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at work

IN THIS ISSUE

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Heart disease, arthritis, diabetes raise risk of leaving workforce

IWH study of chronic conditions common in older age finds strong associations with people being out of labour force, particularly when conditions are paired

Despite a growing effort on the part of policy-makers and employers to keep older workers in the labour market, health problems remain a big reason many of them leave their jobs.

According to a new study by the Institute for Work & Health (IWH), people with heart disease, arthritis and other types of chronic conditions associated with older age are less likely to be working than those without these conditions. For example, people with heart disease are three times more likely not to be working than those without the condition.

What's more, people with more than one chronic condition are even more likely to be not working. For those with both heart disease and diabetes, in particular, the risk of not being in the labour market is at least eight times as high as it is for those with neither condition.

"Some of these conditions in combination have a synergistic effect," says IWH Scientist Dr. Peter Smith, lead researcher for the study.

Dr. Peter Smith

The study's results imply that policies set up to try to keep older workers in the workplace should address the barriers faced by people with chronic conditions, says Smith.

"We've seen governments doing things such as repealing mandatory retirement and pushing up the retirement age to keep people in the labour market," he says. "But there hasn't been a lot of thinking about how to create work environments that enable people with chronic conditions to stay in the labour market."

A lot of people do want to stay at work for both social and financial reasons, he adds. "So we need to think about workplaces and work practices, and how they need to change to keep these people in the labour market for as long as they can."

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Institute for Work & Health

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Introducing new members on IWH board...
The Institute for Work & Health (IWH) proudly welcomes four new members to its Board of Directors: **Melissa Barton** is director of occupational health and wellness at Mount Sinai Hospital; **Mark Dreschel** is national safety director for Bird Construction; **David Henry** is former CEO of the Institute for Clinical Evaluative Sciences; and **Kevin Wilson** is vice-president of human resources and organizational effectiveness at Humber River Hospital.

...and warm thanks to outgoing board members
The Institute is also grateful for the contribution of four board members who recently departed at the end of their terms. These are: **Ian Anderson**, vice-chair of the Ontario Labour Relations Board; **Carolyn Tuohy**, a professor in the Department of Political Science at the University of Toronto; **Daniel McCarthy**, Canadian director of research and special programs at the United Brotherhood of Carpenters & Joiners of America; and **Dev Chopra**, executive vice-president of corporate services and redevelopment at the Centre for Addiction and Mental Health.

2013 Nachemson lecture on research impact
The Alf Nachemson Memorial Lecture this year is delivered by **Dr. Mieke Koehoorn**, senior scientist for the Partnership for Work, Health and Safety at the University of British Columbia (UBC). She shares insights gained through a research partnership between UBC and WorkSafeBC, the province's workers' compensation board, on emerging issues in work-related health. The partnership aims to advance the use of routinely collected administrative data to improve the efficiency and effectiveness of public programs. For more information, go to: www.iwh.on.ca/nachemson-lecture.

IWH to co-host WDPI 2014
The Institute is excited to be one of the hosts of Work Disability Prevention and Integration 2014, the third scientific conference for research on preventing work disability and promoting safe and sustained return to work across a range of conditions. Taking place September 29 to October 1, 2014, in Toronto, WDPI 2014 will be a unique opportunity for an interdisciplinary and international exchange of ideas on preventing work disability. For more information, go to: wdpi2014.iwh.on.ca.

IWH scientist awarded esteemed lectureship
IWH Scientist **Dr. Dorcas Beaton** received the 2013 Helen Saarinen Lectureship in October, a lectureship established in 1997 by McMaster University's School of Rehabilitation Science. Named after the co-founder of the school and the first chair of the undergraduate program in physiotherapy at McMaster, the award is a significant honour in the field of rehabilitation.

WHAT RESEARCHERS MEAN BY...

Path Analysis

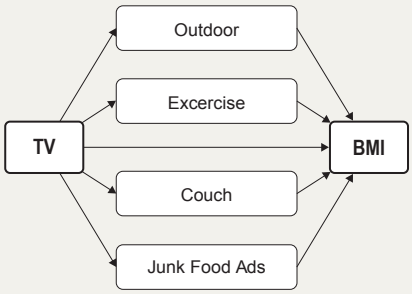
In path analysis, researchers use models to map out relationships between many variables and test them for strength

Let's take the link between watching TV and obesity. As a researcher, how might you learn more precisely how that link works?

You might want to find out whether watching TV affects body mass index (BMI) directly, or whether it affects something else first (e.g. less time spent on exercising, which in turn affects BMI)? Does it affect several other things first, which in turn affect BMI (e.g. less exercising *and* more exposure to junk food ads)? If several other factors are involved, which of them have more impact than others?

To answer these types of questions, researchers use a method called **path analysis** to test out the many different ways one thing can affect another. Real-world cause-and-effect relationships are complicated. Path analysis helps researchers measure which of the possible relationships matter the most, and which might turn out to be not important at all.

In a path analysis, you would take the factors (called **variables**) that might explain what is happening and map them out in a path model. Using our TV and obesity example, your model might look like this:



Determining what variables to include in the model is your job as a researcher. You'd have to comb through the literature to identify the variables that might play a role. For example, research showing a link between less time exercising and higher BMI would be reason to include exercise as a factor in your model.

Sometimes not much research is available to help. You might then decide to turn to focus groups to help you identify probable pathways. If the literature on TV watching was scant, for example, you might learn from focus group participants that they hardly go outside or they sit on the couch all the time when watching TV, and that these might be the reasons higher obesity rates are seen among TV watchers.

Once a model is drawn up, the heavy-lifting work of testing the model begins. This is where you would examine available data to find out how well they support your model. To do that, you would run statistical analyses (usually what is known as "regression analysis"; see www.iwh.on.ca/wrmb/regression) to measure the statistical strength of each pathway.

For example, the data might show that increased TV watching has a strong association with less time exercising, and less time exercising has a strong association with higher BMI. The strength of both relationships indicates that exercise time is an important factor through which TV watching affects BMI. (Researchers sometimes use the term **mediating** to describe this indirect relationship, one in which a variable acts through another variable—referred to as the **mediating variable**—to have an impact on something else.)

The data might point to variables in the model that aren't all that important. For example, you might find a stronger relationship between TV watching and the number of junk food ads people see, but a weaker relationship between the junk food ads people see and BMI. That relationship may be so weak that you decide to drop it altogether from your model.

While statistics can help test your pathway model, they won't protect you from faulty models. For example, you might find a link between outdoor time and TV time, but neglect to consider that outdoor time might be exerting an impact on TV time instead of the other way around. In a path model, nothing indicates the direction of causality.

Similarly, if important variables are missing from the model, statistics alone might not alert you to that omission. In other words, a model might fit the data, but not necessarily fit reality.

People hit by joblessness in early 1990s faced higher risk of dying within 10 years

IWH study finds people unemployed in 1991 had higher mortality rates across broad range of causes

What are the health effects of unemployment? Many studies have asked this question. Some have focused on the mental and physical health impact during unemployment. Others have looked at unemployment's effect on health in the period following joblessness, including the association between unemployment and mortality.

But until recently, no study has looked at the relationship between unemployment and specific causes of death among a large number of representative Canadians.

A recent study by the Institute for Work & Health (IWH) is the first to do just that. Published in May 2013 by the journal *BMC Public Health* (doi:10.1186/1471-2458-13-441), the study of all-cause and cause-specific mortality followed a large group of Canadians for 10 years after a period of high unemployment in 1991. It found elevated risks of mortality among those unemployed at the beginning of the 10-year period—right across the board.

"Canada is one of the few developed countries for which this information had not been previously available. That's why this study is important," says Dr. Cameron Mustard, IWH president and lead author of the study. "It's also important because the study looks at a period when unemployment was high—one that's comparable to the period we've just lived through."

Sample of 1.6 million

The study looked at a large group of Canadians who were between 30 and 69 years of age and who had worked at least a week during 1991, a census year.

From among the one-in-five Canadian households that completed the long-form census that year, researchers chose a massive sample of 1.6 million people—about 15 per cent—to include in the study. About 111,000 of them, or 6.9 per cent, were jobless on census day.

Working with Statistics Canada, Mustard's team analyzed death records for the nearly 58,000 individuals who died in the 10 years following 2001. The team compared the rates of death between the people who were working and those who were jobless on census day in 1991. The causes of death were grouped into six large categories: cancer, heart disease, respiratory disease, alcohol-related disease, accidents and violence, and all other causes.

Photo ©iStockphoto.com/SoopySue

Most notably, those unemployed in 1991 were more than twice as likely as the employed to die of alcohol-related disease. That was the case for both sexes. Both men and women in the unemployed group were also more than twice as likely to die from violent deaths (e.g. falls, road accidents, murder, suicide and so on).

Even for the other categories, where the differences were not as stark, researchers still saw higher mortality rates among the unemployed group.

For example, mortality rates among unemployed men were around 20 and 40 per cent higher for heart and respiratory diseases respectively, and 40 and 60 per cent higher for heart and respiratory diseases among unemployed women.

Again, these were differences in mortality rates beween those unemployed on census day in 1991, as compared to those who had a job at the time. Researchers had no information about people's work experience in the 10 years following—whether they were unemployed for a long or short spell, and whether they had a job when they died.

The study also set out to test a theory that poor health might have been the cause of people's joblessness. Called the 'health selection theory,' it's the idea that people in the unemployed group had poorer health to start out with, and that poor health might have played a part in their job loss.

To probe that theory, the researchers looked at the death rates in two time frames—the first five years and the second five years after census day.

They speculated that if those in the jobless group had poor health on census day, their mortality rates would be much higher in the first time frame than in the second. But the findings didn't support that hypothesis. The mortality rates of the jobless group remained high across both time frames.

One possible interpretation of these findings, says Mustard, is that the same factors may be associated with both being unemployed and being at higher risk of mortality. People who have less education and lower-skilled jobs, for example, are at greater risk of experiencing unemployment; they also face higher risks of mortality than people with higher education and higher skills.

"Unemployment is not a random event," says Mustard. "Things that shape the risk of unemployment also shape the risk of mortality. Unemployment is a kind of marker of social and economic disadvantage."

You can read the full open-access paper at: www.biomedcentral.com/1471-2458/13/441.

Building an understanding of back pain, a common but poorly understood condition

The Cochrane Back Review Group, hosted at IWH, celebrates 15 years of synthesizing and assessing research on neck and back pain

It's difficult for people to understand how debilitating back pain can be until they experience it. Andrea Furlan had a first-hand encounter with it last spring, and despite her many years of researching and treating the condition, the episode was eye-opening.

"The pain was constant. It was hard to sit, but it was also hard to move," says Dr. Furlan, an associate scientist at the Institute for Work & Health (IWH) and the new coordinating editor at the Cochrane Back Review Group. She had to keep a sense of panic in check. Once she ruled out more serious problems by completing a diagnostic tool, she tried not to think of the pain in catastrophic terms.

"I had to remind myself that the acute pain will eventually go away," says Furlan. "I knew this, but it didn't make it feel better."

The episode was a powerful reminder of the potentially life-altering impact of the pain. Back pain is one of the most common health problems in industrialized countries, but it's also very misunderstood. About eight in 10 people in industrialized countries are expected to experience low-back pain—the most common kind—at some point in their lives.

Pain in the lower back is sometimes caused by an ordinary activity—in Furlan's case, coughing too hard. In most cases, it goes away after a couple of weeks. But about 10 to 15 per cent of the time, the pain lingers for months, potentially developing into chronic pain. And in some people, the pain comes back again and again over the years, for no clear reason.

Clinicians still know very little about why or how acute pain becomes chronic pain. And once the pain becomes chronic, they know very little about how to treat it. In addition to that knowledge gap—or perhaps because of it—there's a real tendency on some patients' parts to perceive the pain as a lifelong disabling condition.

Overtaken by discomfort, people with low-back pain will often consider an array of treatments—including some with questionable evidence. As one retired nurse from Hamilton, Ont. puts it, "I've tried physiotherapy, exercise, acupuncture, a TENS unit, a body cast. If it was available, I've tried it. I will admit I even had a laying on of hands."

To Furlan and her fellow researchers at the Cochrane Back Review Group (informally referred to as the Back Group), that desperate need among patients and clinicians for guidance about how to treat or cope with back pain is what drives their research agenda. Celebrating its 15th anniversary this year, the Back Group was set up to bring forward evidence-based health interventions for neck and back pain and other types of spinal disorders (though fractures and inflammatory diseases are outside its scope).

Hosted by IWH in Toronto, the Back Group is one of 53 groups that make up the Cochrane Collaboration. The Collaboration is an international effort to improve health care by shining a light on the best evidence available. It, too, is celebrating an anniversary this year—its 20th.

"In the early years, our work was very much about sorting through the weaknesses in the literature on this condition," says IWH Senior Scientist Dr. Claire Bombardier, who co-founded the Back Group along with the world-renowned Swedish orthopedic surgeon, Dr. Alf Nachemson. "The literature at the time was very compartmentalized. It had a very surgical approach, and many of the randomized controlled trials that were done at the time didn't have high quality methodology."

The bread and butter of Cochrane groups are systematic reviews. These research studies are conducted according to a format designed to be as scientifically rigorous as other forms of research such as experiments and trials.

Dr. Claire Bombardier and Dr. Andrea Furlan

In a systematic review, researchers set out with a clear question—"What's the effectiveness of intervention X on those with condition Y?"—and thoroughly search the scientific literature for the best available evidence on that question. They then review the studies carefully to grade each for the quality of the study design (were there control groups?), the strength of its findings (might there be other explanations for the results?) and so on.

The goal is to synthesize the available research for a wide audience—patients, clinicians, policy-makers and other scientists—and give them a sense of what works and what doesn't. The reality tends to be less black and white, says Furlan, who took over from Bombardier this fall as

coordinating editor for the group. It's not often that systematic reviews can say in a sweeping manner whether a given intervention works. It might work for a subset of patients but not another. Or it might work in the short term but not the long run.

"Most of the interventions we've reviewed don't fall into black and white boxes. They fall into a grey box in the middle. But even that is helpful," says Furlan. "It's helpful to patients and clinicians to know which treatments are in the grey zone, because it means that they could still try them. An intervention that doesn't work for one person may still work for someone else."

That's not to say there's nothing in the black and white boxes. Several strong recommendations have emerged out of the group's work (see sidebar). The group has also looked at several treatments that are sometimes viewed with skepticism and not found evidence against them.

"If you look at the systematic reviews of spinal manipulation and acupuncture, the findings don't show that these interventions are any worse than others. They also don't show that they are any better," says Dr. Maurits Van Tulder, a health technology assessment professor at the VU University Medical Centre and the VU University in Amsterdam who shares the coordinating editor role with Furlan. Many patients will seek these interventions out anyway, especially if their symptoms don't improve, he adds.

The public needs to understand that inconclusive systematic review findings often stem from the fact that too few randomized controlled trials have been done to answer the question being asked by the systematic review. But that's changing, says Van Tulder. In just the 15 years he's been involved with the Back Group, Van Tulder has seen a rise in the number of randomized controlled trials. It's a sign that appreciation for evidence-based health care is growing.

The scope of the group's work is also expanding. In the early years, Back Group reviewers focused mainly on intervention treatments, and relatively little work was done on ways to diagnose and predict the outcome of the condition.

The reason for that, says Furlan, is that the way to measure the effectiveness of interventions—namely, through randomized controlled trials—tends to be more straightforward and easier to assess for quality. By contrast, studies of causes and prognoses are more varied in design. Plus, they require more time and resources to do, particularly if they involve longitudinal or follow-up studies. As a result, fewer of these studies are out there for reviewers to synthesize.

Nevertheless, the Back Group is starting to tackle different types of reviews. Furlan is now reviewing studies on opioid treatments to look for adverse outcomes. The group is also starting to assess the effectiveness of interventions in relation to cost—a real-world concern that hasn't always been reflected in the scientific literature.

"The thinking about back pain has evolved tremendously," says Bombardier. Increasingly, researchers and clinicians are starting to view back pain not as a one-time occurrence but as a recurring condition. From that perspective, researchers will need to do more long-term follow-up work to understand the different patterns of recurrence experienced by patients. "Most of the trials currently aren't taking this into account."

Furlan knows that, to the non-scientific world, progress on back pain may seem slow. She is optimistic, however, that the work of building evidence will matter over time.

Even now, she continues to hear radio ads publicizing the use of traction to treat back pain, which she knows doesn't work for most people. Knowing how people with back pain can be vulnerable to any kind of pitch, Furlan hopes that the work of the Cochrane Back Review Group will one day filter through to the public at large.

For more information on the Back Group, go to: www.back.cochrane.org. See also the editorial marking the group's 15th anniversary in the November 2013 issue of the medical journal, *Spine*.

WHEN YOUR BACK HURTS

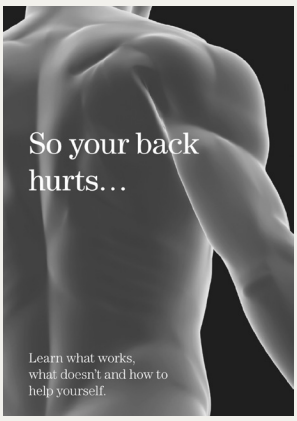
In a fitting illustration of just how common back pain is, Cochrane Back Review Group co-founder Dr. Claire Bombardier also had her own experience of debilitating back pain. "I was screaming in the night. I couldn't even get up to go to the bathroom," she recalls. Like Furlan, the potential for panic was real.

"If it weren't for my work at the Back Group, and the fact that I knew the evidence, I would have been running to the emergency room asking for surgery," says Bombardier. "It was unbelievably helpful to me that I was aware of the evidence. Most patients don't have that."

To help bring that evidence to patients, IWH produced a booklet called *So Your Back Hurts...*, which was reviewed by the Back Group. Here are a few of its recommendations.

- **Activity:** Move around as much as possible within the limits of your pain, and try to do a little more every day. Ask your clinician about special back exercises. It's important to do them properly.
- **Pain-relieving drugs:** In most cases, over-the-counter pain relievers such as acetaminophen (e.g. Tylenol) or ibuprofen (e.g. Motrin, Advil) are safe and effective. Muscle relaxants (e.g. Robaxacet, Robaxisal) can sometimes be helpful, but they may have troublesome side effects.
- **Spinal manipulation:** Delivered by trained practitioners such as chiropractors, physiotherapists or physicians, this may offer short-term relief for acute low-back pain.
- **Heat:** You might get short-term relief from applying low-level heat to the lower back.
- **Massage:** Delivered by regulated massage therapists, this can help reduce the pain and improve your ability to function. It can also help you relax.

For a copy of *So Your Back Hurts...*, go to: www.iwh.on.ca/so-your-back-hurts.



Leading indicators project tests five tools for ability to predict injury claims

With help from 1,800 Ontario employers, IWH team probes workplace factors for link to future claims

Imagine a boardroom meeting where the human resources director runs through some metrics and concludes, "These numbers tell us our injuries will likely go down in the next five years. They'll decrease even more if we focus our health and safety efforts on these specific areas."

That's the goal driving the Ontario Leading Indicators Project (OLIP) at the Institute for Work & Health (IWH). OLIP is a large study designed to find organizational and management measures that can be used by workplaces and system partners to gauge and improve health and safety performance before injuries and illnesses occur.

Working in partnership with four Ontario health and safety associations—Workplace Safety & Prevention Services (WSPS), Workplace Safety North (WSN), Public Services Health & Safety Association (PSHSA) and Infrastructure Health & Safety Association (IHSA)—the study is assessing five different potential leading indicator tools through a survey administered to employers across Ontario.

"Imagine the difference it could make to workplaces if employers could tell by looking at some metrics what programs they need to pay attention to, to prevent injuries and illness from occurring," says Dr. Ben Amick, IWH senior scientist and project lead.

Gathering the data

It's quite an undertaking. Finding the indicators means sifting through a mountain of data—not to mention compiling that data in the first place. On that task, OLIP researchers have had invaluable help from about 1,800 workplaces in Ontario—from family-run factory shops to multi-site global players with thousands on the payroll.

These employers set aside time for a few individuals to take the 20-minute survey. They also agreed to let the research team link up the results of their survey (with identifiers removed) with claims records kept by the Workplace Safety and Insurance Board (WSIB). This allows researchers to correlate survey results with job-related injury and illness claims.

This fall, the earliest participants from among these employers are receiving benchmark reports based on their survey scores. These reports let the organizations know the health and safety areas in which they're doing well, and the areas that need improvement—scoring everything from their policies and practices to training and worker participation.

The benchmark reports also let participants know how they're doing relative to the other organizations that took part in the survey. In industry sectors and subsectors with at least 10 participating employers, the reports also indicate how well participants stack up against their peers.

"Companies have been keen to receive this information," says Illia Tchernikov, knowledge broker at WSPS, which recruited a significant number of participants to date. "They find it innovative, and they understand the true value of the endeavour. Senior managers understand the need to manage risk, and being able to look ahead is a key part of risk management."

With the distribution of the first benchmark reports, OLIP is now well into its next phase, which is to recruit employers in the province's construction, transportation, electrical and utilities sectors. All other organizations in Ontario are also welcome to take part and have until January 2014 to join the project.

A composite of five tools

Meanwhile, work is ongoing to identify the scores that correlate the most with the organizations' WSIB claims rates over five years. The scores may indicate which of the five tools that make up the OLIP survey are the most helpful measures of organizational health and safety performance. The five tools selected have emerged from the scientific literature looking at several distinct, though related, influences that may be at play :

- joint labour-management health and safety committees;
- safety culture—a set of shared beliefs, values and attitudes about safety that could lead to observable behaviour;
- safety climate—how workers perceive the way managers and supervisors deal with safety issues;
- organizational policies and practices; and
- occupational health and safety management systems.

Of the five tools in the survey, four have been validated in previous studies. (One of these has been found to track injury claims in Ontario and New Brunswick. See www.iwh.on.ca/at-work/73/new-brunswicks-work-safenb-adopts-iwhs-safety-culture-yardstick for a story about on a study.) Whether one tool stands out from the others as a predictor of injury and illness is something OLIP might be able to answer.

"This is a very exciting time for IWH," Amick says. "The OLIP team has been working hand in hand with Ontario prevention system partners to produce a set of scientifically credible leading indicator tools that people can use. We know workplace parties are watching. Our hope is to build a lasting resource for Ontario."

There's more about the development of leading indicators, including research to date and related challenges, in the Institute's newest *Issue Briefing*. It's available at: www.iwh.on.ca/issue-briefings. For more on OLIP, including a sample survey, a full description of the five tools being studied, as well as a sample benchmarking report, go to: www.iwh.on.ca/olip. For more on a related leading indicator project—Organizational Performance Metric (OPM), one of the five tools included in OLIP—go to: www.iwh.on.ca/opm. ✚

A round-up of IWH research funded by external grants

Fall is a time to give thanks. The work of finding evidence for workplace health and safety practices would not be possible without funding support—both in core funding from the Province of Ontario and external grants from research funding agencies and programs. Here's a snapshot of some of the studies being undertaken by Institute for Work & Health (IWH) scientists, thanks to external grants received between January 2012 and June 2013.

Employment needs and experiences of older workers with arthritis and diabetes

As the first of the baby boomers reach the traditional age of retirement, increasing numbers say they want or need to stay in the workforce. But many feel they can't because of a chronic health condition. Those are the people at the centre of a new IWH study by Dr. Monique Gignac and her team.

"There has been a lot of talk about the aging workforce and, let's face it, it is here," she says. "So when mature workers say, 'I want to keep working,' are they going to be able to do that?"

The study zeros in on two common chronic illnesses among older workers: arthritis and diabetes. Both conditions can be managed, but symptoms can flare up, potentially making work very difficult. Both are also invisible conditions, so people living with them typically have to decide whether or not to divulge their health problems and ask for accommodation at work.

In this study, Gignac will recruit 1,500 workers from across the country and compare the experiences of those with arthritis or diabetes to those with no disabling conditions. Among the questions she'll be asking are: What kinds of work accommodations do people need? Are they available? Are they used? And do they help?

Supervisor training program for work disability prevention

Too often, the knowledge and skills required to ensure that injured workers are successfully brought back to work reside within a small handful of experts in the workplace—the human resources manager, return-to-work coordinator and/or disability management professional.

A new study will look at the impact supervisors might have on successful return to work (RTW). Dr. Vicki Kristman leads the team that will evaluate a supervisor training program developed in the U.S. and modified for use in the context of Canadian hospitals. The study aims to improve the ability of supervisors to solve RTW problems in order to decrease work disability and improve return-to-work rates. The study will be carried out at a large Toronto-area hospital and at a similar-sized hospital in the U.S.

"The goal is to improve supervisors' ability to communicate with employees, unions, health-care providers and to improve their response to workplace injuries, in order to decrease time away from work due to injury," Kristman says. "Providing supervisors with tools to improve their response to musculoskeletal and other workplace injuries may improve worker health and disability outcomes."

Impairment and work disability of Ontario workers' compensation claimants (1998 2006)

The workers' compensation system in Ontario experienced a major change in 1998. Among other things, the wage-replacement rate was reduced from 90 per cent to 85 per cent and a new emphasis was put on getting people back to work. Dr. Emile Tompa, who has done research on issues related to income loss and benefits adequacy among workers' compensation claimants prior to 1998, is now turning his attention to the experiences of claimants under the new system.

In this study, Tompa and his team will examine findings from linking two sets of data: Workplace Safety and Insurance Board (WSIB) claims and Statistics Canada's Longitudinal Administrative Database (a sample of 20 per cent of Canadians who file taxes). The goal of the study is to better understand how claimants fare financially in the new program, says Tompa.

"Are their benefits adequate? What's their earnings trajectory? Are poverty issues a concern? Are there people falling through the cracks? How well do they fare compared to those who are not injured? And how well do they fare compared to claimants from earlier programs?" Tompa asks. "This is what we want to find out."

All three studies above are funded by the Canadian Institutes of Health Research (CIHR). For a complete list of grants, including those funded by the WSIB, the World Health Organization, the Australian Research Council Scheme and the Canadian Arthritis Network, go to: www.iwh.on.ca/grant-round-up.

MORE TO COME...

Two other grants we're excited to tell you about will be featured in future issues of *At Work*. Briefly, Dr. Peter Smith has been awarded a CIHR Chair in Gender and Work Health. Also, the Social Sciences and Humanities Research Council (SSHRC) has awarded a seven-year grant to Dr. Emile Tompa and Dr. Ellen MacEachen. This new initiative will look at the future of work disability policy in Canada. Called the Centre for Research on Work Disability Policy (CRWDP), this is a cross-Canada research initiative with clusters in British Columbia, Ontario, Quebec and Newfoundland.

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Here are a few easy ways to keep up on IWH research, news, events and more.

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People with diabetes and heart disease are eight times more likely to not work

continued from page 1

The study, published in the July 2013 issue of *Ageing and Society* (doi:10.1017/s0144686x13000457), draws on three cycles of Statistics Canada's Canadian Community Heath Survey between 2000 and 2005. It has a total sample of 129,000 people who were either working or not working due to health reasons.

Photo: Stock

The study examines seven chronic conditions that are most prevalent among older adults. These are hypertension, heart disease, diabetes, arthritis, back problems, migraines and thyroid conditions. It finds each of these has an impact on workforce participation—but to varying extents.

Of the seven, heart disease has the strongest link with not being in the workforce, and thyroid conditions the weakest. Having heart disease puts people at about three times the risk of not working when compared with those without the condition.

The risk of not working for those with diabetes, arthritis or back pain is about twice as high as it is for people who don't have these conditions. However, as arthritis is the most common of the conditions, it is linked to the greatest number of people not being at work.

Three pairs of conditions examined

The researchers also look at the effects of these conditions when in pairs. People with heart disease and diabetes are over eight times more likely to not be in the labour market compared to people without either condition. People with arthritis and heart disease are seven times more likely to be out of the labour market than people with neither condition, and people with both arthritis and back pain are five times more likely than people without these conditions to be out of the labour market.

One of the surprise findings for Smith is the fact that the impact of health conditions does not differ for people with different levels of education.

"We expected the effects of chronic conditions to be greater among people with less education who, one might assume, would be more likely to be in working environments with higher physical demands and lower levels of control," says Smith. He adds that further study would be needed to probe for the reasons why those differences were not seen.

Also needed are studies on programs to keep people with chronic conditions at work to understand if they are effective, he adds.

"There haven't been a whole lot of intervention studies in this area," says Smith. "For example, simple things like giving workers more autonomy and flexibility through the work day might be effective at allowing people with certain conditions to stay at work." ■

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