shaw, A. 1994. OHS Performance Indicators for Benchmarking. Positive Performance Indicators Part 1: Issues. P15-27. WorkSafe Australia.

Tate, D.G. 1992. Factors Influencing Injured Employees Return to Work. *Journal of Applied Rehabilitation Counselling*, 23(2):17-20.

Tri Safe Audit. 2000. Division of Workplace Health & Safety. Department of Employment, Training and Industrial Relations, Queensland.

Appendix 2
Musculoskeletal Injury Management Process

