IWH Research Alert February 3, 2017

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*Roseboom KJ, van Dongen JM, Tompa E, Van Tulder MW, and Bosmans JE. Economic evaluations of health technologies in Dutch healthcare decision-making: a qualitative study of the current and potential use. barriers, and facilitators. BMC Health Services Research. 2017; 17(1):89. http://dx.doi.org/10.1186/s12913-017-1986-9 [open access] Abstract: BACKGROUND: The use of economic evaluations in healthcare decision-making can potentially help decision-makers in allocating scarce resources as efficiently as possible. Over a decade ago, the use of such studies was found to be limited in Dutch healthcare decision-making, but their current use is unknown. Therefore, this study aimed to provide insight into the current and potential use of economic evaluations in Dutch healthcare decision-making and to identify barriers and facilitators to the use of such studies. METHODS: Interviews containing semi-structured and structured questions were conducted among Dutch healthcare decision-makers. Participants were purposefully selected and special efforts were made to include decision-makers working at the macro- (national), meso- (local/regional), and micro-level (patient setting). During the interviews, a topic list was used that was based on the research questions and a literature search, and was developed in consultation with the Dutch National Healthcare Institute. Responses to the semi-structured questions were analyzed using a constant comparative approach. As for the structured questions, participants' definitions of various economic evaluation concepts were scored as either being "correct" or "incorrect" by two researchers, and summary statistics were prepared. RESULTS: Sixteen healthcare decision-makers were interviewed and two health economists. Decision-makers' knowledge of economic evaluations was only modest, and their current use appeared to be limited. Nonetheless, decision-makers recognized the importance of economic evaluations and saw several opportunities for extending their use at the macroand meso-level, but not at the micro-level. The disparity between the limited use and recognition of the importance of economic evaluations is likely due to the

many barriers decision-makers experience preventing their use (e.g. lack of resources, lack of formal willingness-to-pay threshold). Possible facilitators for extending the use of economic evaluations include, amongst others, educating decision-makers and the general population about economic evaluations and presenting economic evaluation results in a clearer and more understandable way. CONCLUSIONS: This study demonstrated that the current use and impact of economic evaluations in Dutch healthcare decision-making is limited at best. Therefore, strategies are needed to overcome the barriers that currently prevent economic evaluations from being used extensively

Andrijasevic R and Sacchetto D. 'Disappearing workers': Foxconn in Europe and the changing role of temporary work agencies. Work, Employment & Society. 2016; 31(1):54-70. http://dx.doi.org/10.1177/0950017015622918

Borley L and Page A. A reflection on the current local authority-led regulation model: views from small- and medium-sized businesses. Policy and Practice in Health and Safety. 2016; 14(2):144-162. http://dx.doi.org/10.1080/14773996.2016.1255442

Brennan SE, McKenzie JE, Turner T, Redman S, Makkar S, Williamson A, Haynes A, and Green SE. Development and validation of SEER (Seeking, Engaging with and Evaluating Research): a measure of policymakers' capacity to engage with and use research. Health Research Policy and Systems. 2017; 15(1):1.

http://dx.doi.org/10.1186/s12961-016-0162-8 [open access]

Abstract: BACKGROUND: Capacity building strategies are widely used to increase the use of research in policy development. However, a lack of wellvalidated measures for policy contexts has hampered efforts to identify priorities for capacity building and to evaluate the impact of strategies. We aimed to address this gap by developing SEER (Seeking, Engaging with and Evaluating Research), a self-report measure of individual policymakers' capacity to engage with and use research. METHODS: We used the SPIRIT Action Framework to identify pertinent domains and guide development of items for measuring each domain. Scales covered (1) individual capacity to use research (confidence in using research, value placed on research, individual perceptions of the value their organisation places on research, supporting tools and systems), (2) actions taken to engage with research and researchers, and (3) use of research to inform policy (extent and type of research use). A sample of policymakers engaged in health policy development provided data to examine scale reliability (internal consistency, test-retest) and validity (relation to measures of similar concepts, relation to a measure of intention to use research, internal structure of the individual capacity scales). RESULTS: Response rates were 55% (150/272) people, 12 agencies) for the validity and internal consistency analyses, and 54% (57/105 people, 9 agencies) for test-retest reliability. The individual capacity scales demonstrated adequate internal consistency reliability (alpha coefficients

> 0.7, all four scales) and test-retest reliability (intra-class correlation coefficients > 0.7 for three scales and 0.59 for fourth scale). Scores on individual capacity scales converged as predicted with measures of similar concepts (moderate correlations of > 0.4), and confirmatory factor analysis provided evidence that the scales measured related but distinct concepts. Items in each of these four scales related as predicted to concepts in the measurement model derived from the SPIRIT Action Framework. Evidence about the reliability and validity of the research engagement actions and research use scales was equivocal. CONCLUSIONS: Initial testing of SEER suggests that the four individual capacity scales may be used in policy settings to examine current capacity and identify areas for capacity building. The relation between capacity, research engagement actions and research use requires further investigation

van Drongelen A, Boot CR, Hlobil H, van der Beek AJ, and Smid T. Cumulative exposure to shift work and sickness absence: associations in a five-year historic cohort. BMC Public Health. 2017; 17(1):67. http://dx.doi.org/10.1186/s12889-016-3906-z [open access] Abstract: BACKGROUND: Exposure to shift work has been associated with negative health consequences, although the association between shift work and sickness absence remains unclear. The aim of this study is to investigate associations between cumulative exposure to shift work and sickness absence among ground staff employees of an airline company. METHODS: This study used data from the MORE (Monitoring Occupational Health Risks in Employees) cohort, which is a 5-year historic cohort. The population of the present study consisted of 7562 ground staff employees. For each employee, work schedules and sickness absence days between 2005 and 2009 were obtained from company records. For the exposure to different shift schedule types and to the cumulative number of night shifts, the association with long-term sickness absence (>7 consecutive sickness absence days) and the number of sickness absence episodes during 2009, was calculated using logistic and Poisson regression analyses. Socio-demographic variables, work-related variables, job classification variables, and previous sickness absence days were regarded as confounders. RESULTS: After adjusting for previous sickness absence and job classification variables, only the group of employees that switched into working in a three-shift schedule, showed a significantly increased risk for long-term sickness absence (OR = 1.31, 95%Cl 1.02-1.69). Night shift exposure was not significantly associated with long-term sickness absence. Exposure to shift work was negatively associated with more sickness absence episodes. Employees who were exposed to more than 46 night shifts also showed a lower risk for more sickness absence episodes. Subgroup analyses showed that single employees and employees without children had an increased risk for long-term sickness absence when exposed to a three-shift schedule, and when they had changed between shift schedule types. CONCLUSIONS: Cumulative exposure to shift work proved to be negatively associated with more sickness absence episodes. and was not associated with more long-term sickness absence, although

selection bias could not be ruled out. Future research should explore the influence of household composition, and take into account both previous sickness absence and psychosocial and physical work factors to obtain a better estimation of the association between shift work and sickness absence

Emberland JS, Nielsen MB, and Knardahl S. Psychological, social, and mechanical work exposures and disability retirement: a prospective registry study. BMC Public Health. 2017; 17(1):56.

http://dx.doi.org/10.1186/s12889-016-3921-0 [open access]

Abstract: BACKGROUND: Relations between several occupational psychological and social factors and disability retirement remain largely unexplored. Knowledge of which specific aspects of the work environment that affect risk of disability is a prerequisite for the success of organizational interventions aiming to prevent premature work force exit. The objective of the present study was to determine contributions to registered disability retirement by a broad range of psychological and social work exposures while taking into account effects of mechanical exposure. METHODS: Written consent was obtained from 13 012 employees (96) organizations) representing a wide range of occupations, to link their survey responses to data from the Norwegian national registry of disability compensation. Median follow-up time was 5.8 years. To determine effects of selfreported work exposures on risk of disability retirement hazard ratios (HR) and 99% confidence intervals (99% CI) were calculated with Cox regression analysis. Effects of sex, age group, skill level, sickness absence in the last three years, and work exposures estimated to be confounders were accounted for. Post hoc stratification by sex was conducted to explore if identified predictors affected risk of disability retirement differently in men compared to women. RESULTS: Contributors to higher risk of disability retirement were "role conflict" (high level HR 1.55 99% CI 1.07 to 2.24) and "physical workload" (high level HR 1.93 99% CI 1.39 to 2.68). Contributors to lower risk of disability retirement were "positive challenge" (high level HR 0.56 99% CI 0.34 to 0.93), "fair leadership" (high level HR 0.56 99% CI 0.39 to 0.81), and "control over work intensity" (high level HR 0.62, 99% CI 0.47 to 0.82). Direction of effects was not dependent on sex in any of the five identified predictors. CONCLUSIONS: Several specific psychological and social work factors are independent contributors to risk of disability retirement. In order to prevent premature work force exit workplace interventions should consider targeting the predictors identified by the present study

Gallie D, Felstead A, Green F, and Inanc H. The hidden face of job insecurity. Work, Employment & Society. 2016; 31(1):36-53. http://dx.doi.org/10.1177/0950017015624399

Hofmann DA, Burke MJ, and Zohar D. 100 years of occupational safety research: from basic protections and work analysis to a multilevel view of workplace safety and risk. Journal of Applied Psychology. 2017; [Epub ahead of print].

http://dx.doi.org/10.1037/apl0000114



Abstract: Starting with initiatives dating back to the mid-1800s, we provide a high-level review of the key trends and developments in the application of applied psychology to the field of occupational safety. Factory laws, basic worker compensation, and research on accident proneness comprised much of the early work. Thus, early research and practice very much focused on the individual worker, the design of their work, and their basic protection. Gradually and over time, the focus began to navigate further into the organizational context. One of the early efforts to broaden beyond the individual worker was a significant focus on safety-related training during the middle of the 20th century. Toward the latter years of the 20th century and continuing the move from the individual worker to the broader organizational context, there was a significant increase in leadership and organizational climate (safety climate) research. Ultimately, this resulted in the development of a multilevel model of safety culture/climate. After discussing these trends, we identify key conclusions and opportunities for future research. (PsycINFO Database Record

Kjaer P, Korsholm L, Leboeuf-Yde C, Hestbaek L, and Bendix T. Individual courses of low back pain in adult Danes: a cohort study with 4-year and 8year follow-up. BMC Musculoskeletal Disorders. 2017; 18(1):28. http://dx.doi.org/10.1186/s12891-016-1377-0 [open access] Abstract: BACKGROUND: Few longitudinal studies have described the variation in LBP and its impact over time at an individual level. The aims of this study were to: 1) determine the prevalence of LBP in three surveys over a 9-year period in the Danish general population, using five different definitions of LBP, 2) study their individual long-term courses, and 3) determine the odds of reporting subsequent LBP when having reported previous LBP. METHODS: A cohort of 625 men and women aged 40 was sampled from the general population. Questions about LBP were asked at ages 41, 45 and 49, enabling individual courses to be tracked across five different definitions of LBP. Results were reported as percentages and the prognostic influence on future LBP was reported as odds ratios (OR). RESULTS: Questionnaires were completed by 412 (66%), 348 (56%) and 293 (47%) persons respectively at each survey. Of these, 293 (47%) completed all three surveys. The prevalence of LBP did not change significantly over time for any LBP past year: 69, 68, 70%; any LBP past month: 42, 48, 41%; >30 days LBP past year: 25, 27, 24%; seeking care for LBP past year: 28, 30, 36%; and non-trivial LBP, i.e. LBP >30 days past year including consequences: 18, 20, 20%. For LBP past year, 2/3 remained in this category, whereas four out of ten remained over the three time-points for the other definitions of LBP. Reporting LBP defined in any of these ways significantly increased the odds for the same type of LBP 4 years later. For those with the same definition of LBP at both 41 and 45 years, the risk of also reporting the same at 49 years was even higher, regardless of definition, and most strongly for seeking care and non-trivial LBP (OR 17.6 and 18.4) but less than 11% were in these groups. CONCLUSION: The prevalence rates of LBP, when defined in a number of ways, were constant over time at a group level, but did not necessarily involve the same individuals. Reporting more severe LBP indicated a higher risk of also reporting future LBP but less than 11% were in these categories at each survey

Karanikas N. Exploiting data from safety investigations and processes to assess performance of safety management aspects. Policy and Practice in Health and Safety. 2016; 14(2):115-127.

http://dx.doi.org/10.1080/14773996.2016.1255444

Lu C, Du D, Xu X, and Zhang R. Revisiting the relationship between job demands and job performance: the effects of job security and traditionality. Journal of Occupational and Organizational Psychology. 2017; 90(1):28-50. http://dx.doi.org/10.1111/joop.12158

Pinilla J, Lopez-Valcarcel BG, and Urbanos-Garrido RM. Estimating direct effects of parental occupation on Spaniards' health by birth cohort. BMC Public Health. 2017; 17(1):26.

http://dx.doi.org/10.1186/s12889-016-3997-6 [open access]

Abstract: BACKGROUND: Social health inequalities in adult population are partly due to socioeconomic circumstances in childhood. A better understanding of how those circumstances affect health during adulthood may improve the opportunities for reducing health disparities. The objective of this study is to investigate the effect of parental socioeconomic status, which is proxied by occupation, on adult Spaniards' health by birth cohort. The analysis will allow checking not only the direct impact of parental occupation on their offspring's health, but also whether inherited inequality has been reduced over time. METHODS: We use data from the Bank of Spain's Survey of Household Finances on Spanish households from 2002 to 2008. Sequential models were used to estimate the influence of the father's and mother's occupation on their offspring's health, trying to disentangle direct from indirect effects. With a sample of 26,832 persons we consider effects for four different cohorts by birth periods ranging from 1916 to 1981, RESULTS: The results show that parental occupation has a significant direct impact on individuals' health (p < 0.01). The effect of father's occupation exceeds that of mother's. For those born before 1936, the probability of reporting a good health status ranges from 0.31 (95% confidence interval (CI) 0.14-0.48), when fathers were classified as unskilled elementary workers, to 0.98 (95% CI 0.98-0.99) when they were managers or mid-level professionals. For those born during the period 1959-1975, those probabilities are 0.49 (95% CI 0.39-0.59) and 0.97 (95% CI 0.96-0.98), respectively. Therefore, health inequalities linked to parental socioeconomic status have been noticeably reduced, although discrimination against unskilled workers persists over time. CONCLUSIONS: Great progress has been made in the health area during the twentieth century, so that the impact of parental socioeconomic status on individuals' health has been significantly tempered for those at the bottom of the social scale. However, more efforts focused on the improvement of living

conditions for most socioeconomically disadvantaged are needed in order to further reduce social inequalities in health

Skatteboe S, Roe C, Fagerland MW, and Granan LP. Expectations of pain and functioning in patients with musculoskeletal disorders: a cross-sectional study. BMC Musculoskeletal Disorders. 2017; 18(1):48. http://dx.doi.org/10.1186/s12891-016-1386-z [open access]

Abstract: BACKGROUND: Research has suggested that patient expectations are associated with treatment outcome and evolve along with patient communication within the musculoskeletal field. However, few studies have investigated if or how physical medicine and rehabilitation (PMR) consultations affect the attending patients' expectations regarding pain and functional improvement. Hence, the aims of the present study were to compare patient expectations regarding pain and functional improvement before and after a PMR consultation and to assess patient characteristics, including diagnosis, that could perhaps predict changes in expectations. METHODS: The study design was cross-sectional. Eligible participants were first-time patients with neck/back or shoulder complaints who were referred to a PMR outpatient clinic between January and June 2013. Questionnaires (the Patient Shoulder Outcome Expectancies, or PSOE. questionnaire and a numeric rating scale, or NRS) focused on expectations regarding pain and functioning were completed immediately prior to and after a consultation with a PMR specialist. RESULTS: In total, 257 patients were included. In total, 24% of the subjects expected a more positive outcome after the PMR consultation compared with before the consultation, while 10% of the subjects exhibited a negative change in expectations. Few patient characteristics other than sick leave were associated with changes in expectations; however, patients with shoulder complaints seemed to be more optimistic than patients with neck/back complaints. CONCLUSION: Expectations can be influenced by a single specialist consultation. Among clinical prognostic factors, only sick leave influenced the change expectations. However, patients with shoulder complaints seemed to be more optimistic than patients with neck/back complaints. TRIAL REGISTRATION: The study was approved by the Data Protection Office at Oslo University Hospital, 2012/2574. ISRCTN registration: 40963362 (registered retrospectively 12.12.2016)

Stahl C, Costa-Black K, and Loisel P. Applying theories to better understand socio-political challenges in implementing evidence-based work disability prevention strategies. Disability and Rehabilitation. 2017; 1-11.

http://dx.doi.org/10.1080/09638288.2016.1277399

Abstract: PURPOSE: This article explores and applies theories for analyzing socio-political aspects of implementation of work disability prevention (WDP) strategies. METHOD: For the analysis, theories from political science are explained and discussed in relation to case examples from three jurisdictions (Sweden, Brazil and Quebec). RESULTS: Implementation of WDP strategies

may be studied through a conceptual framework that targets: (1) the institutional system in which policy-makers and other stakeholders reside; (2) the ambiguity and conflicts regarding what to do and how to do it; (3) the bounded rationality, path dependency and social systems of different stakeholders; and (4) coalitions formed by different stakeholders and power relations between them. In the case examples, the design of social insurance systems, the access to and infrastructure of healthcare systems, labor market policies, employers' level of responsibility, the regulatory environment, and the general knowledge of WDP issues among stakeholders played different roles in the implementation of policies based on scientific evidence. CONCLUSIONS: Future research may involve participatory approaches focusing on building coalitions and communities of practice with policy-makers and stakeholders, in order to build trust, facilitate cooperation, and to better promote evidence utilization. Implications for Rehabilitation Implementation of work disability prevention policies are subject to contextual influences from the socio-political setting and from relationships between stakeholders Stakeholders involved in implementing strategies are bound to act based on their interests and previous courses of action To promote research uptake on the policy level, stakeholders and researchers need to engage in collaboration and translational activities Political stakeholders at the government and community levels need to be more directly involved as partners in the production and utilization of evidence

Sumanen H, Pietilainen O, Lahelma E, and Rahkonen O. Short sickness absence and subsequent sickness absence due to mental disorders - a follow-up study among municipal employees. BMC Public Health. 2017; 17(1):15.

http://dx.doi.org/10.1186/s12889-016-3951-7 [open access]

Abstract: BACKGROUND: Mental disorders are common diagnostic causes for longer sickness absence and disability retirement in OECD-countries. Short sickness absence spells are also common, and neither trivial for health and work ability. We studied how prior short sickness absence spells and days are associated with subsequent longer sickness absence due to mental disorders in two age-groups of municipal employees during a 2-, 5- and 9-year follow-up. METHODS: The analyses covered 20-34 and 35-49-year-old employees of the City of Helsinki in 2004. Those with prior >/=14 day sickness absence in 2002, 2003 or 2004 were excluded. Women and men were pooled together. Short, 1-13-day sickness absence spells and days were calculated per the actual time of employment during 2004. Logistic regression analysis was used to calculate odds ratios (OR) and their 95% confidence intervals (CI) for the subsequent long (>/=14 days) sickness absence due to mental disorders during three follow-ups. RESULTS: The risk for long sickness absence due to mental disorders increased with increasing amount of short sickness absence spells and days. 3 or more short sickness absence spells and 8-14 sickness absence days from short spells in 2004 were strongly associated with subsequent long sickness absence in all three follow-ups. The associations were strongest for the 2-year follow-up; the

younger employees tended to have higher risks than the older ones. CONCLUSIONS: Three spells or 8 days of short sickness absence per year constitutes a high risk for subsequent long sickness absence due to mental disorders and preventive measures should be considered

Vu T and De Cieri H. Conceptual foundations of safety culture and safety climate measurement: a snapshot review [Report no:060-1215-R04]. Melbourne, Australia: Institute for Safety, Compensation and Recovery Research (ISCRR), Monash University; 2015.

https://www.scribd.com/doc/308465876/060-Conceptual-foundations-of-safety-culture-and-safety-climate-measurement-A-snapshot-review_

Wasilkiewicz K, Albrechtsen E, and Antonsen S. Occupational safety in a globalized construction industry: a study on Polish workers in Norway. Policy and Practice in Health and Safety. 2016; 14(2):128-143. http://dx.doi.org/10.1080/14773996.2016.1256553

Waterson P. Bridging the gap between research, policy and practice in health and safety. Policy and Practice in Health and Safety. 2016; 14(2):97-98.

http://dx.doi.org/10.1080/14773996.2016.1261814

Zadow AJ, Dollard MF, McLinton SS, Lawrence P, and Tuckey MR. Psychosocial safety climate, emotional exhaustion, and work injuries in healthcare workplaces. Stress Health. 2017; [Epub ahead of print]-http://dx.doi.org/10.1002/smi.2740

Abstract: Preventing work injuries requires a clear understanding of how they occur, how they are recorded, and the accuracy of injury surveillance. Our innovation was to examine how psychosocial safety climate (PSC) influences the development of reported and unreported physical and psychological workplace injuries beyond (physical) safety climate, via the erosion of psychological health (emotional exhaustion). Self-report data (T2, 2013) from 214 hospital employees (18 teams) were linked at the team level to the hospital workplace injury register (T1, 2012; T2, 2013; and T3, 2014). Concordance between survey-reported and registered injury rates was low (36%), indicating that many injuries go unreported. Safety climate was the strongest predictor of T2 registered injury rates (controlling for T1); PSC and emotional exhaustion also played a role. Emotional exhaustion was the strongest predictor of survey-reported total injuries and underreporting. Multilevel analysis showed that low PSC, emanating from senior managers and transmitted through teams, was the origin of psychological health erosion (i.e., low emotional exhaustion), which culminated in greater selfreported work injuries and injury underreporting (both physical and psychological). These results underscore the need to consider, in theory and practice, a dual physical-psychosocial safety explanation of injury events and a psychosocial explanation of injury underreporting

Zardkoohi A and Bierman L. How firms shape income inequality: stakeholder power, executive decision making, and the structuring of employment relationships. Academy of Management Review. 2016; 41(4):744-749.

http://dx.doi.org/10.5465/amr.2015.0197

de Zoete A, de Boer MR, Van Tulder MW, Rubinstein SM, Underwood M, Hayden JA, Kalter J, and Ostelo R. Rational and design of an individual participant data meta-analysis of spinal manipulative therapy for chronic low back pain-a protocol. Systematic Reviews. 2017; 6(1):21. http://dx.doi.org/10.1186/s13643-017-0413-y [open access] Abstract: BACKGROUND: Chronic low back pain (LBP) is the leading cause of pain and disability, resulting in a major socioeconomic impact. The Cochrane Review which examined the effect of spinal manipulative therapy (SMT) for chronic LBP concluded that SMT is moderately effective, but was based on conventional meta-analysis of aggregate data. The use of individual participant data (IPD) from trials allows for a more precise estimate of the treatment effect and has the potential to identify moderators and/or mediators. The aim is (1) to assess the overall treatment effect of SMT for primary and secondary outcomes in adults with chronic LBP, (2) to determine possible moderation of baseline characteristics on treatment effect, (3) to identify characteristics of intervention (e.g., manipulation/mobilization) that influence the treatment effect, and (4) to identify mediators of treatment effects. METHODS: All trials included in the Cochrane Review on SMT for chronic LBP will be included which were published after the year 2000, and the search will be updated. No restrictions will be placed on the type of comparison or size of the study. Primary outcomes are pain intensity and physical functioning. A dataset will be compiled consisting of individual trials and variables included according to a predefined coding scheme. Variables to be included are descriptive of characteristics of the study, treatment, comparison, participant characteristics, and outcomes at all follow-up periods. A one-stage approach with a mixed model technique based on the intention-to-treat principle will be used for the analysis. Subsequent analyses will focus on treatment effect moderators and mediators. DISCUSSION: We will analyze IPD for LBP trials in which SMT is one of the interventions. IPD meta-analysis has been shown to be more reliable and valid than aggregate data meta-analysis, although this difference might also be attributed to the number of studies that can be used or the amount of data that can be utilized. Therefore, this project may identify important gaps in our knowledge with respect to prognostic factors of treatment effects, SYSTEMATIC REVIEW REGISTRATION: PROSPERO CRD42015025714

