

at work

Information on workplace research from the **Institute for Work & Health**

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Research Excellence
Advancing Employee Health

Safety must have active management commitment

What does the research say about workplace organizational factors? How do these factors relate to injury rates? What can organizations do to help achieve a healthier workplace and a healthier workforce?

Policies and practices on safety must have top management commitment, says IWH Senior Scientist Dr. Harry Shannon. He presented research results on these questions at a health and safety association workshop held this past winter. The Institute's Knowledge Transfer & Exchange department sponsored the workshop (see "Workshop participants hammer out leading indicators," page 2).

He described findings from a literature review of studies that examined workplace factors in relation to injury rates. "We found that factors such as workforce empowerment, good relationships between managers and workers, conducting safety audits, training of joint health and safety committee members, and active participation of top management in joint health and safety issues were all consistently related to lower injury rates."

Although identifying these factors is a good start for workplaces, they must pay attention to the safety culture, which creates the safety climate, an indicator of workers' perceptions. "It's important for workers to actively see how management deals with safety issues. Is management taking an active role? If workers think safety is being dealt with responsibly, then it probably is," said Shannon.



Among the key components of safety culture, buy-in from top management is an integral piece. Management must show their commitment with action. Evidence shows that injury rates are lower when senior management: attends health and safety meetings, gets involved in audits, reviews health and safety records, and incorporates health and safety as part of managers' appraisals.

Shannon also noted that increases in long-term disability claims for mental health disorders and in anti-depression prescriptions in drug plans are two stress indicator trends. Some recent Institute research projects that examined psychosocial factors found that stressors, such as low social support, high psychological demand, and poor social environment, were "risk factors" for injury. ▲

Shannon's presentation is available on the IWH web site. Visit www.iwh.on.ca, click on At Work, then the "Safety" article.

The Institute for Work & Health is an independent, not-for-profit organization whose mission is to research and promote new ways to prevent workplace disability, improve treatment, and optimize recovery and safe return to work.

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Clinical

DON'T WORRY, GET ACTIVE

Although there has been ongoing debate about whether activity after lumbar disc surgery may cause re-injury, re-herniation or instability, a recent review of the scientific literature found no evidence to support these concerns. Lumbar disc surgery is performed to relieve back and leg pain of patients who have a prolapsed or bulging lumbar disc.

Members of the Cochrane Collaboration Back Review Group conducted the literature review, which synthesized data from 13 studies. The investigators found strong evidence that patients who were treated with an active, rehab-oriented approach did better. There was also strong evidence that in the short-term, patients who started intensive exercise programs four to six weeks post surgery had more improvement in their functional status and returned to work faster than the comparison group who followed a mild exercise program. However, after one



year, there was no difference in overall improvement between the two groups. ▲

The results of this study were published in the February 1, 2003 edition of Spine.

For more information, visit the Cochrane Back Review Group's web site at www.cochrane.iwh.on.ca or visit the IWH Media Room (www.iwh.on.ca).

Workshop participants hammer out leading indicators

(Accompanying article to "Safety must have active management commitment," page 1.)

The *Health and Safety Association Workshop on Leading Indicators*, held last November, was sponsored by the Institute's Knowledge Transfer & Exchange department. It brought together more than 30 stakeholders representing Ontario's 13 health and safety associations, the Workplace Safety & Insurance Board and the Ontario Ministry of Labour.

Speakers interacted with participants on leading indicator themes including how workplace organizational factors can be introduced at the organizational level, and leading indicators from a safety perspective.

Participants attended afternoon breakout sessions and exchanged information on a sector/workplace's readiness to look at workplace factors. It was apparent from the participants that there is a need to clearly define a leading indicator, that more research on their predictive ability needs to be conducted, and that there needs to be clarity on how they differ from trailing indicators.

A summary of the breakout sessions is available on the IWH web site. Visit www.iwh.on.ca, click on At Work, then "Workshop" article.



Workplaces

A TEAM APPROACH TO ERGONOMIC CHANGE

A new model to help workplaces make ergonomic improvement by creating an ergonomics change team has been developed by University of Waterloo scientists with assistance from Institute researchers.

The *Ergonomics Program Implementation Blueprint* outlines the steps toward achieving an “effective and sustainable ergonomics program” in an organization. It is a change model for one element of a company’s health and safety system and can map onto the principles and components of a number of management systems.

The *Blueprint* is a collaborative project with the University of Waterloo’s



Faculty of Applied Health Sciences and the Institute. It is the product of a decade’s worth of research on ergonomics that is a synthesis of the peer-reviewed scientific literature on program implementation and ergonomics, and of experiences gained from research in five different workplaces. HEALNet and the WSIB’s Research Advisory Council funded the research.

Each stage within the *Blueprint*’s process has “progress indicators” that allow for an assessment of the success of the program in achieving its goals. These indicators have been particularly well-received by ergonomists working in the field who value having process outcomes they can use for evaluation.

Ergonomists within selected Health and Safety Associations are assessing the *Blueprint*’s ability to help them institute organization-wide change. Lead author Dr. Richard Wells from the University of Waterloo and an IWH Adjunct Scientist, and Institute Knowledge Transfer Associate Dr. Dee Kramer, have had discussions with ergonomists from IAPA and the WSIB. They hope to meet with more groups in the next few months and explore how the *Blueprint* can be incorporated into existing ways of conducting ergonomic change interventions. ▲▲

Blueprint maps out proactive process

The *Blueprint* outlines both a proactive and reactive ergonomic process. The proactive program includes the following elements:

- establishing participation and consultation;
- obtaining management support of ergonomics and resources;
- establishing a corporate ergonomics policy;
- providing education and training;
- setting goals for the program and assessing achievements;
- evaluating and auditing the program;
- documenting the goals, activities, and outcomes;
- providing ergonomic tools, techniques, and skills;
- linking to health-care professionals; and
- ensuring legislative compliance.

IWH published papers

The following list of former working papers were published in peer-reviewed journals in 2002.

A complete list of our working papers is available on our web site (www.iwh.on.ca). Click on *Publications*, then *Our Publications Catalogue*.

A hospital-level analysis of the work environment and workforce health indicators for registered nurses in Ontario’s acute care hospitals. J Shamian, MS Kerr, et al. *Canadian Journal of Nursing Research*, 33(4): 89-101.

Early rehabilitation: the Ontario experience. S Sinclair, S Hogg-Johnson. *Pain Research and Clinical Management*, Vol. 12, Chapter 17, 259-268.

Part-time work and cigarette use among teens. Does age moderate this relationship? FC Breslin, E Adlaf. *Canadian Journal of Public Health*, 93: 356-361.

Transitions in self-reported musculoskeletal pain and interference with activities among newspaper workers. DC Cole, M Manno, DE Beaton, MB Swift. *Journal of Occupational Rehabilitation* 2002, 12(3):163-174.

Views on radiography use for patients with acute low back pain among chiropractors in an Ontario community. C Ammendolia, C Bombardier, S Hogg-Johnson, R Glazier. *Journal of Manipulative and Physiological Therapeutics*, Vol. 25: 511-520.

Work stressors and psychological distress in the Canadian working population: a structural equation modeling approach to analysis of the 1994 National Population Health Survey. DC Cole, S Ibrahim, HS Shannon, F Scott, P Eyles. *Journal of Chronic Diseases in Canada*, Vol. 23: 91-99.

Once published, working papers are no longer available from the Institute. They can be obtained through the noted journal.



Policy-Makers

INSTITUTE AT THE ROUNDTABLE

Each year, mental health and addiction problems cost the Canadian economy more than \$11 billion in productivity alone. Research in the area is now showing that there are steps business leaders can take to address this issue in the workplace, according to a background paper presented to Canadian business leaders last November.

The paper, *Mental Health and Substance Use at Work: Perspectives from*



Research and Implications for Leaders was presented to the Global Business and Economic Roundtable on Addiction and Mental Health. It was prepared in part by the Roundtable's Scientific Advisory Committee Chair Dr. Martin Shain and IWH's Director of Knowledge Transfer & Exchange Jane Brenneman Gibson and Adjunct Scientist Dr. William Gnam.

In contrast to 25 years ago, there is now more research emphasis on how the social environment affects mental health and addictions in the workplace. The focus has shifted to the quality of the employment relationships as a significant determinant of health. The findings point to the need for comprehensive strategies characterized by modifications to key aspects of the organization and design of work and the quality of management practices.

At the Roundtable, business leaders also discussed a Charter for Mental Health in the Knowledge Economy Business. The Charter sets out corporate

objectives to assist in resolving mental health business issues including preventing mental health disability, reducing the top 10 sources of workplace stress, improving awareness and understanding of mental health issues among managers and co-workers and supporting public education to eliminate stigma about mental health issues.

Following the Roundtable, the Canadian Chamber of Commerce distributed the Charter among its members and a Charter Advisory and Implementation Committee is being formed.

A copy of the paper, *Mental Health and Substance Use at Work: Perspectives from Research and Implications for Leaders*, is available on the IWH web site. Visit www.iwh.on.ca, click on At Work then *Institute at the Roundtable*. ▲▲

For further information about the Roundtable and the Charter, contact Bill Wilkerson, President of the Global Business & Economic Roundtable on Addiction and Mental Health by e-mail at bill.wilkerson@gcpinternational.com.



Knowledge Transfer

PARTNERSHIPS BUILD KNOWLEDGE TRANSFER CAPACITY

Building strong relationships facilitates knowledge utilization. It's a well-known success factor in knowledge transfer that the Institute employs.

Institute scientists are building a large body of research on the health of health-care workers and a number of projects have been identified where the Institute and the Health Care Health and Safety Association (HCHSA) can work together. One such project was a collaborative intervention at a long-term care facility in Western Ontario.

Dr. Dee Kramer, Institute Knowledge Transfer Associate, and Sandra Wilson, an HCHSA consultant,

worked together to engage the facility's management. They took the Institute's research on how to decrease risk factors for health-care workers and made six site visits to the facility between April and December 2002.

As a result of these interactions, knowledge utilization was achieved at the facility as was knowledge transfer and exchange between the two organizations. The facility's management group made a number of changes, both conceptual and structural, to address risk factors at their facility. The HCHSA consultant became very familiar with the Institute's research and she is taking this new understanding to other facilities and

is sharing it with her colleagues. Kramer's knowledge of the health-care sector has expanded as has her knowledge of long-term care facilities and the unique issues that face management in this type of facility.

The partnership between the Institute and the HCHSA will continue to evolve as new opportunities arise. This intense, sustained engagement with the long-term care facility will not be unique and with each new shared project, the connections and linkages between the two organizations will be strengthened and enhanced. ▲▲

Training opportunities on track at IWH

The Institute provides training and mentorship opportunities to students in the field of work and health research. At the same time, the students foster close working relationships with Institute scientists while working on a range of projects and activities. In 2002, the Institute committed to two new training opportunities.

S. Leonard Syme Training Fellowship

The *S. Leonard Syme Training Fellowship in Work & Health* was created in honour of Syme's tenure as Chair of the Institute's Research Advisory Committee (RAC) from 1995 to 2002.

The Fellowship is a reflection of Syme's ongoing commitment to research mentorship. It will be awarded to a candidate whose research interests include understanding the social determinants of health and illness in work environments and/or a commitment to measuring and evaluating workplace interventions to improve health. (See sidebar for call for applications.)

CIHR Strategic Training Program

The *Work Disability Prevention CIHR Strategic Training Program* is an exciting new opportunity for doctoral students and fellows whose focus is work disability and prevention. Funded by the Canadian Institutes of Health Research (CIHR), it is the first training initiative of its kind to focus on a transdisciplinary approach for the prevention of work disability.

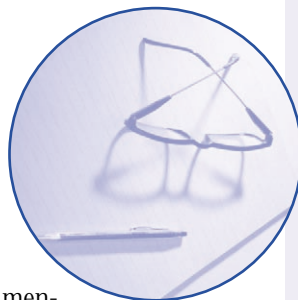
The program is accepting applications until March 31 for its summer session, which gets under way in June in Montreal.

Through a combination of e-learning and summer courses, work placements, mentoring, and other communication activities, participants will gain transdisciplinary work-disability prevention knowledge and skills using their research project as a basis for extended learning.

This program is funded for six years by the CIHR through its Strategic Training initiative. Led by Dr. Patrick Loisel at the Université de Sherbrooke, it includes research colleagues from across Canada, including several scientists from the Institute, who will serve as advisors and mentors for the program.

For more information about the application process, please contact Virginie Benjamin by e-mail at virginie.benjamin@usherbrooke.ca.

More details on these and other training opportunities will be posted on the Institute's web site in the coming months. Visit www.iwh.on.ca, click on *Contact & Info*, then *Graduate Student and Fellowship Programs*.



Syme Fellowship call for applications

The Institute is currently accepting applications for the *S. Leonard Syme Training Fellowship in Work & Health*.

The award covers a 12-month term and will provide a minimum of \$12,000 to the successful candidates. Applicants should have applied to enter an MSc or PhD program for the fall of 2003, and have a research interest in understanding the relationship between work and health. Preference will be given to candidates committed to research which promises to reduce work-related injury, illness and disability in Ontario.

Recipients of the award will be enrolled at an Ontario university with a formal affiliation to the Institute (York University, University of Waterloo, University of Toronto, and McMaster University), however, consideration may be given to applicants applying from other Canadian universities. The award is not intended for those who currently hold other fellowship support.

Details of the application procedure are available on the Institute's web site www.iwh.on.ca. Click on *Contact & Info*, then *Graduate Student and Fellowship Programs*.


The deadline for early consideration is April 30, 2003, with notification of the award at the end of May. Other candidates may be considered after the closing, depending on the availability of funds.

Inaugural lectureship to be launched at IWH Annual General Meeting

Dr. Jeremy Grimshaw, co-ordinating editor of the Cochrane Collaboration's Effective Practice and Organisation of Care Review Group and an expert in evidence-based practice, is the first recipient of the new IWH Alf Nachemson Lectureship. Grimshaw will lecture at the Institute's Annual General Meeting on June 16, 2003.

The Alf Nachemson Lectureship was established in 2002 in honour of Dr. Alf Nachemson's significant contribution to research evidence in clinical decision-making. Nachemson, a distinguished orthopedic surgeon and researcher from

Sweden, is a founding member of the IWH Research Advisory Committee and was Co-editor of the Institute-based Cochrane Collaboration Back Review Group from 1995 to 2002.

Throughout his career, Nachemson has integrated research knowledge into clinical decision-making related to work and health. The lectureship is awarded to a prominent national or international individual who has made a significant and unique contribution to a number of work and health-related themes, including the interface between work and health, the role of evidence in decision-making or evidence-based practice in the prevention of work-relevant injury, illness or disability. 

ON THE CONFERENCE CIRCUIT...

This spring will be a busy one for IWH scientists and staff with many involved in a number of conferences on work and health. Here are some upcoming events you may want to check out.

APA/NIOSH/Queen's Work, Stress, and Health: New Challenges in a Changing Workplace March 20 to 22, Toronto

IWH President and Scientific Director Dr. Cameron Mustard is chairing the symposium panel, *Arthritis and Work Disability*. The symposium includes presentations that will address the epidemiology of work disability arising from arthritis and the nature of adaptations and coping strategies of working persons with arthritis.

Institute Senior Scientist Dr. Donald Cole and Knowledge Transfer Associate Dr. Dee Kramer will participate in a symposium called, *Finding Ways to Bridge the Gap Between Decision-Makers and Researchers*. It will bring together researchers and knowledge transfer personnel to share and discuss different models of knowledge transfer.

Dr. Michael Kerr, an Institute Scientist, is part of a symposium panel entitled, *Work Organization, Stress, and Health in the Automobile Industry*. He will present findings on new work stress measures developed for a study of blood pressure and job strain in the automobile industry.

Institute Associate Scientist Dr. Gail Hepburn is involved in the panel session, *Workplace Violence in Different Occupations*. She will

present information on a study she co-authored entitled, *Outcomes of workplace aggression for executives in the Canadian Federal Public Service: A replication and extension*.

Visit the conference's web site at <http://www.apa.org/pi/work/wsh5/> for more information.

IAPA's Hand in Hand for Health and Safety Conference and Trade Show April 14 to 16, Toronto

The IAPA's annual conference and trade show is a major annual event attracting thousands of health and safety stakeholders. *Hand in Hand for Health and Safety Conference and Trade Show* runs from April 14 to 16 at the Metro Toronto Convention Centre.

Monday sessions

Visiting Senior Scientist Joan Eakin will discuss return-to-work issues in small workplaces. Her presentation focuses on return-to-work policies and practices in Ontario and their implications for employers and injured workers in small workplaces.

Knowledge Transfer Associate Dr. Dee Kramer will co-present with Dr. Richard Wells of the University of Waterloo the results of research which show the steps to take in implementing a participative and consultative ergonomics program and how to evaluate the process.



Wednesday sessions

Knowledge Transfer Associate Rhoda Reardon will co-facilitate a workshop on taking ergonomics research to the end user. She was involved in a knowledge exchange project and will discuss the team's processes, evaluation methods, and experiences.

Kramer developed a supervisor social support skills workshop, which will have a train-the-trainer focus. The workshop has four parts. It begins with a questionnaire that assesses the present level of supervisors' social support skills. It reviews the evidence-based scientific literature on the importance of social support for the health of workers and best practices for effective empowerment. There is a skills analysis that is a case involving empowerment and delegation. It concludes with an interactive desktop exercise that asks participants to outline a plan to empower others to effectively solve workplace problems. ▲

Visit the IAPA's web site at www.iapa.on.ca for more information.



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The Institute's spring plenary program
will soon be in full swing.

Check out the *Upcoming Plenaries* list on our
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What's New link.