

#### ABOUT RESEARCH ALERT

Research Alert is a service provided to you by the Institute for Work & Health (IWH) to help you keep abreast of recent literature in the areas of occupational health and safety, epidemiology, public health and others within the IWH mandate. Please note that these articles have not been reviewed by Institute scientists to assess the quality of the studies. Research Alerts should not be considered an endorsement of the findings. Readers are cautioned not to act on the results of single studies, but rather to seek bodies of evidence. It should also be noted that the Institute for Work & Health cannot provide full-text of articles listed in Research Alerts to individuals outside of the organization, as this violates copyright legislation.

Journal articles marked with an asterisk indicate an IWH scientist or adjunct scientist is included in the list of authors.

\*Louie P, Wu C, Shahidi FV, and Siddiqi A. Inflation hardship, gender, and mental health. SSM - Population Health. 2023; 23:101452.

https://doi.org/10.1016/j.ssmph.2023.101452 [open access]

Abstract: Inflation hit a 40 year high in the United States in 2022, yet the impact of inflation related hardships on distress is poorly understood, particularly the impact on women, whose income is already more limited. Using data from the US Household Pulse Survey (September-November 2022), we test whether exposure to inflation hardships is associated with greater distress and whether this association is moderated by gender (n = 119,531). We draw on a list of eighteen inflation related hardships (e.g., purchasing less food, working additional jobs, delaying medical treatment) to construct an ordinal measure of exposure to inflation hardship ranging from "no inflation hardship" to "five or more inflation hardships." We observe that an increasing number of inflation hardships is associated with higher levels of distress. We find no evidence of gender differences in the magnitude of that association at lower levels of inflation hardship (four inflation hardships or less). However, our findings suggest that exposure to five or more inflation hardships is more strongly associated with distress among men compared to women. The current study provides new insights into the cumulative burden of inflation hardships on mental health and the role that gender plays in this association.

Andersson L, Hedbrant A, Bryngelsson IL, Vihlborg P, Sarndahl E, and Westberg H. Silica exposure and cardiovascular, cerebrovascular, and respiratory morbidity in a cohort of

# male Swedish iron foundry workers. Journal of Occupational & Environmental Medicine. 2023; 65(9):731-739.

### https://doi.org/10.1097/JOM.000000000002890 [open access]

Abstract: OBJECTIVE: We present quantitative exposure-response data on silica exposure in male Swedish iron foundry workers for cardiovascular, cerebrovascular, and respiratory morbidity. METHODS: This research is a cohort study of 2063 male Swedish iron foundry workers. From the Swedish National Patient Registers, data on morbidity incidence were retrieved. A historical measurement database of 1667 respirable silica exposure measurements from 10 Swedish iron foundries was used to calculate the cumulative exposure dose for each worker. RESULTS: Increased morbidity risk for the whole group of foundry workers was determined for ischemic heart disease, cerebrovascular disease, chronic obstructive pulmonary disease (COPD), bronchitis, and pneumonia. In addition, an increased risk for COPD at cumulative silica exposures ranging from 0.11 to 0.84 mg/m 3 year is presented. CONCLUSIONS: The study presents a significantly increased COPD risk at cumulative silica exposures below the Swedish occupational exposure limit

## Bobsin TS, Camilo SPO, and Cardoso L. Supported employment as a driver for the social inclusion of people with disabilities in the labor market. Work. 2023; 76(1):289-301. https://doi.org/10.3233/WOR-220563

Abstract: BACKGROUND: Based on the need for organizational institutions to act, through public policies, in the establishment of programs focused on the inclusion of People with Disabilities (PwD) in the labor market in Brazil. The Supported Employment methodology (SE) was constituted by directing and providing support, in the workplace, to PwD. OBJECTIVE: The purpose of this article is to evaluate the intra-organizational management of the inclusion of people with disabilities in the labor market in the southern region of Santa Catarina and the alignment with the precepts of Supported Employment (SE). METHODS: Using a qualitative approach, the multi-case study was carried out through interviews, based on semi-structured questions, in five companies in the southern region of SC that are required to hire PwD. RESULTS: The research points out the movement of companies in the development of policies and practices for the inclusion of PwD in the job market. However, there is still a significant gap between company practices and SE precepts. There are no formal programs and policies with wide internal dissemination, about the drivers for PwD. CONCLUSION: This study helps to address eventual difficulties of companies regarding practices in the inclusion of PwD, contributes to the definition of guidelines aimed at improving existing policies or in the development of new practices aimed at the inclusion of **PwD** 

Cousins DJE, Schaefer BH, Holmes MWR, and Beaudette SM. The effects of COVID-19 related shutdowns on perceived lifestyle and prevalence of musculoskeletal discomfort. Work. 2023; 76(1):11-20.

https://doi.org/10.3233/WOR-220388



Abstract: BACKGROUND: COVID-19 caused a transition to work-from-home conditions, closures of recreation facilities and cancelation of social events. OBJECTIVE: This study sought to characterize and quantify the impact COVID-19 related shutdowns had on perceptions of health and wellbeing, musculoskeletal discomfort, and physical characteristics of workstation set-up in full time workers who transitioned to working from home. METHODS: 297 participants from 8 countries completed a retrospective pre/post survey design that assessed outcomes prior to COVID-19 shutdowns and when each participant was experiencing peak pandemic-related restrictions. There were 3 categories including, health and wellbeing, musculoskeletal discomfort, and workplace ergonomics. RESULTS: General discomfort on a scale from 1 to 100 increased from 31.4 pre to 39.9 during COVID-19. Notable areas increasing in severity of discomfort from pre to during included the neck (41.8 to 47.7), upper back (36.3 to 41.3) and right wrist (38.7 to 43.5). The percentage of the population experiencing discomfort increased from pre to during in the low back (41.5% to 55.2%), upper back (28.7% to 40.9%), neck (45.5% to 60.9%) and right wrist (16.1% to 23.7%). CONCLUSION: There were three distinct groups for physical activity one group including, one maintaining and one that decreased, which did not have an impact on perceived general discomfort. There was a significant decrease in usage of a desk and adjustable chair and an increase in laptop use. Working from home in some capacity will likely be a more common occurrence which will require further ergonomic assessments and considerations to keep a healthy workforce

Dean A, McCallum J, Venkataramani AS, and Michaels D. The effect of labor unions on nursing home compliance with OSHA's workplace injury and illness reporting requirement. Health Affairs. 2023; 42(9):1260-1265.

#### https://doi.org/10.1377/hlthaff.2023.00255

Abstract: All US nursing homes are required to report workplace injury and illness data to the Occupational Safety And Health Administration (OSHA). Nevertheless, the compliance rate for US nursing homes during the period 2016-21 was only 40 percent. We examined whether unionization increases the probability that nursing homes will comply with that requirement. Using a difference-in-differences design and proprietary data on union status from the Service Employees International Union for all forty-eight continental US states from the period 2016-21, we found that two years after unionization, nursing homes were 31.1 percentage points more likely than nonunion nursing homes to report workplace injury and illness data to OSHA. Data on injuries occurring in specific workplaces play a central role in injury prevention. Further unionization could help improve workplace safety in nursing homes, a sector with one of the highest occupational injury and illness rates in the US.

Edwards JP and Solomon PL. Explaining job satisfaction among mental health peer support workers. Psychiatric Rehabilitation Journal. 2023; 46(3):223-231.

https://doi.org/10.1037/prj0000577

Abstract: OBJECTIVE: Peer support practice has seen exponential growth during the past



several decades. While there exists a body of research on job satisfaction among this emerging workforce, many studies had limited sample sizes and demographic diversity and focused on few facets of job satisfaction. The present study examines multiple factors associated with job satisfaction and compensates for limitations of previous smaller studies. METHODS: A convenience/snowball sample of 645 peer support staff was recruited via National Association of Peer Supporters and Academy of Peer Services listservs. Eligible participants were at least 18 years of age, currently employed for a minimum of 6 months, and residing in one of the 50 states or one of U.S. territories. Global and multidimensional facets of job satisfaction were measured using the Indiana Job Satisfaction Survey. RESULTS: Data from an anonymous online survey were analyzed using hierarchical linear regression. The main hypothesis was supported; coworker support, perceived organizational support, supervisor support, and job empowerment explained 71% of the variance in overall job satisfaction, Adj  $R^2 = 0.71$ , F(9, 271) = 77.77, p < .01, with age and status as a certified peer specialist significant contributors. Perceived organizational support and job empowerment explained most variance in overall job satisfaction. CONCLUSIONS AND IMPLICATIONS FOR PRACTICE: As this workforce continues to burgeon, it is crucial to promote peer support values, role clarity, certification, diversity, and optimal organizational and empowerment resources to sustain a satisfied and effective peer support workforce. (PsycInfo Database Record (c) 2023 APA, all rights reserved)

Fasani F and Mazza J. Being on the frontline? Immigrant workers in Europe and the COVID-19 pandemic. ILR Review. 2023; 76(5):890-918.

https://doi.org/10.1177/00197939231173676 [open access]

Abstract: This article provides the first systematic assessment of the impact of COVID-19 on the labor market for immigrant workers in Europe. The authors estimate that in 2020 extra-EU migrants were twice as likely and EU migrants were 1.6 times as likely to experience employment loss relative to comparable natives. To understand the determinants of these large gaps, the article focuses on three job characteristics—essentiality, temporariness, and teleworkability—and documents that migrants were overrepresented among essential, temporary, and low-teleworkable occupations at the onset of the pandemic. The authors estimate that pre-pandemic occupational sorting accounts for 25 to 35% of the explained migrant—native gap in the risk of employment termination, while sorting into industries accounts for the rest of the explained gap. More than half of this gap remains unexplained. Although major employment losses were averted thanks to the massive use of short-time work programs in Europe, migrant workers—particularly extra-EU migrants—suffered from high economic vulnerability during the pandemic.

Gong SC and Park S. Increased risk of sleep problems according to employment precariousness among paid employees in Korea. American Journal of Industrial Medicine. 2023; 66(10):876-883.

https://doi.org/10.1002/ajim.23523



Abstract: BACKGROUND: This study aimed to investigate the relationship between precarious employment (PE) and sleep problems among wage workers in Korea. METHODS: Data from 29,437 wage workers were obtained from the 6th Korean Working Conditions Survey. PE was defined based on four dimensions: employment temporariness, irregularity, lack of protection, and economic vulnerability. A PE index indicating employment precariousness was derived. The outcome variables were three sleep problems experienced over the past year: difficulty initiating asleep; difficulty maintaining sleep' and fatigue upon waking. Multiple logistic regression was performed after adjusting for age, educational level, occupation, job tenure, company size, and working hours, to estimate the association between PE and sleep problems. RESULTS: For both sexes, the risk of all sleep problems significantly increased as the precariousness of employment increased, showing a dose-response relationship. CONCLUSION: An increased risk of sleep problems is evident as employment becomes more precarious. These findings could help improve the health of workers with PE by addressing sleep problems

Hedlund A, Boman E, Kristofferzon ML, and Nilsson A. Development and psychometric evaluation of a theory-based questionnaire measuring women's return-to-work beliefs after long-term sick leave for common mental disorders. Work. 2023; 76(1):109-124. https://doi.org/10.3233/WOR-220301

Abstract: BACKGROUND: Common mental disorders (CMDs) are currently a major cause of long-term sick leave, with women being most affected. OBJECTIVE: Using the Theory of Planned Behaviour (TPB), we aimed to describe the development and psychometric evaluation of a new questionnaire to measure women's beliefs about return to work (RTW) after long-term sick leave for CMDs. METHODS: Data were collected in central Sweden from women on long-term sick leave (2-24 months) for CMDs. The questionnaire was developed by conducting an elicitation study with 20 women and included both direct and indirect measures. Subsequently, 282 women participated in a psychometric evaluation and 35 of them in a test-retest procedure. Psychometric properties were evaluated by determining reliability (internal consistency [Cronbach's alpha] and test-retest stability [intraclass correlation coefficient]), construct validity (exploratory factor analysis) and content validity. RESULTS: The development resulted in 60 questionnaire items. Content validity assessment showed that the women overall found it easy to complete the questionnaire. Reliability analyses showed satisfactory results for both direct and indirect measures, with a few exceptions. Factor analyses of the indirect scales showed that items were generally in line with the TPB, but that items related to life as a whole/personal life and items related to work were separated into two different factors. CONCLUSION: The questionnaire, called the RTW Beliefs Questionnaire, showed promising results and can among women with CMDs be considered useful, especially the scales for direct measures. This questionnaire gives opportunity to identify new potential predictors for RTW

IJzelenberg W, Oosterhuis T, Hayden JA, Koes BW, Van Tulder MW, Rubinstein SM, et al. Exercise therapy for treatment of acute non-specific low back pain. Cochrane Database of Systematic Reviews. 2023; 8(8):CD009365.

#### https://doi.org/10.1002/14651858.CD009365.pub2

Abstract: Background: Low back pain (LBP) is the leading cause of disability globally. It generates considerable direct costs (healthcare) and indirect costs (lost productivity). The many available treatments for LBP include exercise therapy, which is practised extensively worldwide. Objectives: To evaluate the benefits and harms of exercise therapy for acute nonspecific low back pain in adults compared to sham/placebo treatment or no treatment at short-term, intermediate-term, and long-term follow-up. Search methods: This is an update of a Cochrane Review first published in 2005. We conducted an updated search for randomised controlled trials (RCTs) in CENTRAL, MEDLINE, Embase, four other databases, and two trial registers. We screened the reference lists of all included studies and relevant systematic reviews published since 2004. Selection criteria: We included RCTs that examined the effects of exercise therapy on non-specific LBP lasting six weeks or less in adults. Major outcomes for this review were pain, functional status, and perceived recovery. Minor outcomes were return to work, health-related quality of life, and adverse events. Our main comparisons were exercise therapy versus sham/placebo treatment and exercise therapy versus no treatment. Data collection and analysis: We used standard Cochrane methods. We evaluated outcomes at short-term follow-up (time point within three months and closest to six weeks after randomisation; main follow-up), intermediate-term follow-up (between nine months and closest to six months), and long-term follow-up (after nine months and closest to 12 months); and we used GRADE to assess the certainty of the evidence for each outcome. Main results: We included 23 studies (13 from the previous review, 10 new studies) that involved 2674 participants and provided data for 2637 participants. Three small studies are awaiting classification, and four eligible studies are ongoing. Included studies were conducted in Europe (N = 9), the Asia-Pacific region (N = 9), and North America (N = 5); and most took place in a primary care setting (N = 12), secondary care setting (N = 6), or both (N = 1). In most studies, the population was middle-aged and included men and women. We judged 10 studies (43%) at low risk of bias with regard to sequence generation and allocation concealment. Blinding is not feasible in exercise therapy, introducing performance and detection bias. There is very low-certainty evidence that exercise therapy compared with sham/placebo treatment has no clinically relevant effect on pain scores in the short term (mean difference (MD) -0.80, 95% confidence interval (CI) -5.79 to 4.19; 1 study, 299 participants). The absolute difference was 1% less pain (95% CI 4% more to 6% less), and the relative difference was 4% less pain (95% CI 20% more to 28% less). The mean pain score was 20.1 (standard deviation (SD) 21) for the intervention group and 20.9 (SD 23) for the control group. There is very low-certainty evidence that exercise therapy compared with sham/placebo treatment has no clinically relevant effect on functional status scores in the short term (MD 2.00, 95% CI -2.20 to 6.20; 1 study, 299 participants). The absolute difference was 2% worse functional status (95% CI 2% better to 6% worse), and the relative difference



was 15% worse (95% CI 17% better to 47% worse). The mean functional status score was 15.3 (SD 19) for the intervention group and 13.3 (SD 18) for the control group. We downgraded the certainty of the evidence for pain and functional status by one level for risk of bias and by two levels for imprecision (only one study with fewer than 400 participants). There is very low-certainty evidence that exercise therapy compared with no treatment has no clinically relevant effect on pain or functional status in the short term (2 studies, 157 participants). We downgraded the certainty of the evidence by two levels for imprecision and by one level for inconsistency. One study associated exercise with small benefits and the other found no differences. The first study was conducted in an occupational healthcare centre, where participants received one exercise therapy session. The other study was conducted in secondary and tertiary care settings, where participants received treatment three times per week for six weeks. We did not pool data from these studies owing to considerable clinical heterogeneity. In two studies, there were no reported adverse events. One study reported adverse events unrelated to exercise therapy. The remaining studies did not report whether any adverse events had occurred. Owing to insufficient reporting of adverse events, we were unable to reach any conclusions on the safety or harms related to exercise therapy. Authors' conclusions: Exercise therapy compared to sham/placebo treatment may have no clinically relevant effect on pain or functional status in the short term in people with acute nonspecific LBP, but the evidence is very uncertain. Exercise therapy compared to no treatment may have no clinically relevant effect on pain or functional status in the short term in people with acute non-specific LBP, but the evidence is very uncertain. We downgraded the certainty of the evidence to very low for inconsistency, risk of bias concerns, and imprecision (few participants).

Manyara AM, Davies P, Stewart D, Weir CJ, Young AE, Wells V, et al. Definitions, acceptability, limitations, and guidance in the use and reporting of surrogate end points in trials: a scoping review. Journal of Clinical Epidemiology. 2023; 160:83-99.

https://doi.org/10.1016/j.jclinepi.2023.06.013 [open access]

Abstract: Objective: To synthesize the current literature on the use of surrogate end points, including definitions, acceptability, and limitations of surrogate end points and guidance for their design/reporting, into trial reporting items. Study design and setting: Literature was identified through searching bibliographic databases (until March 1, 2022) and gray literature sources (until May 27, 2022). Data were thematically analyzed into four categories: (1) definitions, (2) acceptability, (3) limitations and challenges, and (4) guidance, and synthesized into reporting guidance items. Results: After screening, 90 documents were included: 79% (n = 71) had data on definitions, 77% (n = 69) on acceptability, 72% (n = 65) on limitations and challenges, and 61% (n = 55) on guidance. Data were synthesized into 17 potential trial reporting items: explicit statements on the use of surrogate end point(s) and justification for their use (items 1-6); methodological considerations, including whether sample size calculations were informed by surrogate validity (items 7-9); reporting of results for composite outcomes containing a surrogate end point (item 10); discussion and



interpretation of findings (items 11-14); plans for confirmatory studies, collecting data on the surrogate end point and target outcome, and data sharing (items 15-16); and informing trial participants about using surrogate end points (item 17). Conclusion: The review identified and synthesized items on the use of surrogate end points in trials; these will inform the development of the Standard Protocol Items: Recommendations for Interventional Trials-SURROGATE and Consolidated Standards of Reporting Trials-SURROGATE extensions.

## Pham TT, Lingard H, and Zhang RP. Factors influencing construction workers' intention to transfer occupational health and safety training. Safety Science. 2023; 167:106288. https://doi.org/10.1016/j.ssci.2023.106288 [open access]

Abstract: The effectiveness of occupational health and safety (OHS) training programs is dependent on the extent to which workers transfer OHS knowledge, skills and abilities acquired from OHS training into post-training workplace performance. However, the lack of training transfer has long been a critical problem in the construction industry. As an attempt to gain a better understanding of the transfer of training, this research investigated factors affecting construction workers' OHS training transfer intention. A questionnaire survey was used to collect data from Australian construction workers, and 295 valid responses were obtained. Partial least squares structural equation modelling was used to test the model of transfer intention adapted from the Theory of Planned Behaviour (TPB). Multigroup analysis was conducted to identify the similarities and differences in terms of factors affecting transfer intention among managerial/professional and non-managerial/manual construction workers. The research found that the TPB can be used to explain the transfer intention of OHS training among construction workers. Perceived behavioural control was found to be an antecedent of the intention to transfer among both groups of workers. However, attitudes only predicted transfer intention among managerial/professional workers, while subjective norms only predicted transfer intention among non-managerial/manual construction workers. The study provided a good understanding of the formation of transfer intention among managerial/professional and non-managerial/manual construction workers and identified critical factors influencing the transfer intention of these two groups. This new knowledge is useful for training providers and construction organisations to develop targeted strategies to increase the transfer of OHS skills and knowledge among construction workers and improve the effectiveness of OHS training.

Rosander M, Hetland J, and Einarsen SV. Workplace bullying and mental health problems in balanced and gender-dominated workplaces. Work and Stress. 2023; 37(3):325-344. https://doi.org/10.1080/02678373.2022.2129514 [open access]

Abstract: We investigate risks of exposure to workplace bullying and related mental health outcomes for men and women when being in a gender minority as opposed to working in a gender-balanced working environment or when belonging to a gender majority. Based on a social identity perspective, we tested hypotheses about the risks of bullying and differences in the increase in mental health problems in a probability sample of the Swedish workforce in



a prospective design. The results showed an increased risk of bullying and an increase in mental health problems as an outcome for men when in a gender minority, however, there were no corresponding risks for women. The risks for men were most obvious for person-related negative acts and for anxiety as an outcome. Social identity may clarify why a minority might be more at risk as well as the outcome it may lead to. Deviating from the group prototype may be perceived as a threat to the group alienating the target and opening up for sanctions. The observed gender differences may further be understood using social role theory. Men in female-dominated workplaces may deviate more from the expected traditional gender role and may be more susceptible to sanctions and suffer graver consequences as a result. The outcomes may be more severe if exposed to person-related acts compared to acts related to one's work.

Shah NN, Steinberg MB, Caban-Martinez AJ, Austin E, Burgess JL, Hollerbach BS, et al. Prevalence and predictors of skin cancer screening among a sample of US volunteer firefighters. American Journal of Industrial Medicine. 2023; 66(10):897-903. https://doi.org/10.1002/ajim.23524

Abstract: Background: Firefighters have a higher risk of melanoma incidence and mortality compared to the general population. In the United States (US), the National Fire Protection Association recommends all firefighters receive annual skin cancer screening through visual skin examination by a clinician. However, there is limited information on skin cancer screening practices among volunteer firefighters who comprise two-thirds of the US fire service. Methods: This cross-sectional study of 552 US volunteer firefighters estimated the prevalence of skin cancer screening and evaluated associations with their fire service experience, demographics, sun protection practices, and cancer risk perception. Results: The prevalence of receiving skin cancer screening among volunteer firefighters was 26.1% (95% confidence interval [CI]: 22.4, 29.8). The odds of being screened for skin cancer, compared to not being screened, were twice as high for firefighters who used sunscreen (odds ratio [OR]: 2.35, 95% CI: 1.48, 3.73) and who perceived their skin likely to burn with prolonged sun exposure (OR: 1.81, 95% CI: 1.10, 3.00). Older age, some college education, and family history of skin cancer were also positively associated with skin cancer screening. A positive exposureresponse relationship was observed between more monthly firefighting calls and receiving screening. Cancer risk perception was not associated with screening. Conclusion: To our knowledge, this is the first large study to assess skin cancer screening among US volunteer firefighters. Our findings suggest gaps in skin cancer prevention efforts in the volunteer fire service. Additional assessment of skin cancer prevention practices within volunteer fire departments could help address these gaps.

Wodajeneh SN, Azene DK, Abebe BB, Sileyew KJ, and Dadi GT. Ergonomic risk factors analysis in remote workplace. Theoretical Issues in Ergonomics Science. 2023; 24(6):681-



697.

#### https://doi.org/10.1080/1463922X.2022.2135788

Ye L, Kavanagh A, Petrie D, Dickinson H, and Aitken Z. Part-time versus full-time employment and mental health for people with and without disability. SSM - Population Health. 2023; 23:101446.

https://doi.org/10.1016/j.ssmph.2023.101446 [open access]

Abstract: Objectives: This paper investigates the relationship between part-time and full-time employment and mental health for people with and without disability, as well as differences in the relationship by age and sex. Methods: Using data from 13,219 working-aged people (15-64 years) in the labour force who participated in five annual waves of a longitudinal cohort study in Australia, the analysis used fixed effect regression models to examine withinperson changes in mental health associated with changes in employment status (full-time; part-time; unemployed). Differences in the relationship between employment status and mental health by disability, sex, and age were assessed. Results: Among people with disability, there was evidence that working part-time and full-time were associated with a 4.2-point (95% CI 2.6, 5.7) and 6.0-point (95% CI 4.4, 7.6) increase in mental health scores compared with when they were unemployed. For people without disability, there were much smaller differences in mental health associated with working part-time (ß = 1.0, 95% CI 0.2, 1.9) and full-time ( $\beta = 1.4, 95\%$  CI 0.5, 2.2) compared with when they were unemployed. The positive effects of both part-time and full-time employment were of greater magnitude for people with disability aged younger than 45 years compared to those aged 45 years and older. Conclusions: The results of this study suggest that both part-time and full-time employment may have beneficial effects on the mental health of people with disability, particularly for younger people. The findings underscore the value of employment for people with disability, given we found much larger beneficial mental health effects in comparison to people without disability.

Zhan J, Li Y, and Zhao Y. More reliance, more injuries: income dependence, workload and work injury of online food-delivery platform riders. Safety Science. 2023; 167:106264. <a href="https://doi.org/10.1016/j.ssci.2023.106264">https://doi.org/10.1016/j.ssci.2023.106264</a>

**Missed an issue?** Catch up on previous Research Alerts available on the IWH website www.iwh.on.ca/journal-articles/research-alerts

