A quarterly publication of the Institute for Work & Health
Issue 101 Summer 2020

atwork

IN THIS ISSUE

Photo ©iStockphotos.com

Workplaces face many complex challenges when managing episodic disabilities: study

In interviews with IWH, employers describe difficulties supporting workers with invisible, recurring health conditions while respecting their privacy

Workplaces are increasingly aware that they need to update their disability management model to support workers who have episodic disabilities.

That's according to an Institute for Work & Health (IWH) interview-based study that examined employer perspectives on supporting workers with episodic health conditions, published as an open access article in the *Journal of Occupational Rehabilitation* in May 2020 (doi:10.1007/s10926-020-09901-2).

Episodic disabilities arise from long-term conditions that are characterized by periods of good health interrupted by periods of illness and disability, which can be unpredictable in severity and duration. These types of conditions—examples of which can include depression and anxiety, arthritis and lupus, Crohn's and colitis, multiple sclerosis and HIV/AIDS—are often invisible to others.

"The model where the worker gets sick, the workplace asks for a doctor's note, the doctor's note says this is how long the worker will be off, and so on—that model doesn't work very well for episodic conditions in terms of providing timely support or maintaining trust. Employers are recognizing that," says IWH Senior Scientist Dr. Monique Gignac, lead author of the study and principal investigator on a five-year research partnership called Accommodating and Communicating about Episodic Disabilities (ACED). For more about the project, go to: **https://aced.iwh.on.ca**.

"Organizations are aware that they need a new model for accommodating workers in situations when they might not know exactly what diagnosis they're dealing with, how long a period of disability might last, or when it might happen again."

continued on page 4

IWH has a new address

After nearly 20 years at 481 University Avenue, the Institute for Work & Health (IWH) had to move out to make way for a 55-storey condominium. We did not go far. We're still in the same Toronto neighbourhood, close to the Dundas Street and University Avenue intersection. As of August 2020, our new address is:

Institute for Work & Health
400 University Avenue, Suite 1800
Toronto, ON M5G 1S5

Our phone and fax numbers remain the same.

World Congress 2021 hosting free 'COVID-19 and OSH' virtual session in early October

On October 5, 2020, a half-day special session on COVID-19 and occupational safety and health (OSH) is being offered by the organizers of the 2021 World Congress on Safety and Health at Work. (IWH is a national co-host of the global event.) This free, virtual session will feature thought-leaders discussing innovations in addressing COVID-19 in the workplace, how the future of work is being shaped by the global pandemic, and the relevance of promoting a culture of prevention to address COVID-19. Additional sessions are also being organized for October 6, 2020. Registration opens early September on the Congress website. Sign up for the latest World Congress updates and announcements at: **https://safety2021canada.com/SpecialSession**

IWH Accomplishments Report now out

Each year, the Institute publishes an Accomplishments Report summarizing the research and knowledge transfer and exchange (KTE) projects and activities undertaken in the previous fiscal year. The 2019/20 report is now available. To see updates on the status of projects and activities, including publications, grants, awards, collaborators and staff, go to: **www.iwh.on.ca/corporate-reports**

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

Estimating the role of workplace exposures in COVID-19 transmissions

By Dr. Cam Mustard, President and Senior Scientist, IWH

As Canada emerges from lockdown and larger numbers of workers return to their physical workspaces, the effectiveness of workplace practices to prevent COVID-19 transmission will become increasingly important. To anticipate the challenges ahead, we need to know the role that occupational transmission has played in the first six months of the pandemic.

Although most employers complied with emergency measures and shuttered their physical operations, by our estimates, more than 35 per cent of Ontario's workforce remained at their workplace. Employers in a wide range of essential sectors—health care, emergency services, mining, transportation, construction, manufacturing, food production, distribution and retail—all had to manage the risk of occupational transmission.

What percentage of COVID-19 infections in the province were associated to exposure at work? Although there are gaps in important information, we can make an educated guess.

Here's what we do know. In Ontario, two sources of information can be used to estimate the incidence of COVID-19 infections that arise from workplace exposure and transmission.

The first information source is the work done by public health officials to trace recent contacts of people who test positive for COVID-19. This contact tracing can identify transmission that may have occurred in workplace settings.

The second is the number of compensation claims registered at the Workplace Safety and Insurance Board (WSIB) by workers who test positive for COVID-19 and who believe they may have contracted the virus in a workplace setting. WSIB officials adjudicate individual claims to assess evidence for work-related transmission before allowing the compensation claim.

During the early period of the COVID-19 emergency in Ontario, from March to May, the 32 public health units in the province faced enormous challenges in completing timely contact tracing interviews with people who tested positive for COVID-19. With the exception of infections among health-care workers in hospitals and long-term care facilities, information on employment status, occupation and industry sector was not consistently recorded for cases among working-age adults.

In the same period, the WSIB established dedicated teams of adjudicators and claim administrators to evaluate compensation claims submitted by workers and their employers. As of early June, the WSIB began publishing the number of compensation claims attributed to COVID-19, tabulating the number of claims allowed, not allowed and pending adjudication within economic sectors.

By combining information from Ontario's public health system and the WSIB, we can build a picture of the incidence of COVID-19 attributed to workplace transmission.

As of the beginning of August, daily new cases in Ontario had fallen to about 100, from a peak of 600 daily cases in mid-April. Of the 40,000 confirmed cases between March and the first week of August, approximately 60 per cent (24,380) occurred among working-age adults (ages 20-59). As of the first week of August, the WSIB was reporting 4,507 allowed compensation claims, 966 not allowed, and 605 pending adjudication.

Using the number of claims allowed and the number of people infected who were of working age, we can conservatively estimate that a non-trivial 20 per cent of infections among working-age adults in Ontario can be attributed to workplace transmission.

Of the allowed claims, more than 70 per cent are associated with workers in the health-care system, though new infections among these workers have declined substantially. Agricultural workers in southwest Ontario experienced the highest burden of occupational transmission in the June to July period.

As health-care workplaces have increased access to required personal protective equipment and gained experience in safely caring for infected patients and residents, we should expect the incidence of infections to decline in this sector. Conversely, as more workplaces resume economic activity, we need heightened vigilance to reduce the risk of occupational transmission in all sectors. Poor workplace infection control practices could be an important factor in the size and spread of COVID-19 in the potential second wave.

Workers exposed to common hazards more likely to report their injuries: IWH study

Study conducted in B.C., Alberta, Ontario found injury reporting linked to hazard exposure, OHS awareness

When people are injured at work, whether they report it to a workers' compensation board or not is linked to whether they are exposed to a common work hazard.

That's according to a study conducted in British Columbia, Alberta and Ontario by the Institute for Work & Health (IWH), which built upon previous findings about under-reporting of work injuries.

"The study shines a light on lower reporting patterns among workers who were injured but who didn't work in jobs that were typically recognized as hazardous," says IWH Senior Scientist Dr. Peter Smith, lead investigator of the study.

"If you think about an office worker who hurts their back lifting a box of documents, this worker could be less likely to report the injury than someone who lifts and carries heavy things regularly as part of their job," he adds.

The study drew on the survey results of 2,800 people who worked at least 15 hours a week in one of the three provinces. These workers were asked in November 2017 to June 2018 to complete the OHS Vulnerability Survey, a 27-item IWH tool developed by Smith.

The tool asks workers to indicate if they are exposed at least weekly to one or more of nine common work hazards. These range from heavy lifting and repetitive movements to working at heights and exposure to hazardous substances (see sidebar below). The tool also asks workers about the adequacy of three dimensions of OHS protection in their workplace—namely, policies and practices, awareness and empowerment.

Of the 326 surveyed workers who said they had been injured in the previous 12 months, 64 per cent said they did not report their injury to a workers' compensation board. This under-reporting was consistent in all three provinces; little difference in reporting levels was found among them.

Workers who were exposed weekly to one or more of the nine common work hazards were more likely to report their injuries. Among the 271 workers who indicated being exposed, 40 per cent reported their injuries. In comparison, among the 55 workers who did not indicate being exposed to these hazards, only 22 per cent reported their injuries.

While the finding about the degree of under-reporting is consistent with those from other studies, the finding about the role of hazards enriches our understanding of under-reporting, says Victoria Nadalin, an IWH research associate and lead author of the article on this study, published in January 2020 in the *American Journal of Industrial Medicine* (doi:10.1002/ajim.23094).

"Why are reporting patterns lower among workers who weren't regularly exposed to common hazards?" says Nadalin. "That's something we would need to explore in future studies, but it may have something to do with levels of awareness about the importance of injury reporting."

Indeed, when asked questions related to their awareness of OHS rights and responsibilities, the injured workers with inadequate awareness were less likely to report. Workers with inadequate workplace policies and practices also tended to under-report, but this was not statistically significant. Those with low levels of empowerment (i.e. those who felt they had limited ability to speak up about hazards) were neither more nor less likely to report their injuries than those who felt more empowered.

The research team also found other notable patterns of under-reporting. Although not statistically significant, these patterns included a higher likelihood of under-reporting among women, part-time workers, workers in the education, health and public administration sectors, workers who were not unionized, and workers with higher education (i.e. a post-graduate degree).

The research team noted a number of limitations in the study that should be considered when interpreting the findings. Information on the nature and severity of injury and the length of time off work was not obtained from workers participating in the survey. Previous studies have shown that belief that the injury is not serious is an important reason for workers not reporting injuries to workers' compensation.

continued on page 8

WHAT IS CONSIDERED HAZARDOUS EXPOSURE?

The OHS Vulnerability Measure used in this study asks workers how often they perform work tasks that may expose them to hazards. Workers are considered exposed to hazards if they:

1) experience one of the following every week:
- work involving lifting or carrying 20kg at least 10 times a day;
- work at heights greater than two metres;
- work with hazardous substances such as chemicals, flammable liquids, and gases;
- being bullied or harassed at work

or

2) experience two of the following every week:
- do repetitive movements with their hands or wrists (packing, sorting, assembling, cleaning, pulling, pushing, typing) for at least three hours a day;
- perform work tasks or use work methods they're not familiar with;
- work in a bent, twisted or awkward work posture;
- work in noise levels that are so high that they have to raise their voice when talking to people less than one metre away;
- stand for more than two hours in a row.

Providing support while not fully knowing workers' health conditions a recurrent theme

continued from page 1

The study is one of the few in the literature to examine this topic from employer perspectives and across a spectrum of health conditions, says Gignac.

The research team conducted hour-long interviews with 27 professionals from across Canada who had experience interacting with people with episodic disabilities. Participants included supervisors, human resources (HR) professionals, disability management (DM) professionals, worker advocates or union representatives, occupational health and safety (OHS) professionals and labour lawyers. The interviews took place in person or over the phone in 2017 and 2018.

The team heard seven themes emerge from the interviews.

1. Similarities and differences among episodic disabilities. Participants noted many similarities in the way the health conditions affect people's job performance, work environment, and patterns of absenteeism and presenteeism. Participants also observed that, while individuals with episodic conditions may differ in their wish to protect their privacy, they have in common the desire to be well-regarded by others and to protect their job security and career development. Participants did note that it can be particularly challenging when individuals with mental health conditions are not aware of the onset of a new episode. Such instances, though rare, have the potential to create long-lasting and even irreparable harm to workplace relationships.

2. Cultures of workplace support. Participants implicitly recognized that organizational culture shapes decision-making processes. Workplace participants had different perspectives on three topics:

- *medical versus biopsychosocial models of support:* A medical model of support looks to doctors' notes and ongoing treatment to validate workers' health claims. Among this study's participants, this approach was more common in large or unionized workplaces that had regular experience with workplace injuries, a strong tradition of health and safety activity, and collective agreements that outlined the processes and procedures for accommodating workers. However, participants noted challenges with this model, including the difficulties workers face in accessing timely health care to validate their condition, as well as health-care providers' lack of familiarity with workplace disability supports. Further, this model can inappropriately "out" workers with mental health conditions when they are asked to submit notes from their treating physician—i.e. a psychologist or psychiatrist. Some participants spoke of the appeal of an alternative model: a biopsychosocial model that focuses instead on the fit between job demands, individual competencies and support needs.
- *fairness and transparency*: Some participants viewed a case-by-case approach as most appropriate for responding to individual differences, diverse job demands, differences in episodic disabilities, and changes in health over time. Others viewed such an approach as potentially haphazard, arbitrary, and more likely to result in practices that lack transparency or fairness. They endorsed efforts to create a single set of policies and practices for all.
- *return-on-investment versus value-on-investment perspectives:* Although most participants in the study endorsed a value-on-investment perspective, they noted that a return-on-investment (ROI) culture is far more prevalent. They described an ROI culture as one that can often under-value the work by HR and DM practitioners to build awareness, provide training and offer accommodation. From an ROI perspective, these efforts can be considered expensive, time consuming and not contributing to the bottom line of the organization.

3. Misgivings about the role of others. Participants acknowledged the important roles others play in supporting individuals with episodic disabilities. However, they also voiced concerns about the skills, training or motivation of other groups. For example, some participants recognized the importance of front-line supervisors but questioned the variability in their interpersonal skills, training and experience. Other participants valued the training and expertise HR and DM practitioners bring to the table but noted that high turnover

ABOUT EPISODIC DISABILITIES

What are episodic disabilities?

Episodic disabilities commonly arise from chronic conditions that are characterized by periods of good health punctuated by intermittent periods of more severe symptoms that can interfere with daily activities. They are frequently unpredictable even when health conditions are well managed by treatment. They are often described as invisible or hidden disabilities—that is, symptoms of the health condition may not be obvious to others until they are severe.

What are some examples of episodic disabilities?

Episodic disabilities are common. They include mental health disorders like depression and anxiety, rheumatic diseases like arthritis and lupus, Crohn's and colitis, multiple sclerosis, migraines and epilepsy. Many musculoskeletal conditions like low-back or neck pain and tendinopathies can result in episodic disability, as can chronic fatigue syndrome and other syndromes with unknown causes. Improved treatments for previously life-threatening diseases like some types of cancer and HIV/AIDS have resulted in these also being cast as episodic disabilities.

in these functions can lead to inconsistent procedures and processes. Also, some participants acknowledged that workers often view HR staff as representing the interests of the organization, not the workers.

4. Importance of subjective perceptions. Although many participants advocated for better awareness of stereotypes, preconceptions and biases, they also believed these cannot entirely be avoided. The most common challenge discussed by participants was not knowing the health diagnosis underpinning an episodic disability. While participants endorsed the need to protect workers' privacy, they also said it's human nature that people want to know more about a colleague's health—whether out of curiosity or the desire to offer appropriate support. Participants also spoke of challenges discouraging gossip when others become aware of a colleague's health status.

5. Inherent complexity of the response process. Participants acknowledged significant challenges inherent in the support communication process. For example, the intermittent nature of episodic disabilities can make workforce planning at the unit level difficult. The invisibility of symptoms can lead others to view workers requesting support as malingering. Moreover, workers are often reluctant to discuss their health before a workplace problem occurs, which can delay planning efforts and result in a crisis management approach to accommodation and support.

6. Challenges when workers deny disability. Although participants respected employees' decisions not to disclose episodic disabilities at work, they also described such instances as some of the most complex and stressful situations they have had to deal with. This was especially the case when workers had a suspected mental health disability and others in the workplace noticed changes to work performance or interpersonal challenges. Efforts to move forward in these instances were typically complex and prolonged, and sometimes led to considerable interpersonal tension.

7. Casting disability as a performance problem. Several participants described attendance management and attendance support programs, while designed to identify support needs early, as a double-edged sword in the disability communication and support process. These programs flag employees with higher-than-usual absenteeism and mandate meetings with supervisors, HR staff or others. Although workers have an opportunity to explain their absences, including by sharing any health-related difficulties, participants said workers can feel "caught" and forced to disclose health issues they would prefer to keep private. Or they can be ill-prepared with what to communicate and, as a result, their disability can be cast as a performance problem.

"There's no sugar-coating it: the participants we interviewed spoke of a broad array of challenges, many of them inter-related," says Gignac. She adds that, against a body of literature that is mostly focused on worker perspectives, this study is eye-opening in shining a light on the complexities that organizations grapple with.

"Most organizations are genuine in wanting to handle these issues well," she adds. "Many are optimistic that they are making progress and can do better, but they also recognize that these issues remain complex."

Comparing the costs, benefits of silica dust prevention methods for construction workers

IWH economic analysis recommends a combination of methods to reduce silica dust exposure

Construction workers are exposed to cancer-causing silica dust when they do jobs such as concrete work, abrasive blasting, demolition, excavation and tunnel construction, to name a few. According to an estimate by the Occupational Cancer Research Centre, silica dust is responsible for 570 cases of lung cancer in Canada a year, with the majority of these—about 56 per cent—diagnosed in workers from the construction industry.

Worksites can use different prevention methods to reduce silica dust exposure. These include:

- the wet method, which involves applying water to materials before the dust is generated to prevent it from getting into the air—a method applicable to activities such as demolishing concrete surfaces, unloading gravel and excavating;
- local exhaust ventilation, which captures silica dust close to the source before it reaches the breathing zone of a worker—a method applicable to activities such as drilling, stone/concrete cutting and grinding; and
- personal protective equipment (PPE) in the form of air-purifying respirators, used by workers in areas with silica dust in the air—a method applicable to most activities and occupations in the construction sector.

To help construction workplaces decide which of these three methods—or combination thereof—would be the most cost-beneficial, a team of researchers led by the Institute for Work & Health (IWH) conducted an economic evaluation of the options in Ontario's construction sector.

The team found a combination of all three methods can avert the highest number of lung cancer cases (107 cases per year). However, the most cost-beneficial approach is the wet method used in combination with local exhaust ventilation. This pairing can deliver $1.40 in benefits for each dollar spent—a benefit-to-cost ratio of 1.4.

"The level of exposure is an important variable to consider in selecting the most cost-beneficial intervention," says Dr. Amir Mofidi, lead author of the open access article about this study, published in *BMC Public Health* in February 2020 (doi: 10.1186/s12889-020-8307-7).

With low levels of silica dust—i.e. levels at or below 0.025 milligrams per cubic metre—the team's recommendation would be the wet method combined with local exhaust ventilation, he explains. With a higher level of exposure, the combined use of all three methods is expected to result in a higher net benefit.

Mofidi notes, however, that due to long latency periods, the benefits realized as a result of averted cases of lung cancer are only seen many years after the interventions are first introduced. He adds that the team is working on another paper that offers an estimated timeline to realize maximum net benefits.

Drawing on past research

The study used an innovative method that drew on past studies on the epidemiology and economic burden of occupational cancer, and on workplace interventions to reduce silica dust exposure. For estimates of silica dust exposure in Ontario's construction sector, the team relied on work by the Occupational Cancer Research Centre and CAREX Canada. For the cost-benefit analysis, the team used a method developed by IWH Senior Scientist and study lead Dr. Emile Tompa. In recent years, Tompa has used this method to estimate the societal costs of occupational cancers caused by asbestos in Canada, and the societal costs of work injuries and diseases in European Union countries.

continued on page 8

HOW THE METHODS COMPARE

This table breaks down the costs and benefits of seven silica dust exposure prevention approaches, including the wet method (WM), local exhaust ventilation (LEV), personal protective equipment (PPE), and combinations of the three. The figures provided are for one year in Ontario's construction sector.

Interventions	WM-LEV-PPE	WM-LEV	WM-PPE	WM	LEV-PPE	LEV	PPE
Protected workers (%)	100	100	100	60	100	40	100
Lung cancer cases averted	107	95	102	55	101	40	96
Averted costs (in millions)	$184.5	$164.2	$175.9	$94.5	$173.8	$68.5	$166.4
Intervention costs (in millions)	$138.6	$57.6	$123.1	$42.0	$96.6	$15.5	$81.1
Net benefit (in millions)	$45.9	$106.6	$52.8	$52.5	$77.2	$53.0	$85.3
Benefit-to-cost ratio	1.3	2.9	1.4	2.2	1.8	4.4	2.1

Understanding challenges in hospitals' workplace violence reporting systems

IWH study on workplace violence reporting in health care identifies reasons incidents are not disclosed

Seven years after it became mandatory for Ontario hospitals to report incidents of workplace violence, a study found reporting across health-care facilities to be inconsistent, with the majority of incidents undetected by hospital reporting systems.

The study, conducted in late 2017 by the Institute for Work & Health (IWH), examined self-reported rates of different types of violence over a 12-month period at six hospitals. It found the most serious acts of violence—physical assaults, which were experienced by 15 to 25 per cent of study respondents—were brought forward only 44 per cent of the time to the hospital reporting system.

The most common types of violence—threats, which were experienced by about 30 per cent of the study respondents—were reported only 18 per cent of the time. Attempted assaults, experienced by 20 to 30 per cent of respondents, were reported 29 per cent of the time.

"To address a problem, we need to fully grasp its magnitude. This means having reporting systems that collect reliable and valid indicators of workplace violence events in a consistent way over time, and across workers and workplaces," says IWH Senior Scientist Dr. Peter Smith, who shared findings from the study at an IWH Speaker Series presentation in May 2018. To watch a slidecast of the presentation, go to: **www.iwh.on.ca/events/speaker-series/2018-may-22**.

He notes the parallels between these findings and those of a more recent study on injury reporting. "In the context of the current COVID-19 pandemic, we are relying more and more on various health surveillance systems to guide policy and prevention activities and evaluate their effectiveness," adds Smith.

"As we do so, it is important that we concurrently check to ensure that these systems are capturing all the information they were designed to collect."

Staff at six hospitals invited to take part

Since 2010, it has been mandatory for all workplaces in Ontario to have policies and programs in place to deal with workplace violence, workplace harassment and domestic violence. This includes having procedures in place for workers to report incidents of workplace violence and for workplaces to investigate them.

In 2018, in response to recommendations by the Workplace Violence Prevention in Health Care Leadership Table, Ontario mandated that every hospital in the province must publicly report to Health Quality Ontario (now part of Ontario Health) the number of workplace violence incidents that have occurred at the hospital in the previous 12 months. This study took place before this mandate took effect.

The IWH study set out to examine the prevalence of workplace violence and reasons for potential under-reporting. The six hospitals that took part in the study were similar in many respects: they were large community or teaching hospitals, in urban or semi-urban settings. All had emergency departments and similar reporting systems for workplace violence.

Workers at the six hospitals were invited to complete a survey about their experience and reporting of physical assaults, attempted assaults, threats and any other forms of workplace violence in the previous 12 months. For the most serious incidents, workers were also asked about the consequences of the incidents, whether they reported the incidents to the hospital system and, if not, why not. About five to 15 per cent of the staff across the six hospitals took part, for a total sample of 1,500.

Survey results showed reporting varied greatly across the six hospitals. When it came to physical assaults, the proportions of workers who said they always reported varied from 24 per cent at one hospital to 67 per cent at another. Percentages of workers who said they never reported also varied greatly—from 35 per cent to 73 per cent.

The researchers also examined factors linked to workers' decisions to report or not report. Here, they found some interesting patterns. Workers who needed time off work or modified duties were by far the most likely to report incidents to the hospital system—80 to 90 per cent did so. Such incidents requiring time off or modified work constituted only eight and four per cent, respectively, of all workplace violence events.

Also notable were reporting patterns among workers who were physically injured, needed medical care, felt frightened, were psychologically traumatized, felt fear or perceived their assailants' intent to harm. Despite the apparent seriousness of the violent incidents described, only between 40 to 55 per cent of them were reported to the hospital system.

When asked about the reasons for not reporting, the most common set of answers was related to workers downplaying the incidents (for example, they weren't hurt or the incident was not serious). The next common set of reasons related to workers being desensitized to violence or perceiving it as part of the job. The third common set of reasons had to do with the time required to report. This was followed closely by workers feeling that nothing would happen as a result of reporting, or that there was no point in reporting.

"One takeaway from this study is the need for us all to use extreme caution when we see workplace violence data from hospital reports," says Smith. "Developing robust reporting systems can be challenging. As the numbers are made available to the public, we need to be careful to not stigmatize hospitals that have higher numbers of incidents. These just might be the ones doing the most commendable work to encourage reporting and protect their workers."

AT WORK
At Work is published by:
Institute for Work & Health
Editor: Uyen Vu
Contributors: Cameron Mustard
Layout: Uyen Vu, Jan Dvorak
Director of Communications: Cindy Moser
President: Cameron Mustard
Issue #101 / Summer 2020 / ISSN # 1261-5148

INSTITUTE FOR WORK & HEALTH
400 University Avenue, Suite 1800
Toronto, Ontario M5G 1S5
Phone: 416.927.2027 Fax: 416.927.4167
Email: 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.

Similar levels of work injury reporting found in the study's three participating provinces

continued from page 3

Although self-employed workers were excluded from the study sample, other workers may not have been eligible for workers' compensation coverage. Additionally, some workers may have reported injuries where the contribution of work exposures was minor compared to non-work exposures.

"We started this study because we were interested in injury-reporting patterns among workers who were exposed to hazards with inadequate OHS protection—and therefore more likely to have a work-related injury or illness," say Smith.

"It's encouraging to see that people most exposed to work hazards are more likely to report their injuries. But it's also important to note that workers with inadequate OHS awareness were less likely to report injuries. This suggests that, when we are making workers aware of their OHS rights and responsibilities, we should also include information on the right to compensation if they get injured or ill at work." ✚

Silica dust levels, types of work should be considered in choice of prevention methods

continued from page 6

Here's how the different methods compare.

The highest number of lung cancer cases can be averted when workplaces use a combination of all three methods—for a total reduction of 107 cases per year. This method is the most expensive. It would cost $138.6 million per year to cover all Ontario construction workers exposed to silica dust. The benefit-to-cost ratio is 1.3, meaning that for every dollar spent, a benefit of $1.30 is gained.

Using the wet method in combination with local exhaust ventilation can avert 95 cases. This pairing of methods would cost $57.6 million a year to implement, resulting in a benefit-to-cost ratio of 2.9.

The results showed the use of PPE on its own can deliver similar outcomes as the use of the wet method in combination with local exhaust ventilation, in terms of averted cases (96 cases). However, PPE would have higher implementation costs, about $81.1 million, resulting in a lower benefit-to-cost ratio of 2.2.

The wet method on its own can avert 55 cases at a cost of $42.0 million—a benefit-to-cost ratio of 2.2. Local exhaust ventilation on its own has a benefit-to-cost ratio of 4.4 at a cost of $15.5 million, though it averts only 40 cases. Since these methods on their own can protect only a proportion of workers, the team considered the costs and benefits of each in combination with PPE.


Dr. Emile Tompa

The findings of this study suggest that employers in the construction sector might consider several factors when selecting a control method, says Tompa. These are:

- the coverage of the control method, since some methods are applicable only to certain types of construction activities;
- the level of silica dust exposure, since the most cost-beneficial control method is not the same for different levels of silica dust exposure (for estimates of the costs and benefits of several intervention methods at different levels of silica dust exposure, see the open access journal article); and
- the availability of resources for prevention, since the control method that can avert the highest number of lung cancer cases is not necessarily the method that results in the highest benefit-to-cost ratio. ✚