

## 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.

**\*Di Giuseppe G, Jetha A, Pechlivanoglou P, and Pole JD. Income after cancer across gender and age among Canadian adolescents and young adults. *Journal of the National Cancer Institute*. 2025; [epub ahead of print].**

<https://doi.org/10.1093/jnci/djaf333> [open access]

**Abstract:** Background: Cancer in adolescents and young adults (AYAs) emerges during critical transitional phases, resulting in lasting effects on financial well-being. It remains uncertain whether cancer in AYAs exhibits differences in financial impact on income based on gender and diagnosis age over time. Methods: We linked Canada's national cancer registry to personal tax records to identify AYAs (15-39 years) diagnosed between 1994 and 2013. In the year before diagnosis, survivors were variable-ratio matched to 10 cancer-free individuals on several sociodemographic characteristics. Participants were followed longitudinally up to 10-years post-diagnosis or until 2015. Relative and absolute income changes were estimated using doubly-robust difference-in-differences. We categorized age into three groups: adolescents (15-17 years), emerging young adults (18-29 years), and young adults (30-39 years), reflecting the different AYA life stages. Analyses were stratified by gender and diagnosis age. Results: There were 60,240 women and 33,085 men survivors matched to 490,645 and 274,595 cancer-free participants, respectively. Overall, men and women had 6.9% (95%CI: 5.1%-8.6%) and 4.5% (95%CI: 3.1%-5.8%) income reductions, respectively. Adolescent men had the largest reduction of 23.7% (95%CI: 1.9% to 40.6%), while a lack of significance was observed in women of the same age. Income was reduced for varying magnitudes and durations across the different intersections of gender and diagnosis age, with men experiencing longer periods of income reductions. Conclusions: Cancer impacts income generation differently for AYA men and women, and

at various diagnosis ages over time. Men, particularly younger men, are most vulnerable to income reductions.

**\*Prince SA, Thomas T, and Biswas A. The effects of occupational and leisure time physical activity on health-related quality of life: a repeated-measures longitudinal study. Sports Medicine. 2026; [epub ahead of print].**

<https://doi.org/10.1007/s40279-025-02382-4> [open access]

Abstract: Background: High leisure time physical activity (LTPA) is consistently linked to health benefits, whereas high occupational physical activity (OPA) has been associated with adverse health outcomes, a phenomenon known as the "physical activity health paradox." This study examined how OPA and LTPA interact to influence health-related quality of life (HRQL), a measure of physical and mental well-being. Methods: A repeated-measures longitudinal study was conducted using data from 7382 Canadian workers (aged 18-75 years) in the National Population Health Survey (1994-2011). Multilevel growth curve models were used to assess associations between self-reported measures of LTPA (active, inactive), OPA (sit, walk/light loads, heavy loads), and OLTPA, a composite variable of their combined effects, with the Health Utility Index score (HRQL), adjusting for sociodemographic and health covariates. Results: Active LTPA was associated with better HRQL, whereas OPA was not. Results suggested a curvilinear response between OLTPA and HRQL with age whereby middle-aged workers lifting heavy loads at work and active LTPA have lower HRQL than older workers in the same group. Findings were similar among males, but among older females (60 + years) who lifted heavy loads at work, being inactive rather than active in leisure resulted in higher HRQL. Conclusion: The association between LTPA, OPA, and HRQL is complex, varying across age and sex. These findings highlight the need for physical activity recommendations that are sensitive to occupational demands when promoting health and well-being.

**\*Tayer-Shifman OE, Su J, Bingham K, Kakvan M, Tartaglia MC, Ruttan L, Marzouk S, Wither J, Choi MY, Bonilla D, Appenzeller S, Beaton D, et al. Intraindividual cognitive function course over time in patients with systemic lupus erythematosus. RMD Open. 2025; 11(4):e005655.**

<https://doi.org/10.1136/rmdopen-2025-005655> [open access]

Abstract: BACKGROUND: Cognitive impairment (CI) is one of the most common manifestations of neuropsychiatric systemic lupus erythematosus (SLE). This study aimed to characterise the course of CI over a 1-year period in patients with SLE and its associated factors. METHODS: 175 adult SLE patients from the University of Toronto Lupus Clinic were assessed at baseline, 6 months and 12 months using the American College of Rheumatology Neuropsychological Battery. CI was classified based on standardised z-scores in cognitive domains. Patients were categorised as persistent-CI (CI at all three time-points; T0, T1 and T2), never-CI (no CI at any time-point) or fluctuating-CI (CI at 1-2 assessments). Sociodemographic, clinical, laboratory and medication data were collected at each visit. Patients with persistent-CI were compared with never-CI patients. CI severity was determined based on the mean z-score of tests across all six domains. RESULTS: Over 1 year, 46% of patients experienced CI, with 17% showing persistent-CI, 29% fluctuating-CI and 54% never-CI. Persistent-CI patients exhibited more severe CI compared with fluctuating-CI. The most frequently affected cognitive domains were learning and memory, simple attention and processing speed, and visual-spatial construction. Factors associated with CI persistence over 1 year included Black race, older age at SLE diagnosis, divorced/separated status at T0 and higher disease-related damage at T0.



**CONCLUSION:** This study highlights the variable nature of CI in SLE patients, with most exhibiting a stable course over 1 year. Factors such as sociodemographic characteristics and comorbidities may influence CI persistence

**Andrup L, Hadrup N, and Mette Madsen A. Occupational health issues in the seafood industry due to biological exposures: a narrative review. Safety and Health at Work. 2025; 16(4):387-397.**

<https://doi.org/10.1016/j.shaw.2025.08.001> [open access]

Abstract: Climate change, along with the global shift toward more sustainable seafood production, is giving rise to novel occupational exposures. Anticipated changes in the types and quantities of seafood produced, as well as evolving methods of production and processing, are driven by increasing demands for resource efficiency and environmental impact mitigation. Aquaculture, particularly land-based farming of fish and shellfish, is becoming more prevalent and introduces distinct occupational health challenges related to the animals, their associated microorganisms, feed, and production settings. In this literature review, we aim to identify and categorize the occupational exposures that have been reported to adversely affect human health during the handling and industrial processing of fish and shellfish. The primary focus is on biological exposures occurring within processing facilities. Bioaerosols, which may contain infectious agents, allergens, or toxins, represent a key area of concern. For the purposes of this review, we group biological exposures into these partially overlapping categories. Consideration is also given to the broader context of the green transition, emphasizing sustainability and recent developments within the seafood industry. We find that the potential for zoonotic transmission is considerable, the risk of occupational asthma and allergies is well-documented, and that workers are exposed to a range of potentially toxic substances. Furthermore, significant developments in seafood production, driven by climate change and the pursuit of more sustainable practices, are likely to introduce new occupational exposures for which the industry may not be fully prepared

**Clifton S, Cooper E, Bourke J, Connor S, Denton S, Dominish B, et al. Disability lived experience and expertise: recognising the expert contributions of people with disability. Evidence and Policy. 2025; 21(4):578-595.**

<https://doi.org/10.1332/17442648Y2025D000000060>

Abstract: While the inclusion of 'disability lived experience' is increasingly advocated for in research, policy and practice, its conceptualisation and application present significant challenges. This article, a collaborative effort by 16 individuals with diverse disabilities and expertise, critically examines the limitations inherent in the current usage. We argue that prevailing interpretations of 'lived experience' presume subjectivity and over-emphasise narratives of suffering, leading to tokenism and a false dichotomy between lived experience and professional or academic expertise. These issues can undermine the true value and breadth of knowledge held by disabled people. To address these limitations, we propose a crucial distinction between 'disability lived experience' - the personal, embodied experience of disability - and 'disability lived expertise', which synthesises lived experience with a deep knowledge of the history, concepts, rights and collective experiences of people with disability, the core values of the disabled community, and advocacy skills needed to redesign and reshape the social environment to enable people with disabilities to flourish. This distinction aims not to diminish disability lived experience, but to more accurately recognise and legitimise the developed expertise many disabled people bring to various fields. By recognising the concept of disability lived

expertise, we aim to foster more meaningful inclusion, challenge ableist power structures, and ensure that the expert contributions of disabled people are fully valued in driving social change

**Dean A and McCallum J. California's heat standard and heat-related deaths among outdoor workers. Health Affairs. 2025; 44(12):1490-1496.**

<https://doi.org/10.1377/hlthaff.2025.00096>

Abstract: Heat exposure impairs decision making and increases injury and death risk among outdoor workers. Since 2022, five US states have adopted outdoor heat standards, but these recent policies cannot yet be evaluated with the available data. We examined California's 2005 outdoor heat standard, which is the only standard that was in place before 2022. Using negative binomial regression with wild cluster bootstrapped standard errors, we compared heat-related deaths among outdoor workers in California with those in neighboring states during the period 1999-20. California's policy showed increasingly strong associations with reduced deaths over time, with no decline during initial implementation (2005-09) but estimated reductions of 33 percent after enforcement increased (2010-14) and 51 percent after policy revisions (2015-20). Although these period-specific reductions were not individually statistically significant, a Wald test indicated that the combined effect during the period 2010-20 was statistically significant. These findings suggest that when properly designed and enforced, comprehensive heat standards can protect vulnerable workers as temperatures rise.

**Green F, Matthews LR, and Hancock N. Return-to-work experiences of individuals with common mental disorders within disability-based insurance systems explored within a mental health recovery framework: a scoping review. Disability and Rehabilitation. 2025; 47(26):6836-6850.**

<https://doi.org/10.1080/09638288.2025.2492304> [open access]

Abstract: PURPOSE: This study investigates the vocational recovery and return-to-work (RTW) experiences of individuals with common mental disorders (CMDs) within disability-based insurance systems, assessing alignment with the Connectedness, Hope, Identity, Meaning, and Empowerment (CHIME) model. 'Disability-based' refers to systems where eligibility depends on the presence of a health condition regardless of its cause, operating through social insurance in European countries and life insurance in Australia. METHODS: Through a qualitative scoping review under the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA-ScR) framework we reviewed qualitative peer-reviewed studies on RTW for people with CMDs from five electronic databases and mapped findings to CHIME dimensions noting unclassifiable content. RESULTS: Analysis of 11 studies revealed complex RTW processes for individuals with CMDs within disability-based insurance systems, emphasising the importance of CHIME dimensions. Key findings identified the necessity of supportive relationships and structured rehabilitation services for successful vocational recovery. CONCLUSION: Results identify the need for a recovery-oriented approach in occupational rehabilitation for individuals with CMDs. This emphasises the importance of supportive environments that foster empowerment, meaningful engagement, and identity reconstruction in the RTW process. Further research should explore these aspects within the Australian context to develop more effective person-centred rehabilitation models

**Gullestrup J, Thomas S, King T, and LaMontagne AD. The influence of relationships on engagement in an Australian construction industry suicide prevention programme. American Journal of Industrial Medicine. 2026; 69(1):24-31.**

<https://doi.org/10.1002/ajim.70034> [open access]

Abstract: BACKGROUND: Every 45 seconds a person dies by suicide. Significantly more men than women die by suicide and most are of working age. Some industries such as the construction industry have higher rates of suicide. MATES in Construction is an Australian programme established in 2008 to reduce suicide rates in the construction industry. The purpose of this study was to gain insight into the role-relationships between participants, staff and the MATES in Construction (MATES) organisation in an industry-based suicide prevention programme in the Australian construction industry. METHODS: Semi-structured qualitative interviews were conducted with 28 MATES programme volunteers. The data was analysed using a reflexive thematic analysis approach. RESULTS: From the data two themes were constructed. Firstly, MATES staff relatability builds worker trust and facilitates engagement in the programme. As peer workers, MATES staff were trusted and modelled the desired outcomes of the programme. Secondly, the authentic industry base of the programme enhances worker trust and engagement. MATES could be trusted because it was part of the construction industry as an industry-owned and -led organisation supported by both employers and unions. Union endorsement was seen as particularly important by workers. CONCLUSIONS: The relatability of MATES staff and MATES' industry base were seen as important drivers of worker engagement and participation in the programme. This study provides new insights into the importance of peer roles, authenticity, connection, and positionality of public health interventions as facilitators of engagement and participation in community-based preventive interventions

**Hedberg-Graff J, Rodby-Bousquet E, Lindgren A, Manousaki E, Cloodt E, and Pettersson K. Employment is associated with manual ability in adults with cerebral palsy: a population-based study. Disability and Health Journal. 2026; 19(1):101926.**

<https://doi.org/10.1016/j.dhjo.2025.101926> [open access]

Abstract: Background: Employment rates are lower in adults with cerebral palsy (CP). Even though reduced manual ability is associated with limitations in daily activities, it is unclear whether employment rates are associated with manual ability in adults with CP. Objective: To analyze regular employment and employment rates (hours/week) in adults with CP and estimate their associations with manual ability relative to age and sex. Methods: This was a cross-sectional study of adults with CP, aged 20-64 years, from the combined Swedish CP follow-up program and registry. Manual ability was classified as levels I-V using the Manual Ability Classification System (MACS). Logistic regression analysis was used. Results: The study included 2304 adults with CP (1271 men; median age 28 years, interquartile range 20-64 years). Fewer than one in five (19 %) were employed, and about half (52 %) of these worked full time. The probability of employment in adults with MACS level II was almost half that of those with level I (OR 0.44; 95 % CI 0.34-0.57) and decreased with each MACS level to OR 0.01 (95 % CI 0.00-0.03) for MACS V. Limited manual ability was associated with a lower probability of working full time: ORs of 0.46 (95 % CI 0.30-0.72) for MACS II and 0.29 (95 % CI 0.16-0.56) for MACS III-V. Conclusion: Limited manual ability in adults with CP impacts both their likelihood of employment and employment rate. Greater manual ability is associated with a higher probability of regular employment and working full time.

**Johnsen TL, Tveito TH, Oyeflaten I, and Lie SA. A brief work-oriented intervention targeting musculoskeletal and mental health disorders: exploring work disability outcomes in a prospective study. Work. 2025; 82(4):1099-1109.**

<https://doi.org/10.1177/10519815251353214> [open access]

Abstract: Background Work disability due to musculoskeletal and mental health disorders constitutes one of the greatest social and labor market challenges. There is a need to investigate the long-term impact of interventions provided to employees. Objective To investigate if a brief work-oriented intervention targeting musculoskeletal and mental health disorders affected the risk of work disability. Methods A prospective study using national register data was designed. The intervention group consisted of all patients (n = 6348) who in the years 2008-2017 participated in a brief intervention at an outpatient clinic in the secondary health care service. The comparison group (n = 25,354) consisted of employees sick-listed for musculoskeletal or mental health disorders in the same years as the intervention group. Cox proportional hazard regression was used to model the effect of the intervention on the risk of future disability pension. Overall and subgroup analyses for gender and diagnoses were conducted for various categories of full-time equivalent number of days lost to work. Results Generally, there was a pattern of increased risk of disability among patients in the intervention group if they participated in the intervention in an early phase of sick leave. This pattern was found in the overall analysis, for males, females, and patients with musculoskeletal disorders. Except for patients with only musculoskeletal disorders, there was a pattern of reduced risk of disability with sick leave of between three and six months. Conclusions Overall, the intervention did not reduce the risk of disability. However, the results do indicate that intervention timing may be of significance.

**Lin CY, Chung PH, Lee PH, and Cheng Y. Experiences of workplace bullying among workers with work-related musculoskeletal disorders: a qualitative assessment using the Negative Acts Questionnaire. Safety and Health at Work. 2025; 16(4):478-484.**

<https://doi.org/10.1016/j.shaw.2025.09.003> [open access]

Abstract: BACKGROUND: Previous studies suggest that workers with disabilities are susceptible to workplace bullying. Additionally, research indicates that filing compensation claims can strain employer-employee relationships. This study investigates experiences of workplace bullying among workers diagnosed with work-related musculoskeletal disorders (WRMSDs). METHODS: Qualitative interview data from 11 male and 10 female workers with physician-diagnosed WRMSDs were analyzed using the constructs of the Negative Acts Questionnaire-Revised, which encompasses three domains: work-related bullying (7 items), personal bullying (12 items), and physically intimidating bullying (3 items). Their self-rated health and psychological status were also evaluated. RESULTS: Among the 21 workers, 10 experienced at least one form of workplace bullying. The most commonly reported form was "pressure not to claim something to which you are entitled" (9 workers), followed by "hints or signals from others that you should quit your job" (5 workers), "having your opinions ignored" (3 workers), and "being given unmanageable workloads" (3 workers). Workers who experienced workplace bullying were more likely to report poor health and psychological distress. CONCLUSION: Occupational health professionals should pay close attention to the nature, forms, and impacts of negative behaviors experienced by workers with WRMSDs. Appropriate interventions

should be implemented to address conflicts between workers and management arising from work-related disabilities and to better support workers in their rehabilitation process

**Onvlee O, Jacobs E, Tromp N, Bailey A, and Dieleman M. Health workforce resilience in the age of polycrisis: a framework to support health workforce policy and planning. Health Policy. 2026; 164:105500.**

<https://doi.org/10.1016/j.healthpol.2025.105500> [open access]

Abstract: BACKGROUND: Many countries face prolonged health workforce crises, marked by shortages, maldistribution, skills mix imbalances and attrition. When workforces are overstretched, they become more vulnerable to external shocks and chronic strains, including infectious disease outbreaks, climate-related effects and political instability. This is particularly concerning as an emerging global "polycrisis" means such external pressures increasingly interact and amplify one another in unpredictable ways. Strengthening health workforce resilience must therefore become a priority for policy and planning. OBJECTIVE: To introduce a resilience lens for health workforce policy and planning. METHODS: This conceptual paper synthesises literature from health workforce and systems research, resilience, and complex adaptive systems theory, complemented by practical insights from workforce planning and governance. RESULTS: The paper introduces the Health Workforce Resilience framework, which illustrates how the multilevel nature of health workforce resilience connects individual health workers, teams and organisations, and the national health workforce level. It shows how shocks and long-term pressures ripple through these interconnected levels, affecting the capacity, composition, and performance of the workforce. Impacts and responses at one level can amplify or dampen effects at others. The framework highlights two critical interfaces: the workforce-community interface, capturing how societal, economic, and security conditions shape workforce motivation, performance, and retention, and the workforce-governance interface, reflecting how institutional arrangements, policies, and decision-making processes enable or constrain workforce system responses. CONCLUSIONS: Adopting a resilience lens underscores the need to view workforce planning as a systems approach that emphasises anticipatory, needs-based planning and integrates political, social, and contextual realities to strengthen workforce resilience under pressure

**Sakharova T, Sivkov A, Sivkov S, Chernus N, and Tikhonova Y. Impact of individual and professional factors on the mental health of employees working remotely: Russian companies' evidence.**

**International Journal of Occupational Safety & Ergonomics. 2025; 31(4):925-934.**

<https://doi.org/10.1080/10803548.2025.2484074>

Abstract: Objectives. This study aimed to assess the impact of remote work on the mental well-being of employees and to identify factors influencing levels of anxiety, depression and stress. Methods. The study employed surveys and data analysis involving 1002 remote employees from various companies. A diverse range of statistical analyses, including correlation, regression and multivariate analysis, was employed to scrutinize the data. Results. Employees with children exhibited a higher job satisfaction level (with children M 7.5, without children M 6.8;  $p < 0.05$ ). Women (M 5.2) displayed a statistically higher level of anxiety compared to men (M 4.5) ( $p < 0.05$ ). Employees with more than 10 years of remote work experience (M 4.2) had lower levels of anxiety and depression than those with less than 2 years of experience (M 6.0) ( $p < 0.05$ ). Men (M 4.5) reported lower stress levels than women (M 5.2) ( $p < 0.05$ ). Disparities in job satisfaction were observed between information technology specialists



(M 8.5) and marketers (M 7.2) ( $p < 0.05$ ). Employees with higher education (M 8.0) exhibited lower levels of anxiety and depression compared to employees with secondary education (M 7.2) ( $p < 0.05$ ). Conclusions. The findings underscore the significance of considering individual and professional factors in the management of remote employees' mental well-being.

**Violante FS, Graziosi F, Caraballo-Arias Y, Decataldo F, and Bonfiglioli R. Influence of weekly working hours on musculoskeletal disorder risk associated with biomechanical factors. IIE Transactions on Occupational Ergonomics and Human Factors. 2025; 13(4):256-263.**

<https://doi.org/10.1080/24725838.2025.2529872> [open access]

**Watkins D, Bishop E, Naylor S, Frankish R, Staves M, Dony J, et al. A scoping review of the evidence base for the performance of leading indicators for improving safety outcomes: available evidence, implications for practice and future directions. Journal of Safety Research. 2025; 95:530-544.**

<https://doi.org/10.1016/j.jsr.2025.10.024> [open access]

Abstract: INTRODUCTION: Safety performance indicators are important to assess and prevent work-related incidents, which are associated with high global morbidity and mortality. Safety can be measured using lagging indicators (past workplace incidents) or leading indicators (proactive measures to prevent incidents). Leading indicators in occupational safety and health (OSH) are already used in several industries, though it is unclear whether their use is supported by published evidence. METHODS: We undertook a scoping review to identify studies evaluating the performance of OSH leading indicators. Literature searches (8 databases, August 2023) identified primary studies evaluating the impact of leading indicators on any safety outcomes in any industry. Researchers systematically identified and extracted relevant studies. No two studies assessed the same research question, preventing meaningful synthesis of the performance of leading indicators. Instead, we mapped the available studies to understand the quality and nature of this important evidence base. RESULTS: The 48 studies comprise a substantial, though disparate, evidence base. Although most reported a positive impact of leading on lagging indicators, overall the evidence base was weak: (1) study designs were not appropriate for determining causality; (2) internal validity of studies was moderate to low; (3) studies were poorly generalizable. The biggest challenge was the inability to compare findings across studies. CONCLUSIONS: Decisions on which leading indicators to use should be based on evidence that they improve safety. Future research should take measures to improve and standardize study design and conduct. Developing an OSH-specific evidence standards framework is likely to guide and assist this process. PRACTICAL APPLICATIONS: Identifying recommendations for practice was difficult due to the quality and heterogeneity of the evidence base. Future studies should improve approaches to minimizing bias and identify common tools to measure both leading and lagging indicators. To achieve this, we encourage practitioners and researchers to collaborate and share data

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

