*Buchan SA, Smith PM, Warren C, Murti M, Mustard C, Kim JH, et al. Incidence of outbreak-associated COVID-19 cases by industry in Ontario, Canada, 1 April 2020-31 March 2021. Occupational and Environmental Medicine. 2022; [epub ahead of print].
https://doi.org/10.1136/oemed-2021-107879   **[open access]**

Abstract: OBJECTIVES: The objective of our study was to estimate the rate of workplace outbreak-associated cases of COVID-19 by industry in labour market participants aged 15-69 years who reported working the majority of hours outside the home in Ontario, Canada. METHODS: We conducted a population-based cross-sectional study of COVID-19 workplace outbreaks and associated cases reported in Ontario between 1 April 2020 and 31 March 2021. All outbreaks were manually classified into two-digit North American Industry Classification System codes. We obtained monthly denominator estimates from the Statistics Canada Labour Force Survey to estimate the incidence of outbreak-associated cases per 100 000 000 hours among individuals who reported the majority of hours were worked outside the home. We performed this analysis across industries and in three distinct time periods. RESULTS: Overall, 12% of cases were attributed to workplace outbreaks among working-age adults across our study period. While incidence varied across the time periods, the five industries with the highest incidence rates across our study period were agriculture, healthcare and social assistance, food manufacturing, educational services, and transportation and warehousing. CONCLUSIONS: Certain industries have consistently increased the incidence of COVID-19 over the course of the pandemic. These results may

assist in ongoing efforts to reduce transmission of COVID-19 by prioritising resources, as well as industry-specific guidance, vaccination and public health messaging

*Yuen K, Beaton D, Bingham K, Katz P, Su J, Diaz Martinez JP, et al. Validation of the automated neuropsychological assessment metrics for assessing cognitive impairment in systemic lupus erythematosus. Lupus. 2021; [epub ahead of print].
https://doi.org/10.1177/09612033211062530   **[open access]**

Abstract: OBJECTIVE: We previously demonstrated the utility of the Automated Neuropsychological Assessment Metrics (ANAM) for screening cognitive impairment (CI) in patients with systemic lupus erythematosus (SLE) and developed composite indices for interpreting ANAM results. Our objectives here were to provide further support for the ANAM's concurrent criterion validity against the American College of Rheumatology neuropsychological battery (ACR-NB), identify the most discriminatory subtests and scores of the ANAM for predicting CI, and provide a new approach to interpret ANAM results using Classification and Regression Tree (CART) analysis. METHODS: 300 adult SLE patients completed an adapted ACR-NB and ANAM on the same day. As per objectives, six models were built using combinations of ANAM subtests and scores and submitted to CART analysis. Area under the curve (AUC) was calculated to evaluate the ANAM's criterion validity compared to the adapted ACR-NB; the most discriminatory ANAM subtests and scores in each model were selected, and performance of models with the highest AUCs were compared to our previous composite indices; decision trees were generated for models with the highest AUCs. RESULTS: Two models had excellent AUCs of 86 and 89%. Eight most discriminatory ANAM subtests and scores were identified. Both models demonstrated higher AUCs against our previous composite indices. An adapted decision tree was created to simplify the interpretation of ANAM results. CONCLUSION: We provide further validity evidence for the ANAM as a valid CI screening tool in SLE. The decision tree improves interpretation of ANAM results, enhancing clinical utility

Arzahan ISN, Ismail Z, and Yasin SM. Safety culture, safety climate, and safety performance in healthcare facilities: a systematic review. Safety Science. 2022; 147:105624.
https://doi.org/10.1016/j.ssci.2021.105624   **[open access]**

Abstract: Numerous studies, especially in high-risk industries, have looked into how safety culture might help a company improve its safety performance. However, healthcare facilities are still in their early stages of safety performance development. A systematic review (SR) of Scopus, Web of Science, Dimensions, ScienceDirect, and Google Scholar, was conducted using the Preferred Reporting Items for Systematic Reviews (PRISMA) technique. The purpose is to look into the link involving safety culture or climate and safety performance in healthcare facilities. A number of keywords 'safety culture', 'safety climate', 'safety performance', 'injury', 'incident', 'healthcare', 'hospital', 'clinic', 'health office', 'health division', and 'health authority' were chosen by researchers in this SR. The inclusion criteria were (1) studies in healthcare facilities involving safety culture or safety climate-linked with safety performance,

(2) English language, and (3) research published in peer-reviewed journals within five years (2016 to 2020). The EPHPP-Quality Assessment Tool was used to assess the quality of the studies. The influence of safety culture, climate, and safety performance in 11 research was reviewed by researchers in the current paper. Only one study was rated as strong quality, six of the studies were rated as moderate quality, and the rest were rated as weak quality. The EPHPP quality assessment tool dictionary aided evaluation of article bias. The proactive measure is favored among researchers in healthcare and has a significant relationship with safety culture or safety climate. Despite the importance of this field, quality research is still insufficient, according to our evaluation. Additional research is needed to explain the link between the variables evaluated, particularly in healthcare facilities and other low-risk industries.

Breeher LE, Wolf ME, Geyer H, Brinker T, Tommaso C, Kohlnhofer S, et al. Work absence following covid-19 vaccination in a cohort of healthcare personnel. Journal of Occupational & Environmental Medicine. 2022; 64(1):6-9.
https://doi.org/10.1097/JOM.0000000000002376   [open access]
Abstract: OBJECTIVE: To identify rates of work absence following receipt of COVID-19 vaccine in a cohort of healthcare personnel (HCP). METHODS: Short-term disability (STD) usage by HCP attributed to side effects of the COVID-19 vaccine was calculated for each vaccine manufacturer, job category, age group, and work region. Analysis was performed for the cohort of HCP during the initial vaccination campaign. RESULTS: 4.1% of COVID-19 vaccinations generated a STD claim for lost work due to side effects, with increased STD rates after dose 2 than dose 1 (7.4% and 0.9%, respectively). Rates were higher for younger HCP and allied health staff. CONCLUSIONS: While side effects from mRNA vaccine dose 2 resulted in more work absence, statistically significant geographic differences in STD suggest cultural and staffing factors may impact HCP to utilize STD following vaccination

Chim JMY and Chen T. Implementation of an office ergonomics program to promote musculoskeletal health: a case study in Hong Kong. IISE Transactions on Occupational Ergonomics and Human Factors. 2021; 9(2):96-105.
https://doi.org/10.1080/24725838.2021.1997836
Abstract: OCCUPATIONAL APPLICATIONS An office ergonomics program was implemented at a multinational company in Hong Kong. The FITS Model office ergonomics program included four components: (1) F: Furniture Evaluation and Selection, wherein the ergonomist conducted a walkthrough review of furniture and environmental settings; (2) I: Individual Workstation Assessment, in which the office ergonomics guideline and educational video were developed. An interactive individual ergonomics workstation assessment included a health survey, and the assessor provided immediate recommendations for changes to workstation setup; (3) T: Training and Education; and (4) S: Stretching Exercises and Rest Breaks, which entailed classroom training to promote office ergonomics principles and demonstrate office stretching exercises. A case study is described, included the steps to

implement the program and highlights of the feedback from the project team gathered during mid-term and final evaluations. Lessons learned regarding program management and the limitations of the project intervention offer useful information for practitioners and companies

Del Ferraro S, Falcone T, Morabito M, Messeri A, Bonafede M, Marinaccio A, et al. Cooling garments against environmental heat conditions in occupational fields: measurements of the effect of a ventilation jacket on the total thermal insulation. International Journal of Industrial Ergonomics. 2021; 86:103230.
https://doi.org/10.1016/j.ergon.2021.103230

Gulseren D. Chronic pain and disability in organizations: it's time to pay attention to work and workers. Canadian Journal of Pain. 2022; [epub ahead of print].
https://doi.org/10.1080/24740527.2021.2010023

Hinze A, Konig JL, and Bowen J. Worker-fatigue contributing to workplace incidents in New Zealand Forestry. Journal of Safety Research. 2021; 79:304-320.
https://doi.org/10.1016/j.jsr.2021.09.012

Abstract: PROBLEM: Reports of incidents in dangerous work environments can be analysed to identify common hazards, in turn aiding in the prevention of future accidents. Whilst studies exist that do this, most focus on causes that involve physical risks. In this paper we propose an alternative approach, and illustrate causes of forestry incidents from the perspective of worker-failure and fatigue. METHOD: This paper outlines the analysis of eight years' worth of New Zealand forestry incident data, with a focus on the cause of, and time that, incidents occur. RESULTS: This has resulted in two main findings. First, 70% of incidents can be attributed, at least in part, to worker-failures. Second, 78% of worker-failure based causes show indications of fatigue. This indicates that a significant number of forestry incidents are caused by worker-fatigue. Finally, this dataset showed inconsistencies in data quality, similar to those that exist in other datasets. This did not affect our analysis. However, these types of errors have the potential to affect the data quality in the national reporting system. IMPACT ON INDUSTRY: The results from this study will be used in a larger project on detecting fatigue in forestry workers for injury and incident prevention. It is also our hope that other researchers may find these results of interest for further fatigue prevention research in hazardous industries

Hou Y, Hou W, Zhang Y, Liu W, and Chen A. Relationship between working stress and anxiety of medical workers in the COVID-19 situation: a moderated mediation model. Journal of Affective Disorders. 2022; 297:314-320.

Abstract: BACKGROUND: The COVID-19 pandemic has brought a lot of working stress to medical workers and has a certain impact on their mental health. Working stress is closely related to the increase in anxiety, but few studies have explored whether their relationship will be affected by positive psychological factors in the special situation. METHODS: 798 medical workers were investigated online after the outbreak of the COVID-19 (10 February to 1 March 2020) in China. The relevant questionnaires were used to evaluate working stress, anxiety, sense of control, and psychological capital. The moderated mediation model test was performed using the SPSS software and PROCESS macro program. RESULTS: Working stress could directly affect anxiety, and indirectly affect anxiety through sense of control. In addition, psychological capital moderated the direct effect of working stress on anxiety, which is more effective at high level of psychological capital. Psychological capital also moderated the second half of the indirect effect of working stress on anxiety, at low level of psychological capital, sense of control was more effective in predicting anxiety. LIMITATIONS: All the data in this study was collected through online questionnaire. The anxiety response measured in this study cannot be specific to the viral epidemic. CONCLUSIONS: Under the COVID-19 epidemic situation, for medical workers, low sense of control and low level of psychological capital may be important risk factors of anxiety caused by working stress. Thus, strengthening the sense of control and psychological capital of medical workers would be helpful to reduce their anxiety and maintain their mental health

Knoop J, Rutten G, Lever C, Leemeijer J, de Jong LJ, Verhagen AP, et al. Lack of consensus across clinical guidelines regarding the role of psychosocial factors within low back pain care: a systematic review. Journal of Pain. 2021; 22(12):1545-1559.

Abstract: It is widely accepted that psychosocial prognostic factors should be addressed by clinicians in their assessment and management of patient suffering from low back pain (LBP). On the other hand, an overview is missing how these factors are addressed in clinical LBP guidelines. Therefore, our objective was to summarize and compare recommendations regarding the assessment and management of psychosocial prognostic factors for LBP chronicity, as reported in clinical LBP guidelines. We performed a systematic search of clinical LBP guidelines (PROSPERO registration number 154730). This search consisted of a combination of previously published systematic review articles and a new systematic search in medical or guideline-related databases. From the included guidelines, we extracted recommendations regarding the assessment and management of LBP which addressed psychosocial prognostic factors (ie, psychological factors ["yellow flags"], perceptions about the relationship between work and health, ["blue flags"], system or contextual obstacles ["black flags") and psychiatric symptoms ["orange flags"]). In addition, we evaluated the level

or quality of evidence of these recommendations. In total, we included 15 guidelines. Psychosocial prognostic factors were addressed in 13 of 15 guidelines regarding their assessment and in 14 of 15 guidelines regarding their management. Recommendations addressing psychosocial factors almost exclusively concerned "yellow" or "black flags," and varied widely across guidelines. The supporting evidence was generally of very low quality. We conclude that in general, clinical LBP guidelines do not provide clinicians with clear instructions about how to incorporate psychosocial factors in LBP care and should be optimized in this respect. More specifically, clinical guidelines vary widely in whether and how they address psychosocial factors, and recommendations regarding these factors generally require better evidence support. This emphasizes a need for a stronger evidence-base underlying the role of psychosocial risk factors within LBP care, and a need for uniformity in methodology and terminology across guidelines. PERSPECTIVE: This systematic review summarized clinical guidelines on low back pain (LBP) on how they addressed the identification and management of psychosocial factors. This review revealed a large amount of variety across guidelines in whether and how psychosocial factors were addressed. Moreover, recommendations generally lacked details and were based on low quality evidence

Lee JO, Kapteyn A, Clomax A, and Jin H. Estimating influences of unemployment and underemployment on mental health during the COVID-19 pandemic: who suffers the most? Public Health. 2021; 201:48-54.
https://doi.org/10.1016/j.puhe.2021.09.038

Abstract: Objectives: The aim of the study was to evaluate whether unemployment and underemployment are associated with mental distress and whether employment insecurity and its mental health consequences are disproportionately concentrated among specific social groups in the United States during the COVID-19 pandemic. Study design: This is a population-based longitudinal study. Methods: Data came from the Understanding America Study, a population-based panel in the United States. Between April and May 2020, 3548 adults who were not out of the labor force were surveyed. Analyses using targeted maximum likelihood estimation examined the association of employment insecurity with depression, assessed using the 2-item Patient Health Questionnaire, and anxiety, measured with the 2-item Generalized Anxiety Disorder scale. Stratified models were evaluated to examine whether employment insecurity and its mental health consequences are disproportionately concentrated among specific social groups. Results: Being unemployed or underemployed was associated with increased odds of having depression (adjusted odds ratio [AOR] = 1.66, 95% confidence interval [CI] = 1.36-2.02) and anxiety (AOR = 1.50, 95% CI = 1.26, 1.79), relative to having a full-time job. Employment insecurity was disproportionately concentrated among Hispanics (54.3%), Blacks (60.6%), women (55.9%), young adults (aged 18-29 years; 57.0%), and those without a college degree (62.7%). Furthermore, Hispanic workers, subsequent to employment insecurity, experienced worse effects on depression (AOR = 2.08, 95% CI = 1.28, 3.40) and anxiety (AOR = 1.95, 95% CI = 1.24, 3.09). Those who completed high

school or less reported worse depression subsequent to employment insecurity (AOR = 2.44, 95% CI = 1.55, 3.85). Conclusions: Both unemployment and underemployment threaten mental health during the pandemic, and the mental health repercussions are not felt equally across the population. Employment insecurity during the pandemic should be considered an important public health concern that may exacerbate pre-existing mental health disparities during and after the pandemic.

Maru M, Rogers ES, Nicolellis D, Legere L, Placencio-Castro M, Magee C, et al. Vocational peer support for adults with psychiatric disabilities: results of a randomized trial. Psychiatric Rehabilitation Journal. 2021; 44(4):327-336.
https://doi.org/10.1037/prj0000484

Abstract: Objective: Peer support services for individuals with psychiatric conditions have burgeoned and now are proliferating within mental health systems nationally and internationally. More recently, variations of peer support have been developed, including those that focus on vocational outcomes. Methods: We conducted a randomized clinical trial in two mental health programs to test a newly developed model of vocationally oriented peer support. We recruited, randomly assigned, and followed 166 individuals for 12 months; 83 received Vocational Peer Support (the experimental condition, VPS) and 83 received peer support services-as-usual. Peer support specialists (PSS) delivering VPS were trained and supervised. We examined vocational and educational outcomes as well as work hope, quality of life, and work readiness at baseline, 6- and 12-month postrandomization. We assessed the working alliance as well. Results: We found a group-by-time effect on domains of work readiness and modest differences in vocational activity. Secondary analyses revealed that VPS resulted in a stronger working alliance with the peer specialist, which mediated some aspects of a better quality of life and greater work hope. Conclusions and Implications for Practice: In the context of the peer relationship, peer specialists are often called upon to support individuals who are pursuing employment, often without adequate preparation or training. Our findings suggest that vocationally oriented peer support affects several aspects of readiness to pursue work-related goals and mediates some aspects of vocational hope and quality of life. VPS may assist individuals receiving peer support as they choose, get, and keep employment. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

Motabar H and Nimbarte AD. Sex differences in rotator cuff muscles' response to various work-related factors. IISE Transactions on Occupational Ergonomics and Human Factors. 2021; 9(1):1-12.
https://doi.org/10.1080/24725838.2021.1931562

Abstract: OCCUPATIONAL APPLICATIONS Despite the frequency and cost of rotator cuff injuries among male and female workers, very little is known about the strength, endurance, and perceived exertion and electromyographic response of rotator cuff muscles to different exertion levels. In this study, sex differences were studied using muscle-specific maximal and submaximal exertions of the supraspinatus, infraspinatus, and teres minor muscles. Females

showed lower strength and endurance, but higher muscle activity and perceived exertion compared to males. The baseline data presented in this paper can assist ergonomic practitioners in determining the worker capacity to ensure that physically-demanding shoulder exertions can be performed without incurring injurious stress. Such data is also essential to establish population norms for the better design of workplace tasks

Perez E, Rodriguez Y, Salazar MC, and Trujillo MA. Improving working conditions using the ergonomic checkpoints tool: application in a Colombian meat processing plant. IISE Transactions on Occupational Ergonomics and Human Factors. 2021; 9(2):72-77.
https://doi.org/10.1080/24725838.2021.1962622
Abstract: OCCUPATIONAL APPLICATIONS Integrating ergonomics (or human factors) in production and service processes is a topic of interest for ergonomics researchers and practitioners, especially in industrially-developing countries. In this paper, we present how an ergonomic intervention was carried out in an area of a Colombian meat processing plant using the Ergonomics Checkpoints tool. Of 65 checkpoints verified, 24 required improvement action and 17 of them were a priority. The main problems were related to materials storage and handling, hand tools, machine safety, workstation design, and work organization. Organizational and engineering proposals were made. The engineering proposals were modeled in 3 D to increase understanding of and acceptance by the company's workers. We hope that the lessons learned and reflections derived from this case study serve as a reference for conducting ergonomic interventions in similar contexts.

Rockliffe L. Including non-English language articles in systematic reviews: a reflection on processes for identifying low-cost sources of translation support. Research Synthesis Methods. 2022; 13(1):2-5.
https://doi.org/10.1002/jrsm.1508   **[open access]**
Abstract: Non-English language (NEL) articles are commonly excluded from published systematic reviews. The high cost associated with professional translation services and associated time commitment are often cited as barriers. Whilst there is debate as to the impact of excluding such articles from systematic reviews, doing so can introduce various biases. In order to encourage researchers to consider including these articles in future reviews, this paper aims to reflect on the experience and process of conducting a systematic review which included NEL articles. It provides an overview of the different approaches used to identify sources of low-cost translation support and considers the relative merits of, among others, seeking support through universities, social media, word-of-mouth, and use of personal contacts

Wurzelbacher SJ, Meyers AR, Lampl MP, Timothy Bushnell P, Bertke SJ, Robins DC, et al. Workers' compensation claim counts and rates by injury event/exposure among state-insured private employers in Ohio, 2007-2017. Journal of Safety Research. 2021; 79:148-167.

https://doi.org/10.1016/j.jsr.2021.08.015

Abstract: INTRODUCTION: This study analyzed workers' compensation (WC) claims among private employers insured by the Ohio state-based WC carrier to identify high-risk industries by detailed cause of injury. METHODS: A machine learning algorithm was used to code each claim by U.S. Bureau of Labor Statistics (BLS) event/exposure. The codes assigned to lost-time (LT) claims with lower algorithm probabilities of accurate classification or those LT claims with high costs were manually reviewed. WC data were linked with the state's unemployment insurance (UI) data to identify the employer's industry and number of employees. BLS data on hours worked per employee were used to estimate full-time equivalents (FTE) and calculate rates of WC claims per 100 FTE. RESULTS: 140,780 LT claims and 633,373 medical-only claims were analyzed. Although counts and rates of LT WC claims declined from 2007 to 2017, the shares of leading LT injury event/exposures remained largely unchanged. LT claims due to Overexertion and Bodily Reaction (33.0%) were most common, followed by Falls, Slips, and Trips (31.4%), Contact with Objects and Equipment (22.5%), Transportation Incidents (7.0%), Exposure to Harmful Substances or Environments (2.8%), Violence and Other Injuries by Persons or Animals (2.5%), and Fires and Explosions (0.4%). These findings are consistent with other reported data. The proportions of injury event/exposures varied by industry, and high-risk industries were identified. CONCLUSIONS: Injuries have been reduced, but prevention challenges remain in certain industries. Available evidence on intervention effectiveness was summarized and mapped to the analysis results to demonstrate how the results can guide prevention efforts. Practical Applications: Employers, safety/health practitioners, researchers, WC insurers, and bureaus can use these data and machine learning methods to understand industry differences in the level and mix of risks, as well as industry trends, and to tailor safety, health, and disability prevention services and research

Xu C, Ju K, Lin L, Jia P, Kwong JSW, Syed A, et al. Rapid evidence synthesis approach for limits on the search date: how rapid could it be? Research Synthesis Methods. 2022; 13(1):68-76.

https://doi.org/10.1002/jrsm.1525   [open access]

Abstract: Rapid reviews have been widely employed to support timely decision-making, and limiting the search date is the most popular approach in published rapid reviews. We assessed the accuracy and workload of search date limits on the meta-analytical results to determine the best rapid strategy. The meta-analyses data were collected from the Cochrane Database of Systematic Reviews (CDSR). We emulated the rapid reviews by limiting the search date of the original CDSR to the recent 40, 35, 30, 25, 20, 15, 10, 7, 5, and 3 years, and their results were compared to the full meta-analyses. A random sample of 10% was drawn to repeat the literature search by the same timeframe limits to measure the relative

workload reduction (RWR). The relationship between accuracy and RWR was established. We identified 21,363 meta-analyses of binary outcomes and 7683 meta-analyses of continuous outcomes from 2693 CDSRs. Our results suggested that under a maximum tolerance of 5% and 10% on the bias of magnitude, a limit on the recent 20 years can achieve good accuracy and at the same time save the most workload. Under the tolerance of 15% and 20% on the bias, a limit on the recent 10 years and 15 years could be considered. Limiting the search date is a valid rapid method to produce credible evidence for timely decisions. When conducting rapid reviews, researchers should consider both the accuracy and workload to make an appropriate decision.

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