



Institute
for Work &
Health

Connecting for impact

ANNUAL REPORT
2023/24



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Connecting with others who share our vision of healthy, safe and inclusive work is critical to the impact and reach of Institute for Work & Health (IWH) research.

Connection brings deeper understanding of the problems to be solved, and informs the framing of research questions and findings to ensure their relevance to the end users of evidence.



CONNECTION OFFERS fresh perspectives and insights on ways to approach problems and evaluate solutions. It expands the universe of users who want to collaborate in research, share it with their peers, and incorporate evidence into their own policies, programs and practices. Most importantly, it helps build trust in the research process and the evidence it produces.



**For over three decades at IWH,
we have made it a priority to connect
with policy-makers, employers
and workers to ensure they know
about, trust and use our research.
That's why our 2023-2027 strategic
plan reconfirms our commitment
to connecting for impact.**



IN THIS ANNUAL REPORT, we highlight 2023/24 projects and activities within our three outward-looking strategic directions: advancing the science on work and health, building capacity in the work and health research ecosystem, and expanding the reach and impact of IWH research. These projects and activities exemplify the role of connection in achieving our strategic aims.



The year in numbers

FOR FISCAL YEAR ENDING
MARCH 31, 2024

RESEARCH

\$5,826,482

Province of Ontario
funding

\$2,808,191

Research grant and
other funding

44%

Peer-review grant funding
success rate

07

Research grants awarded

42

Active research projects
(completed and ongoing)

49

Papers published
(in print or as e-pub ahead
of print)

CAPACITY

63

Staff
50 Full-time
13 Part-time

29

Adjunct scientists

38

Students/trainees
supervised
and supported

innum

REACH

129

Times during year
an IWH scientist provided
expertise and advice
to stakeholders

233

Organizations involved
in projects

147

Project advisory
committee meetings and
consultations

1,784

IWH Speaker Series
attendees
(nine webinars)
198 on average
per webinar

670,065

Website page views
during year
160,472 in Canada
101,288 in Ontario

434,925

Website users during year
66,626 in Canada
38,876 in Ontario

8,054

IWH News subscribers
at year end

4,402

X (formerly known as Twitter)
followers at year end

6,701

LinkedIn followers
at year end

13,650

YouTube video views
during year

100ers

A Message from the IWH President and the Chair of the IWH Board

The theme of this year's annual report — "Connecting for impact" — recognizes the Institute for Work & Health's ongoing commitment to engage both external and internal stakeholders in achieving our mission: to conduct and share research that helps build healthy, safe and inclusive work environments.

Externally, we regularly connect with policy-makers, employers and workers to ensure our research remains relevant and applicable. We do this by meaningfully integrating stakeholders throughout our research projects and actively involving them in research design, interpretation and dissemination. The projects profiled in this report exemplify this type of connection.



We also create opportunities for a diverse range of stakeholders to engage more broadly with IWH. Creating one such opportunity was an important part of our work in the 2023/24 fiscal year. In May 2024, we launched our newest stakeholder network, IWH Connects. IWH Connects brings together leaders in Ontario and from across Canada who understand the vital importance of using research evidence in decisions related to workplace health, safety and inclusion.

Internally, we work hard at building strong connections, both with the people who govern us and among those who work at IWH.

For our governance, IWH is fortunate to have an active and accomplished Board of Directors whose members, all of them volunteers, steward the organization and help facilitate connections. We thank these Board members (see page 36) for their sound oversight of IWH, the time they commit to the Institute's governance, and their dedication to IWH's organizational health.

This year, we especially thank three members whose tenures ended in September 2024: Dr. Louise Lemieux-Charles, Professor Emeritus, University of Toronto; Kelly Jennings, Principal, Jennings Health Care Consulting; and Dr. Deborah Parachin, Chief Physician, Hydro One. Their contributions left IWH a better and stronger organization.

We welcome three new members who joined the Board in September: Sandra Miller, former Vice-President, Strategy and Governance, Workplace Safety & Prevention Services; Erin Oliver, Vice-President, Health and Safety, Algoma Steel; and Dr. Eugene Wen, Vice-President and Global Chief Data Scientist, Manulife Financial. With their addition,

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the IWH Board continues to benefit from the talent and energy of individuals with a long-held commitment to the positive and vital role that research can play in improving worker health and safety.

At IWH, we are also fortunate to have an insightful and committed Scientific Advisory Committee (SAC). We thank our SAC members (see page 36) for confirming the integrity, independence and high quality of our research, building our connections to the global research community, and ensuring we remain international leaders in the field.

This year, we note the appointment of a new SAC chair—Dr. Ute Bültmann, Professor, Department of Health Sciences, University of Groningen, Netherlands, who chaired her first SAC meeting in April 2024. Also at the meeting was our newest official SAC member—Maria Melchior, Research Director, French National Institute of Health and Medical Research (INSERM).

As for the IWH workforce, it is made up of talented and engaged people who believe in the power of research to make a difference. We thank them for their contributions to a work culture that values excellence, integrity, innovation, respect, collaboration, equity and accountability. We also thank them for their hard and rigorous work, the result of which is presented in this report.

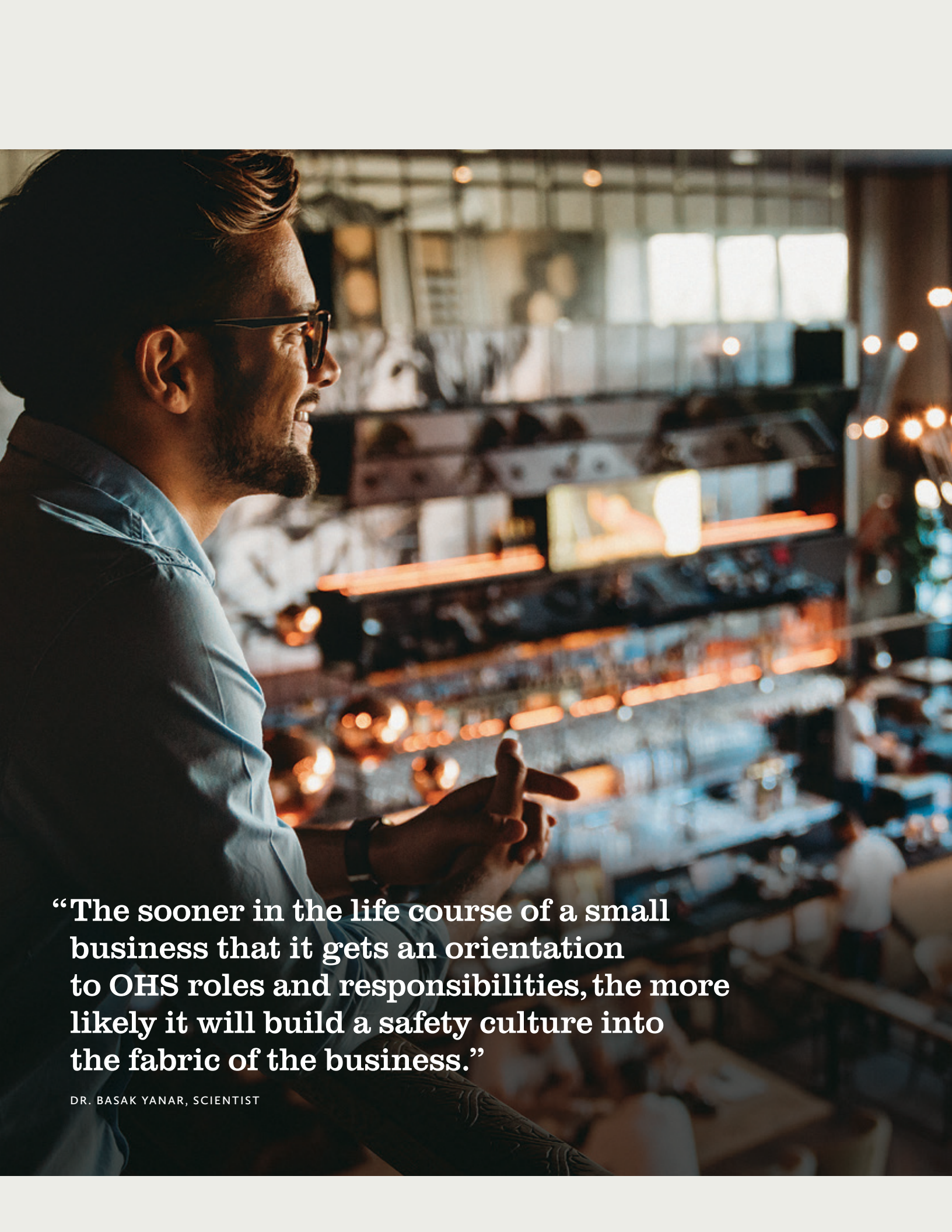
As always, we thank the Province of Ontario for its ongoing commitment to work and health research through its core funding of the Institute. This funding signals the province's belief in the need for trustworthy evidence to help guide the way forward in achieving safe, healthy and inclusive work, and it is essential to our ability to do just that.



PETER SMITH
President and Senior Scientist
Institute for Work & Health



KATE LAMB
Chair, Board of Directors
Institute for Work & Health



“The sooner in the life course of a small business that it gets an orientation to OHS roles and responsibilities, the more likely it will build a safety culture into the fabric of the business.”

DR. BASAK YANAR, SCIENTIST



Supporting system partners in addressing top priorities

IWH supports the work of our partners in Ontario's occupational health and safety (OHS) system. Through one-on-one meetings, standing committees and other communications vehicles, we connect regularly with leaders in the Ministry of Labour, Immigration, Training and Skills Development (MLITSD), Workplace Safety and Insurance Board (WSIB), and health and safety associations (HSAs). Our aim, through research, is to identify emerging problems, find solutions, and work with our system partners to evaluate the effectiveness of interventions.

SMALL BUSINESS HEALTH AND SAFETY

Prevention Works is MLITSD's five-year (2021–2026) strategic plan for Ontario's OHS system. One of the plan's four main strategic objectives is to make workplace health and safety easier for small businesses. IWH is conducting research to help do that.

In 2023/24, Scientist Dr. Basak Yanar wrapped up her study on small businesses enrolled in the WSIB's Health and Safety Excellence Program (HSEP). The study aimed to understand what motivated small businesses to take part in the HSEP, what OHS program improvements they had made, and what barriers and facilitators they faced along the way.

Based on interviews with small business representatives and service providers who supported them, Yanar and study co-lead Dr. Cameron Mustard, IWH's former president and current adjunct scientist, made several observations and recommendations about the HSEP that are relevant to others also serving small businesses.

First, many small businesses have limited OHS knowledge and would benefit from an introductory orientation to OHS roles and responsibilities before beginning to implement changes through the HSEP. "The sooner in the life course of a small business that it gets an orientation to OHS roles and responsibilities, the more likely it will build a safety culture into the fabric of the business," says Yanar.


Second, small businesses make OHS improvements in the context of limited resources (people, time and money) and a complex and dynamic environment. They need practical and lay-friendly guidance to make OHS implementation as easy as possible. "They also benefit from direct, one-on-one support because it helps them feel more resourced, motivated and prepared to make OHS improvements," Yanar adds.

Third, small businesses may not know how to plan for or start the process of change. They need clear guidance on role expectations, processes and the time required to make OHS improvements.

Finally, small businesses often lack OHS personnel. Building the knowledge and confidence of health and safety reps and joint health and safety committee (JHSC) members would help fill this gap.

Scientist Dr. Lynda Robson furthered her study on risk related to business size. Using WSIB data to generate injury risk profiles by sector and size of workplace, Robson reached some interim conclusions. She found that the relationship between OHS performance and size of workplace depended on the performance indicator used (e.g., fatal versus non-fatal injuries, all lost-time versus critical lost-time injuries) and sector (e.g., goods-producing versus service sectors). For example, small firms of less than 50 full-time equivalent employees consistently showed higher risk of lost-time injuries than larger firms among the goods-producing subsectors, but not among the service sectors.

Dr. Dwayne Van Eerd is evaluating the implementation of a new accommodation and reintegration program in the Toronto Police Service, with the ultimate aim of improving the wellbeing of the city's police officers.



Now Robson and Yanar are teaming up on a new project looking at what owners of new small businesses know about OHS, their motivations related to OHS, and how and why some owners invest in OHS early on. The aim of the study is to help design interventions that will best assist new small businesses with OHS management and, ultimately, prevent work-related injuries and deaths. “The research is timely because of a recent push by Ontario’s OHS system partners to reach small businesses early in their life cycle,” says Robson.

POST-TRAUMATIC STRESS INJURIES AND FIRST RESPONDERS

Post-traumatic stress injuries (PTSI) among firefighters, police officers, paramedics and other first responders have been a priority of Ontario’s OHS system since 2016, when the provincial government set out a PTSI prevention strategy. Although initiatives have been implemented under that strategy, gaps remain about what employers and employees can do to prevent PTSIs.

Stakeholders in Ontario (and across Canada) want to better understand the leading indicators of PTSIs—those measures that identify groups of people at an increased risk of future PTSIs. In response, Ontario’s Public Services Health and Safety Association (PSHSA) developed Occupational Stress Injury Resilience (OSIR), a 26-item measure designed to assess first responders’ occupational stress injury risks. The aim of the tool is to allow workplaces to assess risk and target prevention activities where they’re needed.

Although PSHSA has undertaken preliminary work to assess OSIR’s reliability and validity, more needs to be done so that workplaces can feel confident in their use of this measure. IWH President and Senior Scientist Dr. Peter Smith is leading a project to do that. He is conducting an additional analysis of OSIR data to suggest areas where the tool could be improved, comparing OSIR to other leading indicators of psychological injury, and examining how OSIR scores predict psychological injuries over the following 12-month period.

In another evaluation project, IWH is one of two organizations assessing the WSIB’s First Responder Mental Health Treatment Services pilot program, looking specifically at two of the four evaluation components. Working with Dr. Cameron Mustard, who is leading the IWH portion of the project, Associate Scientist Dr. Kathleen Dobson is looking at the clinical outcomes and Dr. Basak Yanar at public safety employers’ return-to-work (RTW) perspectives.

Dobson is assessing if the pilot program was implemented effectively by examining if first responders referred into the program received comprehensive clinical assessments, and if first responders recommended for outpatient or residential treatment met the diagnostic criteria for PTSI. She is also assessing if those referred to treatment experienced reductions in symptoms. Yanar is interviewing public safety employer and union/association representatives with experience in the reintegration and RTW of first responders with PTSIs. She is focusing on the process of creating RTW plans, the roles of (and relationships with) the stakeholders involved, organizational considerations, and the challenges and facilitators in achieving a successful RTW.

Scientist Dr. Dwayne Van Eerd continues to focus on preventing work disability among first responders. He is embarking on a study evaluating the implementation of a new accommodation and reintegration program in the Toronto Police Service. “The goal is to increase access to and participation in the program, which will ultimately improve the wellbeing of Toronto’s police officers,” says Van Eerd.

Van Eerd and Senior Scientist Dr. Emile Tompa wrapped up a project they co-led that synthesized knowledge on the effectiveness of workplace and organizational policies for the prevention and management of PTSIs among first responders, with a focus on Alberta. They found that, due to improving work cultures, first responder organizations, including those in Alberta, are increasingly offering PTSTI programs to reduce work disability.

Although stronger and more consistent evidence is needed, they also found evidence that some workplace PTSTI interventions (e.g., peer support, stress management and coping skills) are effective. Nonetheless, they noted ongoing challenges. These included reducing stigma, improving trust and confidentiality, communicating more effectively about program availability, and providing more resources for trauma-trained staff, specialized programs and access to online supports.

Finally, Scientist Dr. Andrea Furlan continues her work on the pilot ECHO program for public safety personnel (PSP), which includes first responders. Programs based on the ECHO model — ECHO stands for Extension for Community Healthcare Outcomes — increase the capacity of health-care providers to treat and support patients in various activities; in this case, helping first responders reintegrate and return to work after a mental health injury.

ECHO PSP ran two 12-session programs during the previous year, in the fall of 2023 and the spring of 2024. Now the research team is assessing the degree to which the pilot program built the confidence and skills of health-care providers to support the mental health of first responders. The evaluation will be posted on the project's website: echosp.psp.iwh.on.ca

If it performs similarly to another ECHO that Furlan led — that one focusing on occupational and environmental medicine (OEM) — ECHO PSP will increase the self-efficacy and knowledge of health-care providers. In a journal article published in *Occupational Medicine* in September 2024, Furlan and her team reported that self-efficacy and knowledge with respect to the assessment and management of occupational injuries and illnesses significantly increased following the ECHO OEM sessions. Satisfaction with the program was positive, ranging from 59 to 97 per cent.


MENTAL HEALTH AND WORK

Work-related mental health is one of two areas of system focus included in the MLITSD's Prevention Works. And as the Ministry's strategic plan states, many in Ontario's OHS system share the focus on mental health. IWH is one of them.

In 2023/24, Dr. Kathleen Dobson expanded her work on the employment and income experiences of working-age Canadians with mental health and substance use disorders by delving into the mental health of injured workers. Using data from the Ontario Life After Work Injury Study (OLAWIS) cohort, Dobson developed mental health profiles of Ontario workers with disabling physical work-related injuries.

Dobson studied both the negative *and* positive aspects of mental health. She uncovered four distinct groups of injured workers related to the presence of mood and anxiety disorders and three distinct groups with varying levels of positive mental health. Eighteen per cent of participants exhibited mental illness symptoms diagnosed pre- and post-injury and 10 per cent exhibited low levels of positive mental health, commonly referred to as "languishing" mental health. Among the injured workers in these groups, claim duration and claim costs were higher, and they were more likely to report financial concerns, pain interference, opioid use and other health conditions.


Dr. Kathleen Dobson studied both the negative and positive aspects of injured workers mental health. She uncovered four distinct groups of injured workers related to the presence of mood and anxiety disorders and three distinct groups with varying levels of positive mental health.



The reduction in the rate of injuries due to the types of falls targeted by Ontario's mandatory working-at-heights training “amounts to four deaths and 320 lost-time injuries being prevented during the three-year period after the change came into effect.”

DR. LYNDIA ROBSON, SCIENTIST

Dr. Faraz Vahid Shahidi found the more unpaid overtime hours worked, the higher the risk of stress and burnout, even after accounting for long work hours—suggesting that unpaid overtime should be considered an occupational health hazard.



Dr. Peter Smith is conducting research on workplace mental health for an OHS partner outside of Ontario—WorkSafeBC. The B.C. workers' compensation agency launched a mental health strategy in 2023 to help employers and workers build psychologically safe and healthy workplaces. Before planning and targeting prevention activities as part of the strategy, WorkSafeBC wanted a baseline assessment of the province's current psychosocial work environment and of workers' awareness of the psychosocial environment as a work-related hazard. Smith is doing that assessment. "In the end, the baseline assessment will allow WorkSafeBC to target prevention activities and monitor their impact using leading indicators instead of relying on lagging outcomes," he says.

Associate Scientist Dr. Faraz Vahid Shahidi wrapped up a study on the relationship between unpaid overtime and mental health. Although previous research linked overtime to depression, anxiety and burnout, it did not distinguish between paid and unpaid overtime. Based on data from a survey of 4,000 Canadian workers, Shahidi found that the more unpaid overtime hours worked, the higher the risk of stress and burnout. This was even after accounting for long work hours. "As unpaid overtime may present a significant challenge to the mental health of workers, it should be considered an occupational hazard similar to other broadly recognized stressors like shift work and low job control," says Shahidi.

FALL PREVENTION IN CONSTRUCTION SECTOR

Preventing falls from heights has been a priority of the MLITSD since the December 2009 swing-stage collapse that resulted in four migrant workers falling to their deaths. In response, the province of Ontario introduced mandatory working-at-heights training in the construction sector in 2015, fulfilling a recommendation of the expert advisory panel led by Tony Dean that was convened in the wake of the window washers' deaths.

IWH saw an opportunity to conduct a pre-post study on the effectiveness of the training standard. Findings from the study, led by Dr. Lynda Robson, were published in November 2023 in the *American Journal of Public Health*. The study compared lost-time injury rates in the province's construction sector between the three-year period before the training standard was first implemented (2012-14) and the three-year period after it came into full effect (2017-19).

The study found the rate of lost-time injuries due to the type of falls from heights targeted by the training fell by 19 per cent. This decline was larger than that seen in other Canadian provinces: a six per cent decline in the same types of injuries during the same period. "In our analysis, this reduction in injury rates amounts to four deaths and 320 lost-time injuries being prevented during the three-year period after the change went into effect," says Robson.

According to the MLITSD, the evaluation of the mandatory working-at-heights training was helpful in several ways. It confirmed the effectiveness of the training, helped make the case to stakeholders about the value of the training, and helped reinforce the importance of program evaluation at the Ministry.

A photograph of a person with long brown hair tied in a bun, wearing a white shirt. They are sitting at a desk, resting their head on their hands, looking exhausted. A laptop is open in front of them, and a cup of coffee is on the desk. The lighting is warm and soft, suggesting an indoor setting with natural light.

After the launch of the JDAPT for workers in March 2023, “numerous organizations contacted me about sharing this resource with their employees, clients and members. I jumped at the opportunity to make connections and spread the word.”

**DR. MONIQUE GIGNAC, SCIENTIFIC DIRECTOR
AND SENIOR SCIENTIST**



Leveraging large partnerships to develop evidence-based guidance

At IWH, we believe all projects can benefit from connecting with external stakeholders from the outset. This ensures the aims and outputs of the research—including practical tools and guides—are firmly grounded in the real-world experiences of those affected by the problem being studied. This is especially true for large partnership projects that include stakeholders on the research team.

ACCOMMODATING AND COMMUNICATING ABOUT EPISODIC DISABILITIES

Accommodating and Communicating about Episodic Disabilities (ACED) is a six-year research partnership led by Scientific Director and Senior Scientist Dr. Monique Gignac. Now in its final years, ACED has brought together researchers, health charities and people with lived experience to develop workplace tools to support the sustained employment of people with chronic—often episodic, often invisible—health conditions.

A 2023/24 priority for the ACED team was connecting with potential users of the first tool to come out of the project—the Job Demands and Accommodation Planning Tool (JDAPT) for workers. Available in English and French, JDAPT helps workers with chronic conditions find workplace support and accommodation ideas that are tailored to their specific needs, thus enabling them to stay safely and comfortably at work for as long as possible: aced.iwh.on.ca/jdapt

After the formal launch of the JDAPT for workers in March 2023, word spread quickly about this practical, evidence-based tool. “Numerous organizations contacted me about sharing this resource with their employees, clients and members,” says Gignac. “I jumped at the opportunity to make connections and spread the word.”

For example, over the last year, Gignac has talked about JDAPT and other ACED work with policy-makers (e.g., Employment and Social Development Canada (ESDC), WSIB, U.S. National Institute for Occupational Safety and Health), employers (e.g., Royal Bank of Canada, Toyota, City of Winnipeg, Canada Revenue Agency), health professionals (e.g., Canadian Society for Professionals in Disability Management, Occupational and Environmental Medicine Association of Canada), educators (e.g., Humber College, Seneca College) and health charities (e.g., Realize, MS Canada), to name a few.

Meanwhile, 2023/24 also saw the launch of two versions of the JDAPT for organizations—one to support a specific worker having difficulties with job demands and another to identify ways to make a specific job more flexible. By the end of their first year in circulation, the various versions of the JDAPT had been accessed through the ACED website by over 10,500 users.

JDAPT got noticed in the academic world, as well. A peer-reviewed journal article by Gignac and the ACED team on the feasibility, relevance and use of JDAPT received the 2023 Michael Feuerstein Award for best paper from the *Journal of Occupational Rehabilitation*. As noted by the journal’s editor-in-chief, the paper was selected for its originality, *high-quality research methods* [our italics, because research excellence is at the core of all we do] and its “potential to make a lasting impact to the field of occupational rehabilitation and work disability prevention.”

The ACED team continued to make progress on the second tool in the ACED toolkit. Called DCIDE, short for Decision-support for Communicating about Invisible Disabilities that are Episodic, this tool helps workers with chronic conditions decide if and when they should share information regarding their health condition and need for support with others in the workplace, like supervisors, the human resources department and work colleagues. In 2023/24, the tool was piloted with workers with chronic conditions and their feedback was incorporated into the final version of the tool. That tool is now available from the ACED website: aced.iwh.on.ca/dcide

INCLUSIVE DESIGN FOR EMPLOYMENT ACCESS

In May 2023, Inclusive Design for Employment Access (IDEA) was officially launched. In the year since, the IDEA partnership has laid the groundwork for finding, developing and sharing evidence-informed tools and resources that will enhance the capacity of employers and other workplace parties to hire, retain and promote persons with disabilities in Canada.

IDEA, a six-year research partnership, is IWH's largest multi-year grant to date. Based at IWH and McMaster University, IDEA is led by IWH's Dr. Emile Tompa, with McMaster Associate Professor Dr. Rebecca Gewurtz as the co-lead. IDEA is a collaboration among academic institutions, disability community organizations, employer organizations, unions, governments and other partners. "We have come together as a social innovation laboratory with five subject-matter hubs to identify and co-design solutions that will increase the capacity of employers to create inclusive work and, ultimately, help address the persistent problem of poor employment outcomes among persons with disabilities," says Tompa.

As co-lead of a hub on workplace systems and partnerships, Tompa is developing evidence-based guidance for employers on accessibility planning and reporting with respect to the employment of persons with disabilities. IDEA is considering developing it into a formal standard with a standards body such as the Canadian Standards Association (CSA) Group.

Through IDEA, Tompa is spearheading several research projects with the Government of Canada in its capacity as the largest employer in the country. Working with ESDC and the Treasury Board of Canada Secretariat, Tompa and other IDEA researchers are providing evidence-informed advice to:

- Shared Services Canada on how to expand its accessibility, accommodation and adaptive computer technology program so that all federal employees can quickly and easily access the resources they need;
- Canada School of Public Service on how to strengthen its equity, diversity, inclusion and accessibility learning offerings; and

- ESDC's Office of Disability Issues on the role of employment benefits packages as barriers and facilitators to the employment of persons with disabilities.

IDEA is also developing evidence-informed train-the-trainer workshops for the Ontario Federation of Labour. A formal pilot of a day-long workshop on creating accessible workplaces through inclusive design was delivered in December 2023. In 2023/24, Tompa and Gewurtz also presented sessions on building employer capacity for inclusion to the Ontario Secondary School Teachers' Federation, the Skills and Employment Branch at ESDC, the Ontario Disability Employment Network, and the Federal, Provincial and Territorial Deputy Heads of Public Works Committee, among others.

To support IDEA's efforts to build on existing knowledge, a team of IDEA researchers led by IWH Director of Research Operations Emma Irvin is conducting an environmental scan of promising practices, tools and resources being used by workplaces to support the recruitment, hiring, onboarding, retention, mentorship and advancement of persons with disabilities. Its aim is to ensure that IDEA builds on existing field knowledge rather than inadvertently reinventing the wheel. IDEA has launched its tools and resources portal and has begun sharing evidence-informed tools and resources created within and beyond the initiative.

To spread the word about IDEA activities, knowledge and products, and how to get involved, the IDEA team is connecting with stakeholders through a range of communication vehicles that were launched in 2023/24. Available in both English and French, they include an e-newsletter, a webinar series and, still in development, a podcast series and lived experience stories, all available from IDEA's new website: vraie-idea.ca

The IDEA team launched a range of products to spread the word about its activities, knowledge and products, including an e-newsletter, a webinar series and, in development, a podcast series and lived experience videos—all available from a new website.



Preparing for future impacts

IWH is connecting with a wide range of stakeholders in its future-focused research work. Their diverse perspectives are essential when thinking about, and preparing for, what the future may hold for the health, safety and inclusion of workers.

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

In July 2023, Associate Scientific Director and Scientist Dr. Arif Jetha's proposed research agenda for studying the implications of artificial intelligence (AI) on worker health, safety, wellbeing and equity was published in the *American Journal of Industrial Medicine*. The agenda was informed in part by an all-day meeting of 50 stakeholders from across Ontario's OHS system, who came together in October 2022 to discuss the potential harms and benefits of AI at the interface between work and health.

The resulting research agenda sets out research priorities under four areas. These include examining the impact of stronger AI on human workers; advancing responsible and healthy AI; informing AI policy for worker health, safety, wellbeing and equity; and understanding and addressing worker and employer knowledge needs regarding AI applications.

The broad outlines of the research agenda were shared in August 2023 in The Conversation Canada and IWH News. These articles caught the attention of numerous stakeholders, and, in the spring of 2024, Jetha connected with the staff and board of directors at WorkSafeBC, as well as with attendees at the annual conferences of the Conference Board of Canada and the Ontario Occupational Health Nurses Association, to discuss the research agenda and other AI-related work.

That other work included a 2023/24 study looking at the extent to which different jobs in Canada may be exposed to the impacts of machine learning. Machine learning, a form of AI, applies statistical algorithms to large amounts of data to make predictions based on patterns found in the data. Machine learning has the potential to perform or assist in performing both physical and cognitive job tasks currently done by humans in a broad range of industries and occupations.

Working with a research team that included representatives from the Labour Market Information Council of Canada, Public Health Ontario and The Dais (a public policy and leadership think tank at Toronto Metropolitan University), Jetha used a novel analytical approach to estimate different worker and work-related characteristics associated with occupations having more job tasks or fewer job tasks that could be performed by machine learning.

Jetha and his team found that, although no jobs can be fully done by machine learning, almost all occupations have at least some job tasks that can be performed by AI. They estimated that about 20 per cent of workers could have at least half of their job tasks affected by machine learning. As well, they found exposure to machine learning varies across occupational groups. That is, they found men, better-educated workers and workers in high-paying, high-skilled jobs (including supervisory, professional and managerial jobs) are less likely to be exposed to the impacts of machine learning.

"These findings paint a picture of how machine learning may be distributed inequitably across occupations and worker groups," says Jetha. "Now we need to unpack the advantages and disadvantages stemming from AI adoption and how they may affect workers differently—such as male versus female workers, skilled versus unskilled workers, etc. This is particularly important as AI continues to advance, gaining more autonomy and potentially surpassing human capabilities in learning and reasoning."



“These findings paint a picture of how machine learning may be distributed inequitably across occupations and worker groups. Now we need to unpack the advantages and disadvantages stemming from AI adoption”

**DR. ARIF JETHA, ASSOCIATE SCIENTIFIC DIRECTOR
AND SCIENTIST**

Dr. Peter Smith co-authored a paper in a series on work and health published by The Lancet, one of the world's leading medical journals. The paper identified six factors that will impact work and health inequities into the future.

To ensure these findings got into the field, Future Skills Canada (a project funder) held a policy roundtable in May 2024 on preparing workers for the adoption of AI and other digital technology at which Jetha talked about potential inequities among workers resulting from the adoption of AI and machine learning. Over 80 participants from across Canada took part, including representatives from ESDC, Service Canada, Women and Gender Equality Canada, Environment and Climate Change Canada and a dozen other federal departments.

YOUNG PERSONS WITH DISABILITIES

In 2023/24, Jetha finished up his research on the inclusion of young persons with disabilities in the future of work, drawing on input from disability and labour market experts and people with lived experience of disability. His final report, posted in March 2024, identified six key challenges in the future of work—from advanced digital technologies to climate change. It also shared the top-ranked policies, programs and strategies that policy-makers, community service providers and workplace parties can consider now to ensure the inclusion of young people with disabilities in future employment.

WORK AS A SOCIAL DETERMINANT OF HEALTH

In October 2023, *The Lancet*, one of the world's leading medical journals, launched a series of papers on work and health at the World Health Summit. The series had a strong main message: although work has long been considered a social determinant of health, it remains an undervalued lever for improving population health and reducing health disparities among societal groups: thelancet.com/series/work-and-health

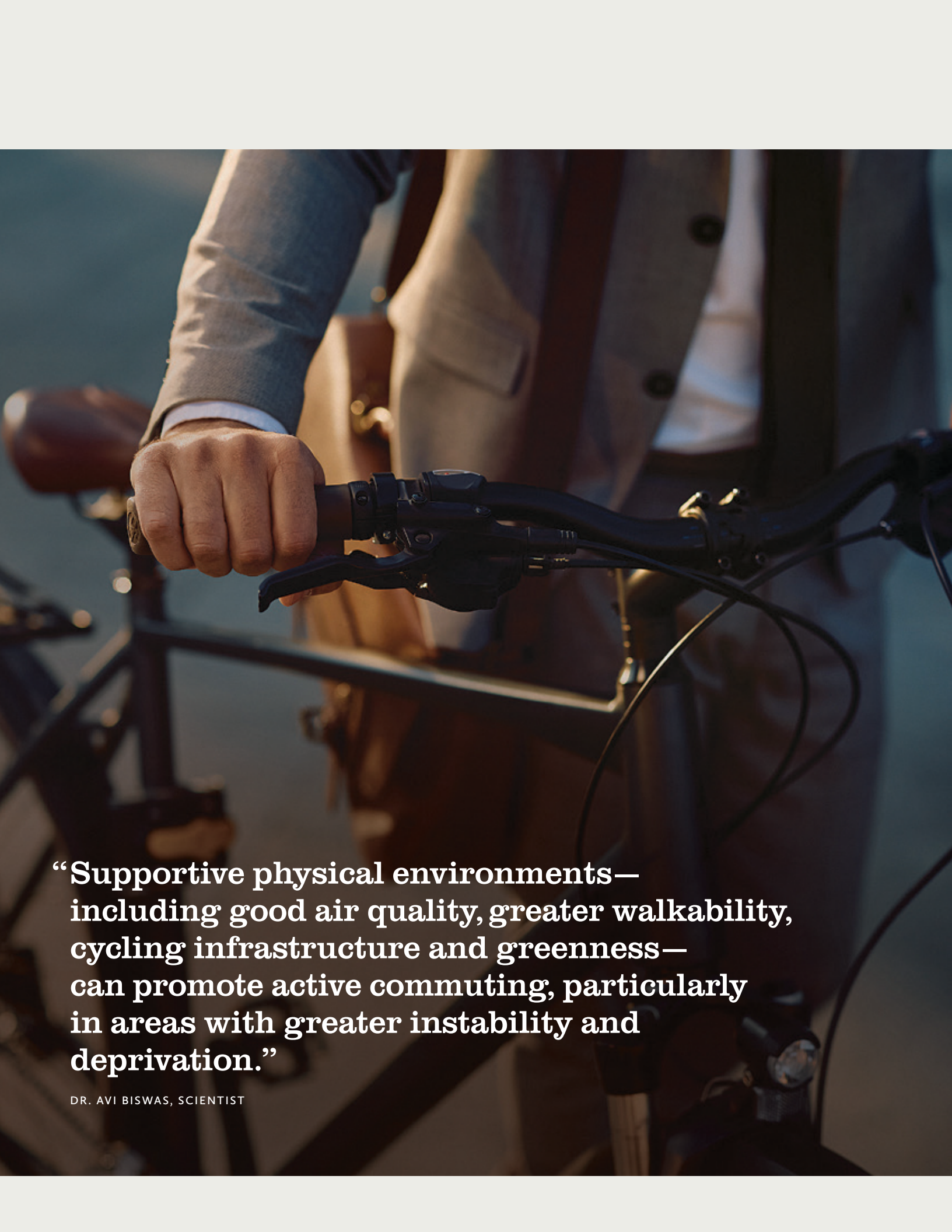
Dr. Peter Smith was one of seven authors of the first paper in the series. Looking at work as a social determinant of health, the paper identified six factors that will impact work and health inequities into the future:

- the influence of technology that culminated in the sudden shift to telework during the COVID-19 pandemic;
- the interaction of work with other co-determinants of health such as gender, sexual orientation, age, race, ethnicity, migrant status and socioeconomic status;
- the arrival in many high-income countries of large numbers of migrant workers who are often subject to poor working conditions and social exclusion;
- the continuous rise of platform-based gig work and other types of precarious employment;
- the phenomenon of working long and irregular hours; and
- the looming threat of climate change's effects on work.

"These challenges call for novel and creative data collection methods to monitor their potential health impacts, as well as for new research to find better means of protecting workers," says Smith. "They also point to the urgent need for better integration of OHS within public health, medicine, the life sciences and the social sciences so that the work environment is explicitly seen as a major social determinant of health."

A lay summary of the six factors affecting work and health inequities in the future was also published by The Conversation Canada in October 2023. As of the end of August 2024, the summary had been viewed over 8,300 times.

Note that the photo on the facing page (page 20) is an AI-generative image. So, too, are the photos on the cover and inside front cover of this annual report. The use of AI-generative images is also noted on the inside back cover where we include all of our photo credits.



**“Supportive physical environments—
including good air quality, greater walkability,
cycling infrastructure and greenness—
can promote active commuting, particularly
in areas with greater instability and
deprivation.”**

DR. AVI BISWAS, SCIENTIST



Linking data to gain new insights

IWH is committed to building capacity and excellence in the work and health research ecosystem. Part of strengthening this capacity involves a different kind of connection—linking data in novel ways to gain new insights into work and health issues. And these data-driven projects also benefit greatly from connecting with stakeholders—from including them in the research process to ensuring the uptake of their findings and tools.

WORK, PHYSICAL ACTIVITY AND HEALTH OUTCOMES

In Canada, about 50 per cent of working-age adults are not active enough and, therefore, are at greater risk for chronic diseases and premature mortality. Walking and biking to commute to work, as forms of active transportation, are ways that adults can increase their activity. A better understanding of the role of physical environments (e.g., built infrastructure and air quality) and social environments in supporting decisions to walk or bike to work has the potential to increase levels of active transportation and physical activity among workers living in Canadian cities.

To help fill this gap, IWH Scientist Dr. Avi Biswas and Dr. Stephanie Prince Ware of the Public Health Agency of Canada (PHAC) co-led a study in which they linked data from Canada's 2016 long-form census and the Canadian Urban Environmental Health Research Consortium (CANUE) database. For about 130 cities across Canada, CANUE offers information, block by city block, on factors such as walkability, pollution, gentrification, climate, parks and greenery, and more.

In the early days of the project, the study team set up an advisory committee that included representatives from PHAC, Ottawa Public Health, Infrastructure Canada and the Canadian Institute of Planners, among others. "The advisory committee helped ensure the research connected with potential users of the research," says Biswas.

By linking the data—and by linking the expertise of researchers with the diverse perspectives of city planners, active transportation advocates and public health experts—the study team identified four distinct groups that characterize Canadian workplace and home neighbourhoods based on their physical and social environments. The team then determined the workers most likely to walk or bike to work depending on the neighbourhood group(s) in which they lived and worked.

"The findings show supportive physical environments—including good air quality, greater walkability, cycling infrastructure and greenness—can promote active commuting, particularly in areas with greater instability and deprivation," says Biswas. "This information can be used to help inform what infrastructure investments, and where, will encourage more physical activity among workers."

Biswas is turning to big data again in a new project building on his work examining the healthy movement profiles of workers. This project is determining how different 24-hour sleep and activity patterns are associated with the risk of heart disease and early death among workers with different levels of stress and strain at work. To do that, Biswas is linking Statistics Canada's Canadian Health Measures Survey with Canadian administrative health databases on cardiac events and death. This work will hopefully identify a "sweet spot" of how much daily movement different workers should be doing for optimal health.

OPIOID-RELATED HARMS AMONG ONTARIO WORKERS

In 2023/24, a joint IWH/Occupational Cancer Research Centre (OCRC) project co-led by IWH Scientist Dr. Nancy Carnide and OCRC Director and Senior Scientist Dr. Paul Demers established a surveillance system that monitors opioid-related harms among Ontario workers. This system fills a gap in previous opioid harm-monitoring systems that included little, if any, information on employment.

The surveillance data was used to produce an interactive, web-based data tool, launched in December 2023. The tool lets users see patterns of opioid-related poisonings (commonly known as overdoses), mental and behavioural disorders, and other adverse effects among workers by occupation, sector, region and more: opioidsandwork.ca/data-tool

The information behind the surveillance system and tool came from OCRC's Occupational Disease Surveillance System (ODSS). The ODSS links administrative health data (e.g., on hospitalizations, emergency room visits, outpatient visits) with job-related data from WSIB claims records. Originally designed to detect and monitor risks of work-related cancers and other occupational diseases in Ontario workers, the ODSS was adapted for this project to monitor opioid-related harms among formerly injured workers and workers in the province more broadly.

The linked data was also used to better understand the relationship between work injury and opioid use. A study by Carnide and OCRC Scientist Dr. Jeavana Sritharan, published in the *Canadian Journal of Public Health* in April 2024, found that formerly injured workers were at greater risk of opioid poisonings across all occupational sectors. "This supports the idea that work-related injuries are associated with future opioid-related harms," says Carnide.

To ensure the data tool and research findings got to those who needed them most, Carnide and Sritharan connected with stakeholders. In March 2024, the IWH/OCRC project team held a day-long, in-person workshop titled "Opioids and Work: Evidence, Perspectives and Looking Ahead." The workshop brought together over 100 occupational health specialists, government representatives, union advocates, researchers and others to learn about the scope of the problem and discuss solutions.

The two scientists also shared findings at numerous virtual events, including (among others) a PHAC knowledge-sharing event in March 2024, an OHS Canada/Talent Canada webinar on Opioids in the Workplace in January 2024, a Canadian Mental Health Association community-of-practice webinar also in January 2024, and two Ontario Section 21 Committee meetings, for the construction sector in December 2023 and the electrical and utilities sector in November 2023.

JOB PRECARITY AND RISK OF INJURY, ILLNESS AND INFECTION

Concern about increasing job precarity and declining job quality is widespread because of their potential implications for millions of workers in Canada. Dr. Faraz Vahid Shahidi is linking data in novel ways to better understand the role of precarious employment and job quality in worker health, safety and wellbeing.

For example, by linking Statistics Canada's Labour Force Survey (LFS) with workers' compensation claims data from Ontario's WSIB, Shahidi found that workers exposed to precarious jobs—low paying, temporary and/or involving irregular or voluntary part-time hours—were at greater risk of work-related injuries and illnesses, as well as work-related COVID-19 infections.

Part of this increased risk could be attributed to workers in precarious employment also working in more hazardous conditions. But not all of it. Shahidi found that, even when workers were exposed to the same levels of physical hazards, those in precarious jobs were still two to three times more likely to experience a work-related injury, illness or COVID-19 infection. "This strongly suggests that workplace health and safety strategies should also consider the role of precarious employment as a marker of risk," he says.

This work not only involved a novel data linkage, but also a method to assign level of precarity to workers' compensation claimants using information from the LFS about their job titles. This "job precarity exposure matrix" can now be used in other projects where occupational information is collected, but other information on job precarity is not.

Shahidi is now turning to another national dataset—this one new to IWH's work—to better understand the nature of contemporary job quality and its consequences for worker health and wellbeing. Using Statistics Canada's Longitudinal and International Study of Adults—the only recent longitudinal data source capturing information on work and health in Canada—he is conducting a suite of studies that he hopes will inform the development of employment policies and programs that help improve job quality, reduce labour market inequities, and promote greater social and economic inclusion in Canada.



Supporting current and future work and health scientists

Research is only as good as the scientists behind it. That is why, as part of our commitment to building capacity and excellence in the work and health research ecosystem, IWH not only supports its current roster of scientists in conducting excellent research, but also develops and mentors the next generation of work and health scientists.

IWH SCIENTISTS AMONG MOST-CITED IN WORK AND HEALTH FIELD

Five IWH scientists were included in Stanford University's October 2023 list of most-cited scientists in the field of work and health, confirming the strength of IWH's support for scientific leadership in this area. The list, based on journal articles published up to the end of 2022, included Drs. Dorcas Beaton (a senior scientist), Andrea Furlan, Monique Gignac and Peter Smith, as well as IWH's former president, Dr. Cameron Mustard:

[doi:10.17632/btchxktzyw.6](https://doi.org/10.17632/btchxktzyw.6)

The publicly available list was first released in 2019 and is updated about once a year. It considers the academic output of over nine million researchers around the world and includes the top two per cent most-cited researchers in each of 22 scientific fields and 176 scientific sub-fields (an approach that recognizes differences in citation levels across disciplines).

Smith notes the presence on the list of other work and health scientific leaders in Ontario's OHS system. These include Dr. Paul Demers at OCRC (also an IWH adjunct scientist); Dr. Linn Holness, Director, Centre for Research Expertise in Occupational Disease (also an IWH adjunct scientist); and Dr. Jack Callaghan, Director, Centre of Research Expertise for the Prevention of Musculoskeletal Disorders.

"To have five IWH scientists out of a relatively small scientific corps included in this list of the world's most-cited scientists is a tremendous honour," says Smith. "And to have eight scientists from the Ontario OHS system is a tremendous benefit to policy-makers and employers in the province because it means they have access to the most recognized researchers in work and health in the world to help them tackle challenges."

FORMER IWH INTERN AWARDED VANIER SCHOLARSHIP

All indicators suggest Momtaz Begum is heading toward a career as a scientist in work and health. And IWH played an important role as a mentor and employer in helping her get there.

When Begum arrived in Canada in 2013, she had a master's degree in public health from Melbourne, Australia, and a range of experience in qualitative research in both Australia and her home country of Bangladesh. So she didn't expect to have a hard time finding work as a researcher here. But she did. Like many newcomers, she struggled to find work in her field despite her extensive experience.


Begum finally got her foot in the door when she was awarded a paid internship as part of a pilot program called Immigrant Insight Scholars (IIS). A new initiative, IIS was launched in 2017 by Access Alliance, a Toronto multicultural community health service agency. IIS was, and still is, a career-bridging program for internationally educated researchers such as epidemiologists, statisticians and evaluation experts.



“The cumulative support I have received over the past years, especially in research skills and capacity building from my mentors at the Institute for Work & Health, has been instrumental in achieving this recognition.”

MOMTAZ BEGUM, DOCTORAL CANDIDATE AND
VANIER CANADA GRADUATE SCHOLAR

The Cameron Mustard Early Career Accelerator Award supports any activity that helps promote, develop and/or accelerate the recipient's research career, such as the costs of data collection, data access, conference travel or open access publication.



IWH was a supporter of the initiative from the get-go. When Dr. Agnieszka Kosny, then an Institute scientist, and academic colleague Dr. Stephanie Premji of McMaster University (also a current IWH adjunct scientist) heard about the IIS program, they pooled some of their grant money to fund a full-time position for a qualitative researcher to support their respective projects on the work experiences of Canada's newcomers. The person hired into the position? Begum. She became the first intern hired under the IIS program.

Begum joined IWH in March 2017 working with Kosny on a project exploring work-related health and safety vulnerability among recent immigrants. Impressed with her resourcefulness and knowledge, IWH hired Begum as a full-time employee when the internship ended. Begum continued to work on various IWH research projects, most recently with Dr. Basak Yanar and Dr. Peter Smith. During that time, Begum also began pursuing a PhD at the University of Toronto's Dalla Lana School of Public Health.

In May 2024, Begum was awarded a federal government Vanier Canada Graduate Scholarship to support her doctoral studies. "The cumulative support I have received over the past years, especially in research skills and capacity building from my mentors at the Institute for Work & Health, has been instrumental in achieving this recognition," says Begum.

The scholarship allows Begum to further her PhD research, which is looking at how social and economic policies influence the employment experiences and health inequalities among marginalized workers in Canada. "We're proud to have supported Begum along her path from a new researcher in Canada to a PhD candidate supported by a prestigious Vanier scholarship," says Smith. "And it is especially heartening to see that her PhD research on marginalized workers continues to focus on an important work and health area. This is a good example of how IWH is helping build capacity within the work and health research ecosystem."

IWH LAUNCHES NEW AWARD FOR EARLY-CAREER RESEARCHERS

In December 2023, IWH awarded its first Cameron Mustard Early Career Accelerator Award. The award went to Dr. Katherine Zagrodny, a senior research associate and quantitative research lead at the Toronto-headquartered VHA Home Healthcare, a large employer of personal support workers (PSWs). The IWH award will help Zagrodny, as an early-career researcher, describe and analyze health outcome differences in PSWs across a range of sociodemographic characteristics, such as age and income, as well as work-related factors, such as travel time and workload.

The Cameron Mustard Early Career Accelerator Award, named after the president of the Institute who stepped down in January 2022, recognizes Dr. Cameron Mustard's constant advocacy for IWH playing an important role in mentoring future work and health researchers. The award supports any activity that helps promote, develop and/or accelerate the recipient's research career, such as the costs of data collection, data access, conference travel or open access publication.

This new award joins two other research awards that IWH administers on behalf of the Foundation for Research and Education in Work and Health Studies. Created in 1999, the Fraser Mustard Postdoctoral Research Award in Work and Health supports the development of outstanding new scientists whose research is congruent with the mission of IWH. The Leonard Syme Research Training Awards, established in 2002, are for early-career researchers at the master's or doctoral level intending to study work and health.



Connecting IWH research to new audiences

Beyond project-specific connections with stakeholders and research colleagues, IWH also undertakes outreach initiatives on behalf of the Institute as a whole to ensure people across the country and beyond know who we are, what we do, and what our latest research is saying about the associations between work and health.

NEW STAKEHOLDER NETWORK: IWH CONNECTS

In 2023/24, IWH set up a new stakeholder network called IWH Connects, which culminated in the network's inaugural meeting in May 2024. More than 30 employers, worker representatives, policy-makers and OHS professionals attended the in-person event in Toronto, where they learned about IWH's high-priority work and health research and discussed its implications for practice and policy.

With this newest network, IWH will regularly engage—and meet at least annually—with work and health stakeholders who are innovative in the way they use research in their decision-making. It will also expand the reach of IWH research. At the May 2024 meeting, at least a third of the attendees were from organizations that were “new” to IWH; that is, they had not previously taken part in IWH research or other activities.

The network is very much an exchange. “Stakeholders get practical findings and tools from IWH scientists, as well as the opportunity to learn from the scientists and each other about ways to implement them,” says (interim) Director of Strategic Relations Kate Cowan. “IWH scientists, in turn, learn about the relevance and utility of their research in the field, as well as the evidence-based guidance stakeholders are currently seeking to address current and emerging work and health challenges. These insights help IWH ensure its research is responsive to real-world needs.”

IWH Connects builds on a long history of stakeholder networks at IWH. The longest-running network hosted by IWH is the Prevention Knowledge Exchange Group (PKEG), which has been meeting quarterly since 2014. PKEG includes representatives from across Ontario's OHS system, including the MLITSD, WSIB, HSAs and OHS research organizations.

PKEG connects research producers, users and funders to help ensure system partners are aware of research gaps, collaborate on research, learn about the latest findings and evidence-based tools and, as appropriate, incorporate evidence into programs and policies. In 2023/24, PKEG members learned about two new IWH tools: the JDAPT and the Opioids and Work Data Tool.

NEW COLLABORATION WITH IRSST ON RESEARCH AND KTE

The connection between IWH and its Quebec-based counterpart, the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST), got a significant boost in June 2024 when IWH President Dr. Peter Smith and IRSST President and CEO Dr. Lyne Sauvageau signed a Master Cooperation Agreement that began taking shape during the 2023/24 year. The agreement strengthens the relationship between IWH and IRSST, and establishes their intention to share resources, conduct joint research, and assist each other with knowledge transfer and exchange (KTE).

The agreement formalizes a natural partnership. IWH and IRSST share a mission of conducting and mobilizing research to support safe and healthy work and workers. Both have boards that include directors representing employers and workers. Both receive core funding from employer contributions to their respective provincial workers' compensation systems. And both are committed to conducting their research with methodological rigour, embedding KTE activities throughout the research process, and effectively communicating findings to audiences who can use them.

SCIENTISTS' PUBLIC SERVICE CONTRIBUTIONS

IWH scientists are often invited to sit on the advisory or technical committees of organizations outside of research and academia. By lending their expertise to lay policy and practice agencies and associations, scientists contribute to the public good. They also expand the reach and impact of IWH research by sharing evidence relevant to the organizations involved.

Here are some of the public service positions held by IWH scientists in the 2023/24 year:

- Dr. Nancy Carnide was a member of the Infrastructure Health and Safety Association's Opioid Advisory Committee and the U.S. National Safety Council's Impairment Advisory Board.
- Dr. Andrea Furlan was a member of the WSIB's Drug and Technology Advisory Committee, as well as its Health Services Advisory Committee.
- Dr. Monique Gignac and Dr. Arif Jetha were both reviewers of a report from CSA Group's Public Policy Centre titled *A Path Forward: Advancing Disability Inclusion in Canada*. Dr. Monique Gignac was also vice-chair of Arthritis Canada's Integrated Scientific and Medical Advisory Committee.
- Dr. Lynda Robson was a member of the CSA's Technical Committee on Occupational Health and Safety Management Systems and the Manufacturing Safety Alliance of BC's Advisory Committee for the OHS Professional Competency Framework Project.
- Dr. Peter Smith was a member of the MLITSD's Occupational Illness Prevention Steering Committee and Workplace Mental Health/Workplace Violence and Harassment Steering Committee, WSIB's Health and Safety Services' Long-Term Strategy Advisory Committee, OCRC's Steering Committee (as chair), and WorkSafeBC's Mental Health Strategic Advisory Committee.
- Dr. Emile Tompa was a member of the Danish National Research Centre for the Working Environment's Academic Impact Review Panel, Labour Market Information Council's National Stakeholder Advisory Panel, Canada Pension Plan's Disability Client and Stakeholder Round Table, Canada Revenue Agency Disability Advisory Committee, Disability and Work in Canada's Steering Committee, Accessibility Standards Canada's Technical Committee on

Employment Standards, and three CSA Group committees: Technical Committee on Equity, Diversity, Inclusion and Accessibility in Apprenticeship Programs, Technical Committee on Work Disability Management System, and OHS Strategic Steering Committee.

- Dr. Basak Yanar was co-chair of the MLITSD's Workplace Vulnerability Working Group and a member of the Ministry's Disability, Evidence and Knowledge Mobilization Committee.

NEW GUIDE ON KTE PLANNING AND ACTIVITIES

In March 2024, IWH published a new guide on how to plan and carry out KTE strategies and activities. Titled *Promoting evidence-informed practice and practice-informed research: A planning guide for knowledge transfer and exchange*, the guide helps other researchers and research organizations reach new audiences and enhance the relevance, quality and use of their evidence to inform policy or practice.

The guide, written by IWH's former KTE director, Dr. Ron Saunders (with input from IWH KTE and communications team members), is based on the KTE research literature and on the integrated KTE approach taken at IWH. This involves building stakeholder relationships and integrating stakeholder engagement throughout the research process, as well as using multiple channels to communicate in plain language about research findings.

This newest guide takes the place of IWH's previous guide, *From research to practice: A knowledge transfer planning guide*, published in 2006. That guide focused on how to disseminate research findings. While the new guide also addresses dissemination, it goes beyond that to emphasize knowledge exchange rather than just knowledge transfer: iwh.on.ca/tools-and-guides

Independent Auditor's Report

TO THE BOARD OF DIRECTORS OF THE INSTITUTE FOR WORK & HEALTH

OPINION

We have audited the financial statements of the Institute for Work & Health (the "Institute"), which comprise the statement of financial position as at March 31, 2024, the statements of changes in net assets, operations and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Institute as at March 31, 2024, and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

BASIS FOR OPINION

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of this report. We are independent of the Institute in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Institute's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Institute or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Institute's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Institute's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Institute's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Institute to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

BDO Canada LLP

Chartered Professional Accountants,
Licensed Public Accountants


Toronto, Ontario
September 24, 2024

Statement of Financial Position

As at March 31	2024	2023
ASSETS		
Current		
Cash	\$ 1,342,048	\$ 1,273,098
Short-term investments (Note 2)	4,396,982	4,267,542
Accounts receivable (Note 3)	405,583	175,517
Prepaid expenses and deposits	89,207	104,310
	6,233,820	5,820,467
Tangible capital assets (Note 4)	543,921	657,854
	\$ 6,777,741	\$ 6,478,321
LIABILITIES AND NET ASSETS		
Current		
Accounts payable and accrued liabilities	\$ 309,600	\$ 380,250
Deferred revenue (Note 6)	4,380,824	4,232,659
Deferred lease inducement — short-term portion (Note 5)	45,759	45,759
	4,736,183	4,658,668
Deferred lease inducement — long-term portion (Note 5)	251,675	297,434
	4,987,858	4,956,102
Net assets		
Invested in tangible capital assets	543,921	657,854
Unrestricted (Note 9)	1,245,962	864,365
	1,789,883	1,522,219
	\$ 6,777,741	\$ 6,478,321

The accompanying notes are an integral part of these financial statements.

On behalf of the Board:



Director



Director

Statement of Changes in Net Assets

For the year ended March 31	2024	2024	2024	2023
	Invested in tangible capital assets	Unrestricted	Total	Total
Balance, beginning of year	\$ 657,854	\$ 864,365	\$ 1,522,219	\$ 1,281,398
Excess (deficiency) of revenues over expenses	(151,950)	419,614	267,664	240,821
Purchase of tangible capital assets	38,017	(38,017)	—	—
Balance, end of year	\$ 543,921	\$ 1,245,962	\$ 1,789,883	\$ 1,522,219

Statement of Operations

For the year ended March 31	2024	2023
Revenue		
Ontario Ministry of Labour, Immigration, Training and Skills Development	\$ 5,826,482	\$ 5,826,482
Grant revenue (Note 7)	2,808,191	1,731,689
Other (Note 8)	190,055	357,280
Investment income	129,477	52,864
	8,954,205	7,968,315
Expenditures		
Salaries and benefits	6,763,584	5,765,172
Occupancy costs	762,975	752,755
Professional services	509,940	557,178
Equipment and maintenance	159,021	198,009
Amortization of tangible capital assets	151,950	129,893
Publication and mailing	86,149	71,564
Travel	65,240	44,800
Other	55,774	96,038
Supplies and services	48,279	35,329
Staff training	45,338	30,534
Voice and data communication	38,291	41,545
2021 World Congress	—	4,677
	8,686,541	7,727,494
Excess of revenues over expenses for the year	\$ 267,664	\$ 240,821

The accompanying notes are an integral part of these financial statements.

Statement of Cash Flows

For the year ended March 31

2024

2023

Cash provided by (used in)

Operating activities

Excess of revenue over expenses for the year	\$ 267,664	\$ 240,821
Adjustments to reconcile excess of revenue over expenses for the year to cash from operations:		
Amortization of tangible capital assets	151,950	129,893
Amortization of lease inducement	(45,759)	(45,759)
Changes in non-cash working capital balances		
Accounts receivable	(230,066)	243,963
Prepaid expenses and deposits	15,103	(11,205)
Inventory	—	1,900
Accounts payable and accrued liabilities	(70,650)	(96,765)
Deferred revenue	148,165	861,611
	236,407	1,324,459

Investing activities

Purchase of short-term investments	(3,700,000)	(1,808,005)
Redemption of short-term investments	3,570,560	529,665
Purchase of tangible capital assets	(38,017)	(70,972)
	(167,457)	(1,349,312)
Increase (decrease) in cash during the year	68,950	(24,853)
Cash, beginning of year	1,273,098	1,297,951
Cash, end of year	\$ 1,342,048	\$ 1,273,098

The accompanying notes are an integral part of these financial statements.

Notes to Financial Statements

The Institute for Work & Health (the "Institute") was incorporated without share capital on December 20, 1989 as a not-for-profit organization.

The Institute is an independent, not-for-profit research organization with a mission to conduct and mobilize research that supports policy-makers, employers and workers in creating healthy, safe and inclusive work.

The Institute is predominantly funded by the Ontario Ministry of Labour, Immigration, Training and Skills Development ("MLITSD") up to the Institute's approved MLITSD budget. Other revenues are generated through research activities and certain interest earned.

1. SIGNIFICANT ACCOUNTING POLICIES

These financial statements were prepared in accordance with Canadian accounting standards for not-for-profit organizations and include the following significant accounting policies:

(a) Revenue recognition

The Institute follows the deferral method of accounting for contributions. Restricted contributions, which are contributions subject to externally imposed criteria that specify the purpose for which the contribution can be used, are recognized as revenue in the year in which related expenses are incurred. Unrestricted contributions, which include contributions from the MLITSD, are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Revenue in excess of expenditures from fee-for-service contracts is recognized at the completion of the contract.

Investment income from interest is recognized on an accrual basis, and changes in fair value of investments are recognized in excess of revenue over expenses.

(b) Short-term investments

Short-term investments are recorded at fair value. These investments are classified as short-term because they are highly liquid and available for sale prior to maturity date.

(c) Tangible capital assets

Tangible capital assets are stated at cost less accumulated amortization. Amortization is recorded at rates calculated to charge the cost of the assets to operations over their estimated useful lives. Maintenance and repairs are charged to operations as incurred. Gains and losses on disposals are calculated on the remaining carrying amount at the time of disposal and included in the statement of operation.

Amortization is charged to operations on a straight-line basis over the following periods:

- Furniture and fixtures — 5 years
- Computer equipment — 3 years
- Leaseholds — term of the lease

The Institute has a policy to derecognize tangible capital assets when fully amortized.

(d) Lease inducements

Lease inducements received are deferred and amortized on a straight-line basis over the term of the lease.

(e) Use of estimates

The preparation of financial statements in accordance with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. The estimates are reviewed periodically and, as adjustments become necessary, they are reported in the year in which they become known. Actual results could differ from those estimates.

(f) Pension plan

The Institute accounts for its participation in the Healthcare of Ontario Pension Plan as a multi-employer defined benefit plan and recognizes the expense related to this plan as contributions are made.

(g) Financial instruments

The Institute initially measures its financial assets and liabilities at fair value.

The Institute subsequently measures all its financial assets and financial liabilities at amortized cost, except for investments that are quoted in an active market, which are measured at fair value. Changes in fair value are recognized in excess of revenue over expenses.

The Institute's financial instruments that are measured at amortized cost consist of cash, accounts receivable, accounts payable and accrued liabilities and deferred revenue.

2. SHORT-TERM INVESTMENTS

	2024	2023
Guaranteed investment certificates	\$ 3,761,881	\$ 3,595,245
Money market mutual fund	635,101	672,297
	\$ 4,396,982	\$ 4,267,542

The guaranteed investment certificates earn an average interest of 2.91% (2023 – 2.47%) and mature at various dates between April 2024 and October 2028 (2023 – April 2023 and April 2026).

3. ACCOUNTS RECEIVABLE

	2024	2023
Foundation for Research and Education in Work and Health Studies	\$ 100,330	\$ 82,629
Projects and other	268,324	49,953
HST rebate	36,929	42,935
	\$ 405,583	\$ 175,517

4. TANGIBLE CAPITAL ASSETS

	2024		2023	
	Cost	Accumulated amortization	Cost	Accumulated amortization
Furniture and fixtures	\$ 49,696	\$ 34,787	\$ 49,696	\$ 24,848
Computer equipment	221,805	172,289	269,202	168,674
Leaseholds	729,372	249,876	709,971	177,493
	1,000,873	456,952	1,028,869	371,015
	\$ 543,921		\$ 657,854	

5. DEFERRED LEASE INDUCEMENT

During fiscal 2020, the Institute entered into a 10-year lease for office premises, commencing October 1, 2020 and concluding September 30, 2030. The Institute received a cash lease inducement from the landlord in the amount of \$457,590, which has been deferred and recognized as a reduction of occupancy costs on a straight-line basis over the term of the lease. Of the total lease inducement received, \$45,759 has been included as a reduction in occupancy costs for 2024 (2023 – \$45,759), and \$297,434 (2023 – \$343,193) remains deferred.

6. DEFERRED REVENUE

The Institute records restricted contributions as deferred revenue until they are expended for the purpose of the contribution.

	2024	2023
Balance — beginning of year	\$ 4,232,659	\$ 3,371,048
Less: grant revenue recognized (Note 7)	(2,808,191)	(1,731,689)
Less: non-grant revenue recognized	—	(5,019)
Add: current year funding received	2,956,356	2,598,319
Balance — end of year	\$ 4,380,824	\$ 4,232,659

The details of the deferred revenue balance are as follows:

	2024	2023
Alberta Government	\$ 104,108	\$ 188,968
Canadian Arthritis Society	228,623	150,603
Canadian Mental Health Association	50,000	50,000
Employment and Social Development Canada	103,428	322,342
Immigration, Refugees & Citizenship Canada	40,572	27,330
MaRS Discovery District	50,679	50,000
Public Health Agency of Canada	—	70,991
Public Services Health & Safety Association	31,435	—
Tri-Agency Funding*	2,517,864	2,361,251
Vale	62,443	83,061
Workplace Safety & Insurance Board	619,789	443,495
WorkSafeBC	263,289	142,097
Others (individually less than \$30,000)	146,911	145,339
	4,219,141	4,035,477
Amounts related to office renovation		
Canadian Institutes of Health Research	15,907	26,406
MLITSD Office Relocation	145,776	170,776
	\$ 4,380,824	\$ 4,232,659

*Tri-Agency Funding refers to funding from one or more of the three Canadian Government research funding agencies: Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council (NSERC), and Social Sciences and Humanities Research Council (SSHRC). This funding may be awarded by an agency on its own or through a grant program funded collectively by two or all three of the agencies.

7. GRANT REVENUE

	2024	2023
Alberta Government	\$ 84,860	\$ 38,231
Canadian Arthritis Society	15,718	41,643
Employment and Social Development Canada	218,913	159,280
Immigration, Refugees & Citizenship Canada	143,304	—
MLITSD	25,000	69,493
Public Health Agency of Canada	256,972	211,993
Tri-Agency Funding*	1,216,786	692,901
Workplace Safety & Insurance Board	574,347	257,380
WorkSafeBC	131,471	96,676
Other (individually less than \$30,000)	140,820	164,092
	\$ 2,808,191	\$ 1,731,689

*Tri-Agency Funding refers to funding from one or more of the three Canadian Government research funding agencies: Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council (NSERC), and Social Sciences and Humanities Research Council (SSHRC). This funding may be awarded by an agency on its own or through a grant program funded collectively by two or all three of the agencies.

8. OTHER REVENUE

	2024	2023
Project recoveries	\$ 106,130	\$ 202,763
Salary secondment	40,190	100,855
Other	43,735	53,662
	\$ 190,055	\$ 357,280

9. UNRESTRICTED NET ASSETS

Unrestricted net assets are not subject to any conditions that require that they be maintained permanently as endowments or otherwise restrict their use.

	2024	2023
Total assets	\$ 6,777,741	\$ 6,478,321
Invested in tangible capital assets	(543,921)	(657,854)
	6,233,820	5,820,467
Liabilities	(4,987,858)	(4,956,102)
Unrestricted net assets	\$ 1,245,962	\$ 864,365

10. PENSION

For those employees of the Institute who are members of the Healthcare of Ontario Pension Plan, a multi-employer defined benefit pension plan, the Institute made contributions of \$392,372 to the Plan during the year (2023 - \$357,041).

11. COMMITMENTS

The Institute is committed under a lease for premises that expires September 30, 2030, with annual rents, exclusive of operating costs, approximately as follows:

2025	\$ 490,000
2026	503,000
2027	516,000
2028	516,000
2029	516,000
Thereafter	775,000
	\$ 3,316,000

12. FINANCIAL INSTRUMENTS

The Institute is exposed to the following significant financial risks:

(i) Liquidity risk

Liquidity risk is the risk that the Institute may not be able to meet its financial obligations as they become due. The Institute is exposed to this risk mainly in respect of its accounts payable and accrued liabilities. The Institute manages its liquidity risk by monitoring and managing the cash requirements to ensure the Institute has sufficient funds to meet its operational requirements.

(ii) Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The Institute's exposure to credit risk associated with cash and investments is minimized substantially by ensuring these assets are invested in financial obligations of major financial institutions that have been accorded investment grade ratings by a primary rating agency. An ongoing review is performed to evaluate changes in the status of the issuers of securities authorized for investment under the investment policy of the Institute. Credit risk associated with accounts receivable is reduced by monitoring overdue accounts receivable.

(iii) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The value of fixed income securities will generally rise if interest rates fall and decrease if interest rates rise. The Institute is not exposed to significant interest rate risk on its short-term investments as they are invested in guaranteed investment certificates.

(iv) Other price risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market. The Institute is exposed to other price risk through its investments in mutual funds.

13. COMPARATIVE AMOUNTS

The comparative amounts presented in the financial statements have been restated to conform to the current year's presentation.

Governance

As at March 31, 2024

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About the Institute

WHO WE ARE

The Institute for Work & Health (IWH) is an independent, not for-profit research organization based in Toronto, Canada. Our mission is to conduct and mobilize research that supports policy-makers, employers and workers in creating healthy, safe and inclusive work environments.

WHAT WE DO

Since 1990, the Institute has been conducting research and developing evidence-based products to inform those involved in protecting and improving the health, safety and wellbeing of workers and in promoting their full and inclusive work participation. Our multidisciplinary research examines the inter-relationships between work and health from worker, workplace and system perspectives. We also train and mentor the next generation of work and health researchers.

HOW WE SHARE OUR KNOWLEDGE

The Institute works closely with workers, employers and policy-makers to ensure our research is relevant and applicable to them and to the communities they serve. Our knowledge transfer and exchange program supports the continuous exchange of information and ongoing dialogue with key audiences in order to integrate stakeholder perspectives throughout the research process.

HOW WE ARE FUNDED

The majority of funding received by the Institute is from the Province of Ontario through the Ministry of Labour, Immigration, Training and Skills Development. IWH also receives substantial funding for specific research projects through external peer-reviewed grant competitions.

OUR ACADEMIC TIES

The Institute is affiliated with several Canadian universities. IWH scientists teach and supervise students at the University of Toronto, McMaster University and Toronto Metropolitan University. Because of our association with the university community and our access to key data sources, IWH is respected as an advanced training centre. Graduate students and early-career researchers from Canada and abroad receive guidance and mentorship from IWH scientific staff and participate in projects, giving them first-hand experience and vital connections to the work and health research community.

LAND ACKNOWLEDGEMENT

We wish to acknowledge the land on which the Institute for Work & Health operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca and the Mississaugas of the Credit. Today, this land is still home to many Indigenous people from across Turtle Island, and we are grateful to have the opportunity to conduct our work on it.



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