



**Institute  
for Work &  
Health**

Research Excellence  
Safe Work  
Healthy Workers

# **Institute for Work & Health Accomplishments Report 2022/23**



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## Introduction

The Institute for Work & Health 2022/2023 Accomplishments Report includes the projects outlined in the 2021/2022 Activity Plan submitted to the Ministry of Labour, Immigration, Training, Skills and Development (MLTSD) as part of our reporting requirements. It also includes three new projects that have not been included in the Activity Plan, two of which are being presented at the current Scientific Advisory Committee meeting. Each project featured in the report includes the URL to the project's page on the IWH website, from which more complete information can be accessed. Please consult the IWH website ([iwh.on.ca](http://iwh.on.ca)) for a comprehensive repository of all IWH work and projects.

## Theme 1.0: Work as a Determinant of Health

### Occupational injury risks in Ontario (#1175)

URL: <https://www.iwh.on.ca/projects/occupational-injury-risks-in-ontario-0>

**Project status:** Ongoing

#### Reasons for the study

In June 2011, Ontario passed legislation implementing a range of recommendations in the December 2010 report of the Expert Advisory Panel on Occupational Health & Safety. The legislation included the establishment of a prevention office within the Ministry of Labour (as it was then called), with responsibility to develop and execute an integrated occupational health and safety (OHS) strategy for the province.

The Expert Advisory Panel's report included a recommendation to improve the indicators of OHS performance at both the workplace and system levels. The 2019 Ontario Auditor-General's review of the Ministry of Labour also recommended strengthened research investments to understand the effectiveness of measures to deter OHS violations.

In responding to these recommendations, the Ministry of Labour, Training and Skills Development's Occupational Health and Safety Strategy 2021-2026 includes a priority to "build and use the best evidence." The goal of this project is to support the implementation of this objective in the strategy by establishing an epidemiology unit focused on occupational injury. The objective of this unit will be to develop enhanced information on occupational injury hazard exposures in the Ontario labour force and to evaluate the effectiveness of workplace and regulatory measures to control the risk of occupational injury in Ontario.

#### Objectives of the study

- Define the scope of, and complete a three-year work plan for, an epidemiology unit on occupational injury
- Initiate a range of epidemiology studies to accomplish the first-year objectives in the work plan for the unit

#### Target audience

Ontario's Occupational Health and Safety Strategy 2021-2026 emphasized enhanced data for the measurement of the Ontario prevention system and the development of a common database for planning and operational purposes. This project will support improvements in OHS performance measurement.

#### Research team

Cameron Mustard (Principal Investigator), Aviroop Biswas, Victoria Landsman, Lynda Robson, Peter Smith

#### Collaborators and partners

- Prevention Office, Ontario Ministry of Labour, Training and Skills Development

**Project funder:** Ontario Ministry of Labour, Training and Skills Development

## Enhancing Ontario labour force denominator information (#1176)

URL: <https://www.iwh.on.ca/projects/enhancing-ontario-labour-force-denominator-information>

**Project status:** Ongoing

### Reasons for the study

Understanding the rate at which something occurs (e.g. per person or unit of time) is a core principle in epidemiology. Rates allow for meaningful comparisons of the risk of an event occurring among different segments of the labour market, including the risk of a work-related injury. For example, rates allow for risk-of-injury comparisons by gender, age, industry and/or size of workplace.

To calculate a rate, you need to know the number of people affected (the numerator) out of the possible number of people possibly affected (the denominator). The more accurate the denominator, the truer the rate. When calculating work-related injury risks, the denominator is the labour force or portion of the labour force of interest.

While both emergency department and workers' compensation claims are sources of information on injury events in Ontario, only workers' compensation data includes detailed information on relevant measures such as occupation, industry and workplace size. However, the challenge with workers' compensation data as a source of injury information in Ontario is that not all labour force participants in the province are insured with the collector of this data—the Workplace Safety and Insurance Board (WSIB). As such, labour force estimates have to be adjusted for differential WSIB coverage before they are combined with workers' compensation claims to produce rates of claims per worker or per hour worked.

It is also important to examine rates of workers' compensation claims across different types of occupational exposures to inform prevention targets. Available sources of information on occupational exposures have to be linked to Canadian occupational coding standards to enable them to be used in estimating claim rates. This project aims to enhance denominator information related to Ontario's labour force in order to provide more robust rates of workplace injury.

### Objectives of the study

- Estimate rates of workers' compensation claims and emergency department visits in the Ontario labour market

### Target audience

MLITSD; OHS policy-makers and decision-makers in Ontario; employers, workers, labour representatives and OHS professionals

### Research team

Peter Smith (Principal Investigator), Qing Liao, Faraz Vahid Shahidi (Institute for Work & Health)

### Collaborators and partners

- Ministry of Labour, Immigration, Training and Skills Development (MLITSD) Prevention Division and Data Analytics and Research Branch;
- WSIB Advanced Analytics

**Project funder:** Ontario Ministry of Labour, Immigration, Training and Skills Development

## Evaluating the effectiveness of distance learning in delivering Ontario's JHSC certification training (#1178)

URL: <https://www.iwh.on.ca/projects/evaluating-effectiveness-of-distance-learning-in-delivering-ontarios-jhsc-certification-training>

**Project status:** Ongoing

### Reasons for the study

In responding to a number of recommendations to strengthen research investments in occupational health and safety, the Ontario Ministry of Labour, Training and Skills Development (MLTSD) has made building and using the best evidence a priority objective in the Occupational Health and Safety Strategy 2021-2026. The goal of this project is to support the implementation of this priority objective by measuring the relative effectiveness of three different modes of delivering training: in-class, distance and e-learning. The project is rigorously measuring learning outcomes among Ontario workers taking Joint Health and Safety Committee (JHSC) Certification (Part 1) training delivered by three of the province's health and safety associations (HSAs).

### Objectives of the study

- Review the evidence on the relative effectiveness of real-time online learning for occupational purposes
- Use surveys to measure the JHSC-relevant knowledge of Ontario workers before and after they take JHSC Certification (Part 1) training
- Analyze survey data to determine whether in-class, distance and e-learning training differ in their impact on JHSC-relevant knowledge and other learning outcomes
- Provide evaluation evidence that will allow for continuous improvement of certification training

### Target audience

The results will provide evidence to the MLTSD, HSAs, HSA-based training providers, private-sector training providers, employers, workers, JHSC members and OHS professionals about the effectiveness of various modes of training delivery.

### Research team

Lynda Robson (Principal Investigator), Cameron Mustard (Co-Principal Investigator), Avi Biswas, Victoria Landsman, Faraz Shahidi, Peter Smith (Institute for Work & Health)

### Collaborators and partners

- Prevention Office, Ontario Ministry of Labour, Training and Skills Development
- Infrastructure Health & Safety Association
- Public Services Health & Safety Association
- Workplace Safety & Prevention Services

**Project funder:** Ontario Ministry of Labour, Training and Skills Development

### Related research summaries

- [Comparing real-time online work-related training with face-to-face formats](#). Research Highlights: Institute for Work & Health, August 2022.

### Related interviews and articles

- [Which is better, online or in-person learning?](https://www.hrreporter.com/focus-areas/training-and-development/which-is-better-online-or-in-person-learning/369195). Canadian HR Reporter. August 22, 2022. Available from: <https://www.hrreporter.com/focus-areas/training-and-development/which-is-better-online-or-in-person-learning/369195>



## Trends in the severity of work-related injury in Ontario (#1177)

URL: <https://www.iwh.on.ca/projects/trends-in-severity-of-work-related-injury-in-ontario>

**Project status:** Ongoing

### Reasons for the study

An accurate picture of the number and types of workplace injuries and illnesses is critical to an effective occupational health and safety (OHS) system. Yet the use of workers' compensation administrative data as the only source of information on the incidence of work injuries and illness has its shortcomings.

Previous research by the Institute for Work & Health (IWH) suggests another source of information is also available in Ontario: emergency department records. These records can be used to track the performance of the OHS system and to assess the reliability of workers' compensation data on acute injuries.

The project builds on these findings. It is developing a methodology to classify the severity of work-related injuries and illnesses presenting to hospital emergency departments in Ontario over the period 2004 to 2021. Analyses of changes in the incidence of severe injury over time will inform understanding of effective OHS prevention efforts over the past decade and will identify severe injury hazards for priority attention over the period 2021-2026.

### Objectives of the study

- Acquire emergency department records for the period 2018-2021 to supplement records for the period 2004-2017 currently held by the Institute
- Complete classification of injury severity for 2,000,000 emergency department records for the treatment of work-related injury and illness
- Analyze trends over time in the incidence of severe injury, by economic sector and employer size
- Information on previous research on the use of emergency department records is available on [this project page](#).

### Target audience

Policy-makers at the Ministry of Labour, Immigration, Training and Skills Development (MLITSD) and the Workplace Safety and Insurance Board (WSIB); MLITSD inspectorate; large and small employers; worker representatives

### Research team

Avi Biswas, Cameron Mustard (Principal Investigators), Victoria Landsman, Peter Smith (Institute for Work & Health)

### Collaborators and partners

- MLITSD's Prevention Office

**Project funder:** Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD)

## **Understanding the injury experience of Ontario small businesses through workers' compensation claims data (#1179)**

URL: <https://www.iwh.on.ca/projects/understanding-injury-experience-of-ontario-small-businesses-through-workers-compensation-claims-data>

**Project status:** Ongoing

### **Reasons for the study**

A focus on work injury and illness prevention in small business is a priority of Ontario's Ministry of Labour, Immigration, Training and Skills Development (MLITSD). To that end, the Ministry wants to continue building an evidence base to better understand the challenges that are facing small businesses and to learn about the types of supports that the Ministry and occupational health and safety (OHS) system partners can develop to help meet their unique needs.

This project aims to contribute to this evidence base by describing the injury claim experience of Ontario small businesses, by sector and enterprise size, as well as by identifying indicators of higher risk that the MLITSD and system partners can use in targeting initiatives.

### **Objectives of the study**

- Analyze workers' compensation data descriptively to produce injury risk profiles by sector and workplace size (based on number of employees)
- Develop indicators of higher risk in small businesses, by sector
- Provide a better understanding, by sector, of the performance of smaller businesses in OHS relative to larger businesses
- Support the targeting of prevention initiatives by identifying sectors in which small businesses are especially at higher risk

### **Target audience**

MLITSD, Workplace Safety and Insurance Board, Ontario's health and safety associations, small businesses in Ontario

### **Research team**

Lynda Robson (Principal Investigator), Cameron Mustard, Peter Smith (Institute for Work & Health)

### **Collaborators and partners**

- MLITSD Prevention Office

**Project funder:** Ministry of Labour, Immigration, Training and Skills Development (MLITSD)

## **Toking 9 to 5: Workplace cannabis use and perceptions among Canadian workers (#1376)**

URL: <https://www.iwh.on.ca/projects/workplace-cannabis-use-and-perceptions-among-canadian-workers>

**Project status:** Ongoing

### **Reasons for the study**

On October 17, 2018, cannabis use for non-medical purposes was legalized in Canada. There is the potential for cannabis use to spill over to the workplace, which could have occupational health and safety consequences. This study began with an IWH-led team conducting a survey in June 2018 of 2,014 workers across Canada from a wide range of industries and occupations to better understand pre-legalization workplace use patterns and perceptions. The study's research team will continue to resurvey this same group of workers (and more) for three years post-legalization to determine whether legalization is associated with changes in workplace use and related perceptions and norms.

### **Objectives of the study**

- Estimate the magnitude of workplace cannabis consumption and impairment in Canada
- Evaluate the impact of cannabis legalization in Canada on cross-sectional and longitudinal patterns of workplace cannabis consumption, perceptions of risk and impact, workplace cannabis norms, and perceived availability in the workplace
- Examine whether trends in these patterns, perceptions and norms differ according to age, sex, labour market gender roles, occupational groups and geographic location
- Examine the reciprocal relationship between potentially modifiable factors (perceptions of risk, workplace cannabis norms, perceived cannabis availability in the workplace) and workplace cannabis use over time

### **Target audience**

This project will help policy-makers, employers, and health and safety associations and professionals understand the short-term effects of legalization on the workplace, and provide them with information to aid in the development of policies, practices and prevention initiatives to ensure lower-risk cannabis use among Canadian workers.

### **Research team**

Nancy Carnide (Principal Investigator), Peter Smith (Co-Principal Investigator), Andrea Furlan (Institute for Work & Health); Michael Frone (University at Buffalo); Shawna Meister, Amy Porath (Canadian Centre on Substance Use and Addiction); Kim Slade (Public Services Health & Safety Association)

### **Collaborators and partners**

- Canadian Centre for Occupational Health and Safety
- Canadian Centre on Substance Use and Addiction
- Employment and Social Development Canada
- Federally Regulated Employers – Transportation and Communications
- Health Canada
- Nova Scotia Trucking Safety Association
- Ontario Building Trades
- Ontario Ministry of Labour

- Public Services Health & Safety Association
- Transport Canada
- Unifor
- Workplace Safety & Prevention Services
- Workplace Safety North
- WorkSafeBC

**Project funder:** Canadian Institutes of Health Research

#### **Related scientific publications**

- Carnide N, Lee H, Landsman V, Frone MR, Furlan AD, Smith PM. [Cannabis use and workplace cannabis availability, perceptions and policies among Canadian workers: a comparison before and after the legalisation of non-medical cannabis](#). Occupational and Environmental Medicine. 2022 epub ahead of print. [doi:10.1136/oemed-2022-108316](https://doi.org/10.1136/oemed-2022-108316). (Open access)

#### **Related interviews and articles**

- [Cannabis use linked to higher injury risk, but only among those who use at or before work](#). At Work: Institute for Work & Health; No. 108, Spring 2022.

#### **IWH Speaker Series presentations**

- [Cannabis use and the risk of workplace injury: Findings from a longitudinal study of Canadian workers](#). IWH Speaker Series. March 8, 2022.

## **Understanding the activity patterns of Canadians at work and outside of work, and their association with overall health (#1395)**

URL: <https://www.iwh.on.ca/projects/understanding-activity-patterns-of-canadians-at-work-and-outside-of-work-and-their-association-with-overall-health>

**Project status:** Completed 2021

### **Reasons for the study**

An increasingly sedentary society has necessitated efforts to promote physical activity, and the workplace provides an ideal setting for activity promotion since more than 15 million Canadians spend half their days at work. However, activity at work might not confer the same health benefits as activity outside work. Many people might not find it possible to follow activity recommendations at work because of demanding work schedules, an inability to make work-related decisions, and unsupportive workplace environments. Furthermore, the activity patterns of men and women can be influenced by biological and social factors even when working in similar jobs. A better understanding of real-world workers' movement patterns can inform health recommendations that workers can feasibly undertake at work.

Previous Canadian studies examining workers' activity patterns have generally relied on self-reported data that are subject to recall and social desirability biases, thus limiting the accuracy and reliability of the findings. Accelerometers have created opportunities to improve surveillance and analytic research on activity and health in free-living individuals, although their use has been mostly limited to small studies. To our knowledge, no studies have objectively measured the movement patterns of a representative sample of Canadian workers.

This study aims to fill this gap. Using accelerometer-based data, it is examining movement behaviours both during work and outside of work among a large sample of workers to gain insight into the associations between various movement behaviours and cardiometabolic risk. Cardiometabolic risk refers to the possibility of developing cardiovascular and metabolic diseases, including Type 2 diabetes and metabolic syndrome, and represents a leading cause of preventable death worldwide.

### **Objectives of the study**

- To describe the movement patterns of Canadian workers at work and outside of work
- To explore differences in movement patterns between older and younger workers, between men and women
- To identify which patterns are associated with optimal cardiometabolic health profiles

### **Target audience**

This project fills an unexplored gap in our understanding of how much Canadians move at their jobs, how that movement contributes to overall movement levels and, in turn, cardiometabolic health. The findings will point to movement patterns that are both feasible and beneficial for workers, as well as inform public health recommendations on whether certain movement patterns at work offer protective cardiometabolic benefits.

### **Research team**

Aviroop Biswas (Principal Investigator), Cameron Mustard, Peter Smith (Institute for Work & Health);  
Stephanie Prince Ware (Public Health Agency of Canada and University of Ottawa Heart Institute)

**Project funder:** Canadian Institutes of Health Research

### **Related scientific publications**

- Biswas A. [Occupational physical activity as a target for obesity prevention: a lack of effect or a lack of evidence?](#) Occupational and Environmental Medicine. 2021;78(3):145-146. [doi:10.1136/oemed-2020-107266](#).

### **Related research summaries**

- [Ideal daily physical activity patterns for heart health](#). Infographic: Institute for Work & Health, October 2022.

### **Related interviews and articles**

- [Workers doing vigorous, tiring activity all day no healthier than those who are least active](#). At Work: Institute for Work & Health; No. 109, Summer 2022.

### **IWH Speaker Series presentations**

- [Is there an optimal daily movement pattern for heart health? A study of Canadian workers' activity tracker data](#). IWH Speaker Series. June 14, 2022.

## **Ontario Life After Work Injury Study: Cannabis use and long-term recovery and return-to-work outcomes among Ontario injured workers (#1410)**

URL: <https://www.iwh.on.ca/projects/ontario-life-after-work-injury-study-cannabis-use-and-long-term-recovery-and-return-to-work-outcomes-among-ontario-injured-workers>

**Project status:** Ongoing

### **Reasons for the study**

Interest is growing in the role of medical cannabis for the treatment of work-related injuries and illnesses. However, little is known about how workers with work-related conditions use cannabis and how their use may relate to their recovery and return to work.

In this study, workers' compensation claimants who participated in the Ontario Life After Work Injury Study (OLAWIS) are being interviewed again 18 months after their first interview (i.e. about three years after filing their workers' compensation claim). The aim is to better understand their experiences with using cannabis for their work-related condition, as well as their experiences seeking medical authorization and workers' compensation reimbursement for this use. More in-depth interviews with select workers from the larger sample will provide important context to these issues.

### **Objectives of the study**

- Describe condition-related cannabis use patterns, changes in use from 18 months to 36 months post-claim, and the factors considered by workers when deciding whether to use cannabis for their work-related condition
- Describe patterns of medical authorization and workers' compensation reimbursement for condition-related use of cannabis and the factors considered by workers when deciding whether to request medical authorization and reimbursement
- Evaluate the cross-sectional and longitudinal association between condition-related use of cannabis and recovery and return-to-work outcomes
- Information on the original OLAWIS study is available on [this project page](#). Information on a study that is also using the OLAWIS cohort to look at outcomes among people recovering and returning to work in the early days of the COVID-19 pandemic is available on [this project page](#).

### **Target audience**

This project will provide information to health-care providers, injured worker advocates and workers' compensation authorities to help inform programs, policies and practices around cannabis use among injured and ill workers in Ontario, including an identification of the worker subgroups most likely to benefit from guidance around use.

### **Research team**

Nancy Carnide (Co-Principal Investigator), Peter Smith (Co-Principal Investigator), Andrea Furlan, Sara Macdonald, Cameron Mustard, Colette Severin (Institute for Work & Health); Shawna Meister (Canadian Centre on Substance Use and Addiction); Stephanie Premji (McMaster University); Tiffany Turnbull (Ontario Workplace Safety & Insurance Board)

**Collaborators and partners**

- Canadian Injured Workers Alliance
- Gratton Consulting
- Injured Workers Community Legal Clinic
- Prevention Link (Ontario Federation of Labour)
- Workplace Safety & Insurance Board
- Workplace Safety & Prevention Services

**Project funder:** Canadian Institutes of Health Research



## **Opioid-related harms among Ontario workers: a surveillance tool (#1425)**

URL: <https://www.iwh.on.ca/projects/opioid-related-harms-among-ontario-workers-surveillance-tool>

**Project status:** Ongoing

### **Reasons for the study**

Canada continues to face an unprecedented opioid crisis that has resulted in profound consequences for many Canadians. Current surveillance systems in Canada, aimed at monitoring opioid use and harms across the population, typically have no or incomplete information on employment-related characteristics. A collaboration between the Institute for Work & Health and the Occupational Cancer Research Centre (OCRC) at Ontario Health aims to fill this gap.

OCRC has developed a unique surveillance program called the Occupational Disease Surveillance System (ODSS). The ODSS was originally designed to detect and monitor risks of work-related disease in Ontario workers. This study aims to adapt the ODSS and establish a surveillance program to monitor opioid-related harms among injured workers and the Ontario workforce more broadly. By updating the ODSS and linking data from recent compensation claimants to health-care data, the ODSS will be able to capture current trends in opioid-related hospitalizations and emergency department visits among Ontario workers.

### **Objectives of the study**

- Adapt and expand the ODSS to examine opioid-related adverse health events
- Monitor and describe trends of opioid-related hospitalizations and emergency department visits among Ontario workers since 2006
- Identify the demographic, injury and occupational characteristics associated with opioid-related hospitalizations and emergency department visits
- Compare incident rates of opioid-related harms in the ODSS to those in the general population of Ontario

### **Target audience**

This project will result in a surveillance program aimed at identifying and monitoring opioid-related harms in the Ontario working population. The information will help health-care providers, injured worker advocates, workers' compensation organizations, employers and policy-makers understand whether rates of opioid-related harms are changing over time among particular worker subgroups, which will help inform targeted prevention and harm reduction activities.

### **Research team**

Nancy Carnide (Co-Principal Investigator), Andrea Furlan, Sara Macdonald (Institute for Work & Health); Paul Demers (Co-Principal Investigator, Nathan Debono (Occupational Cancer Research Centre at Ontario Health)

### **Collaborators and partners**

- International Brotherhood of Boilermakers
- Ontario Building Trades
- Ontario Ministry of Labour, Training and Skills Development
- Public Health Ontario

- Workplace Safety & Insurance Board

**Project funder:** Public Health Agency of Canada

**Related interviews and articles**

- [IWH, OCRC project delves into role of employment in opioid crisis](https://canada.constructconnect.com/dcn/news/ohs/2022/08/iwh-ocrc-project-delves-into-role-of-employment-in-opioid-crisis). Daily Commercial News. August 2, 2022. Available from:  
<https://canada.constructconnect.com/dcn/news/ohs/2022/08/iwh-ocrc-project-delves-into-role-of-employment-in-opioid-crisis>

## Understanding OHS motivations and needs in small business (#1430)

URL: <https://www.iwh.on.ca/projects/understanding-ohs-motivations-and-needs-in-small-business>

**Project status:** Ongoing

### Reasons for the study

Ontario's Workplace Safety and Insurance Board (WSIB) launched the Health and Safety Excellence Program (HSEP) in late 2019. The program aims to enrol a minimum of 4,000 Ontario employers to participate in the adoption of up to 40 health and safety best-practice elements that align to the ISO45001 Occupational Health and Safety Management System.

The participation of smaller firms in the HSEP is substantially less than the proportion of all firms registered with the WSIB. While employees of smaller firms represent 26 per cent of the WSIB's covered workforce, half of traumatic fatalities and 45 per cent of critical injuries occur in smaller businesses. To improve the participation of smaller businesses, the HSEP has adjusted several program features, with the broad objective of increasing the enrolment and participation of smaller businesses in HSEP.

This project will fulfil the commitment of the WSIB and Ministry of Labour, Immigration, Training and Skills Development (MLITSD) to undertake a study of small business engagement.

### Objectives of the study

- Understand the needs, motivations and experiences of small businesses in the Health and Safety Excellence Program
- Understand effective approaches to the delivery of occupational health and safety (OHS) services to small businesses and ways to help small businesses improve OHS and build strong health and safety cultures

### Target audience

WSIB; MLITSD; Ontario's health and safety associations; small businesses in Ontario

### Research team

Cam Mustard, Basak Yanar (Principal Investigators) (Institute for Work & Health)

### Collaborators and partners

- Infrastructure Health and Safety Association
- Public Services Health and Safety Association
- Workplace Safety North
- Workplace Safety and Prevention Services

**Project funder:** Ontario Ministry of Labour, Immigration, Training and Skills Development

## **Building disability confidence in Canada's financial sector (#3235)**

URL: <https://www.iwh.on.ca/projects/building-disability-confidence-in-canadas-financial-sector>

**Project status:** Ongoing

### **Reasons for the study**

Traditionally, programs and research on employment of persons with disabilities (PWDs) in Canada and internationally have focused on preparing individuals for employment. However, little attention has been given to employer capacity for hiring and accommodating PWDs. This study aims to help address this imbalance. Using an evidence-informed intersectional approach, this project will develop and launch an online toolkit specifically designed for the Canadian financial sector.

### **Objectives of the study**

- Develop and launch an online toolkit specifically designed for the Canadian financial sector, featuring products, guidance and services that fulfil employer responsibilities under the *Accessible Canada Act*, while also meeting the talent needs of the sector
- Lead the development of two modules in the toolkit and develop two evidence-based resources: one focused on performance management, and the other on determining and fostering the level of engagement among workers with disabilities
- Bring the community of disability-focused organizations together to collectively support the development of the toolkit and ensure their viewpoints are incorporated into toolkit

### **Target audience**

The project is expected to result in a toolkit that will aid managers and staff across all departments in Canadian financial institutions to define and understand "disability confidence" and what it means to be confident, and not just compliant, in all areas pertaining to hiring and accommodating persons with a disability. The project will also bring disability-focused organizations together to collectively support the development of the toolkit, while ensuring that all organizations' unique viewpoints are captured and incorporated within the final product.

### **Research team**

Emile Tompa (Principal Investigator), Alexis Buettgen, Emma Irvin (Institute for Work & Health)

### **Collaborators and partners**

- Alliance for Equality of Blind Canadians
- Autism Speaks Canada
- Barrier Free Saskatchewan
- BC Aboriginal Network on Disability Society
- Business Disability International
- Canadian Autism Spectrum Disorder Alliance
- Canadian Council on Rehabilitation and Work
- Canadian Cultural Society of the Deaf
- Canadian Council of the Blind
- Canadian Hard of Hearing Association
- Canadian Mental Health Association
- Canadian National Institute for the Blind

- Council of Canadians with Disabilities
- Disabled Women's Network of Canada
- Every Canadian Counts Coalition
- Eviance
- Inclusion Canada
- Institute for Research and Development on Inclusion and Society
- Manitoba League of Persons with Disabilities
- March of Dimes
- Millions Missing Canada
- Muscular Dystrophy Canada
- National Education Association of Disabled Students
- National ME/FM Action Network
- Spinal Cord Injury Canada

**Project funder:** Canadian Council on Rehabilitation and Work

## **Evidence-informed workplace policies and practices for the prevention of PTSI work disability (#3240)**

URL: <https://www.iwh.on.ca/projects/evidence-informed-workplace-policies-and-practices-for-prevention-of-ptsi-work-disability>

**Project status:** Ongoing

### **Reasons for the study**

The prevalence of post-traumatic stress injuries (PTSI) among first responders is high and often leads to work disability. Recent studies have shown that organizational policies and practices have an important impact on PTSIs; however, the scientific evidence about the effectiveness of PTSI interventions is limited. Regardless of the state of the scientific evidence, first responder organizations must develop ways to protect workers. This project will engage with Alberta first responder stakeholders to co-develop an evidence summary on current, best and effective interventions to manage and prevent PTSIs, to ensure the findings are relevant, and to increase the uptake of this knowledge in Alberta.

### **Objectives of the study**

- Explore and better understand the workplace and organizational policies and practices for preventing and managing PTSIs among first responders
- Conduct an environmental scan of international first responder organizations to look for current approaches to PTSI and work disability prevention
- Conduct a review of reviews of the scientific literature
- Conduct interviews and focus groups with Alberta first responder stakeholders to gather current PTSI work disability prevention policies, programs and practices
- Synthesize the evidence from an international environmental scan on PTSIs among first responders
- Improve guidance on workplace policies and practices on preventing and managing PTSIs among first responders, with the ultimate aim of reducing PTSI-related work disability

### **Target audience**

Based upon evidence from the research literature, and information from the environmental scan and first responder interviews, the team will synthesize key findings about effective work disability prevention, return to work and reintegration, contextual factors, and facilitators and barriers related to process and implementation. It will be used to create a practical evidence summary and recommendations that can be used by first responder organizations in Alberta and beyond.

### **Research team**

Dwayne Van Eerd, Emile Tompa (Principal Investigators), Emma Irvin, Akshay Mohan, Joann Varickanickal (Institute for Work & Health); Doug Gross, Charl Els, Sebastian Straube, Suzette Bremault-Phillips (University of Alberta); Nick Carleton (University of Regina)

### **Collaborators and partners**

WGM Psychological Services Ltd. (Dr. Megan McElheran)

**Project funder:** Government of Alberta

## Using decision-tree machine learning to identify worker movement typologies (#3245)

URL: <https://www.iwh.on.ca/projects/using-decision-tree-machine-learning-to-identify-worker-movement-typologies>

**Project status:** Ongoing

### Reasons for the study

Although physical activity has important health benefits, a minority of Canadians are regularly physically active. There are many barriers to physical activity, and these barriers are complex, operating at both individual and environmental levels. Work factors, such as job demands and social and physical working conditions, are also barriers to physical activity for many of the 18.5 million employed Canadians who spend most of their days at work.

Yet, many interventions to increase physical activity focus on specific factors. Few studies have explored the complexity of interrelated and, potentially, synergistic relationships. These include relationships among factors related to socioeconomics, health status, gender, social responsibilities, physical environment and work. This study aims to fill this gap.

### Objectives of the study

- Use Classifying and Regression Trees (CART), a form of supervised decision-tree machine learning, to determine worker characteristics associated with movement patterns at work and outside of work
- Compare CART findings to those obtained through traditional, regression-based statistical methods
- Understand whether supervised decision-tree machine learning offers a complimentary perspective to understanding complex worker characteristics (i.e. typologies) associated with movement patterns at work and outside of work
- Build a 'proof-of-concept' for the use of decision-tree-based machine learning involving large-scale information (via data linkages) to identify typologies of work- and non-work-related physical activity
- Understand how to more clearly collect information on upstream determinants of health related to correlates that affect individuals, working lives and society
- Develop a baseline comparator for future, post-pandemic typology work classifications, allowing for assessments of how physical activity characteristics might have changed due to COVID-19 resulting in more work being done from home

### Target audience

These findings will be of interest to public health experts, employers, workers and people generally who are interested in knowing how to measure movement patterns of workers at and outside of work and the relationship of these patterns to health.

### Research team

Avirop Biswas (Principal Investigator), Kathleen Dobson, Faraz Shahidi, Peter Smith (Institute for Work & Health); Stephanie Prince (Public Health Agency of Canada); Daniel Fuller (Memorial University)

**Collaborators and partners**

- Memorial University
- Public Health Agency of Canada



## **Examining sex/gender differences in exposures to workplace-acquired communicable disease: a systematic review (#3405)**

**URL:** <https://www.iwh.on.ca/projects/examining-sexgender-differences-in-exposures-to-workplace-acquired-communicable-disease-systematic-review>

**Project status:** Ongoing

### **Reasons for the study**

In 2019, Canadian women 15 years and older represented nearly half (47.4 per cent) of the labour force, compared to 37.6 per cent in 1976—a percentage increase of over 15 per cent. Yet much of our understanding of work exposures is still male-centric. Social (gender) and biological (sex) differences can affect the health of men and women in different ways.

This is particularly true in the case of workplace-acquired communicable diseases (that is, illnesses caused by an infectious agent). Social factors such as the types of jobs and industries in which men and women work can influence their exposure to communicable diseases. For example, men are more likely to work in outdoor environments (such as forestry and farm work) and are more likely to be exposed to tick-borne infections. The gendered nature of front-line and essential work, which became apparent in the COVID-19 pandemic, can also lead to different infection transmission/exposures in men and women. Biological factors related to differences in immunity to infections also can affect how likely men and women are exposed to communicable diseases in their workplaces.

While gender/sex considerations are increasingly included in work and health research, they are not often the focus of studies reporting patterns of workplace-acquired communicable disease exposure.

### **Objectives of the study**

- Review the literature to examine whether men and women within the same occupations have different exposures to workplace-acquired communicable diseases
- Identify the occupations and industries in which gender/sex inequalities in work-related communicable disease exposure exist
- Inform primary prevention approaches to ensure men and women are equally protected from workplace-acquired communicable diseases

### **Target audience**

Primary prevention policy-makers and stakeholders in sectors and industries where vulnerability to disease transmission has been exposed by the COVID-19 pandemic, including health care, agriculture, education and food supply; groups with an interest in gender and sex issues

### **Research team**

Avirop Biswas (Principal Investigator), Emma Irvin, Heather Johnston, Peter Smith (Institute for Work & Health); Mieke Koehoorn, Annalee Yassi (University of British Columbia)

### **Collaborators and partners**

- AgSafe
- BC Federation of Labour
- BC General Employees' Union
- BC Nurses Union

- Manufacturing Safety Alliance of BC
- Women in Occupational Health & Safety Society
- WorkSafeBC

**Project funder:** WorkSafeBC

## **Correcting for participation bias in non-probability samples using multiple reference samples (#3435)**

URL: <https://www.iwh.on.ca/projects/correcting-for-participation-bias-in-non-probability-samples-using-multiple-reference-samples>

**Project status:** Ongoing

### **Reasons for the study**

Because researchers can't include entire populations as participants in their studies, they use "samples"—a subset of the target population of interest. One type of sampling is non-probability sampling, in which researchers pick people to participate in their study who are the easiest to get information from. For this reason, this type of sampling is also referred to as convenience sampling.

Non-probability or convenience samples are becoming increasingly popular among applied health researchers due to their low costs and high response rates. However, when participants are chosen because of their convenience, the resulting sample can over- or under-represent certain demographic, lifestyle, occupational and health-related characteristics in the target population. This can, in turn, lead to erroneous inferences.

Currently, researchers aim to mitigate this bias by using what is called "a representative reference survey" from the same target population in conjunction with the convenience sample to approximate the unknown participation rates. More than one reference survey is often required to account for all the important variables associated with individuals' decisions to participate in the convenience sample. Yet existing statistical methods are not designed to accommodate more than one reference survey. This study aims to fill this gap.

### **Objectives of the study**

- Expand existing methods to integrate two reference surveys
- Assess the performance of the new methods in simulated data under scenarios of practical importance
- Apply the new methods to real-world observational and multi-centre randomized control trial (RCT) convenience samples
- Develop packages in R and SAS (software used for statistical analysis) to help other researchers apply these new methods to their primary data collected through convenience samples

### **Target audience**

Scientists in the work and health research ecosystem and beyond (i.e. any scientist who collects primary data) will benefit from this methodological innovation.

### **Research team**

Victoria Landsman (Co-principal Investigator), Peter Smith (Co-principal Investigator), Nancy Carnide, Ivan Carrillo-Garcia (StatsCan), Aya Mitani (UofT), Lingxiao Wang (US-NCI), Barry Graubard (US-NCI)

**Project funder:** Canadian Institutes of Health Research (CIHR)

## Theme 2.0: Health as a Determinant of Work

### Centre for Research on Work Disability Policy: Envisioning the future of disability policy in Canada (#2195)

URL: <https://www.iwh.on.ca/projects/centre-for-research-on-work-disability-policy-envisioning-future-of-disability-policy-in-canada>

**Project status:** Completed 2021

#### Reasons for the study

Illness and disability touch most people at some point over their lifetime, affecting their ability to participate in the Canadian workforce. Yet the policy governing work disability tends to be piecemeal and uncoordinated, and attempts to revamp Canadian work disability policy systems have failed to address core changes to workplaces and labour markets.

This seven-year initiative, a transdisciplinary enquiry into the future of work disability policy and labour-market engagement, aims to identify how people, when disabled, can be better retained and integrated into the Canadian labour market.

When referring to work disability policy, the project means policy related to any federal, provincial or territorial program in Canada that shapes income security and labour-market engagement for work-disabled individuals. The project also includes employers in the disability policy system because they play an important role in shaping opportunities for work-disabled individuals and also have specific obligations under some programs and laws.

#### Objectives of the study

- Provide a forum for within- and cross-provincial and national dialogue on challenges and opportunities for improving the Canadian work disability policy system
- Identify problems and challenges associated with program coordination and complexity
- Identify relevant and favourable alternative approaches to system design and service provision through select comparisons with countries and small-scale trials
- Mobilize knowledge developed within and outside of the initiative in order to inform policy
- Build capacity for research and knowledge mobilization on the topic of work disability policy and labour-market engagement of individuals with disabilities
- For the full scope of the people, activities, research findings and achievements of this initiative, which has its headquarters at the Institute for Work & Health, visit the CRWDP website: <https://www.crdwp.ca/en/home>

#### Target audience

The project hopes to begin answering the following questions.

1. How well does the Canadian disability policy system serve the current and emerging needs of work-disabled people of working age in terms of employment support and opportunities?
2. For which individuals and in what labour-market contexts does the Canadian disability policy system work well or not work well, and why?
3. What are the key opportunities for policy and program improvement in the short and long run?

This information will be significant to Canadian work disability policy systems, disability communities, injury worker communities, employers, policy-makers, disability program administrators and community service providers.

**Research team**

About [50 co-investigators](#) and over [60 partners](#) are involved in this project.

**Project funder:** Social Sciences and Humanities Research Council of Canada

## **Accommodating and Communicating about Episodic Disabilities (ACED): A partnership to deliver workplace resources to sustain employment of people with chronic, episodic conditions (#2271)**

URL: <https://www.iwh.on.ca/projects/accommodating-and-communicating-about-episodic-disabilities-aced-partnership-to-deliver-workplace-resources-to-sustain-employment-of-people-with-chronic-episodic-conditions>

**Project status:** Ongoing

### **Reasons for the study**

Episodic conditions, including arthritis, multiple sclerosis, Crohn's and colitis, depression and anxiety, are often unpredictable and invisible to others, with symptoms that fluctuate from one period in time to another. As such, they create unique challenges in managing workplace disabilities, particularly in implementing privacy and duty-to-accommodate policies. This study aims to enhance the work sustainability and support provided to Canadians with episodic mental and physical health conditions through the development of easily accessed, evidence-based tools, resources and training that protects privacy and facilitates communication and accommodation planning among workers, supervisors and other workplace parties.

### **Objectives of the study**

- Consolidate and enhance existing evidence for toolkit development
- Develop new evidence-informed resources, including a communication decision-making tool; interactive job analysis and accommodation planning tool; and skills training workshops for supervisors and HR/disability managers
- Pilot test and evaluate the toolkit in diverse workplaces, including conducting cost analyses
- Expand the evidence base to include greater attention to sex/gender, age/life course, diverse employment contexts and episodic conditions
- Develop new researcher capacity in disability studies
- Build new workplace partners for testing and dissemination

### **Target audience**

This research is relevant to workers with chronic, episodic conditions, employers, human resources professionals, disability managers, occupational health professionals, insurers, government bodies, and community organizations focused on aging, employment, disability and/or caregiving. Its findings will be relevant to programs aimed at reducing at-work disability, improving work productivity and ensuring the employment sustainability of Canadian workers with episodic disabilities.

### **Research team**

Monique Gignac (Principal Investigator), Dorcas Beaton, Julie Bowring, Curtis Breslin, Emma Irvin, Arif Jetha, Ron Saunders, Peter Smith, Emile Tompa, Sabrina Tonima, Dwayne Van Eerd (Institute for Work & Health); Renée-Louise Franche (Simon Fraser University); Joy MacDermid (University of Western Ontario); William Shaw (University of Connecticut Health Center); Aaron Thompson (University of Toronto)

## Collaborators and partners

- Canadian Mental Health Association
- Crohn's & Colitis Canada
- Great-West Life Centre for Mental Health in the Workplace
- Mindful Employer Canada
- Multiple Sclerosis Society of Canada
- Ontario Ministry of Labour, Training and Skills Development
- Realize Canada
- The Arthritis Society
- University of Toronto

**Project funder:** Canadian Institutes of Health Research and Social Sciences & Humanities Research Council of Canada Signature Initiative

## Related scientific publications

- Gignac MA, Bowring J, Tonima S, Franche RL, Thompson A, Jetha A, Smith PM, MacDermid JC, Shaw WS, Van Eerd D, Beaton DE, Irvin E, Tompa E, Saunders R. [A sensibility assessment of the Job Demands and Accommodation Planning Tool \(JDAPT\): a tool to help workers with an episodic disability plan workplace support](#). Journal of Occupational Rehabilitation. 2022 epub ahead of print. [doi:10.1007/s10926-022-10057-4](https://doi.org/10.1007/s10926-022-10057-4). (Open access)
- Gignac MA, Jetha A, Martin Ginis KA, Ibrahim S. [Does it matter what your reasons are when deciding to disclose \(or not disclose\) a disability at work? The association of workers' approach and avoidance goals with perceived positive and negative workplace outcomes](#). Journal of Occupational Rehabilitation. 2021;31(3):638-651. [doi:10.1007/s10926-020-09956-1](https://doi.org/10.1007/s10926-020-09956-1). (Open access)
- Van Eerd D, Bowring J, Jetha A, Breslin FC, Gignac MA. [Online resources supporting workers with chronic episodic disabilities: an environmental scan](#). International Journal of Workplace Health Management. 2021;14(2):129-148. [doi:10.1108/IJWHM-08-2020-0137](https://doi.org/10.1108/IJWHM-08-2020-0137).

## Related interviews and articles

- [IWH launches tool to help workers with chronic conditions find job-tailored accommodations](#). At Work: Institute for Work & Health; No. 113.

## IWH Speaker Series presentations

- [Unveiling the JDAPT: A new interactive tool to identify work-related support strategies for workers with chronic conditions and disability](#). IWH Speaker Series. March 21, 2023.

## Conceal or reveal? Facilitators and barriers to older workers' communication of accommodation needs (#2280)

URL: <https://www.iwh.on.ca/projects/conceal-or-reveal-facilitators-and-barriers-to-older-workers-communication-of-accommodation-needs>

**Project status:** Completed 2021

### Reasons for the study

Canadian baby boomers are living and working longer than any previous generation. As they grow older, people may experience changes in their health, personal responsibilities and/or career trajectory that affect their employment experiences and needs for support in the workplace. Currently, there is little data examining how older workers (50-plus years) make decisions about whether or not to communicate their job accommodation needs and, if so, to whom, when and how. This study is exploring the barriers and facilitators to the communication of accommodation needs by older workers.

### Objectives of the study

- To understand the reasons older workers choose to communicate or not communicate their personal needs for accommodation, support or training/development
- To examine factors related to the content, timing and goals of communicating these accommodation needs
- To examine the relationships among facets of communication (e.g. reasons, timing, recipients of disclosure), support and employment outcomes

### Target audience

This research is relevant to older workers, employers, human resources professionals, disability managers, occupational health professionals, insurers, government bodies and community organizations focused on aging, employment, disability and/or caregiving. The findings may help inform workplace practices and policies that help older workers sustain their employment, allowing them to take advantage of the financial, personal and social benefits of work.

### Research team

Monique Gignac (Principal Investigator), Arif Jetha, Agnieszka Kosny, Vicki Kristman, (Institute for Work & Health); Jill Cameron (University of Toronto)

**Project funder:** Social Sciences & Humanities Research Council of Canada

### Related scientific publications

- Gignac MA, Bowring J, Shahidi FV, Kristman VL, Cameron JI, Jetha A. [Workplace disclosure decisions of older workers wanting to remain employed: a qualitative study of factors considered when contemplating revealing or concealing support needs](#). *Work, Aging and Retirement*. 2022 [epub ahead of print]. [doi:10.1093/workar/waac029](https://doi.org/10.1093/workar/waac029). (Open access)

### Related interviews and articles

- [Older employees reluctant to ask for support: study](#). Canadian HR Reporter. November 30, 2022. Available from: <https://www.hrreporter.com/focus-areas/culture-and-engagement/older-employees-reluctant-to-ask-for-support-study/371977>



- [Older workers not prone to ask for employer support, citing ageism and other issues](#). At Work: Institute for Work & Health; No. 110, Fall 2022.
- [COVID worries highest among workers with both physical, mental health disabilities](#). At Work: Institute for Work & Health; No. 105, Summer 2021.

#### **IWH Speaker Series presentations**

- [What do workplaces need to know to help older workers stay on the job? A qualitative study of older workers' disclosure decisions](#). IWH Speaker Series. September 20, 2022.
- [The employment quality of persons with disabilities: findings from a national survey](#). IWH Speaker Series. April 12, 2022.

## Financial incentives to promote employment of people with disabilities: when and how they work best (#2297)

URL: <https://www.iwh.on.ca/projects/financial-incentives-to-promote-employment-of-people-with-disabilities-when-and-how-they-work-best>

**Project status:** Ongoing

### Reasons for the study

Financial incentives for employers to recruit, retain and promote persons with disabilities take many forms. They are used in Canada and elsewhere as a way to address low rates of employment among people with disabilities.

In Canada, the federal government directly operates programs in this domain and supports other initiatives through transfer payments to the provinces. The funds allocated to employment support activities are substantial. However, little research has been done examining how and when financial incentives work to improve employment opportunities for people with disabilities.

### Objectives of the study

- Undertake a scoping review of the literature on use and effectiveness of financial incentives (FIs) to improve employment outcomes for people with disabilities
- Develop a map of the FIs policy arena in Canada and the key stakeholders who engage in it, with details of the characteristics of program offerings and funds allocated
- Undertake an international environmental scan of good practices in the use of FIs
- Develop case studies using qualitative and quantitative methods that contextualize how and when FIs work well or do not work well, and why
- Develop contextualized, evidence-informed resources for stakeholders (including government and employer representatives) on best practices in the use of FIs

### Target audience

The findings will profile opportunities, challenges, risks and benefits of financial incentives to encourage hiring and retaining people with disabilities. They will also offer guidance on how financial incentives should or should not be used to increase employment opportunities for persons with disabilities. As such, the findings will be relevant to injured worker and disability communities, employers, policy-makers, disability program administrators and service providers.

### Research team

Emile Tompa (Co-Principal Investigator), Rebecca Gewurtz (Co-Principal Investigator, McMaster University), Emma Irvin, Heather Johnston, Cindy Moser, Kathy Padkapayeva, Dan Samosh (Institute for Work & Health)

### Collaborators and partners

- Canadian Council on Rehabilitation and Work (Maureen Haan)
- Employment and Social Development Canada (Abdou Souab)
- Jazz Aviation (Michael MacDonald)
- Neil Squire Society

**Project funder:** Ontario Human Capital Research and Innovation Fund; Social Sciences and Humanities Research Council of Canada

**Related scientific publications**

- Tompa E, Samosh D, Johnston H, Irvin E, Gewurtz R, Padkapayeva K, Moser C. [Funding employment services to create sustainable employment opportunities for persons with disabilities](#). Institute for Work & Health; 2022.

**Related interviews and articles**

- [How government funding can best support the employment of persons with disabilities](#). At Work: Institute for Work & Health; No. 108, Spring 2022.

## **Preventing work disability among millennial young adults with rheumatic disease (#2310)**

URL: <https://www.iwh.on.ca/projects/preventing-work-disability-among-millennial-young-adults-with-rheumatic-disease>

**Project status:** Ongoing

### **Reasons for the study**

Despite advances in clinical care, millennial young adults living with rheumatic disease continue to report trouble finding employment and staying productive at work. Previous research suggests that workplace policies and practices play an important role in overcoming these challenges, but because research focuses primarily on older adults, it is unclear if young adults who are just beginning their careers have the same needs or access to workplace support. This project examines the workplace support needs of young adults with rheumatic disease, describes the supports that are available and used within the workplace, and investigates whether unmet workplace support needs predict subsequent work disability.

### **Objectives of the study**

- To conduct a longitudinal survey of 365-plus millennials with rheumatic disease
- To identify workplace supports needed by millennials with rheumatic disease, to what extent these supports are available and used, and whether those millennials with rheumatic disease who do not have their support needs met at work are more likely to indicate difficulties with employment
- To examine how the characteristics of millennials with rheumatic disease, including their health and work conditions, relate to unmet workplace support needs, and whether they affect the relationship between unmet workplace support needs and difficulties with employment

### **Target audience**

The results of this study will help employers, clinicians and policy-makers develop strategies that will assist millennials with rheumatic disease transition into the world of work and help them remain employed and productive.

### **Research team**

Arif Jetha, Vicki Kristman, Monique Gignac (Institute for Work & Health); Catherine Backman (University of British Columbia and Arthritis Research Centre of Canada); Vicki Kristman (Lakehead University); Lori Tucker (University of British Columbia and British Columbia's Children's Hospital)

### **Collaborators and partners**

- Arthritis Society
- Canadian Arthritis Patient Alliance
- Cassie + Friends

**Project funder:** Arthritis Society Operating Grant

### **Related scientific publications**

- Jetha A, Tucker L, Shahidi FV, Backman C, Kristman VL, Hazel EM, Perlin L, Proulx L, Chen C, Gignac MA. [How does job insecurity and workplace activity limitations relate to rheumatic](#)

[disease symptom trajectories in young adulthood? A longitudinal study](#). Arthritis Care & Research. 2023;75(1):14-21. [doi:10.1002/acr.24982](https://doi.org/10.1002/acr.24982). (Open access)

- Jetha A, Tucker L, Backman C, Kristman VL, Bowring J, Hazel EM, Perlin L, Proulx L, Chen C, Gignac MA. [Rheumatic disease disclosure at the early career phase and its impact on the relationship between workplace supports and presenteeism](#). Arthritis Care & Research. 2022;74(10):1751-1760. [doi:10.1002/acr.24620](https://doi.org/10.1002/acr.24620). (Open access)

#### **Related research summaries**

- [Examining the link between job insecurity, work limitations and persistent symptoms among young adults with rheumatic disease](#). Research Highlights: Institute for Work & Health, August 2022.

## **Ontario Life After Work Injury Study: Understanding the long-term recovery and labour market outcomes of injured workers in Ontario (#2320)**

URL: <https://www.iwh.on.ca/projects/ontario-life-after-work-injury-study>

**Project status:** Completed 2021

### **Reasons for the study**

What are the long-term outcomes for people with work-related injuries or illnesses after they are no longer engaged with Ontario's workers' compensation system? This study aims to find out.

This study is comparing health and labour market outcomes 18 months following a work-related injury or illness among three groups of workers' compensation claimants: those with a relatively quick resolution of their claim, those whose claim took a longer time to resolve, and those with prolonged claim activity. It is then comparing the health and labour market outcomes of the three groups of workers' compensation lost-time claimants to two similar groups of injured workers (a historic one from Ontario and a newer one from another jurisdiction), as well as to a group of Ontario workers with similar occupational and demographic characteristics who have not recently experienced a work-related injury or illness.

Ultimately, the study will identify factors associated with positive and negative labour market and health recovery outcomes, and determine if particular groups of workers are at most risk for poor labour market and health recovery outcomes.

### **Objectives of the study**

- To design and pilot test an interviewer-administered questionnaire to collect information about the following: (1) return-to-work (RTW) and labour market status; (2) sources of income; (3) function, recovery and other health outcomes; (4) perceptions of the fairness of the claim and RTW process; (5) interactions between claimants, their workplaces and their healthcare providers; and (6) basic socio-demographic characteristics and pre-injury information on occupation, earnings, industry and workplace size.
- To recruit three groups of 400 lost-time claim beneficiaries to participate in an interviewer-administered survey, then linking survey responses to WSIB administrative records
- To identify the modifiable and non-modifiable factors that are associated with poor health and recovery outcomes at 18 months and that are associated with better or worse labour market outcomes at 18 months
- This OLAWIS cohort is also being used to conduct other studies related to long-term recovery and return-to-work outcomes. For information on a study looking at the use and role of cannabis in long-term recovery, go to [this project page](#). For information on a study looking at outcomes among people recovering and returning to work in the early days of the COVID-19 pandemic, go to [this project page](#).

### **Target audience**

The Ontario Life After Work Injury Study will provide findings relevant to the design and administration of workers' compensation claimant services and, therefore, will be of interest to representatives of injured workers and administrators of work disability insurance programs in Canada.

## Research team

Cameron Mustard (Principal Investigator), Nancy Carnide, Colette Severin, Peter Smith, Emile Tompa (Institute for Work & Health)

**Project funder:** Workplace Safety and Insurance Board of Ontario

## Related scientific publications

- Dobson K, Mustard C, Carnide N, Furlan AD, Smith PM. [Impact of persistent pain symptoms on work absence, health status and employment 18 months following disabling work-related injury or illness](#). Occupational and Environmental Medicine. 2022;79(10):697-705. [doi:10.1136/oemed-2022-108383](#). (Open access)

## Related interviews and articles

- [Study finds long-term pain an issue for many injured workers](#). Safety+Health. November 14, 2022. Available from: <https://www.safetyandhealthmagazine.com/articles/23236-study-finds-long-term-pain-an-issue-for-many-injured-workers>
- [7 in 10 injured workers still experience pain 18 months later](#). Canadian HR Reporter. November 9, 2022. Available from: <https://www.hrreporter.com/focus-areas/employment-law/7-in-10-injured-workers-still-experience-pain-18-months-later/371355>
- [IWH study finds 7 in 10 injured workers still experience pain more than a year after injury](#). At Work: Institute for Work & Health; No. 110, Fall 2022.
- [Poor interactions with case managers linked with risk of mental illness later on](#). At Work: Institute for Work & Health; No. 107, Winter 2022.

## IWH Speaker Series presentations

- [Persistent pain: its role in work absence, health, and employment after a disabling work-related injury](#). IWH Speaker Series. November 15, 2022.

## **Ontario Life After Work Injury Study: Understanding the long-term recovery and labour market outcomes of injured workers in the shadow of COVID-19 (#2321)**

URL: <https://www.iwh.on.ca/projects/ontario-life-after-work-injury-study-understanding-long-term-recovery-and-labour-market-outcomes-of-injured-workers-in-shadow-of-covid-19>

**Project status:** Ongoing

### **Reasons for the study**

This study builds upon the original Ontario Life After Work Injury Study (OLAWIS), which set out to determine the long-term health, recovery and labour market outcomes for people with work-related injuries or illnesses after they are no longer engaged with the Ontario workers' compensation system.

This study is looking at the experiences and outcomes of lost-time claimants who experienced a disabling work-related injury or illness in January or February 2020 and, as a result, were recovering and, potentially, returning to work in the shadow cast by the COVID-19 emergency.

### **Objectives of the study**

- Recruit 700 lost-time claim beneficiaries who experienced a work-related injury or illness in January or February 2020 to participate in an interviewer-administered survey that asks about their return-to-work and labour market status, recovery and other health outcomes, and experience with the claim and RTW process
- Link survey responses to WSIB administrative records to identify the modifiable and non-modifiable factors within the group that are associated with poor health and recovery outcomes and better or worse labour market outcomes at 18 months
- Compare the health and labour market outcomes at 18 months post injury or illness of workers' compensation claimants whose recovery and RTW occurred before the COVID-19 emergency to those whose recovery and RTW occurred after the onset of the pandemic
- Inform and improve the design and administration of Workplace Safety and Insurance Board (WSIB) benefits and claimant services
- Information on the original OLAWIS study is available on [this project page](#). And information on a study using the OLAWIS cohort to look at the use and role of cannabis in long-term recovery is available on [this project page](#).

### **Target audience**

WSIB decision-makers; representatives of injured workers; administrators of other work disability insurance programs in Canada

### **Research team**

Cameron Mustard (Principal Investigator), Nancy Carnide, Colette Severin, Peter Smith, Emile Tompa (Institute for Work & Health)

### **Collaborators and partners**

- Workplace Safety and Insurance Board (WSIB)

**Project funder:** Workplace Safety and Insurance Board



## **Future-proofing young Canadians with disabilities for the changing labour market (#2330)**

URL: <https://www.iwh.on.ca/projects/future-proofing-young-canadians-with-disabilities-for-changing-labour-market>

**Project status:** Ongoing

### **Reasons for the study**

In industrialized countries, the future of work is characterized by rising automation and digitization of jobs, increased exposure to precarious work, growing employment in the gig and sharing economies, and ecological and sociopolitical changes. The future of work has the potential to create new challenges that disproportionality affect vulnerable labour market subgroups, including young workers and people living with disabilities.

In this study, we systematically examine the future of work as it relates to young people with disabilities, with the aim of anticipating the work and labour market changes that will affect their inclusion and success in the future of work. Findings can help inform the design of future-proofed policies and programs for young people with disabilities that can be implemented in the present to address the anticipated shocks and stresses of the future of work.

### **Objectives of the study**

- Using strategic foresight methodologies, construct medium- to long-term views of the future of work as it relates to young people with disabilities
- Inform the design of future-proofed policies and programs to address the anticipated shocks and stressors for young people with disabilities in the future of work

### **Target audience**

Policy-makers, educators, employers, employment service providers, vocational rehabilitation professionals, youth-based community organizations, young adults with disabilities and their families will find these study results useful for informing the design of future-proofed policies and programs that can be implemented now to help ensure the inclusion of young people with disabilities in the future of work.

### **Research team**

Arif Jetha (Principal Investigator), Monique Gignac, Kay Nasir, Ali Shamaee, Peter Smith, Emile Tompa,

### **Collaborators and partners**

- Canadian Council on Rehabilitation and Work
- Education at Work Ontario
- Employment and Social Development Canada (Government of Canada)
- The Knowledge Society

**Project funder:** New Frontiers in Research Fund (a Tri-Agency Program—CIHR, NSERC, SSHRC)

### **Related scientific publications**

- Jetha A. [Three scenarios of a future working world \[for young adults living with a disability\]](#). Institute for Work & Health; 2023.

## **ECHO OEM: Piloting a telementoring program in occupational and environmental medicine (#2335)**

URL: <https://www.iwh.on.ca/projects/echo-oem-piloting-telementoring-program-in-occupational-and-environmental-medicine>

**Project status:** Completed 2022

### **Reasons for the study**

Primary health-care providers in Ontario play an important role in the recovery, return to work and disability management of injured workers. However, they receive little training related to occupational medicine, work functioning and workers' compensation systems, and they complain of frustration with complex cases and the burden of dealing with the Workplace Safety and Insurance Board (WSIB).

Project ECHO (Extension for Community Health-care Outcomes) is an innovative, telementoring program that was first conceived in 2003 by a doctor at the University of New Mexico who was looking for a way to reach remote, under-served communities. The ECHO model uses a hub-and-spoke knowledge-sharing approach where expert teams lead virtual clinics, amplifying the capacity for providers to deliver best-in-practice care to the underserved in their own communities. Since then, the model has been taken up in countries around the world.

In 2014, IWH Scientist Dr. Andrea Furlan (in her capacity as a physician at Toronto Rehabilitation Institute) implemented the first Project ECHO in Canada, with a focus on increasing capacity of primary care physicians in Ontario to manage complex chronic pain cases. Now, Furlan is leading a research team based at IWH that is implementing another Project ECHO—this one a pilot to develop, implement and evaluate the first ECHO in occupational and environmental medicine (OEM) in the world.

This pilot will use weekly, videoconference case-based discussions to connect an inter-professional team of OEM experts with physicians and nurses in rural and remote areas of Ontario. The aim is to increase the capacity of primary health-care providers across the province to better manage patients with complex work-related injuries and diseases or environmental exposures.

### **Objectives of the study**

- Successfully implement an ECHO OEM in Ontario
- Evaluate the performance of ECHO OEM in increasing the capacity of primary-care settings to manage patients with work-related injuries and diseases or environmental exposures
- Improve the engagement of primary-care physicians with the WSIB with respect to patient care

### **Target audience**

ECHO OEM has the potential to positively improve the outcomes of injured and ill workers in Ontario, thus improving the outcomes of Ontario's health system more broadly.

### **Research team**

Andrea Furlan (Principal Investigator), Nancy Carnide, Shireen Harbin, Emma Irvin, Sara Macdonald, Colette Severin, Peter Smith (Institute for Work & Health); Anil Adisesh, Behdin Nowrouzi-Kia (University of Toronto)

### **Collaborators and partners**

- ECHO Institute at the University of New Mexico
- ECHO Ontario Superhub
- Association of Family Health Teams of Ontario (AFHTO)
- Canadian Board of Occupational Medicine (CBOM)
- Centre for Addiction and Mental Health (CAMH)
- Centre for Research Expertise in Occupational Disease (CRE-OD)
- Lakehead University
- Nurse Practitioners' Association of Ontario (NPAO)
- Occupational Health Clinics for Ontario Workers (OHCOW)
- Occupational Medicine Specialists of Canada (OMSOC)
- Ontario Occupational Health Nurses Association (OOHNA)
- St. Michael's Hospital
- University of Toronto
- Workplace Safety and Insurance Board (WSIB)

**Project funder:** Workplace Safety and Insurance Board

### **Related scientific publications**

- Furlan AD, Harbin S, Vieira FF, Irvin E, Severin CN, Nowrouzi-Kia B, Tiong M, Adisesh A. [Primary care physicians' learning needs in returning ill or injured workers to work. A scoping review.](#) Journal of Occupational Rehabilitation. 2022;32(4):591-619. [doi:10.1007/s10926-022-10043-w](https://doi.org/10.1007/s10926-022-10043-w).

## **Future-focused job accommodation practices for the school-to-work transition (#2340)**

URL: <https://www.iwh.on.ca/projects/future-focused-job-accommodation-practices-for-school-to-work-transition-0>

**Project status:** Ongoing

### **Reasons for the study**

The future of work is characterized by diverse social, technological, economic, environmental and political changes that are expected to disrupt every industry, transform working conditions and affect the types and availability of jobs. Young people with disabilities who are transitioning from school to work are especially vulnerable to the complex barriers posed by a rapidly changing labour market.

Job accommodations are essential for young people with disabilities to find and sustain employment and career advancement during the school-to-work transition. However, a recent survey of young people with disabilities in Canada found that most reported barriers to accessing job accommodations. Difficulties faced by young people during the school-to-work transition can have a lasting effect and contribute to adverse labour market outcomes that extend across one's working life. The future of work may create unique challenges for young people with disabilities that require innovative job accommodations and workplace supports.

### **Objectives of the study**

- Using a novel Delphi methodology, administer two survey rounds to young people with disabilities, policy-makers, disability employment counsellors, labour market experts and futurists to reach consensus on the best strategies to ensure success of young people with disabilities in the future of work
- Better understand the emerging barriers that young people with disabilities could face in accessing needed job accommodations within the changing world of work
- Generate future-oriented and proactive evidence regarding the school-to-work transition of young people with disabilities and advance knowledge of job accommodation practices

### **Target audience**

The future-oriented and proactive evidence generated by this project on the school-to-work transition for young people with disabilities and their needed accommodations will be of value to employers, educators, employment service providers, policy-makers, and young adults with disabilities and their families.

### **Research team**

Arif Jetha (Principal investigator), Monique Gignac, Sara Macdonald, Kay Nasir, Emile Tompa, Dwayne Van Eerd (IWH); Kathleen Martin Ginis, University of British Columbia

### **Collaborators and partners**

- Abilities Centre
- Canadian Council on Rehabilitation and Work
- National Educational Association for Disabled Students

**Project funder:** Accessibility Standards Canada (Government of Canada)

### Related scientific publications

- Jetha A, Nasir K, Van Eerd D, Gignac MA, Martin Ginis KA, Tompa E. [Inclusion of young people with disabilities in the future of work: forecasting workplace, labour market and community-based strategies through an online and accessible Delphi survey protocol](#). BMJ Open. 2022;12(7):e055452. doi:10.1136/bmjopen-2021-055452. (Open access)
- Jetha A, Nasir K. [Strategies to ensure young persons with disabilities are included in the future of work](#). Institute for Work & Health; 2022.

## **Developing a framework for measuring culture change related to accessibility and inclusion of persons with disabilities (#2345)**

URL: <https://www.iwh.on.ca/projects/developing-framework-for-measuring-culture-change-related-to-accessibility-and-inclusion-of-persons-with-disabilities>

**Project status:** Ongoing

### **Reasons for the study**

Research shows people with disabilities are often not permitted to, and/or are prevented from, participating in various activities in society, including employment. This exclusion can be partly attributed to various barriers and forms of discrimination described as institutional, environmental and attitudinal. These forms of discrimination work to exclude people through institutions' day-to-day interactions, lack of accessibility and prevailing attitudes. Culture change is needed to make substantive and sustainable change.

However, without clear and robust measures to track culture change and outcomes, it is difficult to see the impact of efforts related to advancing social inclusion and accessibility. Therefore, there is an urgent need to develop a comprehensive list of indicators of culture change that can be used to measure progress in achieving targets set out in the Accessible Canada Act and to gauge improvements in accessibility and inclusion of persons with disability in all facets of society.

### **Objectives of the study**

- Develop a conceptual framework and measurement protocol for culture change relevant to accessibility and inclusion of persons with disabilities, with a focus on the priority domains in the Accessible Canada Act, including "employment" as one of the domains
- Conduct a scoping review involving a rapid review of peer-reviewed and grey literatures
- Conduct an environmental scan in the form of discussions with stakeholders in Canada and experts in other jurisdictions
- Document gaps in data sources and develop strategies to fill them

### **Target audience**

Federal, provincial/territorial and municipal governments and policy-makers, as well as employers, educators, health-care providers, service providers and the public at large, will have a framework by which to gauge culture change regarding inclusion of persons with disabilities and how well targets in the Accessible Canada Act are being met.

### **Research team**

Emile Tompa (Principal Investigator), Amir Mofidi (Co-PI), Emma Irvin, Sabrina Imam (Institute for Work & Health); Rebecca Gewurtz (McMaster University)

### **Collaborators and partners**

- Employment and Social Development Canada

**Project funder:** Employment and Social Development Canada

## **Transitioning to the future of work: an intersectional study of vulnerable youth and young adults (#2400)**

URL: <https://www.iwh.on.ca/projects/transitioning-to-future-of-work-intersectional-study-of-vulnerable-youth-and-young-adults>

**Project status:** Completed 2022

### **Reasons for the study**

The growing adoption of digital technologies, sociodemographic shifts, globalization and ecological changes are driving forces that characterize the future of work. In Canada and other industrialized countries, the emerging challenges of transitioning to the future of work can be pronounced for vulnerable groups of young people, including women, visible minorities, immigrants, LGBTQ2+, and those with low socioeconomic status.

Designing future-oriented strategies are an important step in ensuring that young people are able to meet the challenges of a changing labour market and take advantage of potential opportunities. This project applies an intersectional theoretical framework to explore the impact of the future of work on the transitional work experiences of vulnerable young people and to uncover the overlapping structures that contribute to labour market inequities for different groups. By examining the work-related perspectives and experiences of a diverse group of young people, this study takes an important direction in social and public health policy to promote the inclusion of all young people within the future of work.

### **Objectives of the study**

- Through an intersectional framework, uncover dimensions of the future of work that will most likely affect the transition to work of diverse young people
- Identify specific groups of young people who are most vulnerable to inequities within the changing labour market and who would benefit from additional support
- Inform the development of policies and programs that support the transition to work of young people in a changing labour market and address labour market inequities at the early career stage and across the life course

### **Target audience**

This work will be of value to government ministries, educators, employers and youth-based community organizations by informing their policies and programs that support the transition to work of vulnerable young people in the future of work and address existing and emerging labour market inequities.

### **Research team**

Arif Jetha (Principal Investigator), Monique Gignac, Sara Macdonald, Kay Nasir, Ali Shamaee, Peter Smith (Institute for Work & Health); Yani Hamdani (University of Toronto); Vicki Kristman (Lakehead University)

**Project funder:** Social Sciences and Humanities Research Council

## **Inclusive Design for Employment Access (IDEA): A social innovation lab to increase demand-side capacity to employ persons with disabilities in Canada (#2405)**

URL: <https://www.iwh.on.ca/projects/inclusive-design-for-employment-access-idea-social-innovation-lab-to-increase-demand-side-capacity-to-employ-persons-with-disabilities-in-canada>

**Project status:** Ongoing

### **Reasons for the study**

Talented people are all too often excluded from equal opportunities and choices in careers, jobs and work because they are 'different.' That is frequently the case for the 20 per cent of the Canadian population who are persons with disabilities (PWDs), who have disproportionately poorer employment outcomes, even with appropriate qualifications and work readiness.

Despite efforts to improve their employment levels by governments and other stakeholders, labour force participation rates of PWDs in Canada remain substantially lower than persons without disabilities—59 per cent compared to 80 per cent. Among those working, many remain stuck in entry-level, low paying, precarious employment—experiences that give rise to instability, lack of protection, insecurity, and social and economic vulnerability. These challenges are compounded for PWDs from marginalized groups, who face additional systemic barriers to secure employment, based on their gender, sexual orientation and/or racial identity.

Traditionally, programs and research on employment of PWDs in Canada and internationally have focused on preparing individuals for employment. However, little attention has been given to employer attitudes towards, interest in and capacity for hiring and accommodating PWDs. Without attention to employer needs and improving the literacy of workplace stakeholders on inclusive practices, the fundamental context of the workplace will remain unchanged, and barriers and assumptions remain unchallenged.

This project proposes a new framework for a holistic, interdisciplinary approach to applied research in work disability policy and practice in the form of a social innovation laboratory called Inclusive Design for Employment Access (IDEA), which will focus on building employer and system capacity for providing sustainable and rewarding employment opportunities for PWDs. By drawing on knowledge from rehabilitation science, disability and social policy, design and technology, management, economics and program evaluation, this project is better poised to tackle the complex challenges in this arena.

### **Objectives of the study**

- Expand demand-side capacity across the Canadian economy so employers can capitalize on the diverse talents of persons with disabilities
- Increase accessibility and inclusiveness of Canadian labour markets such that PWDs have equal opportunities and choices in careers, jobs and work
- Establish a best-practice methodology and capacity for co-designing solutions in the work disability policy arena
- For information on an IDEA subproject on synthesizing evidence related to IDEA's objectives, go to [this project page](#).



## **Target audience**

Canadian work disability policy system stakeholders, including injured worker/disability community representatives, employers, policy-makers, disability program administrators, educators and service providers

## **Research team**

Emile Tompa (Institute for Work & Health), Rebecca Gewurtz (McMaster University) (Principal Investigators); Arif Jetha, Emma Irvin, Dwayne Van Eerd (Institute for Work & Health); Bruce Bonyhady (University of Melbourne); Susanne Bruyère (Cornell University); Peter Coppin (OCAD University); Marie-France Coutu (Université de Sherbrooke); Robert Fleisig (McMaster University); Raphael Gomez (University of Toronto); Karen Harlos (University of Manitoba); Takeo Kondo (University of Tokyo); Vicki Kristman (Lakehead University); Marie Laberge (Université de Montréal); Jordana Maisel (University at Buffalo); Carrie Anne Marshall (Western University); Valérie Martin (UQAM); Sandra Moll (McMaster University); Dan Samosh (Queen's University); Firat Sayin (Saint Mary's University); Jennifer Smith-Merry (University of Sydney); Mahadeo Sukhai (CNIB); Hélène Sultan-Taïeb (UQAM); Jutta Treviranus (OCAD University); Angelika Veres (OCAD University); Catherine Wyndham-West (OCAD University).

## **Collaborators and partners**

- Maria Ash, CNIB
- David Brown, CIBC
- Alexis Buettgen, Institute for Work & Health
- Krista Carr, Inclusion Canada
- Wendy Cukier, Diversity Institute
- Alec Farquhar, Centre for Research on Work Disability Policy
- Francis Fung, March of Dimes
- Don Gallant, Ready, Willing and Able
- Joseph Giulione, L'Arrimage
- Ian Graham, Ottawa Hospital Research Institute
- Maureen Haan, Canadian Council on Rehabilitation and Work
- Collinda Joseph, Accessibility Standards Canada
- Emmanuella Lopez-Bastos, United Food and Commercial Workers of Canada
- Michael MacDonald, Jazz Aviation
- Cindy Moser, Institute for Work & Health
- Sari Sairanen, Unifor
- Abdou Saouab, Employment and Social Development Canada
- Victoria Smallman, Canadian Labour Congress
- Frank Smith, National Educational Association of Disabled Students
- Carmine Tiano, Provincial Building & Construction Trades Council of Ontario
- Flavio Volpe, Automotive Parts Manufacturers' Association
- Boris Vukovic, Carleton Technology and Training Centre

**Project funder:** New Frontiers in Research Fund (a Tri-Agency Program—CIHR, NSERC, SSHRC)

## Understanding the role of parental employment quality in child mental health (#2430)

URL: <https://www.iwh.on.ca/projects/understanding-role-of-parental-employment-quality-in-child-mental-health>

**Project status:** Ongoing

### Reasons for the study

Canada is facing an urgent mental health crisis among children and youth. The causes of mental health problems in children are complex and multifactorial. However, there is evidence that socioeconomic conditions such as poverty and material hardship are powerful predictors. Socioeconomic status in childhood is shaped in large part by the quality of parental employment – referring to hours, stability, security, earnings and other aspects of parental employment conditions that influence family well-being. As the labour market in Canada and other wealthy nations has shifted towards more contingent and precarious employment, a growing number of parents are having to rely on casual, insecure and low-paying jobs to make ends meet. These labour market trends have important and under-appreciated implications for child health and health equity.

This study will use general population surveys in Canada to better understand the role of parental employment quality as a social determinant of child mental health. The study will shed light on an upstream driver of household socioeconomic disadvantage, with the goal of informing cross-sectoral policy and programmatic interventions to improve child mental health and health equity in Canada.

### Objectives of the study

- Describe the patterns and dynamics of parental employment quality in Canada
- Examine the relationship between parental employment quality and child mental health
- Identify policy levers to improve parental employment quality as an upstream driver of child mental health and health equity

### Target audience

The findings of this research will be of value to Ontario's Ministry of Labour, Immigration, Training and Skills Development and Ministry of Children, Community, and Social Services, as well as to labour, employers and mental health organizations.

### Research team

Faraz Vahid Shahidi (Co-Principal Investigator), Anne Fuller (Co-Principal Investigator)(McMaster University), Kathy Georgiades (McMaster University), Jinette Comeau (King's University College), Arjumand Siddiqi (University of Toronto), Gita Wahi (McMaster University), Andrew Pinto (St. Michael's Hospital)

**Project funder:** Edwin S.H. Leong Centre for Healthy Children

## **TIE-C-MI: Trajectories of Income and Employment of Canadians with Mental Illness (#2435)**

URL: <https://www.iwh.on.ca/projects/trajectories-of-income-and-employment-of-canadians-with-mental-illness>

**Project status:** Ongoing

### **Reasons for the study**

Mental illnesses and substance use disorders increase the risk of earning lower wages, becoming unemployed, and depending on income assistance programs. At the same time, poor employment and low-income levels may impact or exacerbate a mental illness and the ability to access treatment.

In Canada, we know little about what employment and income look like over time for Canadians with mental health and substance use disorders. This information is a necessary first step to identifying the most appropriate time to implement health- and labour-related interventions to retain these Canadians in the workforce. The goal of this project is to understand the employment and income experiences of Canadians with mental and substance use disorders during their prime working years.

### **Objectives of the study**

- Uncover the trajectories of employment and income among Canadian males and females between the ages of 18 to 64 who experience a common mental disorder (e.g. anxiety disorder, depressive disorder), severe mental disorder (e.g. bipolar disorder, schizophrenia), eating disorder, substance use disorder or multiple disorders
- Determine which sociodemographic and health factors most strongly influence trajectory membership for each mental disorder group
- Compare these trajectories to those of working-aged Canadians who do not experience mental or substance use disorders

### **Target audience**

The findings from this research will be useful to labour and health policy-makers, health-care organizations, unions and insurance providers.

### **Research team**

Kathleen Dobson (Principal Investigator), Monique Gignac (Institute for Work & Health), Simone Vigod (Women's College Hospital; University of Toronto), Claire de Oliveira (Centre for Mental Health and Addiction; University of Toronto), Mark Ferro (University of Waterloo), Rubab Arim (Statistics Canada)

### **Collaborators and partners**

- Mindset Mental Health Strategy
- Mood Disorders Society of Canada
- Statistics Canada

**Project funder:** Canadian Institutes of Health Research (CIHR)

## **Return to work in policing: synthesizing current practices and implementation guidance (#3390)**

URL: <https://www.iwh.on.ca/projects/return-to-work-in-policing-synthesizing-current-practices-and-implementation-guidance>

**Project status:** Completed 2022

### **Reasons for the study**

A police officer's return to work (RTW) after a physical or psychological work-related injury can be challenging—for the returning officer, work colleagues, police service and workers' compensation system involved. Although the scientific evidence on effective workplace-based RTW interventions is growing, we still know little about what RTW interventions in particular are effective for first responders, including police officers. This study aims to help fill this gap by identifying effective workplace-based practices in this sector based on the best available research evidence, as well as the experiences of police service supervisors and members.

### **Objectives of the study**

- Describe and synthesize the best available research evidence on, and current practices in, return to work in police services.
- Conduct interviews with sworn and civilian supervisors and members of Ontario police services who have experience with return to work to gather detailed information about current RTW practices.
- Describe the facilitators and barriers to implementing RTW programs and practices in police forces.

### **Target audience**

The project is expected to culminate in a practical, evidence-informed guide to support the implementation of effective RTW programs in police services. The project's findings, as well as the guide, will help police services, especially in Ontario, assess and improve their current RTW programs. It will also help the province's Workplace Safety and Insurance Board target their supports for police officers in the workers' compensation system.

### **Research team**

Dwayne Van Eerd (Principal investigator), Siobhan Cardoso, Emma Irvin, Monique Gignac, Arif Jetha, Emile Tompa, Basak Yanar (Institute for Work & Health); Tanya Morose (Public Services Health & Safety Association)

### **Collaborators and partners**

- Public Services Health & Safety Association

**Project funder:** Workplace Safety and Insurance Board of Ontario

### **Related research summaries**

- [RTW in policing: time to ACT](#). Booklet: Institute for Work & Health, October 2022.

## IWH Speaker Series presentations

- [Return to work in Ontario police services: Current experiences and practices](#). IWH Speaker Series. October 18, 2022.

## **Developing a Canadian work disability standard for paramedics with post-traumatic stress injury (#3400)**

URL: <https://www.iwh.on.ca/projects/developing-canadian-work-disability-standard-for-paramedics-with-post-traumatic-stress-injury>

**Project status:** Ongoing

### **Reasons for the study**

The prevention and management of workplace disability is a significant challenge for paramedic services, especially when it involves post-traumatic stress injury (PTSI). PTSI is a non-clinical term that encompasses a range of mental health injuries, including some operational stress injuries, clinically diagnosed post-traumatic stress disorder (PTSD), anxiety and depression. The effects of PTSI go beyond paramedics and workplaces, often significantly affecting members of paramedics' families and communities, as well.

Designed to address several recommendations from a House of Commons discussion in October 2016 on supporting public safety officers, this project will develop, promote and disseminate a Canadian standard and related tools on work disability prevention in paramedic services. The standard and tools will be designed to prevent and manage work disability associated with PTSI among paramedics, prevent psychological harm from workplace exposures, and build the capacity of paramedic services to address the psychological health and well-being of paramedics.

### **Objectives of the study**

- Synthesize evidence on work disability management systems in the peer-reviewed and grey literatures to help inform the development of a Canadian standard on work disability prevention in paramedic services
- Undertake a needs assessment of paramedic organizations in the area of work disability management and prevention of PTSI and other mental health conditions
- Develop, promote and disseminate a nationally applicable Canadian standard on work disability prevention in paramedic services
- Develop guidance and tools to facilitate uptake of the standard in paramedic organizations across Canada

### **Target audience**

The proposed standard and related tools are expected to provide an innovative approach to systematically preventing and managing PTSIs, by addressing it in a strategic, coordinated and broad organizational management framework, in contrast to the ad-hoc, piecemeal approaches that are commonplace. Although the standard is designed to provide guidance to paramedic organizations across Canada, it will also be of value to other first responder organizations, such as police forces, firefighters and military personnel. The standard will be designed to be integrated with other related frameworks, including CSA Z1003.1 Paramedic Psychological Health and Safety in the Workplace, a standard focused on primary prevention that is currently under development.

**Research team**

Emile Tompa (Co-Principal Investigator), Amin Yazdani (Co-Principal Investigator, Conestoga College); Sabrina Imam, Emma Irvin, Dwayne Van Eerd (Institute for Work & Health); Nicki Islic, Ron Meyers (CSA Group)

**Collaborators and partners**

- Conestoga College
- CSA Group
- Country of Renfrew Paramedic Services
- Paramedic Chiefs of Canada
- Paramedic Association of Canada

**Project funder:** Commissioned by The County of Renfrew with funding from Defence Research and Development Canada, Centre for Security Science (DRDC CSS) under Canadian Safety and Security Program (CSSP). Views expressed do not necessarily reflect those of DRDC CSS/CSSP.

## Addressing knowledge gaps about skills of persons with disabilities (#3410)

URL: <https://www.iwh.on.ca/projects/addressing-knowledge-gaps-about-skills-of-persons-with-disabilities>

**Project status:** Ongoing

### Reasons for the study

Little to no information is available on the foundational and transferable skill levels of persons with disabilities. For example, the Program for the International Assessment of Adult Competencies by the Organization for Economic Co-operation and Development (OECD)—the main source for statistically reliable data on population skill levels—does not include this group. This project aims to fill this knowledge gap.

### Objectives of the study

- Determine what we do and do not know about the foundational and transferable skill levels and employment outcomes for persons with disabilities and recommend ways to fill the knowledge gaps
- Conduct a literature review of existing research contained in demographic profiles developed by the Office of Skills for Success
- Determine the main barriers faced by persons with disabilities in increasing their skill levels and further integrating into the labour market
- Determine if women with disabilities face additional barriers and, if so, what these barriers are
- Find proven or promising practices or avenues to increase skill levels of persons with disabilities and to reduce the barriers they face in doing so
- Understand how the COVID-19 pandemic has affected the skill development and labour market barriers of persons with disabilities, including the long-term implications of the pandemic on the future of persons with disabilities and their skill development and labour market barriers

### Target audience

The results of this project will be of value to Canadian work disability policy system stakeholders, including injured worker and disability community representatives, employers, policy-makers, disability program administrators, service providers and educators.

### Research team

Emile Tompa (Principal Investigator), Sabrina Imam, Joann Varickanickal, Amir Mofidi, Emma Irvin, Basil Southey (Institute for Work & Health); Rebecca Gewurtz (McMaster University)

### Collaborators and partners

- Employment and Social Development Canada

**Project funder:** Employment and Social Development Canada



### **Related scientific publications**

- Tompa E, Imam S, Varickanickal J, Mofidi A, Gewurtz R, Irvin E, Southey B. [Addressing knowledge gaps about skills of persons with disabilities: A literature review and key informant Interviews](#). Institute for Work & Health; 2023.
- Tompa E, Imam S, Varickanickal J, Mofidi A, Gewurtz R, Irvin E, Southey B. [Comblent les lacunes dans les connaissances concernant les compétences des personnes handicapées : Une analyse documentaire et des entrevues avec des informateurs clés](#). Institute for Work & Health; 2023.

### **IWH Speaker Series presentations**

- [Skills development barriers for persons with disabilities and the promising practices to address them](#). IWH Speaker Series. April 18, 2023.

## Knowledge transfer and exchange

URL: <https://www.iwh.on.ca/knowledge-transfer-and-exchange>

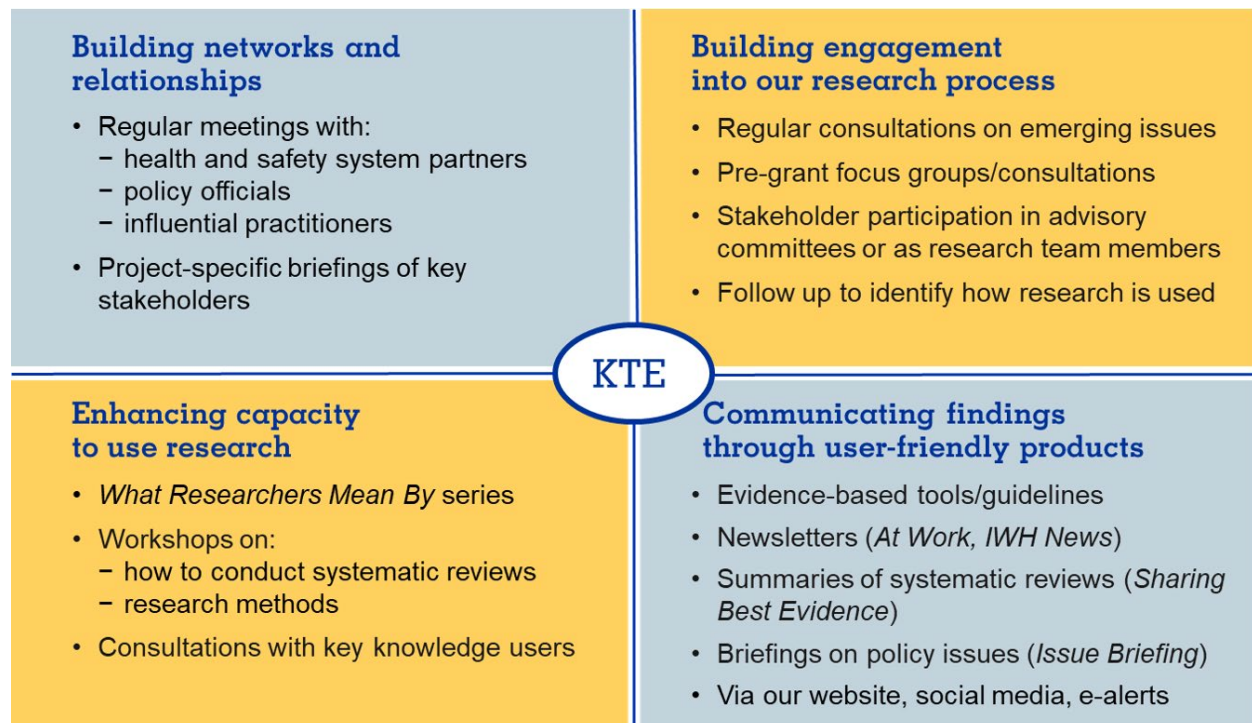
### How we do KTE

As recently as two decades ago, scientists were generally only expected to share their research findings by publishing in peer-reviewed journals and presenting at conferences to other scientists. Apart from the occasional media interview, few approaches were in place to reach non-research audiences who might use scientific knowledge. The Institute for Work & Health (IWH) has been a pioneer in developing and using a new and energized way of sharing and applying research results: knowledge transfer and exchange (KTE). Using principles of KTE to increase the relevance, reach and use of our research, KTE has become an integrated and well-respected part of the IWH research process.

### Our KTE process

At the Institute, we define KTE as a process of exchange between researchers and knowledge users designed to make relevant research information available and accessible to stakeholders for use in practice, planning and policy-making. KTE supports the use of scientific evidence in decision-making by combining stakeholder and researcher expertise in the identification of research priorities, framing of research questions and communication of research findings.

The IWH approach to KTE considers four interrelated sets of strategies and activities as comprising our KTE process, as shown in the figure below.



## KTE strategies and activities at IWH

**Building relationships:** We have developed ongoing relationships with a variety of knowledge users in the areas of occupational health and safety and disability management. Key to building and strengthening these relationships are our formal networks with policy-makers, prevention system partners, workplace parties, professional practitioners and clinicians. We also work closely with intermediary organizations (e.g. health and safety associations, professional organizations, employer associations and labour groups) to bring our research messages to their members. Learn more about our networks.

**Building engagement into research:** As much as possible, we involve knowledge users and other stakeholders in specific research projects. This involvement begins early in the research process, when stakeholders provide guidance in shaping the research question and give us information about the context in which research results are likely to be used. It continues to the end of the research project, when stakeholders help us craft research messages in ways that are meaningful to the intended audience.

**Enhancing capacity:** We strive to help external audiences understand and apply research. We do this in a number of ways. We offer a [Systematic Review Workshop](#) to teach stakeholders and students how to conduct and share systematic reviews. We offer research presentations through our [IWH Speaker Series](#), at which stakeholders can directly learn from, and ask questions of, our scientists. We hold an annual [Alf Nachemson Memorial Lecture](#) at which stakeholders can learn how research findings have been effectively applied by policy-makers. And we also offer a popular series called [What Researchers Mean By...](#), which explains in lay-friendly language the research terms used by social scientists to report their research findings.

**Communicating findings:** The KTE process is supported by a corporate communications strategy that enhances the Institute's ability to communicate effectively with its stakeholders. The communication tools include the IWH website, our quarterly newsletter [At Work](#) and our monthly e-bulletin [IWH News](#), [plain-language summaries](#), [videos](#), coverage in [general and trade media](#), and social media (i.e. [Twitter](#), [LinkedIn](#) and [YouTube](#)). We also work with our research staff and stakeholders to develop evidence-based [tools and guides](#) to help stakeholders apply our research in their own practices and policies.

### Our target audiences

The target audiences or stakeholders for the Institute's research include policy-makers (labour and health ministries, workers' compensation agencies such as the Workplace Safety and Insurance Board), health and safety associations (HSAs), workplace parties (labour and employers), related professionals (e.g. occupational health and safety, disability management, human resources, etc.) and related clinicians (e.g. chiropractors, physiotherapists, kinesiologists, occupational therapists, etc.).

### Our KTE specialists

Our integrated KTE approach means that all IWH scientists, researchers and staff incorporate some KTE activities in their work. They are supported in this by a team of knowledge exchange and communication specialists. The KTE team leads and supports the Institute's aim of putting relevant research findings into the hands of key decision-makers in a timely, accessible and useful manner. This includes:

- active building and maintenance of relationships with and among researchers, knowledge users and other stakeholders
- continuous exploration of creative and effective ways to reach more users and communicate research evidence
- working with Research Operations to build capacity in our audiences to help them better understand and use research evidence.

We also established a Knowledge Transfer & Exchange Advisory Committee comprising individuals with expertise in knowledge transfer relevant to the Institute’s target audiences: workplace parties, policy-makers, health and safety professionals, and clinicians. Since 2003, the committee has met annually (with some exceptions) to provide advice and observations about:

- the quality of our current KTE program
- alternative approaches and future opportunities
- the evaluation framework for the program
- the skill set required to continue to improve the program.

The day's discussion is documented and shared with the Institute's KTE team, researchers, executive and Board of Directors.

For more information about how we do KTE, see our [KTE resources](#).

### **Our knowledge transfer principles**

Five principles support our knowledge transfer and exchange practice. These principles, developed by KTE expert Dr. John Lavis (who helped build IWH's original KTE program), are represented here by five “key questions to consider.” IWH uses these when planning communication on a research finding.

- Key question: What?
  - The message being communicated must be clear and compelling. It should be backed by a body of rigorous research.
- Key question: To whom?
  - The interaction should be specific to the audience. The message must be communicated in a way that is responsive to the audience’s interests, needs, area of expertise and level of research knowledge.
- Key question: By whom?
  - The messenger must be considered credible by the audience.
- Key question: How?
  - There are many effective tools and techniques that may be used for communication. Interactive engagement between the messenger and the audience is ideal. Creative uses of technologies, old and new, can be used to overcome barriers such as time, distance and resource limitations as well as providing options to suit different learning styles, levels of knowledge or roles, etc.
- Key question: With what effect?
  - Performance measures must be audience specific and appropriate to the context.

## **Our stakeholder networks**

Establishing and maintaining relationships with key stakeholders plays an important role in IWH's knowledge transfer and exchange (KTE) strategy. It is one of the four key components of the IWH approach to KTE that is outlined in [how we do KTE](#). Key to establishing and maintaining these relationships is our engagement with stakeholders through formal networks.

IWH's stakeholder networks represent knowledge users from the wide range of audiences that make up Ontario's occupational health and safety and disability management community, including policy-makers, workplace parties, professional practitioners and clinicians.

Networks allow for regular, face-to-face meetings with stakeholder representatives above and beyond stakeholder meetings that occur as part of the research process on specific projects. At these meetings, we review recent or planned research of interest with stakeholders, as well as ask stakeholders about the issues in their work that might benefit from new research.

All networks share a common purpose: to promote evidence-informed policy and practice in the prevention of work injury and disability. Members may also be approached to participate on research project teams or on project advisory committees, and to assist with dissemination of research findings to their own networks, clients or members.

The Institute established its first formal network in 2001 – the Physiotherapy Educationally Influential (EI) Network. Over the years, the Institute continued to develop new networks and, today, a total of 11 networks are in place. These networks, and the stakeholders they represent, are described below.

### **Ontario prevention system network**

The Prevention Knowledge Exchange Group (PKEG), which is hosted by IWH, brings together representatives of organizations in the Ontario work injury and illness prevention system. The organizations represented, which meet four times a year, include the following:

- Ministry of Labour (MOL)
- Workplace Safety and Insurance Board (WSIB)
- Infrastructure Health & Safety Association (IHSA), serving the construction, utility and transportation sectors
- Public Services Health & Safety Association (PSHSA), serving the health-care, education and municipal sectors
- Workplace Safety North (WSN), serving the mining, pulp & paper and forestry sectors, as well as northern Ontario businesses
- Workplace Safety & Prevention Services (WSPS), serving the manufacturing, retail and agricultural sectors
- Occupational Health Clinics for Ontario Workers (OHCOW)
- Workers Health & Safety Centre (WHSC)
- Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD)
- Centre of Research Expertise for Occupational Disease (CREOD)
- Occupational Cancer Research Centre (OCRC)

## **Educationally influential (EI) clinical/professional networks**

Five educationally influential (EI) networks bring together annually clinical/professional practitioners who are considered by others in their professions to be mentors or opinion leaders. The five professions that each have their own EI network are:

- chiropractors
- ergonomists
- kinesiologists
- occupational therapists
- physiotherapists

Members of the EI networks are identified through a process of nomination. A survey is sent out to members of professional associations asking recipients to identify practitioners who enjoy teaching others and who take the time to share what they know, among other criteria, using a process modeled on that developed by Hiss et al. (1978).

The EI networks used to meet separately, once or twice a year. However, in 2016, we met for the first time with members from all five EI networks at an event we called an “EI summit.” The feedback from the network members was so positive – they especially welcomed the opportunity to share experiences about using research evidence with colleagues from other disciplines – that a decision was made to hold EI summits going forward.

## **Networks for injury, illness and disability prevention professionals**

Two networks serve the interests of workplace injury and disability prevention/management professionals: the Occupational Health and Safety (OHS) Professionals Network and the Disability Managers Network. These networks are established through an open-invitation process, and they meet annually to discuss research findings, new projects and emerging practice issues. At the request of the members, IWH established LinkedIn groups for each network to allow for posting and discussing research findings and to provide networking opportunities throughout the year.

## **Workplace party networks**

Two networks are dedicated to workplace parties: the Labour Forum and the Employer Forum. These network members are recruited through personal contact and other networks, each meeting twice a year. The Labour Forum has representatives from the larger Ontario unions, as well as labour umbrella organizations. The Employer Forum has representatives from employer associations, organizations serving employers in the area of OHS or disability management, and some large, individual employers.

## **Influential research users network**

The Influential Knowledge Users (IKU) Network is made up of members from multiple stakeholder categories who are champions of using research evidence to inform policy and practice. As well, these people are senior enough in their organizations to influence decision-making. Twice a year, this group meets to share ideas about improving knowledge transfer and exchange across all the organizations represented. We have also interviewed individual or small groups of IKUs about how best to develop and sustaining knowledge exchange between researchers and knowledge users.

## Publications and Funding

### Additional publications

The following publications are in addition to the publications that were produced as part of our funded projects listed in this report. The following publications are part of non-Institute funded research projects.

Ammendolia C, Hofkirchner C, Plener J, Bussi eres A, Schneider MJ, Young JJ, Furlan AD. [Non-operative treatment for lumbar spinal stenosis with neurogenic claudication: an updated systematic review](#). *BMJ Open*. 2022;12(1):e057724. doi:10.1136/bmjopen-2021-057724.

Bondebjerg A, Filges T, Pejtersen JH, Viinholt BCA, Burr H, Hasle P, Tompa E, Birkefoss K, Bengtson E. Protocol: Occupational Health and Safety Regulatory Interventions to Improve the Work Environment: An Evidence and Gap Map of Effectiveness Studies. *Campbell Systematic Reviews*. 2022; 18:e1231. DOI: <https://doi.org/10.1002/cl2.1231>

Boonen A, Webers C, Butink M, Barten B, Black C, Betteridge N, Bremander A, Boteva B, Brzezińska O, Chauhan L, Copsey S, Guimar es V, Gignac MAM, Glaysher J, Green F, Hoving J, Marques M, Smucrov H, Stamm T, Wiek D, Wilkie R, Woolf A, Burmester G, Bijlsma J, Verstappen SMM. 2021 EULAR points to consider to support people with rheumatic and musculoskeletal diseases to participate in healthy and sustainable paid work. *Ann Rheum Dis*. 2023; 82(1):57-64. Doi: [10.1136/ard-2022-222678](https://doi.org/10.1136/ard-2022-222678).

Di Giuseppe G, Pagalan L, Jetha A, Pechlivanoglou P, Pole JD. Financial toxicity among adolescent and young adult cancer survivors: a systematic review of educational attainment, employment, and income. *Crit Rev Oncol Hematol*. 2023; 183:103914. Doi: [10.1016/j.critrevonc.2023.103914](https://doi.org/10.1016/j.critrevonc.2023.103914)

Dobson K, Vigod S, Mustard CA, Smith P. Parallel latent trajectories of mental health and employment earnings among 16- to 20-year-olds entering the US labor force: A 20-year longitudinal study. *Soc Psychiatry Psychiatr Epidemiol*. 2023 May;58(5):805-821. doi: 10.1007/s00127-022-02398-5. Epub 2022 Dec 25.

Fisher SL, Bonaccio S, Jetha A, Winkler M, Birch GE, and Gignac MAM. Guidelines for conducting partnered research in applied psychology: an illustration from disability research in employment contexts. *Appl Psychol*. 2022. Doi: [10.1111/apps.12438](https://doi.org/10.1111/apps.12438). [Epub ahead of print; 2022 Oct 17].

Fuller AE, Siddiqi A, Shahidi FV, Anderson LN, Hildebrand V, Keown-Stoneman C, Maguire J, Birken CS. Understanding income-related differences in distribution of child growth, behaviour and development using a cross-sectional sample of a clinical cohort study. *BMJ Open*. 2022;12(2):e056991.

Furlan A D & Murphy L. Chapter 18. Opioids. In *Clinical Pain Management: A Practical Guide*. Mary E. Lynch, Kenneth D. Craig and Philip W. Peng Eds. Second Edition. Wiley Blackwell, 2022

Gallagher E, Alvarez E, Jin L, Guenter D, Hatcher L, Furlan AD. [Patient contracts for chronic medical conditions: scoping review](#). *Canadian Family Physician*. 2022;68(5):e169-e177. doi:10.46747/cfp.6805e169.

Gevers-Montoro C, Deldar Z, Furlan AD, Lazar EA, Ghalibaf E, Ortega-De Mues A, Khatibi A. [From hands-on to remote: moderators of response to a novel self-management telehealth programme during the COVID-19 pandemic](#). *European Journal of Pain*. 2022;26(6):1368-1379. doi:10.1002/ejp.1968.

Ginis KAM, Jetha A, Gignac MAM. Experiential aspects of employment and their relationship with work outcomes: a cross-sectional study using a novel measure of participation in workers with and without physical disabilities. *Disabil Health J*. 2023. Doi: [10.1016/j.dhjo.2023.101448](https://doi.org/10.1016/j.dhjo.2023.101448). [Epub ahead of print; 2023 Feb 11].

Hammond A, Tennant A, Ching A, Parker J, Prior Y, Gignac MAM, Verstappen S, O'Brien R. Linguistic validation, validity, and reliability of the British-English version of the Workplace Activity Limitations Scale in four rheumatic and musculoskeletal conditions. *Rheumatol Adv Pract*. 2023; 7(1); rkad028. Doi: [10.1093/rap/rkad028](https://doi.org/10.1093/rap/rkad028)

Hapsari AP, Ho J, Meaney C, Avery L, Hassen N, Jetha A, Lay AM, Rotondi M, Zuberi D, Pinto A. The working conditions for Personal Support Workers in the Greater Toronto Area during the COVID-19 pandemic: a mixed-methods study. *Can J Public Health*. 2022; 113(6):817-833. Doi: [10.17269/s41997-022-00643-7](https://doi.org/10.17269/s41997-022-00643-7)

Hayden JA, Ogilvie R, Singh S, Kashif S, Hartvigsen J, Maher CG, Furlan AD. [Commentary: collaborative systematic review may produce and share high-quality, comparative evidence more efficiently](#). *Journal of Clinical Epidemiology*. 2022; epub ahead of print. doi:10.1016/j.jclinepi.2022.09.013.

Kinitz D, Gould A, Shahidi FV, MacEachen E, Mitchell C, Craig-Ventury D, Ross LE. Addressing Knowledge Gaps about Skills of 2SLGBTQ+ People in Canada. 2022. Commissioned by Employment and Social Development Canada.

Kokorelias KM, Gignac MAM, Naglie G, Rittenberg N, Cameron JI. Caregivers' decision-making for health service utilisation across the Alzheimer's disease trajectory. *Health Soc Care Community*. 2022; 30(4): 1344-1352. Doi: [10.1111/hsc.13464](https://doi.org/10.1111/hsc.13464).

Kokorelias KM, Gignac MAM, Naglie G, Rittenberg N, MacKenzie J, D'Souza S, Cameron JI. A grounded theory study to identify caregiving phases and support needs across the Alzheimer's disease trajectory. *Disabil Rehabil*. 2022; 44(7), 1050-1059, Doi: [10.1080/09638288.2020.1788655](https://doi.org/10.1080/09638288.2020.1788655)

Lau J, Zimmermann C, Selby P, and Furlan AD. Opioid disposal practices of patients with life-limiting cancers in an outpatient palliative care clinic: a cross-sectional study. *Journal of Palliative Medicine*. 2023; [epub ahead of print].

Morassaei S, Irvin E, Smith PM, Wilson K, Ghahari S. The role of immigrant admission classes on the health and well-being of immigrants and refugees in Canada: A scoping review. *Journal of Immigrant and Minority Health*. 2022 [epublication ahead of print]

Murphy L, Leblanc K, Badr S, Ching E, Mao L, Steenhof N, Steenhof N, Hamandi B, Rubin B, Seto A, Furlan AD. [Opioid utilization and management in the setting of stewardship during inpatient rehab care](#). *Drug, Healthcare and Patient Safety*. 2022 Sep 1;14:161-170.

Pentland V, Spilsbury S, Biswas A, Mottola MF, Paplinskie S, Mitchell MS. Does walking reduce postpartum depressive symptoms? A systematic review and meta-analysis of randomized controlled trials. *J Women's Health*. 2022; 31(4):555-563. Doi: [10.1089/jwh.2021.0296](https://doi.org/10.1089/jwh.2021.0296).

Pinto A, Hapsari P, Ho J, Meaney C, Hassen N, Jetha A, Lay AM, Rotondi M, Zuberi D. Precarious work among personal support workers in the Greater Toronto Area: a respondent-driven sampling study. *CMAJ Open*. 2022;10(2): E527-E538. Doi: [10.9778/cmajo.20210338](https://doi.org/10.9778/cmajo.20210338)



Sandhu HK, Shaw J, Carnes D, Furlan AD, Tysall C, Adjei H, Muthiah C. [Development and testing of an opioid tapering self-management intervention for chronic pain: I-WOTCH](#). *BMJ Open*. 2022;12(3):e053725. [doi:10.1136/bmjopen-2021-053725](#).

Somani R, Muntaner C, Smith P, Hillan EM, Velonis AJ. Increased workplace bullying against nurses during COVID-19: A health and safety issue. *Journal of Nursing Education and Practice*. 2022, 12 (9): 47 – 53

Sud A, Buchman DZ, Furlan AD, Selby P, Spithoff SM, Upshur REG. [Chronic pain and opioid prescribing: three ways for navigating complexity at the clinical-population health interface](#). *American Journal of Public Health*. 2022;112(1):S56-S65. [doi:10.2105/AJPH.2021.306500](#).

Tompa E, Samosh D. and Santuzzi AM. Guest editorial: The benefits of inclusion: disability and work in the 21st century. *Equality, Diversity and Inclusion*. 2022; 41 (3): 309-317. DOI: <https://doi.org/10.1108/EDI-04-2022-376>.

### **Research Project Funding – Awarded in 2022/2023**

Biswas A, Gignac MAM, Robson L, Jetha A, Yanar B. Champions as social agents of change: What can we learn from worker wellbeing initiatives. Social Sciences and Humanities Research Council of Canada (SSHRC): Insight Development Grant. \$54,058 over 2 years.

Biswas A, Ware S, Lang L, Smith P, Villeneuve P. (2022). Exploring where Canadians work and live and their association with active transportation. Canadian Institutes of Health Research Healthy Cities Research Initiative. \$100,000 over 2 years.

Dobson K, Ferro M, Gignac MAM, Vigod S, de Oliveira C. TIE-C-MI: Trajectories of income and employment of Canadians with mental illness. Canadian Institutes of Health Research Project grant competition. \$255,000, over 2 years.

Furlan A, Aleem N, Van Eerd D, Tompa E, Irvin E. Pilot Project ECHO Ontario to promote Return-To-Work among Public Safety Personnel (ECHO RTW PSP). WSIB Grants Program. \$300,000, over 2 years.

Gignac MAM. (Project Director) and the ACED partnership team. Accommodating and Communicating about Episodic Disabilities (ACED): A Partnership to Deliver Workplace Tools and Resources to Sustain the Employment of People with Chronic, Episodic Conditions. MaRS-CIBC Inclusive Design Challenge: Support at Work, Grand Prize Winner for the Job Demands and Accommodation Planning Tool (JDAPT). \$50,000.

Jetha A, Biswas A, Bonaccio S, Dennerlein J, Frenette M, Gignac MAM, Irvin E, Khan N, Koffi M, Loewen P, Rosella L, Vahid Shahidi F, Smith B, Smith MJ, Smith P, Wu N, Zuberi D. Intelligent machines and human worker inequities: Examining the implications of artificial intelligence in the workplace. Social Sciences and Humanities Research Council of Canada (SSHRC): Partnership Development Grant. \$200,000\* (+ Partner cash \$25,000 and in-kind \$290,652 contributions), over 3 years. \*Additional sub-grant funding for this study was provided by the Future Skills Centre. \$100,000, over 2 years. Total of both grants cash \$300,000.

Jetha A, Biswas A, Smith MJ, Arrandale VH, Dennerlein J, Smith P, Mustard C. Artificial intelligence and occupational injury and illness in Ontario: Implications for prevention and recovery. Submitted to WSIB Research and Grants Program. \$271,713.20, over 2 years.

Landsman V, Smith P, Carnide N, Graubard B, Mitani A, Carrillo-Garcia I (Collaborator). Correcting for participation bias in nonprobability samples using multiple reference samples. Submitted to Canadian Institutes of Health Research Project Grant. \$ 310,000, over 3 years.

Mustard C, Wodchis W, Smith P, Reid R, Dobson K. First Responder Mental Health Treatment Services: Formative evaluation of a pilot program. WSIB Research and Grants Program. \$444,660, over two years.

Smith P, Carnide N, Jetha A, Koehoorn M, Mustard C, Peters C. What are the long-term health and labour market outcomes of workers who experienced work-related COVID-19 transmission? Canadian Institute of Health Research: Operating Grant. \$412,136.00, over 2 years.

Smith P, Bauer G, Gignac MAM, Gilbert-Ouimet M. Developing approaches to measuring the dimensions of gender and examining the relationship between 'gender dimension discordance' and health among Canadians. Canadian Institutes of Health Research: Project Grant. \$100,000, over 1 year.

Tompa E, Gewurtz R, Bonyhady B, Bruyere S, Coppin P, Coutu MF, Fleisig R, Gomez R, Harlos K, Irvin E, Jetha A, Kondo T, Kristman V, Laberge M, Maisel J, Marshall CA, Moll S, Sayin F, Smith-Merry J, Sukhai M, Sultan-Taieb H, Treviranus J, Van Eerd D, Veres A, Wyndham-West M (Co-Applicants). Inclusive Design for Employment Access (IDEA). Full Proposal Submission to New Frontiers in Research – Transformation 2020. \$9,000,000, over 6 years.

Vahid Shahidi F, Fuller A, Georgiades K, Comeau J, Siddiqi A, Wahi G, Pinto A. Parental Employment Quality and Child Mental Health: Triangulating Evidence from General Population Surveys. Leong Centre for Healthy Children (University of Toronto & SickKids Hospital). \$72,005, over 1 year.

Van Eerd D, Robson L, Yanar B, Irvin E, Coitoru A, Friesen L. Programs of early OHS intervention with small businesses: environmental scan and feasibility assessment. WorkSafeBC. \$49,904, over 1 year.

Van Eerd D, Tompa E, Irvin E, Gross D, Gignac M, McElheran M. Implementation of PTSI programs in Alberta first responder organizations. Alberta Supporting Psychological Health in First Responders grant program. \$153,226, over 1 year.

Yanar B, Smith P, Van Eerd D and Premji S. Creating safe workplaces for newcomers. Immigration, Refugees and Citizenship Canada's Research, Capacity-Building, and Coordination Services Program. \$303,898, over 2 years.

### **Non-IWH Research Project Funding – Awarded in 2022/2023**

Cheung Angela M, Allen UD; Bhat M; Boyd SK; Crawley AM; Dolatabadi E; Fahim C; Farkouh ME; Feld JJ; Furlan AD; Goligher EW; Hodgson DC; Inman RD; Langlois MA; DRAFT Dr. Andrea Furlan 7 Levin A; Mansfield A; Manske SL; McMaster WR; Mylopoulos M; Oza AM; Papaioannou A; Pinto AD; Prats CJ; Quinn KL; Rahman P; Razak F; Richard N; Richardson H; Sander BH; Sellmann S; Stelfox HT; Straus SE; Tartaglia MC; Tobe SW; Tomlinson GA; Verma A; Walmsley SL; Wu R; Xu W. Canadian Training Platform for Trials Leveraging Existing Networks (CAN-TAP-TALENT). CIHR Training Grant: Clinical Trials Training Platforms, \$4,314,242, over 3 years.

Cheung A, Gignac MAM, Smith, P (over 100 co-investigators). Long COVID Web: Pan Canadian Post-COVID Condition Research Network. Canadian Institutes of Health Research, COVID Research Network Competition. 2023 February. Awarded \$3,999,923 over 5 years.

Gewurtz R, Tompa E (Co-Principal Investigators), Packham T, Harlos K, Sultan-Taïeb H, Oldfield M. The Impact of Remote Work on Workplace Accessibility for Persons with Disabilities. Accessibility Standards Canada. Fall 2022, \$390,000, over 3 years.

Gewurtz R, Tompa E (Co-Principal Investigators). Project on the Canadian Non-Refundable Disability Tax Credit. MITACS. Spring 2022. \$50,000, over 1.5 years.

Mitchell RHB, Goldstein BI, Kozloff N, Saunders NR, Schaeffer A, Sinyor M, Vigod, SN, Dobson KG (Co-I). Self-Harm Presentations that Encounter the Emergency Department in Youth (the Speedy Study): Rapid Risk Stratification to Inform Clinical Management. American Foundation for Suicide Prevention Innovation Grant. \$95,000 USD, over 2 years.

Mulé N, Dilmaghani M (Co-Principal Investigators), Tompa E. 2SLGBTQ+ Poverty in Canada: Improving Livelihood and Social Well-Being. Social Sciences & Humanities Research Council . \$2,500,000, over 6 years.

Ross L, Tompa E. Foundational and Transferable Skills of 2SLGBTQ+ Canadians: Addressing Knowledge Gaps to Inform Policy and Program Development. Employment and Social Development Canada. \$40,000, over 1 year.

Rotenberg S, Anderson N, Gignac MAM, Nalder E, Collaborators: Kötti H, Rappolt S, Vandermorris S, Wijekoon S. A matter of justice: The perspective of visible minority older adults on facilitators and barriers to the participation in virtual social activities. Submitted to Social Sciences and Humanities Research Council of Canada: Insight Development Competition. \$75,000, over 2 years.

van Tongeren M, Smith P, Carnide N, King T. Understanding and addressing long COVID impacts on work participation. Manchester Melbourne Toronto Joint Research Fund. \$29,974, over 1 year.