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#### IN THIS ISSUE

2 / What researchers mean by.. systematic review

3 / Newly adopted productivity measures help people with arthritis stay at work

4 / Single moms stay off work longer than other parents after injury, IWH study finds

5 / Parents of 12- to 14-year-olds see high benefits, low OHS risk, in children's work

7 / Supervisors' views on job accommodation influenced by ke organizational factors

8 / Making use of systematic reviews, and other upcoming IWH projects

# IWH eight-item questionnaire may predict future claims rates

The IWH-OPM, developed as part of the Institute's leading indicators research, found to predict future claims rates in a sample of Ontario firms

The work on identifying leading indicators in occupational health and safety (OHS) is gaining momentum at the Institute for Work & Health (IWH). In a promising development, an eight-item questionnaire jointly developed by IWH and Ontario's health and safety associations has been found to be predictive of workers' compensation claims rates three years down the road in a sample of Ontario workplaces.

Called the Institute for Work & Health Organizational Performance Metric (IWH-OPM), this questionnaire was the first tool to come out of the Institute's leading indicators research. When it was first tested in 2009 at over 600 Ontario workplaces, researchers found a strong relationship between IWH-OPM scores and past workers' compensation claims rates. Now, the latest research shows that IWH-OPM scores may also be predictive of future claims rates.

"We have found a relationship, at least among the group of firms we studied, and it's not a weak relationship," says Dr. Ben Amick, a senior scientist at IWH and lead researcher on the team. "We took into account each organization's claims rates in the five years prior to 2009. We controlled for this past injury and illness claims experience, as well as the company's industrial sector and firm size. We're confident the relationship between IWH-OPM scores and future claims is real for this sample of Ontario firms."

His enthusiasm is tempered by one cautionary note: any Ontario workplace could join in the IWH-OPM study. Participants were not randomly selected to be representative of all Ontario workplaces or even workplaces in their industrial sector. As a result, the findings need to be replicated in other samples of workplaces—work which is underway with data from IWH's Ontario Leading Indicators Project (OLIP).

At IWH, this work to identify and validate OHS leading indicators on work injury and illness has been going on since 2008. Leading

continued on page 6





IWH scientist gets CIHR New Investigator Award Institute for Work & Health (IWH) Associate Scientist **Dr. Vicki Kristman** has received a New Investigator Award from the Canadian Institutes of Health Research (CIHR). The grant will enable Kristman to conduct a five-year project on preventing work disability through work accommodation. One of the areas she is exploring is supervisor training and work disability outcomes for injured workers.

#### IWH researcher promoted to scientist

**Dr. Lynda Robson** was recently promoted from associate scientist to scientist at the Institute. The promotion, upon the recommendation of Associate Scientific Director **Dr. Sheilah Hogg-Johnson**, was warmly endorsed by IWH's Scientific Advisory Committee at its meeting in Toronto in May 2014.

#### Institute president to deliver keynote address

IWH President and Senior Scientist **Dr. Cameron Mustard** is delivering a keynote address at the XX World Congress on Safety and Health at Work, being held August 24 to 27, 2014 in Frankfurt, Germany. Mustard is also chairing a symposium on the burden of work disability arising from chronic conditions among older workers, and how to strengthen the concept of workability to support their employment. For information, go to: www.safety2014germany.com.

#### Save the date for gender chair launch ...

On Tuesday, October 14, 2014, join us for the launch of IWH Scientist **Dr. Peter Smith**'s five-year research program examining male and female differences in the relationships between working conditions, work injury and chronic illnesses. The research program is supported through the CIHR Chair in Gender and Work Health awarded to Smith.

#### ... and save the date for Nachemson 2014, too

Join us on Wednesday, November 19, 2014, for our annual Alf Nachemson Memorial Lecture, to be delivered this year by **Dr. Paul Schulte**, director of the National Institute for Occupational Safety and Health (NIOSH)'s Education and Information Division. Named after renowned orthopaedic surgeon **Dr. Alf Nachemson**, this free annual lecture has become one of the most important networking events of the year in Ontario for policy-makers, researchers, professionals, advocates and other stakeholders in the field of work injury and disability prevention.

#### Apply now for the Mustard Fellowship

IWH is now accepting applications for the postdoctoral Mustard Fellowship in Work and Health. The competition is open until October 15, 2014. For more information, go to: www.iwh.on.ca/mustard-fellowship.

#### WHAT RESEARCHERS MEAN BY...

# Systematic Review

#### Relatively new to the scientific literature, systematic reviews help users of evidence keep up to date on a body of research

Think of the last time you came across a research study that seemed to contradict some other study on the same question. You can probably think of a few examples, especially for health topics that are often in the news. One moment you hear that acupuncture helps relieve pain. The next, a new study says it doesn't.

If you think about how research studies are conducted, you can appreciate why discrepancies in findings arise. Different researchers studying the same question might enlist different numbers of participants. They might choose different study designs. There might be differences in how they administer the treatment or intervention or how they measure the effect of the intervention. All these things make a difference to what researchers ultimately find.

In other words, when looking for research evidence, you need to look beyond a single study and take into account the overall body of evidence. But given the amount of published research on a given topic, keeping up on the evidence can overwhelm anyone—including clinicians, researchers and policy-makers.

This is where systematic reviews come in. They help people keep up on what the overall body of research says on a topic. They're designed to take into account the reliable available evidence on a subject at a given point in time.

To do this, researchers on a systematic review team go through all the studies relevant to a topic and assess the quality of each. From the higher quality studies, they'll pull out a synthesis of the findings. Often, they'll combine the data from different studies to do what's known as meta-analysis (see www.iwh.on.ca/wrmb/ meta-analysis). And as systematic reviews can only synthesize the available research at a point in time, they need to be updated regularly.

#### Narrative versus systematic reviews

To better understand systematic reviews, consider traditional narrative reviews that were once more commonplace. Like systematic reviews, **narrative reviews** also synthesize the scientific literature on a given question. The main difference is narrative reviewers draw chiefly from their experience and expertise for their analysis. This makes narrative reviews more susceptible to bias. No clear methodology is evident to help readers understand whether reviewers have considered all the available evidence, or how and why they recommend one study over another.

Systematic reviews, in contrast, minimize this type of bias by putting methodology front and centre. Like any other scientific study, systematic reviews should be replicable. That means another research team, using the same methodology to tackle the same question, should be able to gather the same evidence and come to the same conclusion.

As such, all the steps taken in systematic reviews are clearly and transparently outlined. Right from the literature search, systematic reviews spell out what terms are used, which databases are searched, and what criteria are applied to limit the search (e.g. language of published studies). Subsequent steps are guided just as much by methodology—from deciding what studies are relevant, to assessing the studies for how rigorously they were carried out.

Another distinguishing aspect of systematic reviews is their focus. While narrative reviews might cover off a broad topic, systematic reviews centre on a single research question. This question is typically defined by applying the **PICO principle;** that is, the question indicates the **population, intervention, comparison** and **outcome** being considered in the review. The result might read like this statement of objective from an actual review done in 2005 by Institute for Work & Health Scientist Dr. Andrea Furlan: "A review of randomized trials of acupuncture for adults with non-specific (sub)acute or chronic lowback pain."

Systematic reviews, though relatively new, are growing more popular as people increasingly recognize the value of evidence-based practice and policy. Given the amount of new research being produced, systematic reviews have become an important tool for staying up to date.

And if you're wondering about acupuncture and low-back pain, that 2005 review finds acupuncture more effective for pain relief and functional improvement than sham or no treatment—but only for a short while and for chronic (not acute) low-back pain.

# Newly adopted productivity measures help people with arthritis stay at work

# Institute scientist plays lead role in developing work productivity measures endorsed at global forum

Rheumatoid arthritis is a very painful and tiring condition and, not long ago, being diagnosed with it usually meant having to leave the workforce.

But improvements in treatment mean more people can now remain at work in spite of their rheumatoid arthritis. Though their productivity levels at work may lag, especially during flare-ups, it's common today to see people with this condition cycle through phases of missing work, struggling through work, and being fully functional and symptom-free.

For researchers and clinicians, this change in arthritis management has led to a need for new tools to measure the condition's impact on patients' working lives. When studying the effectiveness of a drug or a treatment program, it's no longer enough to measure the extent to which people take days off or leave the workforce. Loss of productivity at work must also be taken into account.

Earlier this year, a team of international researchers led by Institute for Work & Health (IWH) Senior Scientist Dr. Dorcas Beaton unveiled a set of measures for productivity-at-work outcomes that have met international standards (see sidebar). These five measures, which have been put through a rigorous validation process, were presented in May in Budapest at a consensus conference of Outcome Measures in Rheumatology (OMERACT). Also involved in the project from IWH are Senior Scientists Dr. Monique Gignac and Dr. Claire Bombardier, as well as doctoral student Ken Tang.

"Work is an important role for adults for many reasons, and it is just as important in the lives of persons with arthritis," says Beaton. "These measures of worker productivity will allow more attention to be paid to patients' ability to get back to work."

Getting the thumbs up for these tools at the OMERACT meeting was a significant milestone for the research team. Formed in 1992, OMERACT is a global network striving to establish uniform standards for measuring outcomes for arthritis and other diseases of the joints, muscles and bones. At the time, scientists doing clinical trials around the world were using very different scales and measures for assessing health outcomes. As a result, it was difficult to pull out clear messages from the findings.

#### Endorsement a high bar

OMERACT scientists use a rigorous and time-consuming process for developing and adopting outcome measures. It's a process driven by data, built on consensus and heavily informed by stakeholders. Developing measures that pass muster at OMERACT

## PRODUCTIVITY MEASUREMENTS FOR WORKERS WITH ARTHRITIS

Below are some of the questions endorsed at OMERACT for assessing the impact of arthritis on worker productivity:

- Assume that your work ability at its best has a value of 10 points. How many points would you give your current work ability? (*Item 1 from Work Ability Index*)
- During the past seven days, how much did the specific health problem affect your productivity while you were working? (*Item 5 from Work Productivity and Activity Impairment*)
- In the last month, how much has arthritis interfered with your work productivity outside the home? (*Item 4 from Work Productivity Survey-Rheumatoid Arthritis*)
- In the past two weeks, how much of the time did your physical health or emotional problems make it difficult for you to concentrate on your work? (*Sample item from 25-item Work Limitations Questionnaire-25*)
- How much difficulty do you have with the pace of work that your job requires? (Sample item from 12-item Workplace Activity Limitations Scale)

typically takes many years. To get approval at OMERACT, researchers have to get buyin from a vast range of stakeholders, from researchers, clinicians and pharmaceutical companies to regulators and patients.

The need for measures on worker productivity emerged about eight years ago, voiced in part by the patients and consumer groups involved in arthritis research. At the time, more than 20 measures of worker productivity were being used. However, many were measuring different things or had not been tested for people with arthritis.

In defining worker productivity, the research group combined two perspectives. One is the level of work output, often described in hours and dollars. The second is the ease with which a person does his or her job. "We presented separate measures for these different ways of thinking about productivity because we wanted to capture the quality of work life from the patients' perspectives—as well as a cost and productivity orientation," says Beaton. "Both are important."

However, a worker's productivity has to be understood in context. How much control do patients have over their schedules or worksites? Are their workloads heavy or light? Can a co-worker help now and then? These core contextual factors could affect the scores obtained on the measures, and the work to incorporate them is ongoing.

The road to creating and presenting an evidence-based set of productivity measures has been a long but important one, says Beaton: "Individual workers and their clinicians need to know how much impact the condition has on their ability to work and whether accommodations or treatments are helping. Likewise, workplaces benefit from knowing whether an intervention such as changing a workstation brings up a worker's productivity."

"OMERACT was an excellent place to engage people in our work," she adds. "Researchers can now select from a set of tools and include work outcomes in their musculoskeletal research."

# Single moms stay off work longer than other parents after injury, IWH study finds

### Single moms more likely to take longer to recover, but less likely to get benefits when injured

One might expect that single parents with children living at home may be less inclined to take time off work following a work-related injury. After all, they tend to shoulder a greater burden of putting food on the table than people raising kids in marriages or common-law relationships.

But according to a new study, single mothers are more likely to need long recovery time than moms and dads with partners, and even single dads. In that study, Institute for Work & Health (IWH) researcher Dr. Imelda Wong defined long recovery time as seven days off work or more. Her finding is all the more surprising given that single moms are less likely than other types of parents to receive workers' compensation.

"Despite being more likely to experience longer work absences, single moms are less likely to access workers' compensation," says Wong, a Mustard Post-Doctoral Fellow at IWH. Her study, on work-injury absence and compensation among partnered and lone mothers and fathers, has been published online ahead of print by the *American Journal of Industrial Medicine*.

Wong's theory at the outset of the study was that single parents would come back to work sooner than others following a work injury. She believed this would be the case because time away from work can mean financial strain and higher risk of job loss, especially for parents working in jobs that offer fewer benefits and less job protection.

#### Single moms younger, lower earners

For the study, Wong drew on the Survey of Labour and Income Dynamics (SLID), an annual Statistics Canada survey of a representative sample of Canadian households. After filtering for wage earners aged 16 to 69 living with children under 25, she had a sample of about 88,000 respondents.

In Wong's sample, 11 per cent were single mothers and three per cent were

single fathers. As a group, the single parents tended to be younger than parents with partners. They also had significantly less education and less job tenure. Single parents were more likely to



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be low earners. The proportion of single moms in the lowest income bracket (40 per cent) was nearly twice that of single dads (22 per cent) and nearly three times that of married or common-law mothers and fathers (15 per cent and 16 per cent respectively).

When it comes to time off work after an injury, single moms were considerably more likely—50 per cent more—than partnered fathers (the reference group) to be off work for seven or more days. This greater likelihood was seen after taking into account different factors, including socioeconomic and job-related factors.

No difference was seen between single

dads and partnered dads. Partnered moms were slightly less likely than partnered dads to be off work for seven or more days, but that difference was so small it may have been due to chance.

#### Less likely to receive benefits

"There's something going on with single moms," says Wong. Among the other par-

> ents, those who tended to be off work seven days or more after a work injury were also the ones who tended to get benefits.

But not so for single moms. Although they're 50 per cent more likely than the others to be off work seven days or more, they're less likely to receive benefits.

And while single moms are more represented in groups that are both less likely to get workers' compensation benefits and less likely to be off work—i.e. those who are young, who have less work tenure, and who work in temp, seasonal or casual jobs—for some reason, they're more likely to be

off work longer after an injury.

Due to the kind of data available, however, Wong is unable to probe further for what the reasons might be.

"We don't know what it is about being a single mom that's putting them at greater risk of being off work for seven days," says Wong. "Could it be the type of injuries they incur? Or could it be the type of work they do?" It may also be, for example, that single moms work in the kinds of jobs that are less modifiable or in workplaces that are less able to offer accommodation.

To access Wong's study, go to: http:// onlinelibrary.wiley.com/journal/10.1002; or search for: doi:10.1002/ajim.22351. ■

## Parents of 12- to 14-year-olds see high benefits, low OHS risk, in children's work

## Despite high injury rates in young teens who work, their parents voice trust in safety of workplaces

Although young teens who work get injured at higher rates than adults, the parents of very young workers don't seem all that worried about common health and safety hazards on the job.

To a large extent, the sense of risk described by parents of 12- to 14-year-olds depends on whether their children work in odd jobs or at formal workplaces. In a study on the perception of health and safety risks among parents of young teens, Institute for Work & Health (IWH) Scientist Dr. Curtis Breslin found parents generally trusted their children's employers when children work at fixed venues.

"If their children work in a fixed workplace like a retail store or a fast-food

restaurant, the parents tend to be somewhat unconcerned," says Breslin, who presented his findings at the annual meeting of IWH's Scientific Advisory Committee. "But if their children are out doing odd jobs like babysitting or delivering flyers, then the parents' biggest worries are around kidnapping and assault—events that are very rare."

Part of that level of trust in the workplace seems to stem from the familiarity they had with the job, says Breslin. It might be that the parents have done that work themselves, or they have an older child who has done that work before.

Part of it also comes from the sense that the parents are in control of their children's work situation, he adds. They're confident they can pull their children out of a job if they perceive a hazard. And if their children are doing odd jobs, the parents will often assume the responsibility for implementing safety measures and providing supervision. They'll buy cell phones for their children or drive them around on paper routes, for example.

"Given the role parents play in managing work hazards for their young teens, we think a proactive effort to improve occupational health and safety among 12- to 14-year-olds should reach out to parents as a key audience," says Breslin.

He adds that it's an audience that needs to be more informed about more common risks such as cuts and bruises, as well as strains and sprains. They also need to better understand who is actually responsible for health and safety under the law for the



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types of work arrangements common in this age group.

#### A dearth of data

Above all, Breslin recommends public agencies start gathering employment and health and safety data about this age group. Currently, no labour-market or health surveys in Canada routinely collect statistics on workers 14-years-old and younger, notes Breslin. And yet, according to a handful of studies across Canada, including a prior survey Breslin conducted in 2003, half or nearly half of children around that age have worked for pay at one time or another.

For example, in his 2003 school-based study, Breslin found 52.9 per cent of 12- to 14-year-olds in Ontario worked for pay at some point during the school year. In B.C., that number was 41.5 per cent. The survey showed boys in Ontario and B.C. tended to hold down jobs in more formal workplaces such as retail stores and food-service settings. Girls were more likely to work odd jobs such as babysitting.

#### **Surprising injury rates**

From that same survey, Breslin found between five and six per cent of young Ontario teens who worked said they were injured on the job badly enough that they needed to seek medical care. In B.C., that number was 3.5 per cent.

"These injury rates are higher than those in the adult population, if you take into account the fact that, at this age, the teens are working only part-time," says Breslin.

There's another reason we should pay attention to this group, beyond the injury rate statistics, he adds: "Youth at this stage are only just starting to develop an understanding of health and safety risks. We've also seen how easily they internalize the message that certain hazards are 'just part of the job.' That's why it's even more important to influence their occupational health and safety attitudes from this moment in their lives."

#### ONTARIO FIRM USES OLIP TO TRACK HEALTH AND SAFETY IN SUPPLIERS

The Ontario Leading Indicators Project (OLIP) is aimed at helping workplaces identify factors affecting their risk of injury, benchmark against their peers, and take preventive steps to reduce this risk. One Ontario organization participating in this Institute for Work & Health (IWH) project has also found OLIP to be a valuable tool for assessing subcontractors' health and safety performance.

Brookfield Johnson Controls is a real estate services company managing 10,000 facilities and properties across Canada. With a staff of 1,900, this firm headquartered in Markham, Ont., also relies on 3,500 subcontracting companies across Canada to perform services.

Traditionally, the company has used lagging indicators to assess OHS performance of subcontractors. The challenge with these is a single critical incident can drastically affect the subcontractor's ability to win new business from larger clients, said Rich Coleman, national director for business continuity and quality, health, safety, security and environment. "So what often happens is these companies will fold and start under a new name. Or they try to hide the metric."

As a result, the company in recent years has started to use leading indicators, including parts of OLIP, to assess subcontractors. Supply firms that don't do well are put under review, during which time Brookfield will work with them to help improve their programs, said Coleman, who was speaking at a seminar on the OLIP project at the Partners in Prevention conference put on by Workplace Safety & Prevention Services in April 2014.

The company has moved toward increasing use of leading indicators internally as well. Until recently, it has had to rely on its own data to benchmark different parts of the firm on health and safety. "We've always gone internal because we don't have the ability to get industry benchmarks. It's tough to partner up with your competition to get good data," said Coleman.

Participating in OLIP has enabled Brookfield to do just that. "It's really nice to be able to benchmark yourself against what's happening out there in the industry," he added.

"I really urge anyone with the opportunity to participate in this project. It has provided us with a rare opportunity to benchmark outside our company walls. We hope for ongoing collaboration to find leading indicators. And, really, it's going to take community involvement to do that."

# IWH-OPM one of five tools studied for predictive ability

continued from page 1

indicators are measures of factors expected to affect occupational health and safety outcomes. Measure scores may signal whether an organization's injury and illness rates are likely to rise or fall in the years ahead.

The latest findings about the IWH-OPM's potential predictive ability came out of a fresh analysis of the IWH-OPM scores of Ontario workplaces that took part in the first phase of the research. Respondents were asked at the time to assess how often a practice was carried out at their organizations. The research team used the scores to group participating organizations into four tiers. (For more on the results of the first phase, see www.iwh.on.ca/at-work/61/ prevention-team-develops-tool-to-measure-leading-indicators.)

In the more recent phase of the research, the team obtained the claims rates of 325 of the original participating organizations for the three years after the survey. They found better-scoring tiers consistently had lower claims rates than the worse-scoring ones.

"We hope that Ontario employers will use the IWH-OPM tool as an additional vehicle for gathering information about the state and functionality of their OHS program," says Kiran Kapoor, director of business and market strategy at Workplace Safety & Prevention Services (WSPS), a health and safety association on the project team. "Those interested in completing the survey can leverage WSPS's project experience to develop an action plan that is right for their workplace and can help grow their business."

#### Part of larger project

This research on the IWH-OPM is only one part of a larger effort at IWH to measure and validate leading indicators—the Ontario Leading Indicators Project. The IWH-OPM is one of five measurement tools that make up the OLIP survey, and work is currently ongoing to assess whether this larger survey—or which part of it—also has predictive ability when it comes to workers' compensation claims. Unlike IWH-OPM participants, the nearly 2,000 workplaces that took part in the first three phases of OLIP testing were randomly selected to represent all workplaces in Ontario. That has enabled the research team to develop meaningful benchmarks for most industrial sectors and subsectors in the province, which are now being used in a number of ways by workplaces (see sidebar).

#### More research ahead

The work ahead for both the IWH-OPM and OLIP is also exciting. Dr. Chris McLeod, an IWH associate scientist and University of British Columbia School of Population and Public Health assistant professor, is launching a research project using the IWH-OPM in private long-term care facilities. That project, funded by WorkSafeBC, is expected to be broadened to include a sample of organizations in the service and manufacturing sectors as a next step.

And with a new two-year grant from the Ontario Ministry of Labour Research Opportunities Program, Amick's team, in partnership with WSPS and the Public Services Health & Safety Association (PSHSA), will begin asking OHS practioners how they use leading indicators. The team will draw on what they learn to build real-time tools—such as apps and dashboards—to help organizations manage health and safety change in the workplace.

"Organizations typically find it a challenge to move research to commercialization," says Glenn Cullen, vice-president of corporate programs and product development at PSHSA. "Commercialization for us means increasing our reach by introducing innovative products and solutions that align with our health and safety mandate for Ontario workers and employers."

Both the IWH-OPM and OLIP surveys are now posted on IWH's website for any employer to take access. To take the 20-minute OLIP survey and get benchmark results, go to:www.iwh.on.ca/olip. For the IWH-OPM, go to: www.iwh.on.ca/the-iwhopm-questionnaire.

# Supervisors' views on job accommodation influenced by key organizational factors

### Leadership style, supervisor autonomy among factors linked to greater support for accommodation

All too often, whether a person successfully comes back to work after an injury depends on his or her supervisor. The supervisor's willingness to modify the job can make a difference in whether the injured worker quickly returns to his or her prior level of productivity, or goes back on leave due to deteriorating health.

What, then, shapes the willingness of supervisors to offer job accommodation? That was the question Dr. Vicki Kristman, an associate scientist at the Institute for Work & Health (IWH), recently explored.

She found that supervisors' attitudes toward accommodation are influenced in part by how they do their work and in part by factors related to the overall workplace.

Namely, supervisors who enjoy more job autonomy are more likely to support work accommodation, as are those with a more empathetic leadership style. At the organizational level, workplaces that tend to be caring also see more supervisors who support accommodation. Having formal policies on disability management is also linked to this kind of support.

"These characteristics speak to things like

#### FAVOURITE JOB ACCOMMODATIONS

Dr. Vicki Kristman's IWH study found strong support among supervisors for a range of work accommodations. The five most popular practices were for the accommodated employee to:

- · avoid lifting of heavy objects;
- avoid awkward postures;
- · limit pushing or pulling heavy objects;
- avoid twisting or bending; and

• avoid prolonged periods of standing.

The three least-used practices were to have the accommodated employee:

- move to a different worksite or location;
- change work time; and
- shorten work days.

trust and consideration. Workplaces that are trusting give supervisors greater autonomy in how to do their job. They're also workplaces with a lot of social capital—where



there's a strong sense of being part of a team," says Kristman, who presented her findings at an IWH plenary in May. "These are all variables that can be modified. That's a promising aspect about these findings."

Dr. Vicki Kristman

#### Study on supervisors' views a first

Conducted jointly with the U.S. Liberty Mutual Research Institute for Safety (LMRIS), this study is the first to look at the factors linked to supervisor support for work accommodation. It's based on a survey completed by about 800 supervisors in Canada and the U.S. in a range of industries. However, given that just a quarter of those asked to take part in the study did so, Kristman says the results may be less representative of all workplaces, and more so of high-functioning ones that already had strong policies.

Kristman's team found a high level of support generally for work accommodation. She used a 21-item scale to ask supervisors which accommodation practices they use most often, from shortening work days to assigning injured workers to temporary jobs. Of those 21, the most common practice was avoiding heavy lifting (see sidebar). The least favoured involved changing worksites or work schedules of a returning worker. Also unpopular were options that involved help from others.

In the study, Kristman asked respondents to react to several vignettes illustrating different types of workers—e.g. those who got hurt at home or who had a history of taking time off. To her surprise, Kristman didn't see a difference in how participants responded to the different vignettes, but she says that may have been due to limitations in how the vignettes were designed.

#### Four key factors

The study was set up to test the influence of 12 factors, some that described the injured worker (e.g. job tenure and commitment, attitude of cooperation, specific worker factors such as gender), some the supervisor (e.g. leadership style, beliefs about pain, decision-making authority), and some the workplace (e.g. organization's health and wellness culture, physical job demands, disability management practices).

Kristman found four characteristics that are linked with stronger supervisor support for work accommodation. These are:

- autonomy (decision-making authority)—how much freedom and flexibility supervisors have to offer accommodation;
- considerate leadership style—the extent to which a supervisor demonstrates concern and respect for employees, in contrast to a leadership style that's more focused on defined roles, formal channels of communication and goals attainment;
- disability management—the extent to which the organization has formal programs and policies; and
- workplace social capital—the level of trust and the extent to which people feel they're "in this together."

The first two are attributes of the supervisor, and the second two are qualities about the workplace. "We found organizational factors might be more important than some demographic and job factors," says Kristman. "This helps identify potential interventions to try to influence supervisors' likelihood to provide accommodation."

To see a plenary slidecast on the study, go to www.iwh.on.ca/plenaries/2014-may-27. Kristman is now working with LMRIS to study the effectiveness of training on supervisors' support for job accommodation. ■

#### AT WORK

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#### **INSTITUTE FOR WORK & HEALTH**

481 University Avenue, Suite 800 Toronto, Ontario M5G 2E9 Phone: 416.927.2027 Fax: 416.927.4167 E-mail: atwork@iwh.on.ca

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The Institute for Work & Health promotes, protects and improves the safety and health of working people by conducting actionable research that is valued by employers, workers and policy-makers.

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# Making use of systematic reviews, and other upcoming IWH projects

### A look at research funded by external grants in 2013/14

Research on workplace injury and disability prevention at the Institute for Work & Health (IWH) would not be as extensive without the support of our external funders. Here are some examples of what their continued support will allow IWH scientists to investigate in the coming year.

## Working with local stakeholders on the application of research findings

A question IWH researchers often hear when presenting results of systematic reviews is, "How would this finding apply to our context?" Whether the research evidence is about a workplace health and safety intervention or a public health program, making use of evidence means taking into consideration a whole host of factors. What are the characteristics of the local population? What laws and regulations—or what workplace policies and practices could affect the use of the evidence? What service or infrastructure is there to support the recommendation? What are the costs?

Finding a process to help stakeholders make use of systematic review findings is the impetus behind a new study funded by the Research and Workplace Innovation Program of the Manitoba Workers Compensation Board (WCB). The study is co-led by Dr. Stephen Bornstein, founder and director of the Newfoundland Centre for Applied Health Research (NLCAHR), and Emma Irvin, IWH's director of research operations, who also heads up the Institute's systematic review program. The team will produce a systematic review (or an update) and find ways to adapt it to the Manitoba context. In the process, it will develop a handbook to guide users of systematic reviews on how to apply review findings to a local context.

## Determinants of health and safety in the construction sector

The Institute recently received funding for the first-ever survey of organizational policies and practices in the industrial, commercial and institutional construction sector in Ontario. Funded by the Ministry of Labour Research Opportunities Program, this study will be conducted in collaboration with the Ontario Construction Secretariat.

"This study will examine many different factors to find out what the determinants of health and safety are in this sector," says IWH Associate Scientific Director Dr. Sheilah Hogg-Johnson, who shares the role of primary investigator with Senior Scientist Dr. Ben Amick. The research team will look at a wide range of factors, including firm size, unionization, organizational policies and practices, people-oriented culture, active safety leadership, safety training, disability management and so on. The study will also look at Ministry of Labour inspections and orders and learn whether they vary according to the factors above.

## Engaging health-care providers in return to work

There is strong evidence that primary care doctors play an important role in whether injured workers successfully return to work. Research has also shown that doctors often find it challenging to engage in the return-towork process. In a two-year study funded by Manitoba WCB's Research and Workplace Innovation Program, an IWH team will examine the experience of health-care providers in the workers' compensation system.

The team, led by IWH Scientist Dr. Agnieszka Kosny, will interview health-care providers across four provinces and ask them about challenges dealing with the system and strategies to improve their experience. The team will also draw on policy analyses and interviews with senior policymakers to examine the various approaches for engaging primary care physicians in different jurisdictions.

For a full list of grants awarded to the Institute from June 2013 to June 2014, go to: www.iwh.on.ca/grant-round-up.

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