

IWH Research Alert  
April 28, 2017

Missed an issue? Catch up on previous 2017 *Research Alerts* available on the IWH website <http://www.iwh.on.ca/research-alerts>

*Research Alerts* 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.

**\*Horppu R, Martimo KP, MacEachen E, Lallukka T, and Viikari-Juntura E. Application of the theoretical domains framework and the behaviour change wheel to understand physicians' behaviors and behavior change in using temporary work modifications for return to work: a qualitative study. *Journal of Occupational Rehabilitation*. 2017; [Epub ahead of print]. <http://dx.doi.org/10.1007/s10926-017-9706-1>**

Abstract: Purpose Applying the theoretical domains framework (TDF) and the Behaviour Change Wheel (BCW) to understand physicians' behaviors and behavior change in using temporary work modifications (TWMs) for return to work (RTW). Methods Interviews and focus group discussions were conducted with 15 occupational physicians (OPs). Responses were coded using the TDF and the BCW. Results Key behaviors related to applying TWMs were initiating the process with the employee, making recommendations to the workplace, and following up the process. OP behaviors were influenced by several factors related to personal capability and motivation, and opportunities provided by the physical and social environment. Capability comprised relevant knowledge and skills related to applying TWMs, remembering to initiate TWMS and monitor the process, and being accustomed to reflective practice. Opportunity comprised physical resources (e.g., time, predefined procedures, and availability of modified work at companies), and social pressure from stakeholders. Motivation comprised conceptions of a proper OP role, confidence to carry out TWMs, personal RTW-related goals, beliefs about the outcomes of one's actions, feedback received from earlier cases, and feelings related to applying TWMs. OPs' perceived means to target these identified factors were linked to the following BCW intervention functions: education, training, persuasion, environmental restructuring, and enablement. The results suggest that at least

these functions should be considered when designing future interventions. Conclusions Our study illustrates how theoretical frameworks TDF and BCW can be utilized in a RTW context to understand which determinants of physicians' behavior need to be targeted, and how, to promote desired behaviors

**Ballesteros MF, Webb K, and McClure RJ. A review of CDC's Web-based Injury Statistics Query and Reporting System (WISQARS): planning for the future of injury surveillance. Journal of Safety Research. 2017; 61:211-215. <http://dx.doi.org/10.1016/j.jsr.2017.01.001>**

**Bou-Karroum L, El-Jardali F, Hemadi N, Faraj Y, Ojha U, Shahrour M, Darzi A, Ali M, Doumit C, Langlois EV, Melki J, AbouHaidar GH, and Akl EA. Using media to impact health policy-making: an integrative systematic review. Implementation Science. 2017; 12(1):52.**

**<http://dx.doi.org/10.1186/s13012-017-0581-0> [open access]**

Abstract: INTRODUCTION: Media interventions can potentially play a major role in influencing health policies. This integrative systematic review aimed to assess the effects of planned media interventions-including social media-on the health policy-making process. METHODS: Eligible study designs included randomized and non-randomized designs, economic studies, process evaluation studies, stakeholder analyses, qualitative methods, and case studies. We electronically searched Medline, EMBASE, Communication and Mass Media Complete, Cochrane Central Register of Controlled Trials, and the WHO Global Health Library. We followed standard systematic review methodology for study selection, data abstraction, and risk of bias assessment. RESULTS: Twenty-one studies met our eligibility criteria: 10 evaluation studies using either quantitative (n = 7) or qualitative (n = 3) designs and 11 case studies. None of the evaluation studies were on social media. The findings of the evaluation studies suggest that media interventions may have a positive impact when used as accountability tools leading to prioritizing and initiating policy discussions, as tools to increase policymakers' awareness, as tools to influence policy formulation, as awareness tools leading to policy adoption, and as awareness tools to improve compliance with laws and regulations. In one study, media-generated attention had a negative effect on policy advocacy as it mobilized opponents who defeated the passage of the bills that the media intervention advocated for. We judged the confidence in the available evidence as limited due to the risk of bias in the included studies and the indirectness of the evidence. CONCLUSION: There is currently a lack of reliable evidence to guide decisions on the use of media interventions to influence health policy-making. Additional and better-designed, conducted, and reported primary research is needed to better understand the effects of media interventions, particularly social media, on health policy-making processes, and the circumstances under which media interventions are successful. TRIAL REGISTRATION: PROSPERO 2015: CRD42015020243

**Chen Y, McCabe B, and Hyatt D. Impact of individual resilience and safety climate on safety performance and psychological stress of construction**

**workers: a case study of the Ontario construction industry. Journal of Safety Research. 2017; 61:167-176.**

<http://dx.doi.org/10.1016/j.jsr.2017.02.014>

**Crammond B and Carey G. What is policy and where do we look for it when we want to research it? Journal of Epidemiology & Community Health. 2017; 71(4):404-408.**

<http://dx.doi.org/10.1136/jech-2016-207945>

Abstract: Public health researchers are increasingly concerned with achieving 'upstream' change to achieve reductions in the global burden of disease and health inequalities. Consequently, understanding policy and how to change it has become a central goal of public health. Yet conceptualisation of what constitutes policy and where it can be found is very limited within this field. Our glossary demonstrates that policy is many headed. It is located in a vast array of documents, discussions dialogues and actions which can be captured variously by formal and informal forms of documentation and observation. Effectively understanding policy and its relevance for public health requires an awareness of the full range of places and contexts in which policy work happens and policy documents are produced

**Dennerlein JT, O'Day ET, Mulloy DF, Somerville J, Stoddard AM, Kenwood C, Teeple E, Boden LI, Sorensen G, and Hashimoto D. Lifting and exertion injuries decrease after implementation of an integrated hospital-wide safe patient handling and mobilisation programme. Occupational and Environmental Medicine. 2017; 74(5):336-343.**

<http://dx.doi.org/10.1136/oemed-2015-103507>

Abstract: OBJECTIVE: With increasing emphasis on early and frequent mobilisation of patients in acute care, safe patient handling and mobilisation practices need to be integrated into these quality initiatives. We completed a programme evaluation of a safe patient handling and mobilisation programme within the context of a hospital-wide patient care improvement initiative that utilised a systems approach and integrated safe patient equipment and practices into patient care plans. METHODS: Baseline and 12-month follow-up surveys of 1832 direct patient care workers assessed work practices and self-reported pain while an integrated employee payroll and injury database provided recordable injury rates collected concurrently at 2 hospitals: the study hospital with the programme and a comparison hospital. RESULTS: Safe and unsafe patient handling practice scales at the study hospital improved significantly ( $p < 0.0001$  and  $p = 0.0031$ , respectively), with no differences observed at the comparison hospital. We observed significant decreases in recordable neck and shoulder (Relative Risk (RR)=0.68, 95% CI 0.46 to 1.00), lifting and exertion (RR=0.73, 95% CI 0.60 to 0.89) and pain and inflammation (RR=0.78, 95% CI 0.62 to 1.00) injury rates at the study hospital. Changes in rates at the comparison hospital were not statistically significant. CONCLUSIONS: Within the context of a patient mobilisation initiative, a safe patient handling and mobilisation programme was

associated with improved work practices and a reduction in recordable worker injuries. This study demonstrates the potential impact of utilising a systems approach based on recommended best practices, including integration of these practices into the patient's plan for care

**Dong XS, Wang X, Ringen K, and Sokas R. Baby boomers in the United States: factors associated with working longer and delaying retirement. American Journal of Industrial Medicine. 2017; 60(4):315-328.**

<http://dx.doi.org/10.1002/ajim.22694>

Abstract: OBJECTIVES: This study estimated the self-reported probability of working full-time past age 62 (P62) or age 65 (P65) among four cohorts of Americans born between 1931 and 1959. METHODS: Data from the Health and Retirement Study (HRS) were analyzed. Respondents in four age cohorts were selected for comparison. Multivariable linear regression models were used to assess cohort differences in P62 and P65 while adjusting for covariates. RESULTS: P62 and P65 increased among boomers despite worsened self-rated health compared to the two preceding cohorts, with 37% and 80% increases among mid-boomers in construction trades. Cohort differences in P62 and P65 remained after controlling for covariates. Changes in pensions, income inequity, and education were significantly associated with work expectations, but SSA policy was not. CONCLUSIONS: Baby boomers expect to work longer than their predecessors. Efforts to improve work quality and availability for older workers are urgently needed, particularly in physically demanding occupations. Am. J. Ind. Med. 60:315-328, 2017. (c) 2017 Wiley Periodicals, Inc

**Evensen M, Lyngstad TH, Melkevik O, Reneflot A, and Mykletun A. Adolescent mental health and earnings inequalities in adulthood: evidence from the Young-HUNT Study. Journal of Epidemiology & Community Health. 2017; 71(2):201-206.**

<http://dx.doi.org/10.1136/jech-2015-206939>

Abstract: BACKGROUND: Previous studies have shown that adolescent mental health problems are associated with lower employment probabilities and risk of unemployment. The evidence on how earnings are affected is much weaker, and few have addressed whether any association reflects unobserved characteristics and whether the consequences of mental health problems vary across the earnings distribution. METHODS: A population-based Norwegian health survey linked to administrative registry data (N=7885) was used to estimate how adolescents' mental health problems (separate indicators of internalising, conduct, and attention problems and total sum scores) affect earnings ( $\geq 30$  years) in young adulthood. We used linear regression with fixed-effects models comparing either students within schools or siblings within families. Unconditional quantile regressions were used to explore differentials across the earnings distribution. RESULTS: Mental health problems in adolescence reduce average earnings in adulthood, and associations are robust to control for observed family background and school fixed effects. For some, but not all mental health

problems, associations are also robust in sibling fixed-effects models, where all stable family factors are controlled. Further, we found much larger earnings loss below the 25th centile. **CONCLUSIONS:** Adolescent mental health problems reduce adult earnings, especially among individuals in the lower tail of the earnings distribution. Preventing mental health problems in adolescence may increase future earnings

**Di Gessa G, Corna LM, Platts LG, Worts D, McDonough P, Sacker A, Price D, and Glaser K. Is being in paid work beyond state pension age beneficial for health? Evidence from England using a life-course approach. Journal of Epidemiology & Community Health. 2017; 71(5):431-438.**

<http://dx.doi.org/10.1136/jech-2016-208086> [open access]

**Abstract:** **BACKGROUND:** Given the current policy emphasis in many Western societies on extending working lives, we investigated the health effects of being in paid work beyond state pension age (SPA). Until now, work has largely focused on the health of those who exit the labour force early. **METHODS:** Our data come from waves 2-4 of the English Longitudinal Study of Ageing, including the life history interview at wave 3. Using logistic and linear regression models, we assessed the longitudinal associations between being in paid work beyond SPA and 3 measures of health (depression, a latent measure of somatic health and sleep disturbance) among men aged 65-74 and women aged 60-69. Our analyses controlled for baseline health and socioeconomic characteristics, as well as for work histories and health in adulthood and childhood. **RESULTS:** Approximately a quarter of women and 15% of men were in paid work beyond SPA. Descriptive bivariate analyses suggested that men and women in paid work were more likely to report better health at follow-up. However, once baseline socioeconomic characteristics as well as adulthood and baseline health and labour market histories were accounted for, the health benefits of working beyond SPA were no longer significant. **CONCLUSIONS:** Potential health benefits of working beyond SPA need to be considered in the light of the fact that those who report good health and are more socioeconomically advantaged are more likely to be working beyond SPA to begin with

**Giraud M, Bena A, and Costa G. Migrant workers in Italy: an analysis of injury risk taking into account occupational characteristics and job tenure. BMC Public Health. 2017; 17(1):351.**

<http://dx.doi.org/10.1186/s12889-017-4240-9> [open access]

**Abstract:** **BACKGROUND:** Migrants resident in Italy exceeded 5 million in 2015, representing 8.2% of the resident population. The study of the mechanisms that explain the differential health of migrant workers (as a whole and for specific nationalities) has been identified as a priority for research. The international literature has shown that migrant workers have a higher risk of total and fatal injury than natives, but some results are conflicting. The aim of this paper is to study the injury risk differentials between migrants, born in countries with strong migratory pressure (SMPC), and workers born in high income countries (HIC),

taking into account individual and firm characteristics and job tenure. In addition to a comprehensive analysis of occupational safety among migrants, the study focuses on Moroccans, the largest community in Italy in the years of the analysis. METHODS: Using the Work History Italian Panel-Salute integrated database, only contracts of employment in the private sector, starting in the period between 2000 and 2005 and held by men, were selected. The analysis focused on economic sectors with an important foreign component: engineering, construction, wholesale and retail trade, transportation and storage. Injury rates were calculated using a definition of serious occupational injuries based on the type of injury. Incidence rate ratios (IRR) were calculated using a Poisson distribution for panel data taking into account time-dependent variables. RESULTS: Injury rates among SMPC workers were higher than for HIC workers in engineering (15.61 per thousand py vs. 8.92 per thousand py), but there were no significant differences in construction (11.21 vs. 10.09), transportation and storage (7.82 vs. 7.23) and the wholesale and retail sectors (4.06 vs. 4.67). Injury rates for Moroccans were higher than for both HIC and total migrant workers in all economic sectors considered. The multivariate analysis revealed an interaction effect of job tenure among both SMPC and Moroccan workers in the construction sector, while in the wholesale and retail trade sector an interaction effect of job tenure was only observed among Moroccan workers. CONCLUSIONS: Migrant workers have higher occupational injury rates than Italians in the engineering and construction sectors, after two years of experience within the job. Generally the risk differentials vary depending on the nationality and economic sector considered. The analysis of injury risk among migrant workers should be restricted to serious injuries; furthermore, job tenure must be taken into account

**Lagerveld SE, Brenninkmeijer V, Blonk RW, Twisk J, and Schaufeli WB. Predictive value of work-related self-efficacy change on RTW for employees with common mental disorders. Occupational and Environmental Medicine. 2017; 74(5):381-383.**

<http://dx.doi.org/10.1136/oemed-2016-104039>

Abstract: To improve interventions that aim to promote return to work (RTW) of workers with common mental disorders (CMD), insight into modifiable predictors of RTW is needed. This study tested the predictive value of self-efficacy change for RTW in addition to preintervention levels of self-efficacy. RTW self-efficacy was measured 5 times within 9 months among 168 clients of a mental healthcare organisation who were on sick leave due to CMD. Self-efficacy parameters were modelled with multilevel analyses and added as predictors into a Cox regression analysis. Results showed that both high baseline self-efficacy and self-efficacy increase until full RTW were predictive of a shorter duration until full RTW. Both self-efficacy parameters remained significant predictors of RTW when controlled for several relevant covariates and within subgroups of employees with either high or low preintervention self-efficacy levels. This is the first study that demonstrated the prognostic value of self-efficacy change, over and above the

influence of psychological symptoms, for RTW among employees with CMD. By showing that RTW self-efficacy increase predicted a shorter duration until full RTW, this study points to the relevance of enhancing RTW self-efficacy in occupational or mental health interventions for employees with CMD. Efforts to improve self-efficacy appear valuable both for people with relatively low and high baseline self-efficacy

**Larsen MR, Aust B, and Hogelund J. Improving the effectiveness of sickness benefit case management through a public-private partnership? A difference-in-difference analysis in eighteen Danish municipalities. BMC Public Health. 2017; 17(1):329.**

<http://dx.doi.org/10.1186/s12889-017-4236-5> [open access]

Abstract: BACKGROUND: The aim of this study was to investigate whether a multidimensional public-private partnership intervention, focussing on improving the quality and efficiency of sickness benefit case management, reduced the sickness benefit duration and the duration until self-support. METHODS: We used a difference-in-difference (DID) design with six intervention municipalities and 12 matched control municipalities in Denmark. The study sample comprised 282,103 sickness benefit spells exceeding four weeks. The intervention group with 110,291 spells received the intervention, and the control group with 171,812 spells received ordinary sickness benefit case management. Using register data, we fitted Cox proportional hazard ratio models, estimating hazard ratios (HR) and confidence intervals (CI). RESULTS: We found no joint effect of the intervention on the sickness benefit duration (HR 1.02, CI 0.97-1.07) or the duration until self-support (HR 0.99, CI 0.96-1.02). The effect varied among the six municipalities, with sickness benefit HRs ranging from 0.96 (CI 0.93-1.00) to 1.13 (CI 1.08-1.18) and self-support HRs ranging from 0.91 (CI 0.82-1.00) to 1.11 (CI 1.06-1.17). CONCLUSIONS: Compared to receiving ordinary sickness benefit management the intervention had on average no effect on the sickness benefit duration or duration until self-support. However, the effect varied considerably among the six municipalities possibly due to differences in the implementation or the complexity of the intervention

**Loef B, Hulsegge G, Wendel-Vos GC, Verschuren WM, Vermeulen RC, Bakker MF, van der Beek AJ, and Proper KI. Non-occupational physical activity levels of shift workers compared with non-shift workers. Occupational and Environmental Medicine. 2017; 74(5):328-335.**

<http://dx.doi.org/10.1136/oemed-2016-103878> [open access]

Abstract: OBJECTIVES: Lack of physical activity (PA) has been hypothesised as an underlying mechanism in the adverse health effects of shift work. Therefore, our aim was to compare non-occupational PA levels between shift workers and non-shift workers. Furthermore, exposure-response relationships for frequency of night shifts and years of shift work regarding non-occupational PA levels were studied. METHODS: Data of 5980 non-shift workers and 532 shift workers from the European Prospective Investigation into Cancer and Nutrition-Netherlands

(EPIC-NL) were used in these cross-sectional analyses. Time spent (hours/week) in different PA types (walking/cycling/exercise/chores) and intensities (moderate/vigorous) were calculated based on self-reported PA. Furthermore, sports were operationalised as: playing sports (no/yes), individual versus non-individual sports, and non-vigorous-intensity versus vigorous-intensity sports. PA levels were compared between shift workers and non-shift workers using Generalized Estimating Equations and logistic regression. RESULTS: Shift workers reported spending more time walking than non-shift workers (B=2.3 (95% CI 1.2 to 3.4)), but shift work was not associated with other PA types and any of the sports activities. Shift workers who worked 1-4 night shifts/month (B=2.4 (95% CI 0.6 to 4.3)) and  $\geq 5$  night shifts/month (B=3.7 (95% CI 1.8 to 5.6)) spent more time walking than non-shift workers. No exposure-response relationships were found between years of shift work and PA levels. CONCLUSIONS: Shift workers spent more time walking than non-shift workers, but we observed no differences in other non-occupational PA levels. To better understand if and how PA plays a role in the negative health consequences of shift work, our findings need to be confirmed in future studies

**Lu W, Benson R, Glaser K, Platts LG, Corna LM, Worts D, McDonough P, Di Gessa G, Price D, and Sacker A. Relationship between employment histories and frailty trajectories in later life: evidence from the English Longitudinal Study of Ageing. *Journal of Epidemiology & Community Health*. 2017; 71(5):439-445.**

<http://dx.doi.org/10.1136/jech-2016-207887> [open access]

Abstract: BACKGROUND: Given the acceleration of population ageing and policy changes to extend working lives, evidence is needed on the ability of older adults to work for longer. To understand more about the health impacts of work, this study examined the relationship between employment histories before retirement and trajectories of frailty thereafter. METHODS: The sample comprised 2765 women and 1621 men from the English Longitudinal Study of Ageing. We used gendered typologies of life-time employment and a frailty index (FI). Multilevel growth curve models were used to predict frailty trajectories by employment histories. RESULTS: Women who had a short break for family care, then did part-time work till 59 years had a lower FI after 60 years than those who undertook full-time work until 59 years. Women who were largely family carers or non-employed throughout adulthood, had higher levels of frailty at 60 years but experienced a slower decline with age. Men who worked full-time but early exited at either 49 or 60 years had a higher FI at 65 years than those who worked full-time up to 65 years. Interaction between employment histories and age indicated that men in full-time work who experienced an early exit at 49 tended to report slower declines. CONCLUSIONS: For women, experiencing distinct periods throughout the lifecourse of either work or family care may be advantageous for lessening frailty risk in later life. For men, leaving paid employment before 65 years seems to be beneficial for decelerating increases in frailty thereafter.



Continuous full-time work until retirement age conferred no long-term health benefits

**Marcum J and Adams D. Work-related musculoskeletal disorder surveillance using the Washington state workers' compensation system: recent declines and patterns by industry, 1999-2013. American Journal of Industrial Medicine. 2017; 60(5):457-471.**

<http://dx.doi.org/10.1002/ajim.22708>

Abstract: BACKGROUND: Work-related musculoskeletal disorders (WMSDs) are common and place large economic and social burdens on workers and their communities. We describe recent WMSD trends and patterns of WMSD incidence among the Washington worker population by industry. METHODS: We used Washington State's workers' compensation compensable claims from 1999 to 2013 to describe incidence and cost of WMSD claims by body part and diagnosis, and to identify high-risk industries. RESULTS: WMSD claim rates declined by an estimated annual 5.4% (95% CI: 5.0-5.9%) in Washington State from 1999 to 2013, but WMSDs continue to account for over 40% of all compensable claims. High risk industries identified were Construction; Transportation and Warehousing; Health Care and Social Assistance; and Manufacturing. CONCLUSIONS: As documented in other North American contexts, this study describes an important decline in the incidence of WMSDs. The Washington State workers' compensation system provides a rich data source for the surveillance of WMSDs

**Milner A and LaMontagne AD. Underemployment and mental health: comparing fixed-effects and random-effects regression approaches in an Australian working population cohort. Occupational and Environmental Medicine. 2017; 74(5):344-350.**

<http://dx.doi.org/10.1136/oemed-2016-103706>

Abstract: OBJECTIVES: Underemployment occurs when workers are available for more hours of work than offered. It is a serious problem in many Organisation for Economic Co-operation and Development (OECD) countries, and particularly in Australia, where it affects about 8% of the employed population. This paper seeks to answer the question: does an increase in underemployment have an influence on mental health? METHODS: The current paper uses data from an Australian cohort of working people (2001-2013) to investigate both within-person and between-person differences in mental health associated with being underemployed compared with being fully employed. The main exposure was underemployment (not underemployed, underemployed 1-5, 6-10, 11-20 and over 21 hours), and the outcome was the five-item Mental Health Inventory. RESULTS: Results suggest that stepwise declines in mental health are associated with an increasing number of hours underemployed. Results were stronger in the random-effects (11-20 hours = -1.53, 95% CI -2.03 to -1.03,  $p < 0.001$ ; 21 hours and over -2.24, 95% CI -3.06 to -1.43,  $p < 0.001$ ) than fixed-effects models (11-20 hours = -1.11, 95% CI -1.63 to -0.58,  $p < 0.001$ ; 21 hours

and over -1.19, 95% CI -2.06 to -0.32,  $p=0.008$ ). This likely reflects the fact that certain workers were more likely to suffer the negative effects of underemployment than others (eg, women, younger workers, workers in lower-skilled jobs and who were casually employed). **CONCLUSIONS:** We suggest underemployment to be a target of future workplace prevention strategies

**O'Connell M, Delgado K, Lawrence A, Kung M, and Tristan E. Predicting workers' compensation claims and disciplinary actions using SecureFit: further support for integrative models of workplace safety. Journal of Safety Research. 2017; 61:77-81.**

<http://dx.doi.org/10.1016/j.jsr.2017.02.010>

**Papagoras H, Pizzari T, Coburn P, Sleigh K, and Briggs AM. Supporting return to work through appropriate certification: a systematic approach for Australian primary care. Australian Health Review. 2017; [Epub ahead of print].**

<http://dx.doi.org/10.1071/AH16247>

Abstract: Primary care practitioners play a critical role in supporting return to work (RTW) and minimising the detrimental physical and psychosocial sequelae of unnecessary and prolonged work absence in injured and ill workers. Accurate and consistent certification of capacity is an essential component of this role that has been scrutinised recently given the identified variation in certification practices between and within professions. This Perspective outlines the importance of correct certification of capacity for injured workers and provides a RTW flowchart to support systematised and appropriate certification. The flowchart is aimed at primary care practitioners (e.g. general practitioners or physiotherapists). The flowchart was developed at the Transport Accident Commission and WorkSafe Victoria as a guide for Australian primary care practitioners when certifying capacity. A more systematised approach to certification coupled with professional education and support may reduce variations and inaccuracies in certification, improve RTW rates and reduce the increasing burden of disease related to workplace injuries

**Picchio M and van Ours JC. Temporary jobs and the severity of workplace accidents. Journal of Safety Research. 2017; 61:41-51.**

<http://dx.doi.org/10.1016/j.jsr.2017.02.004>

**Shogren KA and Shaw LA. The impact of personal factors on self-determination and early adulthood outcome constructs in youth with disabilities. Journal of Disability Policy Studies. 2016; 27(4):223-233.**

<http://dx.doi.org/10.1177/1044207316667732>

**Shraim M, Cifuentes M, Willetts JL, Marucci-Wellman HR, and Pransky G. Regional socioeconomic disparities in outcomes for workers with low back pain in the United States. American Journal of Industrial Medicine. 2017; 60(5):472-483.**

<http://dx.doi.org/10.1002/ajim.22712>

Abstract: BACKGROUND: Although regional socioeconomic (SE) factors have been associated with worse health outcomes, prior studies have not addressed important confounders or work disability. METHODS: A national sample of 59 360 workers' compensation (WC) cases to evaluate impact of regional SE factors on medical costs and length of disability (LOD) in occupational low back pain (LBP). RESULTS: Lower neighborhood median household incomes (MHI) and higher state unemployment rates were associated with longer LOD. Medical costs were lower in states with more workers receiving Social Security Disability, and in areas with lower MHI, but this varied in magnitude and direction among neighborhoods. Medical costs were higher in more urban, more racially diverse, and lower education neighborhoods. CONCLUSIONS: Regional SE disparities in medical costs and LOD occur even when health insurance, health care availability, and indemnity benefits are similar. Results suggest opportunities to improve care and disability outcomes through targeted health care and disability interventions

**Silla I, Navajas J, and Koves GK. Organizational culture and a safety-conscious work environment: the mediating role of employee communication satisfaction. Journal of Safety Research. 2017; 61:121-127.**  
<http://dx.doi.org/10.1016/j.jsr.2017.02.005>

**Smith TJ, Dillahunt-Aspillaga CJ, and Kenney RM. Implementation of customized employment provisions of the Workforce Innovation and Opportunity Act within vocational rehabilitation systems. Journal of Disability Policy Studies. 2016; 27(4):195-202.**  
<http://dx.doi.org/10.1177/1044207316644412>

**Yamin SC, Parker DL, Xi M, and Stanley R. Self-audit of lockout/tagout in manufacturing workplaces: a pilot study. American Journal of Industrial Medicine. 2017; 60(5):504-509.**  
<http://dx.doi.org/10.1002/ajim.22715>

Abstract: BACKGROUND: Occupational health and safety (OHS) self-auditing is a common practice in industrial workplaces. However, few audit instruments have been tested for inter-rater reliability and accuracy. METHODS: A lockout/tagout (LOTO) self-audit checklist was developed for use in manufacturing enterprises. It was tested for inter-rater reliability and accuracy using responses of business self-auditors and external auditors. RESULTS: Inter-rater reliability at ten businesses was excellent ( $\kappa = 0.84$ ). Business self-auditors had high (100%) accuracy in identifying elements of LOTO practice that were present as well those that were absent (81% accuracy). Reliability and accuracy increased further when problematic checklist questions were removed from the analysis. CONCLUSIONS: Results indicate that the LOTO self-audit checklist would be useful in manufacturing firms' efforts to assess and improve their LOTO programs. In addition, a reliable self-audit instrument removes the

need for external auditors to visit worksites, thereby expanding capacity for outreach and intervention while minimizing costs

IWH authored publication