

# outwork

## IN THIS ISSUE

2 / What researchers mean by... peer review

3 / Studies consistent in finding a link between opioids for MSDs and longer work disability

4 / National conference on disability and work offered sweeping view of complex issues

5 / Family members play important but unacknowledged role in injury aftermath

7 / Examining forepersons' safety leadership and other indicators of safety climate

Photo ©iStockPhotos/StaceyNewman

## Newcomers often lack OHS protection and information in their precarious first jobs

A study by the Institute for Work & Health examines the labour market experiences of newcomers to Canada and identifies a key role for settlement agencies

Newcomers to Canada often experience difficulty finding work and, as a result, find themselves in precarious first jobs where they lack health and safety protection, according to a study by an Institute for Work & Health (IWH) team.

The qualitative study set out to examine newcomers' experiences looking for work, the resources they accessed, their understanding of their rights at work, and the extent to which they received training about health and safety. The team shared its findings last fall at a full-day Research & Policy Forum on Immigration, Work & Health at Toronto's City Hall and in an IWH Speaker Series presentation. Slidcasts from both presentations are now available.

The team conducted this research with the support of four settlement agencies—three in the Greater Toronto Area and one in eastern Ontario. The researchers held in-depth interviews with 22 key informants in the immigration and employment field (including service providers, program developers and policy-makers). They

also held focus groups with 110 immigrants and refugees who were working or looking for work at the time. Some of these focus group discussions took place in Arabic and were later translated.

A number of main themes emerged from the study.

**Great difficulty looking for work:** Almost all participating newcomers, regardless of their immigration stream, reported difficulty finding work. They cited language barriers, their lack of Canadian experience and a lack of recognition of their foreign credentials as the main challenges.

**Poor quality first jobs:** First jobs for nearly all study participants were poor quality, precarious jobs characterized by short-term contracts, part-time hours and poor working conditions (i.e. lacking protective equipment or involving strenuous, physical labour). Many were concentrated in manufacturing, food services or domestic work. These were sectors that were new to many of the study participants.

continued on page 6



### Institute for Work & Health welcomes new member to the KTE Advisory Committee

The Institute for Work & Health (IWH) is honoured to welcome Tom Zach to its Knowledge Transfer and Exchange Advisory Committee (KTEAC). Zach has worked as a communications professional within the public and private sectors for over 30 years. Currently, he is the director of government and stakeholder relations at the Public Services Health and Safety Association. He is there on secondment from his previous position as director of communications and marketing for the Ontario Ministry of Labour.

Zach replaces Maria Papoutsis, who retired last year from her role as director of the Health and Safety Policy Branch at the Ontario Ministry of Labour. The Institute is grateful for the guidance Papoutsis has offered over the years as a member of a committee that advises IWH on its knowledge transfer and exchange activities.

### IWH awarded one of 14 CIHR grants examining the effects of cannabis on society

A research team at IWH has been awarded one of 14 new cannabis-related research grants recently announced by the Canadian Institutes of Health Research (CIHR). The team, led by Dr. Peter Smith, senior scientist at IWH, and Dr. Nancy Carnide, post-doctoral fellow at IWH, was awarded a one-year CIHR Catalyst grant to study the attitudes and habits of Canadians around cannabis consumption in the workplace. This will establish baseline data for possible further research on changes following the legalization of recreational marijuana. The 14 grants were announced in January by Liberal MP **Bill Blair**, parliamentary secretary to the Minister of Justice and Attorney General of Canada and to the Minister of Health. "We acknowledge the need to expand our knowledge when it comes to the health effects of cannabis, as well as the behavioural, social and economic implications of its legalization and regulation," Blair said.

## STAY CURRENT



Follow us on Twitter:  
[www.twitter.com/iwhresearch](http://www.twitter.com/iwhresearch)



Connect with us on LinkedIn:  
[www.linkedin.com/company/institute-for-work-and-health](http://www.linkedin.com/company/institute-for-work-and-health)



Subscribe to our YouTube channel:  
[www.youtube.com/iwhresearch](http://www.youtube.com/iwhresearch)



Sign up for IWH News:  
[www.iwh.on.ca/e-alerts](http://www.iwh.on.ca/e-alerts)

## WHAT RESEARCHERS MEAN BY...

# peer review

### Peer review is a quality control process in which researchers submit their work to other experts—their peers—for evaluation

Suppose you are a government official deciding what research studies should be funded. Or maybe you're the editor of an academic journal, considering whether a study should be published. How would you know whether the science was valid?

Assessing the validity of a scientific study often requires specialized technical expertise on a range of methods, from sampling to data collection to analysis. And because scientific progress depends on new ideas and innovation, establishing appropriate standards and criteria to evaluate novel approaches can be difficult.

So research disciplines have turned to peer review: having other experts in the field judge the work of their professional equals or peers. The peer review process provides quality control throughout the life cycle of a research project. It is used by research funding agencies to decide which proposals should be given money to proceed. Many scientific conferences use peer review to select presenters. And academic journals use the process to evaluate papers submitted for publication.

Let's take a closer look at the example of peer review at a scientific journal. Typically, when a paper is submitted, the journal editor will scan it first to make sure it complies with the journal's guidelines on relevance, length and style. Then, this editor will look through the journal's roster of willing reviewers to find researchers who have good knowledge of the subject matter. Most journals use at least two reviewers to assess each article submission.

Usually, the identity of the reviewer is not revealed to the author, although some open access journals publish reviewer names. Some journals will take an additional step and mask the identity of the study authors as well (a practice called double-blinding). This is to minimize the risk that a personal or professional relationship may influence the review. Where the identity of the author is not concealed, reviewers will declare any potential conflict of interest they may have. Many researchers will decline to review a paper if they've previously collaborated with the study authors or if they are colleagues at the same institution.

The job of reviewers is primarily to comment on the quality of the science. They consider whether the study design is appropriate for the research question, whether the methods used to recruit participants minimize the potential for bias and can be replicated, and whether the conclusions drawn by the study author are supported by the data. They also consider whether the work is novel or innovative, or makes an important contribution to scientific knowledge.

Based on these and other considerations, reviewers recommend rejecting the paper or accepting it—either as submitted or, most often, in a revised form that takes into account reviewer comments and suggestions. Sometimes reviewers will disagree with each other in their assessments of the study. The debate between reviewers can be vigorous, and is an important element for improving the quality of the science.

The peer review process has its challenges. Reviewers are busy researchers who aren't paid for their reviews. With the volume of research and published studies on the rise, it can be difficult to find reviewers. However, many reviewers find they learn a great deal from participating in the peer review process. Many also like being up to date on new research and feeling part of the academic community.

Peer review is an important process by which scientists help each other improve their work. It also binds researchers into a community where they mutually rely on each other for thoughtful and constructive expert evaluation and feedback. From the very inception of a study to the sharing of its findings, peer review helps ensure that a study meets quality standards before it becomes part of the scientific record.

# Studies consistent in finding a link between opioids for MSDs and longer work disability

**But high risk of bias across available studies limits ability to draw conclusions about cause and effect**



A review of five studies found the prescribing of opioids to treat acute musculoskeletal disorders (MSDs) is linked to longer duration of time on disability. However, the review authors advise caution in drawing conclusions about cause and effect from these findings, given the studies' methodological or design limitations.

The review, conducted at the Institute for Work & Health (IWH), set out to examine what the research to date says about the link between opioids prescribed soon after onset of an MSD and work outcomes such as length of work absence and return to work. It focused on opioid prescriptions written within 12 weeks of onset of a musculoskeletal injury or disorder—i.e. prescriptions likely meant to treat acute or subacute pain, rather than chronic MSDs.

The team found a link between early prescription of opioids and prolonged work disability in four of the five studies included in the review. “The review found a consistency across the studies suggesting opioids are associated with prolonged disability,” says Dr. Nancy Carnide, an IWH

post-doctoral fellow who led the systematic review as part of her doctoral dissertation.



Dr. Nancy Carnide

“It’s certainly worth noting that we didn’t see positive work outcomes associated with opioids. But despite that consistency, we need to be cautious in drawing the conclusion that opioids cause disability.” The review was published in the July 2017 issue of the *Clinical Journal of Pain* (doi: 10.1097/AJP.0000000000000452).

## Five studies found

In light of the overwhelming evidence on the risks of opioid use, workers’ compensation agencies in many jurisdictions have taken steps to improve the prescribing of opioids among claimants with MSDs, says Carnide. To support optimal opioid

prescribing management, the team set out to conduct a systematic review, to see what the existing research says about opioid prescriptions and work outcomes.

“We set out to do a systematic review that synthesizes only high quality evidence. In the end, that was not possible due to the high risk of bias in the studies we found,” says Carnide. “But given the importance of this issue, we ultimately decided to present the study findings, along with a more detailed discussion of the methodological limitations found in each of these studies.”

The team found only five studies in the research literature up to July 2014 that met review criteria. “We excluded studies that had no controls, such as case series studies. We also set out to specifically look for studies that attempted to demonstrate the opioids preceded the work outcome, so cross-sectional studies that provided a snapshot in time were not included,” says Carnide. None were randomized controlled studies, the gold standard in study design.

## Selected findings

Most of the studies included in the review had been conducted using administrative data. Four were based on workers’ compensation claims in the U.S. and Canada for work-related back injuries; one was based on motor vehicle insurance claims in Australia. All studies focused on work disability outcomes derived from wage replacement benefit data, namely time on benefits or benefit status.

Four out of the five found workers with early opioid prescriptions were at higher risk of experiencing a longer disability duration. A fifth study focused on the length of time between prescriptions—an indicator for the authors of how closely the prescriptions were monitored. This latter study found prescriptions that were written in shorter intervals were linked to shorter disability duration; those written further apart were linked with longer disability duration.

continued on page 8

# National conference on disability and work offered sweeping view of complex issues

## Many barriers to inclusion discussed at conference co-hosted by Centre for Research on Work Disability Policy

What would a national strategy towards greater inclusion of people with disabilities in the Canadian labour market look like? And where do we begin when setting out to develop such a strategy?

The barriers to inclusion in the paid labour market for persons with disabilities are many. The issues are complex, multi-faceted and deeply intertwined. And that's not to mention the diverse viewpoints, experiences and programs to consider—from individuals with different health conditions and functional limitations to the various systems and policies across the country, all with their own legacies and constraints.

For the organizations that co-hosted last fall's National Conference on Work Disability in Canada, a starting point was embracing diversity and inclusivity. The three-day conference, held in Ottawa from November 27-29, was organized by the Centre for Research on Work Disability Policy (a seven-year research initiative with its national office at the Institute for Work & Health), the Canadian Council on Rehabilitation and Work, the Ontario Network of Injured Workers Groups and InclusionNL.

The conference brought together stakeholders from across the country. Delegates included policy-makers from both the federal and provincial levels, employers, and representatives from community service organizations, unions and the research community. Most importantly, the approximately 150 delegates included many injured workers and persons with diverse disabilities—visible and invisible, episodic and chronic, mental and physical.

As presenters and delegates noted often throughout the three days, the statistics are concerning. According to Statistics Canada, the employment rate among people with disabilities was 49 per cent in 2012, much lower than the 71 per cent figure for people without disabilities. Likewise, the

unemployment rate among people with disabilities was 11 per cent, nearly double the six per cent rate among people with no disabilities.

And as long-time academic and advocate Dr. Michael Prince, University of Victoria's Lansdowne Professor of Social Policy, observed in his keynote remarks, little progress has been made over the years.

Prince did note signs for optimism, such as the fact that two federal ministers spoke at the conference and offered encouraging remarks. Kent Hehr, then Minister of Sport and Persons with Disabilities, spoke of pending federal accessibility legislation that will focus on equality of opportunity across all areas under federal jurisdiction. And the Honourable Patricia Hajdu, Minister of Employment, Workforce Development and Labour, spoke of an initiative to examine unintentional bias within her department. She also noted the importance of ensuring the path forward reflects the real needs of the communities involved.

The conference program reflected the broad array of issues to tackle. Among the many topics participants heard about were:

- the different—sometimes overlapping and sometimes conflicting—income support programs across Canada, the legal structures and requirements set up around these programs, and the potential incentives and disincentives they create for work participation of people with disabilities;
- the adequacy of wage replacement benefits for injured workers who qualify for workers' compensation;
- the resources needed by employers to help them find their way around workplace accommodation issues;
- the potential roles of adaptive technology and greater work flexibility in workplaces;
- the increasing automation of workplaces and its implications for jobseekers with disabilities;

- the potential of a basic income guarantee as a policy mechanism to address many of the issues raised; and
- the potential role of the United Nations Convention on the Rights of Persons with Disabilities as a policy lever.

### Stories shared

In keeping with the organizers' respect for the diversity of viewpoints, the conference program also offered up many opportunities to hear people's stories. Participants on the lived-experience panel spoke of the frustration of not being recognized for their potential. They spoke of the additional risks involved with taking steps such as accepting a job, taking on more hours or starting a business; doing so may mean loss of income supports and difficulty qualifying for support renewal down the road, if required.

From the employer panel, delegates heard stories of generally positive experiences from representatives of Jazz Aviation, Giant Tiger, Sodexo, Dolphin Digital and Deloitte. For example, Michael MacDonald of Jazz Aviation spoke of an aircraft maintenance engineer with a hearing impairment who was shown by a functional evaluation to be capable of doing her job safely. MacDonald noted that her presence on the crew has helped make work safer for all. Instead of using only verbal alerts to let co-workers in the noisy hangar know when an aircraft is being elevated on a hydraulic lift, workers on her crew now use eye contact and shoulder taps to individually alert each other.

"Everybody goes around the room saying, 'The plane is about to go up. Get out of the way.' And everybody feels a lot safer just from that," Macdonald said.

Coming out of this conference, a framework for developing a national strategy on the inclusion of people with disabilities in the labour force will be published later this year. It will spell out areas that need development, people who need to be involved, and high-level goals to aim for. To see this document, and other conference materials, go to: [www.crwdp.ca](http://www.crwdp.ca). ■

# Family members play important but unacknowledged role in injury aftermath

## A study of three Australian compensation systems recommends support for burdened family members



When an accident left Morten in a wheelchair with severe traumatic injuries, family members stepped up and offered to help. His sister Claire arranged his accommodations and looked after his finances. His 80-year-old mother did his cooking, fussed over his meal times and otherwise kept a constant watch over him.

Morten, a man living in the Australian state of Victoria, often felt lucky that his family was so willing to provide the intensive, day-to-day care he needed. But other times, he felt uneasy being so reliant on them. He could see these relationships breaking down over time. That was why he was relieved to learn that he qualified for the services of professional caregivers as part of his compensation. And, according to his sister, getting those services was a big break for the family.

Morten was one of the people recovering from an injury who took part in a qualitative study on the impact of the recovery and compensation process on family members. The study was part of a larger project examining interactions between key stakeholders in three compensation systems in the state of Victoria—including two workers' compensation systems and one no-fault insurance system for traffic-related

injuries—to understand the pros and cons of each system's approach.

The part of the project focused on family members was led by Dr. Agnieszka Kosny while she was at Australia's Monash University during a sabbatical leave from the Institute for Work & Health. It was based on interviews with nearly 20 injured persons and nine family members. A journal article on this study was published in *Disability and Rehabilitation* in February 2017 (doi: 10.1080/09638288.2017.1283450).

### Stress, strain among key themes

The study found that family members play an important role in the aftermath of an injury—one that's seldom formally acknowledged by compensation systems in policy or procedure. It also found that the recovery and injury compensation process can have a major impact on family members, particularly in the case of prolonged and complex injuries and illnesses. As a result, the study authors recommended that compensation systems should formally consider the role of family members and develop support programs for them as a means of improving health and function among injured people.

Through interviews with injured

participants and their family members, the study identified several themes:

**Different types of support:** The support provided by family members spanned the gamut—from personal bodily care such as giving baths or dressing wounds to household chores such as doing laundry and yard work. Family members not only shouldered the expanded burdens of child care, elder care and paid employment, they often had to take on new responsibilities related to the compensation process. These included filling out forms, following up on claims requests and getting the injured individuals to medical appointments. Family members also provided emotional support by talking with and listening to the injured person—which was especially important when the injured person ran into difficulty with the compensation process.

**Family as a source of strain and stress:** Even when family members provided welcome help, tensions sometimes arose when the injured persons felt their privacy and independence were compromised. Injured individuals at times felt this strain when they considered how much time and energy family members were spending on caring for them. Other times, the feeling that family members didn't fully appreciate their symptoms and functional limitations also led to conflict.

**Financial impact on family:** Beyond changes to family roles and dynamics, the financial impact of an injury on the family could be considerable. Even when compensated, the injury often resulted in many out-of-pocket expenses. Some family members had to cut back on paid work due to the additional burden of child care, housework and medical appointments. In addition, the worry that the injured person could lose his or her employment often weighed heavily on the family.

**Family context:** Families didn't always fit the assumed model. Sometimes, family members also had pre-existing medical conditions that hampered their ability to

continued on page 6

# Family help assumed

continued from page 5

provide support. Other existing obligations could pose a challenge as well, such as when family members had elderly parents or children with developmental disabilities to care for. Some families were already experiencing strained relationships prior to the injury, and the aftermath only amplified these difficulties.

## The compensation context

The interactions with compensation bodies could also shape the experience for the family. One issue brought up frequently by study participants was the lack of support offered as part of the compensation process. (When available, the information about such support may not have been shared.) This lack or perceived lack of support services added to the strain experienced by the injured individuals and their family caregivers.

“The compensation bodies seemed to take it as a given that the injured individuals all had family members to help with the day-to-day activities, pick up the additional child care, or be there for financial and emotional support,” says Kosny. “The study participants by and large said it was clear that this help was needed, but case managers seldom acknowledged it, and offers of formal support were rare.”

While not all injuries or illnesses will have a major impact on the family, several participants in this study were affected profoundly. And yet, while the injured individuals had access to health care and mental health services, this was not always the case for the family members. Formal services offered as part of the compensation process—such as the professional caregivers provided to Morten—could go a long way to improve the health and well-being of injured individuals and their family members, notes Kosny.

“If family members are to play an active role in assisting injured people during recovery, then support services must be available for family members who need them,” she adds. 📌

# Study finds OHS information lacking in job prep services

continued from page 1

## Reliance on community networks:

Many study participants found their first jobs through community contacts, such as businesses run by other newcomers. These businesses sometimes provided no health and safety training. Participants sometimes spoke of their reluctance to speak up about work conditions due to their personal connections with employers.

## Limited knowledge about employment standards and occupational health and safety (OHS):

Although most participants had accessed employment preparation services, the help offered by these services was mainly focused on resumé building, networking or cultural competency training.

Participants reported getting very little information about employment standards or health and safety rights. As for training provided by employers, some said the only health and safety training they received was about client safety—not that of workers.

## Programming constraints on the part of service providers:

Many of the programs offered by service agencies were “client-driven,” which meant that jobseekers could get health and safety information only if they asked for it. Because service providers often did not have the time or resources to offer comprehensive programming, newcomers were referred to external websites that sometimes did not contain any health and safety information or were difficult to navigate. In almost all cases, agencies’ services ended when a client found a job; follow-up on work outcomes and experiences was rare.

## Early impact

This research has been well received by stakeholders, by both community agencies and policy-makers, says Dr. Basak Yanar, an IWH research associate on the team. Ontario’s Ministry of Citizenship and Immigration is already taking steps.

In its funding agreements with agencies delivering settlement and integration services for refugees and vulnerable newcomers, the ministry is adding a requirement that agencies provide in-class training on OHS and employment standards as part of their economic integration programming.

And at the KEYS Job Centre—a non-profit organization in Kingston, Ont., that provides employment services to Canadians and newcomers—information about OHS and employment standards is now incorporated into its job preparation program. Since they started offering this programming, KEYS staff have noted a marked difference in post-hire conversations. “Our clients are telling us about health and safety issues at work and reporting incidents,” notes Karl Flecker, an immigrant employment specialist at KEYS. “We are slowly building empowerment.” 📌

## IN THEIR OWN WORDS

Study participants were asked about their experiences finding work as newcomers to Canada. Here are some examples of what they said:

“I work in factory. After I came here maybe for three months or four months, I was working in that, picking the package, the cartons, and keeping in the skids. And I told my supervisor it is very heavy, and the job without people. I am just one. And now I have a problem in my back. I feel that I can’t bend myself. He told me, remember, if you will go now, I will send a report against you to the temporary agency and I will tell them that you have a problem in your back...they will not call you again for any kind of job. And maybe they will cancel your file.”—Focus group participant, Greater Toronto Area (GTA)

“I think that this [chemical liquid] is not good for me, because all the time I have a runny nose, I cough and I sneeze. I think it’s [chemical liquid], and I need to tell the manager that this one is not good for me. And then she told me if you say that, maybe you’re going to lose your job. Because she said I need you to do [it]... And so it’s very hard for me, because she’s from my country. I know her in my country, we have a tradition. You have to respect somebody if she’s older than you ... So, I have to respect her, but sometimes she abuse(s) [me].”—Focus group participant, GTA

# Examining forepersons' safety leadership and other indicators of safety climate

## 2017 Nachemson lecture focuses on leading indicators of safety climate developed for construction jobsites

Back in 2012, when Dr. Linda Goldenhar looked around for research on safety climate and safety culture, she and her colleagues were surprised to find that these concepts had not been widely researched for use in the construction sector.

In other high-hazard industries such as aviation and nuclear energy, it had long been recognized that efforts to reduce the likelihood of catastrophic events needed to go beyond engineering solutions, she noted. The safety values embraced and practised at the workplace were crucial to such efforts.

That was why Goldenhar and her colleagues at CPWR—The Center for Construction Research and Training based in Silver Spring, Md., set out to learn what the indicators of safety culture and safety climate are in the construction industry. They invited construction stakeholders to a workshop to help them in their quest.

At the workshop, participants defined safety culture as the safety-related beliefs, attitudes and values espoused by an organization, and safety climate as employees' perceptions of the consistency between what their company espouses and what is actually practised on the jobsite. Participants also agreed that, compared to safety culture, a positive safety climate is more likely to result in positive change. So that was where Goldenhar's team focused its efforts.

"Construction, as you can imagine, is more complicated than other industries. That's because multiple safety climates come together on any one jobsite. And each is influenced by local conditions, the project owner and the project manager," said Goldenhar, CPWR's director of research and evaluation, speaking at the 2017 Alf Nachemson Memorial Lecture.

The lecture, hosted annually by the Institute for Work & Health (IWH), took place last November in Toronto. A slidecast of Goldenhar's lecture, as well as other past Nachemson slidecasts, can be viewed on IWH's

Nachemson web page ([www.iwh.on.ca/nachemson-lecture](http://www.iwh.on.ca/nachemson-lecture)).

In addition to the definitions, workshop participants agreed on what they believed are the eight leading indicators of safety climate on construction worksites (see sidebar). Does management demonstrate a commitment to safety? Is everyone at a jobsite held accountable for safety? Are workers involved in safety-related planning and encouraged to discuss potential hazards? Do supervisors have the skills to lead by example and show how to create and maintain positive safety climate at the jobsite?

### 8 LEADING INDICATORS AND 5 KEY LEADERSHIP SKILLS

According to CPWR—The Center for Construction Research and Training, the eight leading indicators of jobsite safety climate are:

1. Demonstrate management commitment
2. Align and integrate safety as a value
3. Ensure accountability at all levels
4. Improve supervisory leadership
5. Empower and involve employees
6. Improve communication
7. Train at all levels
8. Encourage owner/client involvement

According to CPWR's training module for safety leaders, Foundations for Safety Leadership, the five critical skills of a jobsite safety leader are:

1. Leading by example
2. Engaging and empowering team members
3. Actively listening and practising three-way communication
4. Developing team members through teaching, coaching and giving feedback
5. Recognizing team members for a job well done

The team developed a practical workbook that includes individual worksheets for each indicator, with descriptions and activities to help workplace parties assess the maturity of their organization's safety climate.

For example, with respect to demonstrating management commitment, users are asked to reflect on whether managers frequently come to the jobsite and seek out interactions with employees. Do they conduct safety audits only when someone is injured, or do they actively participate in audits and use the results in their own performance evaluations? In addition to the descriptions, each worksheet contains ideas for improvement that workplaces can implement in the short, medium or long term.

Another tool Goldenhar described at the lecture was one aimed at improving supervisors' safety leadership, one of the eight leading indicators. With funding from the National Institute for Occupational Safety and Health (NIOSH), Goldenhar and her team developed a training module for supervisors.

The 2.5-hour training module, called Foundations for Safety Leadership (FSL), is designed to give construction forepersons and lead workers the critical skills they need to become effective safety leaders (see sidebar). The FSL training program defines a safety leader as someone "who has the courage to demonstrate that s/he values safety by working and communicating with team members to identify and limit hazardous situations even in the presence of other job pressures such as scheduling and costs."

This training program was recently integrated, as an elective module, into the U.S.'s Occupational Safety and Health Administration 30-hour training that many companies and unions require their new forepersons to complete. It can also be taught as a freestanding course. All materials, including the training and leading indicators workbooks, can be downloaded free of charge from CPWR's website:

<https://cpwr.com>. 📄

## AT WORK

*At Work* is published by:

Institute for Work & Health

Editor: Uyen Vu

Contributors: Cindy Moser, Monica Bienefeld, Monique Gignac, Peter Smith, Nancy Carnide

Layout: Uyen Vu, Jan Dvorak

Communications Manager: Cindy Moser

Director, KTE: Monica Bienefeld

President: Cameron Mustard

Issue #91 / Winter 2018 / ISSN # 1261-5148

© Copyright 2018

## 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

## MISSION

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.

## BOARD OF DIRECTORS

### CHAIR

Kevin Wilson

Former Assistant Deputy Minister, Policy, Program and Dispute Resolution Services  
Ontario Ministry of Labour

### VICE-CHAIR

Lewis Gottheil

Former Director, Legal Department, Unifor

### DIRECTORS

Melissa Barton

Director, Organizational Development and Occupational Health, Safety and Wellness  
Sinai Health System

Mark Dreschel

Senior Vice-President, Organizational Excellence  
Bird Construction

Kelly Jennings

Senior Consultant, Jennings Healthcare Consulting

Melody Kratsios

Senior Program Manager, AECOM

Louise Lemieux-Charles

Professor Emeritus, Institute of Health Policy, Management and Evaluation, University of Toronto

Cameron Mustard

President & Senior Scientist  
Institute for Work & Health

Norman Rees

Chief Financial Officer, Vector Institute

Emily A. Spieler

Chair, IWH Scientific Advisory Committee  
Edwin W. Hadley Professor of Law  
Northeastern University School of Law

Michael Wolfson

Adjunct Professor, Epidemiology and Law  
University of Ottawa



The Institute for Work & Health operates with the support of the Province of Ontario. The views expressed in this publication are those of the Institute and do not necessarily reflect those of the Province of Ontario.

# Review of opioids and work outcomes found no study showing positive effects

continued from page 3

Despite the general consistency in findings, the team found the included studies were at high risk of bias. The reliance on administrative data had some advantages (such as accurate recording of time on benefits as an outcome).

However, this data source also came with challenges. The review found uncertainty as to whether the studies accurately measured participants' use of opioids. Participants may not have taken all the medication they were prescribed, or they may have had access to prescription opioids outside the insurance or compensation claim that was not recorded in the studies.

Another inherent challenge faced by researchers, particularly when using administrative data to investigate this topic, is what researchers call "confounding by indication," says Carnide.

"A big challenge is how to tease apart the relationship between the underlying reasons for receiving the prescription—such as significant pain, poor function or distress—and the outcome. Is it the opioid itself causing disability, or is it the underlying reason leading to the opioid prescription that's behind the prolonged disability?"

While a strictly causal interpretation of the findings in these studies is not yet warranted, "there is nothing in the literature that suggests opioids are linked with positive work outcomes," she adds.

"In fact, there is little evidence to suggest they are effective even for pain and function in musculoskeletal disorders, such as back pain. Given what we know around the risks of opioid use, considerable caution is needed before considering opioids as treatment for workers with MSDs." ■

## FINDINGS FROM THE STUDIES INCLUDED IN THE REVIEW

The review led by the Institute for Work & Health's Dr. Nancy Carnide looked for studies examining opioid prescriptions given to working-aged adults for a musculoskeletal disorder (MSD), within the first 12 weeks of onset. It found five studies that had work disability as an outcome. The findings of these studies are summarized below:

- In a 2007 U.S. study (doi: 10.1097/BRS.0b013e318145a731) of 8,443 workers' compensation claimants with acute disabling work-related low-back pain, study participants were divided into five groups according to the strength of the opioid prescriptions issued in the first 15 days. Those who were not prescribed opioids were on benefits for 121 days, on average. In comparison, those who were prescribed the highest doses of opioids were off work for an average of 190 days, an average of 69 days longer.
- One 2009 study in Washington state (doi: 10.1097/BRS.0b013e318160455c) based on 1,843 workers' compensation claimants with a back injury examined different levels of exposure to opioids (for example, number of days prescribed). It found opioids were prescribed early in about a third of the cases and, in half of these cases, opioids were prescribed at the first consultation. Once results were adjusted for pain, function, injury severity and other factors, opioid prescriptions for more than seven days were found to double the risk of work disability one year later.
- A 2009 study conducted in the province of Alberta (doi:10.1097/BRS.0b013e3181971dea) analyzed workers' compensation data for 47,784 back pain claimants between 2000 and 2005. It found a link between receiving an opioid prescription in the first two weeks of a claim and longer time on benefits. However, this association was found for the prescription of non-opioid painkillers as well.
- A 2012 U.S. study of 1,422 cases (doi:10.1097/JOM.0b013e3182479fae) of low-back pain focused on the length of time between opioid prescriptions—considered by the authors as an indication of the level of monitoring by the prescribing health-care provider. After controlling for demographic and severity indicators, the study found disability duration rose 14 per cent with every additional week between prescriptions.
- A 2013 study of 5,970 traffic injury patients (doi: 10.1016/j.aap.2012.11.010) in Australia found the risk of work disability six months after the injury was double for patients who had received an opioid prescription within 10 days of the accident.