A quarterly publication of the Institute for Work & Health
Issue 94 Fall 2018

at work

IN THIS ISSUE

Photo ©iStockPhotos/coldsnowstorm

IWH review outlines promising strategies to prevent prescribed opioid abuse

Research synthesis by Institute for Work & Health examines programs and policies aimed at reducing the misuse and abuse of prescription opioids and preventing overdose deaths

Communities across North America continue to struggle to contain the opioid epidemic. Last year, there were 3,996 opioid-related deaths in Canada—surpassing the 2016 death toll of 3,005, which itself was a record at the time. Similarly, in the U.S., the 2016 record of 64,000 deaths was also overtaken by the 2017 toll of 72,000 opioid deaths.

Although a growing share of this death toll (73 per cent in Canada) can be attributed to the proliferation in recent years of highly potent synthetic opioids (e.g. fentanyl), the misuse and abuse of prescribed opioids has been identified as a root cause of this crisis and continues to be an important cause of opioid overdose deaths.

Since the epidemic began in the late 1990s, efforts to prevent this misuse and abuse have taken many different forms across North America. To help decision-makers in Canada tap into the lessons they offer, a team at the Institute for Work & Health (IWH) conducted a systematic review, now available as an open-access paper in the *Canadian Journal of Pain* (doi:10.1080/24740527.2018.1479842).

The review, published in July 2018, provides a comprehensive assessment of the studies evaluating strategies that have been tried for promoting the appropriate prescribing of opioids, reducing their misuse and abuse, and preventing overdose deaths. It also describes any unintended consequences of such strategies reported in the reviewed studies.

The systematic review found 65 articles published between the late 1990s and 2015 that examined the effectiveness of 66 interventions or programs. From among these, the review identified eight promising strategies cutting across the various interventions, namely:

- education aimed at health professionals and/or opioid users;

continued on page 6

IWH's Dr. Peter Smith named to executive team

The Institute for Work & Health (IWH)'s Senior Scientist **Dr. Peter Smith** joined the executive committee in August. Smith was named an Associate Scientific Director, sharing the role with Associate Scientific Director and Senior Scientist **Dr. Monique Gignac**. Together, they are responsible for managing the scientific excellence of IWH, and aligning the research priorities and commitments of IWH to contribute to the research needs of stakeholders. To learn more about the full IWH executive team, go to: **www.iwh.on.ca/executive-team**.

Announcing 2018/19 Syme fellows

Two early-career researchers have been awarded the 2018/2019 Leonard Syme Training Fellowships in Work & Health. Congratulations to **Corey McAuliffe**, PhD candidate in social and behavioural health sciences at the University of Toronto's Dalla Lana School of Public Health, and **Julia Goyal**, PhD candidate at the University of Waterloo's School of Public Health and Health Systems. To learn more about the Institute's fellowships, go to: **www.iwh.on.ca/opportunities**.

Conference to review strategy on improving work opportunities for people with disabilities

Registration is now open for Disability and Work in Canada 2018, a national conference being co-hosted by the Centre for Research on Work Disability Policy (CRWDP) in Ottawa, December 4 and 5. Since the first Disability and Work Conference was held in November 2017, efforts have been underway to develop a vision and strategy for increasing the employment of people with disabilities. The conference aims to obtain feedback on a draft strategy and to achieve broad consensus on key elements of that strategy. CRWDP is a seven-year pan-Canada research initiative housed at IWH. For more information, go to: **www.crwdp.ca/en/disability-and-work-canada-national-conference-2018**.

STAY CURRENT

Follow us on Twitter:
www.twitter.com/iwhresearch

Connect with us on LinkedIn:
www.linkedin.com/company/institute-for-work-and-health

Subscribe to our YouTube channel:
www.youtube.com/iwhresearch

Sign up for IWH News:
www.iwh.on.ca/subscribe

What Research Can Do

How IWH findings, methods and expertise are making a difference

Drawing on IWH's Seven 'Principles' in return-to-work policies, practices

The evidence-based guide on successful return to work has shaped workplace policies and clinical practice in Ontario and beyond

In 1997, the Ontario government enacted Bill 99, the *Workers' Compensation Reform Act*, that outlined several changes related to return to work (RTW). This bill introduced the responsibility for employers and workers to maintain contact with one another and work cooperatively to achieve "early and safe return to work." This change in practice left workplace parties searching for guidance. What is the right way to stay in touch with injured workers when they're off work? And what exactly does "early and safe return to work" look like?

In response, the Institute for Work & Health (IWH) began conducting a series of systematic reviews to answer these important questions, focused on identifying the most effective workplace approaches to support RTW, stay at work and recovery for injured and ill workers. These reviews led to the development of the popular and widely used Seven "Principles" for Successful Return to Work.

The Seven Principles guide is far and away the top item downloaded from the IWH website. But people are doing more than just downloading and reading the guide. In 2008, it was adapted into a tool for occupational therapy practice by the Occupational Therapist Educationally Influential (OT EI) Network, in partnership with IWH, the Ontario Society of Occupational Therapists and the College of Occupational Therapists of Ontario. The tool, called Working Together, consolidated the principles into four stages reflecting occupational therapy practice processes. There is also evidence of the guide being adopted as a practice standard in other jurisdictions. For example, the Singapore Association for Occupational Therapists adapted the tool for use as a guide for occupational therapists in Singapore in 2016.

The IWH's Seven Principles has also been used by workplaces in their RTW and accommodation programs. For example, when management and union representatives at Niagara Health set out to design and implement a new RTW/accommodation policy, the seven principles were a key factor informing the policy development.

In 2011, Niagara Health management and representatives of the hospital's three unions—Ontario Nurses' Association (ONA), Ontario Public Service Employees Union (OPSEU) and Service Employees International Union (SEIU)—recognized that their disability management policy needed renewal. They jointly committed to developing a new policy, with support from not-for-profit external advisors and the Ontario Federation of Labour's Occupational Disability Response Team (ODRT) leading the renewal.

The new policy incorporated components identified in IWH's Seven Principles. Flo Paladino, executive vice-president of people and organizational development at Niagara Health, noted that IWH research made an important contribution to the design of the new policy. It includes an emphasis on early contact, the integration of supervisors in the development of RTW plans, the provision of education and training to managers and supervisors, and the designation of both disability case managers and—a distinctive feature—union representatives as RTW coordinators.

Paladino also affirmed the success of the initiative. "The RTW/Accommodation policy we implemented in 2012 has enabled important improvement in the consistency of efforts to return our valued staff to work after a health absence," she said. The new policy was well received by employees. It led to improved quality and consistency of disability management practices at Niagara Health. In addition, the policy's success was seen in reduced duration of time off after a work-related injury—from 19.4 days in the three years before the change, to 10.9 days in the three years after. This 45-per-cent improvement was much higher than the 25-per-cent improvement seen in a peer group of 29 hospitals over the same period.

The guide can be found at: **www.iwh.on.ca/tools-and-guides/seven-principles-for-successful-return-to-work**. This column is based on an impact case study, published in December 2017.

Calculating the costs of employers' work-related injury prevention efforts in Ontario

New IWH Issue Briefing lays out estimates of employer spending on worker health and safety in 17 sectors

One approach advocates often take in calling for better worker protection is to point to the high costs of work-related injuries and illnesses—whether borne by injured workers and their families, employers or society at large. For employers, the financial consequences are tied to lost productivity, staff replacement, property damage, higher insurance premiums or workers' compensation surcharges, to name only a few.

It's a compelling argument, and estimates of the costs of work-related injuries and illness are readily available. A 2013 literature review by Quebec's Institut de recherche Robert-Sauvé en santé et en securité du travail (IRSST), for example, found 40 studies (the first going back to the 1930s) that estimated the costs of work-related injuries using empirical data.

Not as easy to find are estimates of the amount employers spend to control or eliminate the causes of these work-related injuries and illnesses. When a team of researchers at the Institute for Work & Health (IWH) recently set out to conduct such an estimate, it found limited information on what employers spend on average on occupational health and safety (OHS).

"This information is important to better inform public policy aimed at influencing employer investments in OHS," says Dr. Cameron Mustard, president and senior scientist at IWH and lead investigator on this project. "It was remarkable to us that estimates of employer expenditures to protect the health of workers were not widely available."

As a result of the team's work, estimates of employer OHS expenditures are now available for 17 sectors in Ontario. The cross-sector average in 2017 was $1,303 per worker per year. OHS expenditures per worker per year were three times higher in the goods-producing sectors ($2,417) than in the service sectors ($847). These results are reported in an open-access paper published online in October by the *Scandinavian Journal of Work, Environment and Health* (doi:10.5271/sjweh.3778) and summed up in a recent IWH Issue Briefing (see: **https://www.iwh.on.ca/summaries/issue-briefing/what-do-employers-spend-to-protect-health-and-safety-of-workers**).

Five areas of OHS spending calculated

To gather data on employer investments, the research team recruited more than 300 employers with more than 20 employees from 17 economic sectors, taking care to ensure that the sectoral make-up of the participating employers roughly mirrored the make-up of the province's economy.

At each organization, the team asked a representative knowledgeable about the organization's OHS programs to complete a workbook. Based on a method developed and tested by the International Social Security Association (ISSA), the team asked the representative about staff time commitments and financial expenditures in five areas: organizational management and supervision; staff training in health and safety; personal protective equipment; professional services provided by external organizations; and the share of new capital investment attributed to OHS improvements. Not included in these estimates are employers' workers' compensation premiums; these are not strictly related to OHS prevention but, rather, are costs related to wage-replacements, Mustard explains.

The results show that the share of spending in each of the five categories was roughly the same across sectors. Across all sectors, the largest share of OHS expenditures went to organizational management and supervision, accounting for about 55 to 62 per cent of total OHS spending. What's more, JHSC activities accounted for a third of the payroll costs captured in this category.

"These findings show the importance of employer investments in the overall worker protection system," says Mustard. If the average estimate of $1,300 per worker per year is extrapolated to all employers in Ontario with 20 or more employees, then employer spending on workplace health and safety is somewhere in the range of $5 billion dollars a year in the province, he notes. That's well above the yearly amount of $200 million spent on government prevention services, including labour inspection and enforcement services. The aggregate OHS expenditure for employers in the Ontario economy is also greater than the annual benefit payments of $2.7 billion provided by the Ontario Workplace Safety and Insurance Board to workers who have experienced a work-related injury or illness.

"A clearer understanding of employer expenditures to protect the health of their workers can help us better understand the significant progress made over the past decade in workplace injury prevention," adds Mustard.

Emerging issues and innovative prevention approaches seen in latest IWH projects

New projects at IWH include research on accommodating chronic, episodic conditions, measuring workplace cannabis use, and integrating OHS and health promotion

Researchers at the Institute for Work & Health (IWH) are constantly on the lookout for emerging work health issues and innovative approaches to preventing occupational injury and work disability. Three new studies featured below, taken from among the grants awarded to the Institute in the period between June 2017 and August 2018, are a few examples.

Addressing accommodation and communication barriers across different chronic conditions

At first glance, chronic health conditions such as depression and Crohn's disease, arthritis and anxiety, or HIV and multiple sclerosis seem to have very little in common. They differ in their causes and symptoms; they usually involve very different treatment and management strategies.

Yet these conditions do have at least one thing in common: they are often invisible, episodic and unpredictable. People living with these conditions can be in good health for considerable periods of time, but then experience debilitating symptoms for bouts of uncertain duration. As such, these individuals can encounter difficulties asking for workplace support and accommodation—or even disclosing their health condition. This may lead to them being misperceived by managers and co-workers as lacking motivation or not being up to the task, which further marginalizes them in the workplace.

In a large, four-year project jointly funded by the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR), IWH Senior Scientist and Associate Scientific Director Dr. Monique Gignac is leading a team to examine accommodation and communication challenges faced by people with episodic chronic conditions.

"One of the project's objectives is to develop evidence-based tools, resources and training to help workers living with these conditions access the support they need without giving up their privacy," says Gignac.

A feature of this project is the involvement of diverse health charities as partners. Their participation reflects an innovative perspective on workplace accommodation challenges—one that sees past the specific diseases and their particular symptoms to focus instead on the common experiences of people living and working with these conditions.

"It's a wonderful opportunity to collaborate," says Kate Lee, vice-president of research and patient programs for Crohn's and Colitis Canada, one of the partner organizations on the project. "The commonality of these conditions—the fact that they're chronic, episodic and invisible—is what brings us together. And it's what we need to talk about, not necessarily the specific symptoms."

For individuals with multiple sclerosis, asking for workplace supports can be a complex challenge, as symptoms can be so unpredictable when they do flare. "We're excited to see what support we can provide to individuals with these issues—such as how to talk to their supervisors about their disease," says Abidah Shamji, manager of government relations at the MS Society of Canada. "But I'm also interested in developing supports for the workplaces themselves. We haven't understood enough about what happens on the workplace side of things. How can we use research like this to have the most effective conversations?"

And for mental illness, growing public awareness of the issue means that now, more than ever, managers and supervisors need tools and resources to support workers with these conditions, says Jordan Friesen, national director of workplace mental health at the Canadian Mental

Partners and researchers meet at the September 2018 launch of the "Accommodating and communicating about episodic disabilities (ACED)" project. From left: Aaron Thompson, medical director of occupational disease, Workplace Safety and Insurance Board; Jordan Friesen, national director, workplace mental health, Canadian Mental Health Association; and Sarah Jenner, executive director, Mindful Employer. Photo: Sara Macdonald

Health Association. "Employers are starting to recognize their responsibilities in supporting employees with mental illness, but the conversations around how to manage and support these employees are still challenging," he says. "The knowledge and skills to do so are still lacking."


Dr. Monique Gignac

The project, called "Accommodating and communicating about episodic diseases (ACED)," gets underway this fall. Other partner organizations include the Great-West Life Centre for Mental Health in the Workplace, Mindful Employer Canada, the Ontario Ministry of Labour, Realize Canada, the Arthritis Society and the University of Toronto.

Understanding behaviour and attitudes related to at-work cannabis use

On October 17, 2018, Canada legalized the use of cannabis for non-medical purposes. This major policy change has raised concerns among workplace parties about potential implications for workplace productivity and occupational health and safety (OHS). One key concern is the lack of evidence upon which workplaces can build effective policies and prevention approaches. Indeed, researchers know virtually nothing about the current magnitude of cannabis use in Canadian workplaces—including use during work, on breaks and in the hours prior to beginning a work shift—let alone how use patterns might change following legalization.

A research project by the Institute seeks to fill that knowledge gap by gathering pan-Canadian data on cannabis use at work, as well as workers' perceptions of, and attitudes towards, such use. As part of the study, a team co-led by IWH Post-Doctoral Fellow Dr. Nancy Carnide and IWH Senior Scientist and Associate Scientific Director Dr. Peter Smith surveyed more than 2,000 people across a wide range of industries and occupations.

The team asked respondents about their cannabis use at work prior to legalization, their intentions to use cannabis in the workplace following legalization, their current reasons for use and the expected effects of that use in the workplace, their knowledge of cannabis effects, their perceptions of risk and consequences of workplace use, as well as their perceptions of workplace cannabis norms and workplace cannabis availability. The researchers are now analyzing the data, and findings are expected later this year. Funding for the study, called "Toking 9 to 5: Clearing the haze on cannabis consumption in Canadian workplaces," comes from a CIHR Catalyst Grant.

"It's important to us to examine not just actual at-work cannabis use, but also attitudes about such use," says Carnide. "The legalization of recreational cannabis will likely change social norms and perceptions of risk around cannabis use. Studies elsewhere have shown a link between cannabis use and risk perception, so it's important to capture in data any change in attitudes about cannabis use at work." The survey was conducted in the months leading up to legalization and can thus provide a pre-legalization baseline for future research examining the impact of this change.

GRANT ROUND-UP 2017-2018

In addition to the Institute for Work & Health (IWH)'s core funding from the Ontario Ministry of Labour, IWH scientists compete for peer-reviewed grants from funding agencies. A list of grants awarded between March 2017 and September 2018 is available online. To see it, scroll to the bottom of this article on IWH's website: **www.iwh.on.ca/newsletters/at-work/94/emerging-issues-and-innovative-prevention-approaches-seen-in-the-latest-iwh-projects**

Developing guidance on integrating OHS and health promotion programs at work

Employers in Canada are required to provide OHS programs and activities to prevent worker exposure to job-related risks and hazards. Some voluntarily offer workplace health promotion programs that help workers improve their health through individual behaviour changes such as exercising or having a healthy diet. Research has started to show that OHS and health promotion programs can provide greater benefits to workers' overall health and well-being when they're blended together. This approach has been popularized through initiatives such as the U.S. National Institute of Occupational Safety and Health's Total Worker Health™ program.

However, Canadian employers lack guidance as to how to develop and implement integrated OHS and health promotion strategies that are appropriate for our distinct labour and health-care contexts. A new study led by IWH Mustard Post-Doctoral Fellow Dr. Avi Biswas sets out to fill that gap.

The study, funded by the Alberta OHS Futures research grants program, begins with an environmental scan to identify research on approaches to integrating OHS and workplace health promotion, as well as the barriers and facilitators of the approaches. The team will then work with stakeholder partners, including the Alberta Cancer Prevention Legacy Fund, Energy Safety Canada and the Graham Lowe Group, on a consensus-building process to identify guiding principles that can be used by workplaces in Alberta and Canada to integrate OHS and health promotion activities.

"We expect to be able to offer recommendations to employers, with concrete steps to implement," says Biswas. He adds that he hopes this study forms the first phase of a multiphase project, an outcome of which would potentially be a workplace scorecard and assessment tools for an integrated approach, based on this study's recommendations.

Multiple strategies needed to curb misuse and abuse of prescription opioids

continued from page 1

- clinical practice changes;
- naloxone distribution;
- prescription monitoring programs;
- regulatory changes;
- collaborations across different disciplines and professions;
- public health campaigns; and
- opioid substitution treatments.

The programs that worked most effectively were those that combined multiple strategies, according to the review. "Many of the studies we found looked at interventions that combined more than one type of strategy and examined many different outcomes," says Emma Irvin, IWH director of research operations and head of the Institute's systematic review program. "We see this as a good sign of wide recognition that this is a complex public health problem, one that should involve multi-pronged strategies that cut across the system."

A comprehensive synthesis

Systematic reviews conducted elsewhere have examined the effectiveness of specific strategies, such as medical treatments for opioid use disorders, supervised consumption sites, and community naloxone distribution programs, among others. In contrast, the IWH review aimed for a more comprehensive synthesis. It set out to include all existing strategies that could be implemented in North America. To that end, the review included only studies implemented and evaluated in North America, Europe and Australia/New Zealand.

In recognition that many studies would not be published in peer-reviewed journals, the review team also looked beyond academic journals and included the grey literature (i.e. conference proceedings, white papers, reports and the like). It focused on content aimed at health professionals and health regulators, governments, public health and health promotion agencies, prevention and treatment organizations, workers' compensation boards, private insurance companies and law enforcement agencies. Due to limitations on the time and resources to conduct the review, the team excluded research produced by military organizations, pharmaceutical companies or for-profit organizations.

And in recognition that answers are urgently needed, the team modified an integral part of the usual IWH systematic review method: the quality appraisal. Although the review did flag limitations and potential biases in the studies included, it did not filter out studies due to quality issues (e.g. methodological problems). "We understand that it takes time to build up a body of quality evidence," says Dr. Andrea Furlan, IWH scientist and one of the co-leads on the review. "We don't have the luxury of time when it comes to this issue."

Eight promising strategies

The 65 studies included in the review are all worth reading by anyone developing a program to prevent the misuse and abuse of prescription opioids. Each outlines a unique approach reflecting a specific context, involving particular sets of system actors, and integrating the distinct needs and available resources of the affected communities. Not surprisingly, the review revealed considerable diversity, even within each of the following categories of promising strategies.

Education: These strategies involved formal teaching to improve knowledge or training to impart specific skills. Examples of educational strategies included workshops or continuing medical education aimed at health professionals on managing chronic pain or safe opioid prescribing. They also included community-based education aimed at raising awareness among pain patients and those who use drugs about the risks of opioids. Of the 66 interventions examined, more than half included an education strategy.

Clinical practice: These strategies involved changes in how health care was delivered, such as the implementation of recommendations from clinical practice guidelines, the adoption of a tool to improve opioid prescribing, the introduction of urine drug tests, or the implementation of disease management programs. As with education, about half of the intervention programs included a clinical practice change.

Naloxone distribution: Naloxone is a prescribed medication that reverses the effects of opioids in the brain and restores breathing. In this review, only four studies found a large positive effect for an intervention on reducing opioid overdoses and deaths; in three of these four studies, the intervention involved some type of naloxone distribution—for example, with the use of collaborative practice agreements between pharmacies and prescribers, or via programs that train individuals who use opioids on the use of take-home naloxone kits.

Prescription monitoring programs: Prescription monitoring programs involve the use of electronic databases meant to help pharmacists detect patients who fill multiple prescriptions of the same drug from many different providers, engage in "doctor shopping" to find willing prescribers, or divert prescribed opioids to the illicit street market.

Regulations: Many of the interventions included in the review involved some kind of regulatory change. One example was a state requirement that emergency room (ER) doctors check the prescription monitoring program before giving opioid prescriptions to ER patients; another was a regulatory change to allow pharmacists to dispense naloxone on a doctor's standing order.

Collaborations: Ten of the included interventions involved collaboration across disciplinary or professional groups. For example, in a health department program to treat people with opioid use disorder using buprenorphine, patients were monitored for an average of 20 weeks by a physician and pharmacist pair; the goal of the collaboration was to reduce the costs involved when maintenance is done only by physicians.

Public health: Public health campaigns were included in five of the studies. One example was a multi-pronged public health program that included prescribing

guidelines, one-on-one educational visits with prescribers, timely dissemination of prescribing and mortality data to local media, public service announcement broadcasts, town halls and stakeholder meetings.

Opioid substitution treatments: Opioid substitution therapies involved the use of prescribed methadone or buprenorphine for opioid use disorder and dependence. This type of strategy was usually combined with clinical or educational strategies.

Studies about supervised consumption sites, a strategy that has garnered quite a bit of public attention, were not included in this review. The studies that were done on this strategy within the timeframe of this review were mostly focused on illicit drug use—not prescription opioids, Irvin explains. In addition, they were primarily interested in outcomes such as the transmission of communicable diseases such as HIV/AIDS—outcomes that were beyond the scope of this review, she adds.

The systematic review also highlighted several unintended consequences of implemented strategies, which were reported in 19 of the 65 studies. Examples of unintended consequences for health-care providers included additional burden on staffing and workload. For the target population, examples included patients not receiving necessary prescriptions, increased stigma and police harassment due to the carrying of naloxone kits, and increased use of, and overdoses on, other substances such as morphine, hydromorphone and heroin.

The IWH team is now working on a follow-up synthesis of the studies that came out after 2015, the cut-off point of this systematic review. The team is encouraged that many of the promising strategies in this review have already been implemented in Canada in recent years, says Irvin. "As communities across Canada develop responses to this still-growing public health crisis, the IWH systematic review team hopes decision-makers will consult this synthesis—and the studies upon which it is based—when planning and implementing interventions." ✚

Developing a new screening tool of psychosocial hazards

IWH lends tool development expertise to StressAssess, OHCOW'S new measure of toxic workplaces

Ridicule and belittlement, gossip and backstabbing, unclear job expectations, unfair treatment, relentless work demands: research shows people who experience these and other similar psychosocial conditions at work are at risk of developing stress injuries. They're also at greater risk of a range of negative health outcomes. Consequences for the workplace itself include poor morale and engagement, high absenteeism and high staff turnover.

As chronic mental stress becomes recognized as a compensable work-related injury by a growing number of compensation systems across Canada, workplaces have more reason than ever to tackle toxic work environments as they would any other safety hazard.

To support efforts by workplaces to address psychosocial hazards, the Occupational Health Clinics for Ontario Workers (OHCOW) and the Canadian Centre for Occupational Health and Safety (CCOHS) released a tool called StressAssess earlier this year.

The free online survey tool, validated with statistical analysis by the Institute for Work & Health (IWH), can be used by workplaces to anonymously, collectively and confidentially gather information about current work conditions and psychosocial hazards.

The tool was developed in response to a gap in the system's response to workplace stress, says John Oudyk, OHCOW hygienist and one of the lead researchers behind the tool. Referring to a widely adopted framework of three types of prevention, Oudyk also notes that resources to help organizations tackle stress are generally limited to secondary and tertiary prevention. Secondary prevention, aimed at reducing the impact of a disease or injury that has already occurred, would include workplace mental health awareness and screening programs such as Mental Health First Aid. Tertiary prevention, aimed at softening the impact of ongoing illness or injury, would include employee assistance programs or return-to-work programs.

continued on page 8

WHAT STRESSASSESS MEASURES

StressAssess integrates the Copenhagen Psychosocial Questionnaire with additional questions, following input from stakeholder consultations and pilot testing. Below are the topics it covers:

Work demands: time to get work done; work pace; emotional demands; unpaid hours

Job/employment factors: job security; job stability; full- vs. part-time work; multiple jobs; work/life conflict; accommodation for outside responsibilities

Quality of job: influence (influence over workload and how to do work); possibilities for development; meaning of work; commitment; role conflicts; job satisfaction

Values: vertical trust; justice and respect (conflict resolved fairly and work distributed fairly); predictability (being kept well-informed); recognition (being appreciated and treated fairly); role clarity (knowing what is expected, having clear objectives)

Supports: leadership; supervisor support; colleague support

Physical environment: workstation quality (air, noise, lighting, temperature, ergonomics); hazardous exposures (to chemicals, radiation, solitary work)

Workplace culture: accident investigation style; violence and harassment policy effectiveness; tolerance of behaviours harmful to mental health; discrimination; vicarious offensive behaviours

Health symptoms: burnout, stress, sleeping troubles; somatic symptoms; cognitive symptoms

AT WORK
At Work is published by:
Institute for Work & Health
Editor: Uyen Vu
Layout: Uyen Vu, Jan Dvorak
Communications Manager: Cindy Moser
Director, KTE: Monica Bienefeld
President: Cameron Mustard
Issue #94 / Fall 2018 / ISSN # 1261-5148

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.

Ontario

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.

StressAssess validated to ensure it measures what it aims to measure

continued from page 7

"The one piece that has been missing is primary prevention at the organizational level—changing the workplace so that we reduce stress," says Oudyk, adding that StressAssess can help identify the harmful psychosocial work exposures to address.

The need for such a tool came up as far back as 2009, when an OHCOW stakeholder sub-committee of union representatives and other worker advocates decided to form the Mental Injuries Tool Group. The group examined and tried out screening tools already available, and reviewed the theories of workplace stress that underpinned the tools. The group ultimately chose the Copenhagen Psychosocial Questionnaire (COPSOQ), developed in Denmark in 1997, because it incorporated many different theories.

The COPSOQ measures psychosocial factors along six dimensions: work demands, work organization, relationships, work values, work/life balance and offensive behaviours. The tool group added to this list—in response to a pilot test of the survey as well as consultations with stakeholders—questions about symptoms (burnout, stress, sleep troubles, and cognitive and somatic symptoms), accident investigation styles at the workplace, and hazards in the physical environment (see sidebar on page 7).

"When we piloted the survey, one of the comments we got back was, 'There are stresses due to safety hazards that we experience in the workplace that aren't being captured in this questionnaire,'" explains Oudyk. The additional questions touched on safety hazards, workstation ergonomics, physical factors such as noise and lighting, air quality, dangerous chemicals, biological hazards, radiation, driving hazards and working alone.

The group also added, to the category of offensive behaviours, a question on discrimination and another on vicarious offensive behaviour. "The research clearly shows that you don't have to be the victim of bullying or harassment at the workplace to suffer the consequences," says Oudyk. "Bystanders are also affected by this type of behaviour in the workplace."

The modified survey was given to a sample of 4,000 workers across Canada in 2016. The responses were then analyzed by IWH Associate Scientific Director and Senior Scientist Dr. Peter Smith to determine the survey's validity and reliability. With this type of analysis, called confirmatory factor analysis, the aim was to make sure each of the questions contained in the tool actually measures what it is designed to measure.

"You would want to make sure that a question about a concept such as job control, for example, brings up answers about that concept only," says Smith. "You wouldn't want the answers to be about another concept such as workload, or even about multiple concepts, such as a mashup of job control and something else." This level of precision is important both to identify the specific work condition that workplaces need to target in their prevention efforts, and to measure any change in that condition as a result of the intervention, he adds.

"Many workplace psychological assessment tools and questionnaires are out there. However, some were developed many decades ago in different labour market contexts, and others developed more recently have not been validated," says Smith. "OHCOW has done a lot of work to make sure this tool is a good, valid measure of psychosocial conditions in Canadian workplaces of today."

With the validated tool, OHCOW now has a resource to help workplaces start a conversation about toxic work conditions, says Oudyk. Responses from the sample of 4,000 people also provide a country-wide average against which individual workplaces can measure themselves.

"OHCOW is very grateful for the guidance and analysis that IWH provided," says Oudyk. "Workplaces are finding it easy to use this tool, and we hope that it will help in improving the psychosocial conditions in Canadian organizations." ✚