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THESIS

DISABILITY MANAGEMENT

**Developing the Ideal Disability Management Model:
The Diamond Health Management Model**

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ABSTRACT

Disability management is a relatively new field that has received some attention recently. Although organizations have traditionally avoided the management of disability and its associated costs, they cannot continue to do so. This paper demonstrated the high costs associated with workplace injuries. A literature search led to a plethora of models for managing disability. The purpose of this paper was to prove the need for disability management, but more importantly to develop an ideal disability management model: the Diamond Health Management (DHM) model. The model developed in this paper was the result of analyzing several models in terms of their strengths and weaknesses. Key elements were applied to the DHM Model. The DHM Model has gone beyond other models in its completeness and simplicity. As well, the DHM Model has a focus on the new challenges facing disability management: psychological disorders, substance abuse, and repetitive strain injuries. Evidence was presented to support the elements present in the DHM Model. Finally, suggestions for future research and implications for the field were discussed.

This is dedicated to my wife, Brigitte.

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INTRODUCTION

Overview

Disability Management is defined as “a seamless integrated approach to reducing the causes, duration, cost and impact of disability on people, their families, their colleagues and their employees.”¹ The American Compensation Association defines a disability management program as “a systematic strategy that seeks to prevent disability from occurring or to intervene soon after the onset of disability, with the goal of successful job maintenance or optimal timing for return to work.”²

Organizations face many challenges in the increasingly competitive global environment. In order for organizations to survive, they have to remain cost competitive. A new focus on managing disability costs is needed, moving from cost containment to an integrated strategic approach. “To control, even reduce health and disability costs, organizations must begin to manage their own destiny by carefully studying the root causes of the costs; enlisting the cooperation of line managers, employees, dependents, and third-party managers; and finally integrating management solutions so all parties work in concert.”³

This thesis is aimed towards the development of an ‘ideal’ disability management model,

¹Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 7.

²Akabas, Sheila, H. and Gates, Lauren, B., Planning for Disability Management: An Approach to Controlling Costs while Caring for Employees, 1995, American Compensation Association, p. 4.

³Barge, Bruce, N. and Carlson, John, G., The Executive’s Guide to Controlling Health Care and Disability Costs, 1993, John Wiley & Sons, Inc., p. 5.

which is defined as the recommended optimum or best practices model. In addition, the focus of the thesis takes the perspective of the firm. The model to be developed will primarily focus on benefitting organizations. Although there may be implications on society and individuals, these are not the emphasis of the research.

The thesis consists of five parts. The first part will prove the necessity for disability management. Statistics and data will be presented on the costs of disability and workplace injuries. In addition, reasons for the rise of disability costs will be discussed. Finally, evidence will be offered to support the contention that managing disability is beneficial to an organization.

The second part of the thesis focuses on the development of an ideal disability management model. A thorough literature review will be conducted. Although there is a plethora of models, it was not possible to present and discuss each one. Therefore several disability management models were chosen to provide a variety of different approaches used to manage disability. These models were examined for their importance in contributing to the 'ideal disability management model'. In addition, legislation and legal issues relating to disability management will be examined and discussed with respect to their impact on disability costs and return to work measures. Examination of the legal environment is important because it not only allows for compliance and avoidance of legal costs, but also forms the basis on which to build a disability management program.

The third part of the thesis brings together the contributions of the various models in formulating an ideal disability management model: the Diamond Health Management (DHM) model. The fourth part provides the methodology on how the model was validated. Results of a small empirical study are then presented. This is supplemented with an examination of

organizational case studies and insights from experts. Finally, the fifth part of the thesis provides a discussion on the limitations and contributions of the DHM Model, suggestions for future research, and the implications of the model on organizations.

Definition of a Disability

The World Health Organization employs three related concepts:

- 1) Impairment refers to anatomical abnormality.
- 2) Disability refers to limitation in functional activity.
- 3) Handicap refers to the social disadvantage that may result from either an impairment or disability.

A person may have a disability as a result of being born with it, or as a result of an occupational or non-occupational accident. It is important to distinguish whether a disability is suffered in or out of the workplace. This allows organizations to focus their strategies at both workplace and non-workplace based activities. For example, an organization can implement a vehicle safety program if it notices that a high rate of employees are injured in car accidents. Another reason to distinguish between work and non-work related accidents is the identification of barriers to return to work. The Menninger Foundation found that 60 percent of workers return to work after a non-work related disability, compared to 46 percent for workers with an occupational disability.⁴ One possible reason may be that a financial incentive exists for employees to stay off work in relation to work related injuries (only work related injuries are

⁴Insight Information Inc., Workers' Compensation Reform: Making the New Rules Work for You, 1997, Insight Press, p. 296.

covered by workers' compensation). An organization must address the barriers that would cause this disparity. The important point to remember is that no matter what the reason is for the disability, there is an impact on an organization in terms of financial, return to work, and accommodation considerations.

An organization looking at disability cannot only focus on the employee. Dependents account for 60 percent of the average employer's health care costs⁵. Dependent health can directly impact employee productivity and absenteeism.

A disability can be classified as either physical or psychological. It is important to distinguish and understand both types of disabilities in order to develop an effective disability management program. A physical disability is defined as a physical injury suffered that is serious enough to impair job performance. A psychological disability is defined as a stress-related disorder suffered that is serious enough to impair job performance. In fact, physical and psychological disabilities are not mutually exclusive and are frequently related. Four common signals that may indicate a psychological disability are changes in technical performance, changes in interpersonal behaviour, changes in availability (e.g. absenteeism, lateness, early leaving), and a change in physical well-being (e.g. increased visits to the occupational nurse, increased job-related injuries, prolonged repetitive illnesses).⁶

⁵Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 131. Original Source: Edington, D.W and Yen, L., Is it possible to simultaneously reduce risk factors and excess health care costs?, 1992, American Journal of Health Promotion, 6(6): 403-409.

⁶Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 114.

Part I: Proving the Need for Disability Management

The discussion on proving the need for disability management will be presented in four sections. Each section will provide reasons for the management of disability. The first section looks at the human resource challenges now faced by organizations. Organizations do not face the same challenges now that they faced 20 years ago. Disability management will be shown to meet each of these challenges. Second, workplace injuries will be examined in terms of financial and human costs. Trends will be identified to provide insight into where to focus a disability management program. Third, the reasons for the rise in disability costs will be discussed. Finally, evidence will be presented to show that disability costs can be managed. The purpose of proving the need for disability management is to foster top management support, an essential component of the ideal disability management model.

1. HUMAN RESOURCE CHALLENGES

One of the challenges facing organizations is the relentless pressure on organizations for improved efficiency and productivity. The pace and complexity of change has increased. Organizations have to examine and focus on the cost element of the profitability equation. Since human resource costs account for a large portion of the expense, it is necessary to find ways to reduce these expenses.

The proliferation of globalization has created new challenges for organizations.

“Globalization entails new markets, new products, new mindsets, new competencies, and new

ways of thinking about business.”⁷ New competitive pressures created by globalization will force organizations to better utilize their internal resources in order to survive.

Another challenge facing organizations is the push to be more consumer responsive. “Responsiveness includes innovation, faster decision-making, leading an industry in price or value, and effectively linking with suppliers and vendors to build a value chain for customers.”⁸ In order to achieve this goal, organizations must exhibit concern for its employees. Research indicates that employee attitude correlates highly with customer attitude.⁹ It is increasingly important for organizations to foster a culture that promotes organizational commitment and job involvement .

Another challenge is the ability to attract and retain employees. “In this ever changing, global, technologically demanding business environment, sourcing and retaining talent becomes the competitive battleground.”¹⁰ An organization will need to show concern for its employees. This will not only complement the recruiting process, but also affect job satisfaction. Although job satisfaction does not directly influence performance, it does influence absenteeism and turnover.¹¹

Disability management meets the above challenges by helping to control the costs of

⁷Ulrich, Dave, Human Resource Champions, 1997, Harvard Business School Press, p. 2.

⁸Ibid., p. 5.

⁹Ibid., p. 5.

¹⁰Ibid., p. 13.

¹¹Schermerhorn, Jr., John R., Hunt, James, G., Osborn, Richard, N., Managing Organizational Behavior, Fifth Edition, 1994, John Wiley & Sons, Inc., p. 145.

workplace injuries, invariably improving profitability. A disability management program also shows concern for the well-being of employees which supports attracting and retaining employees. This supports organizational commitment and job involvement, which in turn promotes the customer value-chain.

2. COSTS OF WORKPLACE INJURIES

2.1 Number of Injuries in Canada

The costs of workplace injuries are extremely high in Canada. A work injury resulting in lost time occurs every 15 seconds, leading to twenty million work days lost. In addition, 1,000 workers die in workplace accidents every year.¹² "A staggering 1.2 million Canadians are injured on the job every year. Some 300,000 Canadians have been judged unable to work because of injury, and are on lifetime pensions. Disability has marginalized these people; one can only imagine the ongoing misery of chronic pain combined with an abandonment of hope for future productivity."¹³ About three-quarters of workers are back on the job within six weeks of a reportable injury, however, five percent are off work for more than a year.¹⁴

An International Labour Organization [ILO] report advises that disability claims are "surging in industrialized countries, rising as much as 600 per cent from 1985 to 1996. The

¹²Lam, Natalie, Professor, University of Ottawa, Human Resource Management Course-Handout, 1997.

¹³Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 24.

¹⁴Ibid., p. 24.

Report says the number of disabled, estimated at 600 million globally, has been steadily rising for a variety of reasons, including the emergence of diseases such as AIDS, as well as stress, alcohol and drug abuse."¹⁵

Statistics are presented in Appendix A on the number of time-loss injuries by province for the years 1982 to 1995 inclusive. "A time-loss injury is an injury where an employee is compensated for a loss of wages following a work-related accident (or exposure to a noxious substance), or receives compensation for a permanent disability with or without any time lost in his or her employment."¹⁶ The statistics indicate that the number of time loss injuries in Canada reached a peak in 1989 and have since been declining¹⁷. One reason for the decline has been the proliferation of companies to recognize workplace injuries as a corporate issue. Many organizations are now implementing programs to address the health and safety of their employees. Companies that fail to do so are increasingly at a competitive disadvantage. Effective disability management is now becoming even more critical than before.

2.2 Financial Cost

The financial costs of health care, workers' compensation, and disability coverages are

¹⁵Beauchesne, Eric, "Disability claims surge in cost and frequency", The Ottawa Citizen, May 20th 1998, p. F1. Original Source: ILO Press Release (ILO/98/19).

¹⁶Association of Workers' Compensation Boards of Canada, Work Injuries and Diseases: National Work Injuries Statistics Program Canada 1993-1995, p. 128.

¹⁷Ibid., p. 5.

spiraling, accounting for at least 10-20 percent of the payroll of most employers.¹⁸ "Direct costs for injuries in Canada exceed \$3 billion annually. These direct costs include doctors, hospitals, medical research and drug therapy. Direct costs are not directly absorbed by the organization, but by the Canadian health care system. Indirect costs include the value of resources lost through impaired productivity or premature mortality. These indirect costs exceed \$11 billion annually."¹⁹ Translated for an individual employer, indirect costs of disability account for 8% of payroll costs broken down into three categories:²⁰

1. apparent costs for absenteeism and income replacement in the form of disability payments, insurance plans and medical care - 4% of payroll;
2. hidden costs covering loss of productivity, replacement workers, management and supervisory time - 3% of payroll; and
3. disability management costs - including claims management, employee assistance, prevention and safety programs, and return to work programs - 1% of payroll.

Gabriele Stoikov of the International Labour Organization [ILO] states, "disabled workers cost Canada an estimated \$16 billion a year in lost production, on top of billions of dollars governments and businesses pay out annually in disability benefits."²¹ "The Conference Board of

¹⁸Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 38. Original Source: Data Watch, Business & Health, March 1992., p. 18.

¹⁹Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 25.

²⁰*Ibid.*, p. 26.

²¹Beauchesne, Eric, *op.cit.*, p. F1. [estimates of indirect costs will vary as different agencies will use different methodologies in calculating costs]

Canada estimates that employee absenteeism costs nearly \$15 billion each year and each sick day can cost a company upwards of \$300 per employee."²²

The following table illustrates the need for organizations to address workplace disability at a strategic level by showing the linkage between the cost of injuries and a company's profit margin. For example, a company with a profit margin of 10 percent would have to have sales of \$2.5 million to offset injuries costing \$250,000. If accident costs hover around \$1 million, a company would have to secure sales of \$10 million to maintain the same 10 percent profit margin. Accidents cost companies and affect their bottom line.

TABLE A: Rate of Return Calculation for Safety and Health ²³

Accident Costs (Dollars)	Sales Necessary to Offset the Cost of Injuries at Different Profit Margins				
	Company Profit Margin				
	2%	4%	6%	8%	10%
\$ 50,000	2,500,000	1,250,000	833,000	625,000	500,000
100,000	5,000,000	2,500,000	1,667,000	1,250,000	1,000,000
250,000	12,500,000	6,250,000	4,167,000	3,125,000	2,500,000
500,000	25,000,000	12,500,000	8,333,000	6,250,000	5,000,000
1 million	50,000,000	25,000,000	16,667,000	12,500,000	10,000,000
10 million	500,000,000	250,000,000	166,667,000	125,000,000	100,000,000
20 million	1,000,000,000	500,000,000	333,333,000	250,000,000	200,000,000

²²Mellon, Derik, "Sick days costly to employers", Ottawa Business Journal, May 18th 1998, p. 12.

²³Minerva Educational Institute, Xavier University, Cincinnati.

2.3 Human Toll of Disability

The impact on people is sometimes overlooked. Feelings of embarrassment and fear are common after a workplace injury. Stress may result as the injured person has to change his or her quality of life, deal with family issues, and deal with changes in the job. On an organizational level, morale may decline. Other employees have to deal with replacement workers, as well as the fear of injury. "Replacements must be hired and taught; colleagues must adjust to a new member of the team; management must manage this process; customers and clients wait; sales are lost; jobs are unfinished; co-workers try and pick up the slack; morale suffers."²⁴ Low morale or job satisfaction may lead to absenteeism and turnover.

2.4 Trends

One trend identified by looking at statistics from the Worker's Compensation Board of Ontario is that the number of fatalities has been steadily decreasing over the years [Appendix B]. One reason for this is the shift from a manufacturing/industrial-based economy to an information/services-based economy. This, however, is no cause for celebration. Offsetting this is the proliferation of subjective ailments (psychological injuries) and repetitive strain injuries.

The costs associated with psychological injuries remain high [Appendix C]. These type of illnesses will rise as companies continue to cut costs and downsize. The remaining workers will face larger workloads and longer hours. In addition, employees now face other pressures that were not as prevalent in the past. For example, the advent of two income earner families has

²⁴Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 25.

placed added pressures on employees. It has been estimated that 75% to 90% of all doctor's visits are now stress related.²⁵ The following statistics demonstrate the high claim costs associated with psychological disorders: the average claim cost in Ontario was \$20,489 in 1991, \$18,665 in 1992, \$30,833 in 1993, \$19,734 in 1994, \$16,661 in 1995.²⁶

An American study done by the U.S. Department of Health and Human Services found that psychological disorders are a growing problem, and for the first time (in 1992) were reported among the top ten work-related diseases and injuries.²⁷ A recent study released January 20th 1999 was conducted in Canada. This study concluded that stress places a clear and present danger to a worker's health. In addition, mental disorders have physical consequences in terms of heart disease and stroke, gastrointestinal diseases, cancer, and blood diseases. The report states that approximately 14 percent of worker absenteeism in 1998 was attributed to mental illness, with depression costing about \$6 billion a year in Canada in terms of sick pay and lost productivity.²⁸ The report indicates that while the main causes of absenteeism now are infectious diseases and heart disease in developed countries, it predicts that depression alone will be the number one

²⁵Gravelle, Rosemary and McCrea, Greg, "Cost Containment Through Disability Case Management", National Conference on Disability and Work presentation, October 1996.

²⁶Workers' Compensation Board of Ontario (Ontario Workplace Safety and Insurance Board).

²⁷National Institute for Occupational Safety and Health, Proposed National Strategies for the Prevention of Leading Work-Related Diseases and Injuries--Psychological Disorders, 1992, Washington D.C.: U.S. Department of Health and Services.

²⁸Wilkerson et al., Mindsets: Mental Health--The Ultimate Productivity Weapon, 1999, Canadian Mayor's National Initiative on Mental Health, Canadian Business and Economic Roundtable on Mental Health, and the Homewood Centre for Organizational Health.

cause of absenteeism over the next two decades. The report estimates that 75 percent of depression cases are not diagnosed or treated.²⁹ It calls for greater awareness, research and prevention. It highlighted the need to erase the shame and stigma so that employees seek help. The report concluded that it is profitable for businesses to help workers maintain their mental balance. Companies must address psychological disorders for this reason in order to manage future health care costs.

Costs for musculoskeletal injuries also remain high. "These injuries, encompassing sprains, strains, or inflammations of the muscles, tendons, and ligaments of the back, neck and arms are among the most prevalent and costly conditions affecting modern workplaces, accounting for about 60% of workers' compensation claims."³⁰ The incidence of repetitive strain injuries are escalating. Statistics Canada estimates that repetitive strain injuries cost businesses \$1.5 billion in 1995.³¹ Repetitive strain injuries accounted for 24% of all lost-time claims in Ontario in 1992 at a cost of \$137 million.³² These high costs are not limited to Ontario. British Columbia lost 1.2 million work days to repetitive strain injuries in 1993 at a cost of \$150 million. The U.S. Bureau of Labour Statistics reported that cumulative trauma disorders (repetitive motion injuries, overuse injuries, carpal tunnel syndrome) have increased 63% from 1990 to

²⁹Ibid.

³⁰Institute for Work and Health, "A New Approach to Workplace Health", At Work: The Newsletter of the Institute for Work and Health, Issue #10, Winter 1998/99, p. 5.

³¹Darolfi, Lidia, "Canadian Tire Acceptance Limited and ARI: A Partnership in Preventing Repetitive Strain Injuries", Rehab, Volume 1, Number 2, Fall 1996, p. 3.

³²Institute for Work and Health, "Research Excellence Advancing Employee Health; The Institute for Work and Health", Annual Report 1997, p. 3.

1993.³³

It is interesting to note that two studies conducted by the Institute for Work and Health found that psychosocial factors were associated to back pain and repetitive strain injuries. A study done at the General Motors automobile plant compared workers that reported back pain with those that did not. The study found that workers exposed to certain physical and psychosocial factors were more likely to report low-back pain. Another study was done at the Toronto Star. This study focused on repetitive strain injuries and found similar results. Psychosocial factors include decision latitude of the job, complexity and pace of work, and social arrangements on the job.³⁴

3. REASONS FOR THE INCREASE IN DISABILITY COSTS

It is important to examine the reasons for the rise in disability costs. An understanding of these reasons provides valuable insight on ways to control costs in the future.

One reason is the lack of senior management involvement. Seldom are disability and health costs included in strategy formulation. Two reasons for this lack of involvement include not understanding the gravity of the situation and reliance on third party providers. Third party providers include case management organizations, long-term disability providers, etc.

Another reason is that many organizations have failed to recognize and understand

³³Gravelle, Rosemary and McCrea, Greg, "Cost Containment Through Disability Case Management", National Conference on Disability and Work presentation, October 1996.

³⁴Institute for Work and Health, "A New Approach to Workplace Health", At Work: The Newsletter of the Institute for Work and Health, Issue #10, Winter 1998/99, p. 4-5.

changes in the environment:³⁵

- 1) Strong movement toward levels of self-insurance for health and disability costs.
- 2) Increased availability and use of sophisticated medical technology.
- 3) Strong increase in subjective types of illness and injury.
- 4) Proliferation of management services and information.

Each of these four changes represents a major source of strategic leverage for controlling health and disability costs. The first major change in the environment is the shift toward self insurance. "Traditionally, many employers were buffered from direct involvement in their health and disability costs by insurance companies or third-party managers. Indemnity insurance was the rule, and even with the advent of managed care, the rates of many health plans were based on the experience of the community rather than the organization itself."³⁶ Although self insurance allows organizations more accountability and leverage in controlling costs, many organizations continue to avoid it.

Although medical technology has become more sophisticated and effective, organizations have failed to manage it effectively. Technology is a two-sided sword. For example it can prolong the life of a terminally ill person, thereby at added expense. Technology also provides for early detection and more effective treatment. Most health and disability cases follow the Pareto Principle, or the 80-20 rule [the bulks of cost exposures (approximately 80 percent) come from a minority of cases (approximately 20 percent)]. In fact, some studies indicate that only 10

³⁵Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 10.

³⁶*Ibid.*, p. 11.

percent of health and disability cases account for 70 percent of total costs, an even stronger relationship than the typical Pareto.³⁷ Technology must be managed properly with a focus on early intervention and diagnosis, especially with relation to potentially high cost cases [e.g. psychological disorders].

Another change in the environment is the proliferation of subjective and psychological related injuries. The costs of psychological disabilities are greater than twice the injury disability claim [\$150 billion per year in the U.S. according to Blue Cross/Blue Shield statistics³⁸]. Organizations that fail to recognize this shift and treat it proactively will be at a competitive disadvantage. As shown by the statistics in the previous section, societal and economic changes have significantly reduced the cost of extreme health and safety problems. Along with the shift from a manufacturing-based economy to an information-based one, there is a greater emphasis toward health and safety. However, the change of a manufacturing-based economy to one that's information based has created new pressures and problems for the workplace. "A study by Kaiser Permanente, the large health management organization in California, found that 60 percent of all physician visits were by patients who had nothing physically wrong with them, and another 20-30 percent were patients whose physical illness had a stress related component."³⁹

³⁷Barge, Bruce, N. and Carlson, John, G., op.cit., p. 11. Original Source: Edington, D.W and Yen, L., "Is it possible to simultaneously reduce risk factors and excess health care costs?", 1992, American Journal of Health Promotion, 6(6): 403-409.

³⁸Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 113. Original Source: Sperry, Len, Psychiatric Consultation in the Workplace, 1993, American Psychiatric Press.

³⁹Cummings, N. and VandenBos, G., "The Twenty Years Kaiser Permanente Experience with Psychotherapy and Medical Utilization", 1981, National Political Quarterly, 1: 159-175.

One reason for the proliferation of costs associated with psychological illnesses is the lack of trained managers, union reps, or HR personnel to sensitively identify a worker's risk. Another reason is the lack of mental health consultants to further evaluate, refer to treatment, and facilitate post-treatment re-entry.⁴⁰

The last change in the environment involves the proliferation of information. However, organizations have failed to use information as a source of leverage in controlling costs. "The information age has brought about an explosion of data about health care, workers' compensation, and disability claims. For many organizations, however, the data has not bridged the gap between information and understanding--the gap between knowing what happened and comprehending why it happened."⁴¹ Information must be used strategically to provide focus, understanding, and commitment to all parties involved. This will lead to the identification of opportunities to improve health and control costs.

Finally, government policies are another reason cited to have played a factor in the rising costs of disability. An ILO report states that government policies to help the disabled have not kept pace. "This is particularly true for those workers suffering from the new occupational diseases, for example, those related to stress, and for those who have invisible disabilities that do not fall within the scope of legal definitions. At the same time, national systems in place to protect the incomes of disabled workers, such as provincial worker compensation systems and the Canada and Quebec Pension Plan disability programs, may often discourage the disabled

⁴⁰Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 113.

⁴¹Barge, Bruce, N. and Carlson, John, G., op.cit., p. 14.

from returning to work."⁴² "The report also warns that new laws to protect the disabled, which have the potential to raise employer costs, may in fact merely increase the reluctance of employers to hire them. Part of the problem stems from fragmented, uncoordinated and often contradictory policies and practices and the interplay between different parts of national systems."⁴³

Examining the reasons for the rise in disability costs provides valuable insight for managing disability. In particular, it shows the importance of top management support, information management, early intervention, and an understanding of the legal environment and its limitations. In addition, it shows the need to address subjective and psychological related injuries.

⁴²Beauchesne, Eric, "Disability claims surge in cost and frequency", The Ottawa Citizen, May 20th 1998, p. F1.

⁴³Ibid., p F1.

4. EVIDENCE FOR MANAGING DISABILITY & HEALTH

There is strong evidence that the active management of health and disabilities can reduce costs substantially. The following table shows how 10 employers have successfully controlled their health and disability costs:

TABLE B: Evidence for Managing Disability and Health ⁴⁴

Organization	Approach	Results
<i>City of Birmingham, Alabama</i> Medium-sized public entity	Active, multifaceted wellness program combined with HMO	Health care costs flat from 1985 to 1990, saving estimated \$30 million
<i>DuPont, Inc.</i> Large manufacturing organization	Long-standing tradition of management involvement in safety	Workers' compensation lost workday rate 1500 times better than national average
<i>Standard Telephone, Inc.</i> Small telephone company	Active wellness and employee involvement in health	Spends 8% of payroll on health care costs compared with 13.6% nationally
<i>Johnsonville Foods, Inc.</i> Medium-sized meat-preparation company	Team-based, empowering environment with strong commitment to quality	1991 total health care costs of \$1900 per employee, half the national rate
<i>Bank of America</i> Large financial services company	Individually tailored health promotion program for retired employees	Reduced retiree health care costs by 22% in study group vs. 12% increase in control group
<i>Leaf, Inc.</i> Small candy company	Strong employee involvement in quality and safety	Reduced workers' compensation costs by 35% from 1986 to 1991 vs. national increase of 82%
<i>Quad Graphics, Inc.</i> Medium-sized printing organization	Strong culture of encouraging employee involvement and responsibility	1991 health care costs per employee \$2350, one third lower than U.S. average
<i>McDonnell-Douglas, Inc.</i> Large manufacturing organization	Strong employee assistance program that tailors treatment to employee	Estimated savings of \$15 million for 1987-1989 in lower costs and absenteeism
<i>Weyerhaeuser, Inc.</i> Large forest products firm	Very active safety, disability management, and return to work program	Reduced workers' compensation costs by 51% from 1984 to 1990, saving over \$50 million
<i>Northern Telecom, Inc.</i> Large telecommunications firm	Integrated, cross-functional effort; enhanced use of information, prevention, benefits changes	Reduced cost per health care claim 18% from 1984 to 1988; workers' compensation reduced by 40%

⁴⁴Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 6.

Four conclusions can be drawn from the table:⁴⁵

- 1) Health and disability costs can be significantly reduced and controlled.
- 2) This opportunity exists in organizations of all types and sizes.
- 3) Many different approaches can be of value in reducing these costs.
- 4) All successful programs have active management support.

“For the organization seeking to capitalize on this untapped leverage, the cost savings represent a significant competitive differentiator. Reducing health and disability costs by even 10 percent can boost corporate earnings, free up capital for investment, or allow more flexibility in pricing. This advantage is compounded over future years, as the cost levels established one year affect cost baselines and rate of progress in the following years. In addition, employees will usually be healthier, more productive, and more committed to the organization. The opportunity is great for creating a more competitive organization through enhanced management of health and disability.”⁴⁶

⁴⁵Ibid., p. 5.

⁴⁶Ibid., p 10.

Part II: Development of the Ideal Disability Management Model

5. METHODOLOGY

The development of the ideal disability management model will first consist of a thorough literature review to examine several different disability management models. Each model will be examined and reviewed for its contribution to the ideal disability management model. Next, the legal environment and obstacles to return to work will be discussed. The legal environment is important in that it shows the legal requirements for a disability management model. Failure to comply with the legal requirements may result in serious financial penalties. Next, obstacles related to return to work will be examined. If these obstacles are not understood and addressed, a disability management model will not be effective.

6. DISABILITY MANAGEMENT MODELS

The following is a review of several disability management models. Each model will be examined in terms of what it adds to the ideal disability management model. The first model to be examined is the cost containment model. This model is effective but does not address the root causes for the rise in disability costs. The next models to be examined are from consulting firms [Ernst & Young, KPMG]. Consulting firms deal with a variety of organizations. It is important to examine their models in order to identify key success factors. Next, the American Compensation Association Model [ACA Model] and Health Triangle Model will be examined. These models have some key points that will be applied to the ideal disability management model.

6.1 Cost Containment Model

The cost containment model attempts to reduce treatment costs by improving the administration and efficiency of medical care. Some of the approaches used are reducing coverages or shifting costs to employees [e.g. deductible on medical services], limiting the length of institutional stay for health care, emphasizing outpatient forms of treatment, and managing transfers through stages of treatment.⁴⁷

The cost containment model attempts to manage the risks associated with disability and health care costs (risk management) by focusing its efforts on avoidance. An avoidance approach involves the elimination of financial liability responsibility through coverage limitations. Examples of risk avoidance practices are coverage eligibility with probationary period for new employees, coverage limitations (e.g. policy exclusions and preexisting condition limitations), incentives to drop coverage, incentives to remove dependents, and incentives to opt out of coverage.⁴⁸

The cost containment model can be compared to 'operational effectiveness' described by Michael Porter. Michael Porter states that cost cutting [operational improvement] is not sufficient. "Although the resulting operational improvements have often been dramatic, many companies have been frustrated by their inability to translate those gains into sustainable profitability."⁴⁹

⁴⁷Ibid., p. 17.

⁴⁸Ibid., p. 43.

⁴⁹Porter, Michael, E., "What is Strategy?", Harvard Business Review, November/December 1996, p. 61.

Although the cost containment model can reduce costs for an organization, it is only one piece of the puzzle. The following are reasons why the cost containment model cannot be used in isolation.⁵⁰ The cost containment model reinforces a lack of involvement for line managers, employees, and dependents. Instead, health care is the responsibility of providers, third parties, or staff units. The emphasis is on treatment and medical care, rather than toward total health care, including prevention, early intervention, and outcomes. The cost containment model also takes a short-term view of cost control, addressing symptoms and 'end-of-the-line inspection' rather than the root causes of health and disability costs. Finally, the goal of cost containment is to moderate or reduce costs.

6.2 Models Used By Consulting Firms

A couple of consulting firm models are presented below. Consulting firms possess a great deal of experience by dealing with a variety of organizations. It was thought that an examination of their models would provide additional insight in the formulation of the ideal disability management model.

6.2.1 Ernst & Young Model

The Ernst & Young model focuses on six elements in the development of a disability management program:⁵¹

- 1) communication
- 2) information management

⁵⁰Barge, Bruce, N. and Carlson, John, G., op.cit., p. 18.

⁵¹Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 291-327.

- 3) supervisor/management involvement
- 4) return to work programs
- 5) early intervention programs
- 6) formalized plan management.

Communication is of three types: with active employees, with absent/disabled employees, and with disability providers. Communication for active employees should include training and orientation with respect to prevention and reporting of injuries. An information package should be developed and distributed. As well, periodic education is essential. Communication with disabled employees should involve early contact with the employee. This early intervention is essential to minimize the costs of the disability/absence. Again, an information package should be developed to explain the obligations on the part of employees, their rights, and the obligations of the employer. It should also point out that the organization is committed to the early return of the worker. Communication with disability providers means communicating and working together with the insurer, worker's compensation, and other disability contractors.

Information management involves having an information system capable of absence tracking, standardized reporting, and absence data analysis. At the heart of good management practices is the right information at the right time, properly analyzed: who is absent, who has been contacted, why the absence has occurred. Supervisor involvement requires that managers are trained to understand their responsibilities and to ensure accountability. Return to work programs should have union involvement [if applicable], be accommodating, include modified work, and use a coordinated approach. Early intervention programs should be structured using a

case management approach. Formalized plan management involves having a published corporate policy, documented roles and responsibilities, comprehensive reporting, and continuous review and improvement.

The Ernst & Young Model presents a good overview of some key factors. These in turn will be applied to the ideal disability management model.

6.2.2 KPMG Model

Laura Mensch, Manager, KPMG Actuarial, Benefits & Compensation Inc., was contacted for the present study and provided documentation regarding KPMG's absence management model. KPMG defines absence as 'a failure of employees to report to work when they are scheduled to work.' The goal of absence management is two fold: reduce the incidence of absence and shorten the duration of absence. The objectives of absence management are to keep skilled employees at work, to maintain a reputation for fairness of programs among employees (promotes morale), and to ensure financial viability of a group disability plan. KPMG lists the key ingredients of managing absence as:

- senior management support
- constructive, positive policy
- simple, clearly stated communication protocol
- managers trained to intervene & accommodate.

KPMG advocates removing the distinction between the types of absence. No matter why the employee is off, he or she is costing the organization. KPMG also advocates coordinating organizational resources (Health and Safety, Employee Assistance Program, Insurer/Disability Management Provider, Human Resources) and an emphasis on data collection/outcome

measurement.

KPMG supports a move away from the medical model which relies on the medical community to one which places the control back into the hands of the workplace parties. The following are elements of the alternative approach suggested by KPMG:

- put in place a communication process
- employer and employee discuss the absent employee's abilities.
- if barriers exist, address them [e.g. performance, personal, workplace conflict]
- if the employee can be accommodated, do it immediately

Each organization should develop a protocol to suit its culture and business considerations. An organization must decide what it will accept from every employee by defining attendance expectations. This will involve gathering and evaluating current attendance data to set reasonable standards for triggering initiation of the absence management process. The organization must be clear on how the standard was derived. This standard must be communicated to employees and applied consistently.

KPMG defines a 'high risk absence' as:

- self reported/subjective complaints
- disagreement in the medical community over the appropriate treatment
- long time frames for recovery
- debate over psychological component of disability (e.g. chronic fatigue syndrome, fibromyalgia)
- involving performance issues, work conflict, or harassment allegations.

To deal with high risk absences, KPMG advocates speaking with the employee to

ascertain what the employee believes he or she can do. This can be done by phone, in person, or a meeting set up at the workplace. It is important to send a message that the employee is needed back at work and that the employer can and will accommodate restrictions to achieve a return to work. KPMG advocates reviewing the medical information and discussing it with the attending physician. The specific limitations and restrictions of the employee should be ascertained. If the physician cannot provide specific restrictions or the restrictions do not make sense, an independent assessment is in order. Assessment strategies include using Independent Medical Examinations (IME) and functional abilities assessments. A good IME provides the employee's limitations, treatment recommendations and a time frame for return to work. A functional abilities assessment measures the employee's current abilities. Other assessment tools include: home visitation program, physician interviews, surveillance, and psychiatric assessments.

KPMG suggests that innovative return to work programs be developed. Transitional work, reduced hours, and/or modified duties should be made available. A rehabilitation plan should be created early in the life of an absence. Time frames for transitional work should be set with a written plan in place with objectives and corresponding timelines. Finally, KPMG suggests the use of a case management plan. Every prolonged absence should have a corresponding action plan. A plan should include specific strategies for absence resolution with timelines attached.

The KPMG Model contributes to the ideal disability model by advocating the importance of top management support and having managers trained to intervene and accommodate. In addition, the KPMG Model provides a good outline for a return to work plan (case management).

It advocates the importance of communicating with the employee and physician to ascertain functional capabilities, with the use of other assessment tools if needed.

6.3 The American Compensation Association [ACA] Model

The contribution of this model to the ideal disability management model relates to five important components: a needs assessment, the coordinating committee, use of case management services, implementing a program monitoring and evaluation system, and establishing a disability prevention strategy. For brevity sake and to avoid repetition with the other models examined, only these five components will be discussed. The five other components of the American Compensation Association [ACA] have already been discussed by the models used by consulting firms [develop policies and procedures, identify program candidates as early as possible, provide transitional employment, communicate the program, train employees]. The similarity of these five components of the ACA model and the two consulting firms lends support that these elements should be an integral part of any comprehensive model.

The ACA consists of ten components divided into three stages, illustrating that specific steps must be taken⁵². The ACA provides valuable insight by identifying the components for preparing, implementing, and ensuring ongoing commitment to disability management.

⁵²Akabas, Sheila, H. and Gates, Lauren, B., op.cit., p. 5.

Stage A: Preparing for Disability Management

- 1 - Conduct a needs assessment
- 2 - Appoint a coordinating committee
- 3 - Develop policies and procedures

Stage B: Implementing a Disability Management Program

- 4 - Identify program candidates as early as possible
- 5 - Use case management services
- 6 - Provide transitional employment and accommodated-work opportunities

Stage C: Ensuring Ongoing Commitment to Disability Management

- 7 - Communicate the program to the work force
- 8 - Train employees with the new disability management responsibilities
- 9 - Implement a program monitoring and evaluation system
- 10 - Establish a disability prevention strategy

Component One

The first step involves conducting a needs assessment. An organization must examine its need for a disability management program. This will involve a thorough examination of the organization's disability experience, corporate characteristics, and legal requirements. A needs assessment provides the necessary information to convince the company's decision-makers that a disability management program is needed and that it will be cost effective.⁵³ A needs assessment

⁵³Ibid., p. 7.

can also be used to point out problems that lead to disability, and hence, solve the root issues.

Component Two

The next step is the formation of a coordinating committee. "The coordinating committee is the initiator and guardian of the policies and procedures of the disability management program, and it is responsible for monitoring and evaluating the practices of the program."⁵⁴ The committee should consist of key players on all sides. In addition, representatives from the union and also from case management organizations should be included. The coordinating committee is one of the aspects of this model that sets it apart from other models. Although it is only a start with respect to integration, it should be noted that returning an injured worker is seldom the responsibility of just one department. Many departments are usually involved [e.g. HR, Finance, Benefits, Medical, Production, etc.]. The coordinating committee alleviates the problems associated with disagreements among departments.

Component Five

This step involves the use of case management services. "The purpose of case management is to coordinate all disability services and benefits into a unified program that supports job maintenance."⁵⁵ The functions of case managers are listed below:⁵⁶

- work with attending physicians to share information regarding the possibilities of accommodation at the work site
- secure whatever services (medical, social or psychological) are needed by individuals with

⁵⁴Ibid., p. 9.

⁵⁵Ibid., p. 14.

⁵⁶Ibid., p. 14.

disabilities and their family members

- facilitate return to work between supervisors and employees
- help identify appropriate work accommodations
- help secure ergonomically sound work space.

The organization must choose whether to develop internal case managers or contract out to external vendors [See Appendix D]. If an external vendor is used to manage cases, guidelines must be established concerning time, cost and outcome expectations.

Component Nine

The step involves implementing a program monitoring and evaluation system. Cost savings data must be gathered in order to prove the initiative is contributing to the bottom line.

Costs related to getting the worker back to work, for example, must be gathered.

“Documentation should begin with the identification of a possible case for the program. An estimate can be made of what it would take to return the individual involved to full functioning on the job.”⁵⁷ Once the actual costs are calculated, cost savings must be estimated [e.g. reduced disability benefits and health care costs].

Component Ten

The last step involves establishing a disability prevention strategy. “The data collected to monitor and evaluate the program also can be used to view the organization as a whole and to identify groups and places where disability tends to occur.”⁵⁸ Once trends are identified, the organization can make the appropriate interventions. This component shows the importance of

⁵⁷Ibid., p. 21.

⁵⁸Ibid., p. 22.

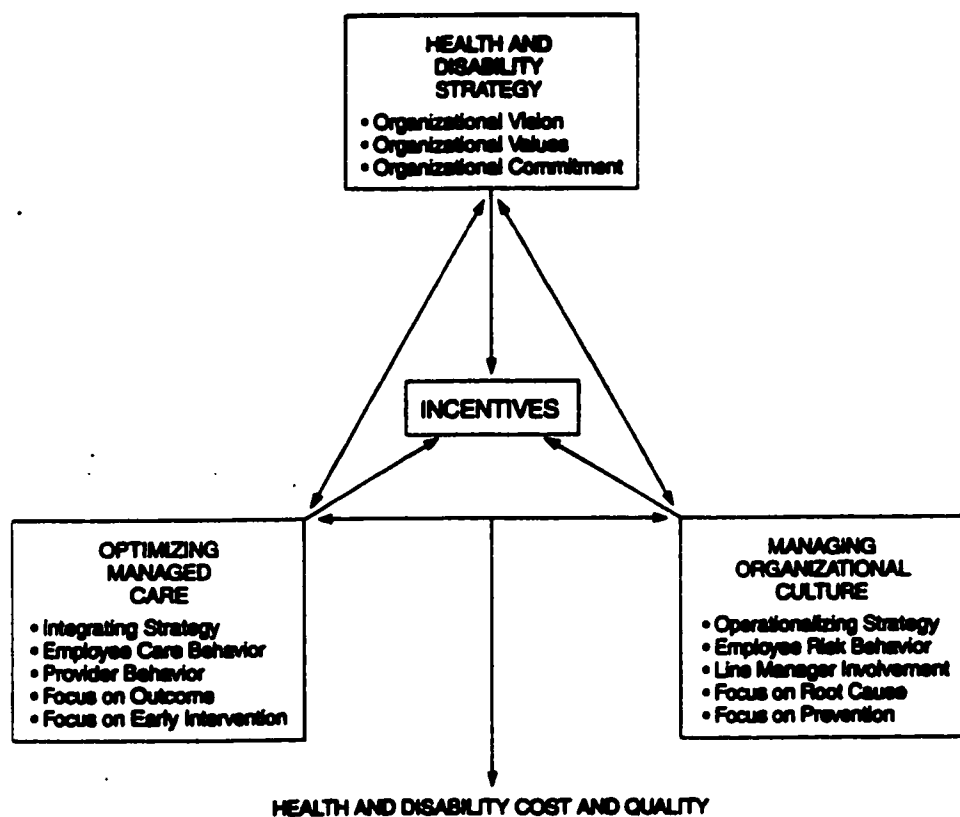
using information to link results with causes.

The ACA Model provides a good outline for a disability management program. It is easy to follow and utilizes information in a proactive manner. One weakness of the ACA Model is its limited focus on the culture and behaviour of employees. Communication efforts and training are not sufficient to influence the behaviour of employees. Another weakness concerns the concept of integration. Although the ACA Model uses a coordinating committee consisting of key stakeholders, this may not be sufficient to integrate the entire organization toward health. The next model to be examined will build on these weaknesses.

6.4 The Health Triangle Model

The Health Triangle Model contributes to the ideal disability management model by identifying several key points: need for integration, early intervention, information management, establishing accountability, and the importance of culture. The Health Triangle Model is an "approach to managing health and disability that recognizes its complexity and need for integration."⁵⁹

⁵⁹Barge, Bruce, N. and Carlson, John, G., op.cit., p. 19.

FIGURE A: The Health Triangle Model ⁶⁰

The Health Triangle consists of three elements [Health and Disability Strategy, Optimizing Managed Care, Managing Organizational Culture] that are linked and interdependent.

Integration of the three elements is key to the Health Triangle.

Element One: The Health and Disability Strategy

The health and disability strategy is an important element by providing the framework for the entire disability management program. It provides that all parties are moving toward the same goals. The following are the important concepts related to the health and disability

⁶⁰Ibid., p. 20.

strategy.

Accountability

The Health Triangle Model advocates that costs be managed through a new strategic framework for categorizing health and disability costs. Once the complete range of direct, indirect, and hidden costs are identified (maybe only initially estimated), costs can be assigned to three categories--health, care, and productivity. This three-way management system creates specific management accountabilities for employees, dependents and line management.

Managing Forward

Another important aspect of the Health Triangle Model is the concept of 'Managing Forward'. This entails an approach to focus all health, health care, and disability activities toward health--a proactive approach. "By eliminating, reducing, and influencing human activities, health and safety risks can be similarly eliminated, reduced, and controlled often without a care episode ever taking place. This strategy emphasizes health and management interventions by employers and employees themselves instead of treatment interventions by providers with related management oversight."⁶¹ An example of this is the use of a health and safety or a wellness program.

"The management of health and disability costs reduces the frequency, severity, and duration of illness, injury, and disability. Moving health events forward compounds cost savings because it prevents subsequent health events. And as activities move toward health and away from health care, employers improve their control over health and disability programs.

⁶¹Ibid., p. 36.

Similarly, employees and dependents obtain greater control over personal health issues."⁶² The Health Triangle Model advocates a risk management approach rooted in prevention, not avoidance [see Cost Containment Model].

Element Two: Optimized Managed Care

Optimizing managed care means assessing health and disability expenditures according to value [quality and cost, as well as the impact of health and disability on productivity].

Optimized Managed Care involves "integrating the organization's strategy in a way that closely links management of employee health and productivity with management of medical care treatment."⁶³ Employers should consider 'value added' when selecting and monitoring the performance of third-party managers.

The benefits of an integrated health and disability approach are improved cost and quality. These gains are obtained through focused management in three strategic directions:⁶⁴

1. managing health: An intervention approach
2. managing care: A systematic approach to obtaining value
3. managing productivity: integrating workplace health and disability.

Managing Health: An Intervention Approach

"Health is the overriding quality measure--the primary goal and the ultimate outcome of care activities."⁶⁵ Managing health must be examined as an investment. Organizations must

⁶²Ibid., p. 38.

⁶³Ibid., p. 21.

⁶⁴Ibid., p. 69.

⁶⁵Ibid., p. 71.

manage their health activities through a return on investment approach. Programs must be examined in terms of their needs and effectiveness.

‘Utilization’ data is a key part of managing health by providing multiple pieces of information. “First, participation in health programs is an important indicator of the breadth and depth of health activities within a covered population. Second, the incidence of illness, injury, and disability fundamentally determines employees’ utilization of health care services, and occasional related legal counsel.”⁶⁶ Employers need to stress utilization as the integrating information mechanism. Utilization data can provide employers the means to identify employee and dependent health patterns and assess health and disability expenditures. Internal and external programs can then be designed to solve critical utilization issues.

Managing Care: A Systematic Approach to Obtaining Value

Many employers have a fear of clinical (medical) issues which makes them reluctant to become involved in the management of care and leads to over reliance on third parties. “At the time of overall program development, it is necessary to have an investment approach that strategically commits funding at the critical cost leverage points. Competent internal or third-party management also needs to be engaged at each stage of the health continuum (from prevention and early diagnosis to optimized care). Information feedback can then provide the basis for ongoing management. Also critical are supports and incentives for employee and dependent participation in up-front health interventions.”⁶⁷ A well-managed investment in

⁶⁶Ibid., p. 71.

⁶⁷Ibid., p. 99.

prevention, rehabilitation, and other coverages can drive down the costs of acute medical treatment. Coverages need to be assessed in the following areas:⁶⁸

- Identify gaps or limitations in coverage by tracing a flow of the most common and expensive cases (not claims) through the system.
- Specifically consider disability issues for health care coverage (e.g., the use of vocational rehabilitation to support return to work).
- Analyze the impact of regional cost differences on the relative value of all coverages (for employers operating in multiple regions).
- Compare existing or alternate health care plans based on coverage differences.
- Assess the cost/benefit of changing or adding coverages, such as workers' compensation issues or a carve-out or add-on to an existing managed care plan.

The Health Triangle Model advocates the use of a case oriented approach to manage high-risk, high cost cases. A case oriented approach supports early intervention and outcomes in treatment.⁶⁹ Care should be evaluated in terms of its timeliness, effectiveness, appropriateness, and the patient's participation in and adherence to a care plan.⁷⁰

Managing Productivity: Integrating Workplace Health and Disability

"Managing health and disability means optimizing employee productivity through an emphasis on prevention, rehabilitation, and flexibility in organizational management practices."⁷¹

⁶⁸Ibid., p. 102.

⁶⁹Ibid., p. 116.

⁷⁰Ibid., p. 113.

⁷¹Ibid., p. 142

Flexible work practices applied to the needs of employees can optimize productivity. Examples include: flextime, compressed work weeks, part-time work, job sharing, accommodation for those with a disability, and leaves of absence.⁷²

Element Three: Managing Organizational Culture

Managing organizational culture is the third element in the Health Triangle Model. It translates the health and disability strategy into operational terms. Managing organizational culture involves putting in place a “set of mechanisms for senior management to ensure that strategy has gone beyond concept and is visible in the health and productivity actions of the organization’s stakeholders.”⁷³ Examples of these mechanisms are: wellness programs, alcohol/drug programs, employee assistance programs, stress management programs, etc. “These influences of the workplace culture have a strong impact on the health-related behavior of all employees and indirectly influence off-the-job and dependents’ behavior as well.”⁷⁴

Information Management

The Health Triangle Model is information-based and driven. In order for information to be utilized, it must be integrated into the management systems and culture. Information is the basis for control, performance, and investment (in terms of providing a cost/benefit analysis for a specific initiative) for the three management tracks: Managing Health, Managing Care, and

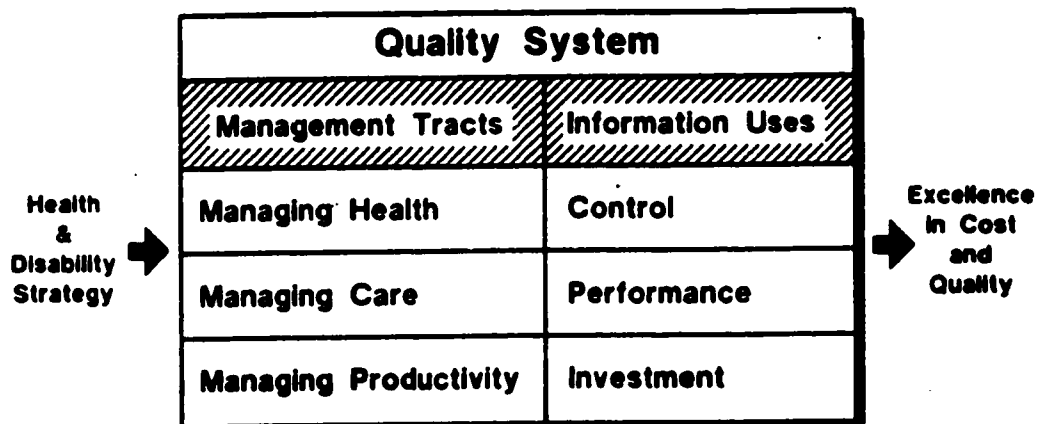
⁷²Ibid., p. 124.

⁷³Ibid., p. 21.

⁷⁴Ibid., p. 21.

Managing Productivity."⁷⁵ The following figure illustrates the information uses of each management tract.

FIGURE B: Management Tracts and Information Uses ⁷⁶



The one drawback of the Health Triangle Model is its complexity. Although there is a plethora of information, it is not focused in its presentation. Understanding and applying the Health Triangle Model can be difficult, especially for those with limited health management experience. Overall the Health Triangle Model is a very good model nevertheless. It identifies several key aspects that will be used in the ideal disability management model: 1) the need for

⁷⁵Ibid., p. 147.

⁷⁶Ibid., p. 147.

integration, 2) managing forward (early intervention), 3) information management, 4) importance of culture, and 5) accountability.

7. LEGAL ENVIRONMENT

In developing a disability management program, it is important to examine legislation governing workplace injuries, accommodation and safety. An understanding not only provides the basis for compliance [e.g. preventing lawsuits], but also forms the basis on which to build a disability management program. This examination includes three pieces of legislation in Ontario:

- 1) The Workplace Safety and Insurance Act
- 2) Ontario Human Rights Code
- 3) Occupational Health and Safety Act

7.1 The Workplace Safety and Insurance Act

The Workplace Safety and Insurance Act replaced the Worker's Compensation Act, effective January 1st 1998. The Worker's Compensation Act was considered reactive and ineffective in addressing workplace injuries and vocational rehabilitation. Several reasons for reform were:⁷⁷ there was insufficient information regarding the injured worker's functional abilities, the medical information which becomes available is often too little too late, the workplace parties (the worker and the employer) do not have to work together to plan an early

⁷⁷Insight Information Inc., Workers' Compensation Reform: Making the New Rules Work for You, 1997, Insight Press, p. 29.

and safe return to work, health care providers are often put in a position by both workers and employers of becoming advocates rather than knowledgeable facilitators, and the WCB allows the workplace parties to deflect the question of an early and safe return to work away from themselves.

Three facets of the WSIA will now be discussed: 1) health and safety, 2) return to work provisions, and 3) rehabilitation and re-entry.

Health and Safety

With the new act, the Workplace Safety and Insurance Board [WSIB] replaced the Worker's Compensation Board [WCB]. The WSIB is the primary means of promoting workplace health and safety and accident prevention. The WSIB will be responsible for health and safety education and fostering a commitment by employers, workers and others to accident prevention.⁷⁸ The Occupational Health and Safety Act [OHSA] will continue to be the means of enforcement by the Province of Ontario.

Return to Work Provisions

The WSIA promotes early intervention by advocating communication, cooperation, and accountability between the parties involved. The following provisions relate to return to work:⁷⁹

1. The WSIB will continue to provide financial incentives to employers who invest in early return to work programs. This will be done through experience rating programs and assessment penalties for uncooperative employers.
2. Employers and workers will have a duty to cooperate in the early and safe return to work of

⁷⁸Ibid., p. 22-23.

⁷⁹Ibid., p. 23-24.

the injured worker.

3. Employers will be required to establish and maintain contact with the injured workers while absent from work due to a workplace injury or illness.
4. Employers will have to attempt to identify and arrange suitable employment for partially disabled workers based upon the worker's functional abilities.
5. Injured workers will have a number of requirements to fulfill in order for benefits to continue to be paid. Workers will have to provide information to the WSIB as required. Workers will have to cooperate in such health care measures as the WSIB considers appropriate. Workers will have to submit to a health examination by a health professional [at the request of the WSIB] selected and paid for by the WSIB. Workers will have specific obligation to cooperate with his or her employer consistent with his or her functional abilities in identifying suitable re-employment opportunities. If it is unlikely that the worker will be re-employed by his or her employer, workers will have to cooperate with the WSIB respecting the design and implementation of a Labour Market Re-entry Plan. Lastly, there is a general duty to cooperate which provides for the reduction or suspension of compensation for lack of cooperation. Workers also must report "material changes" in connection with entitlement under the Act within 10 days.
6. As a condition of filing a claim, a worker must consent to the disclosure to his or her employer of information provided by health care professionals concerning the worker's functional abilities.
7. Health care practitioners and health care institutions are required to provide the WSIB with information relating to the worker as the WSIB may require. More importantly, when requested to do so by an injured worker or the employer, a health care professional treating the worker shall provide information regarding the worker's functional abilities to the worker, the employer, and the WSIB.
8. Employers who terminate a worker who is receiving or has received benefits under the Act are allowed to prove the termination "...was not related to the injury". This should eliminate the WCB's "just cause" test in determining whether an employer has complied with the

employer's re-employment obligations.

The return to work provisions of the WSIA has placed more responsibility on the employer and employee in returning the injured employee back to work. It has spelled out clear guidelines for each party to follow to facilitate the process.

Rehabilitation and Re-entry

The vocational rehabilitation provisions of the Worker's Compensation Act [Section 53] were removed because the WCB had become the repository of all cases that, by the time VOC Rehab was actually plugged in, were much beyond help.⁸⁰ Early intervention is essential. The WSIA allocates the responsibility in terms of return to work to the employer and worker. Only if they cannot work together in arranging an early and safe return to work will the WSIB step in and take over. The Labour Market Re-entry Plan sets out the steps required for the worker to 're-enter the labour market and to reduce or eliminate his or her loss of earnings from the injury'. The worker will be required to cooperate in the process the WSIB undertakes in determining whether a Plan is to be prepared and in the implementation of the Plan.

Another key point in the reform is the reduction of benefits to 85 % [from 90%] of net average earnings for claims after January 1st 1998. The amount of compensation will be calculated from the day after the accident, as 85 per cent of the difference between the worker's new average earnings before the injury and the net average earning that he or she earns or is able

⁸⁰Ibid., p. 30.

to earn in suitable employment or business after the injury.⁸¹ This change will again facilitate the return to work by employees who may have prolonged their 'disability' for financial reasons.

In addition, there will be no entitlement for mental stress claims, unless it is caused by a sudden unexpected traumatic event at work. This may not reflect the current and future realities in the workplace. This legislation doesn't take into account the day to day pressures (not 'traumatic' events) facing employees in a fast changing information-based economy. Apart from family pressures (e.g. two income families, elder care), there is also pressures associated with downsizing. Chronic pain claims will also be limited by regulation--most likely to the normal healing times for injuries. The retirement income benefit is reduced from 10 % to 5 %. This benefit only begins after an employee receives compensation for loss of earnings for 12 continuous months.

Sean Adams, a revenue representative for the WSIB, was contacted and provided the following additional information:

1. Enrollment is mandatory for approximately 90% of organizations in Ontario, depending on the industry involved. Organizations that do not have to enroll in WSIA coverage include but are not limited to beauty salons, Banks, Lawyer's Offices (due to their low risk of compensable injuries).
2. WSIA coverage removes the employee's right to sue.
3. Employer rates are assigned according to business activity as a percentage of payroll. Rates can be adjusted up or down according to their cost experience. Smaller companies can have their rates adjusted immediately under the MAP [Merit Adjustment Premium] Plan. Larger companies are assessed on a 3 year period with an adjustment at the end of the year under the

⁸¹Ibid., p. 89.

New Experience Rating [NEER] program. A company with a good record relative to the industry gets a rebate on its initial premiums while those having a poor record relative to the average receive a surcharge.

4. The Cap for benefits is \$59,200 for 1999.
5. Schedule Two Organizations under the WSIA [e.g. Police Services] have income continuation. These organizations pay for their own claims, but do have to pay a 15% administration fee to the WSIB for claims adjudication.

7.2 Ontario Human Rights Code

The Ontario Human Rights Code is important for its implications regarding accommodation. Section 5(1) states that every person has a right to equal treatment with respect to employment without discrimination because of handicap.⁸² For the purposes of this thesis, the Code specifically refers to work related injuries by defining 'because of handicap' as "an injury or disability for which benefits were claimed or received under the Workers' Compensation Act" [Section 10(1)(e)]. "This requirement recognizes that, in some circumstances, the nature or degree of a person's disability may preclude him or her from being able to perform the essential duties. However, a person cannot be found incapable of performing those essential duties unless an effort has been made to accommodate his or her needs."⁸³

This notion of accommodation has important implications for disability management. An organization must accommodate persons with disabilities in a manner which most respects their

⁸²Human Rights Code, Revised Statutes of Ontario, 1990 Chapter H.19

⁸³Ontario Human Rights Commission, Guidelines for Assessing Accommodation Requirements for Persons with Disabilities, p. 2.

dignity, unless it can show undue hardship. Undue hardship will be shown to exist if the financial costs that are demonstrably attributable to the accommodation of the needs of the individual with a disability, and/or the group of which the person with a disability is a member, would alter the essential nature or would substantially affect the viability of the enterprise responsible for the accommodation. Financial costs of the accommodation include capital and operating costs, the cost of additional staff time in order to provide appropriate assistance to the person with a disability, and any other quantifiable and related costs. Undue hardship will be shown to exist where a person responsible for accommodation is subject to or has established a bona fide health or safety requirement and the person has attempted to maximize the health and safety protection through alternate means which are consistent with the accommodation required, but the degree or risk which remains after the accommodation has been made outweighs the benefits of enhancing equality for disabled persons.

The duty to accommodate is another reason for an organization to have a proactive disability management program that focuses on prevention and health. Accommodation can be very expensive (e.g. adapting equipment, making facilities barrier free, providing special devices, etc.). Therefore a proactive disability program that focuses on injury prevention and health can reduce the incidence of disability and any related costs of accommodation.

The Ontario Human Rights Code has primacy over all other Acts or regulations. Part V, Section 47 (2) states: "Where a provision in an Act or regulation purports to require or authorize conduct that is a contravention of Part I, this Act applies and prevails unless the Act or regulation

specifically provides that it is to apply despite this Act.”⁸⁴

7.3 Occupational Health and Safety Act [OHSA]

The OHSA sets out the legislative requirements for prevention of workplace injuries.

Although not comprehensive, the OHSA does provide a base for organizations to build upon in preventing injuries. The OHSA sets out the following responsibilities for employers:⁸⁵

- a) instruct, inform and supervise workers to protect their health and safety [Section 25(2)(a)];
- b) assist in a medical emergency by providing any information, including confidential business information, to a qualified medical practitioner who requests the information in order to diagnose or treat any person [Section 25(2)(b)];
- c) appoint competent persons as supervisors [25(2)(c)];
- d) help committees and health and safety representatives to carry out their duties [Section 25(2)(e)];
- e) post in the workplace a copy of the Occupational Health and Safety Act, as well as explanatory material prepared by the ministry that outlines the rights, responsibilities and duties of workers. This material must be in English and the majority language in the workplace [Section 25(2)(i)];
- f) prepare and post a written occupational health and safety policy, review that policy at least once a year and set up a program to implement it [Section 25(2)(j)]--this provision does not apply to organizations with five or fewer employees;
- g) provide the joint committee or the health and safety representative with the results of any occupational health and safety report that the employer has [Section 25(2)(l)]. Advise workers of the results of such a report. If the report is in writing, the employer must, on

⁸⁴Human Rights Code, Revised Statutes of Ontario, 1990 Chapter H.19

⁸⁵A Guide to the Occupational Health and Safety Act, Repr. 01/96, Queens’s Printer for Ontario, p. 23-25.

a request make available to workers copies of those portions that concern occupational health and safety [Section 25(2)(m)];

- h) ensure that every part of the physical structure of the workplace can support all loads to which it may be subjected in accordance with the Building Code Act and any standards prescribed by the ministry [Section 25(1)(e)]. This duty also applies to the self-employed.

In addition to the above duties, the Employer is responsible for establishing the joint health and safety committees. The joint committee has the following rights and responsibilities:⁸⁶

- a) identify workplace hazards
- b) obtain information from the employer
- c) make recommendations to the employer
- d) investigate work refusals
- e) investigate serious accidents
- f) obtain information from the workers' compensation board
- g) stop work [under certain circumstances - by certified members].

The following are the duties of supervisors as outlined by the OHSA:⁸⁷

- a) ensure that a worker complies with the Act and regulations [Section 27(1)(a)];
- b) ensure that any equipment, protective devices or clothing required by the employer is used or worn by the worker [Section 27(1)(b)];
- c) advise a worker of any potential or actual health or safety dangers known by the supervisor [Section 27(2)(a)];

⁸⁶Ibid., p. 12-14.

⁸⁷Ibid., p. 29.

- d) if prescribed, provide a worker with written instructions about the measures and procedures to be taken for the worker's protection (Section 27(2)(b)); and
- e) take every precaution reasonable in the circumstances for the protection of workers [Section 27(2)(c)].

The following lists the duties of employees under the OHSA:⁸⁸

- a) work in compliance with the Act and regulations [Section 28(1)(a)];
- b) use or wear any equipment, protective devices or clothing required by the employer [Section 28(1)(b)];
- c) report to the employer or supervisor any known missing or defective equipment or protective device that may be dangerous [Section 28(1)(c)];
- d) report any known workplace hazard to the employer or supervisor [Section 28(1)(d)];
- e) report any known violation of the Act or regulations to the employer or supervisor [Section 28(1)(d)];
- f) not remove or make ineffective any protective device required by the employer or by the regulations [Section 28(2)(a)];
- g) not use or operate any equipment or work in a way that may endanger any worker [Section 28(2)(b)]; and
- h) not engage in any prank, contest, feat or strength, unnecessary running or rough and boisterous conduct [Section 28(2)(c)].

The OHSA provides a basis for an organization to build a health and safety program.

This concludes the examination of the legal environment. For an organization to be proactive in managing health and safety, each party must understand its duties and responsibilities clearly, and conduct themselves in the appropriate manner. The employer, in complying with the stated

⁸⁸Ibid., p. 33-34.

responsibilities spelled out by the OHSA, provides a culture which gives health and safety a prominent place in the organization's everyday functioning. This culture is then further supported by supervisors and the health and safety committee. Through information, training and other awareness initiatives, employees must be informed of their duties under the OHSA, and be held responsible for safe behaviour in the workplace.

8. OBSTACLES TO RETURN TO WORK

Many obstacles interfere with the return of disabled employees. The identification of these obstacles is critical in developing a disability management program. The first type of obstacle stems from the injured worker.⁸⁹ Fear of re-injury and loss of self confidence are two common obstacles facing injured workers. Some workers have a financial incentive to remain 'injured'; making more money on disability than they would working. The reason is that their take home pay may be higher than when working. This has been somewhat addressed with the WSIA in its reduction of benefits from 90% to 85% of net average earnings along with deindexation. Lastly, an employee may resist a return to work due to a fear of failure, especially if the culture of the organization does not support return to work. This shows the importance of fostering a caring and supportive culture.

The next type of obstacle is related to the employer.⁹⁰ Employers may lack suitable employment opportunities for a return to work. In addition, there may be cost limitations for the

⁸⁹Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 281.

⁹⁰Ibid., p. 282.

organization in modifying the work environment or retraining. Difficulties in modifying the job schedule may limit return to work opportunities. Lastly, there may be a reluctance to hire the individual back because there is a risk of high absenteeism and re-injury.

9. SUMMARY OF PART II

The formulation of the ideal disability management model consisted of a thorough literature review. Although the field of disability management is relatively new, there was a plethora of models. From these, a small selection of models were chosen to capture the essence of different approaches for managing disability. Each model was then examined for its contribution to the ideal disability management model. While a more thorough review has been given in previous sections, the following is a summary of their contributions to the ideal disability management model.

TABLE C: Contribution of Examined Models

MODEL EXAMINED	CONTRIBUTION (what each model advocates)
Cost Containment	-Improve administration and efficiency of medical care -Elimination of financial liability through coverage limitations
Ernst & Young	-Communication, Information Management, Supervisor Involvement, Return to Work, Early Intervention, Formalized Plan Management

KPMG	<ul style="list-style-type: none"> -Communication with injured employee and physician to ascertain functional capabilities -Use of other assessment tools [IME, functional abilities assessments, surveillance, home visits, physician interviews] -Top management support -Managers trained to intervene and accommodate -Case management
ACA	<ul style="list-style-type: none"> -Examination of environmental factors [disability experience, corporate characteristics, interest groups, legal requirements] -Change Agent (Champion) -Needs Assessment -Coordinating Committee -Case Management Services -Program Monitoring -Establishment of Disability Strategies
Health Triangle	<ul style="list-style-type: none"> -Accountability -Managing Forward -Information Management -Integration -Flexible working arrangements -Case management -Programs

Next the legal environment was examined. This is important as it can have a large bearing on an organization endeavoring to begin a disability management program. Failure to comply with the legal requirements can result in fines, penalties, and unsafe behaviours (leading to higher disability costs). Finally, obstacles to return to work were addressed as a preemptive strike.

Part III: The Diamond Health Management (DHM) Model

10. METHODOLOGY

The first step in formulating the ideal disability management model is identifying the key factors needed for success. This was done by extrapolating the strengths and weaknesses of the examined models. The key components of a successful/integrated disability management model were then identified by incorporating the contributions of the above models in Part II. The key success factors will form the basis for the ideal disability management model. Next, the ideal disability management model will be presented and discussed. This model will be called the Diamond Health Management (DHM) model due to its emphasis on health and prevention.

11. KEY SUCCESS FACTORS TO MANAGING DISABILITY

In the past, many managers assumed external factors such as size of organization, type of industry, or geographical location primarily determined their health and disability results. In fact, external factors only account for a small portion of the differences in health and disability performance.⁹¹ The following key success factors for managing disability were identified from the models examined:

- 1) champion [providing evidence to prove the need for disability management--using statistics and studies];
- 2) top management support [provide information systems, strategy formulation,

⁹¹Barge, Bruce, N. and Carlson, John, G., op.cit., p. 7-9. Original Sources:
a. Habeck, R. V., Leahy, M. J., Hunt, H. A., Chan, F., Welch, E. M., "Employer factors related to worker's compensation claims and disability management", 1991, Rehabilitation Counseling Bulletin, 34(3): 210-226.
b. Lewin, D. & Schecter, S., "Four factors lower disability rates", May 1991, Personnel Journal, pp. 99-103.

- formulate policies, establish accountability];
- 3) needs assessment [examination of the environment];
- 4) integration [programs, stakeholders, coordinating committee];
- 5) supportive culture [employee involvement, conflict resolution];
- 6) early intervention [case management; physician/occupational nurse; programs: return to work, wellness, health and safety, psychological/substance abuse; supervisor involvement; other assessment tools (independent medical examinations, surveillance, home visits)];
- 7) proactive management of information [program monitoring, use of information to establish disability strategies];
- 8) communication; and
- 9) cost containment.

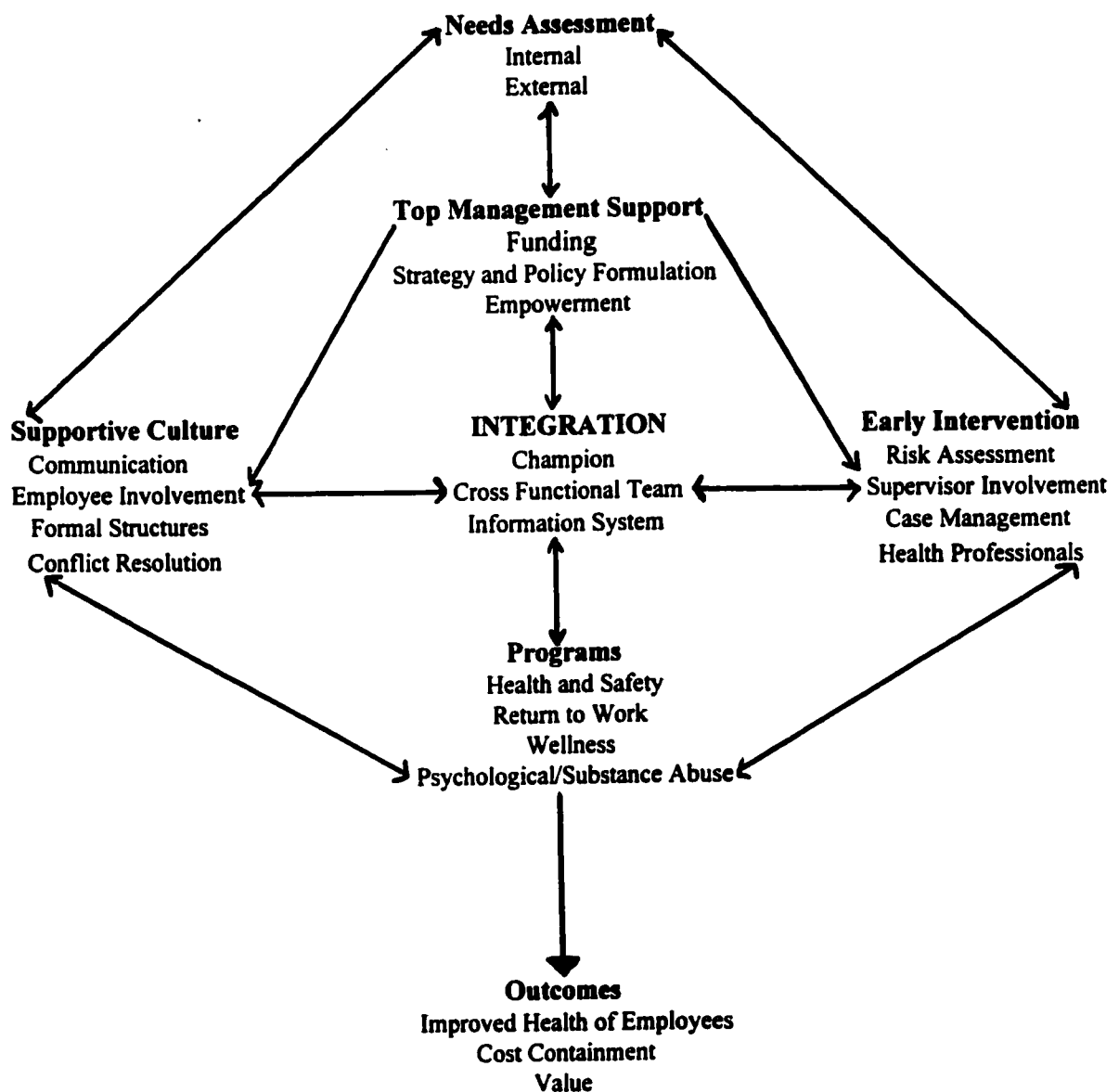
12. THE IDEAL DISABILITY MANAGEMENT MODEL

12.1 Overview of the Diamond Health Management (DHM) Model

By examining the key success factors, the following model was developed. The DHM

Model consists of seven elements based on the key success factors:

FIGURE C: The DHM Model



The 'roots' of the model, which are based upon the key success factors discussed earlier, consist of five elements (needs assessment, top management support, early intervention, supportive culture, integration). Although these elements are essential components, it is the program element that actually transforms these concepts into action. Top management support by itself is not enough to address the issue of return to work. An action plan or 'program' must be in place. The model is focused towards the outcomes element (improving the health of employees, containing costs, and providing value for investments in health and disability interventions). All the elements of the DHM Model are important. If one element is lacking, the effectiveness of the model can be severely affected⁹². For example, without a focus on early intervention, costs will continue to escalate. Integration is a key part of the model. For example, a supportive culture is essential for early intervention. Also a needs assessment is important to provide focus for the model.

The model is named the Diamond Health Management model for two reasons. First, the model is diamond-shaped, reflecting its strength, quality and many facets. Second, the term "health management" is significant because it represents a much broader view than "disability management". It is suggested that organizations engaged in disability management rename the function "health management". Organizations in the past have been ineffective and uninvolved in managing disability. This proposed change signals a major redirection for organizations, as well as broadening the scope of disability management. The term disability management means

⁹²Prost, Alar, L., "Disability Management: Beginning at the End", Occupational Health and Safety Canada, September/October 1996, p. 44.

for many employees the management of persons with disabilities only. However, as seen in the Health Triangle Model, integration of many aspects must occur. The term “health management” will improve employee buy-in because each individual is concerned about his or her health. Employees will recognize that health is the goal of the organization.

12.2 Elements of the Diamond Health Management (DHM) Model

The following is a description of the seven elements of the DHM Model.

12.2.1 Integration

At the core of the DHM Model is integration. The DHM Model advocates that health and disability to be managed as an integral part of the corporate strategy. Integration is essential for success. Otherwise, a disjointed effort at managing costs and disability will result. For example, top management support is needed to provide for early intervention initiatives (e.g. information systems to identify safety risks, case management services, provision of health professionals), a supportive culture (e.g. empowerment to support accountability, policies such as conflict resolution, an information system that provides continuous feedback to employees), and programs (in terms of funding). A supportive culture is essential for program utilization. A supportive culture also supports early intervention by focusing employees on health and away from a benefits fixation. All programs must have an emphasis on early intervention and prevention. A needs assessment gives information to top management on where the organization is now in terms of managing disability. It also identifies problem areas in the organization. The organization can then formulate initiatives directed towards early intervention (e.g. developing a

case management approach) and a supportive culture. A needs assessment also allows an organization to tailor its programs to the individual needs of the employees. The outcomes element provides the goals and focus for the model.

Integration can be achieved through a champion, a cross functional team, and an information system, each of which will be briefly discussed below.

Champion

The champion plays an important role in integration. The champion should be someone with the authority to influence decisions (e.g. Vice President of Human Resources). The champion is essential in terms of getting top management support. To do so, the champion must gather information to prove the need for managing disability. Information must be gathered internally and externally. Internal performance can be examined by comparing current year's results with past year's results with relation to disability and health costs. Benchmarking is a method that can be used to gauge the organization's performance against other best practice companies. Comparisons should not only be made with other employer organizations, but should be broken down by program type (e.g. wellness programs), provider (case management providers), type of cases (e.g. lower back injuries), and population characteristics.

Although information may not be readily available for an organization, there is a vast amount of statistics and information available from government sources and industry publications that can be used to supplement the information provided to top level (see Part 2 of thesis). Top level management can be shown that disability management efforts have been effective in controlling costs, improving employee satisfaction, and meeting the challenges of

today's organizations. In addition, it is necessary for the champion to address misconceptions held by top management that may stifle implementation. For example, a myth may exist that accommodations are very expensive. In fact, a 1996 study by Alan Cantor [Cantor & Associates] found that the majority of accommodations cost less than \$500 with 31 percent of the workplace accommodations occurring at no added cost to the employer.⁹³ Once the champion gains top management support, it is essential that he or she continue to push the organization toward health. The champion can accomplish this by his/her actions on the cross functional team.

Cross Functional Team

After the champion gains the support of top management, a cross functional team should be established. This is the beginning point for integration. This team should consist of all stakeholders and include union members if applicable. Stakeholders include personnel from the following departments: human resources, benefits, medical (e.g. physician, occupational health nurse, industrial psychologist), employee assistance program, safety, training, production, finance, management information systems, legal, and ergonomic design. The champion of the cause should lead the team to ensure that progress is carried out. This team will be responsible for developing the health strategy, formulating policies, evaluating programs, and ensuring accountability. In addition, a cross functional team plays an important role in resolving problems associated with disagreements among departments.

⁹³Dyck, Dianne, "Stating your case: How to sell the merits of disability management to senior executives", Benefits Canada Magazine, February 1998.

Information System

Information is the driving force and linking pin for all the elements in the DHM Model. By actively managing information, feedback is provided on the elements of the DHM Model. This supports outcome measurement, decision making and integration. Information provides the support needed by the champion to foster top management support. In addition, it provides the means for the needs assessment. This gives top management direction in terms of strategy formulation and provides for the individual tailoring of programs. Information also provides feedback to employees on their 'health' progress, thereby supporting the organizational culture and early intervention. For example, information (e.g. cholesterol, blood pressure, etc.) obtained at health fairs can be tracked by employees and may provide a means of motivation. In addition, information makes individual units/managers accountable by tracking their performance. This supports empowerment. Finally, information can be used to evaluate [via return on investment] the programs implemented by the organization.

Information should be relevant and understandable. In addition, information should be reliable and valid. Mechanisms should be in place to ensure the validity and reliability of data [see Appendix E for more details].

12.2.2 Needs Assessment

A needs assessment involves a thorough examination of the organization in terms of internal factors [corporate characteristics and disability experience] and external factors [interest groups and legal environment]. The purpose of the needs assessment is to identify any deficiencies in the organization in dealing with health and disability issues of employees. The

organization can then use this information to gain top management support and provide direction in formulating or re-formulating programs.

Internal Assessment

In terms of an internal examination, an organization must review its corporate characteristics in terms of geographical location, size, industry, policies. For example, coordination in a return to work program (involving all stakeholders) becomes much more important as the size of the organization increases. It is also important that organizations review their past experience in handling disability. This will involve looking at absenteeism records, workers' compensation records, personnel records, health and safety records, and employee satisfaction surveys, etc. This will help identify strengths and weaknesses in the current program and provide areas for improvement.

External Assessment

In terms of an external examination, it is important to identify the interest groups that affect a disability management program. These include physicians, unions, insurance companies, and community resources. For example, the presence of a union can have serious implications in terms of developing and implementing a disability management program. Also the identification of community resources can assist with controlling the costs of certain programs. For example, the heart and stroke foundation can provide education to assist with an employee wellness program. An external examination also includes looking at the legal environment. A thorough discussion of the legislation governing disability management was carried out earlier for this purpose. It is very important that the elements of a disability management program

comply with the legal requirements.

12.2.3 Top Management Support

Many top level managers are not aware of the problems concerning rising health costs. “The starting point of any effective change effort is a clearly defined business problem.”⁹⁴ Once the champion obtains top management support, it is essential that top management provide support in terms of funding (e.g. information system, programs, EAP, etc.), policy formulation, and empowerment. It is important not to introduce changes too quickly, or they will likely face resistance. The section on the Culture element will talk more about this in detail.

Strategy and Policy Formulation

Once top management support is gained, health must be incorporated into a formalized plan. Health must be part of the organization’s mission, vision, goals and objectives. This will show an organizational commitment toward health. Next, a health strategy must be formulated. This will be developed by the cross functional team. The health strategy provides the framework for the organization’s policies, programs and performance measures. It ensures that all parties are working in the same direction to achieve the same goals. The health strategy consists of two parts: internal and external.

The internal strategy must establish the organization’s health and disability goals by examining the profile of its employees. For example, if an employee profile reveals that a high percentage of employees have high blood pressure and cholesterol, the organization can establish

⁹⁴Beer, Michael, Eisenstat, Russell, A., Spector, Bert, “Why Change Programs Don’t Produce Change”, 1990, Harvard Business Review, p. 161.

goals to reduce this risk. Once goals are established, programs must be developed and implemented. Following the same example, the organization will then formulate an action plan to reach these goals [e.g. wellness programs, health fairs, etc.]. In addition, the internal strategy must ensure compliance with the legal environment. Policies must be developed in terms of return to work provisions, health and safety, and rehabilitation. Finally, the strategy must establish clear lines of accountability for individual managers/units in order to support involvement. To accomplish this, it is important to include the cost of disability into the overall cost of productivity. This makes a statement that a wide variety of disability related costs need to be managed. The following costs should be allocated to the costs of production:⁹⁵

Premiums/Claims

- Disability coverage
- Disability payouts
- Workers' compensation settlements
- Workers' compensation payouts

External Management/Administration

- Legal costs related to health and disability issues
- Other expertise employed in health and disability

Internal Management/Administration

- Compliance training programs
- Line management involvement (time) in health and disability

Overtime/replacement staffing

- Overtime to compensate for missing staff
- Recruitment and retraining for replaced staff

Loss productivity

- Absenteeism and sick time paid
- Loss of trained staff

⁹⁵Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 125.

Time spent in health programs

Other

Quality losses due to health and disability issues

In addition to the above list, it is advocated that accommodation costs also be included into the cost of productivity. Assigning costs to productivity is an extremely important feature as it delegates accountability down to the line manager. The line manager has the greatest ability to influence the behaviour of employees. It is no longer acceptable to account for disability costs in a general manner [e.g. assigning costs to the HR department which is really not responsible].

The external strategy should address the relationship between the organization and outside parties [e.g. Case Management Organizations + Long Term Disability Insurers]. The organization must decide the level of risk it will assume in addressing disability. This will involve an in-depth study of how the organization's costs compare to external providers. Once this is complete, the organization must establish goals related to its level of risk.

Specific policies and plans need to be documented. Policies relating to the programs [wellness, health and safety, psychological/substance abuse, return to work] should be formalized. As well, conflict resolution policies regarding specific issues [e.g. harassment and other stress related factors] should be in place to support the culture component.

Empowerment

An important part of the DHM Model is the concept of empowerment. Empowerment brings employees into the health loop by establishing accountability and responsibility down the line. Empowerment also plays a role in supporting the health culture, by increasing employee

involvement. Once disability costs are assigned to the cost of production, top management must give supervisors the skills and tools necessary to influence the behaviour of employees. This can be achieved by providing a set of coaching skills [see Appendix F] and training. Incentives can also be tied to employees [monetary and non monetary] with respect to disability costs. For example, incentives could be tied to health and safety and in detecting billing and clerical errors.

12.2.4 Supportive Culture

“Culture affects day-to-day living and working activities plus controls initial participation, effectiveness and continuation of personal health programs.”⁹⁶ The culture must have focus towards health and away from a benefits fixation. A culture of trust must be developed between management and employees. Otherwise, acceptance of the new health orientation will not occur. Open lines of communication must be established to support the culture. For example, a conflict resolution process should be established to ensure that all workplace complaints (e.g. harassment, supervisor/employee conflict, etc.) are addressed in an expeditious and fair manner.

To develop a supportive culture, it is necessary to involve employees as much as possible. The first step is sharing information with employees. Employees must be made aware of the financial implications regarding high disability and health costs. Information must be regularly distributed to employees in terms of health risks. The following is a three-phase approach to managing high risk behaviour:⁹⁷

⁹⁶Ibid., p. 78.

⁹⁷Ibid., p. 179-194.

Gaining Understanding:

1. Study the organization's existing results from health care, workers' compensation, and disability. Gain an in-depth knowledge of the types of claims that are generating most of the costs. Techniques that have been cited include: interviews, focus groups, cross-functional teams, quality improvement techniques (fishbone and pareto analysis), and statistical analysis.
2. Study the risk factors associated with the organization's unique employee population. Do this in terms of four risk characteristics: demographic/geographic, physiological, lifestyle, and employee perception/personality. In addition, psychological risk factors should also be examined. For example, stress at work may be causing problems in the employee's personal life, which in turn, is manifested back at the work environment.
3. Study risk factors related to three organizational characteristics: type of work, management style, and existing health and disability programs.

Sharing Understanding

4. Share these results as appropriate with managers and employees to achieve widespread awareness of the organization's highest risks. Sharing this information is an excellent way to begin enlisting managers, employees, and dependents in the plans for health improvement. It is also a positive message for the organizational culture, since it promotes values such as empowerment, responsibility, trust, and caring for the organization's stakeholders.
5. Present risk results to individual employees, dependents, and managers in a meaningful framework. Break results out by work area, by demographic group, and by individual employee (through confidence health screening or individual health risk appraisals) to capitalize on intrinsic interest in reducing risks for co-worker, family, and self.

Targeting Behavioural Change

6. Explain which key risk areas are a particular priority and why. Explain the internal and external resources that are likely to be most effective in reducing these risks, including management and employee action, company programs, and community programs. If relevant, discuss the company's position regarding any legal issues or confidentiality concerns.

7. Establish accountability and incentives at the lowest level possible to continually monitor and reduce these risks. This includes cost charge-backs to individual divisions or departments based on their unit's cost experience as well as incentives to employees and dependents for reducing their personal and work-related level of health risk.

Beyond sharing information, other employee involvement techniques include:⁹⁸ 1) parallel suggestion involvement, 2) job involvement, and 3) high involvement. Parallel suggestion involvement is characterized by the use of quality circles and written suggestions. For example, a suggestion box could be established with relation to health and safety. Job involvement involves job enrichment or the creation of work groups or teams in a traditional or functional organizational structure. High involvement is the highest form of involvement. It is also characterized by job enrichment and work teams, however, unlike job involvement, the participants have input to strategic decisions. The type of involvement approach to be chosen depends on three factors: 1) type of work and technology the organization uses, 2) values and beliefs of key participants, and 3) the organization's current management approach.

The next step involves establishing formal systems and structures needed to support the new culture. Establishing structures any earlier may backfire. Resistance to new structures and systems is likely if managers/employees do not understand the reason for change and are not a part of the change. Change cannot just be pushed from the top. A new information system is required to track employees' health status, disability costs, and program effectiveness.

⁹⁸Lawler, Edward, E. III, Choosing an Involvement Strategy, 1988, Academy of Management Executive, p. 197-204.

Supportive HR processes are essential. Training for current employees, for example, must incorporate a health aspect. The selection process should communicate to the prospective employee that the organization values health. Initiatives should be implemented to hire persons with disabilities. This will increase the critical mass of such persons within the organization, thus reducing barriers.

The culture must extend beyond only the employee. Dependents account for 60 percent of the average employer's health care costs⁹⁹. Dependents also have an impact on the productivity of employees. The health of a dependent can affect employee productivity by putting extra stressors and responsibilities at home. It is important to reorient dependents toward health and away from a benefits fixation. This can be done through communication efforts (e.g. sending pamphlets on health risks), and programs (e.g. allowing dependents to participate in the wellness program).

A supportive culture is essential to dealing with the obstacles regarding return to work discussed earlier. One of the obstacles relates to an employee's fear of failure or of returning to the same environment which caused the problem in the first place. This fear can be alleviated by having a supportive culture in which the injured employee's peers and supervisor offer support and understanding.

12.2.5 Early Intervention

Early intervention must be tied into the culture and programs element of the DHM

⁹⁹Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 131. Original Source: Edington, D.W and Yen, L., "Is it possible to simultaneously reduce risk factors and excess health care costs?", 1992, American Journal of Health Promotion, 6(6): 403-409.

Model. The culture must support early intervention, otherwise employees will continue to focus on benefits and not health. The importance of early intervention must be proven to employees to foster this commitment. As well, programs must focus on the health of the employee as an outcome.

Early intervention is key in reducing disability costs. Research and practical experience have shown that for employees who have incurred a disability:¹⁰⁰

- there is only a 50% chance they will return to work after a six month absence
- declining to a 20% chance after a one year absence, and
- reduced to a 10% chance after a two year absence.

Even the Ontario Government has recognized the importance of early intervention, as seen by their reform of the Worker's Compensation Act. Costs escalate exponentially if the disability is not treated early. Although early intervention is mandated by the Workplace Safety and Insurance Act, it is necessary to move beyond mere compliance of the law. Early intervention is needed before an employee gets injured. It is this proactive approach that will yield the greatest savings for an organization. Early intervention can reduce health and disability costs because:¹⁰¹

- multiple health risks are the prime cause of serious medical interventions
- certain health risks create higher safety risks (e.g. obesity may raise the safety risk by limiting mobility)

¹⁰⁰Zimmermann, Wolfgang, "Disability Management as an Economic and Social Strategy for Workers, Employers and Government", Keynote address to the National Conference on Disability and Work, 1996.

¹⁰¹Barge, Bruce, N. and Carlson, John, G., op.cit., p. 36.

- cumulative health risks degrade human health over time
- safety risks result in accidents which are a serious health issue
- disability often develops from health and safety risks, compounding over time into a more serious disability or multiple disabilities.

Early intervention can occur even before an employee begins work. For example, Worklab Inc. of Toronto provides pre-placement screening. By testing employees in many facets [e.g. strength, range of motion], employers may avoid placing employees in a job that will likely lead to injury.¹⁰² Once employment begins, early intervention can be built into training programs on health risks, such as smoking and drinking. As well, health fairs can be held to encourage healthy lifestyles. Health fairs are also useful in spreading the health culture to dependents.

The organization should conduct a risk assessment. Information regarding the causes of workplace and non-workplace injuries must be gathered. Once this is done, specific programs can be developed and implemented. For example, if it is found that a large number of injuries are related to vehicle accidents, the organization can implement training on vehicle safety [e.g. seatbelts, vehicle maintenance, etc.]. Several early intervention programs in particular have been successful in reducing health costs: health and safety, wellness programs and ergonomic design [See NCH Case Study in the Empirical Study Section].

Supervisors play an extremely important role in terms of early intervention. First of all, supervisors are vital in the prevention of workplace accidents. Therefore, training should be

¹⁰²Kalbfleisch, Robin, "Staking a claim on safety", Benefits Canada Magazine, July/August 1998.

provided to supervisors in addressing safety issues. Second, supervisors are usually the first in management to realize that an employee is having a problem (e.g. substance abuse, psychological). Therefore, this is an opportunity for a supervisor to intervene early. Supervisors should be trained in recognizing symptoms that may indicate a problem and provide the employee with the proper supports to deal with the problem. Lastly, supervisors play an important role in the safe and timely return of an injured employee by their influence on the work area. Supervisors have the ability to address barriers to return to work (discussed earlier).

Once an employee is injured, a case management approach is advocated. Because each case is unique, cases must be individualized to maximize effectiveness. It is important that the employee be contacted as soon as possible. The employee should be contacted as per the guidelines set out in the formalized plan. Contact reaffirms to the injured employee that despite the costs to the firm, the organization cares for him/her. This will speed recovery and a return to work. The employee should be advised that the organization is committed to returning the employee back to health and to work.

It is important to have the services of a health professional (e.g. occupational nurse or physician). Problems are complex and multi-dimensional and hence require a multi-disciplinary approach. Not only are these professionals essential in screening claims, they are important for determining the functional capabilities of the employee in terms of a return to work program. In addition, a health professional can normally obtain referrals for employees much faster

[especially if they are well established in the community].¹⁰³ One of the reasons for the rise in health costs over recent years has been the proliferation of psychological disorders. Because some health professionals can uncover these problems much more effectively than a HR specialist, it is suggested that they conduct personal interviews with employees. These should be done throughout the career of an employee, beginning at the recruitment stage. The use of a health professional supports the image that the organization is committed to the health of its employees.

Cases will need to be carefully scrutinized and monitored. Questionable claims must be identified. Historical data can be used to examine individual trends of absenteeism. As well, the duration of a disability should be compared to general medical guidelines. Once a claim is determined to be questionable, other assessment tools should be utilized. These include and are not limited to independent medical examinations, functional abilities assessments, and surveillance. In addition, the workplace should be examined. A problem may be the result of employee conflicts, unsafe working conditions, pace of work, supervisor style, etc..

12.2.6 Programs

The programs transform the model into action. Prior to developing and implementing any programs, an organization should conduct a needs assessment. This will provide focus for each program. Organizations should also proactively manage information in order that feedback is provided on the outcomes of the programs. This will allow the programs to be fine tuned.

¹⁰³Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 162.

The programs to be discussed within the model are health and safety, return to work, wellness, and psychological/substance abuse.

12.2.6.1 Health and Safety Program

The Ontario Health and Safety Act provides the legal requirements regarding health and safety for organizations in Ontario. Although a thorough review of employer responsibilities is recommended prior to developing a health and safety program [refer to the Legal Perspective Section], it is important to move beyond simple compliance of the law when developing a health and safety program. The program should be proactive and aggressive in dealing with workplace hazards [e.g. the program must address new age injuries such as repetitive strain].

The key elements of a health and safety program are identified below.¹⁰⁴

- Careful tracking and analysis. Data concerning the rate and causes of accidents and injuries should be broken down by location and by primary cause. This information can then be used by management to focus on future prevention.
- Formal organizational structure that supports safety. Safety committees made up of both managers and workers actively review safety issues, participate in safety audits, and work in teams to review high-risk tasks or processes.
- Emphasis is on employee involvement and behaviour. Employees receive thorough safety training and assume a great deal of responsibility in making safety a reality among their peers. Employee buy-in and peer pressure are key factors in reinforcing safe behaviour.
- Awards and recognition keep safety awareness high. Recognition need not be in large monetary awards, but rather can be through many forms of non-monetary recognition such as plaques, certificates, and awards. Safety is reinforced through personal recognition and appreciation of managers at all levels in the organization.

¹⁰⁴Barge, Bruce, N. and Carlson, John, G., op.cit., p. 292.

As identified earlier, there has been a drop in more serious injuries and a rise in repetitive strain injuries. This has been the result of a shift in the economy base from manufacturing to information. It is important that organizations recognize this shift and have mechanisms in place to deal with these new-age injuries. In particular, the organization must balance the traditional strengths of an industrial age safety approach with the emerging needs of the information age.¹⁰⁵ An organization must be more involved and proactive in dealing with information age injuries due to their costly nature. The following table illustrates some of the differences between traditional and modern approaches to health and safety.

TABLE D: Health and Safety Approaches (Traditional vs. Modern)¹⁰⁶

Core Capability	Traditional Approach	Modern Approach
Safe physical workplace	Machine safeguards Steel-toed shoes	Ergonomic design VDT glare screens
Line manager involvement	Accountability/incentives Delegated responsibility	Accountability/incentives Hands-on coaching
Employee involvement	Safety representative Safety films	Quality improvement team Behavioral safety
Response to injury and disability	See the doctor Give us a call	Employer involvement We call you

Ergonomics improvement approaches should be used to address repetitive strain injuries [RSI], such as carpal tunnel syndrom. These approaches include review and redesign, design-in, and exercise and education.¹⁰⁷ Review and redesign involves reviewing workstation designs,

¹⁰⁵Ibid., p. 295.

¹⁰⁶Ibid., p. 296.

¹⁰⁷Ibid., p. 299.

machinery, methods, and conditions to determine points of strain. Equipment or workstations are then modified to reduce strains. In addition, ergonomic job aids such as supports, pads, or guides are supplied. Design-in involves integrating safety considerations with productivity and quality criteria at the earliest stages of developing or purchasing work environments and equipment. An example is seeking feedback from line managers, employees, safety professionals, and engineers when purchasing and designing equipment, work areas, and procedures. Exercise and education involves educating employees about the cumulative trauma risks of their jobs and how to perform tasks in ways that prevent injury. Regular stretching exercises are advocated before and during task performance to prevent injury.

It is important that the behaviour of employees be directed toward safety. The Health Triangle Model advocates using the following employee involvement techniques with relation to health and safety:¹⁰⁸ traditional methods, improvement teams, and behavioural safety. Traditional methods include focus groups, regular meetings, publications, posters, videos, and surveys. Improvement teams include cross-functional teams and safety committees. Behavioural safety is often used when traditional methods have hit a plateau. Behavioural safety involves defining which job behaviours are critical to safe performance. Employees then identify observable indicators of whether it is performed safely or unsafely. After the employee samples a co-worker, the employee observer gives his or her co-worker immediate feedback. Aggregate results are posted for the entire work unit in terms of percentage of safe behaviour. The results are used as a source of continuous improvement of unsafe behaviour.

¹⁰⁸Ibid., p. 301.

The DHM Model safety program is based on the foundations of the DHM Model. In particular there is a strong emphasis on top management support (funding, formal organizational structure to support safety), a supportive culture (emphasis on employee involvement, training, awards and recognition), and early intervention (ergonomic design). The goal of this safety program is to reduce and prevent the number of workers injured, thereby reducing costs. All of these elements are interconnected. The champion is needed to gain top management support which in turn funds ergonomic design initiatives, training, and an information system. The proactive management of information provides for early intervention and supports the culture by providing feedback. It also provides information back to top management regarding the program evaluation. The cross functional team provides integration of functional areas which supports early intervention. It is important that the formal organizational structure to support safety [e.g. safety committees] be connected to other programs, such as return to work, in order to address barriers to return to work, such as fear of re-injury. All the elements of the safety program are important. For example, although a safety committee can identify safety risks, it fails to address the behaviour of employees.

12.2.6.2 Return to Work Program

Prior to developing a return to work program, it is important to examine the related legislation. The WSIA sets out new requirements for return to work. In general, more responsibility has been placed on the employer and employee. One must also consider the Ontario Human Rights Code in terms of accommodation. Both pieces of legislation were discussed in the legal section and will not be repeated here. However, it is important that

organizations move beyond mere compliance with the law. Top level management must recognize that a return to work program is not a financial burden but an opportunity. An effective return to work program offers a company leverage and a competitive advantage over other organizations. Returning employees back to work saves the organization costs related to recruiting, training and developing a replacement worker, apart from productivity disruptions of a new person to the work team. A return to work program should use a case management approach because each case is unique with different obstacles and barriers. The DHM Model advocates that the following elements be present in a return to work program:

1) Top management must provide the following:

- a) Resources. Funding must be provided to business units with respect to accommodation requirements. Although accommodation costs in general should come out of the budgets of individual units [in order to ensure accountability], an explicit funding arrangement should be set up for purchasing and operating expensive technical devices.
- b) A formal accommodation policy. Although legislation [Ontario Human Rights Code and WSIA] deals with return to work and accommodation, a company policy further demonstrates commitment. In addition, the policy can deal with specific issues [e.g. confidentiality for employees with HIV/AIDS].
- c) Flexibility with respect to working conditions and reintegration. It is necessary to provide employees with a variety of flexible working conditions. Meeting the needs of employees is essential for return to work. Options include flextime, part-time, job sharing, compressed work weeks, modifying job content, etc.

2) Supportive culture. It is necessary to eliminate any myths or misrepresentations regarding persons with disabilities, otherwise barriers for returning back to work will remain. A culture that supports employment equity and workplace diversity must be cultivated. To accomplish

this, training should be implemented.

- 3) **Union cooperation.** It is important to involve the union in matters dealing with return to work. The union should be consulted in reintegrating employees back into the workplace. Otherwise, mistrust may develop and adversely affect the culture of the organization. Open communication and cooperation are essential.
- 4) **Employee assistance program.** An EAP program provides employees the necessary support they need in dealing with stress and emotional issues in returning back to work after an injury. As well, an organization's occupational nurse or physician can provide counseling to an employee. It is essential that an organization address the root causes of stress for employees.
- 5) **Workplace accessibility.** In order to build on a supportive culture and eliminate barriers for persons with disabilities, it is necessary to make all facilities barrier free. An access committee should be set up to identify barriers and recommend solutions.
- 6) **Supportive human resource practices.** Initiatives directed at the hiring and development of persons with disabilities increase the critical mass of employees with disabilities in the workplace. This will lead to greater acceptance and fewer obstacles for employees returning back to work with a disability.

The DHM Model return to work program is based on the foundations of the DHM Model. In particular, there is an emphasis on early intervention (case management), supportive culture (supportive HR practices, EAP, workplace accessibility), top management support (formal accommodation policy, flexibility in working arrangements, resources). The goal of this program is to reduce the length of time off for an employee and facilitate a safe and timely return to work. This will lead to cost savings. Each one of the elements of the DHM Model return to work program are interconnected (integrated). After the champion fosters top management support (formal accommodation policy, resources, information system), information can be used

to link the elements by supporting early intervention (e.g. absence tracking system, identifying trends), a supportive culture (e.g. alert case managers to contact the employee--first contact), and top management needs (program evaluation). A cross functional team is also useful in bringing together all the stakeholders involved in a return to work plan (e.g. health and safety, occupational health, health professionals, EAP, supervisors, etc.). Again all the elements are essential. For example, without top management support, several initiatives would not be possible (supportive HR practices, EAP, and workplace accessibility).

12.2.6.3 Wellness Program

A wellness program is a collection of initiatives aimed at improving the health of employees. Examples of these initiatives are fitness options, health education, counseling, etc. A wellness program should be incorporated into the overall health management program. Some organizations may be hesitant to spend more money on top of all the other health related costs, but the benefits can be enormous¹⁰⁹. A wellness program should incorporate the following elements:

1. Organizational statement on the objectives of the wellness program. Employees must

¹⁰⁹1. Brierbrier, Allan, "Northern Telecom says one size shouldn't fit all", Health Economics, February 1997, p. 10.

2. Barge, Bruce, N. and Carlson, John, G., op.cit., p. 216-218. Original Sources:
 - a. Lombino, P., "An ounce of prevention", February 1992, CFQ, p. 15-22.
 - b. Breslow, L., Fielding, J., Herrman, A. A., Wilbur, C. S., "Worksite health promotion: Its evolution and the Johnson & Johnson experience", Preventative Medicine, 1990, 19: 13-21.
 - c. Holzback, R. L., Piserchia, P. V., McFadden, D. W., Hartwell, T. D., Hermann, A., Fielding, J. E., "Effect of a comprehensive health promotion program on employee attitudes", Journal of Occupational Medicine, 1990, 32(10): 973-978.
 - d. Jones, R. C., Bly, J. L., Richardson, J. E., "A study of a work site health promotion program and absenteeism", Journal of Occupational Medicine, 32(2): 95-99.

understand the purpose of the wellness program, both from an organizational and a personal point of view. Communication is key to promote understanding and awareness.

2. Voluntary participation. A wellness program should not be forced onto the employee. Although some organizations have tied incentives and penalties to a wellness program [e.g. premiums for smokers or overweight employees], problems exist regarding ethical issues [e.g. monitoring].
3. Employee health screening [cholesterol, body fat, cardiac capacity, blood pressure, etc.]. Health screening can identify employees with health risks, thus allowing for earlier treatment. In addition, health screening is a personal motivator. Employees can track their progress with the feedback provided by health screening.
4. Health education and promotion. Targeting should include the employee's family. For example, a monthly newsletter outlining healthy lifestyles and health risks could be sent out to the employee's residence.
5. Increasing employee participation. An organization should tailor its program to the needs of its employees by:¹¹⁰ 1) offering a range of wellness options to appeal to employees with varying interests/motivation, 2) involving employees in program design, 3) ensuring program accessibility and convenience (schedule, location), 4) holding programs on work time, 5) providing personal warmth, concern, and contact from program personnel. Examples of wellness options are: subsidized fitness memberships, aerobics classes, walking tracks, and on-site gyms.
6. Personal counseling and follow-up with employees. 'Researchers at the University of Michigan Worker Health Program believe personal attention is the key to what makes wellness work.'¹¹¹
7. Use of cost-effective community resources to control costs. Examples of this would be the

¹¹⁰Barge, Bruce, N. and Carlson, John, G., op.cit., p. 226.

¹¹¹Barge, Bruce, N. and Carlson, John, G., op.cit., p. 227. Original Source: Erfurt, J.C. and Holtyn, K., "Health Promotion in small business: What works and what doesn't work", 1991, Journal of Occupational Medicine, 34 (2): 66-73, 1991.

use of the heart and stroke foundation or lung association to provide information to employees, and programs at the Heart Institute's rehab unit.

8. Program evaluation.

The DHM Model wellness program once again is based on the foundations of the DHM Model. First of all top management support is needed to support wellness in terms of funding and provision of an organizational statement. This program is based on early intervention (employee health screening, health education) and a supportive culture (personal counseling, voluntary participation, options available, health education). The goal of the wellness program is to improve the physical and mental well-being of employees. This leads to future health cost savings and improved job commitment. The elements of this program are integrated. The champion is essential in gaining top management support. Linkage is provided by the proactive management of information, which provides feedback to employees regarding their health (supports the culture and early intervention). Information also provides data to top management regarding program evaluation. It is important to recognize that each element is essential. If one element is missing, the program could falter. For example, if top management support were missing, there would be no funding for wellness options.

12.2.6.4 Psychological/Substance Abuse Program

Psychological related costs have proliferated over the past few years. This was illustrated by the statistics and studies discussed under the Trends section [2.4]. Some of the reasons that may have contributed to this are: more acceptance by society of psychological problems, increased uncertainty and pressures in the workplace, and increased non-workplace stressors

[aging population, economic pressures (e.g. two-earner families)].

In addition, it is important to address substance abuse due to the strong correlation between substance abuse and workplace accidents. A study by an economist with the National Council on Compensation Insurance found that a 10 percent reduction in alcohol consumption would reduce U.S. workers' compensation costs by \$2.5 billion in 1989.¹¹² Workplace substance abuse is costing Canadian employers an estimated \$2.6 billion annually.¹¹³ It is estimated that substance abuse in the United States costs US \$26 billion annually [higher healthcare costs and lost productivity].¹¹⁴ In 1991, it was estimated that 2.5 million Canadians used illicit drugs on a regular basis.¹¹⁵

A combined program is advocated to signal an important message to employees: psychological problems and substance abuse are interrelated. Substance abuse is rarely just a physical addiction. There is normally a mental aspect to it. The first step is the development of a mental health/substance abuse risk profile. Anonymous surveys can be sent out to employees to develop a profile. Once a profile is developed, Employee Assistance Programs [EAP] and

¹¹²Barge, Bruce, N. and Carlson, John, G., op.cit., p. 246. Original Source: Durbin, D., Alcohol consumption and workplace accidents, 1989, New York: National Council on Compensation Insurance, RD-89-3.

¹¹³Thaler, Ted, "Substance Abuse Costing Employers Estimated \$2.6-B", Canadian HR Reporter, October 24, 1990, p. 1

¹¹⁴Thompson, B.L., "A Surprising Ally in the Drug Wars", Training, November 1990.

¹¹⁵Schwind, Hermann, F., Canadian Human Resource Management Fourth Edition, 1993, McGraw-Hill Ryerson, p. 611. Original Source: Buchignany, P., "White Collar Drug Abuse: These Dope Addicts Wear Shirts and Ties. They Run Banks, Law Offices, and Multinational Corporations", The Montreal Gazette, July 7, p. A5.

education efforts can proactively be tailored to address the needs of specific groups [broken down by age category, occupation, sex, etc.]

The DHM Model advocates cultivating a supportive culture that promotes employee involvement and empowerment. Naturally, top management support must be present in a psychological/substance abuse program. Top management support [in terms of empowerment and establishing programs (e.g. EAP/Education)] is needed to show employees that the organization is committed to their well-being.

Globalization and a shift to an information-based economy has meant more changes at a much higher pace than in the past. Front line supervisors must intervene early if they suspect an employee is having psychological problems [stress, anxiety, depression]. It is important that supervisors show understanding and support. Each employee has an individual set of needs and pressures. Supervisors must be able to adjust their leadership styles to the readiness of the employee.¹¹⁶ Therefore, training must be delivered to give supervisors the knowledge and skills necessary in addressing employees with psychological problems. Line management should pay particular attention to signals that may indicate psychological disorders (discussed in the 'Definition of a Disability' section). Top level management must be open to innovative and non-conventional strategies at reducing stress. "Many employers now allow employees to bring their dogs into work with them, saying it promotes stress relief, according to a recent report by the

¹¹⁶Hersey, Paul and Blanchard, Kenneth, H., Management of Organizational Behaviour Utilizing Human Resources, Sixth Edition, 1993, Prentice Hall., p. 489.

Associated Press.”¹¹⁷ Other programs that may reduce employee stress are childcare programs and flexible working arrangements [e.g. flextime, compressed work weeks]. It is important to address stress in the workplace as it is linked to other illnesses. For example, Dr. Neil Craton [Sports medicine specialist and medical education consultant to Manitoba’s Workers Compensation Board] states that stress may be a perpetrator to fibromyalgia.¹¹⁸

To address substance abuse, a formal drug/alcohol policy should be developed stating the organization’s philosophy. This will depend on many factors including: the type of industry [e.g. teachers vs. air traffic controllers], the culture of the organization, and past experience. Along with training to educate employees on the hazards of substance abuse, pre-employment drug testing can be used to prevent the hiring of substance abusers. The use of drug testing, however, is a contentious issue. Consultation with the legal department or a lawyer should be carried out prior to implementation in order to avoid any human rights violations. Training should be provided to line managers on spotting the signs of substance abuse. In addition to close monitoring, performance testing should be used when possible. Unlike drug testing, performance testing determines the job readiness of the employee. It has a much broader scope, taking other factors such as fatigue and mental problems into consideration. Performance testing involves testing an employee several times to establish a baseline. Later, the employee can be tested at any time to determine performance readiness.

¹¹⁷Staff at Benefits Magazine, “Insights: Stress Management on a Leash”, Benefits Canada Magazine, February 1997. (www.benefitscanada.com/content/wellness/we1_features.html)

¹¹⁸Dimon, Anne, “Health Management: The Yuppie Flu”, Benefits Canada Magazine, February 1997. (www.benefitscanada.com/content/wellness/we2_features.html)

Once an employee is found to have a substance abuse problem, the organization must show support and caring for the employee. An EAP approach tailored to the needs of the individual employee is advocated. Each individual is unique and responds to different approaches. Approaches available include: outpatient treatment programs, inpatient treatment programs, support groups [e.g. Alcoholics Anonymous, Al-Anon]. Once employees are rehabilitated back to health, it is important that continuous monitoring, follow-up and support be provided to prevent a relapse.

The DHM Model psychological/substance abuse program is based on the foundations of the DHM Model. Top management support is needed to provide an EAP and training for employees to deal with psychological and substance abuse issues. In addition, top management support is required to provide flexible working arrangements and other initiatives (e.g. elder care, child care) to address stress in the workplace. The program is based on early intervention (training supervisors to recognize signs and intervene) and a supportive culture (employee involvement, training). The goal of the psychological/substance abuse program is to focus on early recognition and treatment. This will reduce the risk of the disorder becoming long-term, thereby controlling costs. The elements of this program are interconnected. This is provided by the champion who gains top management support and pushes for the initiatives. Information provides the basis for integration by enabling top management support (program evaluation), early intervention (identification of trends in the workplace), and a supportive culture (providing feedback). A cross functional team is useful in addressing specific issues. For example, if stress in the workplace was found to be attributed to management style or pace of work, it would take

the efforts of many functional areas (e.g. health and safety, human resources, operations, occupational health, etc.) to address it. In summary, it is important to recognize that each element is an important piece of the puzzle. For example, without top management support, there would be no funding for an EAP or training program to educate supervisors in recognizing the symptoms.

12.2.7 Outcomes

The goals of the DHM Model are to improve the health of employees, contain costs, and provide value (e.g. improve productivity). Improving the health of employees leads to improved job commitment and satisfaction. Cost containment is a catch-all phrase. Many impacts of the model lead to cost containment (e.g. reducing the number of injuries, absenteeism, and time off for injured employees). It is important to establish goals in order to assess the effectiveness of the model. Again, information is the linking mechanism for the model and the outcomes element.

In order that programs be fairly evaluated, it is important that top management be aware of the factors that may complicate paybacks from health investments. These include:¹¹⁹

1. The covered population fluctuates both in terms of absolute participation and intensity and longevity of participation.
2. A generalized health program may not meet the specific needs of an employer's covered population.

¹¹⁹Barge, Bruce, N. et Carlson, John, G., op.cit., p. 87-88

3. Causes not controlled by the health programs may influence utilization decision making. For example, family pressures (elder care, child care, financial restraints) and work pressures (deadlines) can influence the degree to which a health program is utilized.
4. Random health events can distort analysis over short-term periods.
5. Health program effectiveness may be compromised by a health care plan that does not promote health as a goal in care activities (e.g., it covers only medically necessary procedures).
6. Cost-sharing features may undermine incentives to up-front health interventions. For example, high deductibles may discourage employees from utilizing a company's dental plan, leading to more acute problems in the future.
7. Line supervisors and work colleagues can connote a stigma to accessing health programs.

Part IV Validating the Diamond Health Management (DHM) Model

This part will present supporting evidence for the DHM Model. First the methodology for validating will be discussed in detail. This will entail looking at the limitations of the study, the participants, and the procedure. Next, results of the study will be presented.

13. METHOD

13.1 Participants

There were five participants in the small empirical study: Ottawa-Carleton Regional Police Service (O.C.R.P.S.), University of Ottawa, Innovera Integrated Solutions, KPMG Consulting, and the Institute for Work and Health. Due to the limited scope of this study, participants were chosen to represent a diverse background.¹²⁰ Consulting firms, such as KPMG and Innovera, were chosen because they deal with a variety of organizations. It was felt that they would provide invaluable information. The Institute for Work and Health is a research body that conducts research in the field of disability management. The O.C.R.P.S. and University of Ottawa were chosen for their accessibility.

¹²⁰Laura Mensch, Manager, Actuarial Benefits and Compensation, KPMG Consulting Inc., Interview July 3rd 1998, February 10th 1999. Peter Pirt, Communications Manager, Institute for Work and Health, Interview February 5th 1999. Sue McLaren, Occupational Health Specialist, Ottawa-Carleton Regional Police Service, Interview February 9th & March 26th 1999. Lise Griffith, Manager, Occupational Health, Disability and Leave, University of Ottawa, Interview February 12th, March 23rd & 25th 1999. Andre Daviau, Officer, Employment & Education Equity Program, University of Ottawa, Interview March 24th 1999. Celine Clement, Occupational Health & Safety Officer, University of Ottawa, Interview March 24th 1999. Alar Prost, L., President, Innovera Integrated Solutions Inc., Interview March 9th 1999.

13.2 Limitations

Due to time constraints of application and data collection, it was not feasible to conduct a full scale test of the DHM model in an organization. However, a small empirical study was conducted for the purpose of validating the model [see procedure section below]. Financial figures and results are provided when possible, however, some organizations were not able to provide details due to confidentiality issues. Although there were five participants in the study, only two (O.C.R.P.S. and the University of Ottawa) were able to provide details of their programs. The other three organizations were unable to do so, citing a variety of reasons. KPMG cited confidentiality. Innovera does not have a disability management program due to its size (3-4 employees) and was not willing to provide current information regarding any organization it has consulted. Finally, the Institute for Work and Health is a research body with no front line services.

13.3 Procedure

A questionnaire was developed for conducting the small empirical study [Appendix G]. Although all participants answered the questionnaire, only two were able to do so in a comprehensive manner. Therefore, the focus of the small empirical study was on the O.C.R.P.S. and the University of Ottawa. Although the other three participants could not answer questions related to their organization, their expertise in the field provided some valuable insight. All five participants answered the questionnaire over the telephone. The total length of the interviews for the O.C.R.P.S. (two interviews) and University of Ottawa (five interviews) averaged about three hours each, and one hour for the other three participants. The questionnaires were read verbatim

to the subjects. Explanations to the questions were given to minimize any misunderstanding. Probing questions in the questionnaire were used to gather details. The results of the two in-depth interviews (University of Ottawa and O.C.R.P.S.) were then analyzed in terms of whether they support the elements of the DHM model. To supplement the small empirical study, several case studies of successful organizations were also examined. These were compared to the elements of the DHM Model. The insights of experts in the field are presented in Appendix H.

14. EVIDENCE

The following is a study of the DHM model. Evidence will be presented in a systematic manner consisting of two sections. The first section will provide evidence through the small empirical study. The next section will supplement this support by examining case studies.

Evidence will first be offered to support the key success factors. Validating the key success factors is essential, as they form the foundation for the DHM Model. Next, evidence will be presented to support the health and safety program, return to work program, wellness program, and psychological/substance abuse program. The evidence presented for these programs will be linked back to the roots of the DHM Model: needs assessment, top management support, early intervention, supportive culture, and integration.

14.1 Key Success Factors - Evidence

Section I Small Empirical Study

Ottawa-Carleton Regional Police Service (O.C.R.P.S.)

The Ottawa-Carleton Regional Police Service (O.C.R.P.S.) provides policing service for the regional municipality of Ottawa-Carleton. It employs approximately 390 civilian employees and 1000 sworn members (police officers). A policing organization is a good organization to examine due to the stressful nature of the job and the potential for work-related injuries. Sue McLaren, Occupational Health Specialist (O.C.R.P.S.), was contacted and agreed to answer the questionnaire. The O.C.R.P.S. does have a disability management program which has been quite effective in dealing with compensable injuries [work-related injuries]. The O.C.R.P.S. has only tracked the last 2 years in terms of disability and absenteeism. The number of compensable days off has declined substantially: 1971 days in 1997 to 1143 days in 1998. The O.C.R.P.S. advised that part of this success may be attributed to new legislation (WSIA) that places more responsibility on the employer and employee in return to work. For example, complying with the legislation, the O.C.R.P.S. now tries to contact an injured employee within 24 hours of the incident (supporting early intervention). The following is a summary of the key elements that the O.C.R.P.S. considers important in a disability management program:

TABLE E: Small Empirical Study: Summary of Key Elements (O.C.R.P.S.)

Key elements that the O.C.R.P.S. felt were important	How achieved in the O.C.R.P.S.
Champion	Director General pushes for Disability Management
Top Management Support	Top management provides funding for programs such as early rehab intervention, wellness, and EAP. The executive has also provided for policies (e.g. harassment, health and safety, accommodation), the mission and values statement [see Appendix I], and the purchase of 'Parklane' software to track compensable injuries.
Needs Assessment	The O.C.R.P.S. looked at internal and external factors. Internally, a needs assessment was performed (called the Corporate Health Survey), which led to the creation of all programs (e.g. stress management, flex hours, exercise, etc.). Externally, the O.C.R.P.S. also considered the legal requirements prior to implementing programs.
Integration	Integration is present in terms of case management. All stakeholders of the Return to Work (RTW) process are involved in formulating a return to work plan (e.g. occupational health, supervisor, employee, WSIB, physician, EAP). In addition, programs are integrated (health and safety, wellness, return to work, psychological/substance abuse) with a focus on early intervention. There is also functional integration present in the O.C.R.P.S. (e.g. Occupational Health is integrated with Health and Safety).
Supportive Culture	Education is provided to employees (e.g. conflict resolution, harassment issues, ergonomics). Education is provided by the Region, by external experts (e.g. chiropractors) and internally [police officers that have taken specialty courses (e.g. stress management, suicide intervention)]. Policies are in place regarding harassment and accommodation. In addition, management tries to involve employees [e.g. the fitness incentive program (to be discussed later under wellness)]. Information is also distributed to employees in the form of e-mail, pamphlets, etc.. For example, a booklet on health and safety is given to new employees.

Early Intervention	All programs (wellness, psychological/substance abuse, health and safety, return to work) have a focus on early intervention and prevention. O.C.R.P.S. uses the following: occupational health specialist, consulting physician, case management, risk assessments [work-related].
Management of Information	O.C.R.P.S. tracks compensable injuries using 'Parklane' software. Occupational Health is responsible for tracking this information. Kinds of data tracked include the number of lost time days, cause of accident, type of injury, body part of injury, injury by district (location). Supervisors are responsible for tracking absenteeism. Absenteeism information is broken down by section (section averages) and compared to the corporate average. High absenteeism sections are then examined closely.
Open Communication	Employees are encouraged to report safety concerns, harassment, etc.. Policies are in place such as the joint health and safety policy and the harassment policy to deal with specific issues. There is also a complaint process in place.
Cost Containment	The O.C.R.P.S. concentrates on early intervention, safely returning employees to work, and finding ways to lower absenteeism. No cost avoidance strategies have been implemented (e.g. no programs have been cut to eliminate costs).

The O.C.R.P.S. has achieved success in reducing the number of compensable days off by utilizing the key elements of the DHM Model: top management support, early intervention, a supportive culture, needs assessment, and information management (limited).

The O.C.R.P.S. identified the following weaknesses in their program: supervisors are not accountable for absenteeism, the 'Parklane' software only tracks compensable injuries, the accommodation policy only includes work related injuries (doesn't include short-term and long-term disability). The O.C.R.P.S. considers the lack of accountability for supervisors a cause for the rise in absenteeism (from 8.5 days per year in 1997 to 9.3 days per year in 1998 per

employee). The lack of a comprehensive information system also limits the effectiveness of the organization in its early intervention efforts. The O.C.R.P.S. is currently looking at addressing these issues. In addition, the O.C.R.P.S. is considering having their finance department pay for large medicare expenses incurred by the employee on the job to reduce stress for the employee. For example, a police officer that gets stuck by a syringe would require expensive medication (e.g. AZT). Currently this medication would have to be paid for by the officer who would then apply to the WSIB or health insurer for reimbursement--a process that adds additional stress to a traumatic incident. The O.C.R.P.S. is proposing to have the finance department pay directly for the treatment. This proposal shows that the organization cares about its employees and provides a supportive culture.

In terms of cost containment, the O.C.R.P.S. is considering a new initiative. The O.C.R.P.S. falls under Schedule 2 of the WSIA, which means that the O.C.R.P.S. pays directly for employees off on a work-related injury (income continuation). However, since the claim is processed by the WSIB, there are additional costs (e.g. 15% administration fee) assessed. The O.C.R.P.S. is now proposing to pay employees returning back to work directly, instead of going through WSIB. For example, consider an employee that has returned to work. Currently, if this employee takes time off from work for any injury-related treatment, a claim is sent to the WSIB. This means that the O.C.R.P.S. pays a premium (salary plus additional costs to the WSIB) when the employee takes time for treatment. The O.C.R.P.S. is proposing to pay the employee directly instead of going through the WSIB in this situation, thereby eliminating the administration fee to the WSIB. This will lead to cost savings.

The University of Ottawa

The University of Ottawa is an organization primarily focused on post-secondary education. The University of Ottawa consists of approximately 1000 support staff and 500-600 academic staff. The academic staff has two associations [unions]--one for full-time and one for part-time. Teaching assistants are part of CUPE. In addition, there are two trade associations for the support staff. Lise Griffith, Manager, Occupational Health, Disability and Leave (University of Ottawa), was contacted and agreed to answer the questionnaire. Although Lise Griffith answered the entire questionnaire, there were two areas that she was unable to elaborate on. Lise Griffith advised that health and safety and employment equity were not her expertise and referred the author to Andre Daviau, (Officer, Employment & Education Equity Program, University of Ottawa) and Celine Clement (Occupational Health & Safety Officer, University of Ottawa). Both Andre Daviau and Celine Clement were contacted and supplemented the information provided by Lise Griffith.

The following is a summary of the key elements that the University of Ottawa considers important in a disability management program:

TABLE F: Small Empirical Study: Summary of Key Elements (University of Ottawa)

Key elements that the University of Ottawa felt were important	How achieved in the University of Ottawa
Champion	The Director of Human Resources (Louise Pag-Valin) made a presentation to top level management advising them of the need to manage disability. She presented data on the number of cases per year and the need to accommodate.

Top Management Support	Top management has put funding in place for the various programs. Although there is no specific policy regarding accommodation, it falls under the Sick Leave Policy. Top management is committed to returning the employee back to work. Accountability has also been established by top management. Individual departments are responsible for costs related to accommodation.
Needs Assessment	The University of Ottawa benchmarked against other universities regarding utilization rates (percentage of disability cases). It also considered legislation prior to implementing programs. Past experience was considered to identify deficiencies in managing disability.
Integration	Top management support is linked to early intervention, a supportive culture, and the proactive management of information. There is also functional integration. The Occupational Health Nurse meets regularly with the Occupational Health and Safety Officer to discuss prevention strategies. In addition, a rehab meeting (including all stakeholders) is set up to discuss a return to work plan.
Supportive Culture	The University of Ottawa encourages employee involvement, open communication, and cooperation by supervisors. Training is done periodically to reinforce the concepts of disability management. For example, all new managers undergo an 8 week training program (Interaction Management) with a module in disability management.
Early Intervention	To prevent an illness or injury from reaching a long-term stage, the University of Ottawa has a policy in place requiring an employee that is off for more than 10 days to provide documentation from a physician. If the employee is off for more than 30 days, the University will follow up to see if the employee is receiving proper treatment. The University also begins a Return to Work Plan. The University of Ottawa follows a case management approach. In addition, the University has on staff one full-time OHN and one part-time OHN to assist employees who are absent in returning to work. Also the Director of Health Services is a physician.
Management of Information	The University of Ottawa tracks short-term and long-term absenteeism separately. The University breaks down the absenteeism data by department. This is then compared to the corporate average, averages in other institutions and national averages. Data is also compared internally to previous years. If absences for a department are found to be excessively high, the University of Ottawa looks at many factors such as health concerns (safety risks) and staff related issues that may be the cause (e.g. volume of work, nature of work, supervisor practices). The data is also broken down by type of illness/injury. The University of Ottawa uses this data to form its prevention strategies (e.g. focusing on diagnosis for an illness/injury).

Open Communication	The University of Ottawa sends out newsletters and e-mail. In addition, administrative staff meet with employees to exchange information. The Director of HR sends out a communique entitled "FACTUM" which provides information to employees regarding benefits, OHS, etc. The University provided information on the new WSIA to its employees through FACTUM. Policies are in place to address specific issues (e.g. harassment, accommodation, health and safety).
Cost Containment	The University of Ottawa does not engage in cost avoidance (e.g. no measures have been undertaken to remove coverages). Costs are considered important, but are secondary to the health of employees. The University of Ottawa tries to contain costs by concentrating its efforts on prevention and being specific with respect to what its employees are looking for.

The University of Ottawa does carry out a disability management program which has been successful in reducing disability and health costs. The University does not distinguish on the reason for the absenteeism (work-related or not), but does distinguish between short-term (1 to 119 days) and long-term (120 days to 24 months) absences. Although the University of Ottawa was unable to provide specifics, it advised that average absences per employee has dropped in 1996 and 1997 from the previous year for short-term absences (includes work-related injuries). Results for 1998 were not available at the time. The University of Ottawa also advised that they have noticed that people are not staying off as long with respect to long-term absences. There has also been a significant drop in the number of incidents related to the workplace. Ninety percent of the absences related to the workplace are for medical aid only (in which the employee just gets checked out by the physician). No financial data was provided due to confidentiality issues. The University of Ottawa considers all the elements of the DHM Model important in contributing to success.

Summary of Small Empirical Study

The findings of the small empirical study demonstrate the importance, necessity and interrelatedness of the key success factors of the DHM Model for both organizations. The organizations believe that there is a strong correlation (though no financial data were offered) between these factors and the success of disability management, as well as positive outcomes such as lowered absenteeism, early return to work, lowered costs. Without any one of these factors, disability and health management would falter. A summary of these findings is presented later in Table H. This will now be supplemented with case studies.

Section II Case Studies

To supplement the findings of the small empirical study, three large studies were examined: the Canadian Federal Public Service pilot project, a Columbia University study, and a State of Michigan study. These case studies provided additional support for the key success factors of the DHM Model [see Table H].

Canadian Federal Public Service Pilot Project

The Canadian Federal Public Service employs over 200,000 people, with an annual payroll of close to \$8.5 billion.¹²¹ A pilot project on disability management was conducted to address escalating costs associated with injuries and/or disabilities incurred on and off the job. Workers compensation benefits and administration costs had exceeded \$100 million annually, equating to more than 2,000 person-years of lost productivity. The total costs to the Canadian

¹²¹Prost, Alar, L., *op.cit.*, p. 42.

taxpayer (direct and indirect) was estimated at \$300 million annually.¹²² The pilot project began in November/December 1993 and ran till November 30, 1995. It was led by Human Resources Development Canada and included Correctional Services, National Defense, and Public Works and Government Services. The following are the objectives of the pilot project:¹²³

- restore and maintain the productive capacity of disabled workers;
- assist employees with vocational adjustments required to enable them to promptly return to work;
- directly reduce the benefit and workplace costs of disability as well as reduce the costly consequences disability brings to all parties;
- reduce the incidence of accidental injury and disablement in the workplace; and
- elevate workplace morale and improve the labour relations environment.

The pilot project began by developing systems and procedures appropriate to the federal government work environment based on strategies from leading disability management programs: early intervention, employee involvement, case management (involvement of all stakeholders), and the fair and consistent treatment to all injured or ill workers. This work led to the publication of the Disability Management Manual for Case Managers. Initiatives were also taken to enhance the capacity of the existing information system. Finally, a training program was developed and offered to case managers for each department's existing work force.¹²⁴ A

¹²²Insight Canada Research, Human Resources Development: A Review of the Disability Management Pilot Project, January 1996, p. 4.

¹²³Ibid., p. 5.

¹²⁴Prost, Alar, L., op.cit., p. 43, 44.

review of the pilot project revealed that the program had been a huge success.

TABLE G: Estimates of Costs and Benefits for PWGSC and HRDC Pilot Project¹²⁵

TYPE OF CASE	TOTAL POTENTIAL LIABILITY	COST SAVINGS TO DATE ¹	ANTICIPATED SAVINGS ²	NO RETURN TO WORK POTENTIAL ³
D/LTD	19,865,726	7,584,844	8,403,743	3,877,139
WCB/CSST	15,135,712	5,126,954	7,003,450	3,005,308
TOTALS	35,001,438	12,711,798	15,407,193	6,882,447

¹*Cost Savings to Date refers to the amount by which the total potential liability has been reduced as a result of successful return to work. For the purpose of these calculations, employees participating in the disability management initiative are considered to have successfully returned to work if they no longer receive any form of income replacement due to an injury or illness.*

²*Anticipated Savings: Dozens of employees with definite rehabilitation and return-to-work potential, who were receiving some form of income replacement, were still receiving services by case managers at the time the Pilot Project came to a close. Based on the assumption that these employees would experience a successful and timely return to work, the figures in this column refer to the estimated amount by which the total potential liability would be reduced after the Pilot Project came to a close.*

³*No Return-to-Work Potential: The figures in this column are based on the potential liability of those cases where there is little prospect of the employee ever returning to any form of paid employment. Accordingly, these employees would continue to receive replacement income until age 65.*

To summarize, two of the four departments (utilizing the strategies identified above) were able to assist dozens of employees to return to work, thereby reducing workers' compensation and private insurer's earnings replacement liabilities by more than \$12.7 million--all at a cost to the project of only \$200,000. Results were inconclusive at the two other departments: the project stalled in Correctional Services, and at National Defense the accident frequency rate dropped dramatically (making statistical analysis impossible).¹²⁶ At the time of the evaluation, the pilot project had achieved a 60 percent success rate in returning employees back to work for cases

¹²⁵Insight Canada Research, *op.cit.*, p. 29.

¹²⁶Prost, Alar, L., *op.cit.*, p. 44.

which outcomes can be determined. The majority of these cases were for employees absent for over 6 months with many away for more than a year.¹²⁷ These results indicated that the pilot project was very successful compared with the rates of return for the general population: after six months away from the job because of an injury or disability, statistics indicate a 50% chance of the employee returning; after twelve months, 20%; after 2 years, 10%.¹²⁸

The project leader identified the key elements of managing disability as:¹²⁹ timely response to injuries and/or illnesses; demonstrated and ongoing commitment from top management; education and involvement of employees at all levels; labour/management participation from the onset; fair and consistent treatment of ill or injured workers; a willingness to challenge conventional systems, procedures and thinking; clearly documented administrative policies and procedures; understanding of the organization's injury/disability patterns as identified through a comprehensive disability management information system; and effective use of both public and private health care and rehabilitation services. All of these elements are incorporated in the DHM Model.

The project leader was disappointed that the pilot project was not expanded to the entire public service. He cited the main reason for this was the lack of accountability. Individual departments and managers were not responsible for the costs associated with disability. The

¹²⁷Insight Canada Research, *op.cit.*, p. 27, 30.

¹²⁸Zimmermann, Wolfgang, "Disability Management as an Economic and Social Strategy for Workers, Employers and Government", Keynote address to the National Conference on Disability and Work, 1996.

¹²⁹Prost, Alar, L., *op.cit.*, p. 43.

pilot project strongly supports the elements of the DHM Model. This case study demonstrates the importance of each element as a piece of the puzzle. If one element is missing (in this case accountability), the full benefits of the program will not be realized.

Columbia University Study

A study was conducted in 1989 by researchers at the Columbia University Graduate School of Business. This study used existing research, organizational case studies, and data gathered from 77 companies employing 700,000 workers. Although the findings showed that some of the variation in disability rates was attributable to external factors [industry group, occupational mix, age of the work force, and company size], four management policies and practices significantly differentiated an organization's rate of employee disability:¹³⁰

- 1) **Employee Participation**. The researchers constructed an employee involvement index that measured the existence of formal employee involvement programs such as quality-improvement teams, the extent of information sharing with employees, the scope of involvement in decision making, and the presence of financial gain sharing with employees. Analysis showed that the higher the company's score on the employee involvement index, the lower its rate of employee disability.
- 2) **Conflict Resolution**. In both case studies and empirical analysis, the researchers observed that two aspects of effective conflict resolution were important in reducing disability. Disability rates were lower when (a) mechanisms existed for getting conflict out in the open, and (b) there were effective avenues for resolving the conflict.
- 3) **Stability of Work Force**. Disability rates were markedly lower among firms with low rates of employee turnover. In addition, higher rates of disability were found within companies undergoing severe layoffs, reorganizations, or mergers/acquisitions, even among employees

¹³⁰Barge, Bruce, N. and Carlson, John, G., op.cit., p. 7-8. Original Source: Lewin, D. & Schechter, S., "Four factors lower disability rates", May 1991, Personnel Journal, pp. 99-103.

not immediately affected by the disruption. Relative stability in the work force was associated with low rates of disability. This shows the importance of providing employees with a supportive culture to deal with change.

- 4) **Disability Management**. Low rates of employee disability were associated with high organizational commitment to disability policies and programs. This includes early intervention in potential high cost cases, job modification for early return to work, training in lifting techniques, employee assistance programs, health promotion programs, and special assistance for persons with a disability.

This study has identified key elements that have been linked to organizations successful in managing disability. These elements show a strong correlation to the elements of the DHM model: supportive culture (employee participation, conflict resolution, stability of work force), early intervention, and top management support.

State of Michigan Study

Another major study was sponsored by the State of Michigan and included more than 5,000 Michigan employers.¹³¹ Workers' compensation loss results were used to identify the best and worst organizations within each industry (SIC Code). Two important findings were:

- 1) there were huge differences between the best and worst firms within every industry investigated, and 2) the majority of differences were attributed to internal characteristics of the firm. Organizations that were found to have low compensation costs had a strong commitment to safety and accident prevention, supportive management culture and climate, early intervention,

¹³¹Barge, Bruce, N. and Carlson, John, G., op.cit., p. 8-9. Original Source: Habeck, R. V., Leahy, M. J., Hunt, H. A., Chan, F., Welch, E. M., "Employer factors related to worker's compensation claims and disability management", 1991, Rehabilitation Counseling Bulletin, 34(3): 210-226.

open communication, employee involvement, positive union relations with management, an employee assistance program, wellness program, and flexible working arrangements. All these elements are present in the DHM Model.

The following is a summary of the evidence used to validate the key success factors upon which the DHM Model is based:

TABLE H: Summary of Evidence to Validate the Key Success Factors

Key Success Factor	Evidence from	Used by Other Models	Validated [YES or NO]
Champion	-O.C.R.P.S. -University of Ottawa	ACA	Yes
Top Management Support	-O.C.R.P.S. -University of Ottawa -Federal Pilot Project (proved the need for accountability)	Ernst & Young, ACA, Health Triangle	Yes
Needs Assessment	-O.C.R.P.S. -University of Ottawa	ACA, Health Triangle	Yes
Integration	-O.C.R.P.S. -University of Ottawa -Federal Pilot Project	Health Triangle, ACA [Coordinating Committee], KPMG Model	Yes
Supportive Culture	-O.C.R.P.S. -University of Ottawa -Columbia University Study -State of Michigan Study	Health Triangle	Yes
Early Intervention	-O.C.R.P.S. -University of Ottawa -Columbia University Study -State of Michigan Study -Federal Pilot Project	KPMG Model ACA Model Health Triangle	Yes
Proactive management of Information	-O.C.R.P.S. -University of Ottawa -Federal Pilot Project	Health Triangle, ACA,	Yes

Communication	-O.C.R.P.S. -University of Ottawa -Columbia University Study -State of Michigan Study -Federal Pilot Project	Ernst & Young, KPMG, ACA, Health Triangle	Yes
Cost Containment	-O.C.R.P.S. -University of Ottawa -Federal Pilot Project	Health Triangle	Yes

As discussed earlier, the key success factors form the 'roots' for the model. By proving the key success factors, five elements of the DHM model were validated (needs assessment, top management support, early intervention, culture, and integration). Although these elements are essential elements and form the foundation for the model, it is the program element that actually transforms these concepts into action. Evidence for the program element is presented next. This will include validating the following programs: safety, return to work, wellness, and psychological/substance abuse.

14.2 Safety Program - Evidence

Section I Small Empirical Study

One of the objectives of the small empirical study was to verify the elements of the DHM model safety program. The following table summarizes the findings.

TABLE I: Summary of Small Empirical Study: DHM Model Safety Program

Elements of DHM Model: Health and Safety Program	Presence in O.C.R.P.S. (If present, how it is achieved)	Presence in the University of Ottawa (If present, how it is achieved)
Tracking and Analysis of Information	Yes, compensable injuries are tracked in terms of causes of accidents, types of injuries, body part of injury, and location (district).	Yes, if an accident or near mishap occurs, each supervisor must complete an "Accident, Incident, or Occupational Disease Report". This information is placed into a database. The University of Ottawa is looking at purchasing a more up-to-date system for tracking injuries.
Formal Organizational Structure to Support Safety	Yes, there is a joint health and safety policy. A health and safety committee does regular inspections of the facilities. Training for committee members is done by the Ministry of Labour and by external safety organizations such as the Industrial Accident Prevention Association (IAPA).	Yes, there are 5 sectoral committees (according to geographical location) that perform regular inspections in their area. There is also a joint health and safety committee (University of Ottawa Occupational and Health Committee) with a member from each sectoral committee that looks at organizational wide issues. If a sectoral committee cannot resolve an issue after two consecutive meetings, the matter is sent to the joint committee for resolution. There is a health and safety officer for high risk areas [Science, Engineering, Medicine, physical resources (janitors, electricians, etc.)]. Training is offered to members of the Health and Safety committees that includes a 'trial' inspection. First aid training is given to selected members at each facility (free of charge).

<p>Emphasis on Employee Involvement and Behaviour</p>	<p>Yes, training is offered to employees (e.g. firearms safety training). Activities are carried out to promote safety (e.g. fire drills). A booklet is given to new employees regarding health and safety.</p>	<p>Yes, the University of Ottawa offers training to employees (e.g. WHMIS for chemical hazards, ergonomic). Most of the training is offered in house and is free to employees. In addition, a communique (FACTUM) is sent to employees to make them aware of health & safety risks. For example, one issue contained information on the importance of an interlocking system for filing cabinets (only one drawer can be opened at a time), which reduces the risk of the cabinet falling on the employee. Activities, such as the Health and Safety Awareness week and fire drills, are used to promote safety at the University of Ottawa.</p>
<p>Awards and Recognition</p>	<p>No, but the O.C.R.P.S. feels it is a good idea</p>	<p>No, there is no award offered because the University of Ottawa has two reservations: 1) awards may discourage sectors from reporting incidents because they want to 'win'. 2) it is unfair to compare high risk areas (e.g. Science & Engineering) to low risk ones (e.g. office areas)</p>
<p>Ergonomic Design: Review and Redesign</p>	<p>Yes, process in place under the Accommodation policy. The O.C.R.P.S. had ergonomists come in and review existing equipment. In addition, the Health and Safety Committee is trained to recognize improper ergonomic setups.</p>	<p>Yes, The Health and Safety Committees are trained to recognize ergonomic setups that are not proper and report their assessment to Occupational Health. Occupational Health then looks into the problem for correction.</p>
<p>Ergonomic Design: Design-in</p>	<p>Yes, experts reviewed equipment prior to purchasing. The organization is slowly replacing existing equipment (by sections) due to budget constraints.</p>	<p>Yes, any purchases have to go through Diane Lalonde, Interior Design & Furnishing, Physical Resources Services, University of Ottawa. Diane has a good knowledge of ergonomic issues and works closely with Occupational Health in determining the suitability of a piece of equipment.</p>
<p>Ergonomic Design: Exercise and Education</p>	<p>Yes, training is giving to employees by experts (e.g. chiropractors, kinesiologists).</p>	<p>Yes, training is offered regarding ergonomics. This training is offered by the Occupational Health Department in the University. The University of Ottawa distributes a pamphlet on exercises that reduce the risk of injury. The University of Ottawa also provides its employees with information regarding repetitive strain injuries.</p>

O.C.R.P.S.

No statistics were available regarding the effectiveness of the program. However, a Ministry of Labour Inspector had recently inspected all three Divisions of the O.C.R.P.S.. According to his findings, the O.C.R.P.S. had a relatively safe environment with only a few minor orders issued. This was achieved by utilizing concepts that are present in the DHM Model (see the summary below). The O.C.R.P.S. feels that more must be done to address repetitive strain injuries. Efforts have primarily been directed at ergonomic education. The O.C.R.P.S. is currently considering replacing the health and safety booklet provided to new employees (due to low usage and high cost) with training provided by health and safety committee members.

The University of Ottawa

The University of Ottawa feels that the emphasis for health and safety should be on early recognition and prevention. Employees are encouraged to report problems. The University of Ottawa is currently looking to update their information system for tracking injuries. This shows the importance of tracking injuries. The University of Ottawa could not provide any specific details due to confidentiality, but advised that the severity of injuries has declined. As well, the number of injuries has declined over the last 3 years (a new reporting system was implemented 3 years ago that encouraged employees to report injuries, which limits any comparison to prior years). This success can be attributed to the use of initiatives that are present in the DHM Model (see summary below).

Summary of the Small Empirical Study

The health and safety program of these two organizations bear a strong resemblance to the proposed DHM Model health and safety program. In addition, the programs outlined by these organizations have a strong link to the foundation of the DHM Model. In particular, there is a strong emphasis on top management support (formal organizational structure to support safety), a supportive culture (emphasis on employee involvement), and early intervention (ergonomic design). All of these elements are interconnected (supporting the need for integration). Information is the linking mechanism by providing for early intervention (by identifying trends) and supporting the culture (providing feedback). In addition, information provides for program evaluation for top management.

In summary, the small empirical study has provided strong support for the DHM Model safety program. This will now be supplemented with evidence from case studies.

Section II Case Studies

Due to the limited scope of the small empirical study, the following 3 case studies were examined to provide supplementary support.

HON Industries

HON Industries is an office furniture manufacturer located in Muscatine Iowa with 5,600 employees. HON reduced its number of accidents by 41 percent from 1990 to 1991 through five

steps:¹³²

1. Implementing a safety infrastructure, in which safety is an agenda item at all management meetings. The CEO chairs the safety review board, and each facility has its own safety manager and review board.
2. Certifying all employees for job safety through an education and testing process about required safe procedures used in that job.
3. Certifying employees for safe operation on individual pieces of equipment such as the punch press.
4. Regularly reviewing the workplace and its equipment for hazards or ergonomic problems.
5. Encouraging all employees to report potential safety problems to their supervisor and to the safety director or review board.

To reduce carpal tunnel injuries, HON implemented the following: calisthenics warm up in the morning, a five minute break every hour, job rotation every two hours. Although employees work approximately 40 minutes less per day, production levels have increased from 65 to 95 percent of capacity.

HON has been very successful in its health and safety efforts. It is important to note that the elements of this case are parallel to many of the key elements of the DHM Model, in particular, top management support (safety infrastructure), early intervention (reviewing the workplace for safety hazards and ergonomic problems), and a supportive culture (training employees, open communication).

¹³²Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 294. Original Source: Morehouse, J., "Safety programs help cut workers's compensation costs", 1992, Business and Health, p. 72-75.

Aspen Imaging International

Aspen Imaging International is a manufacturer of computer printer supplies located in Lafayette, Colorado. Aspen International was able to reduce its workers' compensation costs from \$600,000 in 1989 to \$221,000 in 1991. This was accomplished by taking the following seven steps:¹³³

1. Established an executive committee to monitor the number and cost of injuries and to manage injury-prevention efforts.
2. Hired a full-time health and safety coordinator.
3. Designed several new ergonomic tools to reduce repetitive strain.
4. Employees were given safety and lifting training.
5. Established a safety committee to review incidents, inspect the plant, and recommend improvements.
6. Developed a safety incentive system.
7. Emphasized returning injured employees to work quickly through the use of modified schedules or duties.

Aspen Imaging has been very successful in its health and safety efforts by focusing on the proactive management of information and early intervention. It also appears that Aspen tried to establish a culture focused on safety by developing a safety incentive system and providing safety training to its employees. Top management support was present in establishing the executive committee, hiring the safety coordinator, providing training, and developing the safety incentive system. These elements are all present in the DHM Model.

¹³³Ibid., p. 293.

NCH Promotional Services

NCH is a leading coupon clearing and consumer promotional fulfillment house in Canada. The organization began to see an increase in workplace injuries as it began incorporating technology into its business. These injuries included tendinitis, carpal tunnel syndrome, and other upper muscular pain attributed to the work environment. In fact the number of claims almost doubled from 1990 to 1991.¹³⁴ To address this problem, NCH developed three objectives:

1. Ensure their long-service employees were able to get better and return to work
2. Prevention of workplace injuries for new workers
3. Adapting the workstations and environment in a cost efficient manner to prevent the re-occurrence of an injury.

NCH called upon physiotherapists and the Workers's Compensation Board to educate workers and management in terms of early diagnosis and prevention of injuries. The following steps were instituted:

- 1) Workstations were reviewed for possible improvements.
- 2) Chairs and stools were replaced with more ergonomically friendly ones.
- 3) A specifically designed exercise program was implemented to associates as mandatory (part of their job performance standards).

NCH secured the services of a medical doctor to act as liaison between the company, the patient, the medical community, and the Workers' Compensation Board. NCH also adopted as

¹³⁴Insight Information Inc., Disability Management: Strategies for Cost Containment, 1996, Insight Press, p. 135-155.

terms of employment and part of their medical policy, a requirement that all employees suffering from work related chronic pain be subject to sharing information about their progress. The patient's right to privacy was protected.

NCH also adopted a return to work program. Because NCH was not able to accommodate its injured employees with 'light duties', it took the following approach:

- 1) The return to work program was assigned by the employee's therapist and provided flexibility for each individual's needs
- 2) A simulated work station was set up in the WCB rehabilitation centre. This would be part of the employee's therapy program
- 3) A returning associate was monitored and supervised in order to ensure that the pain did not reoccur and that work hardening would occur.

Due to the implementation of the above program, the number of workers' compensation costs and claims for NCH drastically declined [see graphs below]¹³⁵.

¹³⁵Ibid., p. 136,137.

FIGURE D: Workers' Compensation Costs for NCH

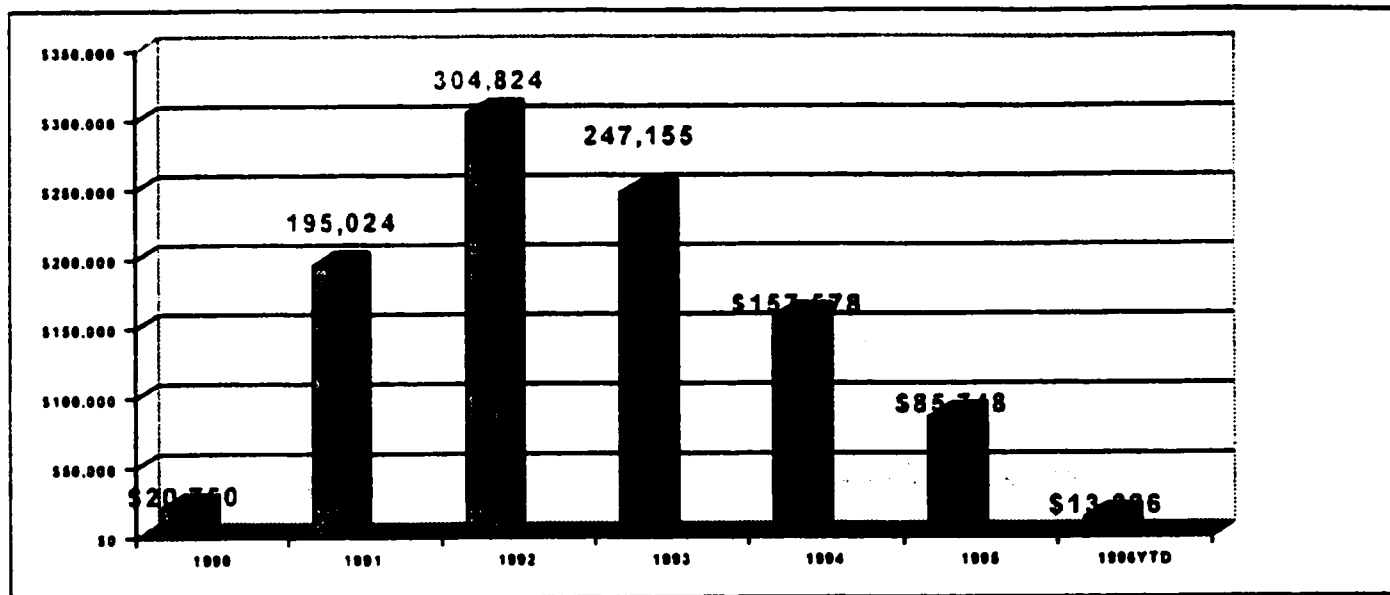
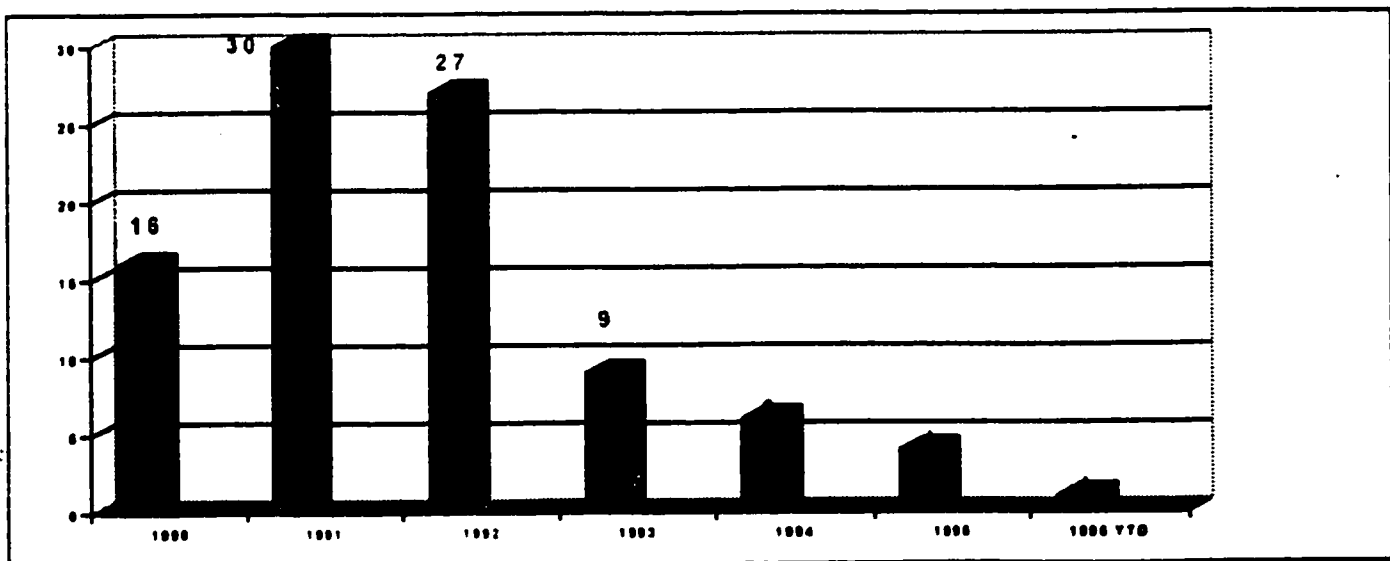


FIGURE E: Workers' Compensation Claims for NCH



NCH took a proactive approach by:

- 1) encouraging its employees to report any pain.
- 2) continuing to adapt and encourage a gradual return to work
- 3) maintaining contact with other organizations in similar positions and taking note of their gains
- 4) building their own prototype of a device used to relieve the pressure on shoulders and wrists.

NCH has been very successful in reducing the number of compensable injuries. NCH has achieved success by utilizing the concepts found in the DHM Model: early intervention (preventative focus with relation to ergonomic design), supportive culture (encourage open communication), top management support (funding), and integration (proactive management of information--tracking costs).

In summary, the following table is an analysis of the health and safety program presented under the DHM Model. Aspects of the DHM Model health and safety program were compared to those implemented by companies successful in reducing and controlling costs. Each element was supported by at least one of the case studies examined.

TABLE J: Summary of Case Study: DHM Model Safety Program

DHM Model: Health & Safety Program	Supportive Evidence	Effectiveness Implied [Yes or No]
Tracking and Analysis of Information	-Aspen Imaging International	Yes
Formal Organizational Structure to Support Safety	-Hon Industries Case Study -Aspen Imaging Case Study	Yes
Emphasis on Employee Involvement and Behaviour	-Hon Industries Case Study -NCH Case Study -Aspen Imaging Case Study	Yes
Awards and Recognition	-HON Industries Case Study -Aspen Imaging Case Study	Yes

Ergonomic Design: Review and Redesign	-NCH Case Study	Yes
Ergonomic Design: Design-in	-NCH Case Study: building a prototype to relieve pressure on shoulders and wrists -Aspen Imaging Case Study	Yes
Ergonomic Design: Exercise and Education	-Hon Industries Case Study -Aspen Imaging Case Study -NCH Case Study	Yes

14.3 Return to Work Program - Evidence

Section I Small Empirical Study

An attempt was made in the small empirical study to verify the elements of the DHM Model return to work program. The following table summarizes the findings of the endeavour.

TABLE K: Summary of Small Empirical Study: DHM Model Return to Work Program

Elements of DHM Model: Return to Work Program	Presence in O.C.R.P.S. (If present, how it is achieved)	Presence in the University of Ottawa (If present, how it is achieved)
Top Management Support in terms of Resources, Formal Accommodation Policy, Flexibility	Yes, top management provides for flexible working arrangements, modified work, and modified equipment to facilitate a return to work. There is also an accommodation policy in place.	Yes, top management is committed to returning the employee back to work. Top management provides flexible work schedules, modified work, and modified equipment.
Supportive Culture	Yes, communication is carried out with the injured employee (the first contact is tried within 24 hours) by the Occupational Health Specialist.	Yes, everyone is committed to returning an employee back to work. This includes the supervisor, occupational health, physician, EAP, etc..
Union Cooperation	Yes, return to work is in the collective agreement.	Yes, but no specific details were available
EAP	Yes, an EAP is offered to employees. This is provided by Corporate Health Consultants (CHC), an outside vendor.	Yes, the EAP is provided by Hayman, Souliere, and Lawrence, an outside vendor.

Workplace accessibility	Yes, buildings are all accessible.	Yes, all large buildings have been made accessible. There is an accessibility committee that advises the Physical Resource Service.
Supportive HR Practices	Yes, flexible working arrangements and career planning is offered.	Yes, there are recruitment programs targeted at persons with disabilities (job fairs, targeted advertising for jobs, attending associations, etc). In addition, career counseling is offered by the Human Resources Training Centre.
Case Management	Yes, all key stakeholders are involved to formulate a return to work plan (e.g. occupational health, employee, physician, supervisor, etc.).	Yes, a rehab meeting is set up to discuss a return to work plan for an employee. All key stakeholders are involved.

O.C.R.P.S.

The O.C.R.P.S. has seen very positive results with their return to work program. In fact, the number of compensable days off decreased from 1971 days in 1997 to 1143 days in 1998. The O.C.R.P.S. advised that part of the success of their program may be attributed to new legislation (WSIA) that places more responsibility on the employer and employee in a return to work. In terms of a supportive culture, the O.C.R.P.S. advised that most people are committed to the return to work process, but admits more training is needed for supervisors to understand the new "rules" under the new legislation (WSIA). Career counseling is currently offered on an ad hoc basis with no process in place. However, human resources is looking at developing a process.

The University of Ottawa

The University of Ottawa employs a case management approach that addresses the needs of employees. The University of Ottawa has signed an agreement with the Federal Government in 1988 (Federal Contractors Program) that requires the University to promote employment

equity. To do so, the University of Ottawa has every employee fill out a self identification census which gives a portrait of the workforce. This is then compared by job to the profile of Ottawa-Hull. Programs are then directed at increasing designated persons (including persons with disabilities).

The number of persons with disabilities has remained relatively stable, even in the advent of the social contract and hiring freezes. The University of Ottawa was not able to provide specifics on the effectiveness of their return to work program (confidentiality issues), but advised that the program has been successful in reducing time off for injuries.

Summary of Small Empirical Study

The two organizations investigated have achieved success in returning injured employees back to work by utilizing initiatives that are present in the DHM Model return to work program. In addition, the programs outlined by these organizations have a strong link to the foundation of the DHM Model. In particular, there is an emphasis on early intervention (case management), supportive culture (supportive HR practices, EAP, workplace accessibility), top management support (formal accommodation policy, flexibility in working arrangements, resources). All of these elements are interconnected (supporting the need for integration). For example, top management support is needed to provide workplace accessibility and supportive HR practices that in turn lead to a supportive culture that addresses barriers to return to work. The small empirical study has provided strong support for the DHM Model return to work program.

Section II Case Studies

The following presentation of three case studies is provided to supplement the results of the small empirical study. A further examination of Nortel's Disability Case Management (DCM) model is provided to support a case management approach in return to work.

The Ottawa-Carleton Regional Transit Commission

OC Transpo¹³⁶ was created by the Province of Ontario in 1972. In 1992, OC Transpo had just over 2,200 employees in its work force, with 174 with disabilities. Most of the employees are unionized. The Commission developed its employment equity policy following consultation with the unions and the Salaried and Unionized Employee Relations Committees (SUERC). The policy states that the Ottawa-Carleton Regional Transit Commission is fully committed to ensuring that employees are treated fairly and equitably without discrimination. Senior management is accountable for employment equity results.

Due to the high level of unionized employees, a joint labour-management committee was created to implement the policy. The Disabled Employees Review Committee was created in 1987 to assist employees with disabilities who wish to return to work by providing temporary employment, modifying job duties or helping the employee switch to another job. OC Transpo has been successful in placing employees with disabilities in a variety of positions (e.g. Public information clerk, chauffeur-messenger, survey clerk, mail room clerk, training and development clerk, dispatchers, and fare inspectors).

¹³⁶Consultation Group on Employment Equity for Persons with Disabilities, Case Studies on Effective Practices in the Employment of Persons with Disabilities, 1994, Government of Canada, p. 139-161.

Other initiatives used by OC Transpo to support employees with disabilities are listed

below:

- measures to make its administration building barrier free for persons with disabilities (disability audits have been conducted at other OC Transpo buildings);
- provision of special equipment to employees with disabilities [e.g. Orthopaedic chairs and back supports for employees with back problems]. Funding is provided through normal operating funds;
- flexible working arrangements (e.g. flex days, permanent part-time, job sharing, home-based work, compressed week plans);
- employee assistance program (OC Transpo offers free confidential assistance to employees and their families experiencing personal problems);
- anti-discrimination and anti-harassment policies (the commission provides a complaint process by which harassment complaints can be dealt with in an expeditious and confidential manner);
- diversity and sensitivity policies and programs. Awareness sessions on OC Transpo's policy on harassment have been delivered to management and supervisory staff as well as employees and union executives. A presentation on discrimination, including harassment and employment equity, has been integrated into the training program for new bus operators.
- supportive HR processes. Specific hiring initiatives are directed at persons with disabilities (outreach recruitment, work experience programs). OC Transpo also provides career counseling to its employees. Supportive HR processes not only support employment equity goals, but reintegration of injured or sick employees. Once there is a critical mass of employees present, obstacles for returning to work will be reduced.

OC Transpo has identified the following key success factors which have contributed to the success of its programs to ensure a fair and equitable work place for persons with disabilities:

- senior management commitment

- joint union-management cooperation; and
- promotion of the reintegration program to employees and the active involvement of the health unit.

OC Transpo has achieved considerable success in reintegrating employees back into the workforce. The Disabled Employees Review Committee has accommodated about 20 to 30 cases each year since it was formed. In 1991 and 1992 the percentage of employees (dealt by the Committee) accommodated were 100 and 97 percent respectively.

OC Transpo has achieved success by utilizing the elements found in the DHM Model: top management support (e.g. provision of special equipment, flexible working arrangements, anti-discrimination policies, etc), supportive culture (supportive HR processes, diversity and sensitivity policies and programs, EAP), and early intervention (reintegration practices: modifying duties, helping employees switch to other jobs, providing temporary employment). OC Transpo also appears to proactively manage its information as it was able to track its results.

Bell Canada

Bell Canada¹³⁷ is a wholly owned subsidiary of BCE, Inc., with some 51,000 employees in 1992. Most of Bell Canada's non-management employees are unionized. Bell Canada is regulated under the federal Employment Equity Act. Bell Canada formally states its commitment to its employees: "We are committed to providing a working environment that is challenging, rewarding and physically safe; where an individual and team contribution is recognized; where respect for the individual is fostered; and where people can develop

¹³⁷Ibid., p. 52-82.

professionally and personally”.

Some of Bell Canada’s key initiatives for promoting employment of persons with disabilities are listed below:

- 1) accommodation [reassignment of peripheral duties, flexible working arrangements, physical alteration of facilities, and acquisition of technological aids];
- 2) anti-harassment policies;
- 3) diversity and sensitivity policies and programs aimed at sensitizing employees and modifying attitudes towards persons with disabilities [these include training workshops and communication efforts (use of in-house publications to generate widespread understanding of equity issues)];
- 4) supportive HR practices [recruitment and promotion, benefits policies];
- 5) joint union-management cooperation; and
- 6) reintegration policies. Rehabilitation benefits are provided to all employees covered by Bell Canada’s income protection program. Bell will make every reasonable effort to provide part-time work to help ease employees, on accident, sickness or long-term disability benefits back into their full-time jobs. When an employee is getting ready to return to work, a number of people will be involved in making the necessary arrangements. These include the employee’s family doctor, the company benefits and medical departments and the employee’s home department. The employee’s home department is expected to provide all necessary accommodations. Departments are able to use a variety of job re-entry measures, including: reassignment of duties, retraining, job modification, and part-time work.

Since 1989, the share of persons with disabilities in Bell’s work force has remained relatively stable at about 2.1 percent despite significant downsizing in the organization. In 1991, the Canadian Foundation for Physically Disabled Persons honoured Bell Canada with its Corporate Award for “helping persons with disabilities achieve their full potential”.

Bell Canada has implemented a return to work program that contains many elements present in the DHM Model: early intervention (job re-entry measures), supportive culture (supportive HR practices, diversity and sensitivity policies and programs, anti-harassment policies, etc.), and top management support (provision for job re-entry measures, provision for policies, etc).

Rogers Cablesystems

Rogers Cablesystems¹³⁸ is the largest cable television company in Canada. In 1991, Rogers had just over 3,000 employees, 52 of them with disabilities. Approximately 21 percent of the workforce is unionized. Rogers is regulated under the Employment Equity Act. Rogers' employment equity commitment is anchored in its corporate commitment to its employees that states that: "Rogers is committed to rewarding initiative, enhancing career opportunities and supporting equity in employment". The following initiatives were employed by Rogers to promote the employment of persons with disabilities:

- a) training to increase awareness and remove myths and misperceptions about persons with disabilities;
- b) all major facilities are barrier free;
- c) provision of technical devices to persons with disabilities (e.g. magnifiers, voice-activated add-ons);
- d) flexible working arrangements are available (flexible work hours and days, permanent part-time work or home-based work);
- e) employee assistance program is offered to employees;
- f) supportive HR practices (hiring practices directed at persons with disabilities);
- g) anti-harassment policies; and

¹³⁸Ibid., p. 162-184.

h) reintegration policies and programs. Rogers strives to reintegrate employees who have been injured or disabled on the job as soon as it is physically and medically possible. Reintegration is strongly supported by senior management at Rogers. Rogers has recently changed its long-term disability insurance carrier to one that is very proactive and supportive of disability management. Measures employed include reassignment of duties, retraining, job modification and part time work.

Rogers has steadily increased the representation of persons with disabilities since 1988: 26 in 1988, 39 in 1989, 40 in 1990, and 52 in 1991. This has occurred even as downsizing has limited its efforts to improve the employment of persons with disabilities.

Many elements of the DHM Model are present in Rogers: top management support (e.g. provision of policies, supportive HR practices, flexible working arrangements, technical devices, making all facilities barrier free, etc.), supportive culture (anti-harassment policies, supportive HR practices, EAP), and early intervention (reintegration policies and programs, flexible working arrangements). Rogers appears to proactively manage its information as evidenced by tracking information.

Nortel's Disability Case Management Program (DCM)

Nortel works with customers worldwide to design, build, and deliver communications and Internet Protocol optimized networks. Nortel employs approximately 75,000 employees worldwide, and has its headquarters in Brampton, Ontario. Nortel¹³⁹ was contacted and provided

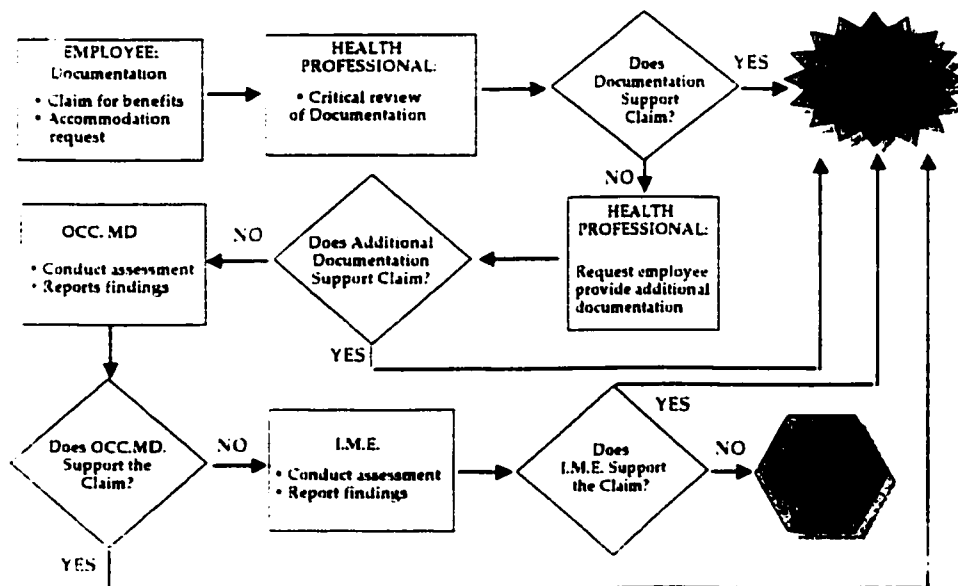
¹³⁹Robert Broe, Manager, Environment Health, Safety and Security, Nortel Advanced Components Facility Management Services. Kathy McIntyre, Occupational Health Nurse, Nortel, Interview July 21st 1998.

the following information on their disability case management program (DCM). In addition to the DCM Model, there is an emphasis on data collection and analysis, calculating fiscal benefits, and quality improvement.

The DCM Model goes beyond the traditional Medical Impairment Model to a Functional Disability Model. The focus has shifted from the medical impairment to the functional ability of the employee. The DCM Model advocates a shared responsibility among all parties involved. This is a dramatic change from the traditional Medical Impairment Model in which the physician is the focus.

The Nortel DCM Model is separated into two parts. The first part involves claims adjudication. This involves examining the paperwork and evaluating the claim (initial and on-going).

FIGURE F: Nortel DCM Claims Adjudication

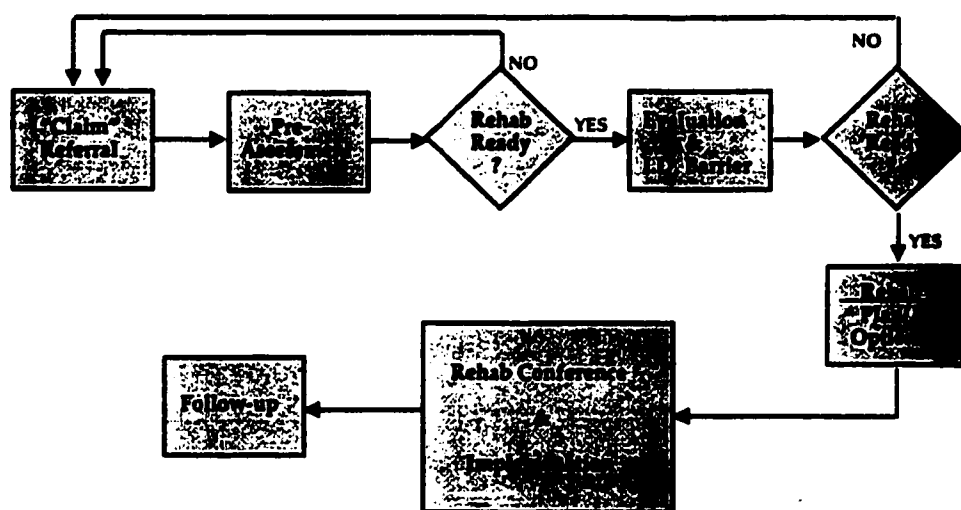


Rehabilitation is the second part of Nortel's DCM Model. Once the claim has gone through the claims adjudication stage and is accepted, the claim is then directed to rehabilitation.

The goals of work rehabilitation are:

- assist the disabled employee by early resumption of meaningful work functions, thereby enhancing the employee's own perception of capacity for full recovery.
- minimize progression to permanent total/partial disability.
- increase employee productivity and contribution to business objectives.

FIGURE G: Nortel DCM Rehab Process



The initial step in the rehabilitation process is a 'Rehab Pre-Assessment' to decide whether rehab is required. This involves a file review, and discussions with the claims manager, HR staff and the employee involved. The issues to be discussed include: medical status, functional status, essential job requirements, work related issues and social issues. After the employee is judged to be rehab ready, the next step is 'Problem Identification'. This involves

interviewing the employee with respect to: education, work history & concerns, family/social support, medical history, and treatment. Additional information can also be obtained from Human Resources, counselors, and treatment providers. The purpose is to identify barriers in the Rehab process. The next step is developing the 'Rehab Plan'. The disability is first examined medically [e.g. through an Independent Medical Exam (IME), a Functional Capacity Evaluation (FCE)]. Work accommodations and ergonomic adaptations are then developed. Finally a review of the plan is made by the employee and the treating physician. The last step in the Rehabilitation stage is 'Rehab Implementation'. A Work Rehab Conference is held to discuss:

- Functional requirements of the job
- Functional capacity of the employee
- Work performance/labour relations issues
- Impediments to return to previous work
- Accommodation--restructure of own job--availability of alternative job

The minimum participants of the conference are the involved employee, manager, H.R., and Occupational Health Nurse. Other participants may include representatives from safety/ergonomic design, the union, other health providers, and the employee assistance program. The outcome of the conference is a structured and documented work rehab plan.

Results

Nortel advised that their DCM model was formally implemented in January 1994. The interviewee was unable to provide any financial figures regarding the success of the program, but advised that the program has been "very effective" in reducing the length of time actually off

work, as compared to average durations (no statistics were provided).

A previous study by Nortel for 22 sites in four areas (Quebec, Ottawa, Central, Calgary) indicated that the program had been very successful:¹⁴⁰

- 250 cases returned to work (in year)
- Average savings per case of \$5000
- Cost saving (STD) of \$1.25M
- Cost avoidance of \$2.3M
- Cost reduction of \$1.1M (Benefit Reserve).

The Nortel DCM Model provides evidence for a case management approach, which is advocated in the DHM Model. The Nortel DCM Model shows the importance of early intervention (claims adjudication, work rehab plan, involvement of all stakeholders), integration (involvement of all stakeholders, proactive management of information--emphasis on data collection and analysis, calculating fiscal benefits, and quality improvement), and top management support (in terms of work accommodations and ergonomic adaptations).

Summary

The following is a summary analysis of the DHM Model return to work program. The main components were compared with the components of the OC Transpo, Bell Canada, and Rogers Cablesystems case studies. OC Transpo has been very successful in its return to work efforts. Although the statistics for Bell Canada and Rogers Cablesystems were not broken

¹⁴⁰Brierbrier, Allan, "Shaving Days Off Disability", National Conference on Disability and Work, October 7-9, 1996.

down in terms of return to work [reintegration efforts], both companies were very effective in accommodating persons with disabilities. All three companies have been effective in addressing the obstacles for returning to work (e.g. establishing a supportive culture to alleviate the fear of failure) discussed earlier. It can be clearly seen that the DHM Model return to work program is supported by all the case studies. In addition, Nortel's Disability Case Management Model supports a case management approach.

TABLE L: Summary of Case Study Evidence: DHM Model RTW Program

DHM Model: Return to Work Program	Supportive Evidence	Effectiveness Implied [Yes or No]
Top Management Support in terms of Resources, Formal Accommodation Policy, Flexibility	-OC Transpo Case Study -Bell Canada Case Study -Rogers Case Study	Yes
Supportive Culture	-OC Transpo Case Study -Bell Canada Case Study -Rogers Case Study	Yes
Union Cooperation	-OC Transpo Case Study -Bell Canada Case Study	Yes
EAP	-OC Transpo Case Study -Rogers Case Study	Yes
Workplace accessibility	-OC Transpo Case Study -Bell Canada Case Study -Rogers Case Study	Yes
Supportive HR Practices	-OC Transpo Case Study -Bell Canada Case Study -Rogers Case Study	Yes
Case Management	-Nortel's DCM model	Yes

14.4 Wellness Program - Evidence

Section I Small Empirical Study

The small empirical study conducted also attempted to verify the elements of the DHM Model wellness program. The following table summarizes the findings.

TABLE M: Summary of Small Empirical Study: DHM Model Wellness Program

Elements of DHM Model: Wellness Program	Presence in O.C.R.P.S. (If present, how it is achieved)	Presence in the University of Ottawa (If present how it is achieved)
Organizational Statement (communication efforts)	Yes, there is a general statement in the Mission Statement (see Appendix I). However, there is no specific policy on wellness.	Yes, there is a statement regarding the health and safety of employees under Policy 77. However, there is no specific policy on wellness.
Voluntary participation	Yes. Some programs are held on organizational time, while others such as fitness are on an employees own time.	Mostly voluntary. However, some programs that address workplace issues are mandatory [on company time].
Employee Health Screening	Yes, it is mandatory for new recruits and voluntary for existing members.	Yes, all new employees have to fill out a questionnaire. This questionnaire in turn is used to address health risks. Health fairs are offered to address cholesterol, blood pressure, body mass index, cardio vascular health, etc.
Health education and promotion	Yes, health is promoted by distributing pamphlets and e-mail. Education is also provided to employees on various matters related to health (see below for examples).	Yes, information is provided through the web site, pamphlets, and newsletters. Education is provided on various matters (see below for details).
Options Available-Tailored Program	Yes, many options are available. For example, these include fitness options (exercise facilities, intramural sports), stress and change seminars, lunch and learn sessions, and heart and stroke clinics.	Yes, many options are available. Education is provided on issues such as prostate cancer prevention (taught by physicians), stress management (the EAP is used), nutrition (taught by the OHN), self-esteem (taught by the OHN), etc.. Employees are encouraged to attend the learning at lunch program, in which education sessions are held on the employee's lunch hour. Employees can also use the fitness centre at a marginal cost.

Personal Counseling and follow-up	Yes, counseling is provided by the Occupational Health Nurse (sometimes includes the employee's supervisor and the victim crisis unit). Employees are also referred to the EAP for counseling. The EAP for the O.C.R.P.S. is provided by Corporate Health Services (CHC).	Yes, the University of Ottawa employs one full-time OHN and a medical consultant. In addition, there is a part-time OHN. Psychological issues are referred to the EAP. The University of Ottawa will provide short-term counseling and follow-up. For example, if a supervisor notifies the Occupational Health department that he/she suspects an employee has a problem (e.g. psychological), the OHN will meet with the employee to ascertain the nature of the problem. The OHN will then offer solutions to the employee (may be in the form of referrals). Later, the OHN will follow-up with the employee (e.g. whether the employee has sought the help needed). The OHN will also follow-up with the employee's supervisor to see if the situation has improved.
Use of cost-effective community resources	Yes, for example the O.C.R.P.S. utilizes the services of the Heart and Stroke Foundation, Regional Health, and the Lung Association.	The use of cost-effective community resources at the University of Ottawa is limited. Programs are usually held in-house where a small budget is set aside.
Program evaluation	Yes, but evaluation is limited. Only some evaluation has been conducted on whether the fitness incentive [day off for passing a fitness test] is correlated to more active employees. It was found that the people who took advantage of the incentive were active in the first place.	Yes, The University of Ottawa relies on feedback from employees utilizing the different options available. Feedback is gained with periodic surveys. Employees are asked about the effectiveness of specific programs (e.g. stress management) and suggestions for other programs. The Human Resources department also sends out surveys measuring job satisfaction.

O.C.R.P.S.

The O.C.R.P.S. advised that no studies regarding program utilization have been conducted. The O.C.R.P.S. feels that the program has been successful, but that there is a lot of room for improvement. In particular, the O.C.R.P.S. reports very high costs associated with absenteeism: \$1.1 Million under the income protection plan, \$1.4 Million under the sick leave plan. The O.C.R.P.S. would like to see more evaluation done on their wellness program. For example, the organization would like to examine the relationship between the fitness incentive (passing a fitness test for time off) to absenteeism. Some other initiatives are also being

considered. For example, the O.C.R.P.S. is looking at modifying the fitness incentive to encourage less active employees to participate (e.g. lowering the fitness standard for time off and offering an incentive for a 10 percent improvement over the previous year).

The University of Ottawa

The University of Ottawa does not formally have a wellness program. Hence, there is no specific organizational statement related to wellness. However, the University of Ottawa does offer many options to its employees aimed at improving their well-being. The University of Ottawa "wellness" program, according to its representative, has been successful in terms of job satisfaction, job commitment, and absenteeism. However, the respondent was not able to elaborate due to confidentiality reasons. The University of Ottawa advised that no studies have been done to link their "wellness" program to productivity.

Summary of Small Empirical Study

Although both organizations employ elements present in the DHM Model wellness program, there are a few pieces missing. First of all, both organizations lack a formal organizational policy regarding wellness. A policy is important for supporting the health culture and also for providing accountability for the program. Second, program evaluation is weak in the O.C.R.P.S.. The absence of these elements will hinder the effectiveness of the wellness initiatives offered by the University of Ottawa and the O.C.R.P.S. However, not all is bad. The programs outlined by these organizations have a strong link to the foundation of the DHM Model. In particular, there is a linkage to top management support (funding and provision of an organizational statement), early intervention (employee health screening, health education), and a

supportive culture (personal counseling, voluntary participation, options available, health education). All these elements are interconnected. For example, top management support is needed to provide options to employees, which in turn supports the culture (more options increase the probability that employee needs are met, thereby increasing employee involvement). The small empirical study has provided some evidence for the DHM Model wellness program. This will now be supplemented with case studies.

Section II Case Studies

The following presentation of three case studies provides further evidence to support the proposed DHM Model wellness program.

Nortel

Nortel has invested heavily in its wellness program as a result of studies that found a positive correlation between employee and customer satisfaction. Nortel's wellness program is named Aralia. Quality of working life (QWL) studies within Nortel have shown that wellness programs reduce job-related stress and improve job commitment and QWL.¹⁴¹ Nortel's wellness program consists of the following components:¹⁴²

- 1) Top management support in terms of funding and utilization of the program
- 2) Communication efforts that publicize the program.
- 3) Choice of a variety of programs [e.g. weight loss, asthma management, parenting classes, relaxation areas, physical therapy, massage therapy, ulcer care, nutrition education]. The

¹⁴¹Brierbrier, Allan, "Northern Telecom says one size shouldn't fit all", Health Economics, February 1997, p. 10.

¹⁴²Felix, Sonya, "Wellness Workout", Benefits Canada Magazine, January 1998.

program incorporated the ergonomics, physio and occupational health services already in place. Employees were profiled in terms of major risk factors and interests to provide focus on what programs to offer.

- 4) Employees are charged nominal fees for the wellness program to promote commitment.
- 5) Wellness vendors were hired to conduct wellness programs [e.g. Abbott Laboratories was hired to offer an ulcer care program].

Nortel's wellness program (Aralia) utilizes many of the concepts found in the DHM Model: top management support (funding and utilization of the program by top managers), a supportive culture (communication efforts, options which will promote involvement), early intervention (focus on health), and integration (functional, program evaluation).

Standard Telephone

Standard Telephone¹⁴³ is an independent phone company located in Cornelia, Georgia. Standard began its wellness program in 1984 due to a rise in claims for heart disease, diabetes and stress. As a result of the wellness program, Standard reduced the percentage of its payroll spent on health insurance from 9.1 percent in 1984 to 8.0 percent in 1989. The national average increased from 7.9 percent to 13.6 percent in the same period. Standard's wellness program consisted of the following elements:

- 1) A separate department to deal with employee health.
- 2) Annual testing for cholesterol levels, body fat, blood pressure, and cardiac capacity.
- 3) Self-help and physical fitness options for employees, including a walking track, educational classes, aerobics workouts with videotaping available, and gift certificates to encourage participation.

¹⁴³Barge, Bruce, N. and Carlson, John, G., op.cit., p. 217. Original Source: Lombino, P., "An ounce of prevention", February 1992, CFQ, p. 15-22.

- 4) Sending out a monthly newsletter and self-care medical reference book for employee's dependents.
- 5) Use of free or low-cost community resources available for wellness.

Standard Telephone has achieved success by employing elements found in the DHM Model: supportive culture (sending out a monthly newsletter and self-care medical reference book, options for employees), early intervention (annual testing for cholesterol, body fat, blood pressure), top management support (funding, creation of a separate department to deal with health), and integration (through information). Information provides feedback to employees (supporting the culture and early intervention) and program evaluation for top management.

Johnson & Johnson

Johnson & Johnson¹⁴⁴ began its wellness efforts in 1978 with an offer to employees to be the 'healthiest in the world'. The program was designed to improve employee health by encouraging healthy lifestyles. The program offers health screening and education to employees, supported by company policies, management feedback, and communication and follow-up that promote health. Programs are voluntary and are offered free of charge. Employees at plants participating in the wellness program showed the following as compared to employees at nonparticipating plants: 10.4 percent increase in fitness levels across the entire employee

¹⁴⁴Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 216. Original Sources:

- a. Breslow, L., Fielding, J., Herrman, A. A., Wilbur, C. S., "Worksite health promotion: Its evolution and the Johnson & Johnson experience", Preventative Medicine, 1990, 19: 13-21.
- b. Holzback, R. L., Piserchia, P. V., McFadden, D. W., Hartwell, T. D., Hermann, A., Fielding, J. E., "Effect of a comprehensive health promotion program on employee attitudes", Journal of Occupational Medicine, 1990, 32(10): 973-978.
- c. Jones, R. C., Bly, J. L., Richardson, J. E., "A study of a work site health promotion program and absenteeism", Journal of Occupational Medicine, 32(2): 95-99.

population, 50 percent lower rate of growth in health care costs, 33 percent lower rate in absenteeism, and higher employee satisfaction and organizational commitment.

The Johnson & Johnson case study provides evidence for the elements found in the DHM Model: early intervention (employee health screening and education), a supportive culture (management feedback, communication, and follow-up), top management support (company policies, funding), and integration (information management). Information is provided back to employees through communication efforts. This supports the culture and provides for early intervention. In addition, information is used for program evaluation.

The following table is an analysis of the DHM Model wellness program. Elements of the DHM Model wellness program were compared to those implemented by organizations that demonstrated success with respect to wellness.

TABLE N: Summary of Case Study Evidence: DHM Model Wellness Program

DHM Model: Wellness Program	Supportive Evidence	Effectiveness Implied [Yes or No]
Organizational Statement (communication efforts)	-Standard Telephone Case Study -Johnson & Johnson Case Study -Nortel	Yes
Voluntary participation	-Johnson & Johnson Case Study -Nortel	Yes
Employee Health Screening	-Standard Telephone Case Study -Johnson & Johnson Case Study -Nortel	Yes
Health education and promotion	-Standard Telephone Case Study -Johnson & Johnson Case Study -Nortel	Yes

Options Available-Tailored Program	-Standard Telephone Case Study -Nortel	Yes
Personal Counseling and follow-up	-Johnson & Johnson Case Study -Nortel	Yes
Use of cost-effective community resources	-Standard Telephone Case Study	Yes
Program evaluation	-Standard Telephone Case Study -Johnson & Johnson Case Study -Nortel [to be done in the future]	Yes

14.5 Psychological/Substance Abuse Program - Evidence

Section I Small Empirical Study

The O.C.R.P.S. addresses psychological disorders and substance abuse primarily with an EAP Program. Although no data was available on the effectiveness of this treatment, utilization rates for the organization's EAP program was quite high at 9.5 percent as compared to the external provider's total member customer base rate of 5.4 percent. The O.C.R.P.S. does not conduct drug testing due to privacy issues. Measures are in place to help employees address stress at the workplace: advisory for elder and child care, counseling by the victim crisis unit, and flexible working arrangements (depending on the operational needs of a unit). In addition, supervisors are trained (by the victim crisis unit) to recognize signs of a psychological or substance abuse problem and encouraged to report them.

The University of Ottawa advised that their program to address psychological disorders and substance abuse has been successful, but was unable to provide details (confidentiality issues). The University of Ottawa advised that their EAP utilization rate was around 5 percent. The University addresses psychological disorders and substance abuse by focusing on early

recognition. Training has been conducted in the past to assist supervisors in recognizing the signs. Other key components are: proper diagnosis, early treatment, and follow-up care. Front line supervisors are encouraged to advise the occupational health department as soon as they suspect an employee with problems. The University of Ottawa advised that many options are available to employees, including an EAP program. For example, employees can get referrals from their own physician instead of using the EAP.

These organizations have utilized many elements of the DHM Model psychological/substance abuse program which are based on the foundation of the DHM Model. In particular, the use of an EAP by the O.C.R.P.S. and the University of Ottawa are linked to top management support, early intervention, and a supportive culture. In addition, both organizations focus on early intervention by training supervisors in the recognition of symptoms. However, there is one element missing from the O.C.R.P.S. model: information management. Program evaluation is essential to identify weaknesses and refocus the model to the needs of employees.

All elements are important in contributing to the success of the program. For example, top management support is needed to fund the EAP program and to provide training for supervisors. Supervisors that are trained in recognizing the early signs of a problem can then intervene to ensure employees gets proper and timely treatment (supporting early intervention). The small empirical study has provided some evidence for the DHM Model wellness program. This will now be supplemented with evidence from several case studies.

Section II Case Studies

The following evidence is provided to supplement the small empirical study findings. The studies cited demonstrate the need to proactively address stress in the workplace.

An American study found that stress could be linked to a number of negative organizational outcomes such as disability payments, inflated health care costs, increased sick leave, and accidents.¹⁴⁵ A Conference Board study found that people experiencing a lot of stress missed 4.9 days (6 month period) as compared to 2.5 days for those experiencing none.¹⁴⁶

A Northwestern National Life survey on stress indicated that a lack of control and workplace change were major sources of job-related stress.¹⁴⁷ This shows the importance of linking a psychological/substance abuse program to a supportive culture and having processes in place such as an EAP program and supervisor support to deal with employee stress.

These conclusions are supported by current research [Murphy, S.A. (1999, Ph.D. Candidate, Carleton University)]. This research has found that job stress and role overload are high predictors of anxiety, stress, and depression. Job stress was related to job ambiguity and supervisor style. Role overload means that due to the time pressures and the number of competing roles (on and off the job), there is not enough time to do everything. Stress, anxiety and depressed mood were found to negatively influence physical health and were positively

¹⁴⁵Jones, J.W. and Boye, M.W., Job Stress and Employee Counterproductivity. In J.C. Quick et al. (Eds.) Stress and Well Being at Work. Washington D.C.: American Psychological Association, p. 239-251.

¹⁴⁶Koteff, Will, "How employee-assistance programs can improve the bottom line", Canadian Healthcare Manager, Spring 1995, p. 31.

¹⁴⁷Barge, Bruce, N. and Carlson, John, G., op.cit., p. 276. Original Source: Northwestern National Life, Employee Burnout, 1991.

linked to burnout, negative productivity, and absenteeism. Supervisor support emerged as the key moderating variable in the relationship between stress, anxiety and depressed mood and both antecedents and outcomes. This shows the importance of training supervisors in addressing stress, anxiety, and depression. Supervisors must understand the link between these problems and organizational productivity. As well, supervisors must be given a set of tools to deal with these issues. The second most important moderating factor was found to be an EAP program, followed closely by spousal support.

A study by McDonnell Douglas found that costs were much lower for employees using the company EAP. McDonnell Douglas attributes the success of its EAP program to a tailored program that meet the individual needs of the employee. The following figures ¹⁴⁸ show how McDonnell Douglas has reduced the costs associated with substance abuse and psychiatric disorders by the use of a tailored EAP program.

¹⁴⁸Barge, Bruce, N. and Carlson, John, G., *op.cit.*, p. 259,285. Original Source: McDonnell Douglas Corporation & Alexander & Alexander., McDonnell Douglas Corporation employee assistance program financial offset study, 1985-1989, 1990.

FIGURE H: Impact of EAP on Substance Abuse Treatment Costs

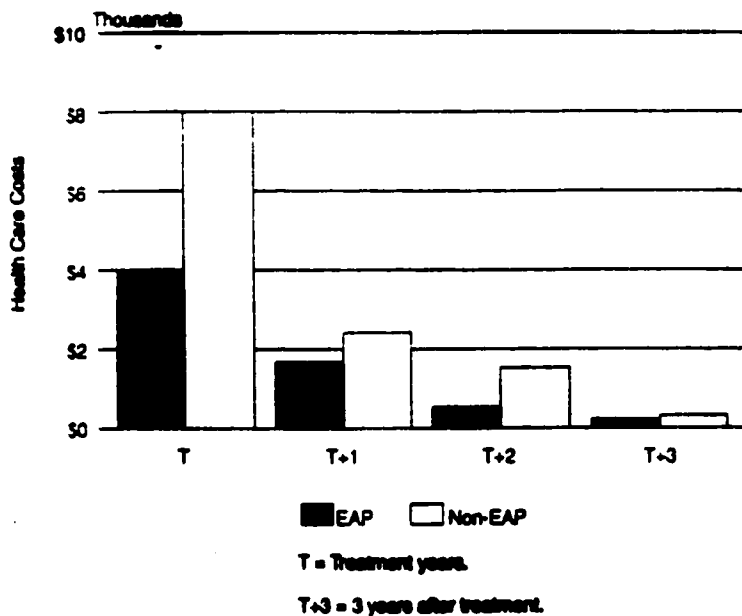
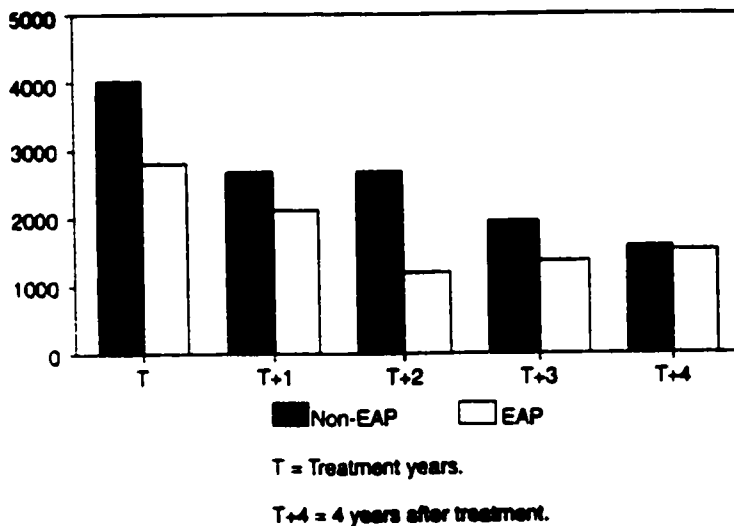


FIGURE I: Impact of EAP Psychiatric Treatment on Health Care Costs



Part V: Discussion

15. DISCUSSION

15.1 Contributions and Implications of the DHM Model for Organizations

A literature review was conducted to build the foundations of the DHM Model. In particular, several disability management models were examined. These models provided valuable wisdom and lessons for managing disability which were incorporated into the DHM Model. The literature review also provided some supporting evidence for the DHM Model (case studies of successful organizations). Unlike the models examined, the DHM Model provides a comprehensive approach to managing disability and health. Evidence was presented to provide partial support that the DHM Model can be operationalized and effective in reducing costs, improving the health of employees, and providing value.

Many organizations facing high disability costs are looking at implementing a disability management program. However, the problem for many organizations is where to begin. This study has sorted through a plethora of models to develop 'a best practices model' for organizations: the DHM Model. The DHM Model is unlike any other model, in that it is based on key factors identified by the previously examined models. In addition, the DHM Model is quite simple to comprehend. The DHM Model has a strong emphasis on developing a strong culture that promotes health. There is clear linkage and integration between the elements [needs assessment, top management support, early intervention, a supportive culture, and programs]. It suggests that integration is achieved by three mechanisms: a champion, a cross functional team, and the proactive management of information. Finally, the DHM Model is comprehensive in its approach, with a focus on new age injuries (repetitive strain injuries and subjective illnesses).

Although no thorough testing of the DHM Model has been carried out, preliminary evidence supports the contention that the DHM Model provides an effective framework for organizations for managing disability and health issues.

15.2 Limitations of the DHM Model

It is important to recognize the limitations of the model. Although it provides a comprehensive framework for managing disability and health, organizations may find it difficult to apply. The effectiveness of the model for an organization may not be maximized if it is not applied in its entirety. Although this hypothesis still has to be thoroughly tested, some evidence did lead to the inference that every element in the model is important for success. For example, in the Federal Public Service pilot project, the absence of accountability limited the implementation of the program across the entire public service, and hence the realization of extensive cost savings, improved employee health and productivity. Integration mechanisms must also not be overlooked. An example was found in the O.C.R.P.S.. The management of information was weak in this organization. This limited program evaluation and feedback to employees, which is essential for a supportive culture and early intervention. The DHM Model contains many interrelated elements that reflect the many facets and complexity of managing disability. This can pose major challenges in the application and testing of the model.

15.3 Suggestions for Future Research

The DHM Model is a recommended optimum model for addressing disability and health issues. Although some evidence was provided to validate the model, its efficacy and effectiveness still needs to be fully tested and evaluated. The evaluation was limited in its breadth and scope in this thesis due to the time constraints associated with application and data

collection. However, it is suggested that rigorous empirical testing be conducted in the future on the DHM Model. Testing should be conducted in a variety of organizational settings to enhance our knowledge of the different barriers and facilitators to the model.

Although there are three major types of research design (true experimental, quasi-experimental, non-experimental), it is suggested that a quasi-experimental design be used to test the model. A true experiment would be ideal, however, the high degree of control needed makes it impractical to apply in a real-world organizational setting.¹⁴⁹ In particular, a true experiment would require that employees be randomly assigned to either the test or control group. Organizations will seldom permit a researcher to do this.¹⁵⁰ In non-experimental designs, there are too many uncontrolled variables that may affect the causal relationship between the independent variables (elements of the DHM Model) and the dependent variables (reduced costs, improved health of employees, value).¹⁵¹

Two types of quasi-experimental designs are suggested--non-equivalent control group and time series¹⁵². The choice will depend on the situation, for example, whether a researcher is able to establish a control group. In a single organizational setting, it may be difficult to establish control groups. It is suggested that a researcher finds an organization that has departments, units or sites that are similar in size, employee profile, culture, past disability

¹⁴⁹Stone, Eugene, Research Methods in Organizational Behavior, Goodyear Publishing Company, Inc., 1978., p. 98.

¹⁵⁰Ibid., p. 101.

¹⁵¹Ibid., p. 104.

¹⁵²Ibid., p. 100-103.

management experience, and external influences (in order to eliminate/reduce the variance caused by extraneous variables on the dependent variable(s)¹⁵³). Another possibility would be to establish control groups by looking at similar organizations (e.g. examining police services in different jurisdictions).

It is recommended that if a control group can be established, then the non-equivalent control group design be employed. This design takes into account the real life constraint that subjects (employees) cannot be randomly assigned to either the control or test group, which is required in a true experimental design. Since the assignment of employees to either group has not been random, it is necessary to conduct a pretest. The chosen test and control groups will have to be fully evaluated prior to application of the DHM Model in terms of corporate characteristics (e.g. size, type of industry, culture, level of top management support, and the other elements of the DHM Model), existing disability management experience (current programs and results), and external influences. After this pretest is conducted, the DHM Model will have to be applied in its entirety on the test group. A post test will then have to be conducted at a later date to determine the causal relationship (if any) of the various independent variables on containing costs, improving the health of employees and providing value.

The time series design is suggested if the researcher is unable to establish a control group. This design calls for periodic evaluations of the organization prior to application of the DHM Model to establish a baseline. After the DHM Model is applied, periodic observations are made to establish changes in measured variables (cost containment, improved health, value).

¹⁵³Ibid., p. 90.

Once research has been done on a single organizational setting, one should investigate the effectiveness of the DHM Model in different corporate settings, in terms of the type and size of the organization. This will help establish the impacts of different organizational characteristics on the effectiveness of the model. The type of research design suggested is the time series design, since the establishment of control groups would be difficult with different types of organizations. The effectiveness of different programs (e.g. health and safety, wellness, return to work, etc.) should be examined in this context. Any disparities should be analyzed to provide insights on how to fine tune a health strategy for a particular organization.

In addition, the model provides a framework for the systematic testing of each element in terms of establishing their differential impacts with respect to managing disability and health. For example, is a supportive culture more important than early intervention? Research should also be conducted on establishing the importance of linkages in the model. For example, what impact does a supportive culture have on early intervention? A non-equivalent control group design is suggested where possible. Again a pretest is required on the control group and the test groups. Post test data analysis will provide insights on the effects of each element on the dependent variables (employee health, cost containment and value).

Research can also be conducted to determine the impact of each program on the dependent variables. For example, the relationship between wellness programs and their effect on productivity may be explored. Organizational studies (e.g. Standard Telephone, Johnson&Johnson) have shown that wellness programs decrease health costs, reduce absenteeism, and increase job satisfaction. However, a healthy employee is not necessarily a more productive one. Very little research has ever been done to establish a relationship between

wellness and productivity. The establishment of a relationship would provide even more evidence for companies to adopt a wellness program.

Finally, it would be interesting for future research to examine the effectiveness of the DHM Model with respect to different national cultures. The DHM Model was examined in terms of a Canadian and American context. Research should be conducted to determine how disability is managed in different parts of the world. The elements of the DHM Model should be tested in different cultural settings. This type of research is very important as many Canadian and American companies now have operations abroad. For example, countries whose employees prefer unstructured situations (e.g. Hong Kong¹⁵⁴) may not be receptive to a structured return to work program.

15.4 Conclusion

Organizations must begin to address disability as a strategic issue. The proper management of disability can lead to a competitive advantage and prevent a competitive disadvantage. Even though cost containment is an important aspect, it cannot form the sole basis of a disability management model. This thesis has attempted to develop a model that addresses the root causes of disability and is proactive in its approach. The DHM Model is considered the recommended optimum; however, it has yet to undergo extensive empirical testing. Although some evidence was provided for its validation, it is hoped that this thesis will provide an impetus for future testing of the model.

¹⁵⁴Schermerhorn, Jr., John R. et al., *op.cit.*, p. 74.

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Appendix A

Number of Accepted Time Loss Injuries, by Province, 1982-1995

The number of time loss injuries reached a peak in 1989 but have since been declining.

Year	Total	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Québec	Ontario
		Terre-Neuve	Île-du-Prince-Édouard	Nouvelle-Écosse	Nouveau-Brunswick		
1982	479,888	7,766	1,499	12,501	9,996	159,288	141,917
1983	471,929	7,808	1,827	12,156	9,530	160,796	145,412
1984	510,317	8,223	1,495	11,940	9,704	178,001	167,748
1985	555,991	8,743	1,787	12,624	8,988	194,377	186,648
1986	586,718	8,624	1,935	12,620	9,909	213,366	195,937
1987	602,631	9,047	2,068	11,732	10,918	216,724	205,259
1988	617,997	10,066	2,435	11,219	12,119	218,057	208,499
1989	620,979	10,689	2,450	13,897	13,063	218,708	200,967
1990	593,952	10,368	2,551	12,670	12,508	204,734	184,444
1991	520,706 †	9,421	2,250	12,730	11,670	178,689	155,473
1992	486,326 †	7,793	2,108	12,181	10,018	146,405	136,936
1993	424,848 †	6,116	2,009	13,332	5,647	135,411	125,118
1994	430,756 †	6,646	2,094	13,223	4,784	135,482	125,638
1995	410,464	6,150	2,443	10,463	4,310	129,926	118,812

Year	Total	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories	Yukon
		Colombie-Britannique	Territoires du Nord-Ouest				
1982		18,558	15,239	44,941	66,882	1,271	..
1983		17,759	15,507	37,346	62,949	1,039	..
1984		21,358	15,700	37,665	59,319	1,164	..
1985		22,440	16,666	41,376	61,146	1,198	..
1986		23,495	15,916	42,249	61,711	956	..
1987		22,510	15,715	41,236	66,200	1,122	..
1988		22,612	14,888	43,349	73,418	1,335	..
1989		21,618	13,886	44,782	79,613	1,266	..
1990		21,369	13,715	45,869	84,464	1,060	..
1991		18,095	12,701	38,724	79,643 †	989	321
1992		16,542	11,987	32,082	78,890 †	966	408
1993		15,327	12,277	29,802	78,486 †	1,058	458
1994		17,740	13,337	30,801	79,428 †	1,120	463
1995		17,406	14,208	30,286	74,881	1,048	534

[Source: Association of Workers' Compensation Boards of Canada, Work Injuries and Diseases: National Work Injuries Statistics Program Canada 1993-1995, p. 5.]

Appendix B

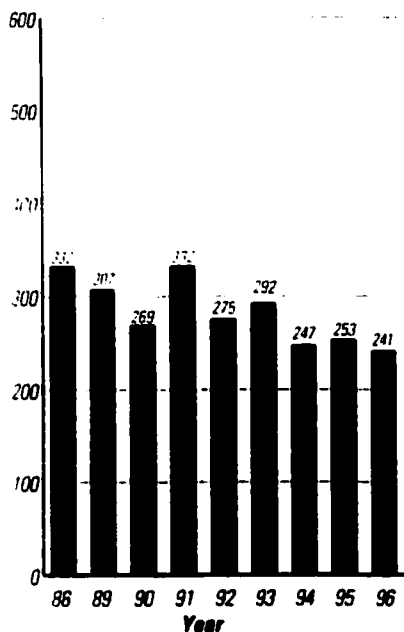
Workers's Compensation Board of Ontario Statistics

The following illustrates how the number of work related fatalities have declined:

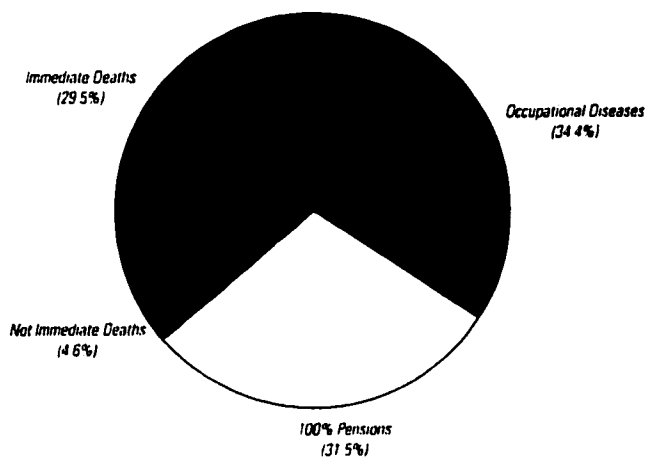
Occupational Fatalities by Year Allowed (1988 - 1996)

	Year Allowed																	
	1988	%	1989	%	1990	%	1991	%	1992	%	1993	%	1994	%	1995	%	1996	%
Occupational Diseases	98	30%	87	28%	77	29%	120	36%	109	40%	111	38%	85	34%	103	41%	83	34%
Immediate Deaths	141	42%	128	42%	119	44%	115	35%	88	32%	80	27%	67	27%	66	26%	71	29%
Not Immediate Deaths	21	6%	31	10%	28	10%	31	9%	21	8%	20	7%	9	4%	10	4%	11	5%
100% Pensions	72	22%	61	20%	45	17%	66	20%	57	21%	81	28%	86	35%	74	29%	76	32%
Total	332	100%	307	100%	289	100%	332	100%	275	100%	292	100%	247	100%	253	100%	241	100%

Allowed Fatal Claims



1996 Allowed Fatal Claims by Category



[Source: Workers' Compensation Board of Ontario, Statistical Supplement to the 1996 Annual Report, 1996, p. 17.]

Appendix C

**Allowed Lost Time Claims, Awarded Costs and Benefit Days Paid for Psychological Injury
for Accidents in 1991-1995**

YEAR OF ACCIDENT	DIAGNOSIS	NUMBER OF CLAIMS	AWARDED COSTS	BENEFIT DAYS PAID
1991	99790 PSYCHOLOGICAL DISORDERS INCL ANXIE	16	\$526,163.87	1,497.50
	99792 ACUTE REACTION TO STRESSAND RELATE	136	\$2588200.61	13,474.47
-----		-----	-----	-----
1991		152	\$3114364.48	14,971.97
1992	99790 PSYCHOLOGICAL DISORDERS INCL ANXIE	20	\$439,902.49	3,201.90
	99792 ACUTE REACTION TO STRESSAND RELATE	121	\$2191961.92	12,630.46
-----		-----	-----	-----
1992		141	\$2631864.41	15,832.35
1993	99790 PSYCHOLOGICAL DISORDERS INCL ANXIE	63	\$1706930.18	6,193.54
	99792 ACUTE REACTION TO STRESSAND RELATE	160	\$5168971.76	20,678.46
-----		-----	-----	-----
1993		223	\$6875901.93	26,871.99
1994	99790 PSYCHOLOGICAL DISORDERS INCL ANXIE	75	\$1438001.68	8,276.83
	99792 ACUTE REACTION TO STRESSAND RELATE	129	\$2587908.26	11,069.00
-----		-----	-----	-----
1994		204	\$4025909.94	19,345.83
1995	99790 PSYCHOLOGICAL DISORDERS INCL ANXIE	84	\$1281344.40	7,216.80
	99792 ACUTE REACTION TO STRESSAND RELATE	112	\$1984401.79	8,312.49
-----		-----	-----	-----
1995		196	\$3265746.19	15,529.28
-----		-----	-----	-----
		916	\$19913786.94	92,551.42

**Total Awarded Costs and Benefit Days Paid for Psychological Injury for Accidents
1996-1997**

YEAR OF ACCIDENT	NATURE OF INJURY	NUMBER OF CLAIMS	TOTAL BENEFIT DAYS PAID	TOTAL AWARDED COSTS
1996	52100 ANXIETY, STRESS, NEUROTIC DISORDER	41	2619.19	863124.88
	52110 POST-TRAUMATIC STRESS	138	9499.17	1837988.96
	52130 PANIC DISORDER	5	136.20	13613.17
	52190 OTHER ANXIETY, STRESS, NEUROTIC DI	46	3813.09	768386.72
	52191 DEPRESSIVE STATE	11	1169.89	98079.95
	52193 ADJUSTMENT DISORDERS	2	5.00	583.82
-----		-----	-----	-----
1996		243	17242.55	3581777.50
1997	52100 ANXIETY, STRESS, NEUROTIC DISORDER	49	1654.00	159182.88
	52110 POST-TRAUMATIC STRESS	115	8168.58	743301.38
	52130 PANIC DISORDER	2	5.00	700.55
	52190 OTHER ANXIETY, STRESS, NEUROTIC DI	29	1368.20	240725.18
	52191 DEPRESSIVE STATE	15	1114.50	93465.06
	52193 ADJUSTMENT DISORDERS	2	212.00	10424.93
-----		-----	-----	-----
1997		212	12522.28	1247799.98
-----		-----	-----	-----
		455	29764.83	4829577.48

[Note: There was a coding change between 1995 and 1996 (Codes were expanded)]

[Source: Workers' Compensation Board of Ontario (Ontario Workplace Safety and Insurance Board)]

Appendix D

Advantages of Internal Case Managers vs. External Vendors

Internal Case Managers can:

- employ immediate knowledge of the production process and its imperatives
- take advantage of knowing the key players who will be involved in carrying out return-to-work initiatives
- ensure consistent treatment across all employees
- be more aware of and responsive to the nuances of relationships and collective bargaining agreements
- utilize an existing track record for providing service within the organization
- make necessary referrals to ensure appropriate care
- fashion a solution unique to the setting and its needs
- tailor their services to fit with the provision of other employer-provided health services.

External Vendors can

- better serve a large, but geographically dispersed, labour force
- assist in the rapid implementation of the disability management program
- make necessary referrals to ensure appropriate care
- provide expertise in handling rare or more serious cases, such as AIDS or mental health problems
- utilize sophisticated evaluation, assessment or record-keeping tools
- draw upon problem-solving experience acquired from working with other employers.

[Source: Akabas, Sheila, H. and Gates, Lauren, B., Planning for Disability Management: An Approach to Controlling Costs while Caring for Employees, 1995, American Compensation Association, p. 15.]

Appendix E

Mechanisms for Ensuring Valid and Reliable Information

1. Negotiate a standard for data quality in the terms and conditions of agreements with third-party organizations
2. Assess the methods used by third parties to ensure data quality by providers and within their own operations.
3. Identify delays in data submission past a certain standard as a cause for management review of related claims.
4. Involve all participants in data quality through incentives, particularly employees and dependents in red flagging unsubstantiated or inflated claims. Create a watch list of providers who develop a history of such practices feeding this back to third-party management for changing future relationships.
5. Use statistically based audits to zero in, periodically by provider and procedure, on data quality in areas of highest cost.

Information-Based Controls

1. Ensure the data collected objectively represents the benefit of the transaction.
2. Ensure that the data sample is comprehensive and that there are not disincentives to complete reporting.
3. Ensure controls over who can submit a claim or report an activity.
4. Whenever possible, eliminate quarterly adjustments in reasonable and customary rates in health care coverage and place control over the use of settlements in worker's compensation cases.
5. Identify areas of potential conflict of interest in advance with focus on high-cost specialty care. Alert third-party managers to this issue and develop a history of problems.
6. Use statistically based control limits on high-volume transactions to identify problems, and use statistically based audits periodically to trace the flow of claims and cases from a control standpoint, focusing on areas of highest cost.
7. Develop a connection between claims data and broader measures of health and productivity for the covered population.

[Source: Barge, Bruce, N. and Carlson, John, G., The Executive's Guide to Controlling Health Care and Disability Costs, 1993, John Wiley & Sons, Inc., p. 152-153.]

Appendix F

Successful Coaching Styles

Style	Advantages	Requirements
<i>Teacher</i> Explains, demonstrates, and gives feedback on safe and healthy behavior	Allows supervisor to be proactive in building knowledge and commitment to health	A motivated learner; a knowledgeable and committed teacher
<i>Authoritarian</i> Expects employees to do exactly what they are told; disciplines/criticizes them if they don't	Can produce a quick response; may be needed for situations in which health or safety is threatened	Fairness and good judgment; must be used in combination with other styles
<i>Counselor</i> Uses questions and listens to employees to reduce resistance and increase motivation	Helps to manage the difficult employee or sensitive health situation; respects employees as adults	Supervisory patience; strong questioning and listening skills; knowledge of referral agencies
<i>Monitor</i> Observes employees; asks employees and others about health and safety behavior; gives feedback	Can identify health or safety problems early, before a crisis; puts action behind management commitment to health	Consistency and fairness; good judgment in when and when not to give feedback
<i>Goal Setter</i> Establishes objectives for individuals and teams; gives feedback on progress toward goals	Focuses attention on key goals and objectives; increases motivation; positive approach	Sufficient knowledge and information to set effective goals; ability to achieve employee buy-in to the goals
<i>Champion</i> Praises employees publicly and enthusiastically when they do well; gives them opportunity and support to achieve their goals	Builds employee loyalty and motivation; helps support lifestyle or behavior change; influences peer norms	Praise must be genuine, fair and consistent; supervisor must role-model desired behavior

[Source: Barge, Bruce, N. and Carlson, John, G., The Executive's Guide to Controlling Health Care and Disability Costs, 1993, John Wiley & Sons, Inc., p. 207.]

Appendix G

DISABILITY MANAGEMENT QUESTIONNAIRE

Date: _____
Name of Participant: _____
Organization: _____

1. Does your organization carry out a disability management program?

If no, reasons?

If yes, is the disability management program successful in reducing disability and health costs?

Please specify with financials and data [if this is not possible, please state reason, e.g. Confidentiality, etc.]

2. Please state the importance of the following with respect to a Disability Management program:

a. Champion to push for the cause and gain top management support.
Important [Yes or No]:

Does your organization have a champion? Who?

How does the champion gain top management support and push for issues related to Disability Management?

b. Top management support
Important [Yes or No]:

Is top management support present in your organization?

How is top management support present? Explain

- c. Needs Assessment [to provide focus on the disability management program]
Important [Yes or No]:

Did your organization conduct a needs assessment?

What internal and external factors did your organization consider?

- d. Integration [in terms of programs, elements such as early intervention, culture, top management support] Important [Yes or No]:

Is integration present in your disability management program?

How is integration present in your organization?

- e. Supportive Culture [employee involvement, formal structures, conflict resolution]
Important [Yes or No]:

Does your organization have a supportive culture?

How is it supportive?

- f. Early Intervention [risk assessments, occupational nurse/physician, case management, supervisor involvement]
Important [Yes or No]:

Does your organization focus on early intervention?

Please provide details of early intervention in your organization.

- g. Proactive Management of Information
Important [Yes or No]:

Does your organization proactively manage information in terms of refocusing the program to the needs of the employees and program evaluation?

How does your organization proactively manage information?

h. Open Communication
Important [Yes or No]:

Is there open communication present in your organization?

How is open communication present in your organization.

i. Cost Containment [improved efficiency and administration of health care]
Important [Yes or No]:

How does your organization strive for cost containment?

3. Is there any other key success factors that I have not mentioned?

4. Does your organization have a Return to Work Program? If yes, please answer the following:

Elements	Presence in your Organization (Please Check)	Details
Top Management Support in terms of Resources, Formal Accommodation Policy, Flexibility		
Supportive Culture		
Union Cooperation		
EAP		
Workplace accessibility		
Supportive HR Practices		
Case Management		

Does your organization employ any other initiatives not mentioned above? Please specify

Is this program successful? Please provide details if possible.

5. Does your organization have a health and safety program? If yes, please answer the following:

Elements	Presence in your organization (Please Check)	Details
Tracking and Analysis of Information		
Formal Organizational Structure to Support Safety		
Emphasis on Employee Involvement and Behaviour		
Awards and Recognition		
Ergonomic Design: Review and Redesign		
Ergonomic Design: Design-in		
Ergonomic Design: Exercise and Education		

Does your organization employ any other initiatives not mentioned above? Please specify

If this program successful? Please provide details if possible.

6. Does your organization have a wellness program. If yes, please answer the following:

Elements	Presence in your organization (Please Check)	Details
Organizational Statement		
Voluntary participation		
Employee Health Screening		
Health education and promotion		
Options Available		
Personal Counseling and follow-up		
Use of cost-effective community resources		
Program evaluation		

Does your organization employ any other initiatives not mentioned above? Please specify

If this program successful? Please provide details if possible.

7. Does your organization have a program to deal with psychological disorders and substance abuse? If yes, what are the key elements?

If this program successful? Please provide details if possible.

8. How does your organization deal with repetitive strain injuries such as carpal tunnel syndrom?

Appendix H Insight from Experts in the Field

Key Success Factors

Peter Pirt, Institute for Work and Health

Peter Pirt, Communication Manager, Institute for Work and Health, was contacted and agreed to fill out the questionnaire. The Institute for Work and Health is a private independent research body with no front line services. This organization does not carry out a disability management program, but has done much research in the area. Although Peter Pirt was unable to answer some questions dealing specifically with program from the questionnaire, he was able to advise which elements he felt were important in managing disability: a champion to push for the cause, top management support, the proactive management of information, open communication, and cost containment. Peter Pirt cited the following as extremely important: a supportive culture and early intervention. In addition, Peter advised that a needs assessment is important as long as the results are actually applied. Peter Pirt felt integration was important, but advised there is frequently no integration.

Alar Prost, Innovera Integrated Solutions Inc.

Alar Prost, President, Innovera Integrated Solutions Inc., was contacted and agreed to answer the questionnaire. Innovera focuses on developing and delivering disability management programs to organizations. Innovera does not have its own disability management program due to its small size (3 to 4 employees). Alar Prost has substantial experience in the field of disability management. Formerly a manager of strategic initiatives at Human Resources Development Canada, he was the project leader for the pilot project in disability management in the federal public service. Alar Prost stated that a disability management program can be effective in reducing disability and health costs. Mr. Prost was unable to provide any current information regarding companies he has consulted for due to confidentiality reasons.

In terms of the questionnaire, Alar Prost agreed with all the key success factors of the DHM model. Specifically, he felt that having a champion was important to gain top management support. Alar felt that top management support was critical with the caveat that top

management must be accountable in terms of financial costs. He felt that a needs assessment was important to establish benchmarks and provide focus for the program. Alar felt that a supportive culture was important in terms of supporting implementation. Early intervention and open communication were cited as critical factors. He also felt that a joint union-management approach was critical. Alar felt that proactively managing information to identify trends was important, but stressed that the focus should not be on the individual (privacy reasons). He felt that cost containment was important, but stressed the need to also focus on the health and welfare of employees.

Laura Mensch, KPMG Consulting Inc.

Laura Mensch, KPMG Consulting Inc., was contacted and agreed to answer the questionnaire. Laura Mensch advised that disability management can be effective in reducing disability costs. However, due to confidentiality issues, she was not able to provide any details on disability management for any organization that she has consulted for, including KPMG.

Laura Mensch provided insight into the elements she thought were important. In particular, Laura stated that she felt the most important key success factor for a disability management program was having a 'Champion'. The 'Champion' should be in upper management and would have the responsibility of gaining top management support. Another key factor was the proactive management of information in terms of monitoring outcomes and the evaluation of programs. Laura stated that this information must be fed back to upper management and line management. Laura felt that early intervention is crucial in the short-term. Once a disability reaches the LTD stage, it is usually too late. She stated the focus should be on return to work and on health and safety prevention. Other key factors were: a supportive culture and open communication. According to her, it was important to treat employees fairly and to let people know what to expect. Laura advised that a needs assessment is important, especially if ad hoc initiatives are presently in place. Cost Containment is important in terms of medical management (managing the medical process for the employee).

Expert Insight: Health and Safety Program

Expert insight was gained from Alar Prost, Laura Mensch, and Peter Pirt. Alar Prost and Laura Mensch stated that all elements of the DHM Model safety program were important. Peter Pirt was not able to answer specifics on the program, but did state that a health and safety program must go beyond the requirements of the OHSA. A program must be active and aggressive in its approach.

In terms of repetitive strain injuries, Peter Pirt advised that his institute is currently conducting research on the Toronto Star organization. Peter Pirt indicated that preliminary results have suggested that ergonomic design cannot be used in isolation to address repetitive strain injuries. He advised that it must be integrated with other factors such as pace of work, management style, and control over work. Alar Prost stated that the focus should be on education of the employee on how to use a piece of equipment. Laura Mensch felt that the most important intervention was design-in.

Expert Insight: Return to Work Program

Both Alar Prost and Laura Mensch agreed that all the elements of the DHM Model return to work program were important. It should be noted that although both agreed that an EAP was important, they felt that it wasn't a necessity. In addition to the above elements, Alar stated that it was important to develop and maintain a network to deal with disability [e.g. physicians, case management, etc.]. Peter Pirt was not able to answer specifics on the program, but stated that research indicates a return to work program is one of the top priorities. Peter Pirt further advises the focus of a return to work program should be on the safe and timely return of an employee.

Expert Insight: Wellness Program

Alar Prost and Laura Mensch agreed that all the elements of the DHM Model were important. However, Alar Prost felt that an organizational statement may not be too important. He cited Canada Post in which there is an organizational statement, but the program is still ineffective. Alar advised that implementation is key for a wellness program. He cited an example in which a company [Husky Injection Molding] had subsidized 'healthy' foods in the cafeteria. However, if an employee ordered 'unhealthy' food, there was 'finger wagging' by management. This in turn led to poor morale. Alar advised that it is difficult to measure the

results of a wellness program. Laura advised that the importance of a wellness program depends on the industry group and in particular the issues at hand. Peter Pirt was not able to answer specifics on the program. Peter Pirt held some reservations over the effectiveness of a wellness program. In particular, he indicated that there is much debate on whether a wellness program contributes to the bottom line. Peter Pirt advised that very little research has been conducted on correlating wellness to productivity.

Expert Insight: Psychological/Substance Abuse Program

Alar Prost stated that a program to deal with psychological disorders and substance abuse can be successful if it is implemented properly. Alar advocated education, and having professional help available. Alar stated that there should be a referral program in place for employees (encompasses an EAP program). Laura Mensch, KPMG Consulting, suggests the use of an EAP for organizations that are not self-insured and self-administered. Peter Pirt of the Institute for Work and Health stated that an EAP program was very important.

Appendix I

Mission and Values of the O.C.R.P.S.

Evidence of top management support in the O.C.R.P.S. is provided by the mission and values statement. The points related to disability management are highlighted.

Mission:

The Ottawa-Carleton Regional Police Service is dedicated to:

- the safety and security of our community
- working cooperatively with the members of our community; and
- **supporting our members personally and professionally.**

Values:

The Ottawa-Carleton Regional Police Service believes in:

- being an integral part of our community;
- providing quality service in an equitable and accessible manner;
- **working together to find solutions;**
- the importance of respect for the Rule of the Law;
- openness and accountability;
- **valuing the contributions of all our members;**
- **the safety of our members;**
- **providing our members with the supports necessary to do their job;**
- maintaining the highest ethical and professional standards.