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***Flurey CA, Jones B, Gazel U, Uzoka C, Rosser K, Khoo T, Voshaar M, Hoogland W, Shea B, March L, Beaton D, et al. "It means almost forgetting that you've got a disease": an OMERACT study to define independence in the context of rheumatoid arthritis remission from the patient perspective. *Seminars in Arthritis and Rheumatism*. 2024; 68:152526.**

<https://doi.org/10.1016/j.semarthrit.2024.152526> [open access]

Abstract: AIMS: Our previous work identified pain, fatigue, and independence as missing from the ACR/EULAR rheumatoid arthritis (RA) remission criteria from the patient perspective. Validated measures exist for pain and fatigue, but not for independence. As a first step towards developing such a measure, this study aimed to understand 'Independence' in the context of RA remission from the patient perspective. **METHODS:** International qualitative research study comprising five focus groups of 19 participants with RA. Data were analysed using reflexive thematic analysis. **RESULTS:** Five overarching themes were identified, underpinned by a construct of "stages of independence". Independence means at least being 'physically and functionally able' but may go beyond this and enable 'participation beyond function', 'cognitive independence', and 'having or taking control'. There was no agreement on whether assistance is an aid to independence or undermines ability to achieve independence ('assistance is complicated'). The construct "Stages of independence" acknowledges that Independence may mean different things to different patients and there may be other factors beyond disease activity that hold patients in each of these stages. **CONCLUSION:** These novel data suggest a desirable definition of independence includes full active participation without the need to consider or work around disease activity, and cognitive independence from thoughts of RA. Independence in RA remission is a complex concept and next steps will be to seek patient and

professional agreement on the most important issues raised in these focus groups to take forward to developing a measure for independence in the context of RA remission from the patient perspective

***Shahidi FV, Liao Q, Landsman V, Mustard CA, Robson L, Biswas A, Smith PM. Precarious employment and the workplace transmission of COVID-19: evidence from workers' compensation claims in Ontario, Canada. Journal of Epidemiology & Community Health. 2024; [epub ahead of print].**

<https://doi.org/10.1136/jech-2024-222373>

Abstract: Objective: To examine the association between precarious employment and risk of work-related COVID-19 infection in Ontario, Canada. Methods: We combined data from an administrative census of workers' compensation claims with corresponding labour force statistics to estimate rates of work-related COVID-19 infection between April 2020 and April 2022. Precarious employment was imputed using a job exposure matrix capturing temporary employment, low wages, irregular hours, involuntary part-time employment and a multidimensional indicator of 'low', 'medium', 'high' and 'very high' overall exposure to precarious employment. We used negative binomial regression models to quantify associations between precarious employment and accepted compensation claims for COVID-19. Results: We observed a monotonic association between precarious employment and work-related COVID-19 claims. Workers with 'very high' exposure to precarious employment presented a nearly fivefold claim risk in models controlling for age, sex and pandemic wave (rate ratio (RR): 4.90, 95% CI 4.07 to 5.89). Further controlling for occupational exposures (public facing work, working in close proximity to others, indoor work) somewhat attenuated observed associations. After accounting for these factors, workers with 'very high' exposure to precarious employment were still nearly four times as likely to file a successful claim for COVID-19 (RR: 3.78, 95% CI 3.28 to 4.36). Conclusions: During the first 2 years of the pandemic, precariously employed workers were more likely to acquire a work-related COVID-19 infection resulting in a successful lost-time compensation claim. Strategies aiming to promote an equitable and sustained recovery from the pandemic should consider and address the notable risks associated with precarious employment.

Adhikari S, Wilson F, and Rautiainen R. Cost of agricultural injuries in the United States: estimates based on surveillance, insurance, and government statistics. American Journal of Industrial Medicine. 2024; 67(9):801-812.

<https://doi.org/10.1002/ajim.23628>

Abstract: BACKGROUND: Agriculture is a hazardous industry but the frequency and severity of agricultural injuries are not well documented as nonfatal injuries to self-employed farmers are excluded from national surveillance. The aim of this study was to provide new injury rate and cost estimates in US agriculture. METHODS: Injury data were obtained from 2018 to 2020 Farm and Ranch Health and Safety Surveys. Responses from 7,195 farm/ranch operators included injury frequency, medical expense, and lost work time data. These injury rate and cost data were used to estimate national injury costs for self-employed farmers using Census of Agriculture operator count, injury costs for hired agricultural workers using Bureau of Labor Statistics (BLS) nonfatal injury count, and fatal injury costs using BLS count of fatal injuries. RESULTS: The injury rate for self-employed farmers and ranchers was 15.25 injuries per 100 operators or 11.9 "recordable" injuries per 100 full time equivalent operators (FTE). Average costs for nonfatal injuries were: \$10,878 for medical care, \$4735 for lost work time, and \$15,613 in total per injury case. The total national agricultural injury cost

estimate was \$11.31 billion per year; 11.3% higher than the earlier benchmark using 1992 data; both in March 2024 dollars. The cost burden was 2.1% of the US national gross farm income and 13.4% of the net farm income in 2019. CONCLUSIONS: Injuries result in significant economic losses to farm and ranch operators, their family members, workers, and society. Preventive efforts should be scaled up to reduce the frequency and costs of agricultural injuries

Bouwens L, Van Zon SKR, Peijen R, and Vooijs M. Vulnerability profiles of workers and the relation with burnout symptoms: results from the Netherlands working conditions survey. *International Archives of Occupational & Environmental Health*. 2024; 97(6):651-660.

<https://doi.org/10.1007/s00420-024-02071-1> [open access]

Abstract: Introduction: Unfavorable working conditions may place workers in a vulnerable position in the labour market, but studies on the clustering of these factors and their relation to burnout symptoms are lacking. This study aims to identify subgroups of workers in potentially vulnerable positions in the labour market and examine whether burnout symptoms differ across the established subgroups. Methods: This study utilizes cross-sectional data from 2019 of the Netherlands Working Conditions Survey (n = 55,283). Working conditions included employment contracts, working hours, multiple jobs, tenure, physical strain, autonomy, and workload. Burnout symptoms were measured with five items on a 7-point Likert scale. Latent Class Analysis was used to identify vulnerability subgroups based on working conditions and educational level. Wilcoxon rank-sum tests were used to examine whether burnout symptoms differed between the identified subgroups. Results: Three out of nine subgroups (i.e., classes 4, 6, and 7) presented combinations of multiple unfavourable working conditions. The vulnerability of class 4, characterized by low educational level, physically demanding work, low autonomy, and a high workload, was underscored by a significantly higher burnout symptom score (M = 2.91;SD = 0.97) compared to all other subgroups. Subgroups 3 (M = 2.69;SD = 1.43) and 8 (M = 2.41;SD = 1.41), without striking unfavourable conditions, had the second and third highest scores on burnout symptoms. Conclusions: Determining vulnerability in the labour market is not straightforward as not all profiles that presented clusters of unfavourable working conditions scored high on burnout symptoms, and vice versa. Future research should investigate whether findings are similar to other mental health outcomes.

Choi BY, Min KB, Ryoo SW, and Min JY. Risks of occupational mental disorders in Korean civil servants (2009-18). *Occupational Medicine*. 2024; 74(5):370-377.

<https://doi.org/10.1093/occmed/kqae041>

Abstract: Background: Previous studies have suggested that firefighters, police officers and civil servants in the education sector, particularly in Western countries, are vulnerable to mental stress and disorders; however, evidence for this association in South Korea is lacking. Aims: This study aimed to identify whether firefighters, police officers and teachers are at a higher risk for occupational mental health disorders. Methods: We used workers' compensation claims from civil servants (2009-18). Our target population comprised 46 209 civil servants (9009 civil servants in administrative and technical positions, 23 107 police officers, 4417 firefighters and 8676 civil servants in the educational sector). Occupational and environmental medicine physicians and medical doctors defined and confirmed mental disorders. We conducted Cox proportional hazards regression analyses to evaluate civil servants' risk of occupational mental health disorders. Results: Compared with the civil servants in administrative and technical positions, civil servants in the education sector (hazard ratio [HR] =

2.16; 95% confidence interval [CI]:1.65-2.84) showed a statistically significant increased risk of mental disorders; conversely, firefighters did not (HR = 0.80; 95% CI 0.51-1.27). Police officers had a significantly decreased mental disorder risk compared with civil servants in administrative and technical positions (HR = 0.17; 95% CI 0.11-0.25). Conclusions: The risk of occupational mental health disorders was higher in civil servants in the education sector but lower in police officers and firefighters than civil servants in administrative and technical positions. Further studies on civil servants' mental health awareness are required to confirm our results.

Dohrmann SB, Heiberg RF, Krenzen LW, Petersen SR, Adams JT, and Skov J. What is known about cardiovascular diseases among seafarers: a systematic scoping review and quality assessment. American Journal of Industrial Medicine. 2024; 67(9):775-800.

<https://doi.org/10.1002/ajim.23636>

Abstract: BACKGROUND: Seafarers are at an increased risk of developing cardiovascular diseases (CVDs), potentially due to a stressful working environment and behavioral risk factors. To develop better prevention strategies, it is important to elucidate the extent of this risk. Therefore, we conducted a systematic literature review on CVD in seafarers. METHOD: We conducted systematic searches in five databases. All studies investigating CVDs among occupational seafarers, published in articles or conference papers, were eligible for inclusion. The identified records were screened and reviewed by two independent researchers, who also evaluated the methodological quality of the included studies. RESULTS: Three thousand nine hundred and seventeen records qualified for screening, and 55 were eligible for inclusion. Most of the studies were observational, including cohort, frequency, incidence or prevalence studies, and review of case records. Around half were assessed at risk of biased findings. Participants in the studies were primarily from North America or the European continent and work onboard transportation vessels. Many studies investigated CVDs as a cause of death, focusing on conditions such as CVD, ischemic heart disease, and myocardial infarction. Frequency of CVD conditions varied but indicate that seafarers face a greater risk compared to the reference populations or control groups. Environmental factors were mainly investigated as risk factors. CONCLUSION: Our results indicate a higher risk of CVDs among seafarers compared to reference or control groups. However, due to the variable quality of the evidence, well-designed studies are needed to establish the causes of cardiovascular mortality and morbidity in seafarers and to investigate behavioral aspects of cardiovascular risk

Erhel C, Guergoat-Lariviere M, and Mofakhami M. Diversity of flexible working time arrangements and workers' health: an analysis of a workers' panel and linked employer-employee data for France. Social Science & Medicine. 2024; 356:117129.

<https://doi.org/10.1016/j.socscimed.2024.117129> [open access]

Abstract: Flexible working time arrangements (FWTA) have increased over the last decades, favored by labor market deregulation, the decentralization of collective bargaining and the development of new technologies. The negative impact of some non-standard working hours on health (like night work, shift work) is quite well-known but other forms of FWTA have been studied less so far. This article aims to investigate the relationship between FWTA and workers' health. It focuses on employer-oriented FWTA and uses a job demands-control framework to identify different types of working time demands and control. The study uses individual data from the French working conditions survey, including panel data from 2013 to 2019 (64,981 observations) and cross-sectional

employer-employee linked data from 2019 (5687 employees from 4672 workplaces). We identify empirically two main dimensions of employer-oriented FWTAs, based on 14 working time variables. The first type involves "atypical working hours", such as working weekends, nights, early mornings, evenings, or doing shift work. The second type - "work overflow" - is characterized by long working hours, overtime, taking work home, and having variable working hours. Using a fixed-effects model based on panel data, we show that both types of FWTAs have a negative impact on workers' self-rated general health and mental health, as measured by the WHO-5 index. The study also finds that workers who have more control - both individual and collective - to face these demands demonstrate better health. Workers with control over their working hours report better health and are less negatively affected by FWTAs. Moreover, workplace-level practices have ambiguous relationships with workers' health. However, those involving social dialogue and workers' participation have more favorable effects: the positive effect of health and safety committees is especially clear. To improve workers' health in the context of increased flexible working time arrangements, public policies should promote the development of control over working time and participation of workers to social dialogue on working time related issues

Hogan V, Hogan M, Kirwan O, Langan Walsh C, McLaughlin C, Moynihan A, et al. Sun-related knowledge and practices in Irish construction and agricultural workers. *Occupational Medicine*. 2024; 74(5):378-385.

<https://doi.org/10.1093/occmed/kqae042> [open access]

Abstract: Background: Agricultural and construction workers spend much of their work time outdoors and have higher risks of developing skin cancer when compared to indoor workers. However, there is limited research on ultraviolet radiation (UVR) exposure knowledge, sun safety practices and constraints within these occupational groups in Ireland. Aims: This study aimed to examine self-reported time spent outdoors in a sample of Irish agricultural and construction workers; to describe and compare UVR exposure knowledge, safety practices and perceived constraints in both occupational groups, and to assess the association of demographic, personal and occupational factors with sun-related knowledge, practices and perceived constraints. Methods: Agricultural workers (n = 154) and construction workers (n = 467) completed a questionnaire, which measured solar UVR exposure knowledge, safety practices, and perceived constraints to sun personal protective equipment and sunscreen use in addition to demographic, personal, and workplace characteristics. Mann-Whitney and Kruskal-Wallis tests were used to examine differences in knowledge, practices and perceived constraints by these characteristics. Results: Both groups spend a significant proportion of their working week outdoors (25 hours per week on average). Although participation in sun safety training was high for both groups, UVR exposure knowledge and sunscreen use were low, and annual rates of reported sunburn were high. Knowledge, practices and perceived constraints also differed significantly according to demographic, personal, occupational and workplace characteristics. Conclusions: In addition to training by employers and advisory groups, interventions are required to address perceived barriers that impede the uptake and usage of control measures that can lower risk.

Kaboth A, Hunefeld L, and Luck M. Exploring work ability, psychosocial job demands and resources of employees in low-skilled jobs: a German cross-sectional study. *Journal of Occupational Medicine and Toxicology*. 2024; 19(1):30.

<https://doi.org/10.1186/s12995-024-00429-2> [open access]

Abstract: Background: Extending working lives due to labour market and pension regulations makes maintaining and promoting work ability necessary. The coronavirus pandemic has shown that employees in low-skilled jobs (no qualification required) contribute significantly to society and the economy. Research on these employees has been neglected in Germany for many decades despite demanding working conditions. Therefore, we investigate the relationship between low-skilled jobs and work ability. Moreover, we explore this relationship's variation by psychosocial work demands and resources. Methods: We use two waves of the German Study on Mental Health at Work (S-MGA). We calculate Ordinary-Least-Squares (OLS) regression models with pooled data (n = 6,050) to analyse the relationship between job requirement level and work ability. We also explore the contribution of job demands and resources on this relationship with interaction models. We use the Copenhagen Psychosocial Questionnaire (COPSOQ), to assess psychosocial work demands and resources. Results: Employees performing low-skilled jobs report significantly less work ability than those in medium- or high-skilled jobs. Interaction models show significantly greater work ability for employees in medium- and high-skilled jobs with high influence on their work (amount or tasks). Unexpectedly, employees in low-skilled jobs have lower work ability with more influence on their work. Furthermore, high role clarity, describing responsibility, authority and work goals, is associated with lower levels of work ability among employees in low-skilled jobs. Conclusions: The moderating effect of role clarity on the work ability of employees in low-skilled jobs can possibly be attributed to skills mismatch and limited responsibility, as well as a lack of self-perceived collective purpose of the job. The moderation of the influence on work dimension supports results of previous studies. Too much job autonomy can have negative effects under certain circumstances and is therefore perceived as a job demand in some studies. Consequently, mechanisms concerning psychosocial work demands and resources must be investigated in further studies with different theoretical approaches. The imbalance of job demands and resources shows that employers should invest in preserving the work ability to prevent early exit from the labour market in an aging society.

Lamare JR, Benton RA, and Tabarani PM. An empirical analysis of race and political partisanship effects on workplace mobility patterns during lockdown, reopening, and endemic COVID-19. *ILR Review*. 2024; 77(4):475-505.

<https://doi.org/10.1177/00197939241246510> [open access]

Abstract: The authors investigate how race and political partisanship affected variations in workplace and non-workplace mobility at three COVID-19 phases - lockdown (2020), reopening (2021), and endemic COVID (2022). They theorize that structural racism compelled relatively greater workplace mobility rates in Black communities during lockdown, and reduced Black workplace mobility during reopening and endemic COVID. By contrast, they posit elite-level anti-science skepticism and its amplification resulted in Trump-voting communities experiencing relatively higher workplace and non-workplace mobility rates than non-Trump-voting areas throughout the pandemic. Regressions primarily using county-level Google Mobility Reports data support the hypotheses, conditioning on state-level fixed effects and county-level urbanity, COVID job-type sorting, demographics, and socioeconomics. The county-level results are complemented by outcomes from novel individual-level

COVID lockdown survey data, helping connect the proposed individual-level mechanisms to the county-level findings. The authors conclude that work mobility during COVID was racialized and politicized, offering empirical insights into how systematic disadvantages can lead to increased and unequal precarity during periods of acute economic or social crisis

Lu W and Fan S. Drinking in despair: unintended consequences of automation in China. *Health Economics*. 2024; 33(9):2088-2104.

<https://doi.org/10.1002/hec.4865>

Abstract: The side effects of technological progress on the economy have been discussed frequently, but little is known regarding its health consequences. By combining the national individual-level panel data of alcohol drinking with the prefecture-level robot exposure rate in China, we find that one more robot exposure rate could induce up to 2.2% points increase in the probability of problem drinking. Such a pattern of problem drinking is explained by negative emotions, which can be ascribed to job loss due to substitution, higher income vulnerability, and reduced organization participation. Further, we provide evidence that automation can incur health costs, particularly for easily substituted workers, which would exacerbate health inequality in China. This paper sheds light on the impact of automation and the social incentives of problem drinking, emphasizing the possibly heterogeneous health cost accompanied by the automation process

Namian M, Nabil FR, Al-Mhdawi MKS, Kermanshachi SS, and Nnaji C. Postpandemic era: investigating the impact of COVID-19 on construction workers' situational awareness. *Journal of Construction Engineering and Management*. 2024; 150(9):04024103.

<https://doi.org/10.1061/JCEMD4.COENG-14248>

Rowland S, Ahmed R, Roman MJS, and Ramos AK. Workplace health culture and trust in the occupational health office: a descriptive study of meatpacking workers. *American Journal of Industrial Medicine*. 2024; 67(8):723-731.

<https://doi.org/10.1002/ajim.23617>

Abstract: Introduction: Worker trust in employer-provided occupational health services has not been explored in essential industries, such as meatpacking. The purpose of this study was to describe workplace health culture and trust in the occupational health office and highlight meatpacking workers' experiences with the occupational health office. Methods: Meatpacking workers were surveyed between February 2021 and October 2022. Descriptive statistics and nonparametric tests were used to explore trust across demographic variables, including workplace health culture. Thematic analysis was used to examine the short-answer qualitative data. Results: Among workers who completed surveys (n = 731), health culture was rated low (M = 1.3 (0.73); possible range 0-3). Trust in the occupational health office was also rated low (M = 8.2 (5.06); possible range 0-20). Workers' descriptions of interactions with the occupational health office were mostly unfavorable (287 negative opinion units; 97 positive opinion units) and primarily focused on quality of care, communication, the supervisor as gatekeeper to health services, and the prioritization of company interests. Conclusion: Meatpacking worker health may be improved by building worker trust in the occupational health office. Suggested strategies include enhanced communication, protection of confidentiality, prioritization of worker well-being, and promotion of a stronger health culture in

plants and throughout the industry. Supporting workers without a regular healthcare provider to establish a relationship with a primary care provider of their choice is also recommended.

Trappmann V, Umney C, McLachlan CJ, Seehaus A, and Cartwright L. How do young workers perceive job insecurity? Legitimising frames for precarious work in England and Germany. *Work, Employment and Society*. 2024; 38(4):998-1020.

<https://doi.org/10.1177/09500170231187821> [open access]

Abstract: This article examines the legitimising frames young workers in England and Germany apply to precarious work. Through 63 qualitative biographical interviews, the article shows that most young precarious workers saw work insecurity as an unavoidable fact of life whose legitimacy could not realistically be challenged. Four frames are identified that led to precarious work being seen as legitimate: precarious work as a driver of entrepreneurialism; as inevitable due to repeated exposure; as a stage within the life course; and as the price paid for the pursuit of autonomy and meaningful work. The article advances the literature on precarious workers' subjectivity by identifying the frames through which it is legitimised, and by underlining the importance of frames that are currently underexamined. The prevalence of the pursuit of meaningful, non-alienating work as a frame is a particularly striking finding

Villotti P, Kordsmeyer AC, Roy JS, Corbiere M, Negrini A, and Lariviere C. Systematic review and tools appraisal of prognostic factors of return to work in workers on sick leave due to musculoskeletal and common mental disorders. *PLoS ONE*. 2024; 19(7):e0307284.

<https://doi.org/10.1371/journal.pone.0307284> [open access]

Abstract: With the overall objective of providing implication for clinical and research practices regarding the identification and measurement of modifiable predicting factors for return to work (RTW) in people with musculoskeletal disorders (MSDs) and common mental disorders (CMDs), this study 1) systematically examined and synthesized the research evidence available in the literature on the topic, and 2) critically evaluated the tools used to measure each identified factor. A systematic search of prognostic studies was conducted, considering four groups of keywords: 1) population (i.e., MSDs or CMDs), 2) study design (prospective), 3) modifiable factors, 4) outcomes of interest (i.e., RTW). Studies showing high risk of bias were eliminated. Tools used to measure prognostic factors were assessed using psychometric and usability criteria. From the 78 studies that met inclusion criteria, 19 (for MSDs) and 5 (for CMDs) factors reaching moderate or strong evidence were extracted. These factors included work accommodations, RTW expectations, job demands (physical), job demands (psychological), job strain, work ability, RTW self-efficacy, expectations of recovery, locus of control, referred pain (back pain), activities as assessed with disability questionnaires, pain catastrophizing, coping strategies, fears, illness behaviours, mental vitality, a positive health change, sleep quality, and participation. Measurement tools ranged from single-item tools to multi-item standardized questionnaires or subscales. The former generally showed low psychometric properties but excellent usability, whereas the later showed good to excellent psychometric properties and variable usability. The rigorous approach to the selection of eligible studies allowed the identification of a relatively small set of prognostic factors, but with a higher level of certainty. For each factor, the present tool assessment allows an informed choice to balance psychometric and usability criteria

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